



introdução

Disponibilizamos aos nossos clientes uma vasta gama de produtos de iluminação, elaborados com elevado espírito de funcionalidade e inovação estética.

Mediante um rigoroso processo de fabricação e controlo de qualidade, os nossos produtos apresentam alto teor de investigação e performance técnica às exigências que lhes são impostas.

Eficazes como resposta às formas puras e linhas essenciais do design contemporâneo, verifica-se em cada peça de iluminação uma perfeita simbiose entre a funcionalidade e o design.

Oferecemos grande diversidade de soluções que permitem agradáveis efeitos de iluminação e cariz arquitectónico, sempre diferenciadores em qualquer ambiente interno ou externo.

Como ferramenta de trabalho e forma de partilha destes elementos com os nossos clientes, apresentamos um novo catálogo de fácil interpretação e bastante completo em informação técnica.

introduction

We provide our clients a wide range of illumination products, made with high spirit of functionality and aesthetical innovation.

According to a strict fabrication process and quality control, our products present an intensive research and high technical performance in response to what is required. Efficient as a response to the pure shapes and essential lines of the contemporary design, every illumination product can be seen as a perfect combination of functionality and design.

We offer a wide diversity of solutions which permit pleasant illumination effects and an architectural character, which makes the difference in any indoor and outdoor ambiances.

In order to share these aspects with our clients, we present this new catalog of easy interpretation and very complete in technical information.

introducción

Ofrecemos a nuestros clientes una vasta gama de productos de iluminación, elaborados con un elevado nivel de funcionalidad e innovación estética.

A través de un riguroso proceso de fabricación y control de calidad, nuestros productos son el resultado de un proceso de investigación y evaluación técnica desenvueltas para responder a las exigencias que les son impuestas.

Las formas puras y líneas esenciales del diseño contemporáneo, se identifican en cada pieza de iluminación; existiendo una relación perfecta entre la funcionalidad y el diseño.

Ofrecemos una gran variedad de soluciones que permiten crear atractivos efectos de iluminación y de cariz arquitectónico, siempre diferenciadores en cualquier ambiente interno o externo.

De forma a compartir estos elementos con nuestros clientes, proporcionándoles una herramienta de trabajo, presentamos un nuevo catálogo con un conjunto de informaciones técnicas, pero a su vez de fácil interpretación.

introduction

Nous offrons à nos clients une large gamme de produits d'éclairage ; conçu avec un esprit de fonctionnalité et d'innovation esthétique.

Grâce à un rigoureux processus de fabrication et de contrôle de la qualité, nos produits ont un haut niveau de R&D et de performance technique.

Une réponse efficace aux formes essentielles et les lignes pures du design contemporain, se produit dans chaque luminaire une parfaite symbiose entre fonctionnalité et design.

Nous offrons une grande diversité de solutions qui permettent des agréables effets d'éclairage au niveau architectural.

Comme un outil de travail et un moyen de partager ces éléments avec nos clients, nous présentons un nouveau catalogue très facile à interpréter et complet au niveau des informations techniques.

introduzione

Offriamo ai nostri clienti una vasta gamma di prodotti per l'illuminazione, realizzati con un livello elevato di funzionalità ed innovazione estetica.

Tramite un rigoroso processo di produzione e di controllo qualità, i nostri prodotti sono il risultato di un processo di ricerca intensivo e di valutazione tecnica portate avanti per rispondere a quanto è loro richiesto.

Le forme pure e le linee essenziali del disegno contemporaneo, si identificano in ciascun pezzo di illuminazione, e creano una relazione perfetta tra funzionalità e design.

Offriamo una grande varietà di soluzioni che consentono di creare accattivanti effetti di illuminazione e di dare un'impronta architettonica, aspetto questo che fa la differenza in qualunque ambiente interno ed esterno. Al fine di condividere questi aspetti con i nostri clienti, presentiamo questo nuovo catalogo molto completo di informazioni tecniche e di facile interpretazione.

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ceiling and wall
techo pared
plafond et mur
soffitto e parete



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118 parede e poste [aço inox]
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136 parede e poste [alumínio]
wall and floor [aluminium]
pared y postes [aluminio]
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parete e pavimento [alluminio]



152 parede e poste [pedra e madeira]
wall and floor [stone and wood]
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projectors and wallwashers
proyectors y bañadores de pared
projecteurs et Wallwasher
proiettori e wallwashers



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pavement
pavimento
encastré de sol
da terra



200 submersão e piscina
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submersion et piscine
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210 rústico
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rustique
rustico

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downlight fluocompact
lampade fluorescenti



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luminarias led
downlight led
lampade led



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BALIZADORES E SINALIZADORES

ORIENTATION LIGHTING AND SIGNALETICS

BALIZADORES Y SEÑALIZADORES

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PAREDE E UPLIGHTS

WALL AND UPLIGHTS

PARED Y UPLIGHTS

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EMERGENCY

EMERGENCIA

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TIPO DE APLICAÇÃO LUMINÁRIA
LUMINARY'S TYPES OF APPLICATION
TIPO DE APLICACIÓN DE LA LUMINARIA TYPE D'APPLICATION
TIPO DI APPLICAZIONE DELLA LAMPADA

**luminária de pavimento com aplicação saliente**
floor luminary with salient application
luminaria de pavimento con aplicación saliente
luminaire de sol avec montage en saillie
lampada da terra con applicazione sporgente

**luminária de parede com aplicação saliente**
wall luminary with salient application
luminaria de pared con aplicación saliente
luminaire de mur avec montage en saillie
lampada da parete con applicazione sporgente

**luminária de tecto com aplicação saliente**
ceiling luminary with salient application
luminaria de techo con aplicación saliente
luminaire de plafond avec montage en saillie
lampada da soffitto con applicazione sporgente

**luminária de tecto com aplicação saliente suspensa**
ceiling luminary with salient pendant application
luminaria de techo con aplicación saliente colgante
luminaire de plafond avec montage en saillie suspendu
luminariá de tecto com aplicação saliente suspensa

**luminária de tecto com aplicação encastrada suspensa**
ceiling luminary with recessed pendant application
luminaria de techo con aplicación empotrada
luminaire de plafond avec montage en encastré suspendu
lampada da soffitto con applicazione incassata a sospensione

**luminária com aplicação saliente em parede ou tecto**
wall or ceiling luminary with salient application
luminaria con aplicación saliente en pared o techo
luminaire de mur ou plafond avec montage en saillie
lampada con applicazione sporgente da parete o soffitto

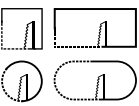
**luminária de pé**
standing luminary
luminaria de pié
luminaire de pied
lampada da terra

**luminária de tecto com aplicação encastrada**
ceiling luminary with recessed application
luminaria de techo con aplicación empotrada
luminaire de plafond avec montage encastré
lampada da soffitto con applicazione incassata

**luminária de parede com aplicação encastrada**
wall luminary with recessed application
luminaria de pared con aplicación empotrada
luminaire de mur avec montage encastré
luminária de parede com aplicação encastrada

**luminária de pavimento com aplicação encastrada**
floor luminary with recessed application
luminaria de pavimento con aplicación empotrada
luminaire de sol avec montage encastré
lampada da terra con applicazione incassata

**luminária com aplicação encastrada em parede ou tecto**
wall and ceiling luminary with recessed application
luminaria con aplicación empotrada en pared o techo
luminaire de mur ou plafond avec montage encastré
lampada con applicazione incassata a parete o soffitto

**dimensão e formato do corte para encastramento da luminária (mm)**
dimension and format of the cut to recess the luminary (mm)
dimensión y formato de corte para empotrar la luminaria (mm)
format et cotes de perçage pour encastrement de luminaire
dimensione e formato del taglio per incassare la lampada (mm)

**sistema de fixação por mola dupla**
fixation system with double spring
sistema de fijación por muelle doble
système de fixation par double ressort
sistema di fissaggio con doppia molla

**sistema de fixação por mola simples**
fixation system with simple spring
sistema de fijación por muelle simple
système de fixation par ressort simple
sistema di fissaggio con molla semplice

**sistema de fixação por mola niveladora com ajuste manual**
fixation system with leveller spring with manual adjustment
sistema de fijación por muelle nivelador con ajuste manual
système de fixation par ressort avec réglage manuel
sistema di fissaggio con molla con sistema di regolazione manuale

**sistema de fixação por mola niveladora com ajuste mecânico**
fixation system with leveller spring with mechanical adjustment
sistema de fijación por muelle nivelador con ajuste mecánico
système de fixation par ressort avec réglage mécanique
sistema di fissaggio con molla con sistema di regolazione meccanico

**sistema de fixação por mola niveladora com auto ajuste**
fixation system with auto leveller spring
sistema de fijación por muelle nivelador con autoajuste
système de fixation par ressort avec réglage auto nivelant
sistema di fissaggio con molla a regolazione automatica

**luminária apropriada para aplicação em zonas perto do mar ou industriais**
luminary suitable for application in areas near the sea or industry
luminaria recomendada para aplicación en zonas cercanas al mar o zonas industriales
luminaire approprié pour application bord de mer et industriel
lampada raccomandata per l'applicazione in zone vicine al mare o in zone industriali

**luminária não apropriada para aplicação em zonas perto do mar ou industriais**
luminary not suitable for application in areas near the sea or industry
luminaria no recomendada para aplicación en zonas cercanas al mar o zonas industriales
luminaire non approprié pour application bord de mer et industriel
lampada non raccomandata per l'applicazione in zone vicine al mare o in zone industriali

**luminária fornecida com caixa de pré-instalação ou negativo**
luminary pre-installation box included
luminaria provista con caja de pre-instalación o negativo
luminaire fournie avec boîte d'encastrement
lampada box di pre-installazione incluso

**luminária para a utilização em apenas espaços interiores**
luminary to use only indoors
luminaria para utilización exclusiva en espacios interiores
luminaire pour utilisation exclusive en intérieur
lampada per l'utilizzo esclusivo in spazi interni

**luminária para utilização em espaços interiores ou exteriores**
luminary to use indoors and outdoors
luminaria para utilización en espacios interiores o exteriores
luminaire pour utilisation en intérieur & extérieur
lampada per l'utilizzo in spazi interni o esterni

**luminária ajustável a espessuras compreendidas entre X e Y**
luminary adjustable to thicknesses between X and Y
luminaire réglable à des épaisseurs entre X et Y
luminaria regulable a espesuras comprendidas entre X y Y
lampada regolabile a spessori compresi tra x e y

**carril ou projector adaptável a calha com 1 circuito do tipo CR**
rail or rail projector adaptable to a one circuit chute type CR
ferrocarril o el proyector con 1 tren de adaptación tipo de circuito CR
rail ou projecteur adaptable à un circuit de type CR
binario o proiettor di binario adattabile a una pista ad 1 circuito tipo CR

**carril ou projector adaptável a calha com 3 circuitos do tipo C3 ou C3-RCS**
rail or rail projector adaptable to a 3 circuits chute type C3 or CR3-RCS
carril ou proyector de carril adaptável un calha de 3 circuits do tipo C3 e CR3-RCS
rail ou projecteur adaptable aux trois circuits du type C3 et CR3-RCS
binario o proiettore di binario adattabile a una pista a tre circuiti tipo C3 o CR3-RCS

TIPOS DE EQUIPAMENTO E ACESSÓRIOS ELÉTRICOS
TYPES OF EQUIPMENT AND ELECTRICAL DEVICES
TIPOS DE EQUIPO Y ACCESORIOS ELÉCTRICOS
TUPES D'EQUIPEMENTS ET ACCESSOIRES ÉLECTRIQUES
TIPO DI APPARECCHIATURA E ACCESSORI ELETTRICI

**equipamento ferromagnético convencional**
conventional ferromagnetic equipment
equipo ferro magnético de pérdidas reducidas
équipement électromagnétique
apparecchiatura ferromagnetica convenzionale

**equipamento ferromagnético de baixas perdas**
low loss ferromagnetic equipment
equipamento ferromagnético de baixas perdas
équipement électromagnétique à faible perte
apparecchiatura ferromagnetica a perdite ridotte

**equipamento electrónico**
electronic equipment
equipo electrónico
équipement électronique
apparecchiatura elettronica

**equipamento electrónico com regulação de fluxo de 1.10v**
electronic equipment with flux adjustment 1.10v
equipo electrónico con regulación de flujo de 1.10v
équipement électronique avec régulation 1.10v
apparecchiatura elettronica con regolazione del flusso di 1.10v

**equipamento electrónico com regulação de fluxo para sistema dali**
electronic equipment with flux adjustment for dali system
equipo electrónico con regulación de flujo para sistema dali
équipement électronique avec régulation dali
apparecchiatura elettronica con regolazione del flusso per sistema dali

**equipamento electrónico com regulação de fluxo touch dim**
electronic equipment with touch dim flux adjustment
equipo electrónico con regulación de flujo para touch dim
équipement électronique avec régulation touch dim
apparecchiatura elettronica con regolazione del flusso dimerabile

**funcionamento em modo de operação mantido**
operation in a maintained status
funcionamiento en modo de operación mantenido
opération en permanent
funzionamento in stato di operatività permanente

**funcionamento em modo de operação não mantido**
operation in a non-maintained status
funcionamiento en modo de operación no mantenido
opération en non permanent
funzionamento in stato di operatività non permanente

	autonomia do kit de emergência após falha de corrente eléctrica (horas) emergency kit's autonomy after electric failure (hours) autonomía del kit de emergencia después de la falla de la corriente eléctrica (horas) autonomie du kit emergence après la coupe de courant (heures) autonomia del kit di emergenza dopo la mancanza di corrente elettrica (ora)		luminária com orientação vertical em dois sentidos (graus) luminary with vertical orientation in two directions (value in degrees) luminaria con orientación vertical en dos sentidos (grados) luminaire avec orientation verticale dans deux directions (degrés) lampada con orientamento verticale in due sensi (gradi)		dispositivo de verificação através de teste manual verification device through manual test dispositivo de verificación a través de prueba manual dispositif de vérification par le biais de test manuel dispositivo di verifica attraverso un test manuale		luminária fornecida com cabo e ficha de ligação luminary supplied with cable and connection plug luminaria provista con cable y enchufe de conexión luminaire fourni avec câble et connecteur lampada provvista con cavo e presa di connessione
	equipamento eléctrico não incluído na luminária electrical equipment not included in luminary equipo eléctrico no incluido en la luminaria équipement électrique pas inclus dans le luminaire apparecchiatura non inclusa nella lampada		luminária adequada para iluminação de espaços comerciais luminary suitable for shop illumination luminaria apropiada para iluminación de espacios comerciales luminaire approprié pour l'éclairage commercial lampada indicata per l'illuminazione di spazi commerciali		braço totalmente flexível e moldável arm fully flexible and malleable brazo totalmente flexible y modelable bras entièrement flexible et malléable braccio totalmente flessibile e modellabile		suporte de lâmpada não incluído holder not included no incluye el soporte de la bombilla douille non incluse custodia della lampadina non inclusa
	funcionamento com sistema DMX512 para variação de cor operation with DMX512 system for colour variation funcionamiento con sistema DMX512 para variación de color fonctionne avec interface de contrôle DMX512 funzionamento con sistema DMX512 per la variazione del colore		difusor com lente de ampliação diffuser with magnifying lens difusor con lente de ampliación diffuseur avec lentille d'expansion diffusore con lente di ingrandimento		sistema óptico facilmente susbtituível easily replaceable optical system sistema óptico fácilmente reemplazable système optique facilement remplaçable sistema ottico facilmente sostituibile	INFORMAÇÃO FOTOMÉTRICA E LUMINOSA PHOTOMETRIC AND LUMINOUS INFORMATION INFORMACIÓN FOTOMÉTRICA Y LUMINOSA INFORMATIONS PHOTOMÉTRIQUES ET LUMINEUX INFORMAZIONE FOTOMETRICA E LUMINOSA	
	possível aplicação de kit de emergência possible application of an emergency kit posibilidad de aplicación de kit de emergencia possible le montage du kit emergence possibile applicazione del kit di emergenza		comprimento máximo do cabo de suspensão (metros) maximum length of the suspension cable (meters) longitud máxima del cable de suspensión (metros) longueur maximale du câble de suspension (mètres) lunghezza massima del cavo di sospensione (metri)		elevada capacidade de resistência ao impacto high capacity of resisting impact elevada resistencia al impacto haute capacité de résister aux chocs elevata resistenza all'impatto		LED branco white LED LED blanco LED blanc LED bianco
	transformador de segurança protegido contra curto-circuito security transformer protected against short circuit transformador de seguridad protegido contra corto-circuito transfo de sécurité protégé contre les courts-circuits trasformatore di sicurezza protetto contro il cortocircuito		permite a utilização de dois buçins luminary with possibility to use two glands permite la utilización de dos prensaestopas luminaire avec possibilité d'utiliser deux presse-étoupe lampada per l'utilizzo di due prese		necessita de cuidados de manutenção e limpeza periódicos regular cleaning and maintenance needs necesita de cuidados de mantenimiento y limpieza periódicos besoin de nettoyage et entretien régulier richieste di manutenzione e pulizia periodiche		LED branco quente warm white LED LED blanco cálido LED Blanc chaud LED bianco caldo
INFORMAÇÕES DIVERSAS DIVERSE INFORMATION INFORMATIONS DIVERSES INFORMACIONES DIVERSAS ULTERIORI INFORMAZIONI			atinge baixa temperatura ao nível do difusor (graus centígrados) low temperature reached at the diffuser's level (celsius degrees) alcanza baja temperatura al nivel del difusor (grados centígrados) basse température au niveau du diffuseur (degrés celsius) bassa temperatura raggiunta a livello del diffusore (gradi celsius)		permite regulação do comprimento do braço ou cabo de suspensão regulated arm length permite regulación de la longitud del brazo permet le réglage de la longueur du bras lunghezza del braccio regolabile		LED azul blue LED LED azul LED bleu LED blu
	luminária com possibilidade de rotação horizontal (graus) luminary with possibility of horizontal orientation (value in degrees) luminaria con posibilidad de rotación horizontal (grados) luminaire avec possibilité d'orientation horizontale (degrés) lampada con possibilità di orientamento orizzontale (gradi)		carga máxima admissível sobre o difusor (kg) maximum resistance withstood by the diffuser (kg) carga máxima permitida sobre el difusor (kg) résistance maximale supportée par le diffuseur (kg) carica massima concessa sul diffusore (kg)		necessita obrigatoriamente de fundo de drenagem obligatory floor drainage requiere de fondo de drenaje besoin obligatoirement de fond de drainage drenaggio obbligatorio del suolo		LED verde green LED LED verde LED vert LED verde
	luminária com orientação giroscópica luminary with gyroscopic orientation luminaria con orientación giroscópica luminaire avec orientation gyroscopique lampada con orientamento giroscopico		possui detector de movimento (ângulo de 120° e alcance máximo 4m) it has motion detector with 120° angle and 4 meters maximum range possui de detectores de movimiento (angulo de 120 ° y alcance máximo 4m) il a détecteur de mouvement avec angle de 120 ° et portée maximale de 4 mètres possiede rilevatore di movimento con angolo di 120 gradi e sviluppo massimo di 4 metri		luminária com interruptor <i>on / off</i> luminary with on off switch luminaria con interruptor encendido apagado luminaire avec interrupteur <i>on / off</i> lampada con interruttore acceso / spento		LED vermelho red LED LED rojo LED rouge LED rosso
	luminária com orientação vertical em apenas um sentido (graus) luminary with vertical orientation in only one direction (value in degrees) luminaria con orientación vertical en apenas en un sentido (grados) luminaire avec orientation verticale dans une seule direction (degrés) lampada con orientamento verticale in un solo senso (gradi)		tempo de vida útil do LED (horas) LED's lifetime (hours) tiempo de vida útil del LED (horas) durée de vie estimée du LED (heures) tempo di vita utile del LED		luminária fornecida com cabo eléctrico (metros) luminary supplied with electrical cable (meters) luminaria provista con cable eléctrico (metros) luminaire fourni avec un câble électrique (mètres) lampada provvista di cavo elettrico (metri)		LED amarelo yellow LED LED amarillo LED jaune LED giallo



LED disponível em várias cores
LED available in different colours
LED disponible en varios colores
LED disponible en différentes couleurs
LED disponibile in vari colori



fluxo luminoso (lúmen)
luminous flows (lumen)
flujo luminoso (lumen)
flux lumineux (lumen)
flusso luminoso (lumen)



distância máxima de visualização (metros)
maximum distance for visualization (meters)
distancia máxima de visualización (metros)
distance de visualisation maximale (mètres)
distanza massima di visualizzazione (metri)



temperatura de cor do LED (graus kelvin)
LED's colour temperature (kelvin degrees)
temperatura del color del LED (grados kelvin)
température de couleur LED (degrés kelvin)
temperatura del colore del LED (gradi kelvin)



lâmpada não incluída
lighting bulb not included
bombilla no incluida
ampoule non incluse
lampada non inclusa



luminária com baixo consumo energético
luminary with high energetic efficiency
luminaria com consumo energético reduzido
luminaire à haute efficacité énergétique
lampada con elevata efficacia energetica



ângulo de abertura da lente difusora (graus)
lens opening angle (value in degrees)
ângulo de abertura del lente difusora (graus)
angle d'ouverture de lentille (degrés)
angolo di apertura delle lenti (gradi)

TIPO DE EMISSÃO DE LUZ
EMISSION OF LIGHT
TIPOS DE EMISIÓN DE LUZ
TYPE D'ÉMISSION DE LA LUMIÈRE
TIPI DI EMISSIONE DELLA LUCE



emissão simétrica da luz
direct symmetrical emission of the light
emisión simétrica de la luz
émission symétrique
emissione simmetrica della luce



emissão simétrica da luz
direct symmetrical emission of the light
emisión simétrica de la luz
émission symétrique
emissione simmetrica della luce



emissão simétrica da luz
direct symmetrical emission of the light
emisión simétrica de la luz
émission symétrique
emissione simmetrica della luce



emissão directa e indirecta simétrica da luz
direct and indirect symmetrical emission of the light
emisión directa e indirecta simétrica de la luz
émission symétrique directe et indirect
emissione diretta e indiretta simmetrica della luce



emissão directa e indirecta simétrica da luz
direct and indirect symmetrical emission of the light
emisión directa e indirecta simétrica de la luz
émission symétrique directe et indirect
emissione diretta e indiretta simmetrica della luce



emissão directa e indirecta de luz
direct and indirect emission of light
emisión directa e indirecta de la luz
émission directe et indirect
emissione diretta e indiretta della luce



emissão directa e indirecta de luz
direct and indirect emission of light
emisión directa e indirecta de la luz
émission directe et indirect
emissione diretta e indiretta della luce



emissão directa e indirecta de luz
direct and indirect emission of the light
emisión directa e indirecta de la luz
émission directe et indirect
emissione diretta e indiretta della luce



emissão assimétrica da luz
asymmetrical emission of the light
emisión asimétrica de la luz
émission asymétrique
emissione asimmetrica della luce



emissão assimétrica da luz
asymmetrical emission of the light
emisión asimétrica de la luz
émission asymétrique
emissione asimmetrica della luce



emissão total da luz
total emission of the light
emisión total de la luz
émission total
emissione totale della luce

TIPOS DE REFLECTOR E BLOCO ÓPTICO
TYPES OF REFLECTOR AND OPTICAL LENS
TIPOS DE REFLECTOR Y BLOQUE ÓPTICO
TYPES DE RÉFLECTEUR ET BLOCS OPTIQUE
TIPO DI RIFLETTORE E BLOCCO OTTICO



reflector quebra luz
light-cutting reflector
reflector quiebra luz
réflecteur basse luminance
riflettore che taglia la luce



reflector com características *darklight*
reflector with darklight characteristics
reflector con características *darklight*
réflecteur avec caractéristiques *darklight*
riflettore con caratteristiche dark light



reflector parabólico em alumínio anodizado de alto rendimento
high performance anodized aluminium parabolic reflector
reflector parabólico en aluminio anodizado de alto rendimiento
réflecteur parabolique en aluminium anodisé à haut rendement
riflettore parabolico in alluminio anodizzato per alte prestazioni



reflector em alumínio anodizado multifacetado de alto rendimento
high performance multifaceted anodized aluminium reflector
reflector en aluminio anodizado multifacético de alto rendimiento
réflecteur en aluminium anodisé à multi facettes à haut rendement
riflettore in alluminio anodizzato multiforme per alte prestazioni



reflector em alumínio anodizado de alto rendimento
high performance anodized aluminium reflector
reflector en aluminio anodizado de alto rendimiento
réflecteur en aluminium spéculaire à haute brillance
riflettore in alluminio anodizzato ad alta resa



reflector em alumínio especular de alto brilho
high gloss aluminium reflector
reflector en aluminio especular de alto brillo
réflecteur en aluminium spéculaire à haute brillance
riflettore in alluminio ad elevata brillantezza



reflector em alumínio anodizado de alto rendimento
high performance anodized aluminium reflector
reflector en aluminio anodizado de alto rendimiento
réflecteur en aluminium anodisé à haut rendement
riflettore in alluminio anodizzato ad alta resa



reflector em ABS metalizado de alto rendimento
high performance metallic ABS reflector
reflector en ABS metalizado de alto rendimiento
réflecteur en ABS métallisé à haut rendement
riflettore in ABS metallizzato ad alta resa



reflector em alumínio anodizado multifacetado mate
matt multifaceted anodized aluminium reflector
reflector en aluminio anodizado multifacético mate
réflecteur en aluminium anodisé à multi facettes mat
riflettore in alluminio anodizzato multi sfaccettato opaco



reflector em alumínio anodizado facetado mate
matt faceted anodized aluminium reflector
reflector en aluminio anodizado con facetas mate
réflecteur en aluminium anodisé à facettes mat
riflettore in alluminio anodizzato con sfaccettature opache



reflector em alumínio anodizado mate
matt anodized aluminium reflector
reflector en aluminio anodizado mate
réflecteur en aluminium anodisé mat
riflettore in alluminio anodizzato opaco



reflector em chapa de aço lacado a branco
white lacquered steel reflector
reflector en placa de acero laqueado en blanco
réflecteur en tôle d'acier laqué blanc
riflettore in acciaio laccato bianco



reflector em chapa de aço lacado a cinzento
grey lacquered steel reflector
reflector en placa de acero laqueado en gris
réflecteur en tôle d'acier laqué gris
riflettore in acciaio laccato grigio



difusor acrílico transparente facetado
faceted transparent acrylic diffuser
difusor acrílico transparente con facetas
diffuseur en acrylique à facettes transparent
diffusore acrilico trasparente con sfaccettature



ângulo de abertura do reflector (graus)
reflector opening angle (degrees)
ângulo de abertura do reflector (graus)
angle d'ouverture du réflecteur (degrés)
angolo di apertura del riflettore (gradi)

TIPOS DE DIFUSOR
TYPES OF DIFFUSER
TIPOS DE DIFUSOR
TYPES DE DIFFUSEUR
TIPI DI DIFFUSORE



difusor em vidro transparente
transparent glass diffuser
difusor en vidrio transparente
diffuseur en verre transparent
diffusore con vetro trasparente



difusor em vidro opalino
opal glass diffuser
difusor en vidrio opalino
diffuseur en verre opale
diffusore con vetro opalino



difusor em vidro fosco
fully frosted glass diffuser
difusor en vidrio mate
diffuseur en verre dépoli
diffusore con vetro smerigliato



difusor em vidro decorativo fosco central
decorative central frosted glass diffuser
difusor en vidrio decorativo mate central
diffuseur en verre décoratif avec anneau central dépoli
diffusore centrale decorativo con vetro smerigliato



difusor em vidro decorativo fosco central e periférico
decorative Central and peripheral frosted glass diffuser
difusor en vidrio decorativo mate central y periférico
diffuseur en verre décoratif avec anneau central et périphérique dépoli
diffusore con vetro decorativo con applicazione serigrafica



difusor em vidro decorativo serigrafado
decorative glass with serigraphy application diffuser
difusor en vidrio decorativo serigrafado
diffuseur en verre décoratif sérigraphie
difusor em vidro decorativo serigrafado



difusor em vidro prismático
prismatic glass diffuser
difusor en vidrio prismático
diffuseur en verre prismatique
difusor em vidro prismático



difusor em acrílico transparente
transparent acrylic diffuser
difusor en acrílico transparente
diffuseur en acrylique transparent
diffusore in acrilico trasparente



difusor em acrílico opalino
opal acrylic diffuser
difusor en acrílico opal
diffuseur en acrylique opale
diffusore acrilico opale



difusor em acrílico fosco
frosted acrylic diffuser
difusor en acrílico mate
diffuseur en acrylique dépoli
diffusore in acrilico smerigliato



difusor em acrílico decorativo fosco central
decorative central frosted acrylic diffuser
difusor en acrílico decorativo mate central y periférico
diffuseur en acrylique décoratif avec anneau central dépoli
diffusore centrale decorativo in acrilico smerigliato



difusor em acrílico decorativo fosco central e periférico
decorative Central and peripheral frosted acrylic diffuser
difusor en acrílico decorativo mate central y periférico
diffuseur en acrylique décoratif avec anneau central et périphérique dépoli
diffusore decorativo centrale e periferico in acrilico smerigliato



difusor em acrílico prismático
prismatic acrylic diffuser
difusor en acrílico prismático
diffuseur en acrylique prismatique
diffusore in acrilico prismatico



luminária sem difusor
luminary without diffuser
luminaria sin difusor
luminaire sans diffuseur
lampada senza diffusore

MATERIAIS DE CONSTRUÇÃO
CONSTRUCTION MATERIALS
MATERIALES UTILIZADOS NA CONSTRUCCIÓN
MATÉRIAUX DE CONSTRUCTION
MATERIALI UTILIZZATI IN COSTRUZIONE



termoplástico
thermoplastic
termoplástico
thermoplastique
termoplastico



ABS auto-extinguível
self-extinguishing ABS
ABS auto-extinguible
ABS autoextinguible
ABS auto-estinguibile



AISI 316 Stainless steel
aço inoxidável AISI 316
acero inoxidable AISI 316
acier inoxydable AISI 316
acciaio inossidabile AISI 316



polícarbonato reforçado com fibra de vidro
polycarbonate reinforced with glass fibre
polícarbonato reforzado con fibra de vidrio
polycarbonate renforcé de fibres de verre
polícarbonato rinforzato con fibra di vetro



alumínio
aluminium
aluminio
aluminium
alluminio



alumínio extrudido
extruded aluminium
aluminio extrudido
aluminium extrudé
alluminio estruso



alumínio injectado
Injected aluminium
aluminio inyectado
aluminium injecté
alluminio iniettato



madeira
wood
madera
bois
legno



pedra
stone
piedra
pierre
pietra



aço inoxidável AISI 302
AISI 302 stainless steel
acero inoxidable AISI 302
acier inoxydable AISI 302
acciaio inossidabile AISI 302



aço inoxidável AISI 304
AISI 304 stainless steel
acero inoxidable AISI 304
acier inoxydable AISI 304
acciaio inossidabile AISI 304



vidro
glass
vidrio
verre
vetro



aço
steel
acero
acier
acciaio



acrílico transparente
transparent acrylic
acrílico transparente
acrylique transparent
acrilico trasparente



acrílico opalino
opal acrylic
acrílico opal
acrylique opale
acrilico opalino



acrílico fosco
frosted acrylic
acrílico mate
acrylique dépoli
acrilico smerigliato

ACABAMENTOS E CORES DISPONÍVEIS
FINISHING AND AVAILABLE COLOURS
ACABADOS Y COLORES DISPONIBLES
FINITIONS ET COULEURS DISPONIBLES
FINITURE E COLORI DISPONIBILI



branco
white
blanco
blanc
bianco



preto
black
negro
noir
nero



cinzento brilhante
bright grey
gris brillante
gris brillant
grigio brillante



cinzento mate
matt grey
gris mate
gris mat
grigio opaco



cinzento pedra
stone grey
gris piedra
gris pierre
grigio pietra



aço escovado
brushed steel
acero esmerilado
acier brossé
acciaio spazzolato



aço inoxidável
stainless steel
acero inoxidable
acier inoxydable
acciaio inossidabile



alumínio escovado
brushed aluminium
aluminio esmerilado
aluminium brossé
alluminio spazzolato



alumínio polido
polish aluminium
aluminio pulido
aluminium poli
alluminio lucido



antracite
anthracite
antracita
anthracite
antracite



cromado
chromed
cromado
chromé
cromato



dourado
golden
oro
or
oro



dourado envelhecido
old gold
oro viejo
or Vieil
oro anticato



dourado escovado
brushed Gold
oro esmerilado
or brossé
oro spazzolato



teka
teka
teca
teka
tek



granito
granite
granito
granit
granito



castanho
brown
marrón
marron
marrone



verde
green
verde
vert
verde



beige
beige
beige
beige
beige



grafite
graphite
grafito
graphite
grafite

NORMATIVA

NORMATIVA INFORMATION | INFORMATION NORMATIVE

NORMAS | NORME

Classes de isolamento:

A classe de isolamento consiste no modo como num equipamento é feita a protecção de pessoas contra o choque eléctrico, englobando as medidas passivas de protecção de pessoas contra contactos indirectos. Um contacto indirecto é um contacto de pessoas com uma massa colocada acidentalmente sob tensão devido a um defeito de isolamento.

Parte Activa

Parte condutora que está submetida a uma tensão.

Parte Activa Perigosa

Parte condutora que está submetida a uma tensão superior a 42,4Vpico ou 30V~.

Tensão Baixa (ELV)

Tensão que não ultrapassa os 42,4Vpico ou 30V~ entre os condutores e a terra.

Tensão Baixa de Segurança (SELV)

Tensão baixa que se fornecida a partir da rede deverá ser obtida de um transformador de enrolamentos separados, cujo isolamento obedece à classe II de isolamento.

Isolamento Principal

Isolamento aplicado às partes activas contra choque eléctrico.

Isolamento Suplementar

Isolamento independente aplicado adicionalmente ao isolamento principal de modo a proteger em caso de falha do isolamento principal.

Isolamento Duplo

Isolamento principal + suplementar.

Isolamento Reforçado

Isolamento único aplicado às partes activas com um grau de protecção equivalente ao isolamento duplo.

Insulation classes:

The insulation class is the way how in equipment the protection of people against electric shock is considered, including passive measures of protection of people against indirect contacts. An indirect contact is a person's contact against a mass accidentally placed under voltage due to an insulation defects.

Active Part:

Conductive part subjected to a voltage.

Hazardous Active Part:

Conductive part subjected to a voltage peak over 42,4V or 30V~.

Low Voltage (ELV):

Voltage nor over a peak of 42,4V or 30V~, between conductors and earth.

Safety Low Voltage (SELV):

Low voltage that if supplied from the main has to be obtained from a separate winding transformer with Class II insulation.

Main Insulation:

Insulation applied to the active parts against electric shock.

Supplementary Insulation:

Independent insulation applied additionally to the main insulation to protect in case of a fail of the main insulation.

Double Insulation:

Main + Supplementary insulation.

Reinforce Insulation:

Insulation applied to the active parts with a protective degree equivalent to the one of double insulation.

Clases de aislamiento:

La clase de aislamiento se refiere a la forma como es asegurada en la luminaria, la protección de las personas contra descargas eléctricas, englobando las medidas pasivas de protección de personas contra contactos indirectos. Un contacto indirecto es un contacto de personas con una materia colocada acidentalmente sobre tensión originado por un defecto de aislamiento.

Parte activa:

Parte conductora que está sometida a la tensión.

Parte activa peligrosa:

Parte conductora que está sometida a una tensión superior a 42,4V pico o 30V~.

Tensión baja (ELV):

Tensión que no supera los 42,4V pico o 30V~ entre los conductores y la conexión a tierra.

Tensión baja de seguridad (SELV):

Tensión baja que cuando provista a partir de la red deberá ser obtenida desde un transformador de bobinas separadas, cuyo aislamiento obedece a la clase II.

Aislamiento Principal:

Aislamiento aplicado a las partes activas contra una descarga eléctrica.

Aislamiento complementar:

Aislamiento independiente aplicado adicionalmente al aislamiento principal de forma garantizar la protección en caso de fallas en el aislamiento principal.

Doble aislamiento:

Aislamiento principal + adicional.

Aislamiento reforzado:

Aislamiento único aplicado a las partes activas con un grado de protección equivalente al doble aislamiento

Les classes de Protection Électrique:

La classe de protection est la façon dont dans une pièce d'équipement est fait la protection de personnes contre les chocs électriques, comprenant mesures passives de protection de personnes contre les contacts indirects. Un contact indirect est un contact de personnes avec une masse accidentellement mise sous tension à cause d'un isolement défectueux.

Partie Active:

Partie conductrice qui est soumise à une tension.

Partie Active Dangereuse :

Partie conductrice qui est soumise à un pic de tension supérieure a 42,4V ou 30V~.

Basse Tension (ELV) :

Tension qui ne dépasse le pic de tension de 42,4V ou 30V~ entre les conducteurs et la terre.

Basse Tension de Sécurité (SELV) :

Basse tension qui quand fournie a partir du réseau doit être obtenue à partir d'un transformateur d'enroulements distincts, dont l'isolement est conforme à la classe II d'isolement.

Isolement Principal :

Isolement appliqué sur les parties actives contre les chocs électriques.

Isolement Supplémentaire :

Isolement indépendant appliqué en plus de l'isolement principal afin de protéger, en cas de défaillance de l'isolement principal.

Double Isolement :

Isolement principal + supplémentaire.

Isolement Renforcé :

Isolement unique appliqué aux parties actives avec un degré de protection équivalent à un double isolement.

Classi di isolamento:

La classe di isolamento si riferisce alla maniera in cui è considerata nella lampada la protezione delle persone contro scariche elettriche, comprese le misure passive di protezione di persone contro contatti indiretti. Un contatto indiretto è un contatto della persona contro una massa accidentalmente collocata sotto tensione a causa di un difetto di isolamento.

Parte attiva:

Parte conduttrice che è sottoposta a tensione

Parte attiva pericolosa:

Parte conduttrice che è sottoposta a un picco di tensione superiore a 42,4V o 30V~.

Bassa tensione (ELV):

Tensione che non supera i picchi di 42,4V o 30V~ tra i conduttori e la connessione a terra.

Tensione bassa di sicurezza (SELV):

Tensione bassa che quando provvista dalla rete dovrà essere ottenuta da un trasformatore di bobine separate, il cui isolamento ubbidisce alla classe II.

Isolamento Principale

Isolamento applicato alle parti attive contro una scarica elettrica.

Isolamento complementare

Isolamento indipendente applicato in aggiunta all'isolamento principale in modo da garantire la protezione in caso di mancanze nell'isolamento principale.

Isolamento doppio

Isolamento principale + complementare

Isolamento rinforzato

Isolamento applicato alle parti attive con un grado di protezione equivalente al doppio isolamento



Classe I – equipamento no qual a protecção contra choque eléctrico não depende apenas do isolamento principal, todas as partes activas perigosas acessíveis estão ligadas a um circuito terra de protecção.

Class I – equipment where the protection against electrical shock does not depend only on the main insulation, and where all the accessible dangerous active parts are connected on a protective earth circuit.
Clase I – equipo en el cual la protección contra descargas eléctricas no depende apenas del aislamiento principal, todas las partes activas de riesgo que se encuentran accesibles, están conectadas.
Classe I – Appareils conformes aux exigences de mise à terre des appareils électriques : isolation fonctionnelle de tous les composants et liaison à la terre.
Classe I – apparecchiatura in cui la protezione contro scariche elettriche non dipende solo dall'isolamento principale, ed in cui tutte le parti accessibili, sono connesse ad un circuito protettivo a terra.



Classe II – equipamento no qual a protecção contra choque eléctrico não depende apenas do isolamento principal, inclui isolamento duplo ou reforçado.

Class II – equipment where the protection against electrical shock does not depend only on the main insulation, including the double or reinforced.
Clase II – equipo en el cual la protección contra descargas eléctricas no depende apenas del aislamiento principal, incluye doble aislamiento o reforzado.
Classe II – Appareils conformes aux exigences de double isolation des parties actives isolation de tous les composants sans liaison à la terre. En cas de défaut électrique, aucune partie métallique accessible ne doit entrer en contact avec le circuit électrique.
Clase II – apparecchiatura in cui la protezione contro scariche elettriche non dipende solo dall'isolamento principale, includendo il doppio isolamento o quello rinforzato.



Classe III – equipamento no qual a protecção contra choque eléctrico depende da alimentação a partir de uma tensão baixa de segurança.

Class III – equipment where the protection against electrical shock depends on the supply from a security low voltage.
Clase III – equipo en el cual la protección contra descargas eléctricas depende de la alimentación a partir de una tensión baja de seguridad.
Classe III – Appareils conformes aux exigences de la classe III : la protection contre les chocs électriques est garantie par un circuit à très basse tension de sécurité (SELV) ne produisant aucune tension supérieure à 50V.
Classe III – apparecchiatura in cui la protezione contro scariche elettriche dipende dall'alimentazione a partire da una tensione bassa di sicurezza.



Marcação CE:
A ostentação da marcação CE, indica que o equipamento está em conformidade com as directivas europeias para material eléctrico de certos limites de tensão 2006/95/CE e compatibilidade electromagnética 2004/108/CE.

CE Marking:
A CE Marking means that the equipment is in compliance with the European Directives for electrical material of certain voltage limits 2006/95/CE and electromagnetic compatibility 2004/108/CE.
Marca CE:
La marca CE, indica que el equipo está en conformidad con las directivas europeas para material eléctrico dentro de determinados límites de tensión 2006/95/CE y compatibilidad electromagnética 2004/108/CE.
Marquage CE
La présentation du marquage CE indique que le matériel est conforme avec les directives européennes pour les appareils électriques de certaines limites de tension 2006/95/CE et de comptabilité électromagnétique 2004/108/CE.
Sigla CE:
La sigla CE, indica che l'apparecchiatura è conforme alle direttive europee per il materiale elettrico entro determinati limiti di tensione 2006/95/CE e compatibilità elettromagnética 2004/108/CE.

850°C



Resistência á chama e inflamação segundo a norma NP EN 60598-1

Resistance to fire and inflammation according to NP EN 60598-1
Resistencia a la llama e inflamación según la norma NP EN 60598-1
Résistance au feu et l'inflammation selon la norme NP EN 60598-1
Resistenza alla fiamma e all'inflammation secondo la norma NP EN 60598-1

Apto para montagens em superfícies inflamáveis, não podendo ser coberta com material isolante ou análogo.

Enable to install in flammable surfaces; cannot be covered with insulating material or similar.
Apto para instalación en superficies inflamables, no siendo posible cubrirlo con material aislante o similar.
Appareils conformes aux exigences d'installation pour le montage sur des surfaces inflammables.
Capacità di installazione su superfici infiammabili, non copribile con materiale isolante o simili.

IP- Índice de protecção:

As características dos invólucros dos equipamentos eléctricos em relação às influências externas são definidas a partir de códigos. IPXX, o primeiro dígito é representativo do grau de protecção do equipamento contra a penetração de corpos sólidos, e o segundo dígito representa o grau de protecção contra a penetração de corpos líquidos. O equipamento a instalar em determinado local deverá cumprir sempre o índice mínimo de protecção exigido para esse local. Na tabela abaixo mencionada, estão indicados os índices mínimos de protecção, em virtude da classe de influências externas.

IP – Protection degree:

The characteristics of the electrical equipment case to external influences are defined with codes, IPXX, the first digit represents the protection degree of the equipment against penetration of solid bodies, and the second digit the protection degree against the penetration of liquid bodies. The equipment to be installed in a certain local should always fulfil the minimum protection requirement required for that local. On the table below, the minimum protection requirements are presented, in accordance to the external influence class.

IP – índice de protección:

Las características de la protección de los equipos eléctricos en relación a las influencias externas, son definidas a partir de códigos. IPXX, el primer dígito representa el grado de protección del equipo contra la penetración de cuerpos sólidos, y el segundo dígito representa el grado de protección contra la penetración de cuerpos líquidos. El equipo a instalar en determinado local deberá cumplir siempre con el índice mínimo de protección exigido para ese local. En la tabla mencionada abajo, están indicados los índices mínimos de protección, en virtud del tipo de las influencias externas.

IP – Indice de protection

La résistance des appareils contre la pénétration de solides ou de liquides est indiquée par le préfixe IP (Indice de protection) suivi de deux chiffres. Le premier chiffre indique la protection contre la pénétration de corps solides. Le second indique la protection contre la pénétration de liquides. Dans le tableau ci-dessous sont indiqués les indices protections minimales, selon la classe des influences extérieures.

IP – indice di protezione:

Le caratteristiche di protezione delle apparecchiature elettriche in relazione alle influenze esterne, sono determinate da codici. IPXX, La prima digitazione rappresenta il grado di protezione dell' apparecchiatura contro la penetrazione di corpi solidi; la seconda digitazione rappresenta il grado di protezione contro la penetrazione di corpi liquidi. L'apparecchiatura da installare in un determinato locale dovrà sempre rispettare i requisiti minimi di protezione richiesti per quel locale. Nella tavola riportata sotto, sono indicati gli indici minimi di protezione, in funzione al tipo di influenze esterne.

CORPOS SÓLIDOS

SOLID BODIES

CUERPOS SÓLIDOS

CORPS SOLIDES

CORPI SOLIDI

IP0X sem protecção
without protection
sin protección
sans protection
senza protezione

IP1X protecção contra corpos sólidos de diametro >50mm
protection against solid bodies with > 50mm diameter
protección contra cuerpos sólidos de diámetro > 50 mm
protection contre les corps solides de diamètre > 50mm
protezione contro corpi solidi di diametro > 50mm

IP2X protecção contra corpos sólidos de diametro >12mm
protection against solid bodies with > 12mm diameter
protección contra cuerpos sólidos de diámetro > 12mm
protection contre les corps solides de diamètre > 12mm
protezione contro corpi solidi di diametro > 12mm

IP3X protecção contra corpos sólidos de diametro >2,5mm
protection against solid bodies with > 2,5mm diameter
protección contra cuerpos sólidos de diámetro > 2,5mm
protection contre les corps solides de diamètre > 2.5mm
protezione contro corpi solidi di diametro > 2,5mm

IP4X protecção contra corpos sólidos de diametro >1mm
protection against solid bodies with > 1mm diameter
protección contra cuerpos sólidos de diámetro > 1mm
protection contre les corps solides de diamètre > 1mm
protezione contro corpi solidi di diametro > 1mm

IP5X protecção contra corpos sólidos de diametro < 1mm
protection against solid bodies with < 1mm diameter
protección contra cuerpos sólidos de diámetro < 1mm
protection contre les corps solides de diamètre < 1mm
protezione contro corpi solidi di diametro < 1mm

IP6X totalmente estanque a poeiras
totally sealed against dust
totalmente vedado a polvo
totalément étanche contre les poussières
totalmente repellenti alla polvere

CORPOS LÍQUIDOS
LIQUID BODIES
CUERPOS LÍQUIDOS
CORPS LIQUIDES
CORPI LIQUIDI

IPX0 sem protecção
without protection
sin protección
wans protection
senza protezione

IPX1 protegido contra queda de gotas de água na vertical
protected against vertical fall of water drops.
protegido contra caída de gotas de agua en sentido vertical
protégé contre les gouttes d'eau dans la verticale
protetto contro caduta di gocce d'acqua in senso verticale

IPX2 protegido contra queda de gotas de água com um ângulo máximo de 15º
protected against fall of water drops in a maximum angle of 15º
protegido contra caída de gotas de agua con ángulo máximo de 15º
protégé contre la chute de gouttes d'eau avec un angle maximum de 15º
protetto contro la caduta di gocce d'acqua con angolo massimo di 15º

IPX3 protegido contra queda de gotas de água com um ângulo máximo de 60º
protected against fall of water drops in a maximum angle of 60º
protegido contra caída de gotas de agua con ángulo máximo de 60º
protégé contre la chute de gouttes d'eau avec un angle maximum de 60º
protetto contro la caduta di gocce d'acqua con angolo massimo di 60º

IPX4 protegido contra projecção de água
protected against water projection
protegido contra proyección de agua
protégé contre la projection d'eau
protetto contro la proiezione di acqua

IPX5 protegido contra jactos de água
protected against water jets
protegido contra chorros de agua
protégé contre les jets d'eau
protetto contro getti d'acqua

IPX6 protegido contra vagas de mar
protected against sea waves
protegido contra olas de mar
protégé des vagues de la mer
protetto contro onde del mare

IPX7 protegido contra edeitos de imersão (máx.1m)
protected against dipping effects (max 1m)
protegido contra efectos de inmersión (máx. 1m)
protégé contre les effets de l'immersion (max. 1m)
protetto contro effetti di immersione (máx. 1m)

IPX8 protegido contra efeitos de imersão prolongada
protected against prolonged dip
protegido contra inmersión prolongada
protégé contre l'immersion prolongée
protetto contro immersione prolungata

IK- Índice de resistência mecânica:
Grau de resistência dos invólucros das luminárias a impactos mecânicos externos, definidos pela norma EN 62262.

IK – Mechanical resistance degree:
Degree of resistance of the luminary case to external mechanical impacts, as defined by the EN standard 62262.
IK- Índice de resistência mecânica:
Índice de resistencia mecánica: Grado de resistencia de los envoltentes de las luminarias a impactos mecánicos externos, definidos por la norma EN 62262.
IK – Indice de résistance mécanique
Résistance des appareils a des chocs mécaniques externes, selon la norme EN 62262.
IK indice di resistenza meccanica:
Grado di resistenza degli involucri delle lampade a impatti meccanici esterni, definiti dalla norma EN 62262.

 resistente a impactos iguais ou inferiores a 0,15J
resistance to impacts equal or bellow to 0,15J
resistente a impactos iguales o inferiores a 0,15J
résistent aux chocs égaux ou inférieurs à 0,15J
resistente a impatti uguali o inferiori a 0,15J

 resistente a impactos iguais ou inferiores a 0,20J
resistance to impacts equal or bellow to 0,20J
resistente a impactos iguales o inferiores a 0,20J
résistent aux chocs égaux ou inférieurs à 0,20J
resistente a impatti uguali o inferiori a 0,20J

 resistente a impactos iguais ou inferiores a 0,35J
resistance to impacts equal or bellow to 0,35J
resistente a impactos iguales o inferiores a 0,35J
résistent aux chocs égaux ou inférieurs à 0,35J
resistente a impatti uguali o inferiori a 0,35J

 resistente a impactos iguais ou inferiores a 0,50J
resistance to impacts equal or bellow to 0,50J
resistente a impactos iguales o inferiores a 0,50J
résistent aux chocs égaux ou inférieurs à 0,50J
resistente a impatti uguali o inferiori a 0,50J

 resistente a impactos iguais ou inferiores a 0,70J
resistance to impacts equal or bellow to 0,70J
resistente a impactos iguales o inferiores a 0,70J
résistent aux chocs égaux ou inférieurs à 0,70J
resistente a impatti uguali o inferiori a 0,70J

 resistente a impactos iguais ou inferiores a 1,00J
resistance to impacts equal or bellow to 1,00J
resistente a impactos iguales o inferiores a 1,00J
résistent aux chocs égaux ou inférieurs à 1,00J
resistente a impatti uguali o inferiori a 1,00J

 resistente a impactos iguais ou inferiores a 2,00J
resistance to impacts equal or bellow to 2,00J
resistente a impactos iguales o inferiores a 2,00J
résistent aux chocs égaux ou inférieurs à 2,00J
resistente a impatti uguali o inferiori a 2,00J

 resistente a impactos iguais ou inferiores a 5,00J
resistance to impacts equal or bellow to 5,00J
resistente a impactos iguales o inferiores a 5,00J
résistent aux chocs égaux ou inférieurs à 5,00J
resistente a impatti uguali o inferiori a 5,00J

 resistente a impactos iguais ou inferiores a 10,00J
resistance to impacts equal or bellow to 10,0J
resistente a impactos iguales o inferiores a 10,00J
résistent aux chocs égaux ou inférieurs à 10,00J
resistente a impatti uguali o inferiori a 10,00J

 resistente a impactos iguais ou inferiores a 20,00J
resistance to impacts equal or bellow to 20,0J
resistente a impactos iguales o inferiores a 20,00J
résistent aux chocs égaux ou inférieurs à 20,00J
resistente a impatti uguali o inferiori a 20,00J

informação luminotécnica

No mercado existe hoje uma enorme gama de lâmpadas, divididas por alguns grupos, tais como: incandescentes, de halogéneos, de descarga (fluorescentes, de vapor de sódio).

A iluminação fluorescente apresenta um rendimento muito superior à incandescente. Pode-se afirmar que a luz incandescente é menos agressiva e mais constante do que a fluorescente, reproduzindo melhor as cores. Contudo, é menos rentável e apresenta ainda o inconveniente do efeito do aquecimento excessivo, se comparado com o das lâmpadas fluorescentes. Para determinar o número de lâmpadas e a sua distribuição num determinado espaço de trabalho, não basta conhecer as características daquelas. No cálculo de uma instalação de iluminação artificial seguem-se geralmente os seguintes passos:

- a) determinação do nível de iluminação aconselhado para o tipo de trabalho;
- b) escolha do tipo de lâmpada;
- c) escolha do sistema de iluminação e dos tipos de armaduras de iluminação (luminárias);
- d) escolha da altura de suspensão das armaduras de iluminação;
- e) distribuição das armaduras;
- f) cálculo do número mínimo de armaduras necessário;
- g) distribuição do número definitivo de armaduras de iluminação.

luminotechnical information

Nowadays, there is in the market a wide range of light bulbs, divided into some groups, such as: incandescent, halogen, discharge (fluorescent and sodium).

The fluorescent lighting presents a much superior duration when compared to the incandescent ones. Incandescent light is less aggressive and more stable than the fluorescent light, better reproducing the colours. Nevertheless, it is less efficient and has the inconvenience of the over heating effect, when compared with the fluorescent light bulbs. To determine the number of light bulbs and their distribution within a specific work place, it is not only necessary to know their characteristic.

In the calculation of an artificial lighting installation, the following steps are usually taken:

- a) determination of the illumination level regarding the kind of work;
- b) choice of the type of light bulb;
- c) choice of the lighting system and the types of lighting luminaries;
- d) choice of the height of suspension of the lighting luminaries;
- e) luminaries distribution;
- f) calculation of the minimum number of luminaries needed;
- g) distribution of the definitive number of lighting luminaries.

información luminotécnica

En el mercado existe hoy en día una extensa gama de bombillas divididas en varios grupos, tales como: incandescentes, de halógeno, de descarga, fluorescentes, de vapor de sodio. La iluminación fluorescente tiene un rendimiento notoriamente superior a la incandescente. Podemos afirmar que, la luz incandescente es menos agresiva y más constante que la fluorescente, permitiendo una mejor reproducción de los colores. Sin embargo, es menos rentable y además tiene un nivel de calor excesivo, cuando comparado al emitido por las bombillas fluorescentes. Para determinar el número de bombillas y su distribución en un espacio de trabajo, no basta conocer las características de las bombillas, también será necesario considerar otros factores. Para el cálculo de la instalación de la iluminación artificial en un espacio, se deben seguir generalmente los siguientes pasos:

- a) determinación del nivel de iluminación recomendado para el tipo de trabajo a realizar en el espacio;
- b) selección del tipo de bombilla;
- c) selección del sistema de iluminación y del tipo de las luminarias;
- d) selección de la altura de colocación de las luminarias;
- e) distribución de las luminarias;
- f) cálculo del número mínimo de luminarias necesarias para obtener el efecto deseado;
- g) distribución del número definitivo de las luminarias.

information lumineux

Dans le marché il y a maintenant une vaste gamme de lampes, divisé par groupes, tels que : incandescence, halogène, décharge, LED.

L'éclairage fluorescent a une performance supérieure aux lampes à incandescence. Nous pouvons soutenir que l'incandescence est moins agressif et plus constant que le fluorescent et qui a une meilleure reproduction des couleurs. Néanmoins, il est moins efficace et a l'inconvénient de l'effet de surchauffe par rapport aux lampes fluorescentes. Pour déterminer le nombre de lampes et leur distribution dans un espace spécifique, il ne suffit pas de connaître les caractéristiques de ceux-ci. Dans le calcul d'une installation d'éclairage artificiel, les étapes suivantes sont généralement prises:

- a) détermination du niveau d'éclairage recommandée;
- b) choix de la lampe;
- c) choix de l'éclairage et des types de luminaires;
- d) choix de la hauteur d'application des luminaires;
- e) distribution des luminaires;
- f) calculer le nombre minimum de luminaires nécessaires;
- g) distribution du nombre final de luminaires.

raccomandazioni luminotecniche

Oggigiorno sul mercato esiste un'ampia gamma di lampadine divise in vari gruppi, quali: incandescenti, alogene, a scarica (fluorescenti, a vapore di sodio).

L'illuminazione fluorescente ha un rendimento notoriamente superiore a quella incandescente. Possiamo affermare che, la luce incandescente è meno aggressiva e più costante di quella fluorescente, consentendo una migliore riproduzione dei colori.

Tuttavia, è meno efficace ed inoltre ha l'inconveniente del surriscaldamento, se comparata alle lampadine fluorescenti. Per determinare il numero di lampadine e la loro disposizione nello spazio di lavoro, non basta conoscere le caratteristiche delle lampadine, ma sarà necessario considerare anche altri fattori. Per il calcolo dell'installazione artificiale della luce in uno spazio, si devono generalmente seguire tali step:

- a) determinazione del livello di illuminazione raccomandato per il tipo di lavoro;
- b) selezione del tipo di lampadina;
- c) selezione del sistema di illuminazione e del tipo di lampade;
- d) selezione dell'altezza di sospensione delle lampade
- e) distribuzione delle lampade;
- f) calcolo del numero minimo di lampade necessario per ottenere l'effetto desiderato;
- g) distribuzione del numero definitivo di lampade.

ILUMINÂNCIA (E)

Espressa em lux (lx), indica o fluxo luminoso de uma fonte de luz que incide sobre uma superfície situada a uma certa distância desta fonte. É o limite da razão do fluxo luminoso recebido pela superfície em torno de um ponto considerado para a área de superfície quando esta tende para o zero.

Na prática, é a quantidade de luz dentro de um ambiente, que pode ser medida com o auxílio de um luxímetro. Para obter conforto visual, considerando a actividade que se realiza, são necessários certos níveis de iluminância médios.

LUMINÂNCIA (L)

É uma grandeza quantitativa que se insere perfeitamente num conjunto de dados que permite analisar quantitativamente um sistema ou um equipamento de iluminação. É um dos conceitos mais abstractos que a luminotécnica apresenta. É a intensidade luminosa produzida ou reflectida por uma superfície existente, medida em cd/m². A luminância depende do tamanho aparente da superfície e da intensidade luminosa emitida pela superfície na direção do olho, é através da luminância que o homem enxerga, ela depende tanto do nível de iluminação quanto das características da reflexão das superfícies.

ILLUMINANCE (E)

Express in lux (lx), indicates the luminous flux emitted by a light source which reaches a surface located at a specific distance from it. Is the limit of the ratio of the received luminous flux by the surface around a point considered to surface area as this tends to zero. In practice, it is the light quantity inside an ambient, which can be measured with a luximeter. To obtain visual comfort, considering the activity that will take place, some average levels of illuminance are needed.

LUMINANCE (L)

It is a magnitude which is perfectly inserted into a dataset that permits a quantitative analysis of a system or lighting equipments. It is one of the most abstract concepts that lighting presents, as represents the intensity of light produced or reflected by a surface. It is measured by cd/m2. Luminance depends not only on the surface apparent size but also on the luminous intensity that is emitted towards the eye; it is because of luminance that man can see, and it depends as much of the illumination level as of the surface reflecting characteristics.

ILUMINANCIA (E)

Expresada en lux (lx), indica el flujo luminoso emitido por una fuente de luz que incide sobre una superficie situada a una determinada distancia de esta fuente. Es el límite en relación al flujo luminoso recibido por la superficie en torno a un punto considerado para el área de superficie cuando esta tiende a cero. En la práctica es la cantidad de luz dentro de un ambiente, que puede ser medida con el apoyo de un luxómetro. Para obtener un bienestar visual y considerando la actividad que se realiza, son necesarios determinados niveles de iluminancia promedios. Obs: (ver tabla de iluminación de los locales de trabajo en interiores, de acuerdo con la norma EN-12464-1).

LUMINANCIA (L)

Es una grandeza cuantitativa que se insiere perfectamente en un conjunto de datos que permite analizar cuantitativamente un sistema o un equipo de iluminación. Es uno de los conceptos más abstractos que la luminotécnica presente. Es la intensidad luminosa producida o reflejada por una superficie existente. Medida en cd/m2. La luminancia depende del tamaño aparente de la superficie y de la intensidad luminosa emitida por la superficie en la dirección del ojo, es a través de la luminancia que el hombre visualiza, ella depende tanto del nivel de iluminación, como de las características de reflejo de las superficies.

ECLAIREMENT (E)

L'éclairage correspond au rapport entre le flux lumineux incident sur une surface et la dimension de cette surface, il s'exprime en lux. Peut être mesurée avec un photomètre. Pour obtenir un confort visuel, compte tenu de l'activité qui aura lieu, on aura besoin d'un certain niveau d'éclairage moyen. Note : (Voir le tableau d'éclairage des postes de travail à l'intérieur selon la norme EN-12464-1).

LUMINANCE (L)

La luminance correspond à la luminosité d'une surface qui émet de la lumière soit en qualité de source lumineuse soit par transmission ou par réflexion. La luminance représente le rapport entre l'intensité lumineuse et la surface projetée, verticale au sens d'observation. Des surfaces de couleur différente mais de même luminance ont la même luminosité. La luminance est exprimée en candelas par mètre carré (cd/m2).

ILLUMINANZA (E)

Espressa in lux (lx), indica il flusso luminoso emesso da una fonte di luce che raggiunge una superficie situata a una determinata distanza da questa fonte. E' il limite in relazione del flusso luminoso ricevuto dalla superficie intorno a un punto considerato per l'area della superficie quando questa tende a zero. Nella pratica è la quantità di luce in un ambiente, che può essere misurata con l'appoggio di un luxometro. Per ottenere un comfort visivo e considerando l'attività che si realizza, son necessari determinati livelli di illuminazione medi. Oss: (vedere tavole di illuminazione dei locali di lavoro in interno, di accordo con la norma EN-12464-1).

LUMINANZA (L)

E' la grandezza che si inserisce perfettamente in un insieme di dati che consente un'analisi quantitativa di un sistema o un'apparecchiatura di illuminazione. E' una dei concetti più astratti che la luminotecnica presenta poiché indica l'intensità luminosa prodotta o riflessa da una superficie esistente. Misurata in cd/m2. La luminanza dipende dalla grandezza apparente della superficie e dall'intensità luminosa emessa dalla superficie in direzione dell'occhio. E' grazie alla luminanza che l'uomo vede, e dipende tanto dal livello di illuminazione, come delle caratteristiche riflettenti delle superfici.

INTENSIDADE LUMINOSA (I)

Expressa em candelas, é a intensidade do fluxo luminoso de uma fonte de luz projectada numa determinada direcção. A intensidade luminosa de uma fonte de luz ou luminária é medida com um fotômetro de leitura directa, ou com um fotômetro que produz um levantamento gráfico.

Uma candela é a intensidade luminosa de uma fonte pontual que emite o fluxo luminoso de um lúmen num ângulo sólido de um esferorradiano.

RENDIMENTO DA LUMINÁRIA

Razão entre o fluxo luminoso total emitido pela luminária, medindo em condições práticas especificadas e suas lâmpadas e equipamentos auxiliares apropriados, é a soma dos fluxos luminosos das lâmpadas funcionando fora da luminária com os mesmos equipamentos. Para obter um rendimento óptimo, esta medida tem que se aproximar o máximo possível da soma dos fluxos nominais do catálogo das lâmpadas.

Uma luminária de baixo rendimento pode provocar perdas de fluxo luminoso de até 60%. O rendimento da luminária é um importante critério na economia de energia e decisivo para os cálculos luminotécnicos, sob condições específicas: posição de funcionamento da luminária e temperatura do ambiente padrão de 25°C para o uso interno e 15°C para o uso externo.

LUMINOUS INTENSITY (I)

Measured by candela, it represents the intensity of the luminous flux emitted by a particular light source in a certain direction. The luminous intensity of a light source or luminary is measured by a direct reading photometer, or with a photometer that produces a graph. Candela is the luminous intensity of a specific source that emits a one lumen luminous flux in a steradian solid angle.

LUMINARY PERFORMANCE

Ratio between total luminous flux emitted by the luminary, measuring in specific conditions with light bulbs by appropriate auxiliary equipment, and the addition of the lighting bulbs' luminous fluxes operating out of the luminary with the same equipment.

To optimize the performance, this measure must approach as much as possible the sum of nominal fluxes from the lighting bulbs catalogue.

Low performance luminaries may cause the loss of luminous fluxes up to 60%.

The luminary performance is an important criterion in the energy economy and is crucial to the luminotechnical calculations, under specific conditions: the operating position of the luminary and the ambient average temperature of 25°C for indoor applications and 15°C for outdoor applications.

INTENSIDAD LUMINOSA (I)

Expresada en candelas, es la intensidad flujo luminoso emitido por una fuente de luz, en una determinada dirección. La intensidad luminosa de una fuente de luz o luminaria es medida con un fotómetro de lectura directa, o con un fotómetro que produce un espectro gráfico. Una candela es la intensidad luminosa de una fuente puntual que emite un flujo luminoso de un lumen en un ángulo sólido de estereorradián.

RENDIMIENTO DE LA LUMINARIA

Relación entre el flujo luminoso total emitido por la luminaria, medido en condiciones prácticas específicas con sus respectivas bombillas y equipos auxiliares apropiados; es la suma de los flujos luminosos de las bombillas, funcionando fuera de la luminaria con los mismos equipos.

Para obtener un óptimo rendimiento, esta medida tiene que aproximarse lo más posible de la suma de los flujos nominales de catálogo de las bombillas.

Una luminaria de bajo rendimiento puede provocar pérdidas de flujo luminoso hasta de 60%.

El rendimiento de la luminaria es un criterio importante en el ahorro de energía y decisivo para los cálculos luminotécnicos, bajo condiciones específicas: posición de funcionamiento de la luminaria y temperatura estándar del ambiente en 25°C para uso interno y de 15°C para uso externo.

INTENSITÉ LUMINEUSE (I)

L'intensité lumineuse correspond au flux lumineux par l'angle de la pièce (lm/sr). La répartition dans l'espace des intensités lumineuses d'une source lumineuse forme le corps de répartition de l'intensité lumineuse, mesurée en candelas (cd).

Une candela est l'intensité de la lumière d'une source ponctuelle émettant le flux lumineux d'une lumière dans un angle solide d'un stéradian.

RENDEMENT D'UN LUMINAIRE

Le rendement total d'un luminaire est le rapport entre le flux lumineux émis par le luminaire et le flux lumineux des lampes.

Pour des performances optimales, cette mesure doit approcher autant que possible la somme des flux lumineux des lampes.

Aucun luminaire ne restitue 100 % de la lumière émise par les lampes. Une part importante de cette lumière va être absorbée par les différents éléments du luminaire et transformée en chaleur.

Il se situe entre 35 et 90 %. Il est d'autant plus bas qu'il y a des éléments (ventelles, diffuseur opalin ou prismatique, etc..) devant les lampes afin d'éviter l'éblouissement ou pour favoriser l'esthétique.

INTENSITÀ LUMINOSA (I)

Espressa in candele, è la intensità del flusso luminoso emesso da una determinata fonte di luce, in una determinata direzione. L'intensità luminosa di una fonte di luce o lampada, è misurata da un fotometro di lettura diretta, o da un fotometro che produce uno spettro grafico.

Una candela è l'intensità luminosa di una fonte specifica che emette un flusso luminoso di un lume per unità di angolo solido.

RENDIMENTO DELLA LAMPADA

Relazione tra il flusso luminoso totale emesso e il flusso totale di tutte le sorgenti luminose inserite nell'apparecchio.

Per ottenere un ottimo rendimento, questa misura deve avvicinarsi il più possibile alla somma dei flussi nominali dell'insieme delle lampade installate nell'apparecchio. Una lampada a bassa resa può provocare perdite di flusso luminoso fino al 60%.

Il rendimento di una lampada è un criterio importante nel risparmio di energia e è elemento decisivo per i calcoli luminotecnici, in specifiche condizioni: posizione di funzionamento della lampada e temperatura media dell'ambiente a 25°C per l'uso interno e di 15°C per uso esterno.

TEMPERATURA DE COR

Em aspecto visual, admite-se que é bastante difícil a avaliação comparativa entre a sensação de Tonalidade de Cor de diversas lâmpadas. Para estipular um parâmetro, foi definido o critério Temperatura de Cor (Kelvin) para classificar a luz.

Assim como um corpo metálico que, em seu aquecimento, passa desde o vermelho até ao branco, quanto mais claro o branco, maior é a Temperatura de Cor (aproximadamente 6500 K). A luz amarelada, como de uma lâmpada incandescente, está em torno de 2700 K. É importante destacar que a cor da luz em nada interfere na Eficiência Energética da lâmpada, não sendo válida a impressão de que quanto mais clara, mais potente é a lâmpada.

Quando se diz que um sistema de iluminação apresenta luz “quente” não significa que a luz apresenta uma maior temperatura de cor, mas sim que a luz apresenta uma tonalidade mais amarelada. E da mesma forma, quanto mais alta for a temperatura e cor, mais “fria” será a luz.

COLOUR TEMPERATURE

In visual aspect, the comparative evaluation between the colour tone's sensations of the different lighting bulbs is considerably difficult. To set a parameter, it was defined a Colour Temperature criterion (Kelvin) to classify the light.

As a metallic body goes from red to white during its heating, the lighter the white, the biggest is the Colour Temperature (approximately 6500 K). The yellow light, similar to an incandescent lamp, is around 2700 K. It is important to stress the fact that the colour of the light does not interfere in the energetic efficiency of the lamp, not being valid the idea that the lighter the lamp, the more powerful it is.

When it is said that an illumination system presents “warm” light it does not mean that the light represents a higher colour temperature, but instead that the light represents a yellowish tone. In the same way, the higher the colour temperature, the “colder” the light is.

TEMPERATURA DE COLOR

En aspecto visual, se admite que es bastante difícil la evaluación comparativa entre la sensación de la Tonalidad de Color de las diferentes bombillas. Para estipular un parámetro, fue definido el criterio Temperatura de Color (Kelvin) para poder así, clasificar la tonalidad de la luz que estas emiten.

Así como un cuerpo metálico que, al calentarse, pasan desde rojo hasta blanco, cuanto más claro el blanco (semejante a la luz diurna al mediodía), mayor es la Temperatura de Color (aproximadamente 6500K). La luz amarillenta, como la de una bombilla incandescente, está aproximadamente en 2700K. Es importante destacar que el color de la luz no tiene proporción directa con la Eficiencia Energética de la bombilla, de esta forma no es válida la conclusión de que cuanto más clara es la luz, más potente es la bombilla.

Cuando se dice que un sistema de iluminación presenta una luz “caliente” no significa que la luz presente una temperatura de color superior, sino que, la luz presenta una tonalidad mas amarillenta. Y de la misma forma, cuanto más alta sea la temperatura de color, más “fría” será la luz.

TEMPÉRATURE DE COULEUR

En apparence visuelle il est très difficile de faire l'évaluation comparative entre la sensation de couleur de diverses lampes. Pour définir un paramètre, le critère a été mis en température de couleur (Kelvin) pour classer la lumière.

La température de couleur d'une source lumineuse est définie en comparaison avec un “corps radiateur noir” rapporté sur ce que l'on appelle la “courbe de Planck”. Plus la température de ce “corps radiateur noir” est élevée, plus grande est la composante bleue du spectre et plus petite la composante rouge.

Une lampe à incandescence émettant de la lumière blanche chaude, par exemple, a une température de couleur de 2.700 K tandis que celle d'une lampe fluorescente à lumière du jour a une température de couleur de 6.000 K.

TEMPERATURA DI COLORE

In ambito visivo, bisogna ammettere che è abbastanza difficile la valutazione comparativa tra la sensazione della tonalità di colore delle diverse lampadine Per determinare un parametro, fu definito il criterio Temperatura di Colore (Kelvin) per poter così classificare la tonalità della luce.

Così come un corpo metallico che, scaldandosi, passa da rosso a bianco, quanto più chiaro è il bianco (simile alla luce diurna del mezzogiorno) maggiore è la temperatura di colore (approssimativamente 6500K). La luce giallastra, come una lampadina incandescente, è approssimativamente a 2700K. E' importante rilevare che il colore della luce non interferisce con l'efficacia energetica della lampadina; non è valida la conclusione per cui quanto è più chiara la luce, più potente è la lampadina.

Quando si dice che un sistema di illuminazione presenta una luce calda, non significa che la luce presenta una temperatura di colore superiore, ma che la luce presenta una tonalità più giallastra. Allo stesso modo, quanto più alta è la temperatura di colore, più fredda sarà la luce.

VIDA ÚTIL DE UMA LÂMPADA

O conceito de vida de uma lâmpada é dado em horas, e é definido por critérios pré-estabelecidos, considerando sempre um grande lote testado sob condições controladas e de acordo com as normas pertinentes.

ÍNDICE DE REPRODUÇÃO DE COR (IRC)

Refere-se à correspondência entre a cor real de um objecto ou superfície e sua aparência diante de uma fonte de luz. A luz artificial, como regra, deve permitir ao olho humano perceber as cores correctamente ou o mais próximo possível da luz natural.

Lâmpadas com IRC igual a 100 apresentam as cores com total fidelidade e precisão. Quanto mais baixo o índice, mais deficiente é a reprodução das cores.

Os índices variam conforme a natureza da luz e são indicados de acordo com o uso de cada ambiente.

LIFETIME OF A LIGHTING BULB

The life concept of a lighting bulb is measured in hours and is defined by a pre established criteria, considering that a great part is tested under controlled conditions, according to the established conditions.

COLOUR RESTITUTION INDEX (CRI)

this ratio measures the fidelity that the colours are reproduced with under a given light source. The artificial light should normally allow the human eye to perceive the correct colours or as close as possible the natural light.

Lighting bulbs with CRI equal to 100 present the colours with total fidelity and accuracy. The lower the index, the more deficient is the colour reproduction. Indexes vary in accordance with the nature of the light and are indicated according to the appropriation of each ambiance.

VIDA ÚTIL DE UNA BOMBILLA

El concepto de vida de una bombilla es identificado en horas, y es definido por criterios pre-establecidos, considerando siempre un lote de producción que es verificado bajo condiciones controladas y de acuerdo a las normas pertinentes.

ÍNDICE DE REPRODUCCIÓN DE COLOR (IRC)

Se refiere a la correspondencia entre el color real de un objeto o superficie y su apariencia delante de una fuente de luz. La luz artificial, como norma, debe permitir al ojo humano interpretar los colores de forma correcta o lo más aproximado de la luz natural.

Bombillas con IRC igual a 100 presentan los colores con total fidelidad y precisión. Cuanto más bajo el índice, menos eficiente es la reproducción de los colores.

Los índices varían de acuerdo a la naturaleza de la luz y son indicados de acuerdo con su aplicación en cada ambiente.

DURÉE DE VIE

Le concept de la durée de vie est mesuré en heures et est définie par des critères pré établis, compte tenu du résultat obtenu de l'essai de plusieurs lampes dans des conditions contrôlées, selon les normes établies.

INDICE DE RENDU DES COULEURS (IRC)

Evaluation du degré de restitution des couleurs d'une source lumineuse par rapport au rendu moyen de la lampe. L'écart de couleur (perçu) pour l'illuminant de 8 couleurs de référence est mesuré pour donner une seule valeur.

Des valeurs situées entre 100 et 90 indiquent un très bon rendu, celles entre 90 et 80, un bon rendu. Il est déconseillé d'utiliser les lampes ayant un Ra inférieur a 80 dans des environnements de travail.

VITA UTILE DELLA LAMPADINA

Il concetto di vita di una lampadina è identificato in ore ed è definito da criteri prestabiliti, considerando che la maggior parte è testata sotto condizione controllate e seguendo regole stabilite.

INDICE DI RIPRODUZIONE DEL COLORE (IRC)

Si riferisce alla corrispondenza tra il colore reale di un oggetto o superficie e la sua riproduzione davanti ad una fonte di luce. La luce artificiale, di norma, deve consentire all'occhio umano di percepire i colori in modo corretto o il più vicino possibile a quelli della luce naturale.

Lampadine con IRC uguale a 100, riproducono i colori con totale fedeltà e precisione. Quanto più basso l'indice, meno efficace è la riproduzione dei colori.

Gli indici variano in base alla natura della luce e sono indicati in base alla loro applicazione in ogni ambiente.

FLUXO LUMINOSO

É uma grandeza fotométrica derivada da intensidade luminosa, representa uma potência luminosa emitida ou observada, ou ainda, a energia emitida ou refletida, por segundo, em todas as direcções, sob a forma de luz. Sua unidade é o lúmen (**lm**); Símbolo: φ
Esse conceito é de grande importância para os estudos de iluminação.

A melhor luz é sem duvida a natural: é aquela a que o nosso sistema visual melhor se adapta, aumentando a estimulação sensorial, para além de outras vantagens. Esta luz penetra através de janelas ou pelo telhado. Apresenta contudo o inconveniente de não ser constante. É pois inevitável recorrer a iluminação artificial nos ambientes de trabalho. Uma correcta iluminação artificial, obriga a um cálculo que entre em linha de conta com os múltiplos factores que a podem influenciar, sob o ponto de vista da quantidade e qualidade da luz e da energia eléctrica a despender. É pois aconselhável que esse cálculo seja efectuado por um projectista da especialidade.

LUMINOUS FLUX

It derives from the luminous intensity and represents an emitted or observed light output, or even the energy emitted or reflected, per second, in all directions, in the form of light.
Its measuring unit is lumen (**lm**); symbol: φ
This concept is of great importance for the study of lighting.

The best light is without a doubt, the natural one: it's the one that our visual system is better adapted to, increasing the sensorial stimulation, among other advantages. This light penetrates through windows or roof. It has however the inconvenience of not being constant. It is therefore inevitable to use artificial illumination in work environments. A correct artificial illumination requires a calculation that involves multiple factors that may influence it, such as the amount and quality of the light and the electric energy to expend. It is therefore advisable that a specialized projector makes this calculation.

FLUJO LUMINOSO

Es una grandeza fotométrica derivada de la intensidad luminosa, representa una potencia luminosa emitida u observada, o aún, representa la energía emitida o reflejada, por segundo, en todas las direcciones, bajo la forma de luz.
Su unidad es el lumen (**lm**); Símbolo: φ
Ese concepto es de gran importancia para los estudios de iluminación.

La mejor luz es sin duda la luz natural, es aquella a la cual se adapta mejor nuestro sistema visual, aumentando la estimulación sensorial, entre otras ventajas. Esta luz penetra a través de ventanas o por el tejado. Sin embargo, el hecho de no ser constante es un inconveniente. Siendo por ello inevitable recorrer a la iluminación artificial en ambientes de trabajo. Para obtener una iluminación artificial correcta, es necesario realizar un cálculo que considere los diversos factores que pueden tener influencia directa sobre la misma, inclusive en relación a la cantidad y la calidad de luz y de energía eléctrica que será utilizada. Así es recomendable que ese cálculo sea realizado por un proyectista especializado.

FLUX LUMINEUX

Quantité totale de lumière émise par une lampe mesurée en lumens (**lm**), symbole: φ
Ce concept est d'une grande importance pour les études d'éclairage.

La meilleure lumière est sans aucun doute la naturelle : celle pour laquelle notre système visuel est le mieux adapté. Cette lumière pénètre par les fenêtres ou le toit. Il a toutefois l'inconvénient de ne pas être constante. Il est donc inévitable d'utiliser un éclairage artificiel dans les environnements de travail. Un bon éclairage artificiel nécessite un calcul qui implique plusieurs facteurs qui peuvent l'influencer, tels que la quantité et la qualité de la lumière et l'énergie électrique à dépenser. Il est donc souhaitable qu'un concepteur d'éclairage effectue ce calcul.

FLUSSO LUMINOSO

E' una grandezza fotometrica derivata dalla intensità luminosa, rappresenta una fonte luminosa emessa o osservata , o persino, rappresenta l'energia emessa o riflessa, al secondo, in tutte le direzioni, sotto forma di luce.
La sua unità di misura è il LUMEN (**lm**); Simbolo: φ
Questo concetto è di grande importanza per gli studi di illuminazione.

La luce migliore è senza dubbio quella naturale: è quella alla quale si adatta meglio il nostro sistema visivo, aumentando la stimolazione sensoriale, tra gli altri vantaggi. Questa luce penetra attraverso le finestre o per il tetto. Tuttavia, il fatto di non essere costante è un inconveniente. Per questo è inevitabile ricorrere alla illuminazione artificiale in ambienti di lavoro. Per ottenere una illuminazione artificiale corretta, è necessario realizzare un calcolo che consideri i diversi fattori che possono influenzarla, come la quantità e la qualità di luce e l'energia elettrica che sarà utilizzata. E' quindi raccomandabile che questo calcolo venga realizzato da un proiettore specializzato.

O nível de iluminação é o primeiro factor a ter em conta para uma correcta iluminação. Não são consensuais em todos os países, mas existem elementos suficientes para permitir um cálculo correcto. Na indústria, a quantidade de luz é um imperativo de qualidade. Se uma instalação não proporciona luz suficiente, nas áreas iluminadas e para as tarefas a desempenhar, a qualidade do trabalho executado é inferior. Reduzir os níveis de iluminação com o propósito de poupar energia e dinheiro, é de uma forma geral, uma medida contraproducente. Mais de 30 anos de pesquisas demonstraram que os prejuízos financeiros resultantes de uma iluminação inadequada podem ser avultados do ponto de vista do decréscimo de produtividade, favorecendo ainda a fadiga e o aumento de acidentes. O contraste e a diferença entre o brilho da figura e do fundo.

A diferença de luminância entre a área da tarefa e a circunvizinha não deve ser superior a três vezes; A diferença de luminância entre a área da tarefa e o ambiente geral não deve ultrapassar dez vezes, de modo a não causar efeitos de fadiga visual. A falta de contraste pode causar a monotonia. A sensação de relevo está em parte ligada à importância das sombras feitas pelos objectos. Assim, as fontes de luz devem ser posicionadas, em relação à tarefa, de modo a evitar os reflexos e as sombras. O ângulo entre as duas linhas deve ser superior a 30°.

The light level is the first factor to take into consideration when applying correct lighting. Not all countries are consensual, but there's enough data to allow a correct calculation. In the industry, the amount of light is imperative. If an installation does not provide enough light in the illuminated areas and in the sector of whoever is in charge, the work quality is lower. Reducing the levels of light intending to save energy and money is an unproductive option. More than 30 years of research have demonstrated that the financial damages of an inadequate illumination can be huge because of the productivity decrease, fatigue and the increase of accidents. Contrast is the difference between the lumen of the figure and the background.

The brightness difference between the work area and the surrounding environment shouldn't be more than three times; the brightness difference between the work area and the general environment shouldn't exceed ten times. The lack of contrast may cause monotony. The sensation of relief is related to the importance of the shades made by objects. Thus, and in relation to the task, light sources must be located in order to prevent the reflections and the shades. The angle between the two lines must be over 30°.

El nivel de iluminación es el primer factor a considerar para obtener una correcta iluminación. No siendo comunes a todos los países, existen suficientes elementos para permitir un cálculo correcto para una determinada situación. En la industria, la cantidad de luz es vital para la calidad de las actividades desempeñadas, siendo que, si una instalación no tiene la iluminación exigida para las tareas a realizar, la calidad de las mismas puede verse afectada. Reducir los niveles de iluminación con el objetivo de economizar energía y dinero, es de una forma general, una medida contraproducente. Más de 30 años de investigaciones, demostraron que las pérdidas financieras de una iluminación inapropiada pueden ser elevadas siendo que reducen directamente los niveles de productividad, favoreciendo a la fatiga e inclusive al aumento de riesgos de accidente. El contraste y la diferencia entre el brillo de la figura y del fondo.

La diferencia de luminancia, entre el área de trabajo y el entorno, no debe ser superior a tres veces; la diferencia de luminancia entre el área de trabajo y el ambiente general, no debe ser superior a diez veces, de forma a no causar fatiga visual. La falta de contraste puede causar monotonia. La sensación de relieve está en gran parte relacionada con la importancia de las sombras producidas por los objetos. Así, las fuentes de luz deben ser posicionadas, en relación a la tarea, de forma a evitar los reflejos y las sombras. El ángulo entre las dos líneas debe ser superior a 30°.

Le niveau d'éclairage est le premier facteur à considérer pour un bon éclairage. Il n'y a pas de consensus dans tous les pays, mais il y a suffisamment de données pour permettre un calcul correct. Dans l'industrie, la quantité de lumière est impérative. Dans l'industrie, la quantité de lumière est une qualité essentielle. Si une installation ne fournit pas assez de lumière dans les zones éclairées la qualité du travail sera plus faible. Réduire les niveaux d'éclairage dans le but d'économiser l'énergie et de l'argent est généralement une option improductive. Plus de 30 années de recherche ont démontré que les pertes financières d'un éclairage insuffisant peuvent être énormes en raison de la diminution de la productivité, la fatigue et l'augmentation des accidents. Le contraste est la différence entre la luminosité de la figure et le fond. La différence de luminance entre la zone de travail et le milieu environnant ne devrait pas être supérieure à trois fois, la différence de luminance entre la zone de travail et de l'environnement en général ne devrait pas dépasser dix fois. Le manque de contraste peut provoquer la monotone. La sensation de profondeur est liée à l'importance des ombres faites par les objets. Ainsi les sources lumineuses doivent être situés afin d'éviter les reflets et les ombres. L'angle entre les deux lignes doivent être de plus de 30°.

Il livello di luce è il primo fattore da considerare per ottenere una corretta illuminazione. Non è uniforme a tutti i paesi, ma esistono sufficienti elementi per permettere un calcolo corretto. Nell'industria, la quantità di luce è vitale per la qualità delle attività svolte. Se una apparecchiatura non fornisce sufficiente luce nelle aree illuminate, la qualità del lavoro è inferiore. Ridurre i livelli di illuminazione con l'obiettivo di economizzare energia e denaro è generalmente controproducente. Più di 30 anni di studi, dimostrano che le perdite finanziarie dovute a una illuminazione inappropriata possono essere elevate a causa della riduzione dei livelli di produttività, dell'aumento della fatica e dei rischi di incidente. Il contrasto è la differenza tra la sagoma della figura e lo sfondo.

La differenza di luminosità tra l'area di lavoro e l'ambiente circostante, non deve essere superiore a tre volte; La differenza di luminosità tra l'area di lavoro e l'ambiente generale, non deve essere superiore a dieci volte, in modo da non causare fatica visiva. La mancanza di contrasto può causare monotonia. La sensazione di rilievo è in gran parte relazionata all'importanza delle ombre prodotte dagli oggetti. Pertanto, le fonti di luce devono essere posizionate, in base all'attività, in modo da evitare i riflessi e le ombre. L'angolo tra le due linee deve essere superiore a 30°.

No trabalho é habitual encontrar situações permanentes de encandeamento devido ou a um excesso do nível luminoso ou à má orientação das fontes. Deve procurar-se eliminar as fontes de encandeamento, normalmente lâmpadas nuas ou superfícies demasiado brilhantes.

É possível estabelecer tipos de iluminação:

Iluminação geral uniforme: é aquela destinada a garantir uma iluminação uniforme em todos os possíveis planos de trabalho.

Iluminação zonal: destinada a iluminar uma área restrita, como um quadro numa sala de formação.

Iluminação localizada pontual: destinada a iluminar uma zona muito restrita, como uma bancada de oficina ou uma máquina.

Iluminação combinada: a iluminação num local de trabalho é habitualmente feita através de iluminação geral reforçada, segundo os casos, por uma iluminação zonal ou pontual.

At work places it is normal to find permanent glare situations due to an excess light level or to the bad orientation of the sources. Glare sources, normally uncovered light bulbs or very shiny surfaces should be eliminated.

It is possible to establish types of lighting:

General uniform lighting: meant to guarantee a uniform lighting in all the possible work places.

Local Lighting: meant to illuminate a specific area.

Spot lighting: meant to illuminate a very limited zone, as a workshop bench or a machine.

Combined lighting: lighting in a workstation is normally achieved by general lighting and in some cases reinforced by local or spot lighting.

En el trabajo es usual encontrar situaciones permanentes de ofuscación originadas por un nivel luminoso excesivo o una inadecuada orientación de las fuentes de iluminación. Debe tratar de eliminarse las fuentes de ofuscación, siendo estas normalmente bombillas no cubiertas o superficies demasiado brillantes.

Es posible establecer tipos de iluminación:

Iluminación general uniforme: es aquella destinada a garantizar una iluminación uniforme en todos los probables planos de trabajo.

Iluminación por zonas: destinada a iluminar un área restricta, como una pizarra en una sala de formación.

Iluminación localizada puntual: destinada a iluminar una zona muy restringida, como una mesa de un taller o una máquina.

Iluminación combinada: la iluminación en un local de trabajo es normalmente realizada a través de una iluminación general reforzada, en algunos casos con iluminación de zonas o puntual.

Au lieu de travail il est normal de trouver des situations d'éblouissement permanent du à un niveau excessif de lumière ou à la mauvaise orientation des luminaires. Les sources d'éblouissement devraient être éliminées.

Il est possible d'établir les types d'éclairage:

L'éclairage général uniforme : celui que vise à assurer un éclairage uniforme à tous les plans de travail possibles.

Éclairage local: Conçu pour éclairer une zone d'accès restreint, comme un tableau dans une salle de formation.

Éclairage Spot: Conçu pour éclairer une zone très restreinte, comme un banc ou un atelier d'usinage.

Éclairage Combiné: l'éclairage dans un poste de travail est normalement atteint par l'éclairage général et dans certains cas renforcés par un éclairage Local ou Spot.

Negli ambienti di lavoro è usuale trovare situazioni permanenti di abbagliamento, causate da un livello luminoso eccessivo o da un inadeguato orientamento delle fonti di illuminazione. Si devono cercare di eliminare le fonti di abbaglio, che siano queste normali lampadine o sferfici troppo brillanti.

E' possibile determinare diversi tipi di illuminazione:

Illuminazione generale uniforme: è quella destinata a garantire una illuminazione uniforme in tutti i possibili posti di lavoro.

Illuminazione locale: destinata a illuminare un'area specifica.

Illuminazione localizzata puntuale: destinata a illuminare una zona molto ristretta, come un tavolo di un'officina o una macchina

Illuminazione combinata: l'illuminazione in un locale di lavoro è generalmente realizzata attraverso l'illuminazione generale, rinforzata, in alcuni casi con illuminazione locale o puntuale.

QUANTO AO TIPO DE INCIDENCIA DA LUZ, CLASSIFICA-SE DE:

Iluminação directa: toda a luz chega ao plano de trabalho vindo de maneira predominante directa desde a fonte luminosa.
Iluminação semi-directa: combinação da luz directa com uma significativa quantidade de luz reflectida pelas paredes, tecto e outros elementos do ambiente.
Iluminacao indirecta: a fonte luminosa não é visível e apenas a luz reflectida chega ao plano de trabalho.
Iluminação semi-indirecta: uma grande quantidade de luz é direccionada para o tecto, vindo uma parte directamente para o plano de trabalho, proveniente da fonte luminosa.

THE TYPE OF INCIDENCE OF THE LIGHT, IT IS CLASSIFIED LIKE:

Direct lighting: all light sheds on the work area directly from the luminous source.
Semi-direct lighting: combination of direct light with a significant amount of loght reflected by the walls, ceiling and other elements of the environment.
Indirect lighting: the light source is not visible and only the reflected light reaches the work area.
Semi-indirect lighting: a great amount of light is directed to the ceiling and a part belonging to the light source.

EN RELACIÓN AL TIPO DE INCIDENCIA DE LA LUZ, SE CLASIFICA EN:

Iluminación directa: toda la luz llega al espacio de trabajo proyectada de manera predominante e directa desde la fuente luminosa.
Iluminación semi-directa: combinación de luz directa con una cantidad significativa de luz reflejada en las paredes, techo u otros elementos del ambiente.
Iluminación indirecta: la fuente luminosa no es visible y apenas la luz reflejada llega al espacio de trabajo.
Iluminación semi-indirecta: una gran cantidad de luz es direccionada para el techo, viniendo una parte directamente para el local de trabajo.

EN CE QUI CONCERNE LE TYPE D'INCIDENCE DE L'ÉCLAIRAGE, EST CLASSÉ COMME:

Éclairage direct : Toute la lumière atteignant le plan de travail directement à partir de la source lumineuse.
Éclairage Semi-direct : Combinaison de la lumière directe avec une quantité importante de lumière réfléchie par les murs, plafonds et autres éléments de l'environnement.
Éclairage indirect : la source de lumière n'est pas visible alors que la lumière réfléchie atteint le plan de travail.
Éclairage Semi indirect : Une grande partie de la lumière est dirigée vers le plafond, et une partie une autre partie arrive au plan de travail directement à partir de la source lumineuse.

IL TIPO DI INCIDENZA DELLA LUCE, SI CLASSIFICA IN:

Illuminazione diretta: tutta la luce arriva allo spazio di lavoro proiettata in maniera predominante e diretta dalla fonte luminosa
Illuminazione semi diretta: combinazione di luce diretta con una quantità significativa di luce riflessa sulle pareti, sul soffitto, o su altri elementi dell'ambiente
Illuminazione indiretta: la fonte luminosa non è visibile e solo la luce riflessa arriva allo spazio di lavoro.
Illuminazione semi indiretta: una grande quantità di luce è direzionata al soffitto, appartenendo una parte alla fonte di luce.

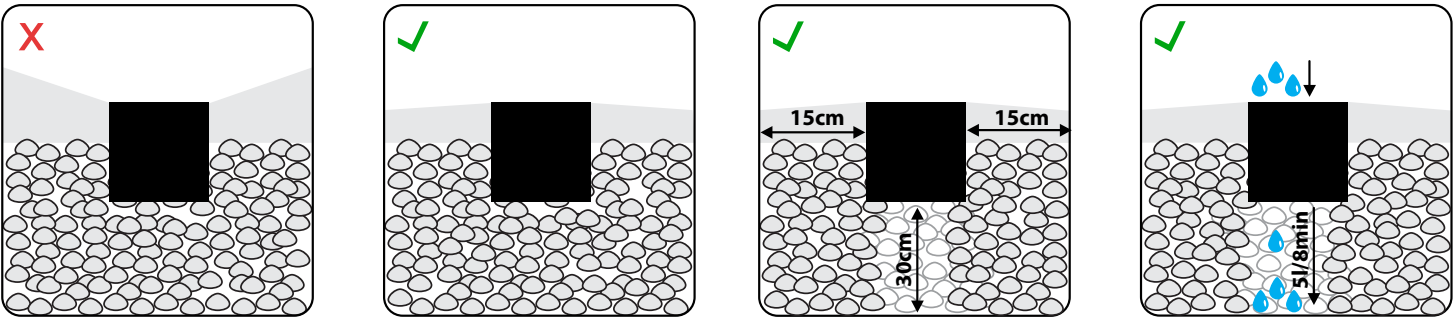
informações úteis

PROJECTORES DE PAVIMENTO

Evite sempre a colocação do projector de pavimento em depressões de terreno. Coloque a caixa de pré instalação envolvida na parte superior por um material de fixação suficientemente consistente de forma a não permitir a sua inclinação ou afundamento. Na parte inferior da caixa e á volta do restante corpo, deverá existir uma camada de gravilha que permita efectuar uma boa drenagem (escoamento de águas). Uma correcta drenagem deve permitir o escoamento de 5 litros de água em 8 minutos.

Para efectuar a ligação eléctrica das luminárias de pavimento, deverão ser utilizados cabos flexíveis do tipo H07RN-F ou H05RN-F com isolamento em borracha, de forma a permitir uma boa capacidade de ajustamento do bucim ao condutor eléctrico e consequente boa resistência á penetração de água. Para minimizar o efeito da condensação do vapor de água dentro da luminária, aconselha-se o funcionamento aceso durante uma hora sem o vidro e aro de remate, após este período de funcionamento feche-a imediatamente certificando-se que a junta de vedação se encontra devidamente colocada e isenta de impurezas ou areias. O vidro difusor pode alcançar temperaturas elevadas, evite o contacto directo com o mesmo.

Sugerimos uma limpeza frequente ao exterior da luminária de forma a evitar a acumulação de sujidade e dificuldade na dissipação de calor com consequente alteração dos seus componentes e perda de vedação.



useful information

FLOOR PROJECTOR

Always avoid placing it in land depressions. Surround the box with restraining material in such a way so as to avoid that it leans or collapses. A layer of gravel should exist underneath and surrounding the box, for good drainage. (Water flow). A correct draining should allow the absorption of 5 litters of water in 8 minutes. To make the electrical connection of the floor luminaries, flexible cables like H07RN-F or H05RN-F with rubber isolation should be used, in order to allow a good capacity to adjust the gland to the electrical cable and therefore a good resistance to water penetration. To minimize the possible condensation of water inside the device, it should operate for about 1 hour without the protection glass. After that, close it immediately making sure the joint is properly located and free of dirt and sand. Glass diffuser can reach high temperatures, avoid direct contact with it.

We suggest that you regularly clean the outside of the luminary so to avoid the accumulation of dirt and the difficult dissipation of heat with consequent alteration of its components and loss of sealing.

informaciones útiles

PROYECTORES DE PAVIMENTO

Evite la aplicación del proyector de pavimento en depresiones de terreno. Coloque la caja de pre-instalación envuelta en su parte superior, con un material de sujeción suficientemente consistente que evite su inclinación o hundimiento. En la parte inferior de la caja y alrededor del cuerpo de la luminaria, deberá existir una capa de grava que permita realizar un drenaje adecuado del agua. Un drenaje adecuado, deberá permitir el flujo de 5 litros de agua en 8 minutos.

Para efectuar la conexión eléctrica de las luminarias de pavimento, deberán ser utilizados cables flexibles del tipo H07RN-F o H05RN-F con aislamiento de goma, de esta forma permitirá un adecuado ajuste del prensaestopas al cable, aumentando la resistencia a la entrada de agua. Para minimizar el efecto de la condensación del vapor de agua dentro de la luminaria, se recomienda encender la luminaria durante 1 hora antes de colocar el vidrio y el aro de remate, luego, complete la instalación y verifique que la goma de aislamiento está colocada de forma correcta y sin impurezas que puedan anular su efecto. El vidrio difusor puede alcanzar temperaturas elevadas, evite el contacto directo con el mismo. Recomendamos que limpie con frecuencia el exterior de la luminaria, por forma a evitar la acumulación suciedad que dificulta la disipación del calor, lo que afecta los componentes de la luminaria e inclusive pérdida del aislamiento.

informations pratiques

ENCASTRÉ DE SOL

Évitez toujours d'appliquer les encastrés de sol dans les dépressions terrestres. Entourez la boîte d'encastrement avec du matériel de fixation suffisamment robuste de manière à éviter qu'il se penche ou s'effondre. Il faudra prévoir, un système de drainage, gravier, sable de 30 cm en dessous de l'appareil. Un bon drainage doit permettre l'absorption de 5 litres d'eau en 8 minutes. Pour établir la connexion électrique des luminaires de sol, câbles souples comme H07RN-F ou H05RN-F avec une isolation en caoutchouc Afin de minimiser la condensation à l'intérieur du dispositif, il doit fonctionner pendant environ 1 heure sans le verre de protection. Après cela on doit mettre le verre en place, et serrer les vis pour fermer l'appareil. Lorsque vous éteindrez l'appareil, celui-ci va refroidir, créer un vide d'air et se mettre sous pression. Le diffuseur en verre peut atteindre des températures élevées, éviter le contact direct avec elle.

Nous vous conseillons de nettoyer régulièrement l'extérieur du luminaire afin d'éviter l'accumulation de saleté et de faciliter la dissipation de la chaleur.

informazioni utile

PROIETTORI DA TERRA

Evitate l'applicazione del proiettore da terra in depressioni del terreno. Avvolgete la cassa di pre-installazione con un materiale contenitivo per evitare che si inclini o sprofondi. Nella parte inferiore della cassa e attorno al corpo della lampada, dovrà esserci uno strato di ghiaia che consente di realizzare un drenaggio adeguato dell'acqua. Un drenaggio adeguato, dovrebbe consentire l'assorbimento di cinque litri d'acqua in otto minuti. Per effettuare la connessione elettrica delle lampade da terra, dovranno essere usati cavi flessibili di tipo H07RN-F o H05RN-F con isolante di gomma, in modo da garantire una regolazione adeguata della presa al cavo, aumentando la resistenza all'ingresso dell'acqua. Per minimizzare l'effetto della condensazione del vapore acqueo all'interno della lampada, si raccomanda di accendere la lampada per un'ora prima di collocare il vetro di protezione. In seguito, completate l'installazione e verificate che la gomma isolante sia collocata in maniera corretta e senza impurità che possono annullare il suo effetto. Il vetro diffusore può raggiungere temperature elevate, per questo, evitate il contatto diretto con lo stesso.

Raccomandiamo che si pulisca con frequenza l'esterno della lampada, in modo da evitare l'accumulo di sporcizia che rende difficile la dissipazione del calore, con conseguente alterazione delle sue componenti e perdita di isolamento.

CONSELHOS DE INSTALAÇÃO E MANUTENÇÃO

A instalação das luminárias só deverá ser realizada por técnicos especializados que respeitem as boas técnicas de execução, sendo conveniente prestar especial atenção aos seguintes pontos:

Índice de protecção da luminária adequado para colocação no local de instalação.

Para uma óptima rentabilização da instalação, deverão ser realizadas acções de manutenção com periodicidade em consonância com o tipo de ambiente onde as luminárias estão inseridas.

Nestas acções estão contempladas a sua limpeza e manutenção com produtos específicos para o efeito.

A limpeza dos materiais não deverá ser efectuada com produtos inadequados que possam danificar a sua pintura ou material de construção. Existem no mercado produtos não abrasivos específicos para o efeito, pelo que aconselhamos a sua utilização.

Respeitar sempre o disposto nas Regras Técnicas de Instalações Eléctricas de certos limites de tensão e compatibilidade electromagnética.

Quanto ao Método de Instalação, a luminária deverá ser aplicada conforme descrito no seu manual de instruções ou ficha técnica, seguindo todos os passos necessários para boa instalação.

INSTALLATION AND MAINTENANCE INSTRUCTIONS

The installation of luminaries should only be performed by trained personnel who comply with a good technical performance, being recommended to pay special attention to:

Protection index luminary suitable for the installation site. To benefit from the installation, the maintenance

actions should occur at intervals in accordance with the kind of environment where the luminaries are installed.

These actions must include cleaning and maintenance with specific products. The cleaning of the materials

should not be made with inappropriate products which can damage the paint or the construction material.

We recommend non-abrasive products available on the market especially for this purpose.

Always respect the provisions of the technical rules for electrical installation for certain voltage limits and the electromagnetic compatibility.

As for the method of installation, the luminary should be applied as described in the user manual or the technical specifications, following all the steps recommended for an adequate installation.

CONSEJOS DE INSTALACIÓN Y MANTENIMIENTO

La instalación de las luminarias deberá ser realizada únicamente por técnicos especializados, que obedezcan a las buenas prácticas de instalación, siendo conveniente también dar atención a los siguientes puntos:

Índice de protección de la luminaria apropiado para colocar en el local de instalación.

Para rentabilizar la instalación, se deberá ejecutar periódicamente el mantenimiento de las luminarias, de acuerdo al tipo de ambiente donde se encuentran instaladas.

En estas actividades están contemplados la limpieza y mantenimiento con productos específicos según sea el caso, caso contrario, podrá dañar la pintura o inclusive los materiales con que están elaboradas. Existe en el mercado diversos productos no abrasivos específicos para estas situaciones, siendo que recomendamos su utilización.

Respetar siempre las disposiciones de las Reglas Técnicas de Instalaciones Eléctricas de ciertos límites de tensión y compatibilidad electromagnética.

En relación al Método de Instalación, la luminaria deberá ser aplicada de acuerdo a lo descrito en su manual de instrucciones o ficha técnica, siguiendo todos los pasos necesarios para su instalación.

CONSEILS POUR L'INSTALLATION ET LA MAINTENANCE

L'installation de luminaires ne doit être effectué que par un personnel qualifié qui respecte les techniques des opérations correctes, tout en considérant:

L'indice de protection approprié du luminaire pour l'installation en oeuvre.

Pour une rentabilité optimale de l'installation les actions d'entretien doivent être en rapport avec le type d'environnement où les lampes sont installées. Ces actions doivent inclure le nettoyage et entretien avec des produits spécialement conçus à cet effet. Le nettoyage des matériels ne doit pas être fait avec des produits inappropriés qui puissent endommager la peinture ou les matériaux de construction. Il y a des produits non abrasifs sur le marché spécifiquement destinés à ces actions, et nous recommandons son utilisation.

Respecter toujours les dispositions du Règlement Technique Pour Les Installations Électriques de certaines limites de tension et de compatibilité électromagnétique.

Quant à la méthode d'installation, le luminaire doit être appliqué tel qu'il est décrit dans votre manuel de l'utilisateur ou dans les spécifications techniques, suivant toutes les étapes nécessaires pour une bonne installation.

Respecter toujours les dispositions du Règlement Technique Pour Les Installations Électriques de certaines limites de tension et de compatibilité électromagnétique. Quant à la méthode d'installation, le luminaire doit être appliqué tel qu'il est décrit dans votre manuel de l'utilisateur ou dans les spécifications techniques, suivant toutes les étapes nécessaires pour une bonne installation.

CONSIGLI DI INSTALLAZIONE E MANUTENZIONE

L'installazione delle lampade deve essere realizzata unicamente da tecnici specializzati, che rispondano alle corrette norme di installazione, essendo opportuno prestare attenzione ai seguenti punti:

Indice di protezione della lampada adeguato per il collocamento nel locale di installazione

Per rendere efficace l'installazione, si dovrà eseguire periodicamente la manutenzione delle lampade, in base al tipo di ambiente in cui sono installate.

In queste attività sono contemplate la pulizia e la manutenzione con prodotti specifici; in caso contrario, si rischierebbe di danneggiare la vernice o i materiali strutturali

Esistono sul mercato diversi prodotti specifici non abrasivi per queste situazioni, e ne raccomandiamo l'utilizzo

Rispettate sempre le disposizioni delle Regole Tecniche di Installazione Elettriche per certi limiti di tensione e compatibilità elettromagnetica

Per quanto riguarda il Metodo di Installazione, la lampada dovrà essere applicata in base a ciò che è descritto nel suo manuale di istruzioni o scheda tecnica, seguendo tutti i passi necessari per la sua installazione.

QUALIDADE

Os produtos Lumitek apresentados neste catálogo estão fabricados mediante a Norma Europeia EN60 598. Submetidos aos mais rigorosos ensaios técnicos e controle de qualidade, garantimos aos nossos clientes produtos de excelente qualidade. A política de aperfeiçoamento contínuo dos nossos produtos, reserva-nos o direito de modificar, suprimir ou ampliar a nossa gama de artigos sem aviso prévio, sem que isso seja motivo de qualquer tipo de reclamação.

GARANTIA

Todos os aparelhos de iluminação Lumitek, possuem uma garantia de 2 anos a serem contabilizados após data de emissão da factura. Durante este período de garantia serão substituídos sem qualquer encargo, todas as luminárias que apresentem sinais de defeito inerentes ao seu fabrico. Ficam excluídos deste período de garantia os defeitos e deteriorações causadas pelo desgaste ou utilização, assim como manutenção defeituosa e aplicação indevida. A Lumitek, declina todas as responsabilidades pelos problemas causados pelo não cumprimento das normas de instalação recomendadas. A Lumitek não poderá ser responsabilizada por problemas que possam advir de uma má utilização e/ou aplicação, resultado do desconhecimento técnico do instalador.

QUALITY

The lumitek products comply the European Standard 60598-1. They are subject to the most rigorous technical testes and quality control, thus guarantying to our clients products of excellent quality. The policy of continuous improvement of our products, reserves us the right to modify, eliminate or expand our range of products without previous notice, and without this being any cause for complaint.

GUARANTEE

All luminaries from Lumitek are warranted for two (2) years starting after the invoice date. During this warranty period all the luminaries presenting signs of defects inherent to their manufactures will be replaced at no charge. Excluded from this warranty period are all defects and damages caused by wear or use, and defective and/or misapplication maintenances. Lumitek will not be liable for problems which may arise from misuse and/or wrong application, resulting from wrong use or installation work from the installer. The images and technical drawings in this catalogue have only illustration purposes.

CALIDAD

Los productos Lumitek que presentamos en este catálogo son fabricados de acuerdo con la Norma Europea 60598. Sometidos a los más rigurosos ensayos técnicos y control de calidad, garantizamos a nuestros clientes productos de excelente calidad. La política de mejoría continua de nuestros productos, nos reserva el derecho de modificar, eliminar o ampliar nuestra gama de productos sin aviso previo, sin que eso sea motivo de cualquier tipo de reclamación.

GARANTÍA

Todos los aparatos de iluminación LumiteK, tienen una garantía de 2 años, que son contabilizados a partir de la fecha de emisión de la factura. Durante este período de garantía serán substituidos sin cualquier costo, todas las luminarias que presenten señales de defecto inherentes a su fabricación. Están excluidos de este período de garantía los defectos y deterioros causados por el desgaste o utilización, así como el mantenimiento defectuoso o su aplicación indevida. La marca LumiteK no podrá ser responsabilizada por problemas que puedan resultar de una utilización y/o aplicación inadecuada, resultante del desconocimiento técnico del instalador.

QUALITÉ

Les produits Lumitek sont conformes avec la Norme Européenne 60598-1, et sont soumis à des tests plus rigoureux de contrôle et de qualité technique, pour qu'on puisse garantir à nos clients des produits d'excellente qualité. La politique d'amélioration continue de nos produits, nous réserve le droit de modifier, supprimer ou élargir notre gamme de produits sans préavis, et sans que cela soit soumise à toute sorte de réclamation.

GARANTIE

Tous les luminaires Lumitek, sont garantis pendant 2 (deux) ans, après la date d'émission de la facture. Pendant la période de garantie seront remplacés sans frais, tous les luminaires présentant des signes de défaut inhérent à sa fabrication. Sont exclus de cette période de garantie tous les défauts et dommages résultant de l'usure ou utilisation, et aussi d'entretien défectueux et/ou d'une mauvaise utilisation. Lumitek ne sera pas responsable des problèmes qui peuvent résulter d'une utilisation abusive et/ou application, résultant d'une mauvaise application des techniques d'installation.

QUALITÀ

I prodotti Lumitek che presentiamo in questo catalogo sono realizzati in conformità con la Norma Europea 60598. Sottoposti ai più rigorosi controlli tecnici e di qualità, garantiamo ai nostri clienti prodotti di eccellente qualità. La politica di miglioramento continuo dei nostri prodotti, ci riserva il diritto di modificare, eliminare, ampliare la nostra gamma di prodotti senza avviso previo, senza che questo sia motivo di qualsiasi tipo di reclamo.

GARANZIA

Tutti gli apparecchi di illuminazione Lumitek, hanno una garanzia di 2 anni, che sono calcolati a partire dalla data di emissione della fattura. Durante questo periodo di garanzia, saranno sostituiti senza costo alcuno, tutti gli apparecchi che abbiano segni di difetti inerenti alla loro fabbricazione. Sono esclusi da questo periodo di garanzia i difetti e deterioramenti causati dal logorio o usura, così come dalla manutenzione difettosa o dalla sua applicazione impropria. Il marchio Lumitek non potrà essere responsabile per problemi che possono risultare da un utilizzo e/o installazione improprie, dovuti alla mancanza di competenze tecniche dell'installatore.

LIMPEZA E MANUTENÇÃO DO AÇO INOXIDÁVEL

As presentes recomendações tem o objectivo de aconselhar os proprietários de luminárias sobre uma limpeza eficaz e vantajosa, que lhes permitira tirar melhor partido da resistência à corrosão do aço inoxidável. Para apagar os vestígios de dedos e outras marcas, a utilização de água com sabão ou de um detergente ligeiro é normalmente eficaz e correcta. Os produtos em spray são faceis de utilizar e cobrem a superfície de uma ligeira camada que lhe dá ainda mais brilho. Estes sprays retiram os vestígios de dedos e previnem o seu reaparecimento. Após ter aplicado o produto, e necessário limpar com um pano seco. Os aços inoxidáveis cromados podem ser limpos com os produtos para vidros, desde que sejam isentos de cloretos.

CLEANING AND MAINTENANCE OF STAINLESS STEEL SURFACES

These guidelines are to give luminaries owner's advice on efficient, cost-effective cleaning that will allow them to take advantage of the corrosion resistant properties of stainless steel. To remove fingerprints and other marks, soapy water or a mild detergent are usually safe and successful. Proprietary spray cleaners are available, which combine ease of cleaning with a light film that produces an even and smooth lustre. These spray cleaners remove existing fingerprints and leave the surface in a condition that reduces the tendency for fingerprints. After applying the spray, polish with a dry cloth. Mirror-polished stainless steel can be cleaned with glass cleansers. These products should be chloride-free.

LIMPIEZA Y MANTENIMIENTO DEL ACERO INOXIDABLE

Estas recomendaciones tienen como objetivo, orientar a los propietarios de las luminarias, en relación a la forma eficaz de realizar la limpieza de las mismas, permitiéndoles obtener más beneficios y mayor resistencia a la corrosión del acero inoxidable. Para eliminar los vestigios de dedos y otras marcas, la utilización de agua y jabón o de un detergente ligero, es normalmente eficaz y correcta. Los productos en aerosol son fáciles de aplicar y cubren la superficie con una ligera capa que le da aún más brillo. Estos aerosoles eliminan los vestigios de dedos y previenen que vuelvan a aparecer. Después de aplicar el producto, es necesario limpiar con un paño seco. Los productos de acero inoxidables cromados, se pueden limpiar con productos para vidrios, siempre que estos no contengan cloruro.

NETTOYAGE ET ENTRETIEN DE L'ACIER INOXYDABLE

Bien que l'acier soit très résistant à la corrosion, il n'est pas complètement à toute épreuve. C'est pourquoi un nettoyage régulier est recommandé pour préserver l'apparence et l'intégrité de sa surface. En fait, l'acier inoxydable accepte bien les nettoyages fréquents et, contrairement à d'autres matériaux, il n'est pas possible de l'user par un excès d'entretien. Par contre, le nettoyage fréquent d'un acier inoxydable utilisé à l'extérieur, dont le fini, le grain et le design sont particuliers, peut présenter certains risques. La règle d'or de l'entretien de l'acier inoxydable est de procéder à un nettoyage régulier. Nettoyez le métal quand il est sale et n'attendez pas qu'un nettoyage en profondeur soit nécessaire pour lui redonner son apparence originale.

PULIZIA E MANUTENZIONE DELL'ACCIAIO INOSSIDABILE

Queste raccomandazioni hanno come obiettivo orientare i proprietari delle lampade riguardo la maniera efficace di realizzare la pulizie delle stesse, consentendo loro di ottenere più benefici e maggiore resistenza alla corrosione dell'acciaio inossidabile. Per eliminare le impronte e altri segni,l'uso di acqua e sapone o di un detergente leggero, è generalmente efficace e corretta. I prodotti in spray sono facili da applicare e coprono la superficie con una leggera patina che conferisce ancora più brillantezza. Questi spray eliminano le impronte e ne prevengono la ricomparsa. Dopo aver applicato il prodotto, è necessario pulire con un panno asciutto. L'acciaio inossidabile cromato, si può pulire con prodotti per vetri, sempre che questi non contengano cloruro.

Para as manchas mais tenazes, géis de limpeza não abrasivos revelam-se eficazes e são igualmente convenientes para retirar os vestígios de água e certas colorações. Após a limpeza, elimine os resíduos com água (de preferência destilada) e seque para evitar as manchas de água. Os produtos em pó devem evitar-se porque poderão riscar as superfícies. As manchas de gordura e de óleo podem ser retiradas com produtos com álcool. Estes produtos não representam qualquer perigo para o aço inoxidável. As superfícies em más condições podem ser tratadas com produtos de limpeza para superfícies cromadas. Também se pode utilizar produtos usados para polimento das pinturas automóveis. É necessário contudo precaver-se porque estes produtos de limpeza poderão riscar as superfícies.

For more stubborn stains mild household cream cleansers should be effective, this should also be suitable for cleaning off watermarks and light discolouration. After cleaning, remove the residues with (preferably deionised) water and dry to avoid streaking and water marks. Scouring powders should not be used as these products can leave scratches on stainless steel surface. Severe oil and grease marks can be removed with alcohol based products. These products are not a corrosion hazard to stainless steel. Heavily neglected surfaces can be treated with metal polishes, such as those for cleaning chromium-plated items. Furthermore, polishes used for finishing car paint can be considered. Care must be taken as highly polished surfaces may become scratched with these cleaners.

Para las manchas más difíciles, se recomienda la utilización de un gel de limpieza no abrasivo, que también es eficaz para remover los vestigios de agua y algunas coloraciones. Después de limpiar, elimine los residuos con agua (preferencialmente destilada) y seque para evitar las manchas del agua. Se deben evitar los productos en polvo, pues, pueden rallar las superficies. Las manchas de grasa o aceite, pueden ser removidas con productos que contengan alcohol. Estos productos no representan riesgo para el acero inoxidable. En las superficies deterioradas pueden ser aplicados productos de limpieza para superficies cromadas. También puede utilizar productos para pulir la pintura de los coches. Sin embargo, es necesaria alguna precaución, pues estos productos pueden rallar las superficies.

Un nettoyage régulier avec un savon ou un détergent doux suivi d'un rinçage à l'eau chaude donne généralement de bons résultats. Si l'eau utilisée contient un pourcentage élevé de minéraux, il est recommandé d'essuyer la surface avec un chiffon doux pour l'assécher. Les tâches de graisse et d'huile peuvent être enlevées avec des produits à base d'alcool. Ces produits ne présentent aucun danger pour l'acier inoxydable. Les surfaces en mauvais état peuvent être traitées avec des produits nettoyeurs pour surfaces chromées. Cependant, il est nécessaire de prendre certaines précautions car ces nettoyeurs peuvent rayer les surfaces.

Per le macchie più difficili, si raccomanda l'uso di un gel di pulizia non abrasivo che è anche efficace per rimuovere i segni di acqua e decolorazioni. Dopo aver pulito, eliminate i residui con acqua (preferibilmente distillata) e asciugate al fine di evitare le macchie d'acqua. Si devono evitare i prodotti in polvere, poiché possono graffiare le superfici. Le macchie di grasso o olio, possono essere rimosse con prodotti che contengono alcool. Questi prodotti non rappresentano alcun rischio per l'acciaio inossidabile. Sulle superfici deteriorate, possono essere applicati prodotti di pulizia per le superfici cromate. Si possono anche usare prodotti per rimuovere la vernice delle automobili. Tuttavia, è necessaria qualche precauzione, poiché tali prodotti possono graffiare le superfici.

- Entre os produtos a NÃO utilizar sobre aço inoxidável figuram:
- produtos à base de cloro, nomeadamente o ácido clorídrico;
 - as lixívias que contem hipoclorito. No caso de utilização por erro, enxaguar abundantemente com água fria;
 - os produtos para limpeza de pratas.

Um pano húmido ou uma pele de camurça são indicados para retirar as sujidades normais, os vestígios de dedos, etc. Para sujidades mais tenazes, esponjas de nylon dão geralmente bons resultados. De acordo com o grau de sujidade e a acumulacao dos depósitos, é aconselhado proceder a uma limpeza todos os 6-12 meses para os casos moderados e todos os 3-6 meses nos casos de fortes.

- Cleaners that should not be used on stainless steel:
- chloride-containing cleansers, especially those containing hydrochloric acid;
 - hypochlorite bleaches should not be used on stainless steels. If applied accidentally should be rinsed off immediately with liberal amounts of fresh water;
 - silver-cleaners must not be used on stainless steel.

A damp cloth or chamois leather will usually be suitable for removing normal soiling, fingerprints, etc. For more stubborn dirt, nylon pads are usually satisfactory. Steel scouring pads must not be used. Depending on the severity of soiling and deposit build up, routine cleaning frequencies of 6-12 months for light soiling and 3-6 months for heavy soiling is advised.

- Entre los productos que NO se deben utilizar en el acero inoxidable, tenemos :
- productos a base de cloro, específicamente el ácido clorhídrico;
 - las lejías que contienen hipoclorito. En caso de aplicación por error, enjuagar con agua fría abundante.
 - productos para limpieza de plata.

Un paño húmedo o una piel de gamuza, son recomendados para retirar suciedad normal, vestigios de dedos, etc. Para suciedad más difícil, las esponjas de nylon dan buenos resultados. De acuerdo con la cantidad de residuos y acumulación de los depósitos, es recomendable realizar una limpieza cada 6 a 12 meses para casos moderados y entre 3 a 6 meses para casos más intensos.

- À éviter :
- Évitez le contact de l'acier inoxydable avec des produits chimiques puissants, plus particulièrement le chlore.
 - Les produits à base d'acide chlorhydrique, tels que l'eau de javel, peuvent causer des taches et endommager la surface des appareils en acier inoxydable ; ils ne doivent en aucun cas entrer en contact avec ceux-ci.
 - Ne pas utiliser d'éponge métallique ou de produits d'entretien contenant des abrasifs. Les fines particules de la laine d'acier peuvent se loger dans la surface et éventuellement rouiller, donnant l'impression que c'est l'acier inoxydable lui-même qui rouille. En milieu humide, évitez le contact de l'acier ordinaire avec l'acier inoxydable.

En fonction du degré d'accumulation de la saleté et les dépôts, il est souhaitable de procéder à un nettoyage tous les 6-12 mois pour salissures légères et 3-6 mois dans tous les cas plus grave.

- Tra i prodotti che NON si devono utilizzare sull'acciaio inossidabile, abbiamo:
- Prodotti a base di cloro, nello specifico l'acido cloridico;
 - Decoloranti che contengono ipoclorite. In caso di applicazione erronea, sciacquare con abbondante acqua fredda.
 - Prodotti per la pulizia dell'argento.

Un panno umido o una pelle di camoscio sono raccomandati per rimuovere sporcizia normale, segni di dita etc.... Per sporco più difficile, le spugne di nylon danno miglior risultati. In base alla quantità di residui e accumulo di depositi, è raccomandabile effettuare una pulizia ogni 6/12 mesi per casi moderati, e tra 3/6 mesi per casi più gravi.

TECA - CURIOSIDADES E CUIDADOS DE MANUTENÇÃO

De tonalidade acastanhada viva e brilhante, apresenta enorme beleza peculiar fazendo-a ser uma madeira muito procurada para utilização em espaços sobretudo exteriores, nomeadamente pavimentos, peças de mobiliário e até iluminação.

Elevada resistência e durabilidade, a Teca apesar de ser uma madeira bastante resistente necessita de alguma manutenção, especialmente quando está exposta directamente e continuamente ao sol e intempéries.

Para isso existem no mercado produtos para o efeito, designados por óleos de Teca.

Estes produtos estão destinados ao tratamento natural da madeira, protegendo-a convenientemente contra os agentes agressores.

Penetra profundamente na madeira, não formando película, pelo que mantêm o seu aspecto natural sendo de fácil manutenção, não exigindo a custosa operação de raspagem necessária com os tradicionais vernizes.

TECA – CURIOSITIES

It presents an enormous and very particular beauty, with its bright brown tone, what makes it a much sought wood to be used mainly outdoors, in pavements, furniture and even in illumination devices.

In spite of presenting high levels of resistance and durability, teca is a type of wood that requires some maintenance, especially when it is directly and continuously exposed to the sun and other weather conditions.

There are products in the market for this, known as Teca's oils – these products are aimed for natural treatments of wood, protecting it from aggressive conditions.

It penetrates deep into the wood, not creating any layer so to maintain its natural aspect; its easy maintenance does not require the hard work of rasping it with traditional varnish.

TECA – CURIOSIDADES

De tonalidad que tienda a marrón, viva y brillante, tiene una belleza peculiar que la convierte en una madera muy solicitada para aplicación, principalmente en espacios exteriores, principalmente en pavimentos, piezas de mobiliario y hasta iluminación.

Con elevada resistencia y durabilidad, la Teca a pesar de ser una madera bastante resistente, requiere de algunos cuidados, especialmente cuando está expuesta directa y continuamente al sol y la intemperie.

Para este efecto existen en el mercado productos denominados aceite de teca.

Estos productos están destinados al tratamiento natural de la madera, protegiéndola convenientemente contra los agentes agresores.

Penetra profundamente en la madera, sin formar película, por lo que mantiene su aspecto natural siendo de fácil mantención, sin exigir la costosa operación de raspado que es necesaria con los barnices tradicionales.

TECA

Il présente une grande et très particulière beauté, avec son ton brun clair, ce qui en fait un bois très recherché pour être utilisé principalement à l'extérieur, dans les chaussées, les meubles et même dans les luminaires. En dépit de présenter des niveaux élevés de résistance et de durabilité, le Teca est un type de bois qui nécessite un entretien, surtout quand il est directement et en permanence exposé au soleil et à d'autres conditions météorologiques.

Il existe des produits sur le marché pour cela, connus comme les huiles de Teca – ces produits sont destinés à des traitements naturels de bois, en le protégeant des milieux agressifs.

Pénètre profondément dans le bois sans formation d'une couche, de façon à maintenir son aspect naturel ; sa facilité d'entretien ne nécessite aucune opération de racleage nécessaire avec les vernis traditionnels.

TECA – CURIOSITÀ

Di una tonalità che tende al marrone, viva e brillante, ha una bellezza peculiare che la trasforma in un legno molto indicato per l'istallazione soprattutto in spazi esterni, principalmente su pavimenti, pezzi di mobili e persino apparecchi di illuminazione.

Con elevate resistenza e durata, la teca, nonostante sia di un legno abbastanza resistente, richiede alcuni accorgimenti di manutenzione, specialmente quando è esposta direttamente e continuamente al sole e alle intemperie.

Per questo esistono sul mercato prodotti denominati "olio da teca".

Questi prodotti sono destinati al trattamento naturale del legno, proteggendolo contro gli agenti aggressivi. Penetra nel legno in profondità, senza formare patina, per questo mantiene il suo aspetto naturale, senza esigere la dura operazione di sfregamento necessaria con le vernici Tradizionali.

COMO EFECTUAR A MANUTENÇÃO

O poste deverá estar completamente seco, isento de gorduras, poeiras e outros possíveis contaminantes. Inicia-se o processo com uma raspagem de lixa de grão fino sempre no sentido dos veios. Aplica-se o óleo protector com uma trincha e deixa-se actuar durante um período de 30 minutos, passado o tempo retira-se o excedente não absorvido pela madeira com um pano macio que não largue pelo. Efectue este tipo de manutenção 4 vezes por ano, lixando ligeiramente e aplicando sempre nova passagem de óleo.

HOW TO DO THE MAINTENANCE

The main body oh the luminary must be completely dry, free of oils, dust and other possible contaminants. The process must begin with fine grain sandpaper, scraping, always along the grain. The protective oil is applied with a brush and is left there for 30 minutes. After that, the excess must be removed with a soft cloth. Do this kind of maintenance 4 times per year, rasping smoothly and always applying a new oil layer.

COMO REALIZAR EL MANTENIMIENTO

El poste deberá estar completamente seco, libre de grasas, polvo y cualquier otro agente. Se inicia el proceso raspando con una lija de grano fino, siempre en el mismo sentido de las venas de la madera. Se aplica un aceite protector con una brocha y se deja actuar durante un periodo medio de 30 minutos, al terminar este tiempo, se retira el exceso que la madera no se absorbe con un paño suave y que no suelte pelusas. Efectúe este tipo de mantenimiento cuatro veces por año, lijando ligeramente y aplicando nuevamente el aceite de teca.

COMMENT FAIRE L'ENTRETIEN

Le pôle devrait être complètement sec, exempt de poussière et sans matières grasses. Si vous voulez que le bois retrouve sa couleur d'origine, vous devez le poncer avec un papier de verre fin (dans le sens des rainures du bois), y appliquer de l'huile de teck au pinceau et laisser sécher. Après cela, l'excédent doit être enlevé avec un chiffon doux. L'huile protectrice est appliquée avec un pinceau et on laisser agir pendant 30 minutes. Après cela, l'excédent doit être enlevé avec un chiffon doux. Faire ce genre d'entretien 4 fois par an, le râpage en douceur et toujours l'application d'une couche d'huile nouvelle.

COME REALIZZARE LA MANUTENZIONE

Il corpo centrale della lampada dovrà essere completamente asciutto, libero da grassi, polvere e qualsiasi altro agente. Si inizia il processo con cartavetrata fine, sfregando sempre nello stesso senso delle venature del legno. Si applca un olio protettore con una spazzola e si lascia agire per un periodo medio di 30 minuti, concluso questo tempo, si rimuove il residuo che il legno non assorbe con un un panno morbido. Effettuate questo tipo di manutenzione quattro volte all'anno, grattando leggermente e applicando nuovamente l'olio di teca.



fotografia de destaque do produto ou pormenor

highlighted photo of the product or detail
fotografia en destaque del producto o detalle
photo ou détail du produit mis en évidence
fotografia o dettaglio del prodotto in rilievo



ICONOGRAFIA DESCRITIVA



Consultar índice de simbología disponible no início do catálogo

Tensão de funcionamento e frequência da luminária. Desenho técnico e respectivas dimensões da luminária disponíveis na página.



Outros produtos relacionados

NOME DO PRODUTO

DESCRIPTIVE ICONOGRAPHY



See symbol index available at the beginning of the catalogue

Type of lamp, Holder and maximum power allowed. Power and luminary frequency. Technical Drawing and luminary dimensions available in the page.



Other related products.

PRODUCT NAME

ICONOGRAFIA DESCRIPTIVA



Consultar el índice de simbología disponible en el inicio del catálogo

Tipo de bombilla, casquillo y potencia máxima admitida. Tensión de funcionamiento y frecuencia de la luminaria. Diseño técnico y respectivas dimensiones de la luminaria disponibles en la página.



Otros productos relacionados

NOMBRE DEL PRODUCTO

ICONOGRAPHIE DESCRIPTIVE



Consultar l'index des symboles disponibles au début du catalogue

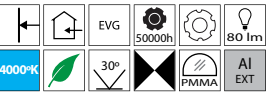
Type de lampe, douille et la puissance maximale autorisée. Tension de fonctionnement et fréquence du luminaire. Dessin technique et cotes du luminaire disponible dans la page.



Produits Connexes

NOM DU PRODUIT

ICONOGRAFIA DESCRITTIVA



Consultare l'indice della simbologia disponibile all'inizio del catalogo

Tipo di lampada, involucro e potenza massima ammessa. Tensione di funzionamento e frequenza della lampada. Disegno tecnico e dimensioni della lampada disponibili sulla pagina.



Altri prodotti correlati

NOME DEL PRODOTTO

EXTERIOR

EXTERIOR

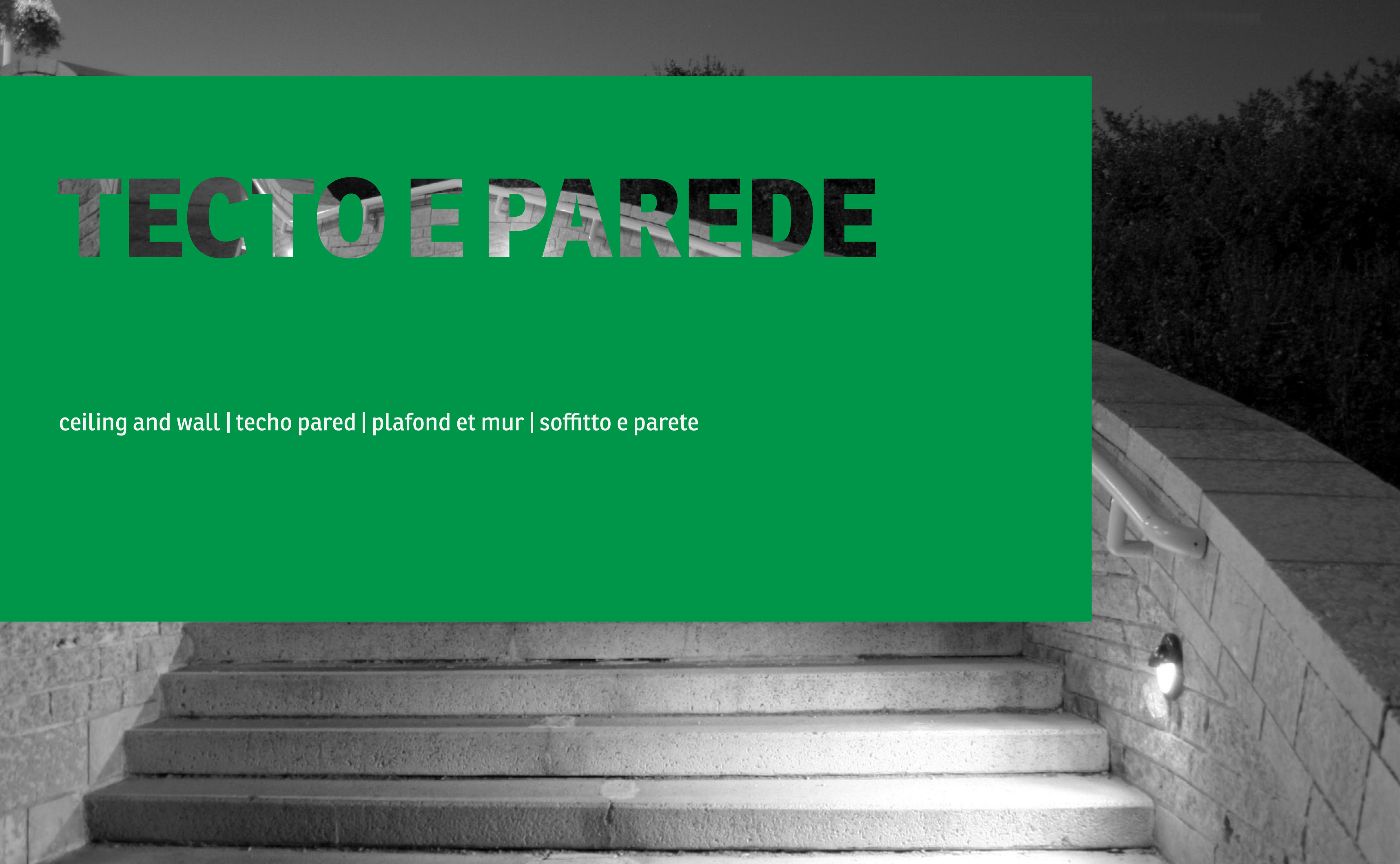
EXTERIOR

EXTÉRIEUR

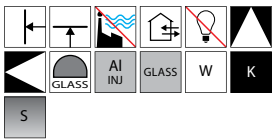
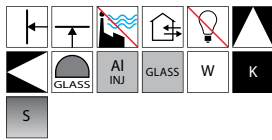
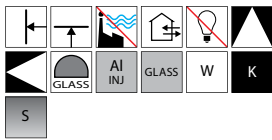
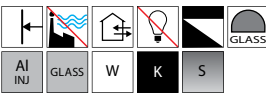
ESTERNI

TECTO E PAREDE

ceiling and wall | techo pared | plafond et mur | soffitto e parete



smarto | brisse | gardino | croco



TC-DSE E27 Max.9W
TC-TSE 4U E27 Max.11W
230V / 50Hz
p. 436

TC-DSE E27 Max.9W
TC-TSE 4U E27 Max.11W
230V / 50Hz
p. 436

TC-DSE E27 Max.9W
TC-TSE 4U E27 Max.11W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436



smarto brisse gardino croco

palus | orion



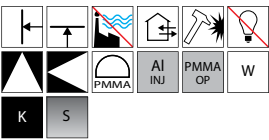
TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436



palus orion

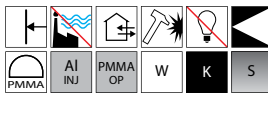
exta | minimal | samy | orros | gatufo



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436



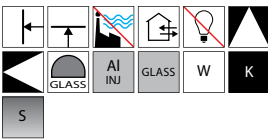
exta 1000



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436



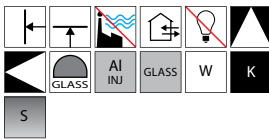
exta 1100



TC-DSE E27 Max.7W
230V / 50Hz
p. 436



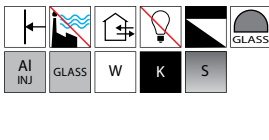
minimal



TC-DSE E27 Max.7W
230V / 50Hz
p. 436



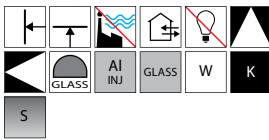
samy



TC-DSE E27 Max.7W
230V / 50Hz
p. 436



orros



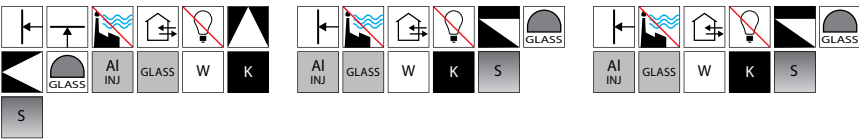
TCD-SE E27 Max.7W
230V / 50Hz
p. 436



gatufo



scott



TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436



scott 12

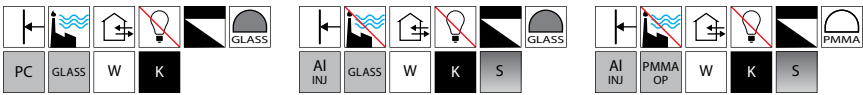


scott 13



scott 14

galiano | arrow



TCA-TSE E27 Max.7W
230V / 50Hz
p. 436

TC-DSE E27 Max.9W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 436



small galiano

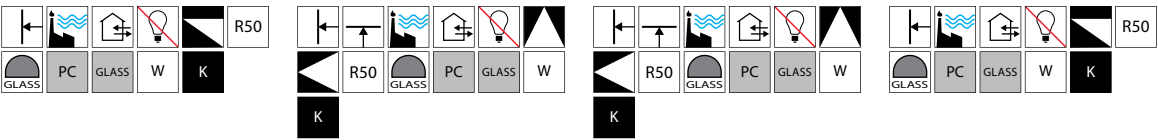


galiano



arrow

wave | marine | nautic | mistral



TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 436

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 437

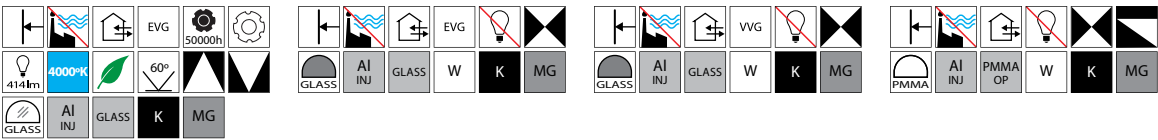
TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 437

TC-DSE E27 Max.11W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 437



wave marine nautic mistral

curve | embra | elkuus | ulsius



LED Max.6x3W (350mA)
230V / 50Hz
p. 437

TC-DEL G24q-1 Max.13W
230V / 50Hz
p. 437

TC-D G24d-1 Max.13W
230V / 50Hz
p. 437

TC-TSE 4U E27 Max.11W
230V / 50Hz
p. 437



curve embra elkuus ulsius



benun | aureos | kubus



323lm	4000°K	30°	30°	50000h	323lm
GLASS	AI INJ	GLASS	MG		

LED Max.6x1W
230V / 50Hz
p. 437

4000°K	30°	30°	50000h	323lm	GLASS
AI INJ	GLASS	MG			

LED Max.6x1W
230V / 50Hz
p. 437

4000°K	30°	30°	50000h	626lm	AI INJ
GLASS	MG				

LED Max.12x1W
230V / 50Hz
p. 437

720lm	6500°K	15°	50000h	GLASS	AI INJ
AI EXT	AI INJ	GLASS	K	MG	

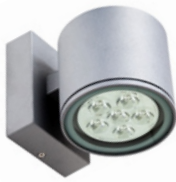
LED Max.18x3W
230V / 50Hz
p. 437

720lm	6500°K	15°	50000h	GLASS	AI INJ
AI EXT	AI INJ	GLASS	K	MG	

LED Max.9x3W
230V / 50Hz
p. 437



benun



benun 1



benun 2

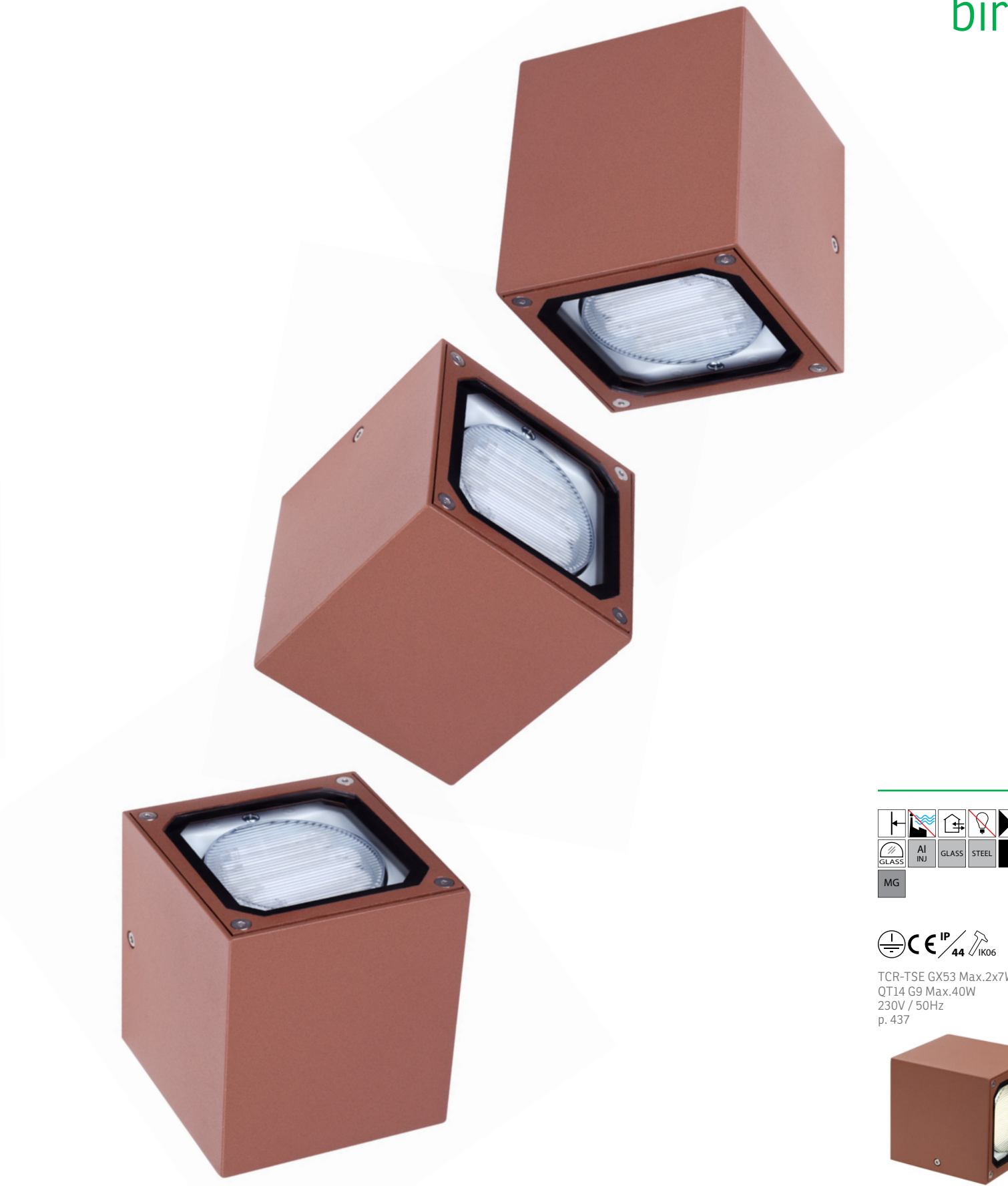


aureos 2



kubus 1

birro



GLASS	AI INJ	GLASS	STEEL	K	BN
MG					

TCR-TSE GX53 Max.2x7W
QT14 G9 Max.40W
230V / 50Hz
p. 437



birro

hok

panzus | opuala



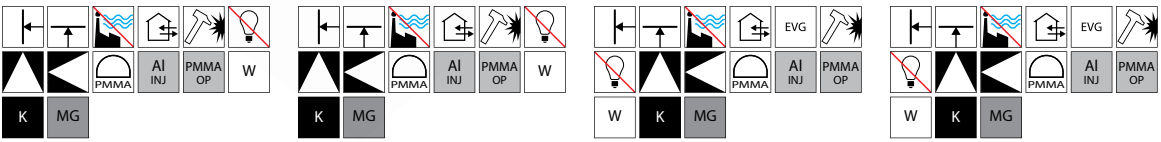
TC-DSE E 27 Max.2x15W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 437

TC-DSE E 27 Max.2x15W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 437

TC-DSE E 27 Max.2x15W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 437



hok hok 2 hok 6



TC-DSE E 27 Max.2x15W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 437

TC-DSE E 27 Max.2x15W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 437

TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 437

TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 437



panzus 5100 panzus 5200 opuala 5800 opuala 5900

rectus | triangle | peek



GLASS	K	MG			

LED Max.2x3W
230V / 50Hz
p. 438



rectus

GLASS	K	MG			

LED Max.2x3W
230V / 50Hz
p. 438



triangle

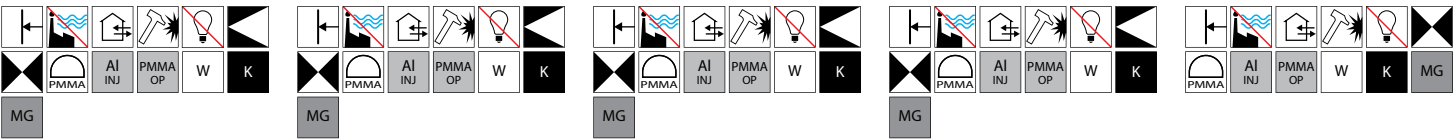
LED Max.10x1W
230V / 50Hz
p. 438



peek



moon



TC-DSE E 27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 438

TC-DSE E 27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 438

TC-DSE E 27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 438

TC-DSE E 27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 438

TC-DSE E 27 Max.11W
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 438



moon 5300

moon 5400

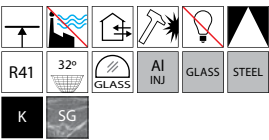
moon 5500

moon 5600

moon 5700



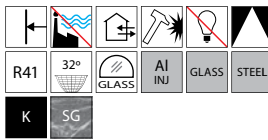
atrium | pierco



CE IP 65 IK10
QPAR51 GU10 Max.50W
230V / 50Hz
p. 438



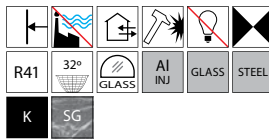
atrium 6000



CE IP 65 IK10
QPAR51 GU10 Max.50W
230V / 50Hz
p. 438



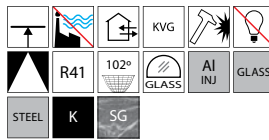
atrium 6100



CE IP 65 IK10
QPAR51 GU10 Max.2x50W
230V / 50Hz
p. 438



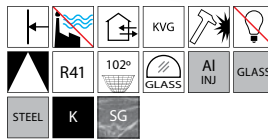
atrium 6200



CE IP 65 IK10
HIT G12 Max.70W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 438



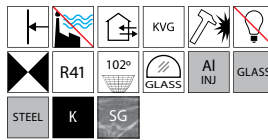
atrium XL 6300



CE IP 65 IK10
HIT G12 Max.70W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 438



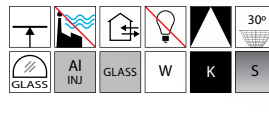
atrium XL 6400



CE IP 65 IK10
HIT G12 Max.2x70W
TC-TSE 4U E27 Max.2x20W
230V / 50Hz
p. 438



atrium XL 6500

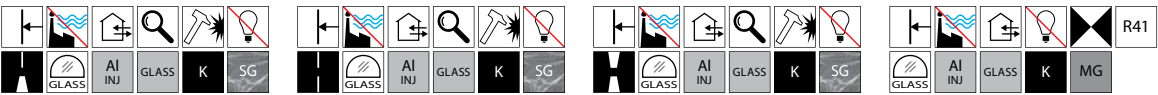


CE IP 65 IK07
QPAR51 GU10 Max.50W
230V / 50Hz
p. 438



pierco

efectus | segnus



QT14 G9 Max.60W
230V / 50Hz
p. 438



efectus 4000

QT14 G9 Max.60W
230V / 50Hz
p. 438



efectus 4100

QT14 G9 Max.60W
230V / 50Hz
p. 438



efectus 4200

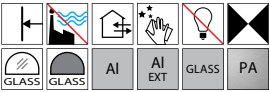
QT-DE12 R7s 78mm Max.60W
230V / 50Hz
p. 438



segnus

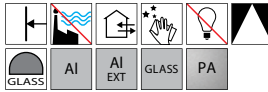


circle | spot | oxis | orca | open | aronda



CE IP 54 IK05

QT14 G9 Max.25W
230V / 50Hz
p. 438



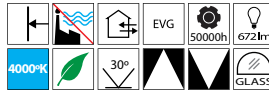
CE IP 54 IK05

QPAR51 GU10 Max.35W
230V / 50Hz
p. 439



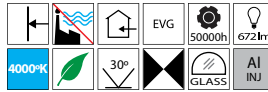
CE IP 54 IK05

QPAR51 GU10 Max.35W
230V / 50Hz
p. 439



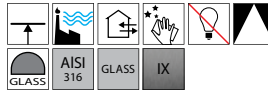
CE IP 44 IK05

LED Max.6x1W
230V / 50Hz
p. 439



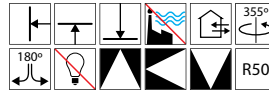
CE IP 44 IK05

LED Max.12x1W
230V / 50Hz
p. 439



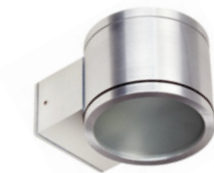
CE IP 44

TCR-TSE GX53 Max.7W
230V / 50Hz
p. 439



CE IP 65 IK05

QT-DE12 R7s 78mm Max.150W
230V / 50Hz
p. 439



circle



spot



oxis



orca 1



orca 2



open



aronda

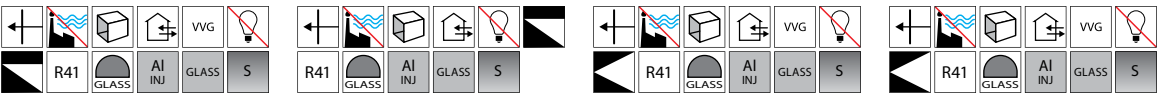
PAREDE

[balizadores]

wall [orientation lighting] | pared [balizas] | mur [balisage] | parete [illuminazione direzionale]



gebdi | emero | vigex | pilot



TC-S G23 Max.7W
230V / 50Hz
p. 439

QT14 G9 Max.25W
230V / 50Hz
p. 439

TC-S G23 Max.7W
230V / 50Hz
p. 439

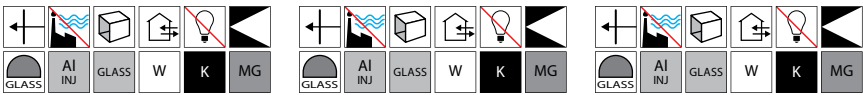
  

TC-S G23 Max.7W
230V / 50Hz
p. 439



gebdi emero vigex pilot

urban



TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 439

TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 439

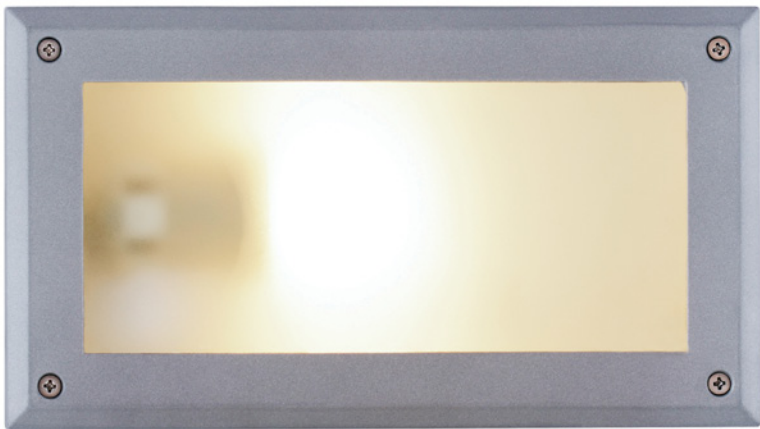
  

TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 439



urban 901 urban 902 urban 903

driver | trafic



GLASS	AI INJ	GLASS	W	K	MG

GLASS	AI INJ	GLASS	W	K	MG

K	MG	IX	GLASS	W	

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 439

  
TC-DSE E27 Max.11W
230V / 50Hz
p. 439

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 440



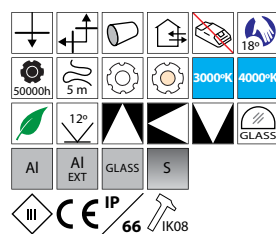
driver 120

driver 150

trafic 120



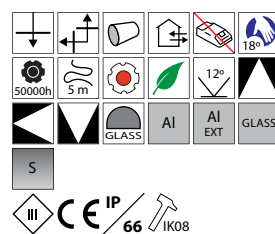
valsigo



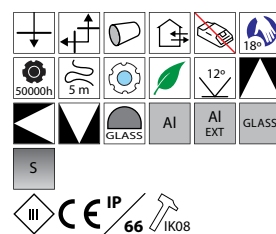
LED Max.1W
12V DC (350mA)
p. 440



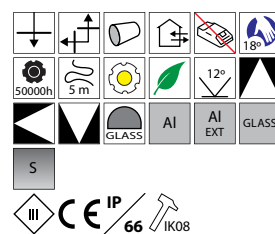
valsigo



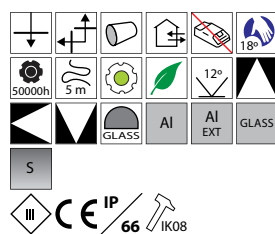
LED Max.1W
12V DC (350mA)
p. 440



LED Max.1W
12V DC (350mA)
p. 440



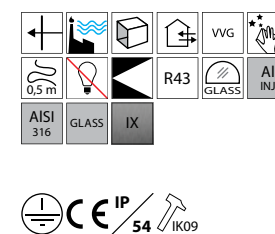
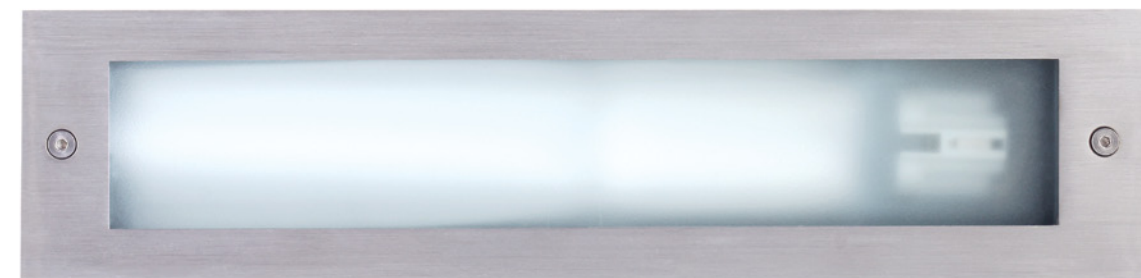
LED Max.1W
12V DC (350mA)
p. 440



LED Max.1W
12V DC (350mA)
p. 440



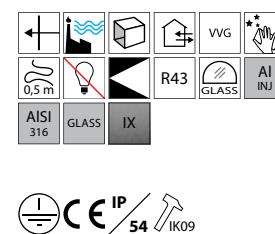
gradus | aceko | flash



TC-S G23 Max.7W
230V / 50Hz
p. 440



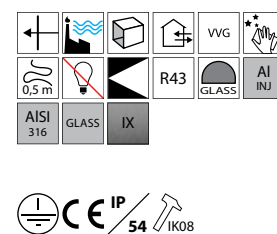
gradus



TC-S G23 Max.11W
230V / 50Hz
p. 440



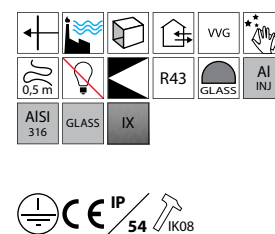
maxi gradus



TC-S G23 Max.7W
230V / 50Hz
p. 440



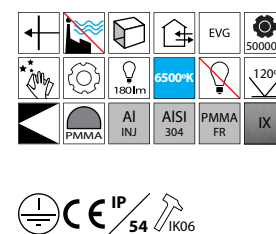
aceko



TC-S G23 Max.11W
230V / 50Hz
p. 440



maxi aceko



LED Max.3x1W
230V / 50Hz
p. 440



flash

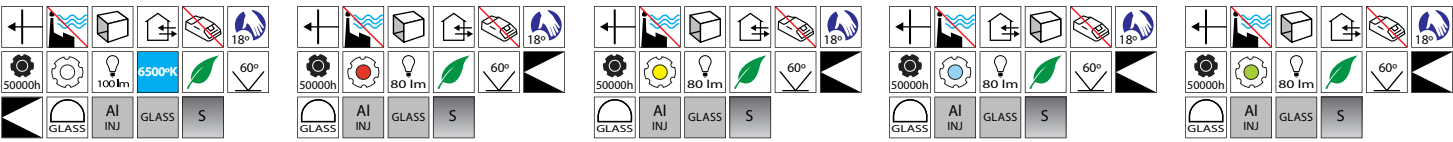


Eingang ADAC Firmeneingänge

acifrune



zudia



LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440

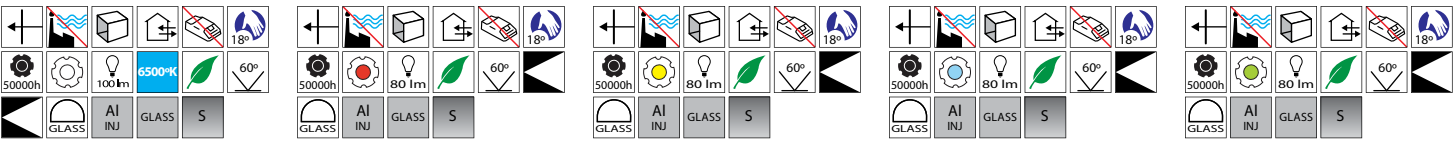
LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440



acifrune



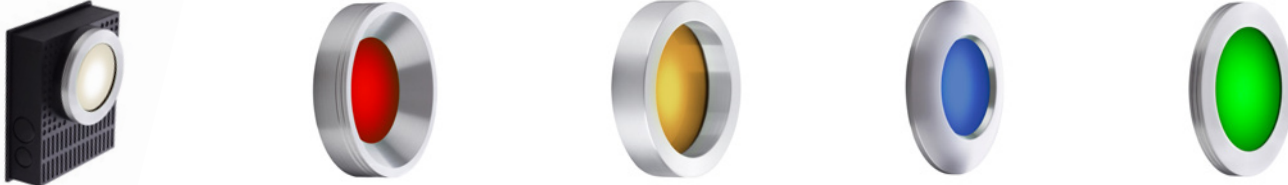
LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440

LED Max.1,2W
12V DC (350mA)
p. 440



zudia

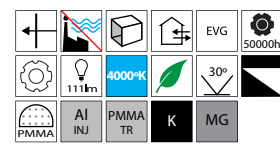
zudia A

zudia B

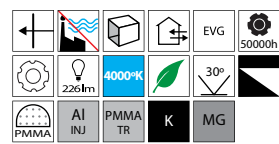
zudia C

zudia D

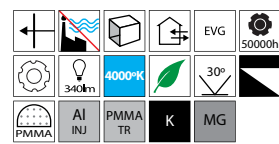
dunni | mizzus | roadster



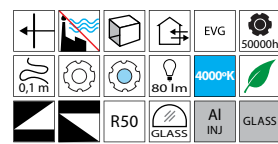
LED Max.2x1W
230V / 50Hz
p. 440



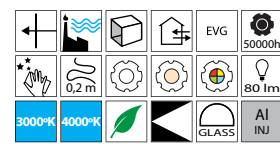
LED Max.4x1W
230V / 50Hz
p. 440



LED Max.6x1W
230V / 50Hz
p. 440



LED Max.3W
230V / 50Hz
p. 440



SOFT LED Max.3W
230V / 50Hz
p. 440



dunni 2

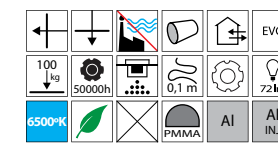
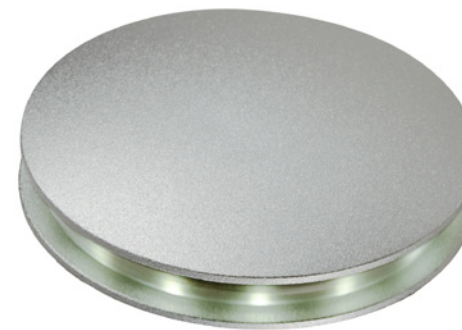
dunni 4

dunni 6

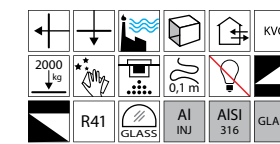
mizzus

roadster

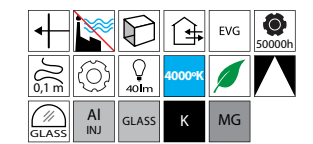
discus | random | luxlum



LED Max.12x1W
230V / 50Hz
p. 440



HIT-TC-CE G8.5 Max.20/35W
230V / 50Hz
p. 440



LED Max.1W
230V / 50Hz
p. 440



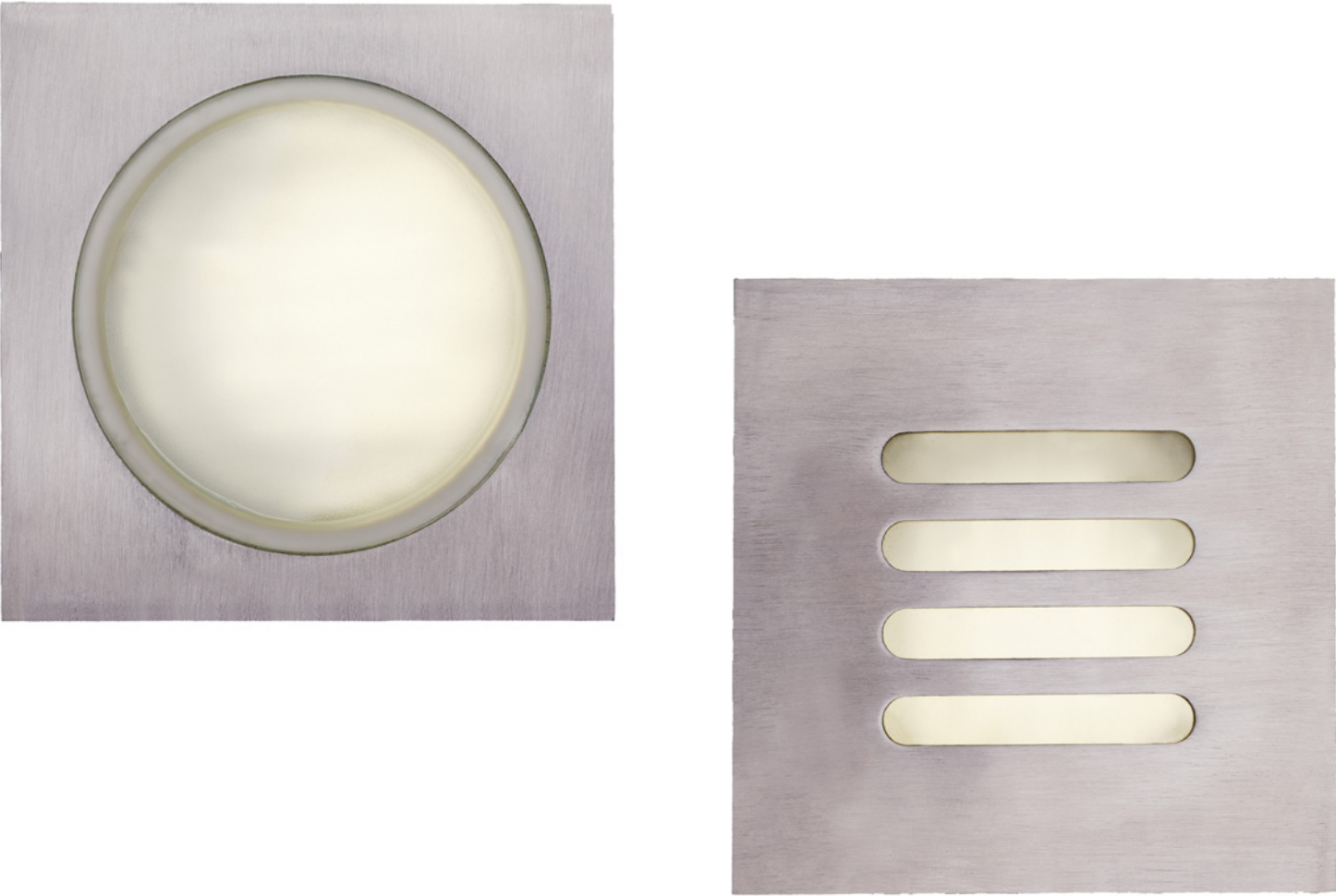
discus

random

luxlum



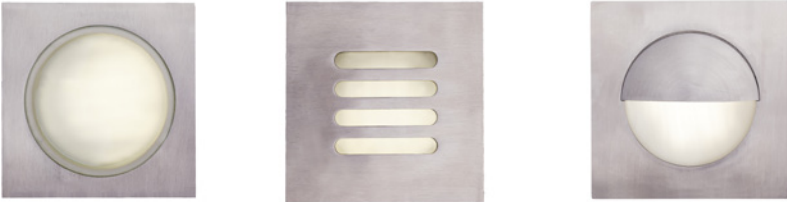
incasso



TCR-TSE GX53 Max.7W
230V / 50Hz
p. 440

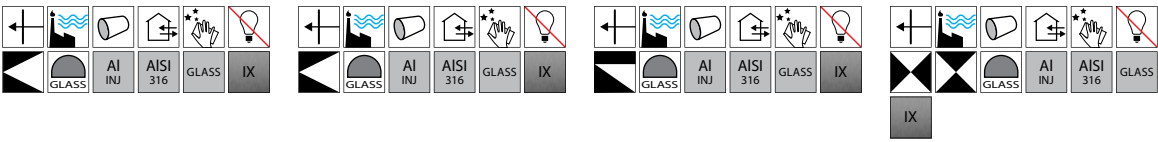
TCR-TSE GX53 Max.7W
230V / 50Hz
p. 440

TCR-TSE GX53 Max.7W
230V / 50Hz
p. 440



incasso A incasso B incasso C

gife



TCR-TSE GX53 Max.7W
230V / 50Hz
p. 441

TCR-TSE GX53 Max.7W
230V / 50Hz
p. 441

TCR-TSE GX53 Max.7W
230V / 50Hz
p. 441

TCR-TSE GX53 Max.7W
230V / 50Hz
p. 441



gife A gife B gife C gife D

PAREDE E POSTE

[aço inox]

wall and floor [stainless steel] | pared y postes [acero inoxidable]
mur et borne [acier inoxydable] | parete e pavimento [acciaio inossidabile]



drumbo | bravus | lolita



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 441

TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 441

TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 441



drumbo bravus lolita



zarzis | chebba | rades



TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 441

TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 441

TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 441

TC-DSE E27 Max.11W
TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 441

TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 441



zarzis 450 zarzis 650 zarzis 1100 chebba rades

fiuga | zuzzux | swellu | traject



TC-TSE 3U E27 Max.11W
QPAR51 GU10 Max.50W
230V / 50Hz
p. 441



fiuga



TC-TSE 3U E27 Max.11W
230V / 50Hz
p. 441



zuzzux



TC-TSE 3U E27 Max.11W
QPAR51 GU10 Max.50W
230V / 50Hz
p. 441



swellu



TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 441



traject 20



TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 441



traject 60

torreon



TC-DSE E27 Max.11W
TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 441



torreon 450



TC-DSE E27 Max.11W
TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 442



torreon 650



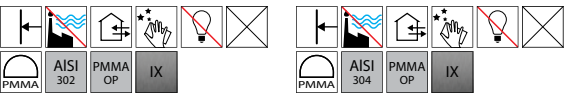
TC-DSE E27 Max.11W
TC-TSE 3U E27 Max.15W
230V / 50Hz
p. 442



torreon 1100



acapulco | hermosillo



TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 442



acapulco



TC-DSE E27 Max.11W
TC-TSE 3U E27 max.15W
230V / 50Hz
p. 442

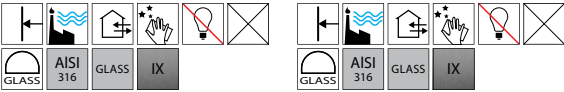


hermosillo





oluon | gurupa



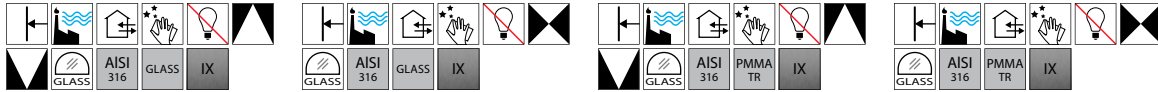
TC-TSE 3U E27 Max.11W
230V / 50Hz
p. 442

TC-TSE 3U E27 Max.11W
230V / 50Hz
p. 442



oluon gurupa

margetu | lugen



QPAR51 GU10 Max.50W
230V / 50Hz
p. 442

QPAR51 GU10 Max.2x50W
230V / 50Hz
p. 442

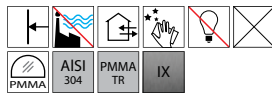
TCR-TSE GX53 Max.7W
230V / 50Hz
p. 442

TCR-TSE GX53 Max.2x7W
230V / 50Hz
p. 442



margetu 1 margetu 2 lugen 1 lugen 2

damieta | qina | faium | garbia | gizé



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



damietta



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



qina



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



faium



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



garbia



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



gizé

royssi | nice | mayotte



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



royssi



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



nice



TC-DSE E27 Max.15W
TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 442



mayotte

sheik | post | guiana | lorraine | aquitane



          	           	         	         	        
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   TCR-TSE GX53 Max.9W 230V / 50Hz p. 442	   TC-LEL 2G11 Max.2x36W 230V / 50Hz p. 442	   TC-DSE E27 Max.15W TC-TSE 4U E27 Max.20W 230V / 50Hz p. 443	   TC-DSE E27 Max.2x15W TC-TSE 4U E27 Max.2x20W 230V / 50Hz p. 443	   TC-DSE E27 Max.3x15W TC-TSE 4U E27 Max.3x20W 230V / 50Hz p. 443
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sheik | post | guiana | lorraine | aquitane

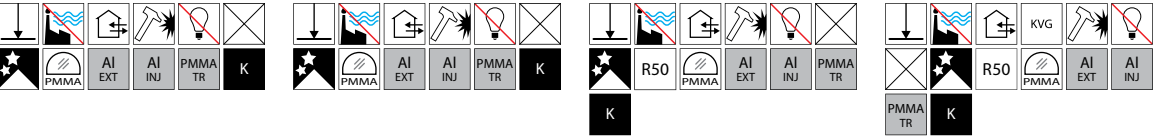
PAREDE E POSTE

[alumínio]

wall and floor [aluminium] | pared y postes [aluminio]
mur et borne [en aluminium] | parete e pavimento [alluminio]



passeio | visionarum



TC-TSE 4U E27 Max.20W
 230V / 50Hz
 p. 443

TC-TSE 4U E27 Max.20W
 230V / 50Hz
 p. 443

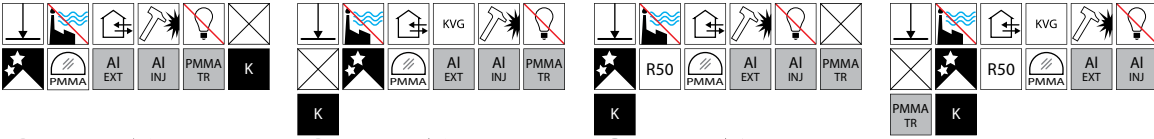
TC-TSE 4U E27 Max.20W
 230V / 50Hz
 p. 443

HIT G12 Max.35W
 230V / 50Hz
 p. 443



passeio 80
 passeio 100
 visionarum 80
 visionarum 100

plaza | condomin



TC-TSE 4U E27 Max.20W
 230V / 50Hz
 p. 443

HIT G12 Max.35W
 230V / 50Hz
 p. 443

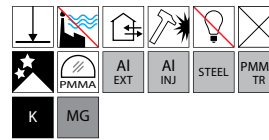
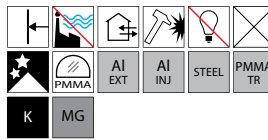
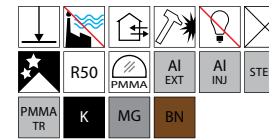
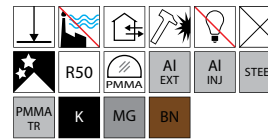
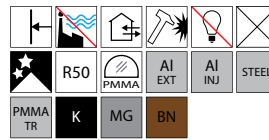
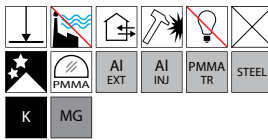
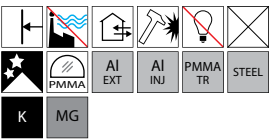
TC-TSE 4U E27 Max.20W
 230V / 50Hz
 p. 443

HIT G12 Max.35W
 230V / 50Hz
 p. 443



plaza 80
 plaza 100
 condomin 80
 condomin 100

ivaus | bollarus | porsie



TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 443

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444



ivaus W

ivaus 90

bollarus W

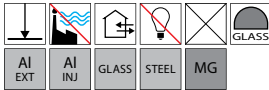
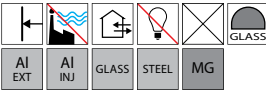
bollarus 65

bollarus 90

porsie W

porsie 65

iryneu | capsule



TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444

TC-TSE E27 Max.20W
230V / 50Hz
p. 444

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 444



iryneu W

iryneu WI

iryneu 65

capsule W

capsule WI

capsule 90



mushroom | vertika



↓	⚡	🏠	EVG	⚙️	🌀
⚙️	360°	6500°K	🌿	50000h	1m
★	PMMA	AI EXT	AI INJ	STEEL	PMMA TR
K	MG				

LED Max.9x1W
230V / 50Hz
p. 444

↓	⚡	🏠	EVG	⚙️	🌀
⚙️	360°	6500°K	🌿	50000h	1m
★	PMMA	AI EXT	AI INJ	STEEL	PMMA TR
K	MG				

LED Max.9x1W
230V / 50Hz
p. 444

↓	⚡	🏠	EVG	⚙️	🌀
⚙️	360°	6500°K	🌿	50000h	1m
★	PMMA	AI EXT	AI INJ	STEEL	PMMA TR
K	MG				

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 444



mushroom 500



mushroom 1000



vertika



biemi | radius | ikon



↓	⚡	🏠	EVG	85°	🌀
⚙️	50000h	1200lm	6500°K	🌿	30°
★	GLASS	AI EXT	AI INJ	GLASS	
STEEL	MG				

LED Max.15x1W
230V / 50Hz
p. 444

↓	⚡	🏠	EVG	90°	🌀
⚙️	50000h	1800lm	4200°K	🌿	30°
★	GLASS	AI EXT	AI INJ	GLASS	
STEEL	MG				

LED Max.9x1W
230V / 50Hz
p. 444

↓	⚡	🏠	EVG	85°	🌀
⚙️	50000h	1200lm	6500°K	🌿	30°
★	GLASS	AI EXT	AI INJ	GLASS	
STEEL	MG				

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 444



biemi

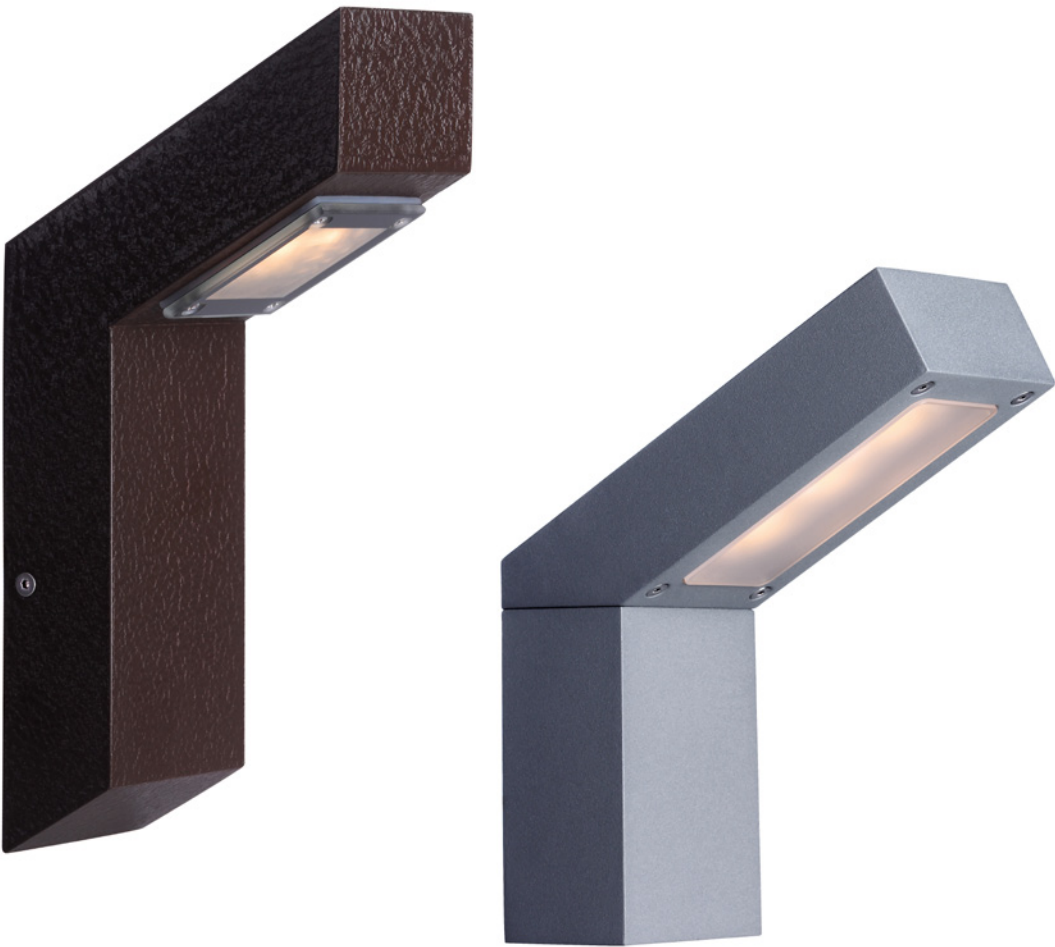


radius



ikon

brown | angle



GLASS	AI	GLASS	STEEL	BN	

GLASS	AI	GLASS	STEEL	BN	

720lm	4000°K		120°		PMMA
AI INJ	STEEL	PMMA FR	MG		

720lm	4000°K		120°		PMMA
AI INJ	STEEL	PMMA FR	MG		

CE IP 44 IK06

QT14 G9 Max.40W
230V / 50Hz
p. 444



brown W

CE IP 44 IK06

QT14 G9 Max.40W
230V / 50Hz
p. 444



brown

CE IP 44 IK06

LED Max.3x3W
230V / 50Hz
p. 444



angle W

CE IP 44 IK06

LED Max.3x3W
230V / 50Hz
p. 444



angle 65

zk 110



						AI INJ	MG
PMMA	AI INJ	PMMA TR	MG				

CE IP 65 IK09

LED Max.110W
230V / 50Hz
p. 444



zk 110

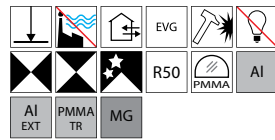
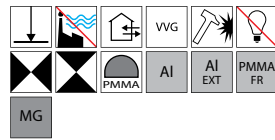
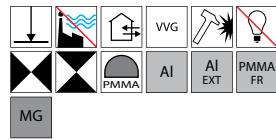
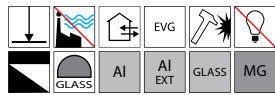
CE

p. 444



azk 110

voor | pekan | tabio



QR-CB51 GU5.3 Max.50W
230V / 50Hz
p. 444



voor 50



QR-CB51 GU5.3 Max.50W
230V / 50Hz
p. 445



voor 70



TC-D G24d-2 Max.18W
230V / 50Hz
p. 445



pekan 50



TC-D G24d-2 Max.18W
230V / 50Hz
p. 445



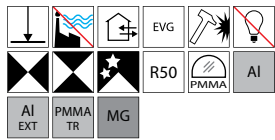
pekan 70



TC-TEL GX24q-3 Max.32W
230V / 50Hz
p. 445



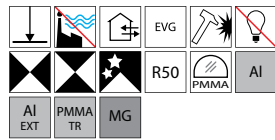
tabio 45



TC-TEL GX24q-3 Max.32W
230V / 50Hz
p. 445



tabio 60



TC-TEL GX24q-3 Max.32W
230V / 50Hz
p. 445



tabio 80



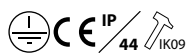
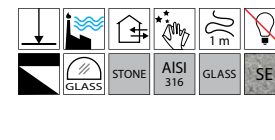
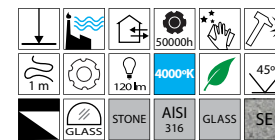
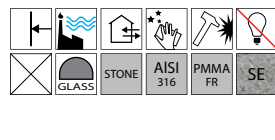
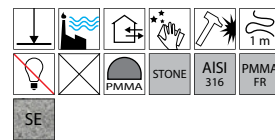
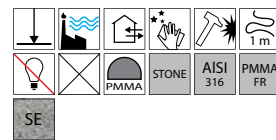
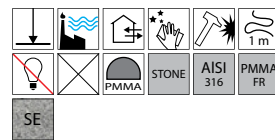
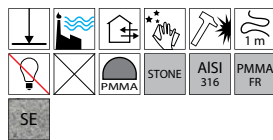


PAREDE E POSTE

[pedra e madeira]

wall and floor [stone and wood] | pared y postes [piedra y madera]
mur et borne [bois et granit] | parete e pavimento [pietra e legno]

block | stone | inspire | caspica s



TC-TSE 4U E27 Max.13W
230V / 50Hz
p. 445



block 30



TC-TSE 4U E27 Max.13W
230V / 50Hz
p. 445



block 60



TC-TSE 4U E27 Max.13W
230V / 50Hz
p. 445



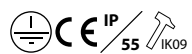
stone 35



TC-TSE 4U E27 Max.13W
230V / 50Hz
p. 445



stone 70



TC-TSE 4U E27 Max.13W
230V / 50Hz
p. 445



stone W



LED Max.3W
230V / 50Hz
p. 445



inspire 60



QPAR51 GU10 Max.50W
230V / 50Hz
p. 445



caspica S 80





carson | caspica w | wood



TC-TSE 4U E27 Max.13W			
230V / 50Hz			
p. 445			

TC-TSE 4U E27 Max.13W			
230V / 50Hz			
p. 445			

TC-TSE 4U E27 Max.2x13W			
230V / 50Hz			
p. 446			

QPAR51 GU10 Max.50W			
230V / 50Hz			
p. 446			

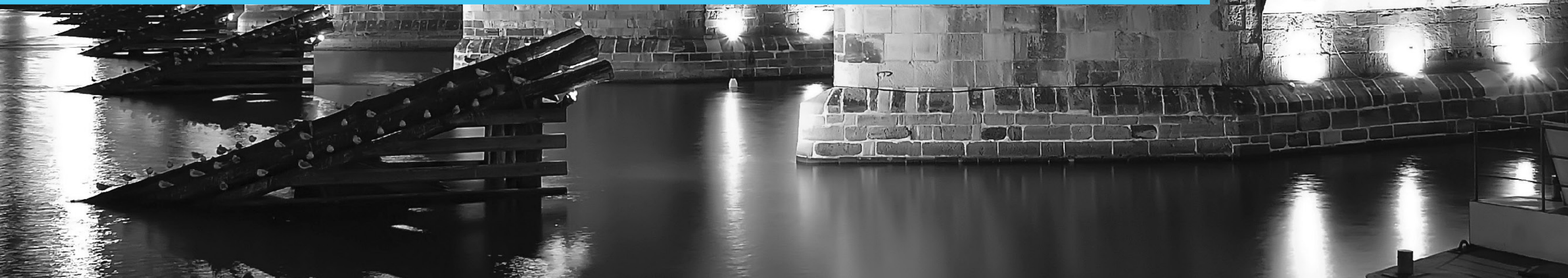
LED Max.3W			
230V / 50Hz			
p. 446			



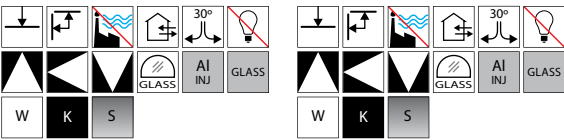
carson 30 carson 60 carson w caspica W 80 wood 80

PROJECTORES E WALLWASHERS

projectors and wallwashers | proyectores y bañadores de pared
projecteurs et wallwashers | proiettori e wallwashers



ezeos | demios



QPAR-CB30 E27 Max.75W
230V / 50Hz
p. 446



ezeos



demios





⏚	↕	⚡	🏠	KVG	180°
💡	⚡	⚡	⚡	R50	GLASS
AI INJ	GLASS	STEEL	K		

  
HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 446



istar SM

⏚	↕	⚡	🏠	KVG	180°
💡	⚡	⚡	⚡	R50	GLASS
STEEL	K				

  
HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 446



istar AS

⏚	↕	⚡	🏠	KVG	180°
💡	⚡	⚡	⚡	R43	7°
GLASS	AI INJ	GLASS	STEEL	K	

  
HIT G12 Max.70/150W
230V / 50Hz
p. 446



istar CT 7°

⏚	↕	⚡	🏠	KVG	180°
💡	⚡	⚡	⚡	R43	18°
GLASS	AI INJ	GLASS	STEEL	K	

  
HIT G12 Max.70/150W
230V / 50Hz
p. 446



istar CT 18°

STEEL	K
-------	---



p. 446



grh

STEEL	K
-------	---



p. 446



dcc

STEEL	K
-------	---



p. 446



vis

HOTEL

HOTEL

picuo | tiluti | picos | piketo



50000h	EVG	355°	180°	4200°K
800lm	GLASS	AI EXT	AI INJ	PA
45°	GLASS	AI INJ	STEEL	PMMA TR

CE IP 44 IK06

LED Max.15x1W
230V / 50Hz (700mA)
p. 446



picuo

50000h	EVG	355°	180°	6500°K
245lm	GLASS	AI INJ	STEEL	PMMA TR
45°	GLASS	AI INJ	STEEL	PMMA TR

CE IP 44 IK06

LED Max.3x1W
230V / 50Hz (350mA)
p. 446



tiluti

50000h	EVG	355°	180°	R50
24°	GLASS	AI INJ	STEEL	PMMA TR
45°	GLASS	AI INJ	STEEL	PMMA TR

CE IP 65 IK06

QT-DE 12 R7s 78mm Max.150W
230V / 50Hz
p. 446



picos

50000h	EVG	355°	180°	6500°K
340lm	GLASS	AI INJ	STEEL	PMMA TR
14°	GLASS	AI INJ	STEEL	PMMA TR

CE IP 44 IK06

LED Max.7x1W
230V / 50Hz(350mA)
p. 446



piketo

krypton | lídio



SHOP LIGHT	50000h	EVG	90°	4000°K
0.5 m	GLASS	AI INJ	STEEL	PMMA TR
45°	GLASS	AI INJ	STEEL	PMMA TR

CE IP 65

LED Max.6x2W
230V / 50Hz (350mA)
p. 446



krypton

50000h	EVG	180°	4000°K	AI INJ
0.5 m	GLASS	AI INJ	STEEL	PMMA TR
20°	GLASS	AI INJ	STEEL	PMMA TR

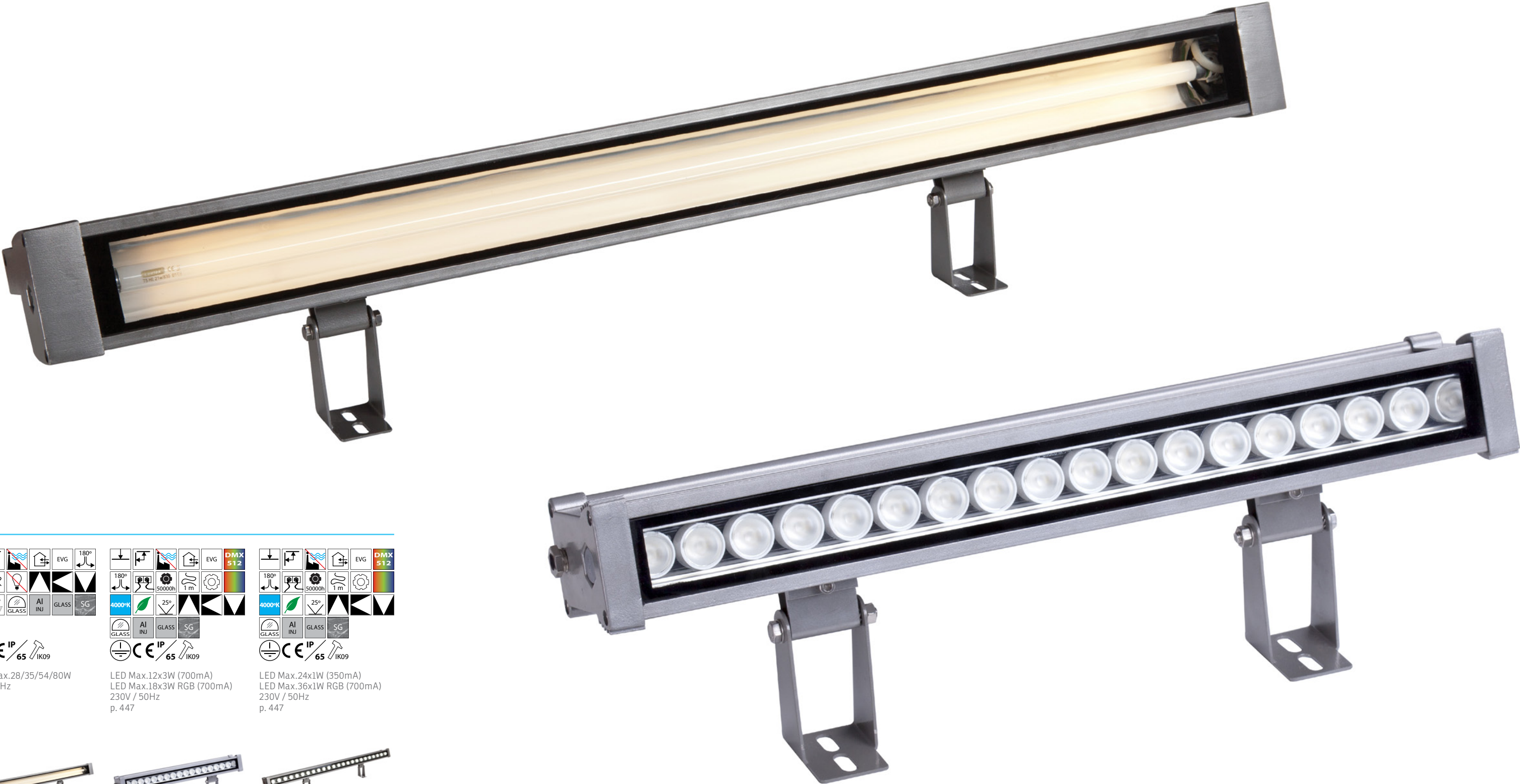
CE IP 65 IK07

LED Max.15x1W
230V / 50Hz (350mA)
p. 447



lídio

lumex | washerled



T16 G5 Max.28/35/54/80W
230V / 50Hz
p. 447

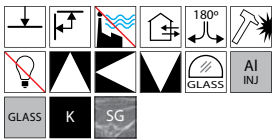
LED Max.12x3W (700mA)
LED Max.18x3W RGB (700mA)
230V / 50Hz
p. 447

LED Max.24x1W (350mA)
LED Max.36x1W RGB (700mA)
230V / 50Hz
p. 447



lumex washerled washerled XL

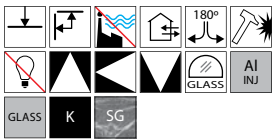
argon



QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



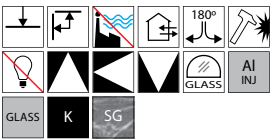
argon 2300



QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



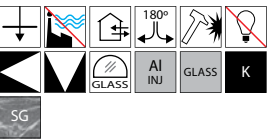
argon 2400



QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



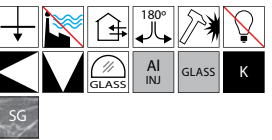
argon 2500



QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



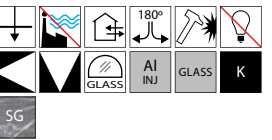
argon 2600



QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



argon 2700



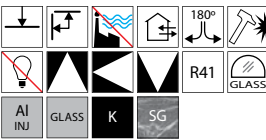
QPAR51 GU10 Max.50W
230V / 50Hz
p. 447



argon 2800



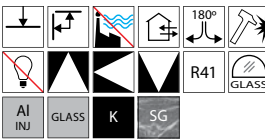
argon XL



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



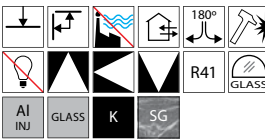
argon XL 2350



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



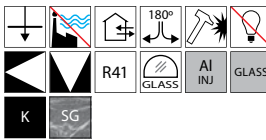
argon XL 2450



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



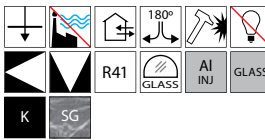
argon XL 2550



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



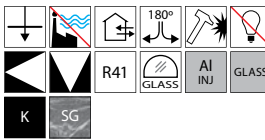
argon XL 2650



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



argon XL 2750

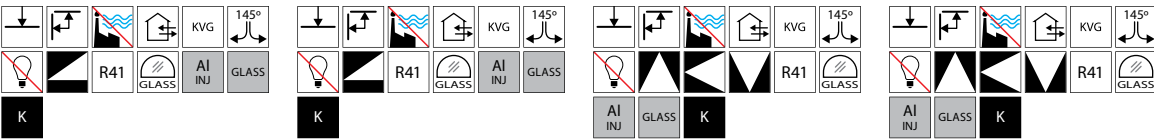


TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 447



argon XL 2850

flood



  
HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 447

  
HIT E40 Max.250W
HST E40 Max.250W
230V / 50Hz
p. 447

  
HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 447

  
HIT E40 Max.250W
HST E40 Max.250W
230V / 50Hz
p. 448



flood AS



maxi flood AS

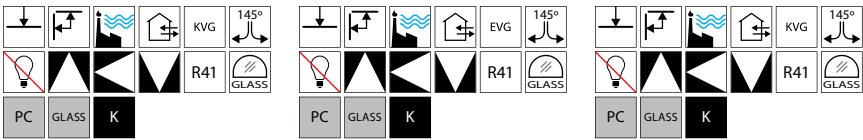


flood SM



maxi flood SM

z220



  
HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 448

  
TC-TEL GX24q-4 Max.2x42W
230V / 50Hz
p. 448

  
HIT E40 Max.250W
HST E40 Max.250W
230V / 50Hz
p. 448



z220

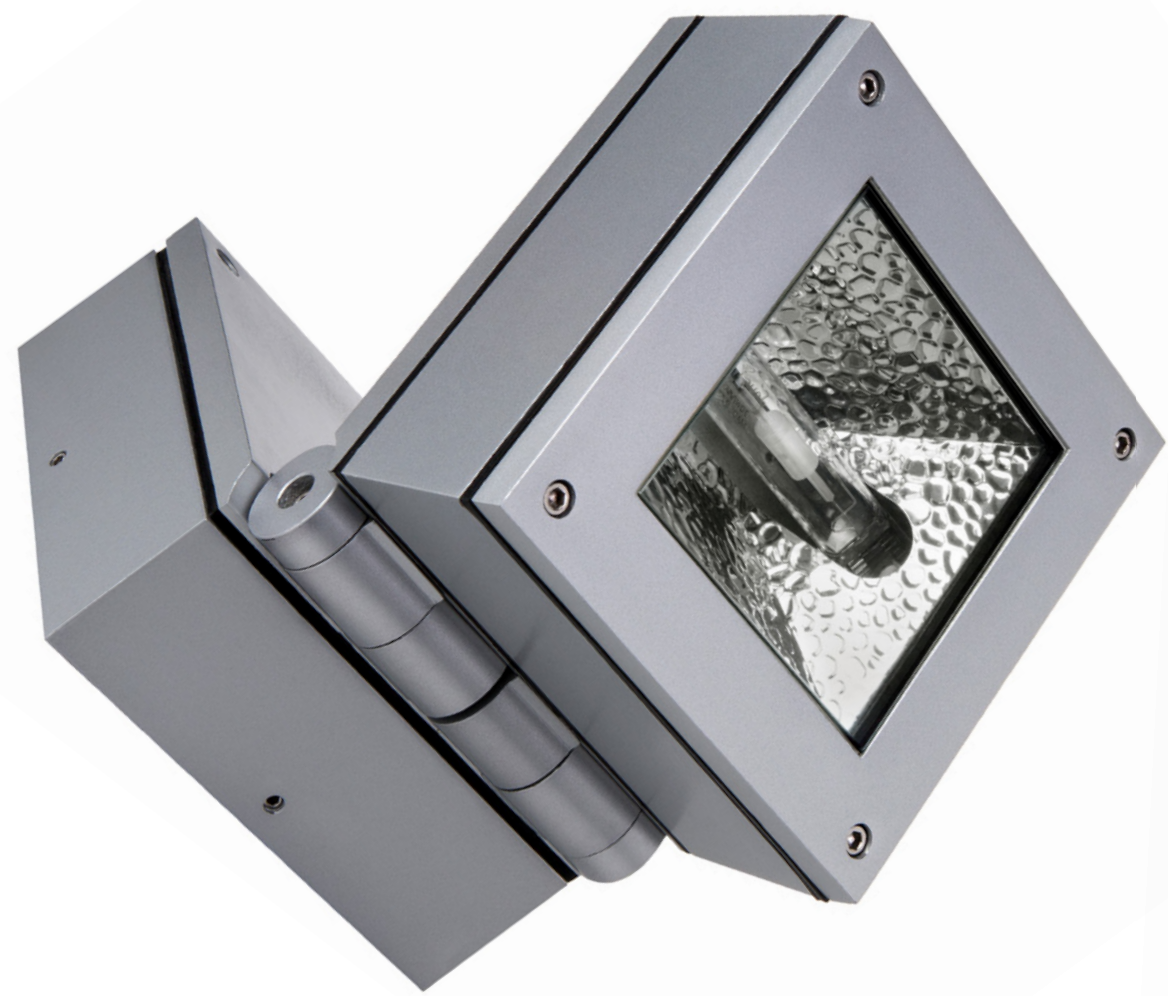


z220 PL



maxi z220

orfots | balin



AI INJ	GLASS	S			

GLASS	S				

HIT-DE RX7s Max.70W
230V / 50Hz
p. 448

QR111 G53 Max.100W
230V / 50Hz
p. 448



orfots balin

PAVIMENTO

pavement | pavimento | encastré de sol | da terra



zapaled



LED Max.3x1W
230V / 50Hz (350mA)
p. 448

LED Max.9x1W
230V / 50Hz (350mA)
p. 448



zapaled zapaled XL

trimatu



HIT-DE RX7s Max.70/150W
HST-DE RX7s Max.70/150W
230V / 50Hz
p. 448

HIT G12 Max.70/150W
230V / 50Hz
p. 448

HIT-DE Fc2 Max.250W
HST-DE Fc2 Max.250W
230V / 50Hz
p. 448



trimatu 8400/8500/8800/8900 trimatu 8600/8700 trimatu XL

gazudio | brako



AI INJ	AISI 316	GLASS	IX	AI INJ	AISI 316

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 448

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 448



gazudio 1200



brako 1100



micron



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- QR-CB51 GU5.3 Max.50W
12V
p. 449
- QPAR51 GU10 Max.50W
230V / 50Hz
p. 449
- TC-TSE GX53 Max.7W
230V / 50Hz
p. 449



micron 3100 micron 3200 micron 3300

ergoa



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- HIT G12 Max.35W
230V / 50Hz
p. 449
- HIT G12 Max.70W
230V / 50Hz
p. 449
- HIT-DE RX7s Max.70W
HST-DE RX7s Max.70W
230V / 50Hz
p. 449
- TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 449



ergoa 9100 ergoa 9200 ergoa 9300 ergoa 9400

astro | goa | polarum | sado



GLASS AI INJ GLASS STEEL ST	STEEL ST	AI INJ GLASS STEEL ST	STEEL IX

 HIT G12 Max.70W TC-TSE 4U E27 Max.13W 230V / 50Hz p. 449	 QPAR51 GU10 Max.50W 230V / 50Hz p. 449	 HIT G12 Max.35/70W TC-TSE 3U E27 Max.11W 230V / 50Hz p. 449	 QPAR51 GU10 Max.50W 230V / 50Hz p. 449
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astro goa polarum sado

terracun | floor



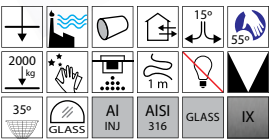
10° GLASS AI INJ AISI 316 GLASS IX	10° GLASS AI INJ AISI 316 GLASS IX	67° GLASS AI INJ AISI 316 GLASS IX	30° GLASS AI INJ AISI 316 GLASS IX	R50 45° GLASS AI INJ AISI 316 GLASS IX

 HIT G12 Max.35W 230V / 50Hz p. 449	 HIT G12 Max.70W 230V / 50Hz p. 449	 HIT-DE RX7s Max.70W HST-DE RX7s Max.70W 230V / 50Hz p. 449	 TC-TSE 4U Max.15W 230V / 50Hz p. 449	 HIT-DE Fc2 Max.250W HST-DE Fc2 Max.250W 230V / 50Hz p. 449
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terracun 7500 terracun 7600 terracun 7700 terracun 7800 floor XL

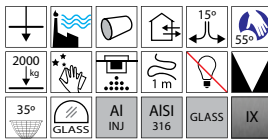
cooler



 **IP67** IK10
QPAR51 GU10 Max.35W
230V / 50Hz
p. 449



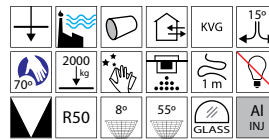
cooler R



 **IP67** IK10
QPAR51 GU10 Max.35W
230V / 50Hz
p. 449



cooler S



 **IP67** IK09
HIT G12 Max.70W
HIT-DE RX7s Max.70W
HST-DE RX7s Max.70W
230V / 50Hz
p. 449



cooler XL



traccion

zenada



LED Max.3x1W
230V / 50Hz
p. 449

LED Max.9x1W
230V / 50Hz
p. 449



traccion traccion XL



HIT G12 Max.35W
230V / 50Hz
p. 449

HIT G12 Max.70W
230V / 50Hz
p. 449

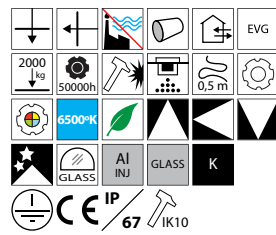
HIT-DE RX7s Max.70W
HST-DE RX7s Max.70W
230V / 50Hz
p. 449

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 449

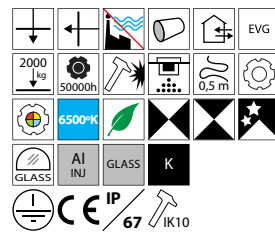


zenada 8000 zenada 8100 zenada 8200 zenada 8300

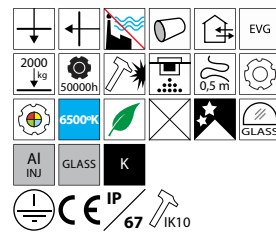
inground



LED Max.2W
230V / 50Hz
p. 449



LED Max.2W
230V / 50Hz
p. 450



LED Max.2W
230V / 50Hz
p. 450



inground 1



inground 2



inground 12



softstep | stepled | exadrus



DMX 512	35°	2000 h	50000h	EVG
1m	3000°K	4000°K	95°	GLASS
PMMA	AI INJ	AISI 316	GLASS	PMMA OP
IX	IP 67	IK09		

SOFT LED Max.8W
SOFT LED RGB Max.8W
230V / 50Hz
p. 450

DMX 512	35°	2000 h	50000h	EVG
1m	3000°K	4000°K	95°	GLASS
PMMA	AI INJ	AISI 316	GLASS	PMMA OP
IX	IP 67	IK09		

SOFT LED Max.16W
SOFT LED RGB Max.16W
230V / 50Hz
p. 450

DMX 512	40°	2000 h	50000h	EVG
1m	3000°K	4000°K	15°	30°
PMMA	AI INJ	AISI 316	GLASS	IX
IX	IP 67	IK10		

LED Max.24x1W
LED RGB Max.36x1W
230V / 50Hz
p. 450

DMX 512	2000 h	50000h	EVG
1m	R43	GLASS	AI INJ
IX	GLASS	AISI 316	
IX	IP 67	IK09	

T16 G5 Max.14/21/28/35W
230V / 50Hz
p. 450



softstep

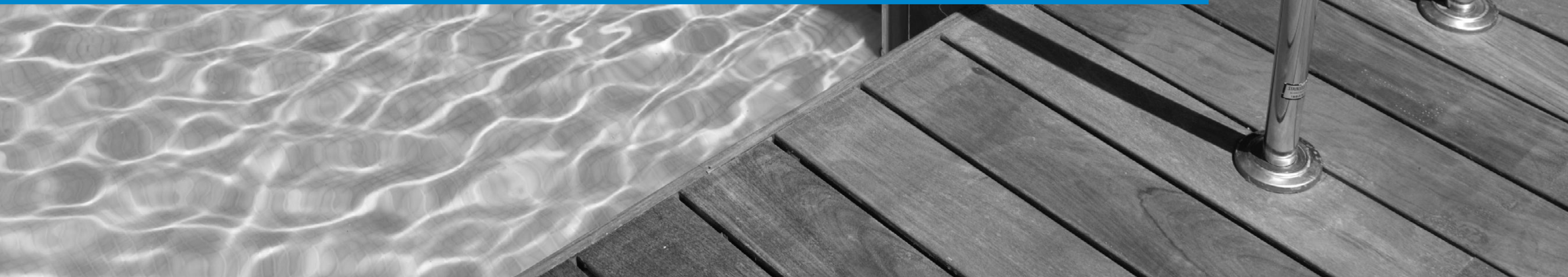
softstep XL

stepled

exadrus AS

SUBMERSÃO E PISCINA

submersion and pool | inmersión y piscina | submersion et piscine | immersione e piscina



aqualed | sousa



LED Max.9x1W 12V DC (350mA) p. 450	LED Max.9x1W 12V DC (350mA) p. 450	LED Max.2,6W 12V DC (350mA) p. 450



aqualed aqualed RGB sousa

ocean | tsunami



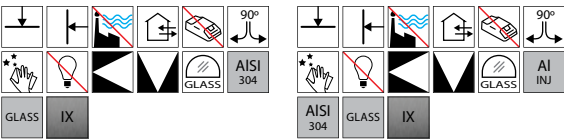
LED Max.1W 12V AC (350mA) p. 450	LED Max.3x1W 12V AC (350mA) p. 450	LED Max.18x3W 12V AC (700mA) p. 450



ocean ocean XL tsunami



liz | caldo



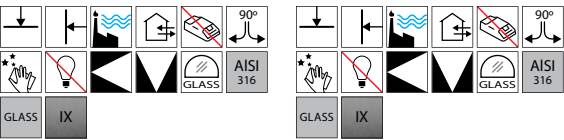
III **CE** **IP** 68 IK08
QR-CB51 GU5.3 Max.50W
12V
p. 450

III **CE** **IP** 68 IK08
QR111 G53 Max.50W
12V
p. 450



liz caldo

aquarius



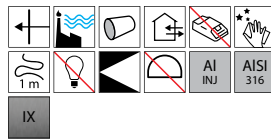
III **CE** **IP** 68 IK08
QR-CB51 GU5.3 Max.50W
12V
p. 450

III **CE** **IP** 68 IK08
QR111 G53 Max.50W
12V
p. 451



aquarius aquarius XL

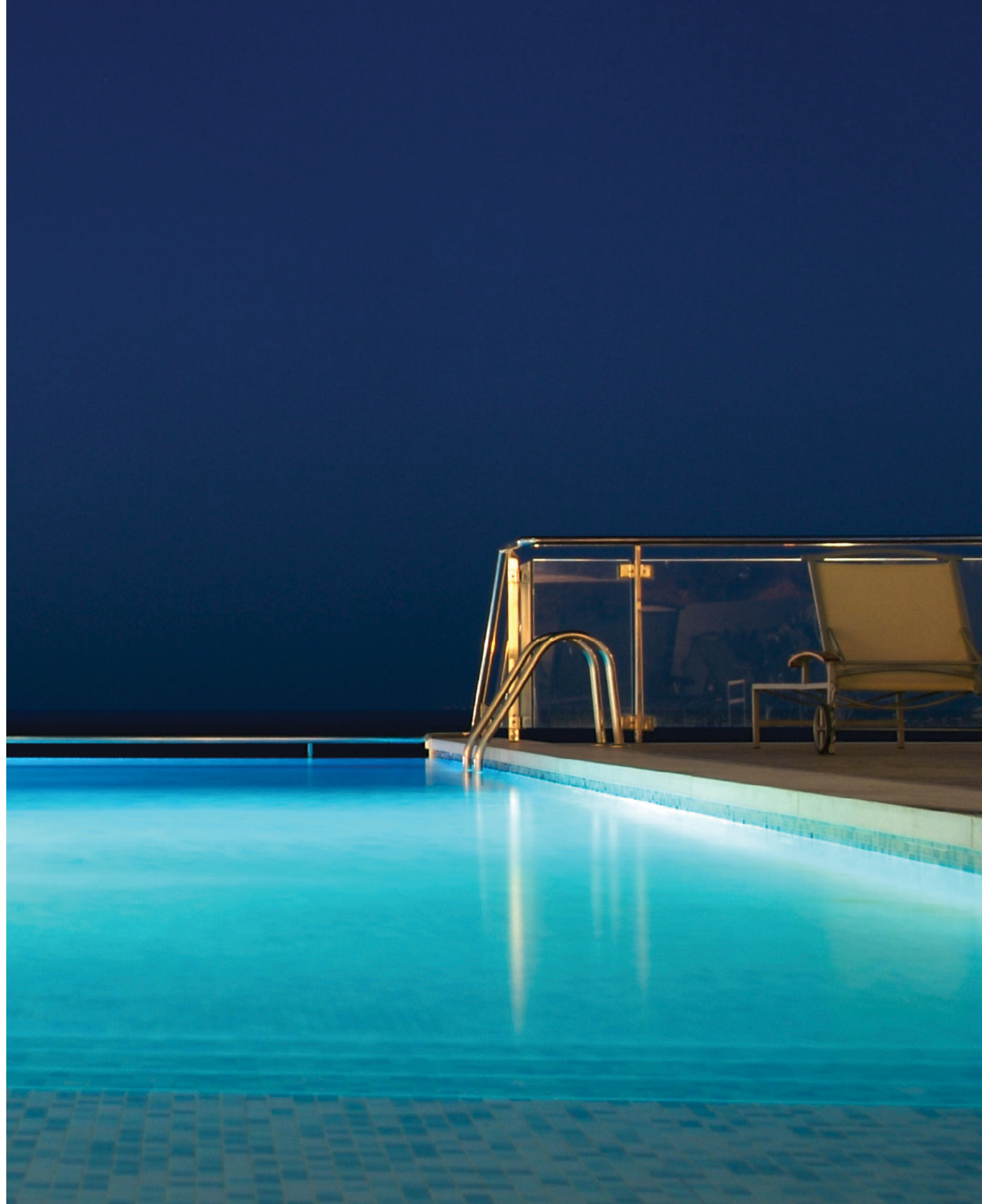
pool | trf



III CE^{IP} / 68

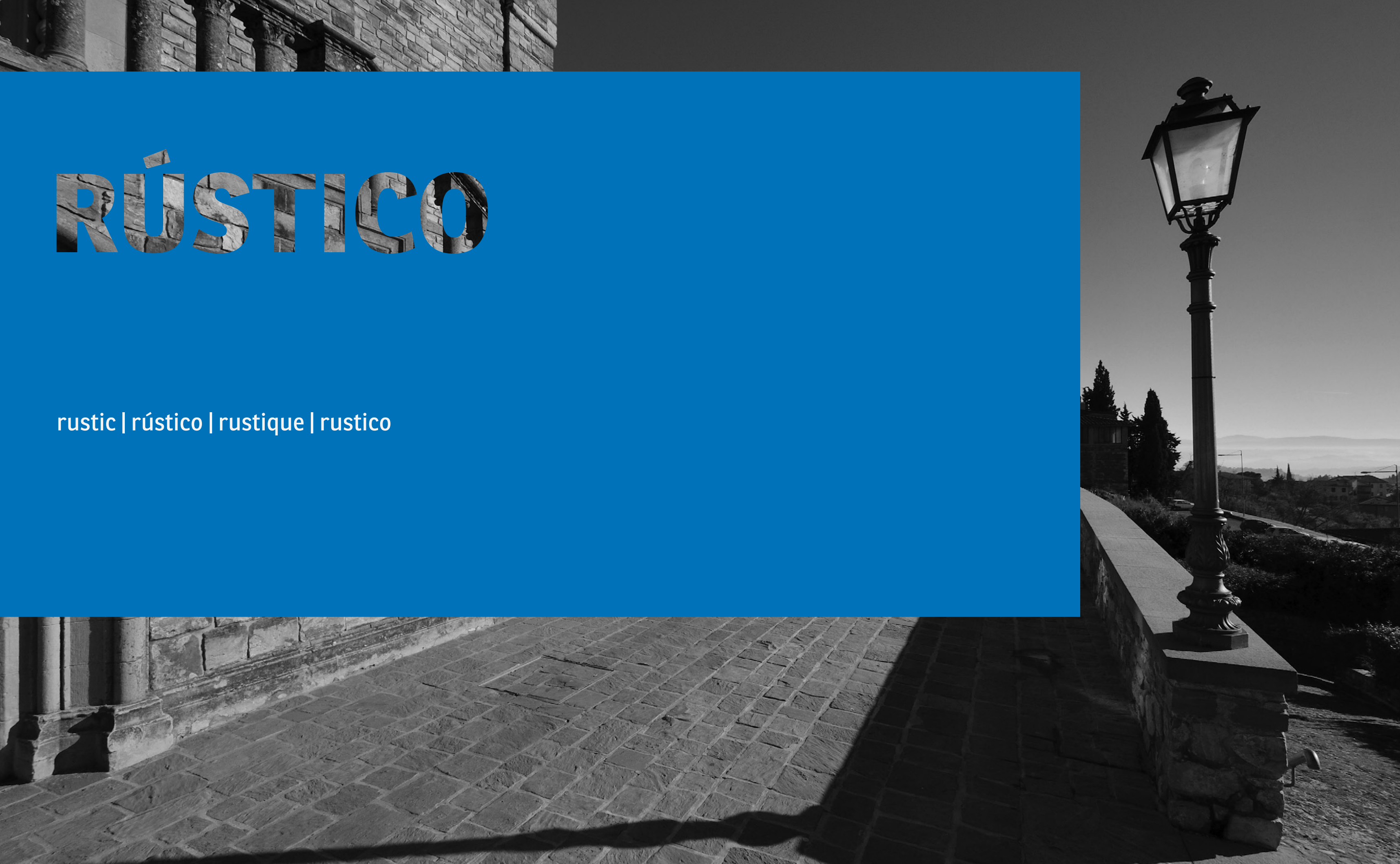


trf [IP68]



RÚSTICO

rustic | rústico | rustique | rustico



trento | messina | forli | novara



 AI	 GLASS	 W	 K	 GR	 GR
 AI	 GLASS	 W	 K	 GR	 GR
 AI	 GLASS	 W	 K	 GR	 GR
 GLASS	 AI	 GLASS	 W	 K	 GR
 GR					

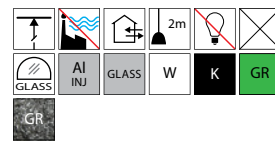
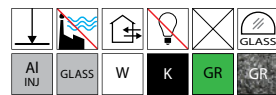
 TC-TSE 4U E27 Max.15W 230V / 50Hz p. 451	 TC-TSE 4U E27 Max.15W 230V / 50Hz p. 451	 TC-TSE 4U E27 Max.15W 230V / 50Hz p. 451	 TC-TSE 4U E27 Max.15W 230V / 50Hz p. 451
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trento messina forli novara



adana | gelibolu | mersin | izmir



TC-TSE 4U E27 Max.23W
230V / 50Hz
p. 451



adana



TC-TSE 4U E27 Max.23W
230V / 50Hz
p. 451



gelibolu



TC-TSE 4U E27 Max.23W
230V / 50Hz
p. 451



mersin



TC-TSE 4U E27 Max.23W
230V / 50Hz
p. 451



izmir



malatya



TC-TSE 4U E27 Max.23W
230V / 50Hz
p. 451



malatya 1



TC-TSE 4U E27 Max.3x23W
230V / 50Hz
p. 451



malatya 3

village | classic | antique | rustik



 AI	 GLASS	 W	 K	 GR	 GR
 AI	 GLASS	 W	 K	 GR	 GR
 AI	 GLASS	 W	 K	 GR	 GR
 GLASS	 AI	 GLASS	 W	 K	 GR
 GR					

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 451



village

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 451



classic

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 451



antique

  
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 451



rustik



odemira | beja | borba



R50	PMMA	AI INJ	PMMA TR	W K
GR	GR			

TC-TSE 4U E27 Max.2x15W
230V / 50Hz
p. 452



odemira

					R50
PMMA	AI INJ	PMMA TR	W K	GR	
GR					

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



beja

					2m	
R50	AI INJ	PMMA TR	W K	GR		
GR						

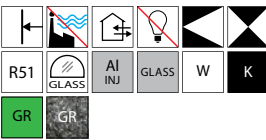
TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



borba



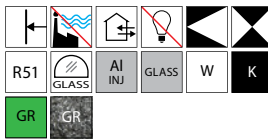
oltu | lantern | ocapuco | abegão | tocaia | bojala



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



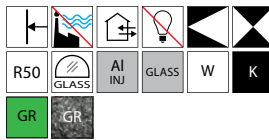
oltu



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



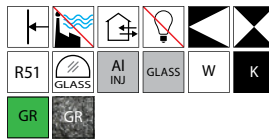
lantern



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



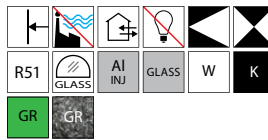
ocapuco



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



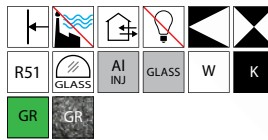
abegão



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 452



tocaia



TC-TSE 4U E27 Max.2x15W
230V / 50Hz
p. 452



bojala



algisa



AI	GLASS	K	MG	BN	GR
INJ					

CE IP 44 IK05

QPAR51 GU10 Max.50W
230V / 50Hz
p. 452



algisa

INTERIOR

INTERIOR

INTERIOR

INTÉRIEUR

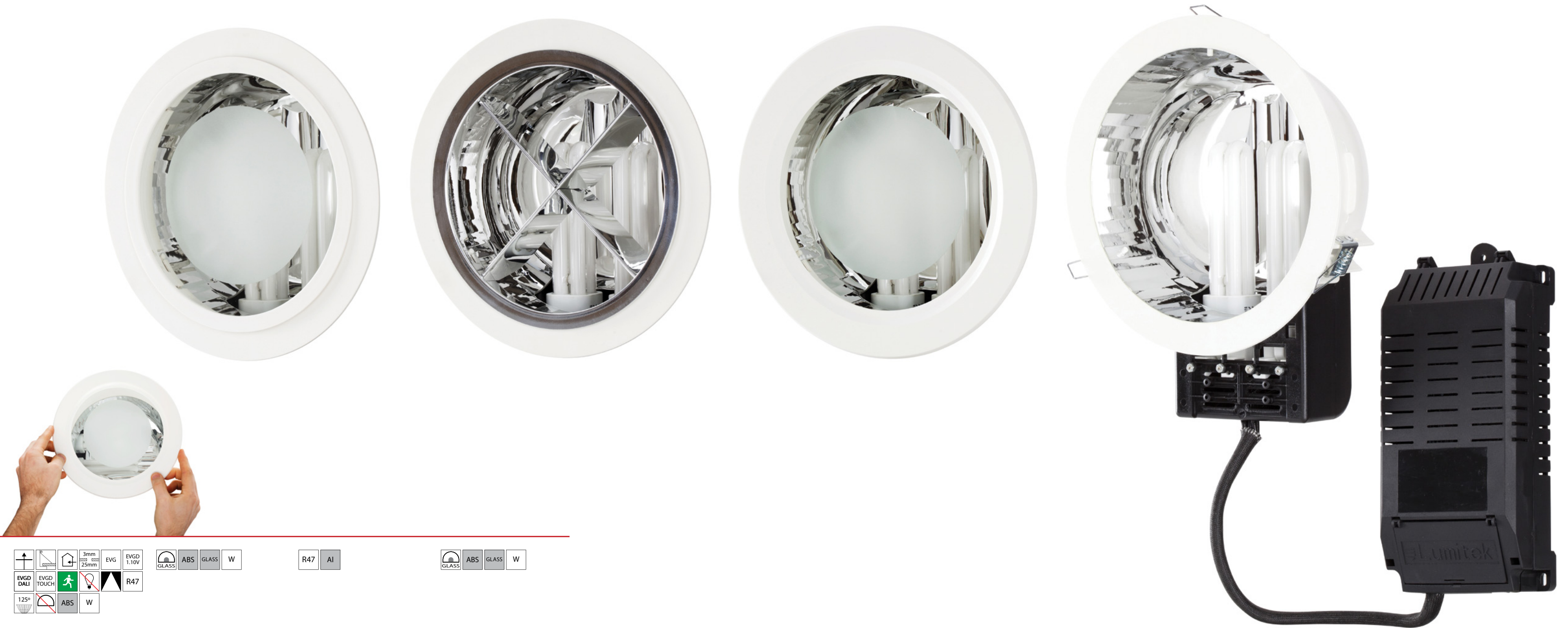
INTERNI

DOWNLIGHTS FLUORESCENTE

fluorescent downlights | luminarias fluorescente | downlight fluocompact | lampade fluorescenti



algera



↑

EVGD DALI

125°

↙

EVGD TOUCH

↘

🏠

EVGD 1.10V

⚡

3mm 25mm

EVG

ABS

W

R47

GLASS

ABS

GLASS

W

R47

Al

GLASS

ABS

GLASS

W

CE

IP

20

CE

IP

20

IK05

CE

IP

20

CE

IP

44

IK05

TC-DEL G24q-2/3 Max.2x18/26W
230V/50Hz
p. 454



algera

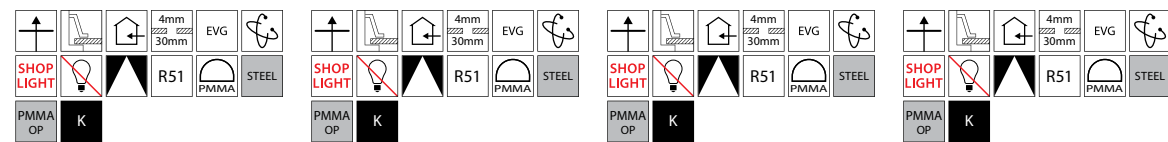
algera A

algera B

algera C



uzzabu | yhna



QR111 G53 Max.50W
T16-R 2GX13 Max.40W
230V / 50Hz
p. 454



HIPAR30-CE-P E27 Max.70W
T16-R 2GX13 Max.40W
230V / 50Hz
p. 454



QR111 G53 Max.50W
T16-R 2GX13 Max.40W
230V / 50Hz
p. 454



HIPAR30-CE-P E27 Max.70W
T16-R 2GX13 Max.40W
230V / 50Hz
p. 454



uzzabu [QR111]



uzzabu [HIPAR30]

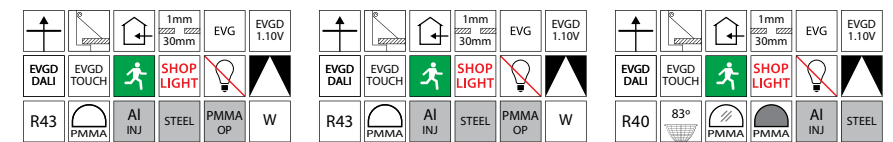


yhna [QR111]



yhna [HIPAR30]

apazon | shop



TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



TC-DEL G24q-2 Max.2x18W
230V / 50Hz
p. 454



TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



apazon



medium apazon



shop

euro | living | simply



↑	↓	↕	1mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	30mm		
R43	80°	GLASS	GLASS	GLASS	STEEL
W	S	ST			
IP 40					

TC-DEL G24q-1 Max.1x13/2x13W
TC-DEL G24q-2 Max.1x18/2x18W
TC-DEL G24q-3 Max.1x26/2x26W
230V / 50Hz
p. 454



euro

↑	↓	↕	1mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	30mm		
R43	80°	GLASS	GLASS	GLASS	STEEL
W	S	ST			
IP 40					

TC-DEL G24q-1 Max.13w
TC-TEL GX24q-2 Max.18W
230V / 50Hz
p. 454



small euro

↑	↓	↕	4mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	25mm		
R40	80°	GLASS	GLASS	AI INJ	GLASS
STEEL	W	ST	CR		
IP 41					

TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



living

↑	↓	↕	4mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	25mm		
R40	80°	GLASS	GLASS	AI INJ	GLASS
STEEL	W	ST	CR		
IP 41					

TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
230V / 50Hz
p. 454



simply

olie | foluma | rectangle



↑	↓	↕	4mm	VVG	EVG
EVGD 1.10V	EVGD DALI	EVGD TOUCH	25mm		
R43	88°	GLASS	AI INJ	GLASS	
STEEL	W				
IP 20					

TC-D/DEL G24d/q-1/2/3
Max.2x13/2x18/2x26W
230V / 50Hz
p. 454



olie

↑	↓	↕	4mm	VVG	EVG
EVGD 1.10V	EVGD DALI	EVGD TOUCH	25mm		
R43	88°	GLASS	AI INJ	GLASS	
STEEL	W				
IP 20					

TC-D/DEL G24d/q-1 Max.2x13W
TC-D/DEL G24d/q-2 Max.2x18W
230V / 50Hz
p. 454



medium olie

↑	↓	↕	3mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	25mm		
R50	85°	GLASS	AI INJ	PC	GLASS
STEEL	W	S			
IP 44					

TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



foluma

↑	↓	↕	3mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	25mm		
R50	85°	GLASS	AI INJ	PC	GLASS
STEEL	W	S			
IP 44					

TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
230V / 50Hz
p. 454



medium foluma

↑	↓	↕	1mm	VVG	
EVG	EVGD DALI	EVGD TOUCH	30mm		
R43	87°	GLASS	AI INJ		
GLASS	STEEL	W	K	S	ST
IP 20 IK04					

TC-D G24d-2 Max.18W
TC-DEL G24q-2 Max.18W
230V / 50Hz
p. 454



rectangle



doblus | zeros | vitro | flat | auoda



TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



doblus

TC-D G24d-3 Max.2x26W
TC-DEL G24q-3 Max.2x26W
TC-TEL GX24q-3 Max.2x32W
TC-TEL GX24q-4 max.2x42W
230V / 50Hz
p. 454



zeros

TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 454



vitro

TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
230V / 50Hz
p. 454



medium vitro

TC-D/DEL G24d/q-1 Max.2x13W
TC-D/DEL G24d/q-2 Max.2x18W
TC-D/DEL G24d/q-3 Max.2x26W
230V / 50Hz
p. 455



flat

TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 455



auoda

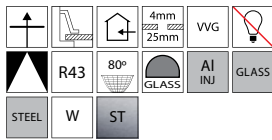
TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
230V / 50Hz
p. 455



medium auoda



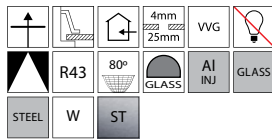
420 | 430 | 440 | 450 | 460 | 470 | 630 | 640



TC-DSE E27 Max.11W
TC-D G24d-1 Max.13W
230V / 50Hz
p. 455



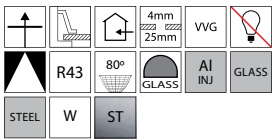
420



TC-DSE E27 Max.2x15W
TC-D G24d-1 Max.2x13W
TC-D G24d-2 Max.2x18W
230V / 50Hz
p. 455



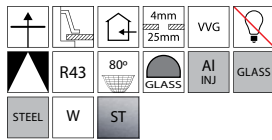
430



TC-DSE E27 Max.2x20W
TC-D G24d-1 Max.2x13W
TC-D G24d-2 Max.2x18W
TC-D G24d-3 Max.2x26W
230V / 50Hz
p. 455



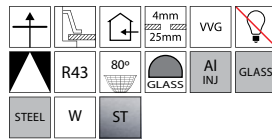
440



TC-DSE E27 Max.11W
TC-D G24d-1 Max.13W
230V / 50Hz
p. 455



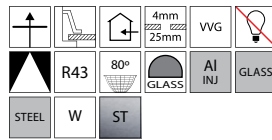
450



TC-DSE E27 Max.2x15W
TC-D G24d-1 Max.2x13W
TC-D G24d-2 Max.2x18W
230V / 50Hz
p. 455



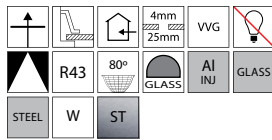
460



TC-DSE E27 Max.2x20W
TC-D G24d-1 Max.2x13W
TC-D G24d-2 Max.2x18W
TC-D G24d-3 Max.2x26W
230V / 50Hz
p. 455



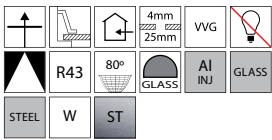
470



TC-DSE E27 Max.2x11W
TC-D G24d-1 Max.2x13W
230V / 50Hz
p. 455



630



TC-DSE E27 Max.2x20W
TC-D G24d-1 Max.2x13W
TC-D G24d-2 Max.2x18W
TC-D G24d-3 Max.2x26W
230V / 50Hz
p. 455



640

recess



↑	↑	↑	↑	4mm	EVG
EVGD 1.10V	EVGD DALI	EVGD TOUCH	SHOP LIGHT	30mm	
▲	▲	R43	PMMA	AI	AI EXT
PA	PMMA OP				

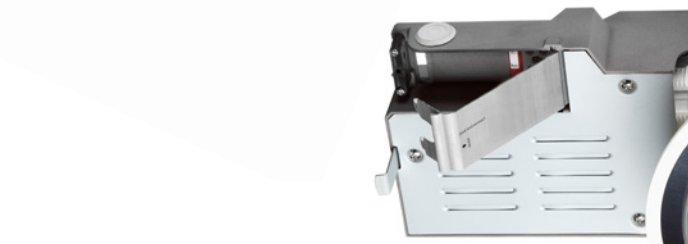
IP 20

T16 G5 Max.14/35/39/54W
230V / 50Hz
p. 455



recess

doden | iris



↑	↑	↑	1mm	EVG	EVGD 1.10V	↑	↑	4mm	EVG	EVGD 1.10V
EVGD DALI	EVGD TOUCH	SHOP LIGHT	30mm			EVGD DALI	EVGD TOUCH	SHOP LIGHT	25mm	EVGD 1.10V
▲	▲	R43	GLASS	AI INJ	STEEL	▲	▲	R40	AI INJ	STEEL
W						S				

IP 40

TC-TEL GX24q-4 Max.2x42W
230V / 50Hz
p. 455

TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 455

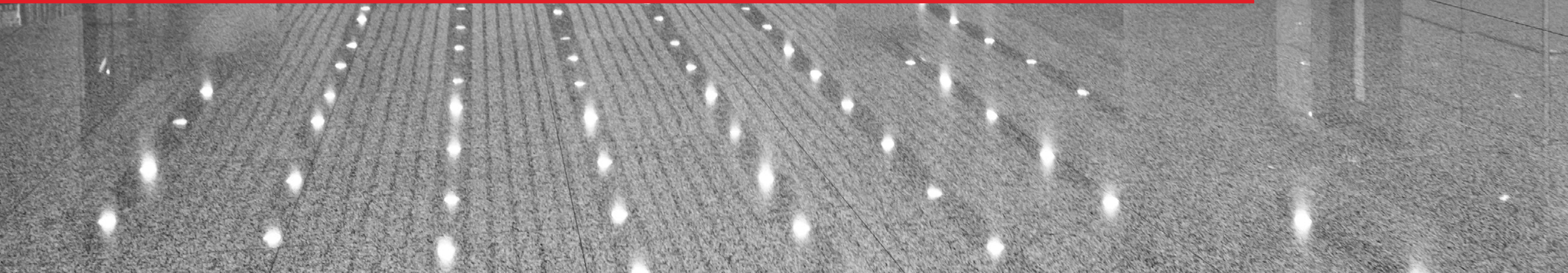


doden

iris

DOWNLIGHTS LED

led downlights | luminarias led | downlight led | lampade led



zeppa



PC	GLASS	Al INJ	GLASS	W	S

PC	GLASS	Al INJ	GLASS	W	S

PC	GLASS	Al INJ	GLASS	W	S

LED Max.18x1,2W	230V / 50Hz (350mA)	p. 456

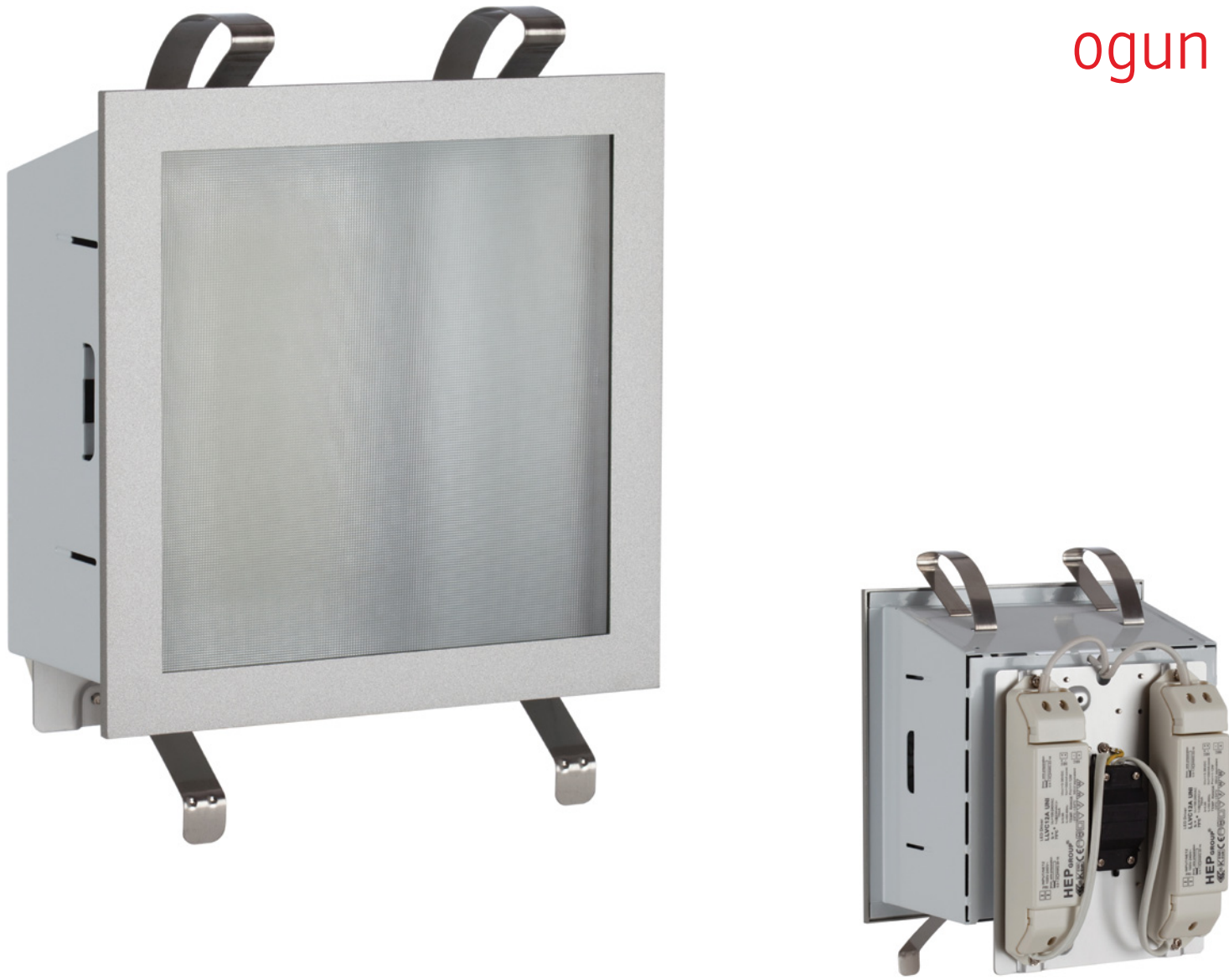
LED Max.12x1,2W	230V / 50Hz (350mA)	p. 456

LED Max.7x1,2W	230V / 50Hz (350mA)	p. 456



zeppa medium zeppa small zeppa

ogun



GLASS	Al INJ	GLASS	STEEL	W	S

GLASS	Al INJ	GLASS	STEEL	W	S

GLASS	Al INJ	GLASS	STEEL	W	S

LED Max.18x1,2W	230V / 50Hz (350mA)	p. 456

LED Max.8x1,2W	230V / 50Hz(350mA)	p. 456

LED Max.4x1,2W	230V / 50Hz(350mA)	p. 456



ogun medium ogun small ogun

osciled



↑	↓	↺	↻	1mm 20mm	✂	⚡
SHOP LIGHT	50000h	3000°K	4000°K			
15°	15°	PMMA	AI EXT	PMMA FR		
S						

LED Max.3x1W
12V DC (350mA)
p. 456

↑	↓	↺	↻	1mm 20mm	✂	⚡
SHOP LIGHT	50000h	3000°K	4000°K			
15°	15°	PMMA	AI EXT	PMMA FR		
S						

LED Max.6x1W
12V DC (350mA)
p. 456

↑	↓	↺	↻	1mm 20mm	✂	⚡
SHOP LIGHT	50000h	3000°K	4000°K			
15°	15°	PMMA	AI EXT	PMMA FR		
S						

LED Max.15x1W
12V DC (350mA)
p. 456



osciled 3 osciled 6 osciled 15

fixled



↑	↓	↺	↻	1mm 20mm	✂	⚡	SHOP LIGHT
50000h	3000°K	4000°K					
15°	15°	PMMA	AI EXT	PMMA FR	S		
S							

LED Max.3x1W
12V DC (350mA)
p. 456

↑	↓	↺	↻	1mm 20mm	✂	⚡	SHOP LIGHT
50000h	3000°K	4000°K					
15°	15°	PMMA	AI EXT	PMMA FR	S		
S							

LED Max.6x1W
12V DC (350mA)
p. 456

↑	↓	↺	↻	1mm 20mm	✂	⚡	SHOP LIGHT
50000h	3000°K	4000°K					
15°	15°	PMMA	AI EXT	PMMA FR	S		
S							

LED Max.15x1W
12V DC (350mA)
p. 456



fixled 3 fixled 6 fixled 15



ikoku



   	   	   	   
LED Max.1W 230V / 50Hz (350mA) p. 456	LED Max.2x1W 230V / 50Hz (350mA) p. 456	LED Max.3x1W 230V / 50Hz (350mA) p. 456	LED Max.3x1W 230V / 50Hz (350mA) p. 456



ikoku 3R

etron

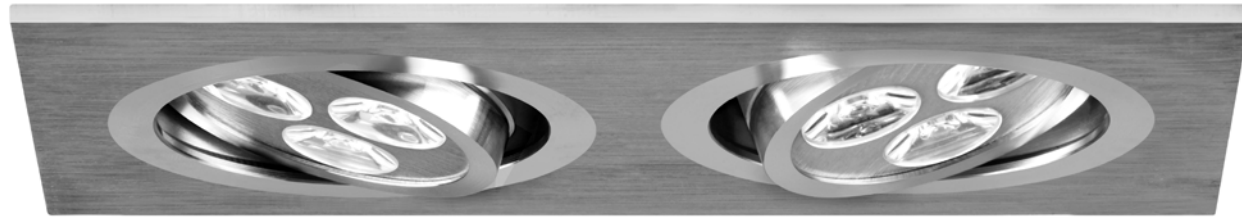


			
LED Max.1W	LED Max.2x1W	LED Max.3x1W	LED Max.4x1W
230V / 50Hz (350mA)	230V / 50Hz (350mA)	230V / 50Hz (350mA)	230V / 50Hz (350mA)
p. 456	p. 456	p. 456	p. 457



etron 4

ledalum | pelfus | guiria



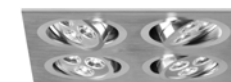
25°	5000h			80 lm	3000°K	25°	5000h			80 lm	3000°K
4000°K		30°				4000°K		30°			
Al EXT	PMMA TR	BA				Al EXT	PMMA TR	BA			
LED Max.3x1W 12V DC (350mA) p. 457						LED Max.6x1W 12V DC (350mA) p. 457					



ledalum 1

ledalum 2

25°	50000h	675lm	3000°K	1mm 220 20mm	3000°K	25°	50000h	900lm	3000°K	1mm 220 20mm	3000°K
4000°K	30°	PMMA	PMMA	PMMA	PMMA	4000°K	30°	PMMA	PMMA	PMMA	PMMA
AI EXT	PMMA TR	BA	IP 20			AI EXT	PMMA TR	BA	IP 20		
LED Max.9x1W 12V DC (350mA) p. 457						LED Max.12x1W 12V DC (350mA) p. 457					



ledalum 3

ledalum 4S



ledalum R

pelfus


 1mm
 20mm
 25°
 50000h
 4000K
 30°
 3000-K
 450lm
 AI EXT
 PMMA TR
 BA
 PMMA
 III
 CE
 IP 20

LED Max.6x1W
 12V DC (350mA)
 p. 457

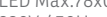
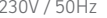
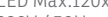


guiria



strettu



 SHOP LIGHT 50000h 4200°K 70° PMMA AI AI EXT PMMA FR PA  LED Max.48x0,065W 230V / 50Hz p. 457	 SHOP LIGHT 50000h 4200°K 70° PMMA AI AI EXT PMMA FR PA  LED Max.78x0,065W 230V / 50Hz p. 457	 SHOP LIGHT 50000h 4200°K 70° PMMA AI AI EXT PMMA FR PA  LED Max.120x0,065W 230V / 50Hz p. 457	 SHOP LIGHT 50000h 4200°K 70° PMMA AI AI EXT PMMA FR PA  LED Max.162x0,065W 230V / 50Hz p. 457	 SHOP LIGHT 50000h 4200°K 70° PMMA AI AI EXT PMMA FR PA  LED Max.240x0,065W 230V / 50Hz p. 457
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strettu 48

strettu 78

strettu 120

strettu 162

strettu 240

wallwash





























LED Max.33W
 230V / 50Hz (700mA)
 p. 457



wallwash

confort | dosh | ebaloo



			5mm 222 10mm	EVG	SHOP LIGHT				5mm 222 10mm	EVG	SHOP LIGHT				3mm 222 30mm	EVG	SHOP LIGHT
50000h			3200°K	4000°K	50000h			260lm	3200°K	4000°K	50000h			1875lm	4000°K		28°
	45°			AI INJ	PMMA TR		45°			AI INJ	PMMA TR			AI	AI INJ	STEEL	PMMA TR
W	K	S			W	K	S			W							
LED Max.3x1W 230V / 50Hz (350mA) p. 457	LED Max.3x1W 230V / 50Hz (350mA) p. 457	LED Max.25x1W 230V / 50Hz (700mA) p. 457	LED Max.16x1W 230V / 50Hz p. 457														



confort



dosh



ebaloo



medium ebaloo



kokudo | aste



4200°K	24°	SHOP LIGHT	50000h	PMMA
AI INJ	PMMA FR	S		

4200°K	24°	SHOP LIGHT	50000h	PMMA
AI INJ	PMMA FR	S		

AI	S
----	---

AI	S
----	---

III **CE** IP/20

LED Max.3x1,2W
12V DC (350mA)
p. 457



kokudo 1

III **CE** IP/20

LED Max.6x1,2W
12V DC (350mA)
p. 457



kokudo 2

III **CE** IP/20

min: 174mm
max: 294mm
12V
p. 458



aste 300mm

III **CE** IP/20

min: 348mm
max: 638mm
12V
p. 458



aste 600mm



DOWNLIGHTS DESCARGA

discharge downlights | luminarias de descarga | downlight décharge | lampade a scarica



circuspot



SHOP LIGHT	SHOP LIGHT	SHOP LIGHT
AI AI INJ STEEL W K S	AI AI INJ STEEL W K S	GLASS STEEL W K S

HIPAR30-CE-P E27 Max.35/70W
230V / 50Hz
p. 458

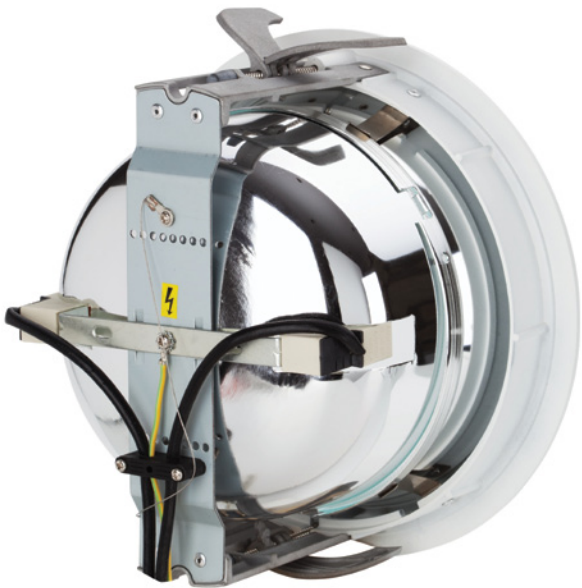
HIR 111-CE-P GX8.5 Max.35/70W
230V / 50Hz
p. 458

HIT G12 Max.35/70/150W
230V / 50Hz
p. 458



circuspot [HIPAR 30-CE-P] circuspot [HIR 111-CE-P] circuspot [HIT]

arteku | thyphon



SHOP LIGHT	SHOP LIGHT	SHOP LIGHT
AI GLASS STEEL W	R41	GLASS

HIT-DE RX7s Max.150W
230V / 50Hz
p. 458

HIT G12 Max.70W
230V / 50Hz
p. 458



arteku thyphon



retorik



↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIT G12 Max.35/70W
230V / 50Hz
p. 458



retorik 1 [HIT]

↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIPAR-CBC51 GX10 Max.20/35W
230V / 50Hz
p. 458



retorik 1 [HIPAR-CBC51]

↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIR 111-CE-P GX8.5 Max.35/70W
230V / 50Hz
p. 458



retorik 1 [HIR111-CE-P]

↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIPAR-CBC51 GX10 Max.2x20/35W
230V / 50Hz
p. 458



retorik 2 [HIPAR-CBC51]

↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIT G12 Max.2x35/70W
230V / 50Hz
p. 459



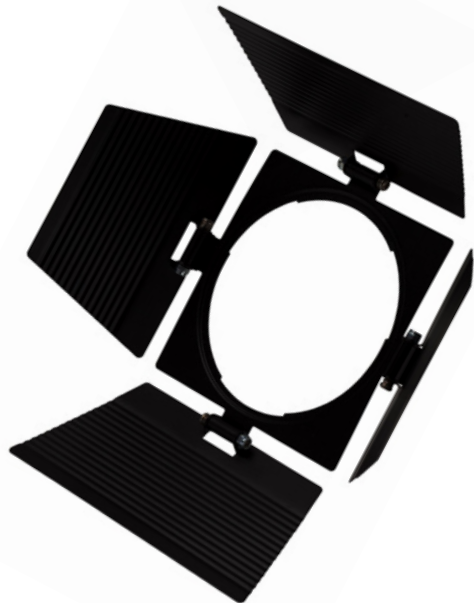
retorik 2 [HIT]

↑	↙	↖	1mm	↗	355°
40°	SHOP LIGHT	⚡	1mm	↗	355°
55°	GLASS	AI	AI INJ	GLASS	STEEL
W	K	S			
⚡	CE	IP	20		

HIR 111-CE-P GX8.5 Max.2x35W
HIR 111-CE-P GX8.5 Max.2x70W
230V / 50Hz
p. 459

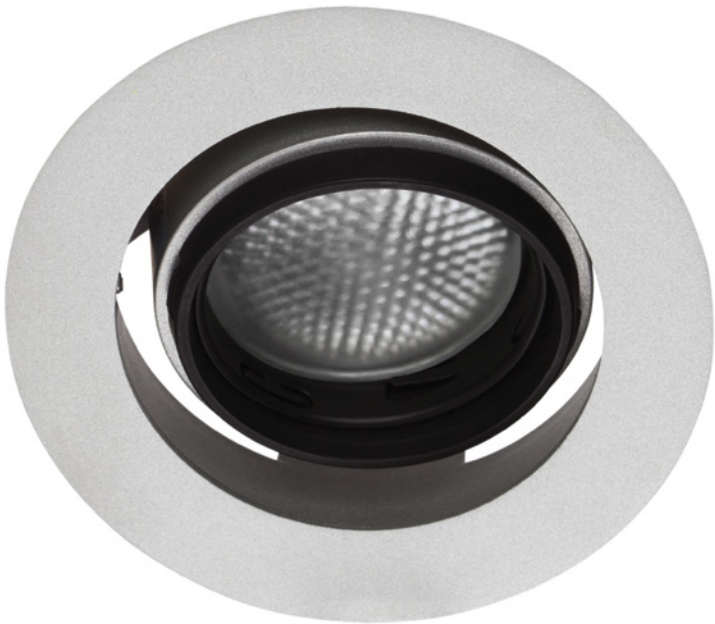


retorik 2 [HIR111-CE-P]





technik | project



						Al	K
SHOP LIGHT				Al	W		
K	S						

HIPAR-CBC51 GX10 Max.20/35W
230V / 50Hz
p. 459

60°	SHOP LIGHT			R50	GLASS		
Al	GLASS	W	K	S			

HIT-TC-CE G8.5 Max.35/70W
230V / 50Hz
p. 459



technik

technik [honeycomb]

project

ornit | voltage



SHOP LIGHT					
AI INJ	GLASS	STEEL	W	K	S
ST					

SHOP LIGHT					
AI INJ	GLASS	STEEL	W		
K	S				

IP 40
HIT-DE RX7s Max.70/150W
230V / 50Hz
p. 459

IP 20
HIT-TC-CE G8.5 Max.35/70W
230V / 50Hz
p. 459



ornit voltage



storm



30° SHOP LIGHT OSC	14° OSC	23° SHOP LIGHT OSC	46° SHOP LIGHT OSC
AL INJ STEEL W K S	S GLASS AL GLASS W K	S GLASS AL GLASS W K	S GLASS AL GLASS W K

HIT G12 Max.35/70W
230V / 50Hz
p. 459



storm storm 14° storm 23° storm 46°

plus | strike



5mm 30mm SHOP LIGHT	60° OSC	44° SHOP LIGHT	56° OSC
GLASS STEEL W K S	GLASS AL INJ	AL AL INJ GLASS W	GLASS

HIT G12 Max.35/70W
230V / 50Hz
p. 459

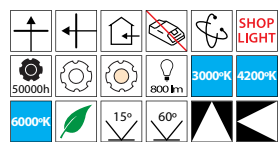
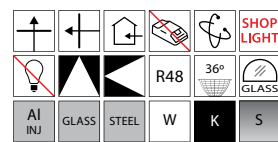
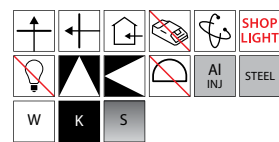
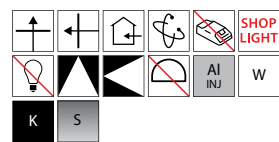
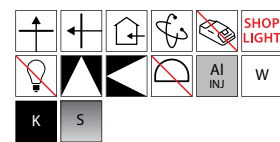
HIT G12 Max.35/70/150W
230V / 50Hz
p. 459



plus strike



módulo








QR111 G53 Max.75W
12V



módulo [QR111]






































































































































módulo [CDM-R111]






HIPAR30-CE-P E27 Max.35/70W
230V / 50Hz



módulo [CDM-R PAR30]






HIT G12 Max.35/70/150W
 230V / 50Hz



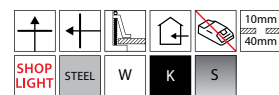
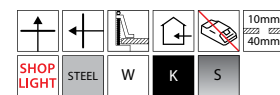
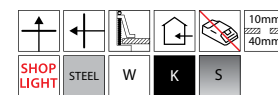
módulo [CDM-T]

LED MAX.9x1W
12V DC (350mA)



módulo [LED]

00X



p. 459



box 1

p. 459



box 2

p. 459



box 3

p. 459



box 4

DOWNLIGHTS HALOGÉNEO

halogen downlights | luminaria de halógeno | spot halogène | lampada alogena



ozzo



MG	K MG

QPAR51 GU10 Max.50W
230V / 50Hz
p. 459

QPAR51 GU10 Max.2x50W
230V / 50Hz
p. 459



ozzo 1ozzo 2

nano | 860 | zotti | vuigu



GLASSGLASSSTEEL	GLASSGLASSSTEEL	SHOP LIGHTGLASSSTEELWKGMGST	GLASSGLASSSTEELWKS
		ST	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 459

QPAR51 GU10 Max.50W
230V / 50Hz
p. 459

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 460

QT9 G4 Max.20W
12V
p. 460

QPAR51 GU10 Max.50W
230V / 50Hz
p. 460



nano Snano R860zottivuigu

itsy | hure | smet | tretua | kadar

170 | 180 | 270 | 280



  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
p. 460

  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
p. 460

  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
p. 460

  IP/20

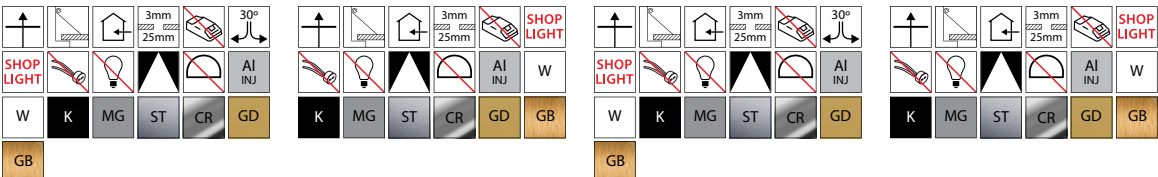
QPAR51 GU10 Max.50W
230V / 50Hz
p. 460

  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
p. 460



itsy hure smet tretua kadar



  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 460

  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 460

  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 460

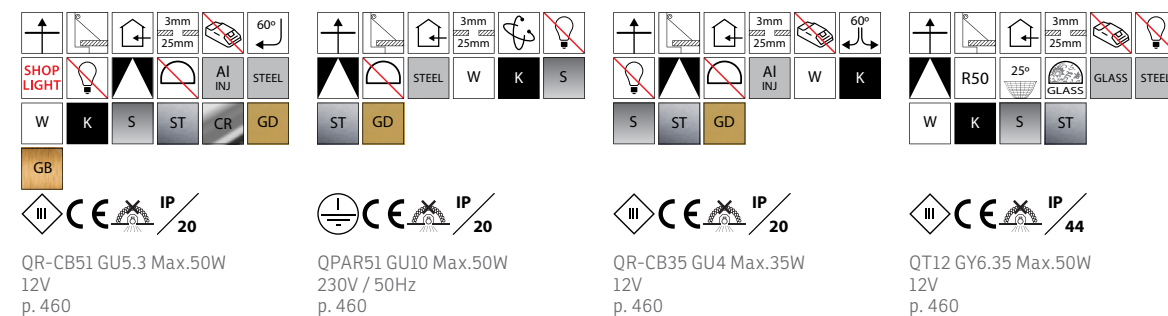
  IP/20

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 460



170 180 270 280

zedo | gohny | robus | pixel



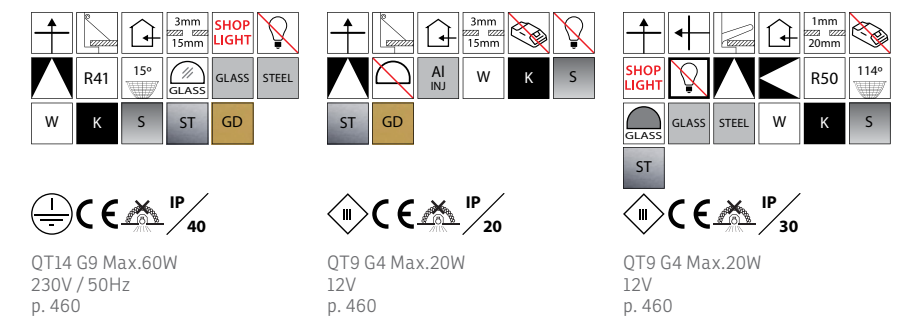
zedo

gohny

robust

pixel

doldo | point | kai



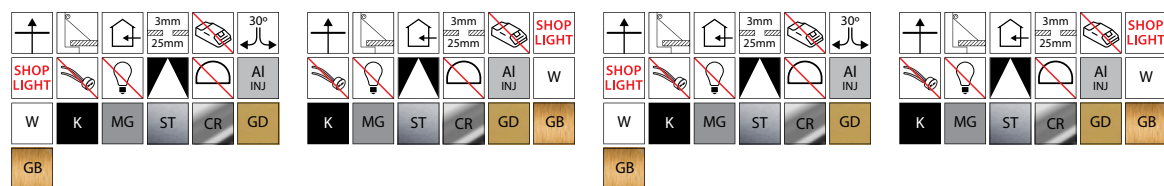
doldo

point

kai



250 | 260 | 530 | 540



QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 461



250

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 461



260

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 461



530

QPAR51 GU10 Max.50W
230V / 50Hz
QR-CB51 GU5.3 Max.50W
12V
p. 461



540

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DOWNLIGHTS HALÓGENO | HALOGEN DOWNLIGHTS | LUMINARIA DE HALÓGENO | SPOT HALOGÈNE | LAMPADA ALOGENA

GU10-D-I | GU10-D-II | GU5.3-D-III



QPAR51 GU10 Max.50W
230V / 50Hz
p. 460



GU10-D-I



QPAR51 GU10 Max.50W
230V / 50Hz
p. 460



GU10-D-II



QR-CB51 GU5.3 Max.50W
12V
p. 460

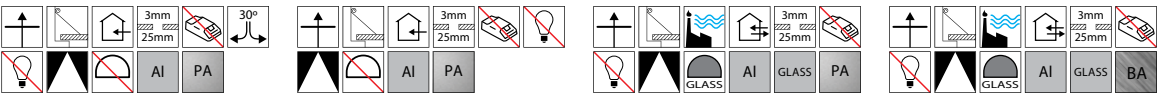
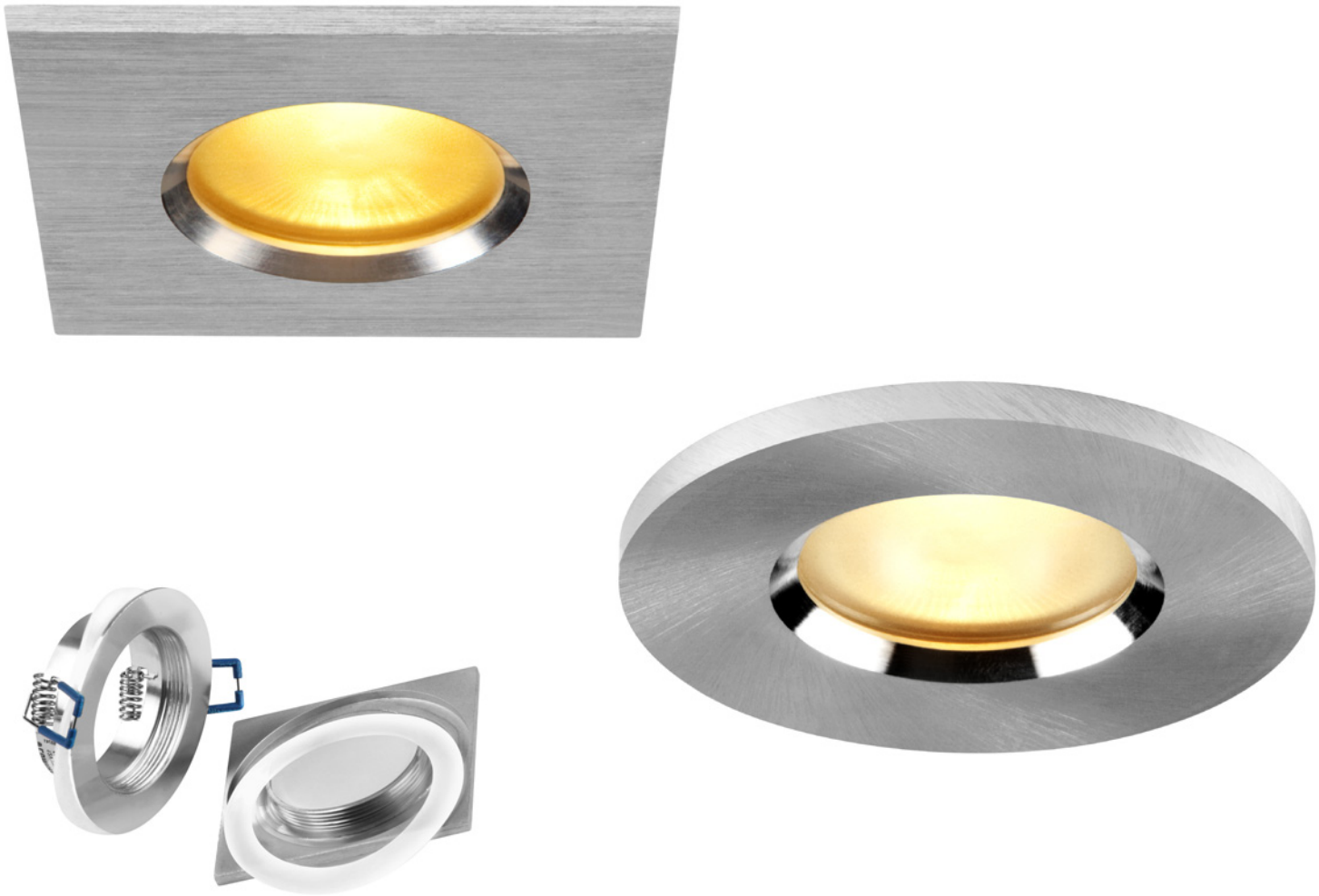


GU5.3-D-III

DOWNLIGHTS HALOGENO | HALOGEN DOWNLIGHTS | LUMINARIA DE HALÓGENO | SPOT HALOGENE | LAMPADA ALOGENA

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rondo | brusbu | canuzapu | tuazam



III **CE** IP 20

QR-CB51 GU5.3 Max.50W
12V
p. 461

III **CE** IP 20

QR-CB51 GU5.3 Max.50W
12V
p. 461

III **CE** IP 65

QR-CB51 GU5.3 Max.50W
12V
p. 461

III **CE** IP 65

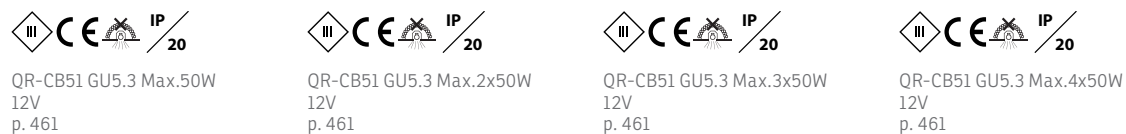
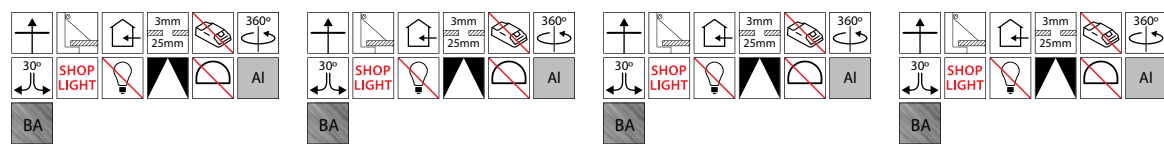
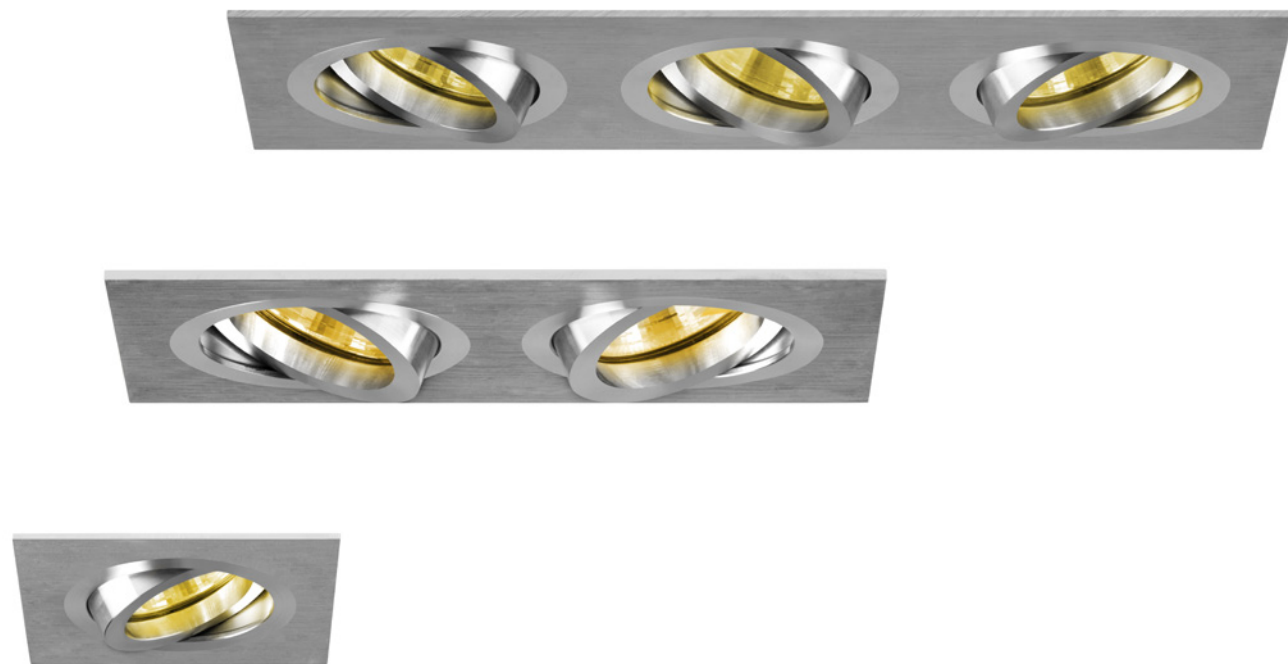
QR-CB51 GU5.3 Max.50W
12V
p. 461



rondo brusbu canuzapu tuazam



proton



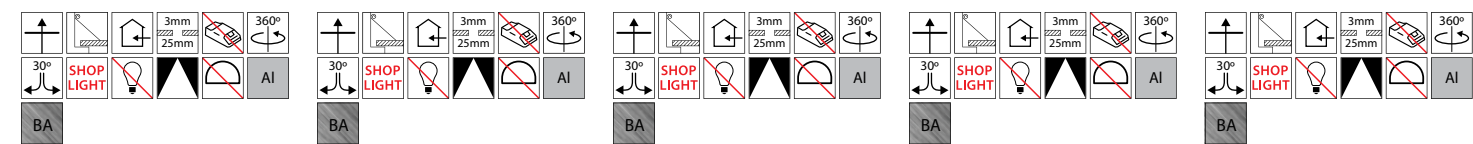
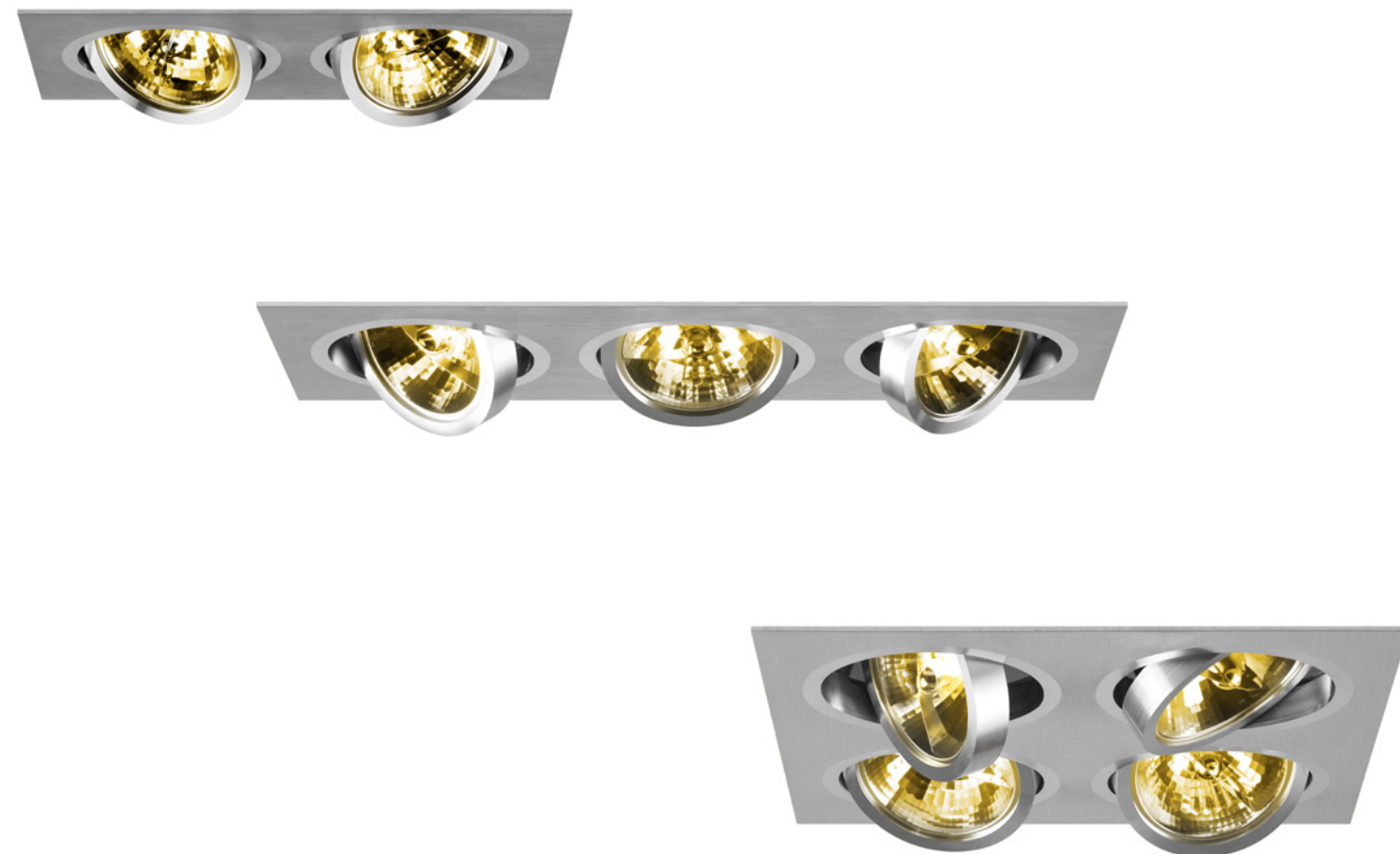
proton 1

proton 2

proton 3

proton 4

katrina



katrina 1

katrina 2

katrina 3

katrina 4S

katrina R

retorik | circuspot



--	--	--

III IP 20
QR111 G53 Max.75W
12V
p. 461

III IP 20
QR111 G53 Max.2x75W
12V
p. 462

III IP 20
QR111 G53 Max.75W
12V
p. 462



retorik 1 [QR111]

retorik 2 [QR111]

circuspot [QR111]



galaxo | lwatt | periscope | ciclone



↑	↙	⌂	1mm 25mm	360°	15°
SHOP LIGHT	⚡	☾	52°	↺	↻
Al INJ	STEEL	W	K	MG	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	15°
SHOP LIGHT	⚡	☾	52°	↺	↻
Al INJ	STEEL	W	K	MG	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	30°
SHOP LIGHT	⚡	☾	18°	↺	↻
Al INJ	STEEL	W	K	MG	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	30°
SHOP LIGHT	⚡	☾	18°	↺	↻
Al INJ	STEEL	W	K	MG	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462



galaxo lwatt periscope ciclone

gizio | crean | kik | tondo



↑	↙	⌂	1mm 25mm	360°	SHOP LIGHT
⚡	☾	☼	21°	↺	Al INJ
STEEL	W	K	MG		

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	15°
SHOP LIGHT	⚡	☾	21°	↺	↻
Al INJ	STEEL	W	K	MG	

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	SHOP LIGHT
⚡	☾	☼	21°	↺	Al INJ
STEEL	W	K	MG		

QPAR51 GU10 Max.50W
230V / 50Hz
p. 462

↑	↙	⌂	1mm 25mm	360°	15°
SHOP LIGHT	⚡	☾	21°	↺	↻
Al INJ	STEEL	W	K	MG	

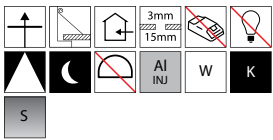
QPAR51 GU10 Max.50W
230V / 50Hz
p. 462



gizio crean kik tondo



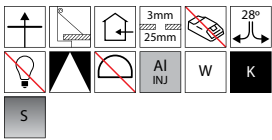
sensis



III **CE**  **IP20**
QR-CB51 GU5.3 Max.50W
12V
p. 462



sensis



III **CE**  **IP20**
QR-CB51 GU5.3 Max.50W
12V
p. 462



sensis M

PROJECTORES

projectors | proyectores | projecteurs | proiettori



cielo | jiven | index



		EVG	EVGD 1.10V	SHOP LIGHT	
	R41	72°		AI	STEEL
W	K	S			

TC-TEL GX24q-3 Max.2x32W
TC-TEL GX24q-4 Max.2x42W
230V / 50Hz
p. 462



cielo

		EVG	EVGD 1.10V	SHOP LIGHT	
	R41	72°		AI	STEEL
W	K	S			

TC-TEL GX24q-3 Max.2x32W
TC-TEL GX24q-4 Max.2x42W
230V / 50Hz
p. 462



cielo xl

		EVG	EVGD 1.10V	SHOP LIGHT	
	R46	76°		AI	STEEL
W	K	S			

TC-DEL G24q-1 Max.2x13W
TC-DEL G24q-2 Max.2x18W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 462



jiven

		EVG	EVGD 1.10V	SHOP LIGHT	
	R46	88°		AI	STEEL
W	K	S			

TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 462



index

opacus | curvo | dafto | equinoce



R48	24°	GLASS	STEEL	PMMA FR	W

HIT G12 Max.35W
230V / 50Hz
p. 463



opacus

AI EXT	GLASS	W	K	S	AI

QPAR51 GU10 Max.50W
230V / 50Hz
p. 463



curvo

1300lm	4200°K	90°	GLASS	AI EXT	GLASS

LED Max.6x3W
230V / 50Hz (700mA)
p. 463



dafto

230lm	4000°K	30°	PMMA TR	PA	AI EXT

LED Max.3x1W
230V / 50Hz (700mA)
p. 463



equinoce

450lm	4000°K	30°	PMMA TR	PA	AI EXT

LED Max.6x1W
230V / 50Hz (700mA)
p. 463



medium equinoce

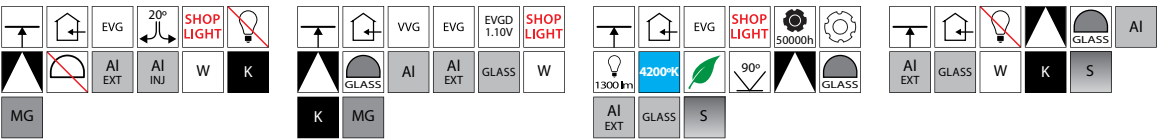
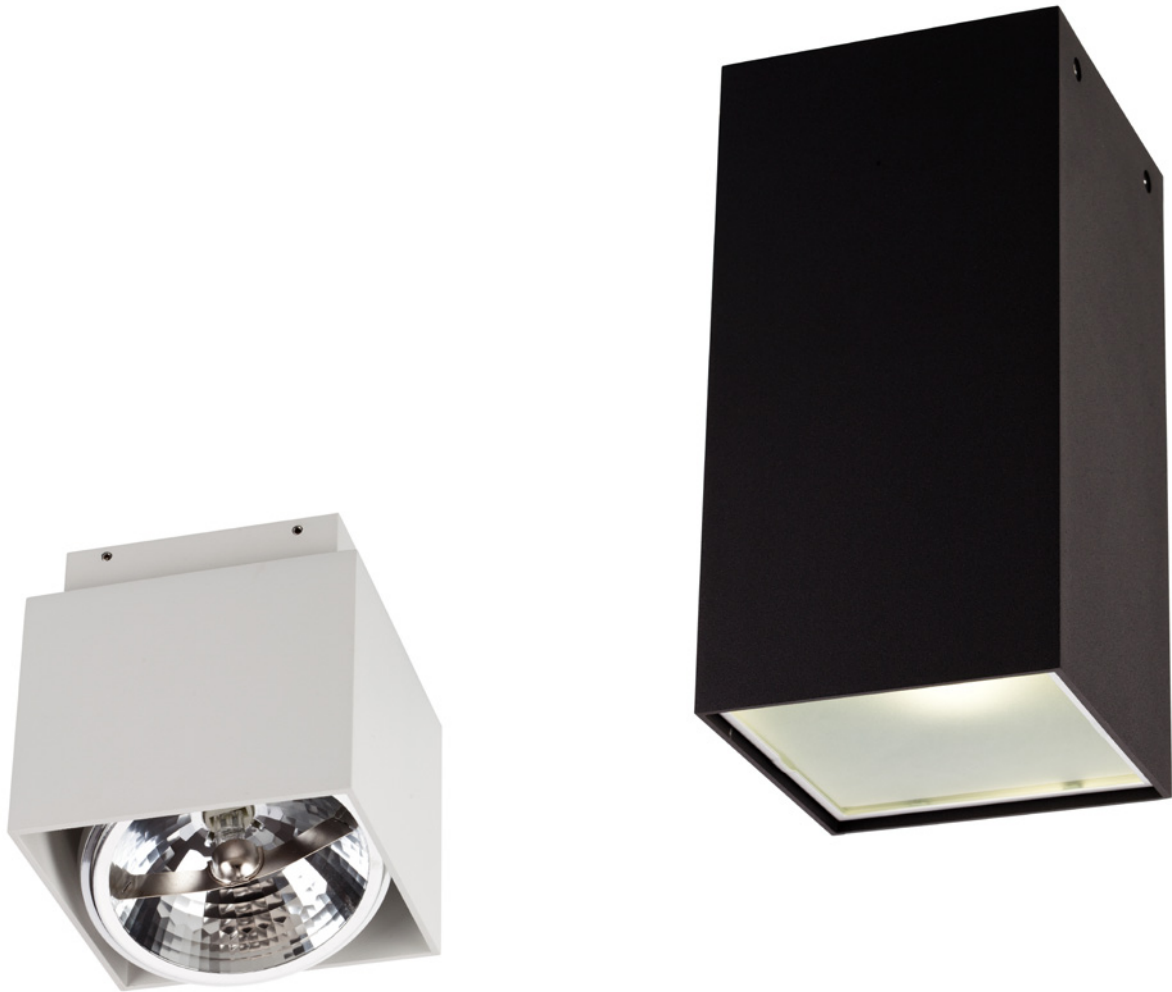
1120lm	4000°K	30°	PMMA TR	PA	AI EXT

LED Max.15x1W
230V / 50Hz (700mA)
p. 463



equinoce XL

kubik | loop | rayon | quadra



QR111 G53 Max.50W
230V / 50Hz
p. 463



kubik

TC-D G24d-2 Max.18W
TC-DEL G24q-2 Max.18W
230V / 50Hz
p. 463



loop

LED Max.6x3W
230V / 50Hz (700mA)
p. 463



rayon

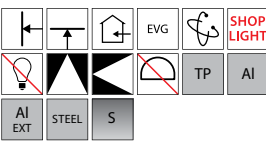
QPAR51 GU10 Max.50W
230V / 50Hz
p. 463



quadra



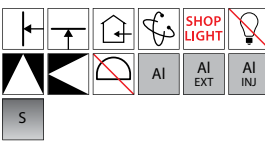
halo | talosca



QR111 G53 Max.4x50W
230V / 50Hz
p. 463



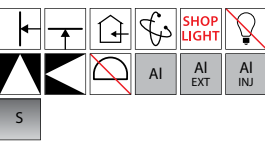
halo 111



QPAR51 GU10 Max.2x50W
230V / 50Hz
p. 463



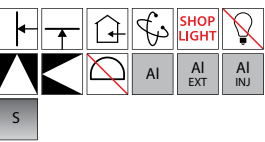
talosca 2



QPAR51 GU10 Max.4x50W
230V / 50Hz
p. 463



talosca 4



QPAR51 GU10 Max.6x50W
230V / 50Hz
p. 463



talosca 6



fredus



LED Max.9x1W
230V / 50Hz (350mA)
QR111 G53 Max.50W
230V / 50Hz
p. 463



fredus 1

LED Max.18x1W
230V / 50Hz (350mA)
QR111 G53 Max.2x50W
230V / 50Hz
p. 463



fredus 2

LED Max.27x1W
230V / 50Hz (350mA)
QR111 G53 Max.3x50W
230V / 50Hz
p. 463

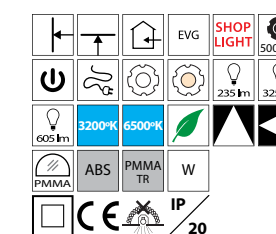


fredus 3





slimled



LED Max.2,7W/3,6W/6,8W
230V / 50Hz
p. 464



slimled

power | eventus base



QPAR-CB30 E27 Max.75W 230V / 50Hz p. 464	QPAR-CB30 E27 Max.75W 230V / 50Hz	QPAR-CB30 E27 Max.75W 230V / 50Hz	QPAR-CB30 E27 Max.75W 230V / 50Hz	QPAR-CB30 E27 Max.75W 230V / 50Hz p. 464



power base power filter power filter power filter eventus base

profile | ledonix base | exua base



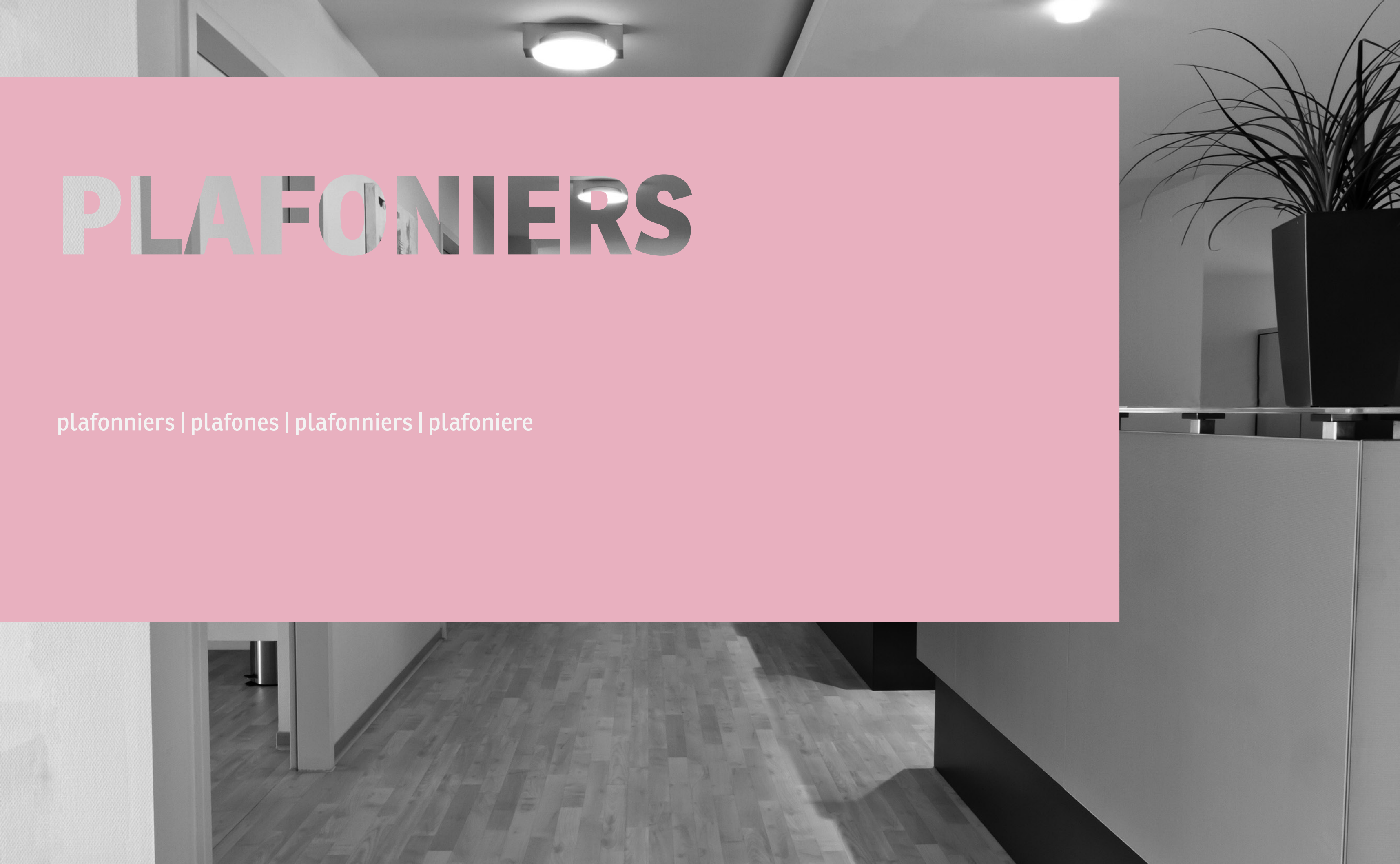
HIT-DE RX7s Max.70W/150W 230V / 50Hz p. 464	LED Max.6x1W 230V / 50Hz (350mA) p. 464	LED Max.6x1W 230V / 50Hz (350mA) p. 464



profile ledonix base exua base

PLAFONNIERS

plafonniers | plafones | plafonniers | plafoniere



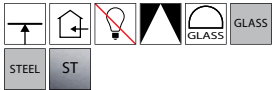
eclipse | golassa | hall | chroma | harbor





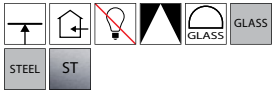
220 | 230 | 830 | 840 | 880 | 960



TC-DSE 3U E27 Max.2x15W
230V / 50Hz
p. 464



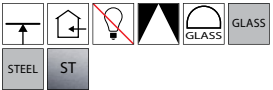
220



TC-DSE 3U E27 Max.3x15W
230V / 50Hz
p. 464



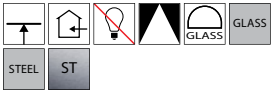
230



TC-DSE 3U E27 Max.2x20W
230V / 50Hz
p. 464



830



TC-DSE 3U E27 Max.3x20W
230V / 50Hz
p. 464



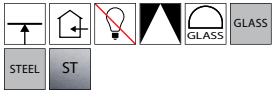
840



TC-DSE 3U E27 Max.2x20W
230V / 50Hz
p. 465



880



TC-DSE 3U E27 Max.2x15W
230V / 50Hz
p. 465

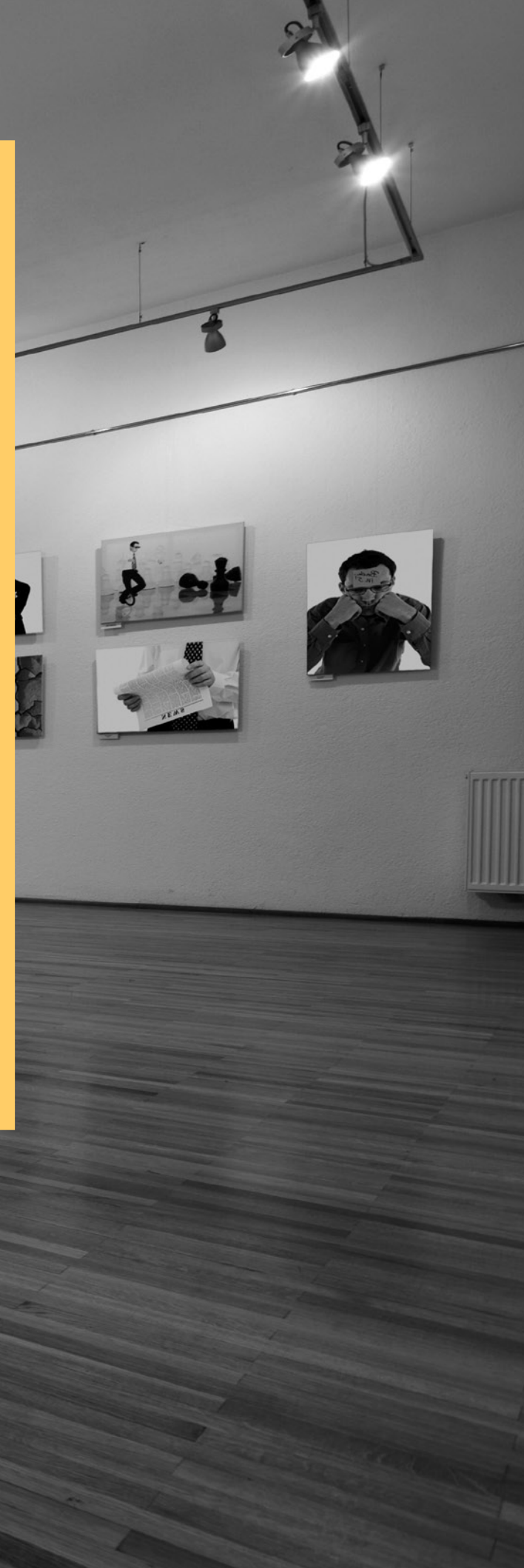


960

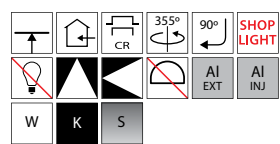
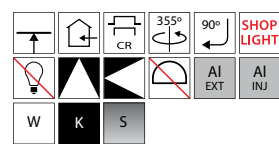
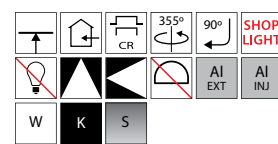
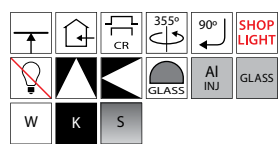
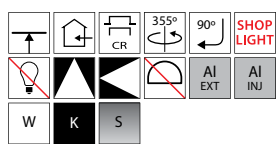
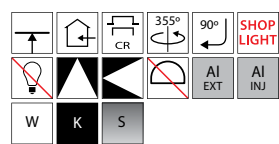
SISTEMA CARRIL

[1 e 3 circuitos]

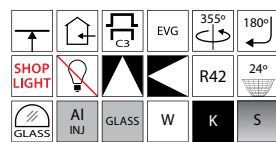
rail system [1 and 3 circuit] | sistemas de carril [1 y 3 circuito]
système de rails [1 et 3 circuit] | sistema a binari [1 e 3 circuiti]



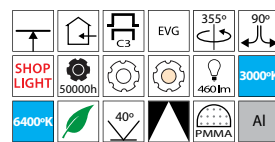
gemesu | monopoint | target



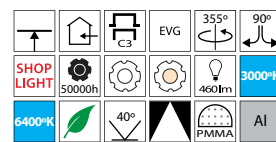
wezzle | ledonix | exua | evron



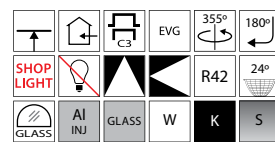
HIT G12 Max.70W
230V / 50Hz
p. 465



LED Max.6x1W
230V / 50Hz (350mA)
p. 465



LED Max.6x1W
230V / 50Hz (350mA)
p. 465



HIT G12 Max.70W
230V / 50Hz
p. 465



wezzle



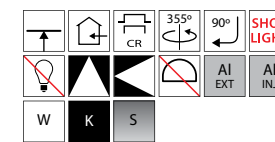
ledonix



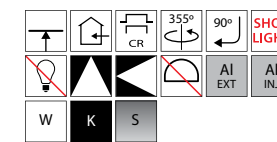
exua



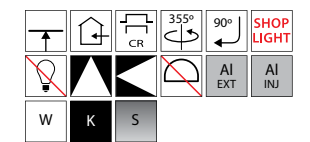
evron



QPAR-CB30 E27 Max.75W
230V / 50Hz
p. 465



QPAR51 GU10 Max.50W
230V / 50Hz
p. 465



QPAR51 GU10 Max.50W
230V / 50Hz
p. 465



martin



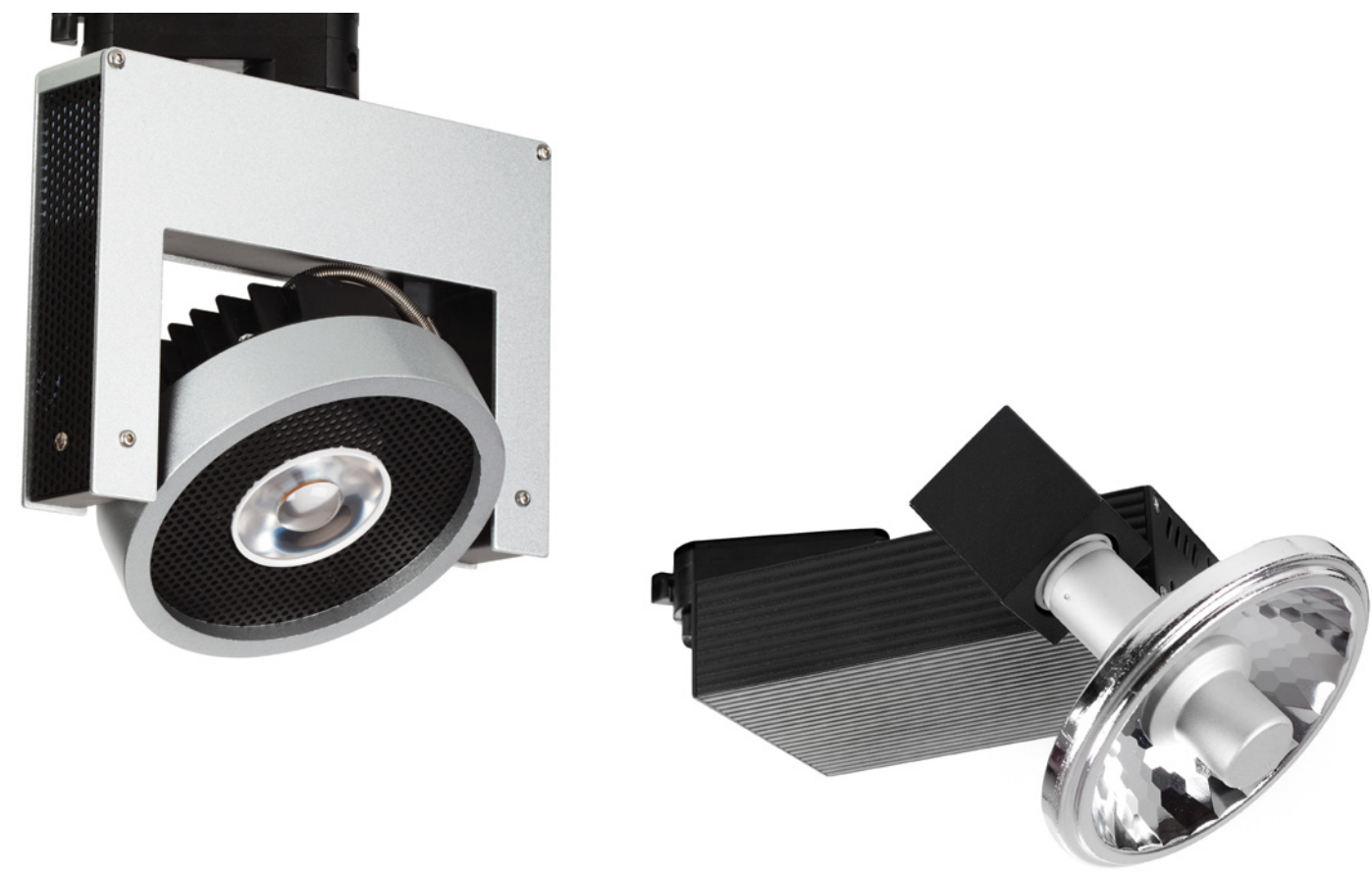
lolla



arcopa



sniper | zombu



↑	↑	↑	EVG	355°	45°
SHOP LIGHT	⚡	⚡			
AI INJ	STEEL	W	K	S	

IP 20

QR111 G53 Max.50W
230V / 50Hz
p. 466

↑	↑	↑	EVG	355°	160°
SHOP LIGHT	50000h	⚡	720lm	3000°K	
4000°K	30°	PMMA	AI		
AI INJ	STEEL	PMMA TR	W	K	S

IP 20

LED Max.9x1W
230V / 50Hz (350mA)
p. 466

↑	↑	↑	EVG	355°	160°
SHOP LIGHT	50000h	⚡	800lm	3000°K	
4000°K	25°	PMMA FR	AI		
AI INJ	STEEL	PMMA FR	W	K	S

IP 20

LED Max.10W
230V / 50Hz (350mA)
p. 466

↑	↑	↑	EVG	355°	60°
SHOP LIGHT	⚡	⚡			
AI INJ	STEEL	W	K	S	

IP 20

HIR 111-CE-P Max.70W
230V / 50Hz
p. 466



sniper [QR111] sniper [LED 9W] sniper [LED 10W] zombu

bizz



↑	↑	↑	EVG	90°	355°
SHOP LIGHT	⚡	⚡			
GLASS	TP	AI INJ	GLASS	W	

IP 20

HIT-TC-CE G8.5 Max.70W
230V / 50Hz
p. 466

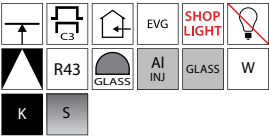
↑	↑	↑	EVG	90°	355°
SHOP LIGHT	50000h	⚡	910lm	3000°K	
4000°K	31°	PMMA FR	W		
TP	AI INJ	PMMA FR	W		

IP 20

LED Max.12x1W (350mA)
230V / 50Hz
p. 466

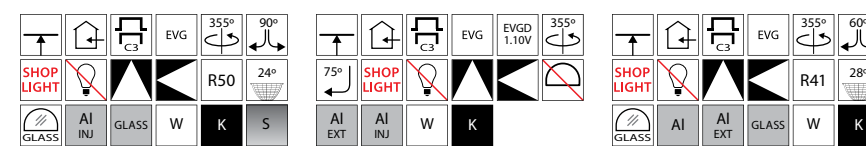


bizz [HIT-TC-CE] bizz [LED]



TC-LEL 2G11 Max.36W
250V / 50Hz
p. 466





HIT G12 Max.70W
230V / 50Hz
p. 466



booster

ovnic



SHOP LIGHT						AI EXT
AI INJ	W	K	S			

QR111 G53 Max.50W	QR111 G53 Max.2x50W
230V / 50Hz	230V / 50Hz
p. 466	p. 466



ovnic 1 ovnic 2

silina | creativ



SHOP LIGHT						AI EXT
AI INJ	W	K	S			

QR-CB51 GU5.3 Max.50W	QR-CB51 GU5.3 Max.2x50W
230V / 50Hz	230V / 50Hz
p. 466	p. 466



silina 1 silina 2 creativ



seere



SHOP LIGHT					
75°	Al INJ	GLASS	STEEL	W	K

S

CE IP 20

HIT-DE RX7s Max.70W
230V / 50Hz
p. 466



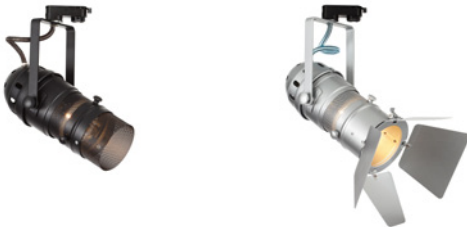
seere

eventus | power



QPAR-CB30 E27 Max.75W
230V / 50Hz
p. 466

QPAR-CB30 E27 Max.75W
230V / 50Hz
p. 466



eventus power

inspire | strategic



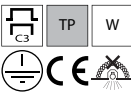
HIT-TC-CE G8.5 Max.70W
230V / 50Hz
p. 466

HIT-TC-CE G8.5 Max.70W
230V / 50Hz
p. 466



inspire strategic

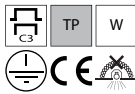
c3-rcs



230-240V / 50Hz (Max.16A)
p. 467



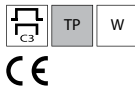
i3fl-rcs



230-240V / 50Hz (Max.16A)
p. 467



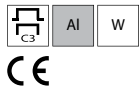
i4-rcs



p. 467



tp3-rcs



p. 467



clip3-rcs



p. 467



sp3k-rcs



p. 467



t3tp-rcs



p. 467



l3tp-rcs



p. 467



x3tp-rcs



p. 467



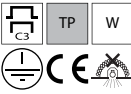
i3tp-rcs



p. 467



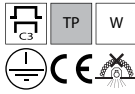
al3tp-rcs



230-240V / 50Hz (Max.16A)
p. 467



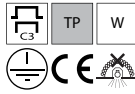
al3-rcs



230-240V / 50Hz (Max.16A)
p. 467



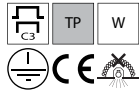
l3-rcs



230-240V / 50Hz (Max.16A)
p. 467



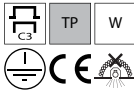
x3-rcs



230-240V / 50Hz (Max.16A)
p. 467



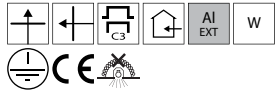
t3-rcs



230-240V / 50Hz (Max.16A)
p. 467



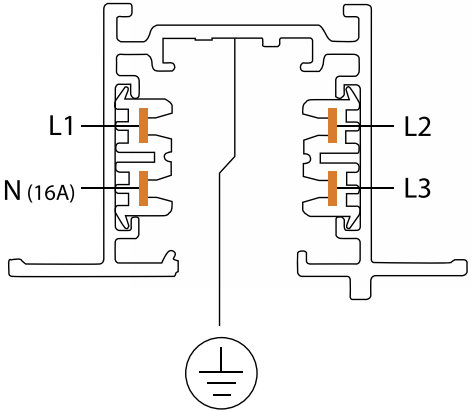
i3-rcs



230-400V / 50Hz (Max.16A)
3x3600W
p. 467



c3-rcs





230V / 50Hz (Max.16A)
p. 467



il-cr



230V / 50Hz (Max.16A)
p. 467



fl1-cr



p. 467



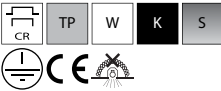
splk-cr



p. 467



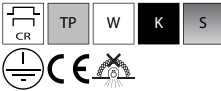
cr1-ss



230V / 50Hz (Max.16A)
p. 468



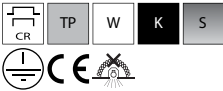
al1-cr



230V / 50Hz (Max.16A)
p. 468



x1-cr



230V / 50Hz (Max.16A)
p. 468



l1-cr



230V / 50Hz (Max.16A)
p. 468



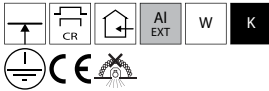
t1-cr



p. 468



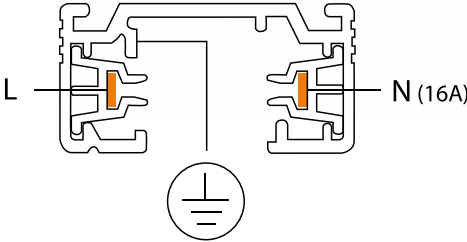
tp1-cr



230V / 50Hz (Max.16A)
p. 468



cr



SUSPENSÕES

pendant | colgantes | suspensions | sospensione



fasdipu | snap



anupia | highlight | bucapu | holle



STEEL	ST	AI	PA	AI

QPAR51 GU10 Max.50W 230V / 50Hz p. 468	QPAR-CB30 E27 Max.75W 230V / 50Hz p. 468	QPAR-CB30 E27 Max.75W 230V / 50Hz p. 468	QPAR-CB30 E27 Max.75W 230V / 50Hz p. 468	QPAR-CB30 E27 Max.4x75W 230V / 50Hz p. 468



fasdipu small snap medium snap snap line snap

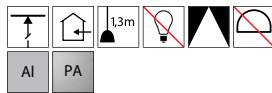
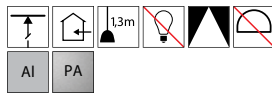
D60	AI EXT	PMMA TR	S	S

TC-TSE E27 Max.23W 230V / 50Hz p. 468	HIT G12 Max.70/150W 230V / 50Hz p. 468	TC-TSE 4U E27 Max.55W 230V / 50Hz p. 468	TC-DEL G24q-3 Max.3x26W 230V / 50Hz p. 468



anupia highlight bucapu holle

fog | cupito | flob | conus | ufo | alisse



TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469

TC-TSE 4U E27 Max.20W
230V / 50Hz
p. 469





drop | alumo | older | poxo | lupied



TSA-SE E27 Max.20W
230V / 50Hz
p. 469

TSA-SE E27 Max.20W
230V / 50Hz
p. 469

TSA-SE E27 Max.20W
230V / 50Hz
p. 469

TSA-SE E27 Max.20W
230V / 50Hz
p. 469

TSA-SE E27 Max.20W
230V / 50Hz
p. 469



drop alumo older poxo lupied





369



roll | vaporizze | lucifer



240lm	4200°K		15°			PMMA
AI EXT	AI INJ	PMMA TR	PA			

50000h		240lm	4000°K		30°			PMMA
GLASS	AI EXT	GLASS	STEEL	PA				

450lm	4000°K		30°			PMMA
TP	AI	AI EXT	PMMA TR	PA		

LED Max.3W
230V / 50Hz (700mA)
p. 469

LED Max.3W
230V / 50Hz (700mA)
p. 469

LED Max.6x1W
230V / 50Hz (700mA)
p. 469

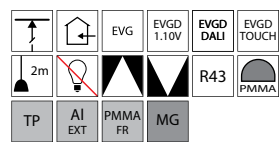


roll

vaporizze

lucifer

oberon

The image displays three long, rectangular, linear pendant lights suspended from a white ceiling by thin black cables. Each light fixture has a dark, curved end cap. A fourth identical light fixture is shown at the bottom left, being held by two hands, demonstrating its size and design. The background is a plain, light-colored wall.

oberon



tresbula | pelcan | office



T16 G5 Max.21W
230V / 50Hz
p. 469



tresbula



T16 G5 Max.35/39/54W
230V / 50Hz
p. 469



pelcan pendant



T16 G5 Max.14/35/39/54W
230V / 50Hz
p. 470



pelcan



T16 G5 Max.35/39/54W
230V / 50Hz
p. 470



office pendant



T16 G5 Max.14/35/39/54W
230V / 50Hz
p. 470



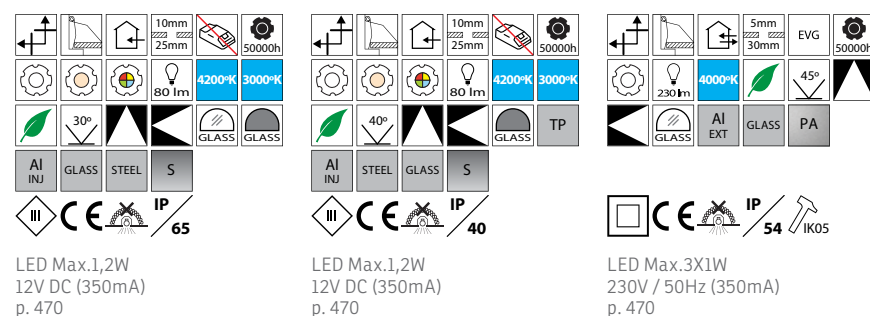
office

BALIZADORES E SINALIZADORES

orientation lighting and signaletics | balizadores y señalizadores
balisage et signalisation | segnaletica e direzionale



adoxe | puck | magneos

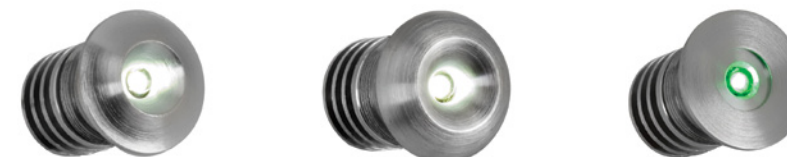
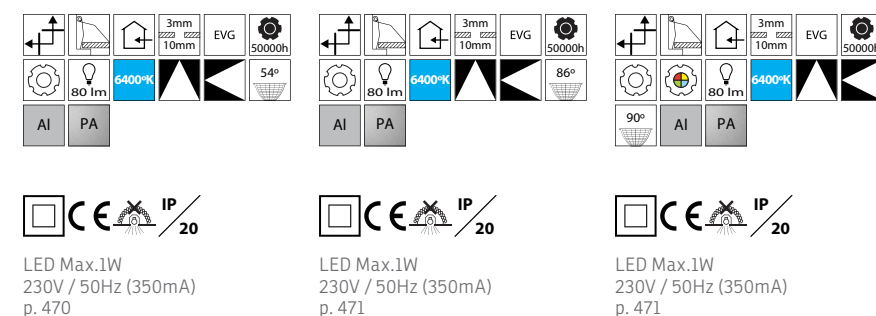


adoxe

puck

magneos

ulken | amizo | ogasca

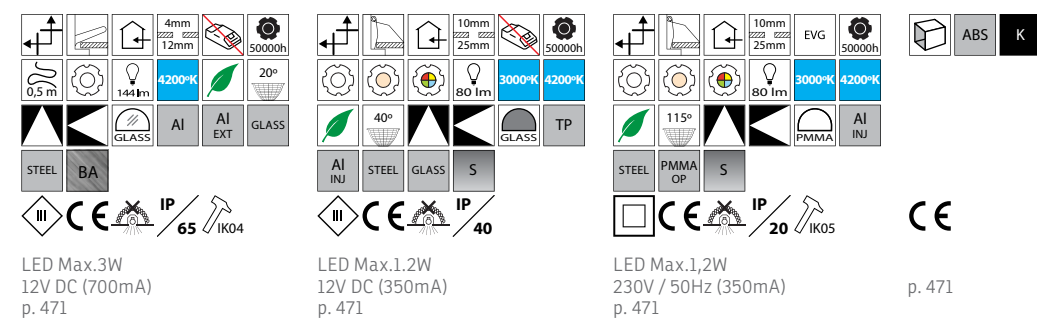


- ulken

amizo

ogasca

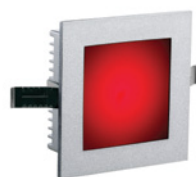
magazon | uzzle | bobik



magazon



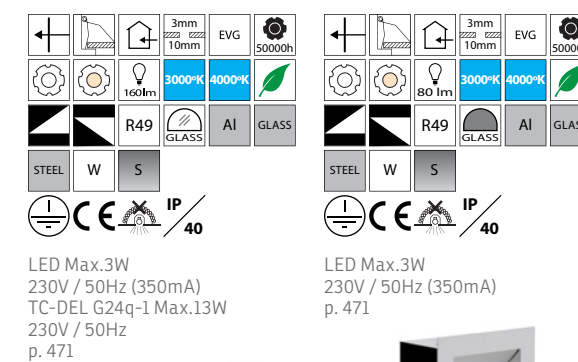
uzzle



bobik



bobik [box]



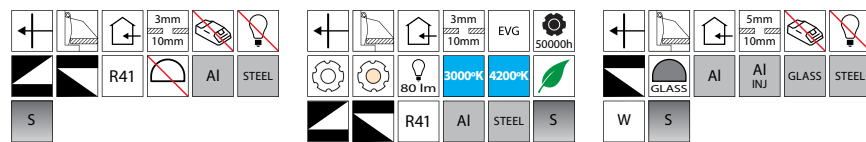
frank



gilla



teco | mini 7



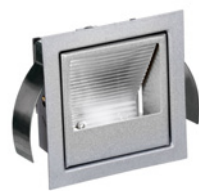
QT9 G4 Max.20W
12V
p. 471



LED Max.1W
230V / 50Hz (350 mA)
p. 471



QT12 GY6.35 Max.50W
12V
p. 471

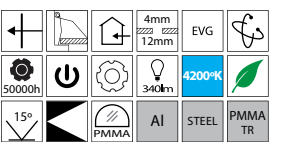


teco [QT9]

teco [LED]

mini 7

twoside

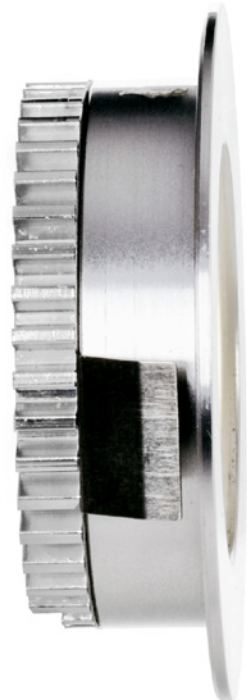


LED Max.3W
230V / 50Hz (700mA)
p. 471



twoside

grazzle | vigilius



LED Max.4x0,06W
230V / 50Hz (20mA)
p. 471



vigilius

gaapu

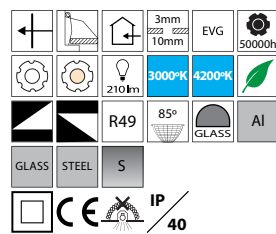


LED Max.5W
230V / 50Hz (500mA)
p. 471



gaapu [box]

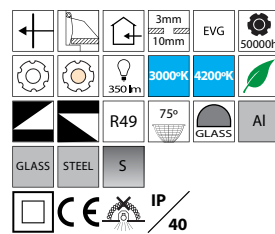
wokus | wing | roof



LED Max.3W
230V / 50Hz (500mA)
p. 471



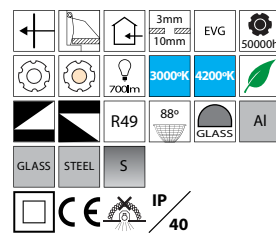
wokus



LED Max.5W
230V / 50Hz (500mA)
p. 471



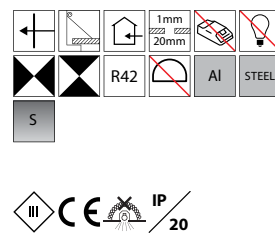
medium wokus



LED Max.2x5W
230V / 50Hz (500mA)
p. 471



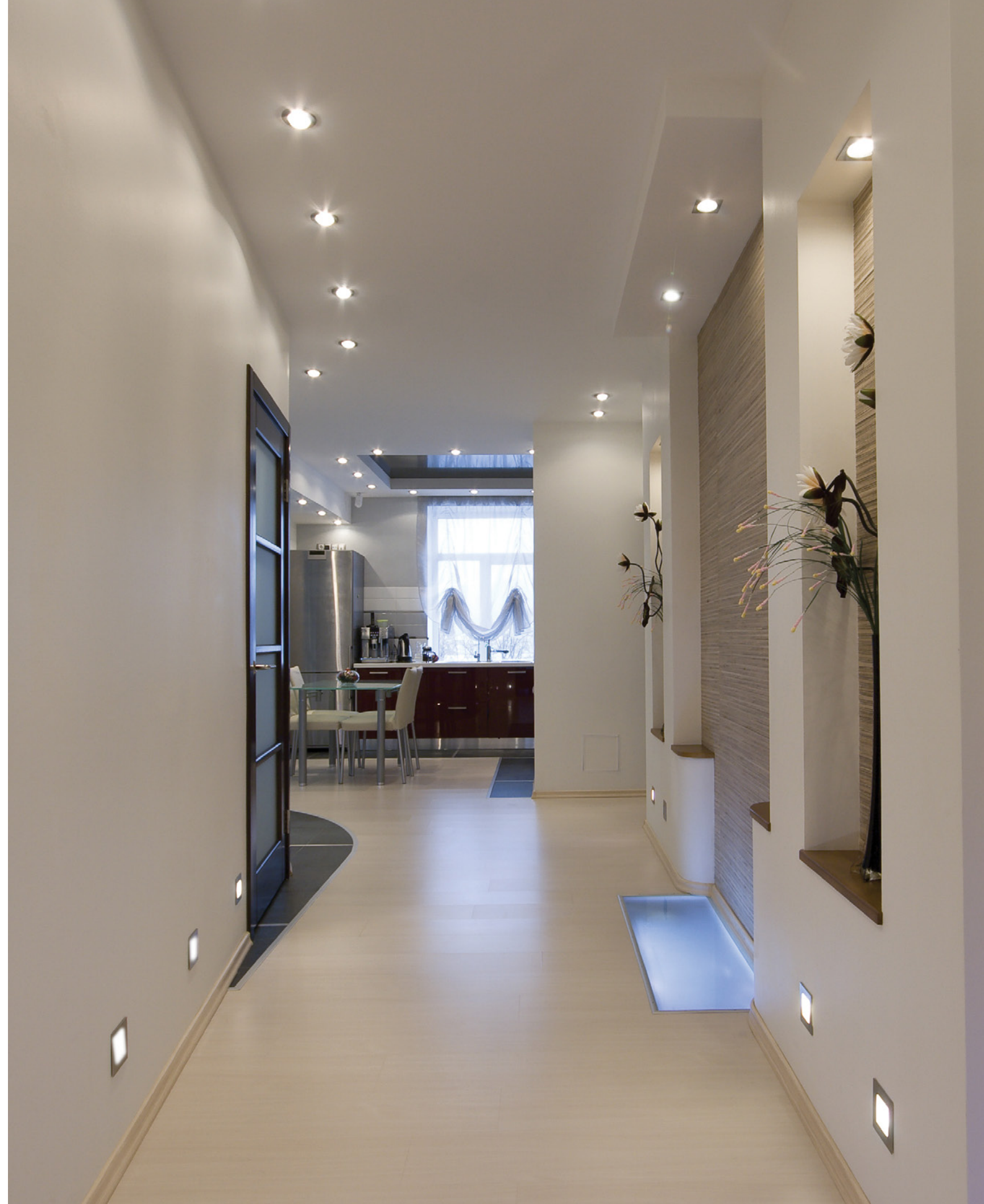
wing



QT12 GY6.35 Max.2x50W
12V DC
p. 472

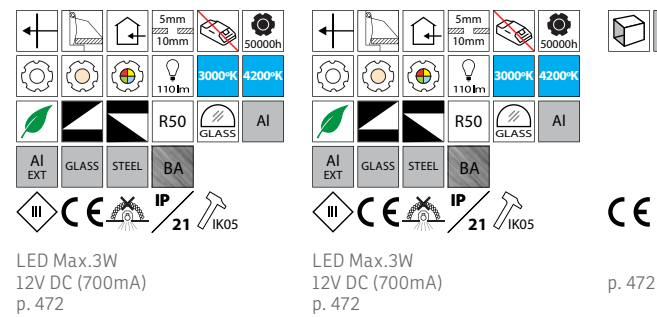
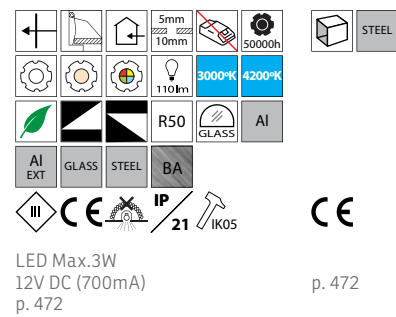
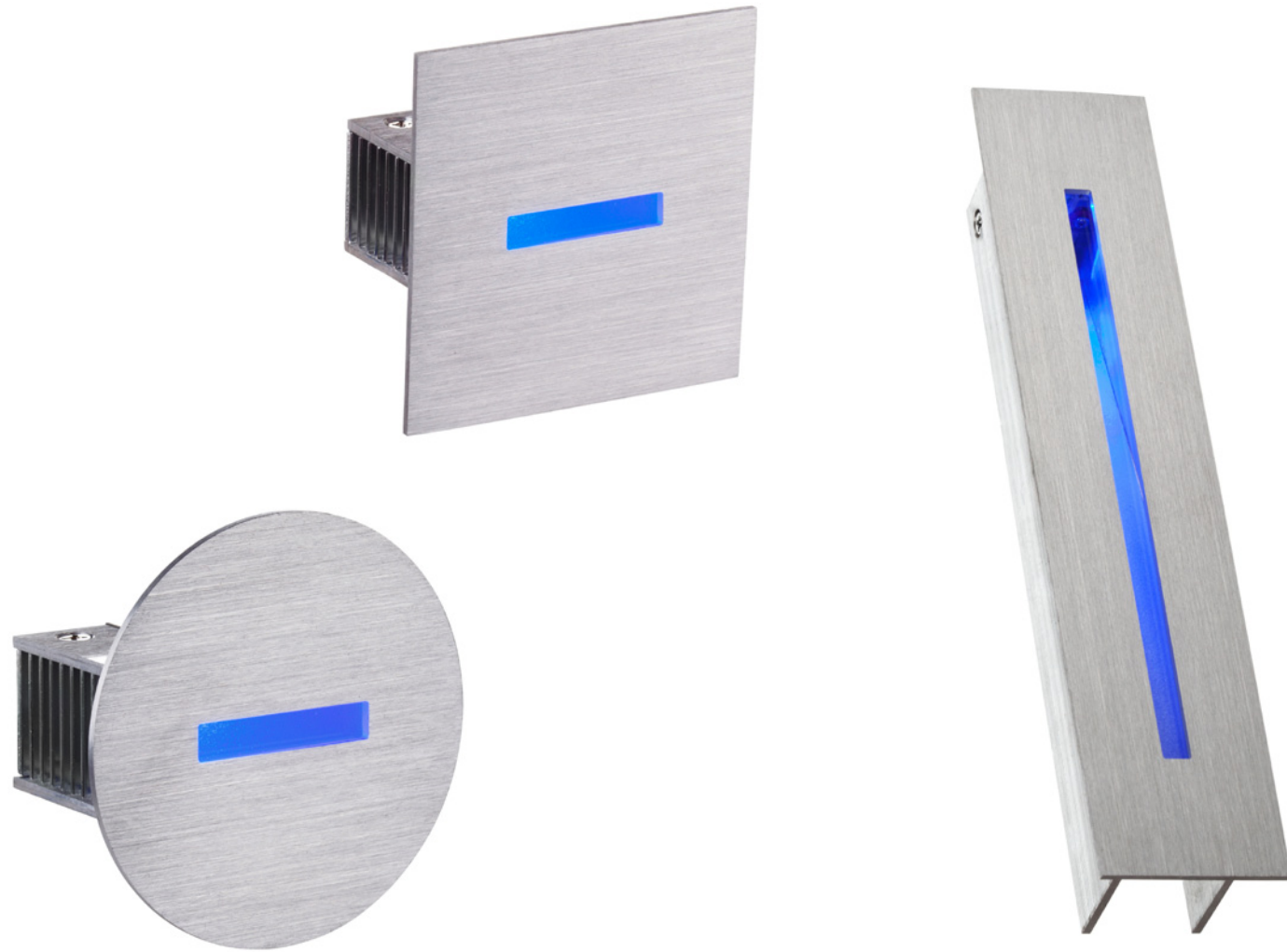


roof



risk

WC



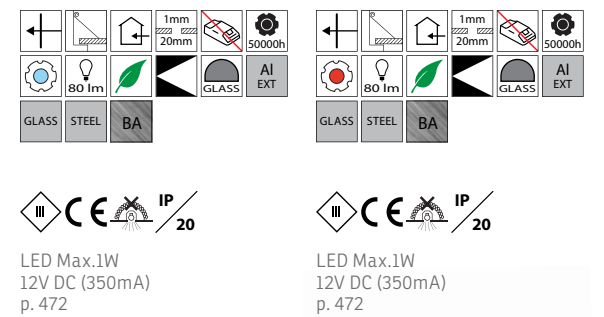
risk

risk [box

risk S

risk F

risk R/S [box



WC

VC

PAEDE E UPLIGHTS

wall and uplights | pared y uplights | mur et uplights | a muro e uplights



xenos

maxum | zupna | bezzee



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xenos 1



xenos 2



xenos 3

--	--	--

--	--	--



maxum

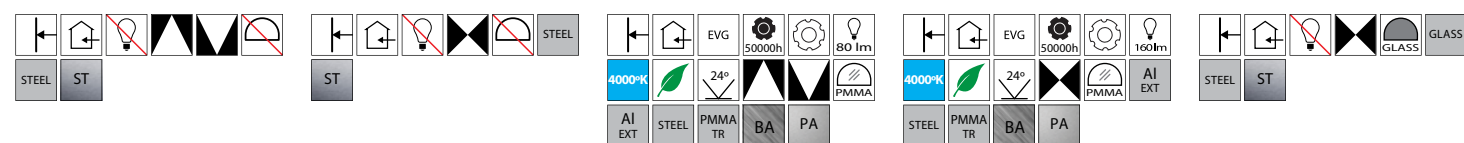
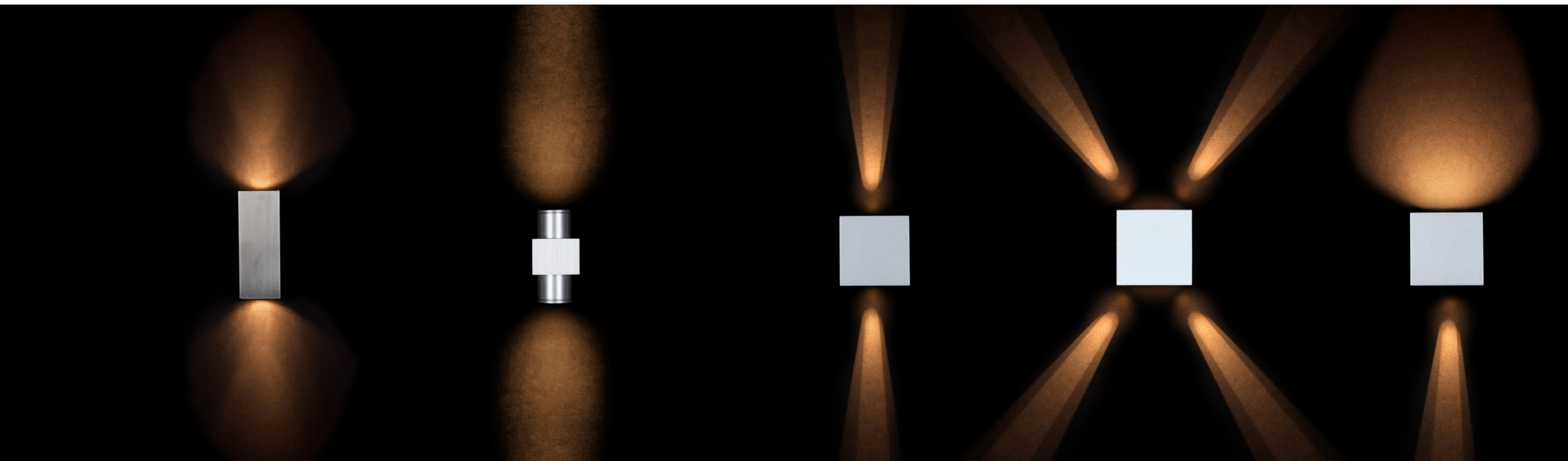


zupna



bezzee

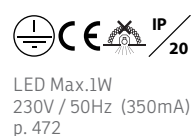




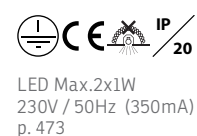
lucky 1



lucky 2



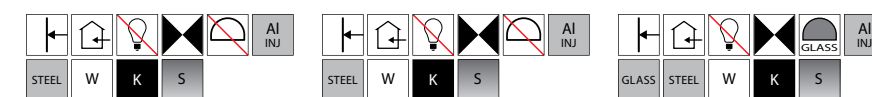
saxxo 1



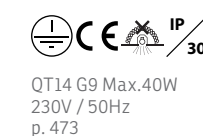
saxxo 2



quart



milos 6



milos 7



milos 8



zesse | linea | murano



6400°K			PMMA	STEEL	PMMA FR	ST					GLASS	GLASS	STEEL	CR		
CR																

IP/20
LED Max.2x1W
230V / 50Hz (350mA)
p. 473



zesse

IP/20
L35/60 S14d Max.35/60W
230V / 50Hz
p. 473



linea

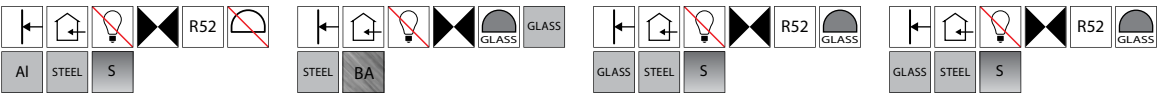
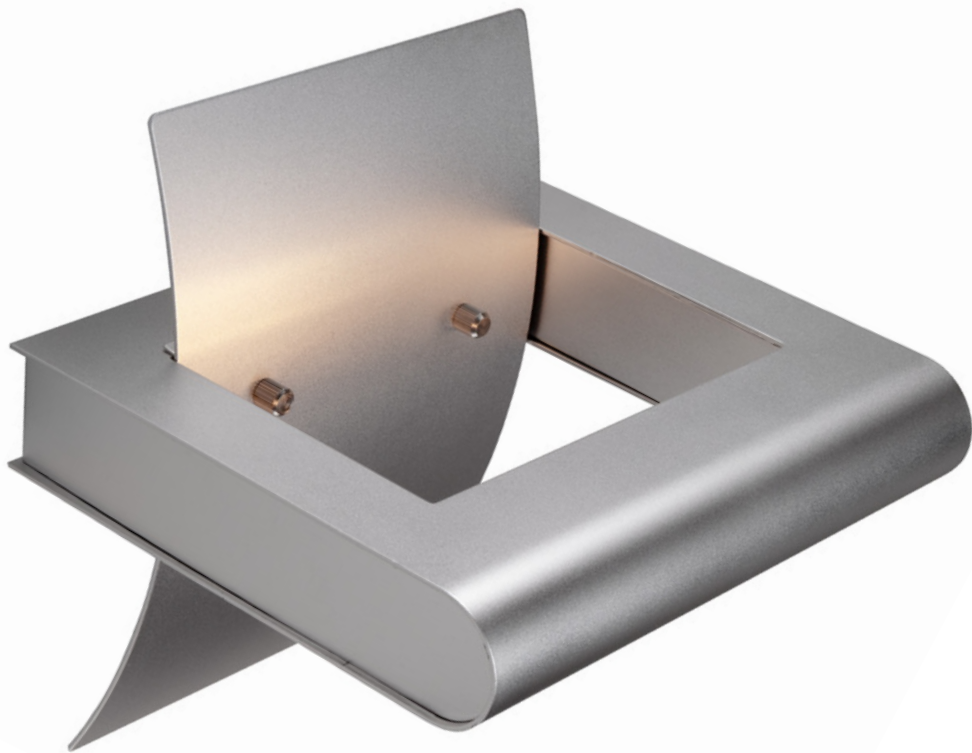
IP/20
TC-S G23 Max.11W
230V / 50Hz
p. 473



murano



emma | dibola | buzzi

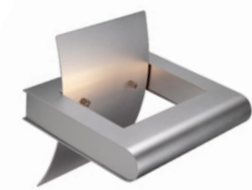


QT-DE12 118mm R7s Max.100W 230V / 50Hz p. 473

QT-DE12 118mm R7s Max.100W 230V / 50Hz p. 473

TC-TSE 4U E27 Max.13W 230V / 50Hz p. 473

TC-TSE 4U E27 Max.13W 230V / 50Hz p. 473



emma



dibola

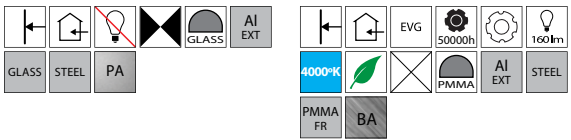


buzzi



buzzi xl

duo | brick



QPAR51 GU10 Max.2x35W 230V / 50Hz p. 473

LED Max.2x1W 230V / 50Hz (350mA) p. 473

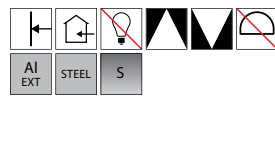
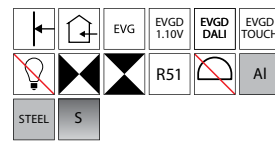
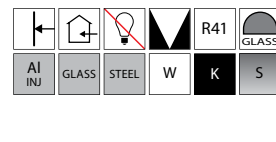
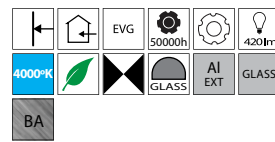
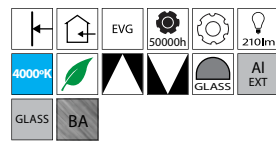
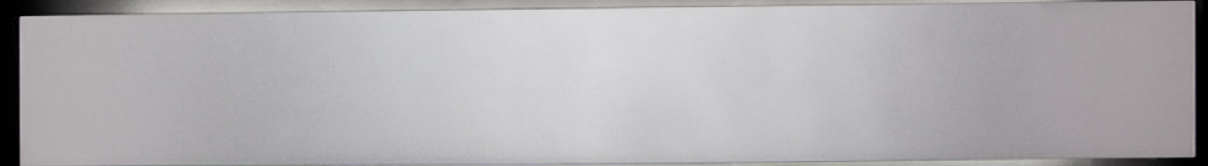
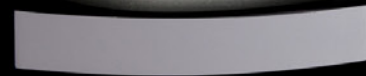
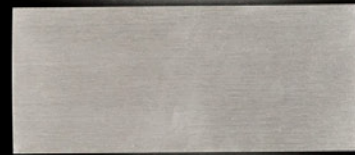


duo



brick

volcano | acazu | wercon | ucato | flush








LED Max.3x1W
 230V / 50Hz (350mA)
 p. 473



volcano 1

LED Max.6x1W
230V / 50Hz (350mA)
p. 473



volcano 2


 IP / 20
 QT-DE12 118mm R7s Max.100W
 230V / 50Hz
 p. 473



acazu

















T16 G5 Max.2x28W
 230V / 50Hz
 p. 473



wercon






QR-CB51 GU5.3 Max.50W
 230V / 50Hz
 p. 473



ucato






QT32 E14 Max.60W
 230V / 50Hz
 p. 473



flush

klee | appel | matisse | khalo | goya

210 | 950



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QT12 GY6.35 Max.2x50W 230V / 50Hz p. 473	QT12 GY6.35 Max.2x50W 230V / 50Hz p. 474	QT9 GY4 Max.2x20W 230V / 50Hz p. 474	QT12 GY6.35 Max.4x50W 230V / 50Hz p. 474	QT32 E14 Max.2x25W 230V / 50Hz p. 474



klee appel matisse khalo goya



--	--

TC-TSE 4U E27 Max.15W 230V / 50Hz p. 474	TC-TSE 4U E27 Max.15W 230V / 50Hz p. 474



210 950



sentinel | face | nasko



STEEL	PMMA OP	ST			

STEEL	PMMA OP	ST			

PMMA OP	W	K	S	R46	PMMA	STEEL	

TC-S G23 Max.2x9W
230V / 50Hz
p. 474



sentinel

TC-S G23 Max.11W
230V / 50Hz
p. 474



face

TC-D G24d-3 Max.2x26W
TC-DEL G24q-3 Max.2x26W
230V / 50Hz
p. 474



nasko



expo



		10mm 18mm	EVG			SHOP LIGHT
						25°
	AI INU	GLASS	STEEL	K	S	

			IP 20
HIT-TC-CE G8.5 Max.70W	QR-CB51 GU5.3 Max.50W		
230V / 50Hz	230V / 50Hz		
p. 474	p. 474		

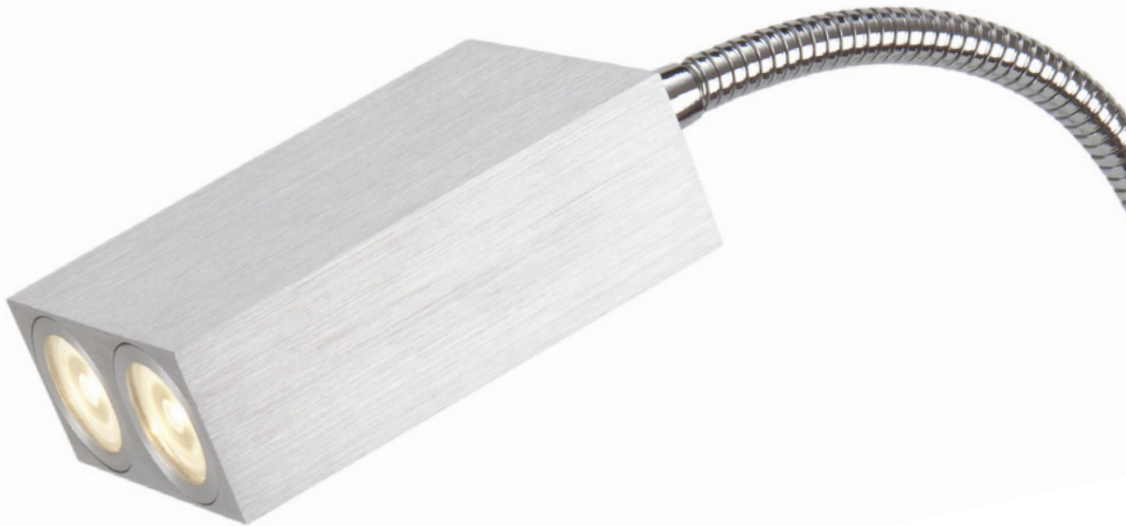


expo [HIT-TC-CE]



expo [QR-CB51]

sketch | lucilis



		EVG				
						45°
	AI EXT	STEEL	PMMA FR	PA		

			IP 20
LED Max.1x3W	LED Max.2x3W	TC-TSE 4U E14 Max.11W	
230V / 50Hz (700mA)	230V / 50Hz (700mA)	230V / 50Hz	
p. 474	p. 474	p. 474	



sketch 1



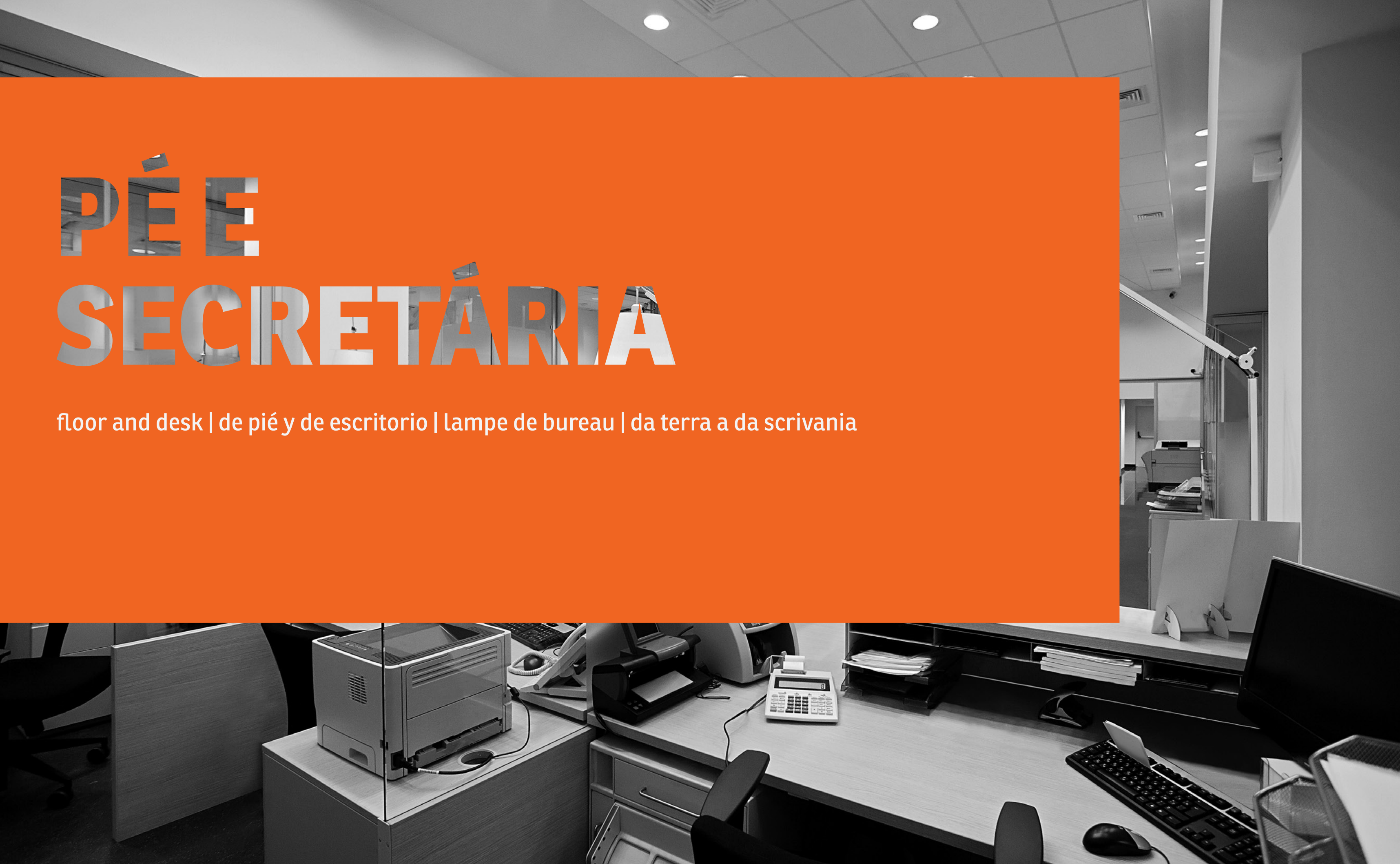
sketch 2



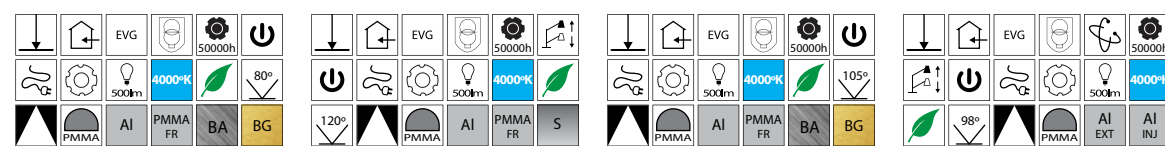
lucilis

PÉ E SECRETÁRIA

floor and desk | de pié y de escritorio | lampe de bureau | da terra a da scrivania



deze | garnic | genios | totoon



LED Max.5W
230V / 50Hz (500mA)
p. 474



deze



LED Max.3W
230V / 50Hz (350mA)
p. 474



garnic



LED Max.5W
230V / 50Hz (500mA)
p. 474



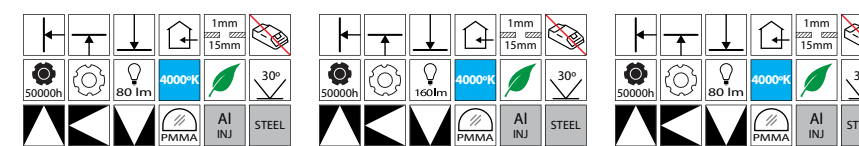
genios



LED Max.5W
230V / 50Hz (500mA)
p. 474



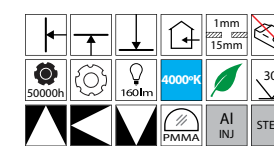
totoon



LED Max.1W
12V DC (350mA)
p. 475



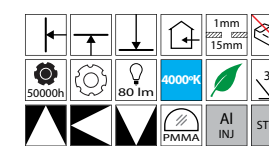
flexos 1



LED Max.2x1W
12V DC (350mA)
p. 475



flexos 2



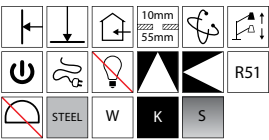
LED Max.1W
12V DC (350mA)
p. 475



small flexos



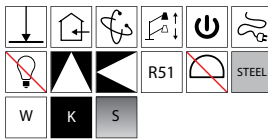
table | nicolas | tower



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 475



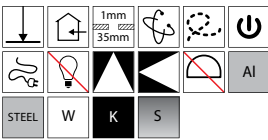
table



TC-TSE 4U E27 Max.15W
230V / 50Hz
p. 475



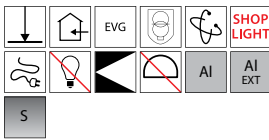
table [base]



QPAR51 GU10 Max.50W
230V / 50Hz
p. 475



nicolas



QR111 G53 Max.3x50W
230V / 50Hz
p. 475



tower

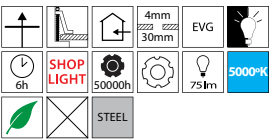


EMERGÊNCIA

emergency | emergencia | éclairage de sécurité | emergenza



safeled



LED Max.3W
230V / 50Hz (350mA)
bat: Ni-cad 3.6V 500mAH
p. 475

CE

CE



safeled

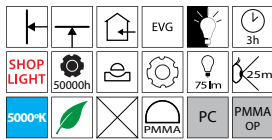


safeled [trim ring]



safeled [pictogram]

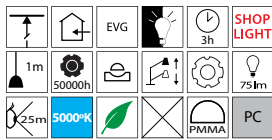
visionled



LED Max.4W
230V / 50Hz (350mA)
bat: Ni-Cad 3,6V 1000 mA
p. 476



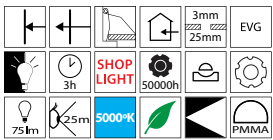
visionled C



LED Max.4W
230V / 50Hz (350mA)
bat: Ni-Cad 3,6V 1000 mA
p. 476



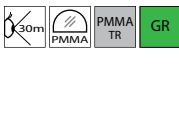
visionled P



LED Max.4W
230V / 50Hz (350mA)
bat: Ni-Cad 3,6V 1000 mA
p. 476



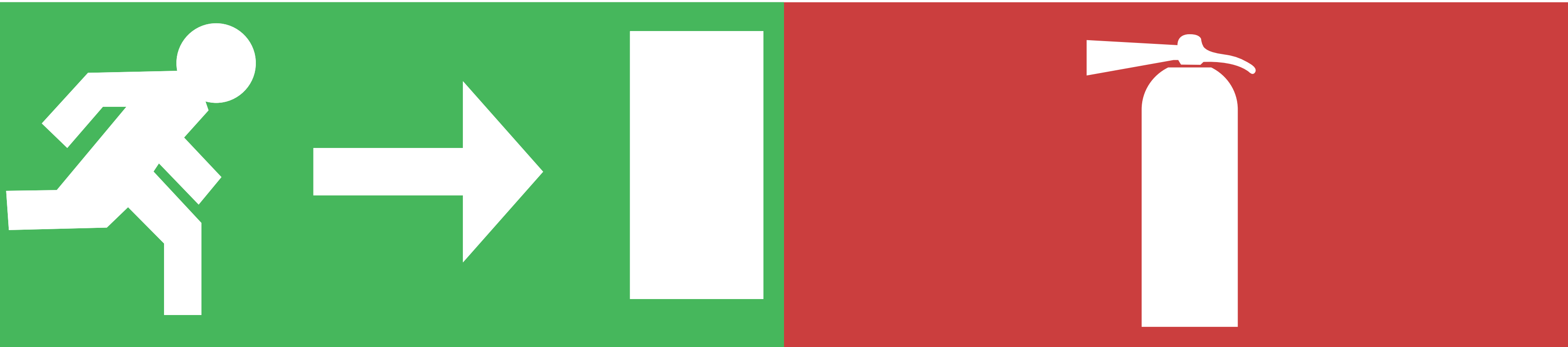
visionled W



CE



visionled [pictogram]



guardian
visionted
safeled
fluosafe
securu
emerled

guardian
visionted
safeled
fluosafe
securu
emerled

guardian
visionted
safeled
fluosafe
securu
emerled

guardian
visionted
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fluosafe
securu
emerled

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fluosafe
securu
emerled

safeled
fluosafe
securu
emerled

picto A

picto B

picto C

picto D

picto E

picto F

picto G

picto H

picto I

picto J



DESENHOS TÉCNICOS

TECHNICAL DRAWINGS

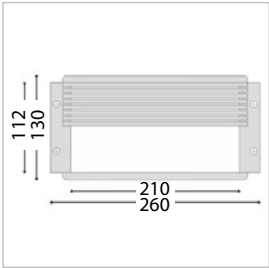
DISEÑOS TÉCNICOS

DESSINS TECHNIQUES

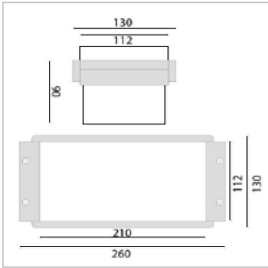
DISEGNI TECNICI

exterior | exterior | extérieur | esterni

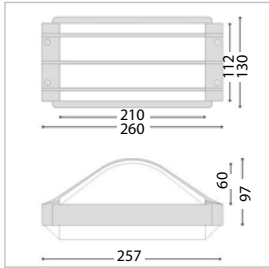
TECTO E PAREDE
CEILING AND WALL
TECHO PARED
PLAFOND ET MUR
SOFFITTO E PARETE



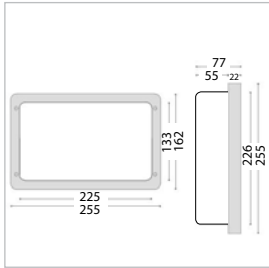
smarto



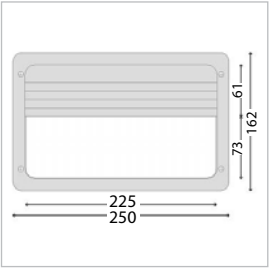
brisse



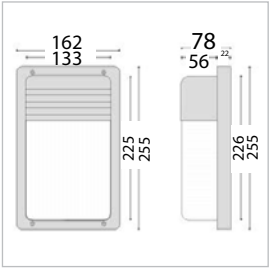
gardino



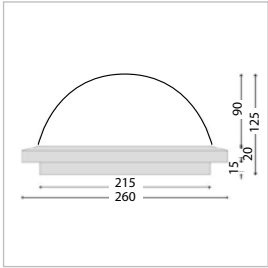
croco



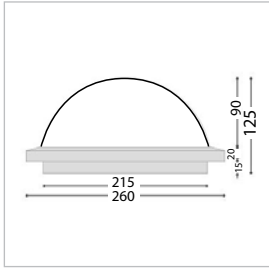
palus



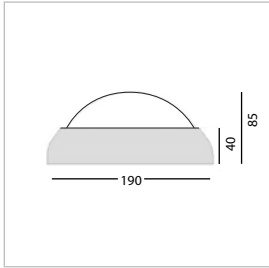
orion



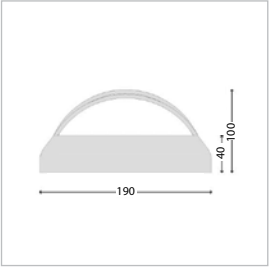
exta 1000



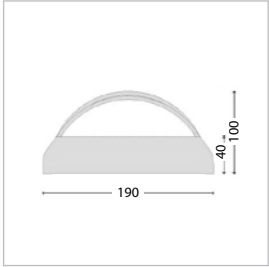
exta 1100



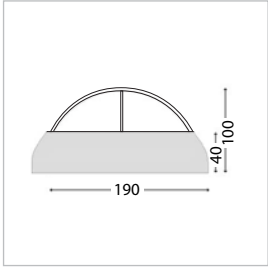
minimal



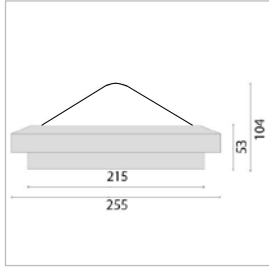
samy



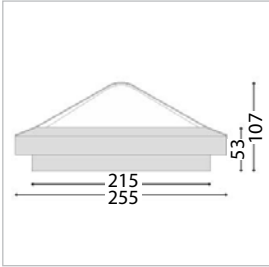
orros



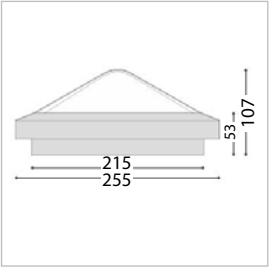
gatufo



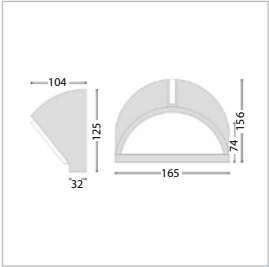
scott 12



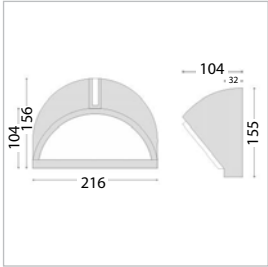
scott 13



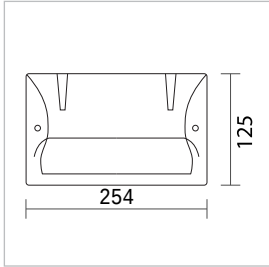
scott 14



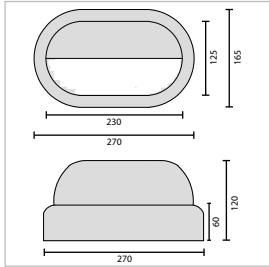
small galliano



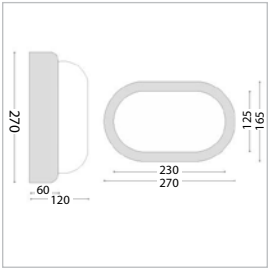
galliano



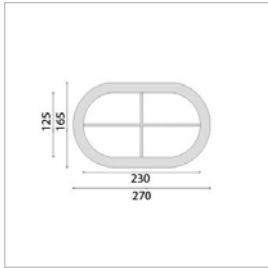
arrow



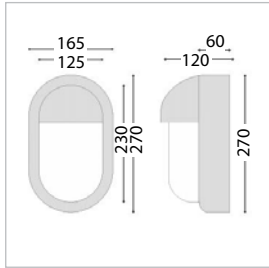
wave



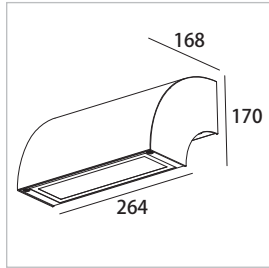
marine



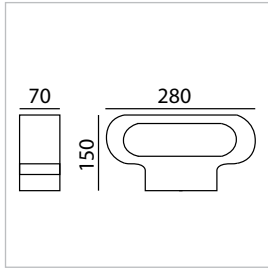
nautic



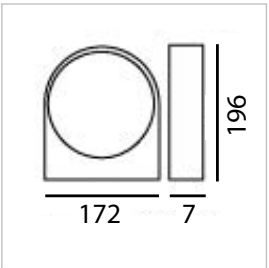
mistral



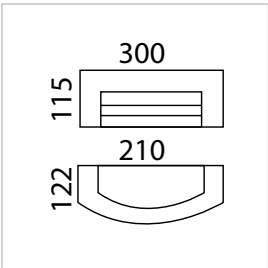
curve



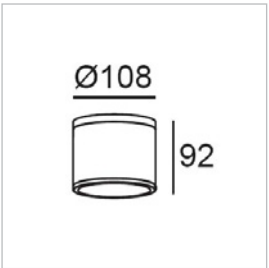
embra



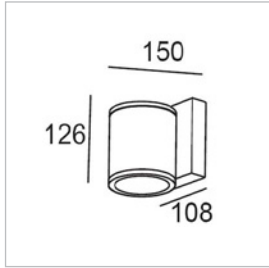
elkuus



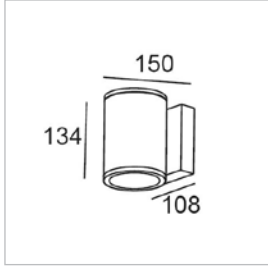
ulsius



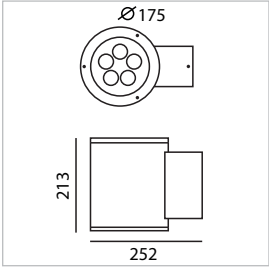
benun



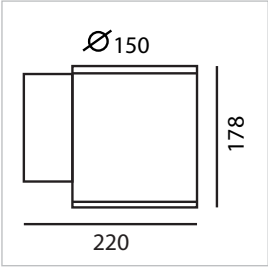
benun 1



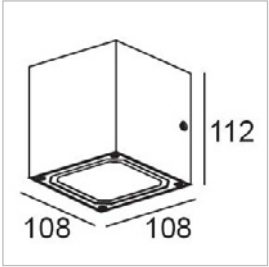
benun 2



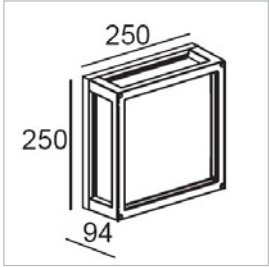
aureos 2



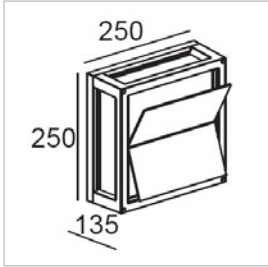
kubus 1



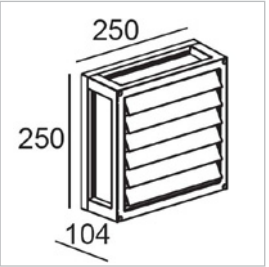
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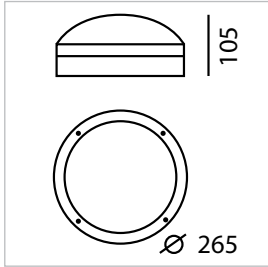
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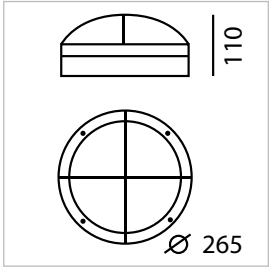
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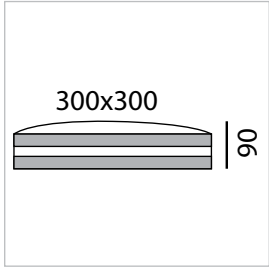
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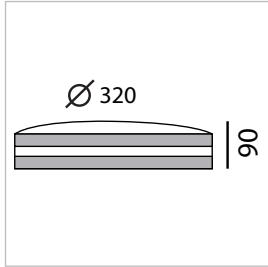
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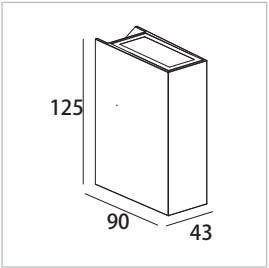
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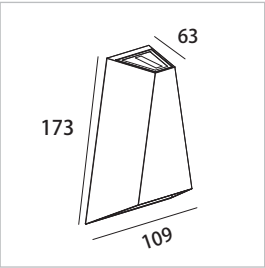
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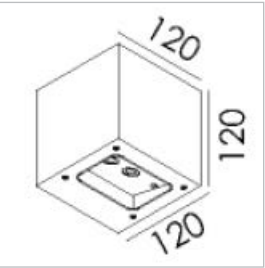
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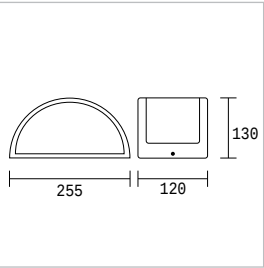
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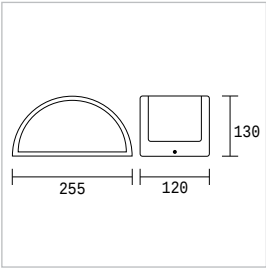
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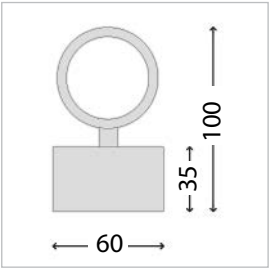
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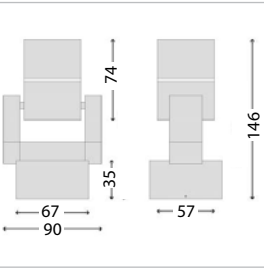
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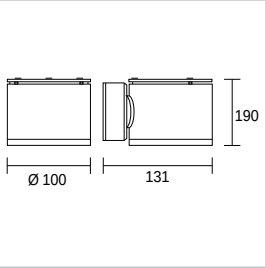
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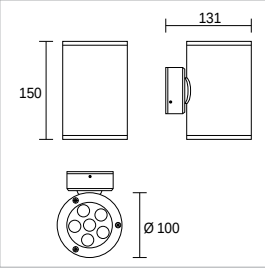
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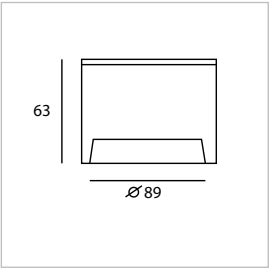
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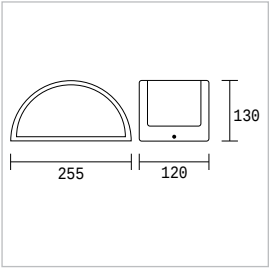
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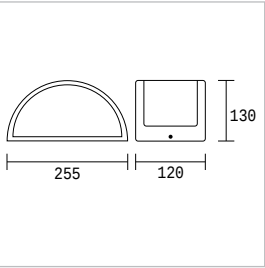
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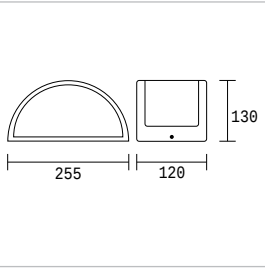
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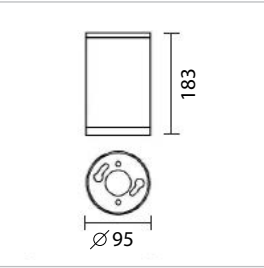
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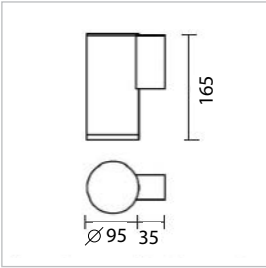
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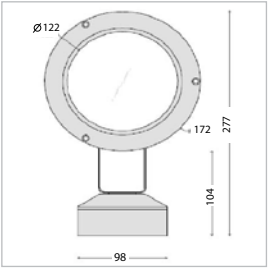
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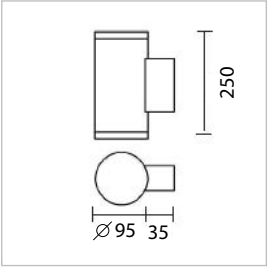
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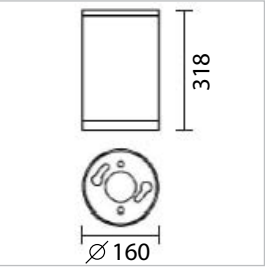
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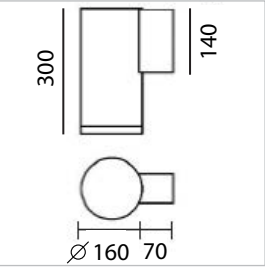
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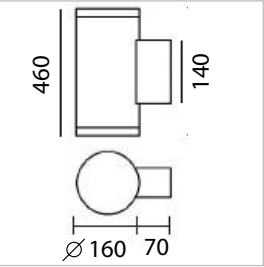
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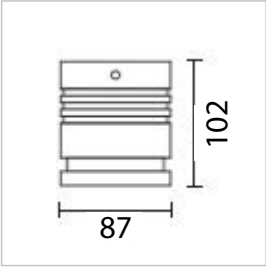
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atrium XL 6400

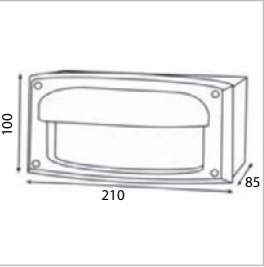


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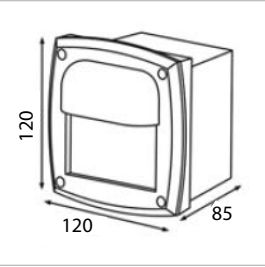


pierco

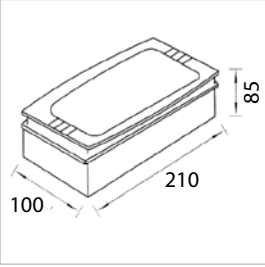
PAREDE [BALIZADORES]
WALL [ORIENTATION LIGHTING]
PARED [BALIZAS]
MUR [BALISAGE]
PARETE [ILLUMINAZIONE DIREZIONALE]



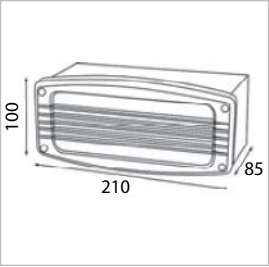
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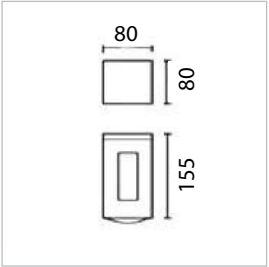
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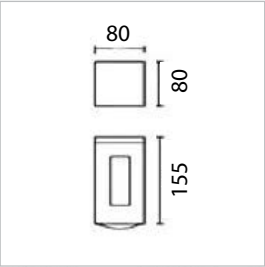
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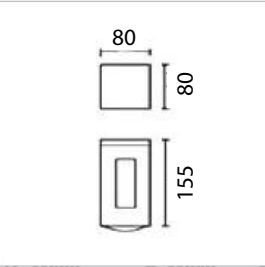
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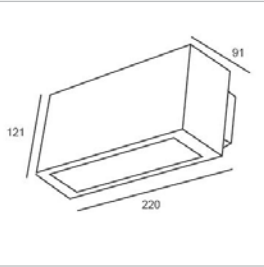
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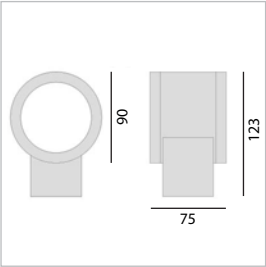
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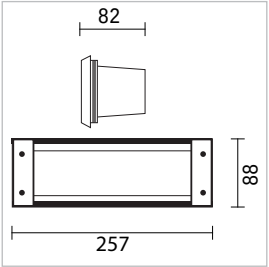
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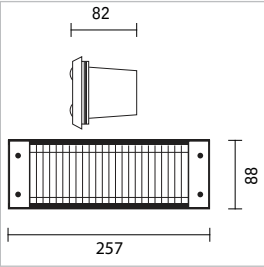
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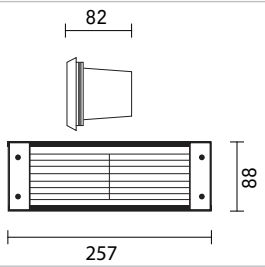
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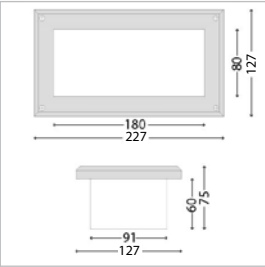
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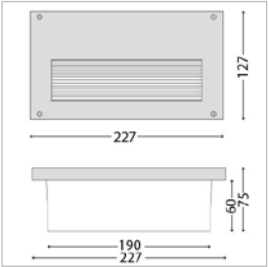
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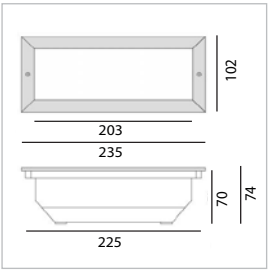
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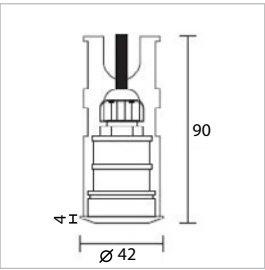
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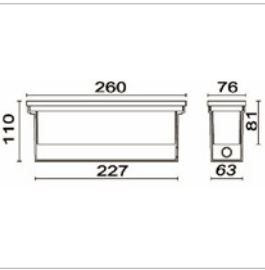
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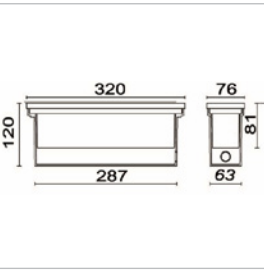
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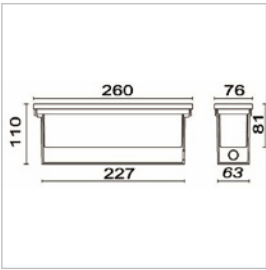
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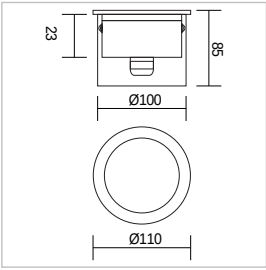
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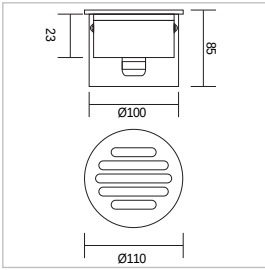
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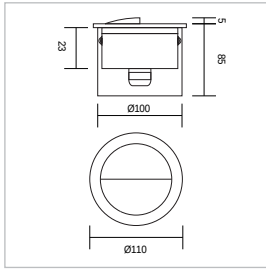
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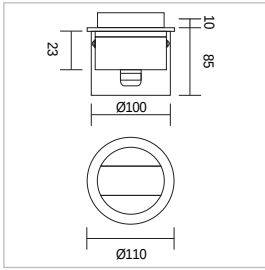
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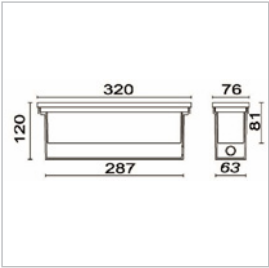
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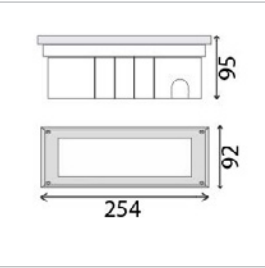
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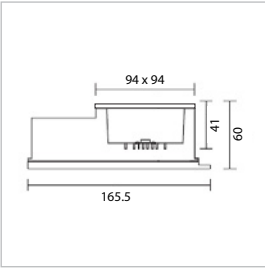
gife D



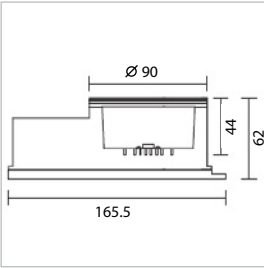
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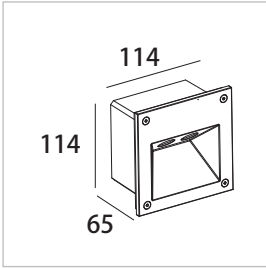
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acifrone

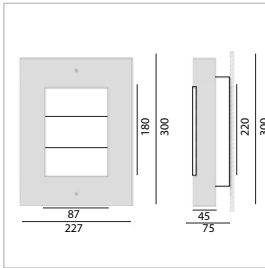


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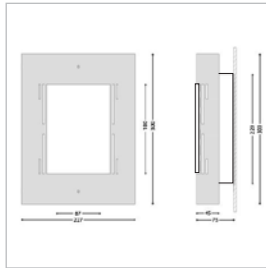


dunni 2

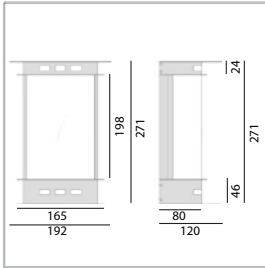
PAREDE E POSTE
[AÇO INOX]
WALL AND FLOOR
[STAINLESS STEEL]
PARED Y POSTES
[ACERO INOXIDABLE]
MUR ET BORNE
[ACIER INOXYDABLE]
PARETE E PAVIMENTO
[ACCIAIO INOSSIDABILE]



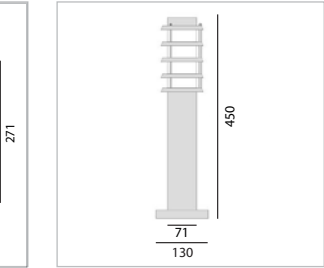
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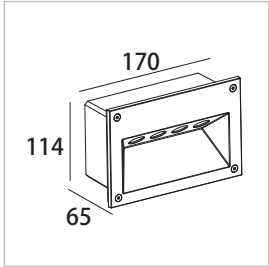


lolita

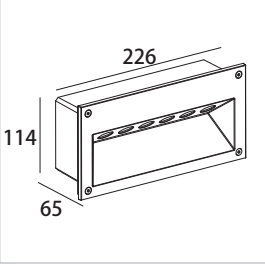


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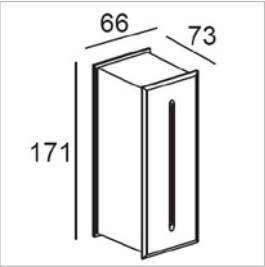
zarzis 450



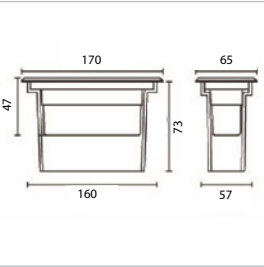
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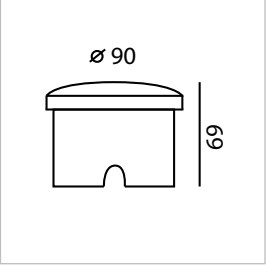
dunni 6



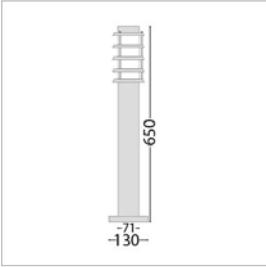
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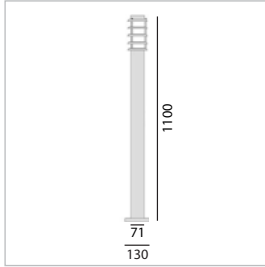
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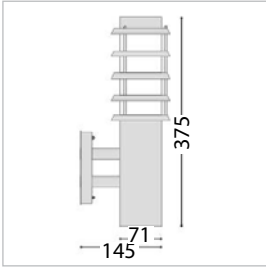
discus



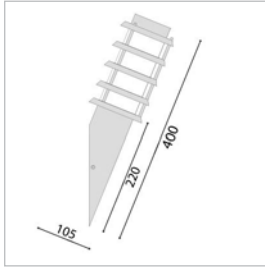
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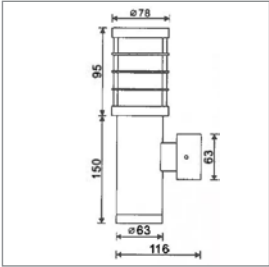
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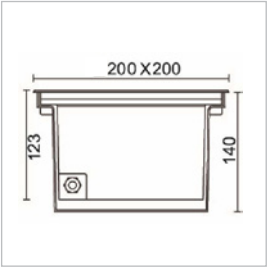
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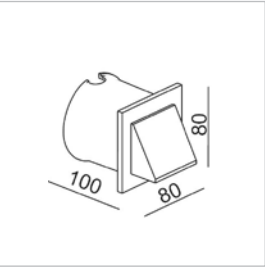
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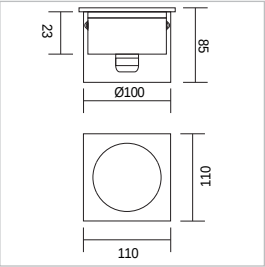
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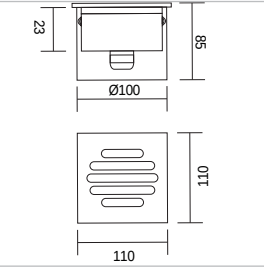
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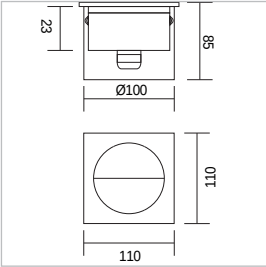
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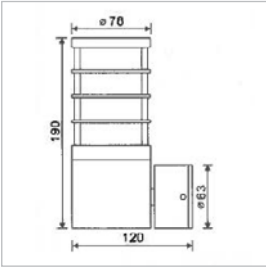
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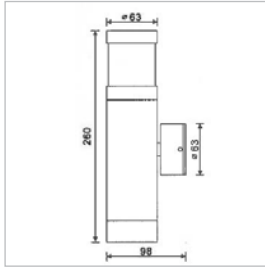
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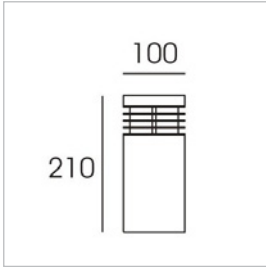
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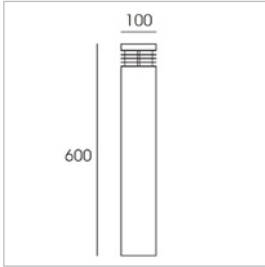
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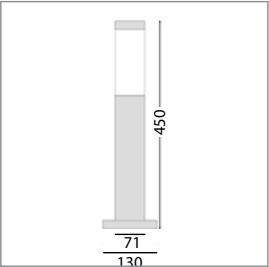
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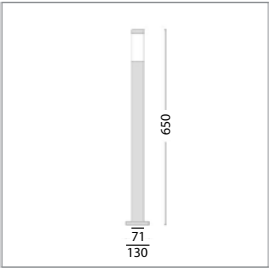
traject 20



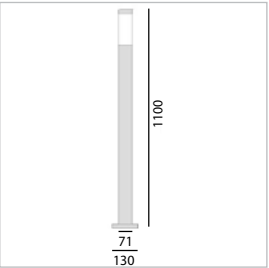
traject 60



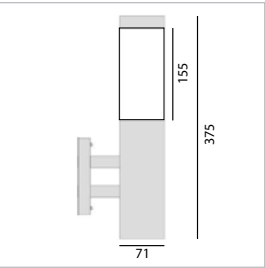
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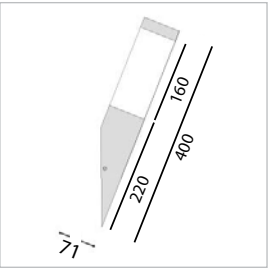
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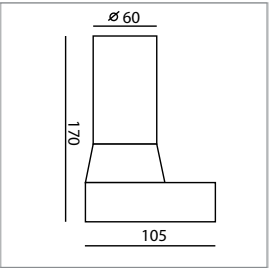
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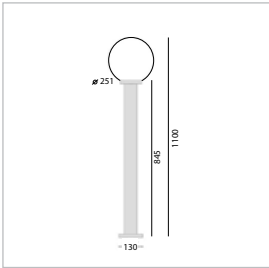
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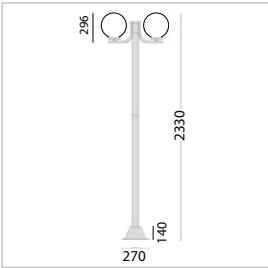
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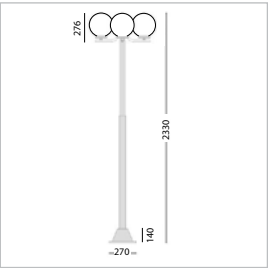
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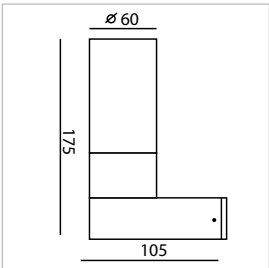
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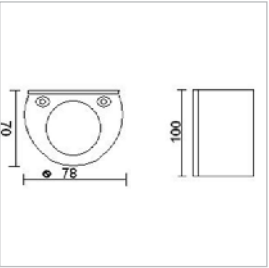
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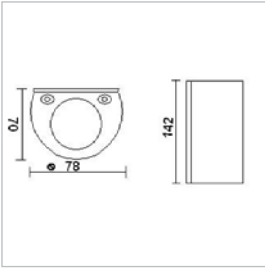
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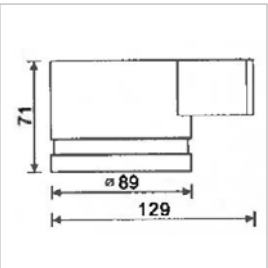
gurupa



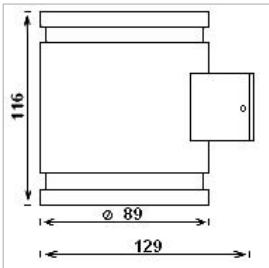
margetu 1



margetu 2

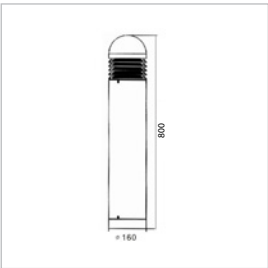


lugen 1

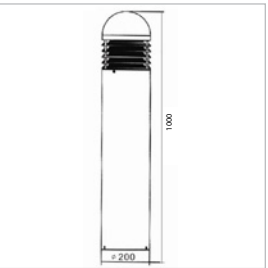


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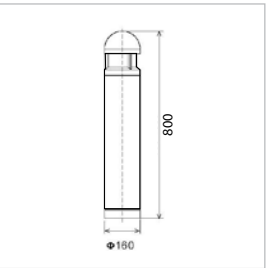
PAREDE E POSTE [ALUMÍNIO]
WALL AND FLOOR [ALUMINIUM]
PARED Y POSTES [ALUMINIO]
MUR ET BORNE [EN ALUMINIUM]
PARETE E PAVIMENTO [ALLUMINIO]



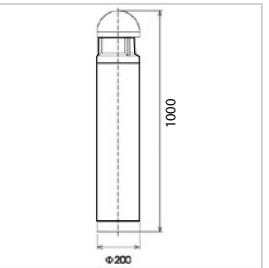
paseo 80



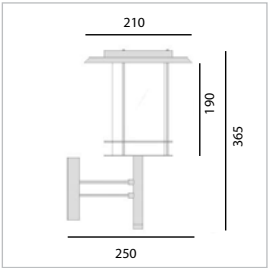
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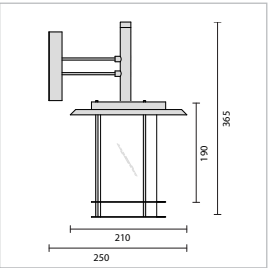
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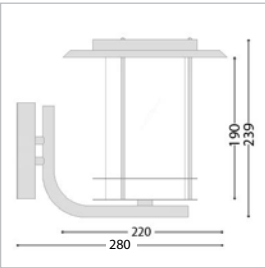
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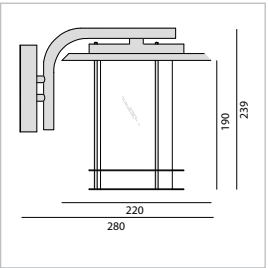
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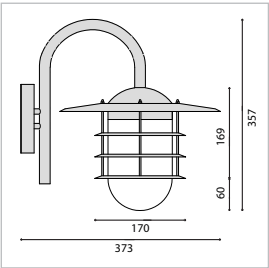
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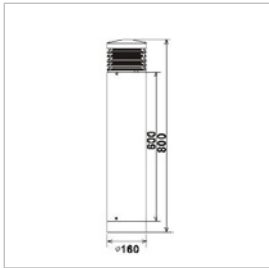
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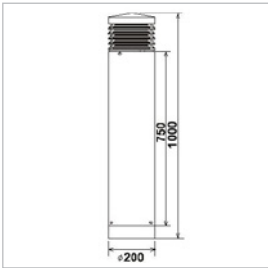
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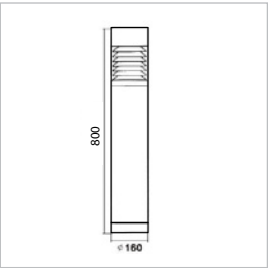
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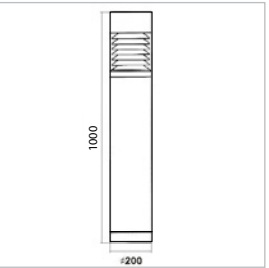
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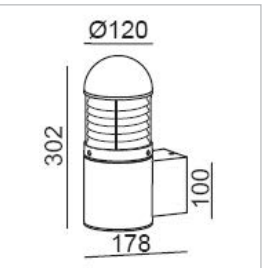
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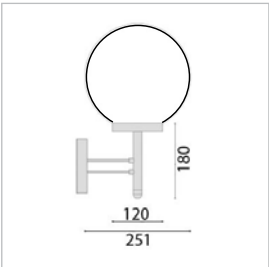
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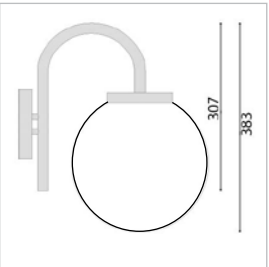
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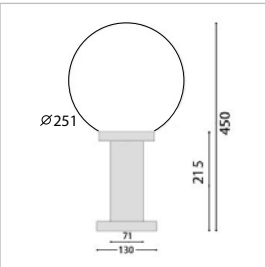
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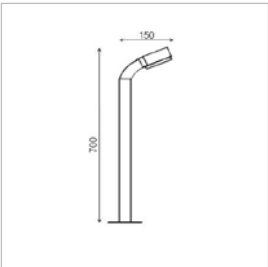
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nice



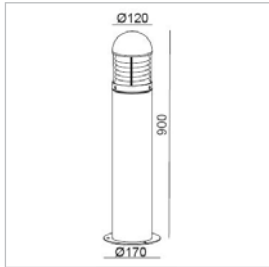
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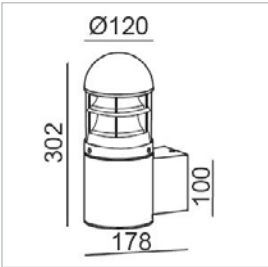
sheik



post



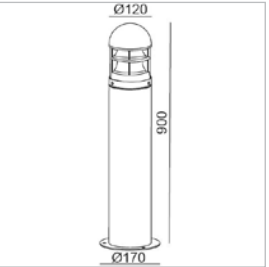
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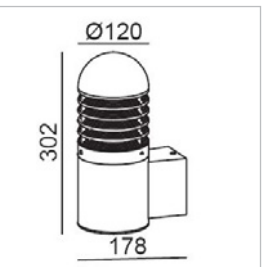
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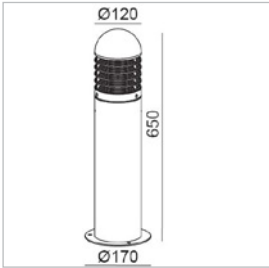
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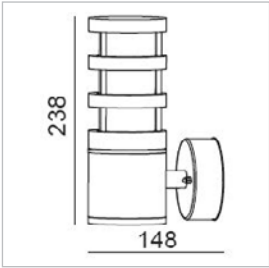
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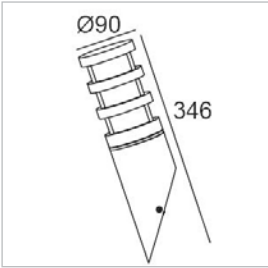
porsie w



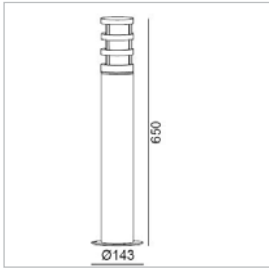
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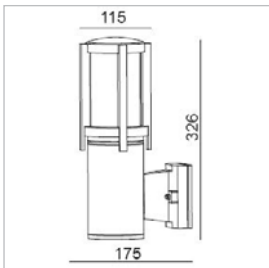
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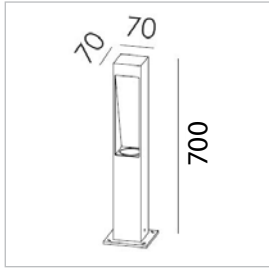
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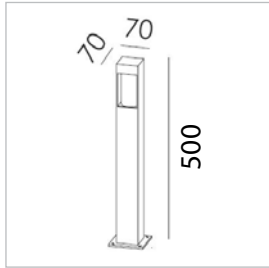
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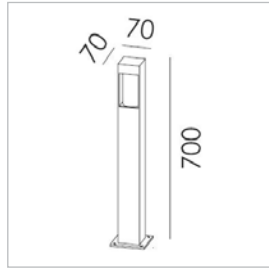
capsule w



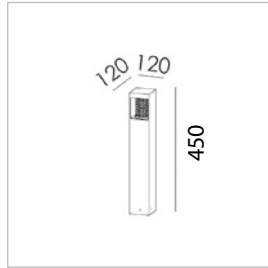
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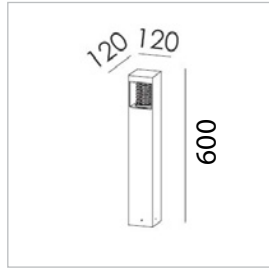
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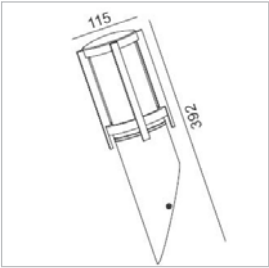
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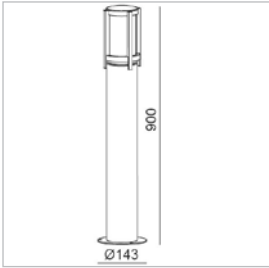
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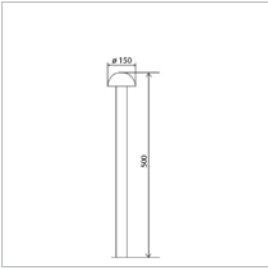
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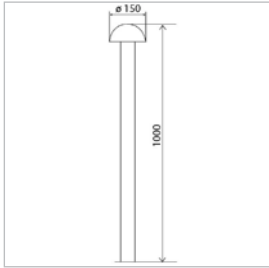
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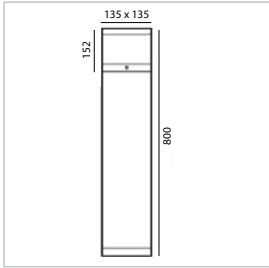
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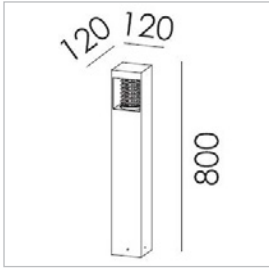
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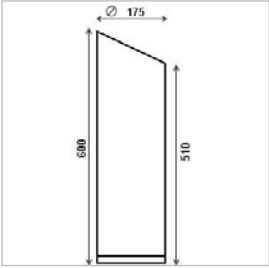
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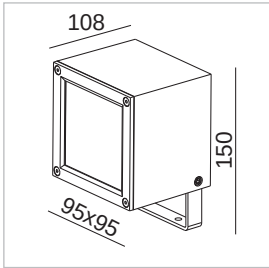
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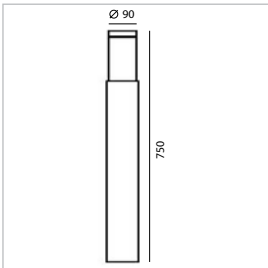
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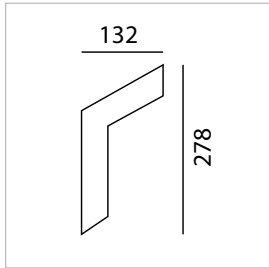
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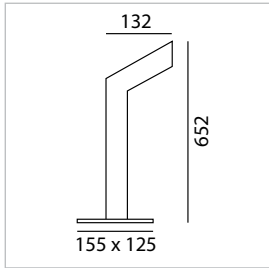
radius



ikon

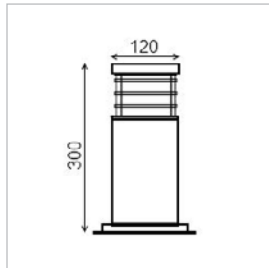


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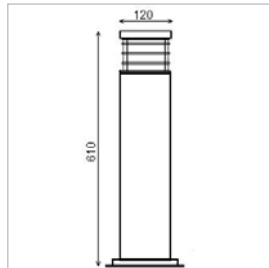


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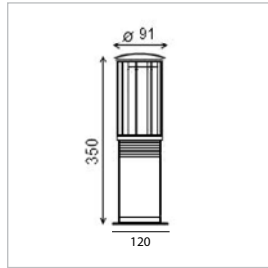
PAREDE E POSTE
[PEDRA E MADEIRA]
WALL AND FLOOR
[STONE AND WOOD]
PARED Y POSTES
[PIEDRA Y MADERA]
MUR ET BORNE
[BOIS ET GRANIT]
PARETE E PAVIMENTO
[PIETRA E LEGNO]



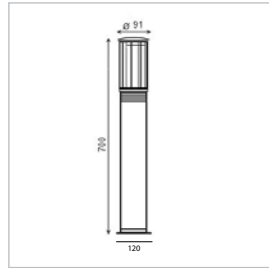
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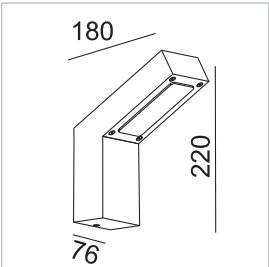
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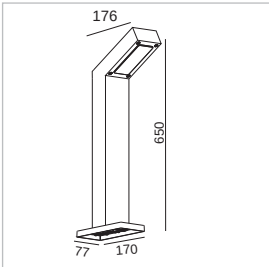
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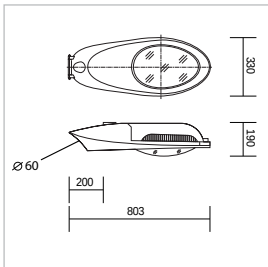
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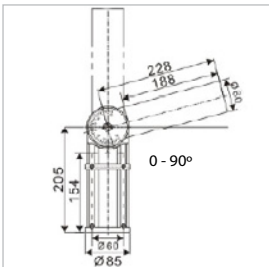
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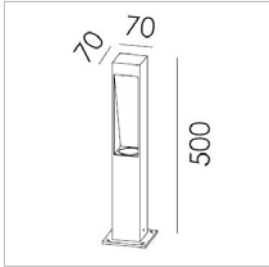
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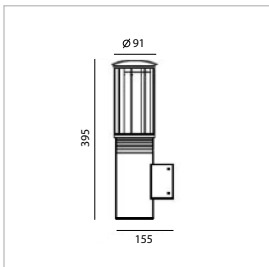
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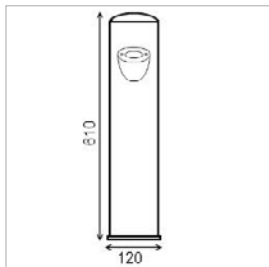
AZK 110



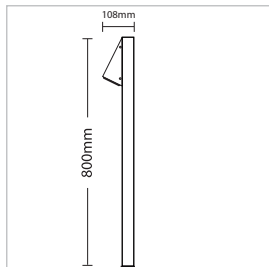
voor 50



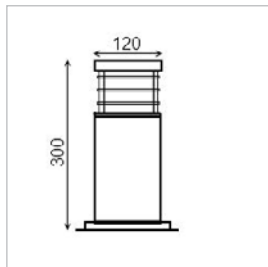
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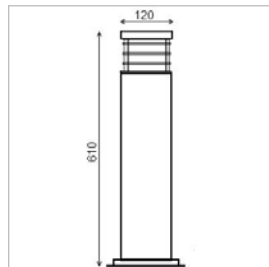
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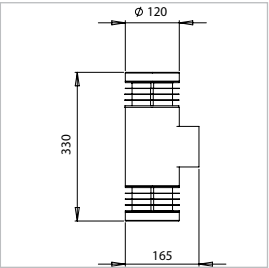
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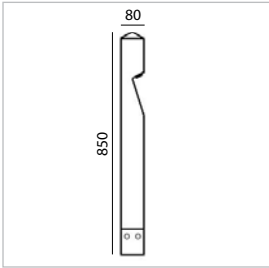
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carson 60

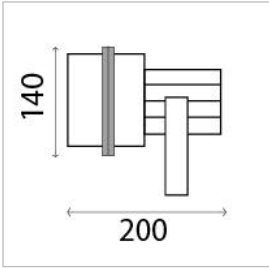


carson W

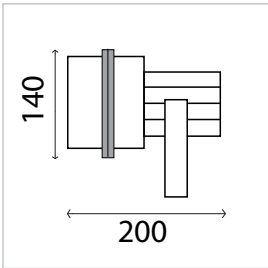


wood 80

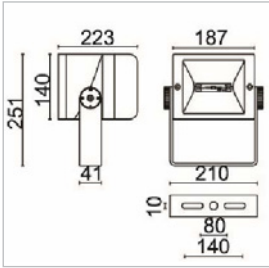
PROJECTORES E WALLWASHERS
PROJECTORS AND
WALLWASHERS
PROYECTORES Y
BAÑADORES DE PARED
PROJEC TEURS ET
WALLWHASERS
PROIETTORI E
WALLWASHERS



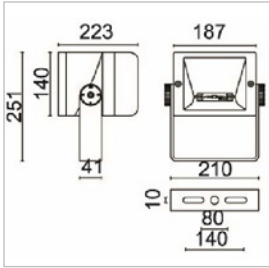
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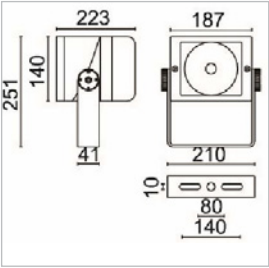
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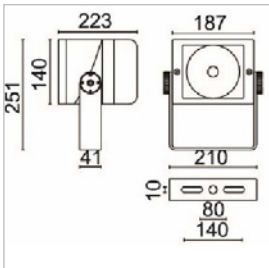
istar SM



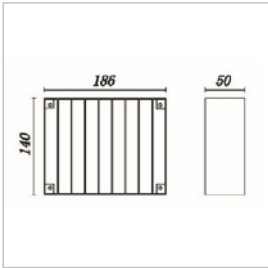
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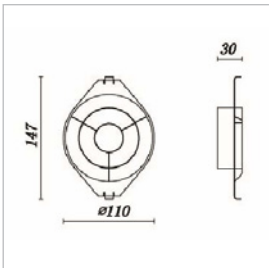
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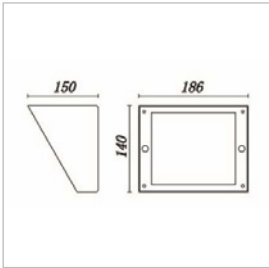
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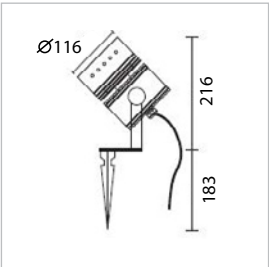
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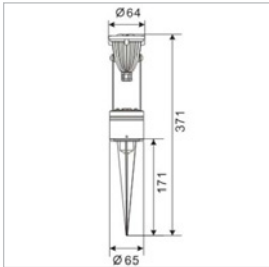
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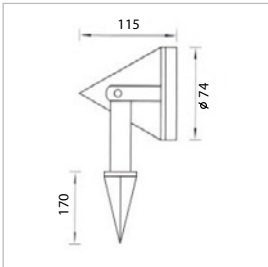
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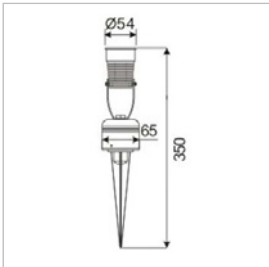
picuo



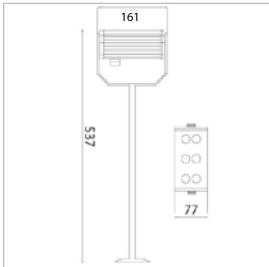
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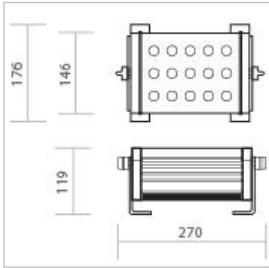
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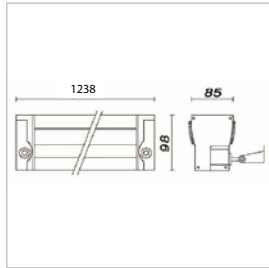
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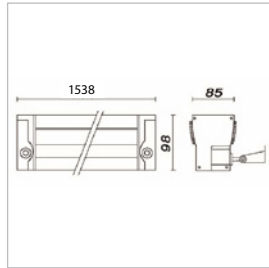
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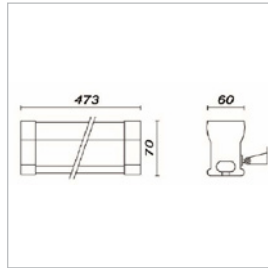
lídio



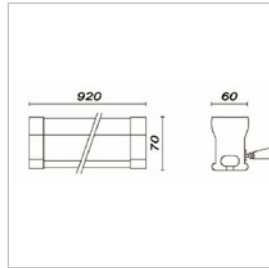
lumex 28/54w



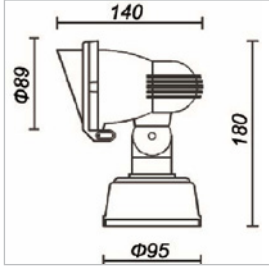
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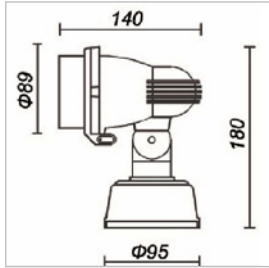
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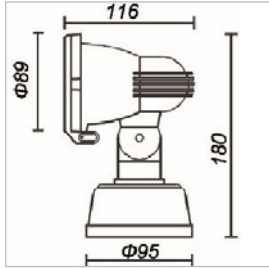
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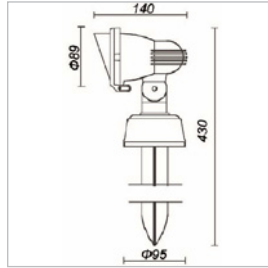
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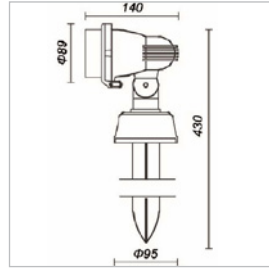
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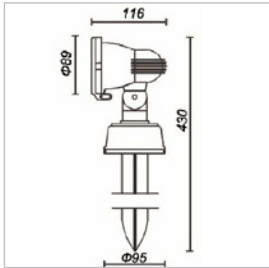
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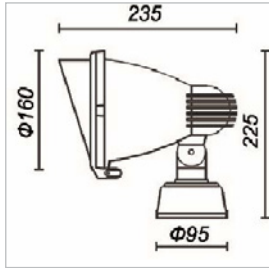
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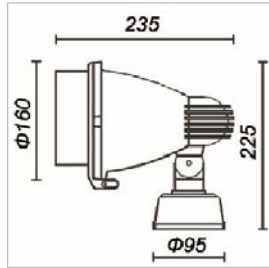
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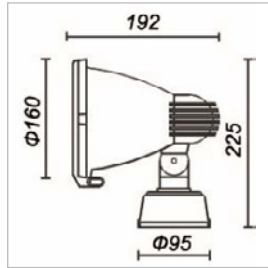
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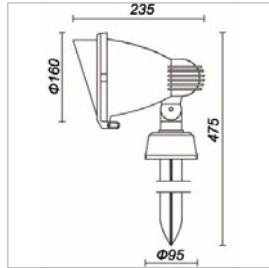
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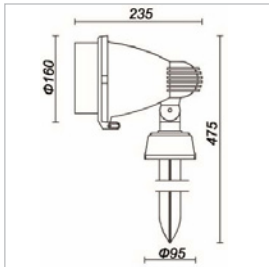
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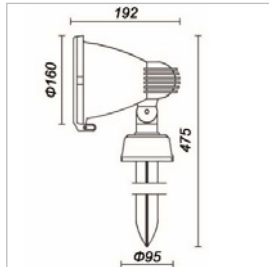
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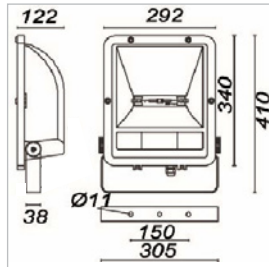
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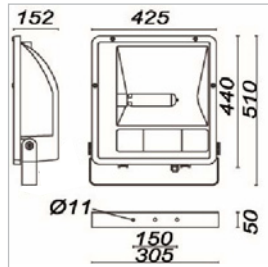
argon xl 2750



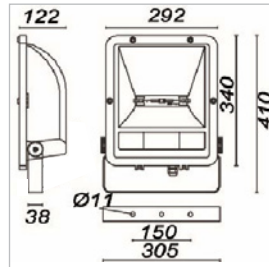
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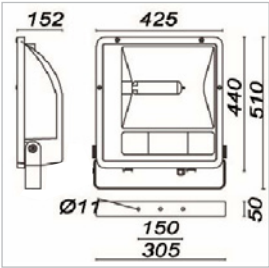
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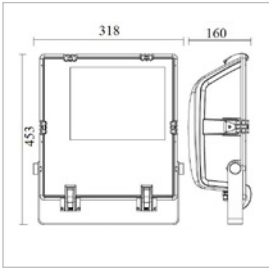
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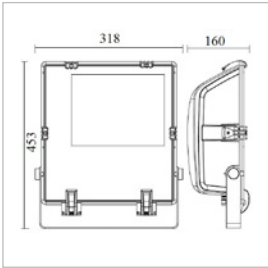
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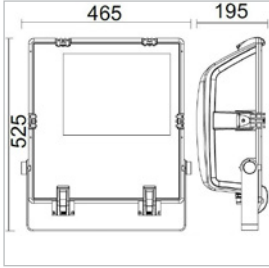
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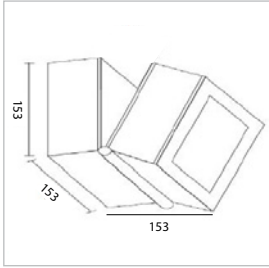
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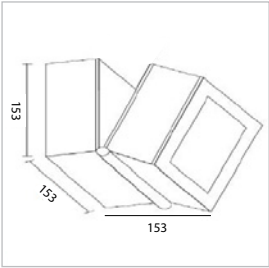
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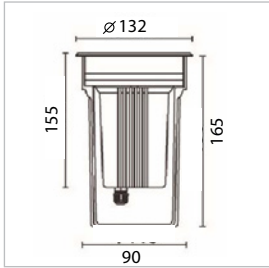
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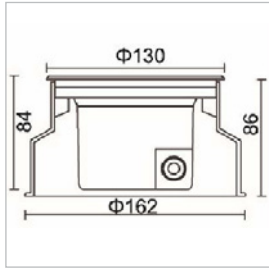
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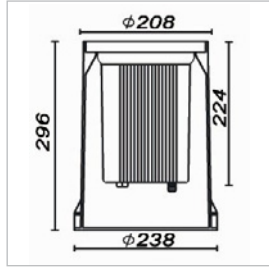
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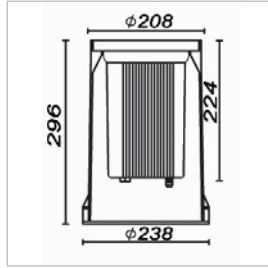
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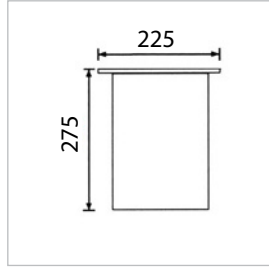
micron 3300



ergoa 9100/9200

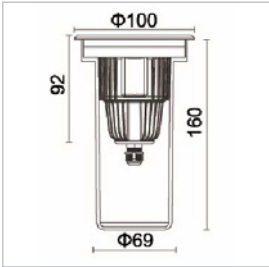


ergoa 9300/9400

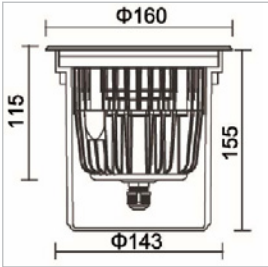


astro

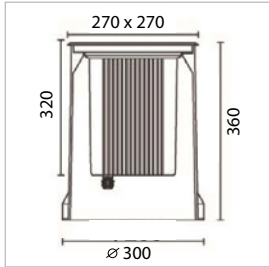
PAVIMENTO
PAVEMENT
PAVIMENTO
ENCASTRÉ DE SOL
DA TERRA



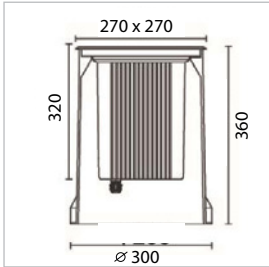
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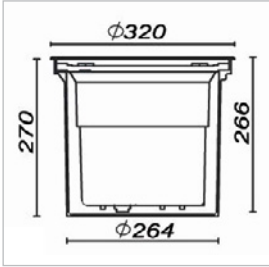
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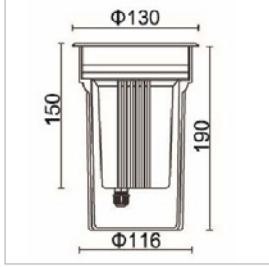
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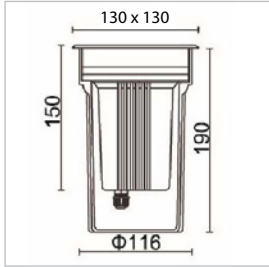
trimatu 8600/8700



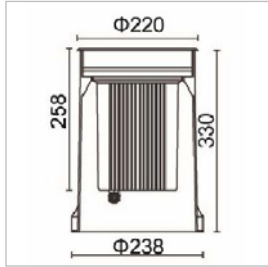
floor xl



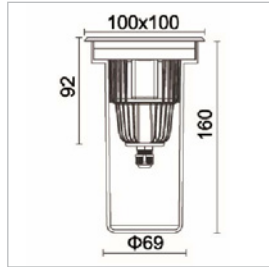
cooler r



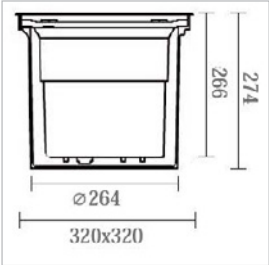
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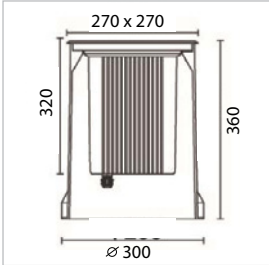
cooler xl



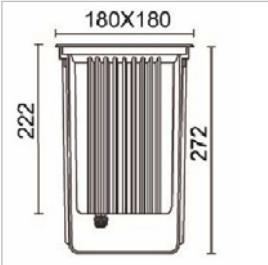
traccion



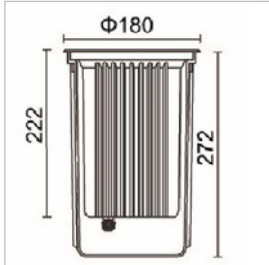
trimatu XL



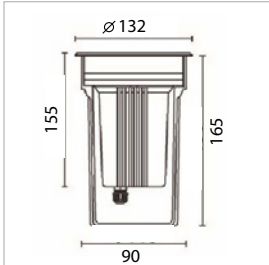
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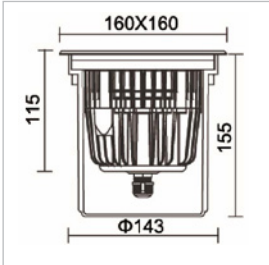
gazudio



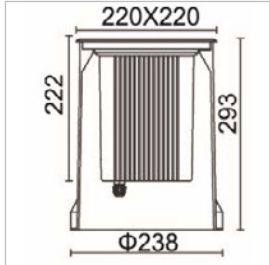
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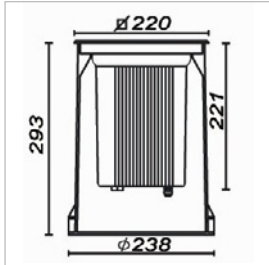
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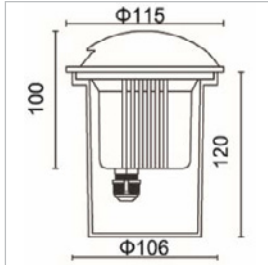
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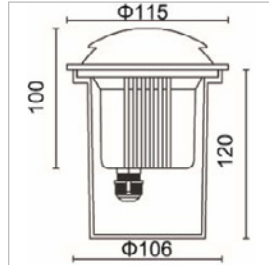
zenada 8000/8100



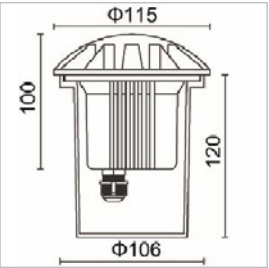
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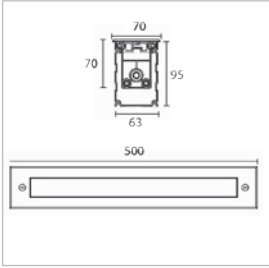
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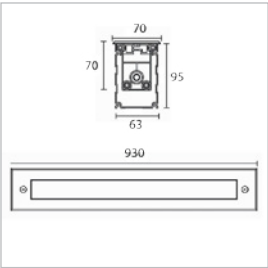
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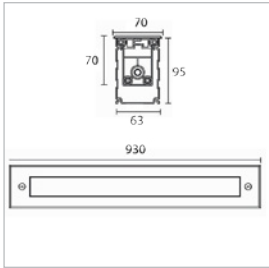
inground 12



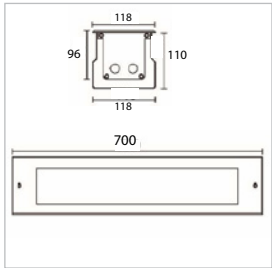
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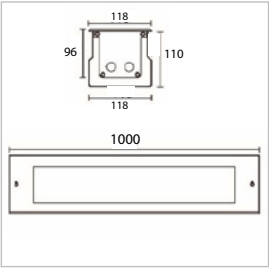
softstep xl



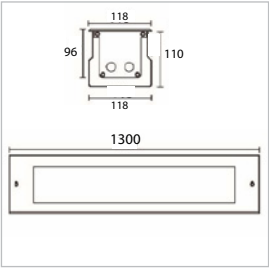
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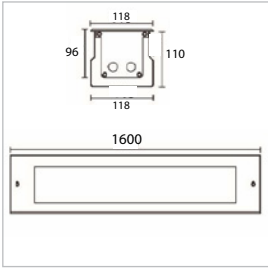
exadrus as 14w



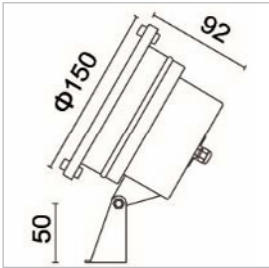
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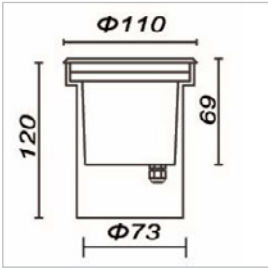
exadrus as 28w



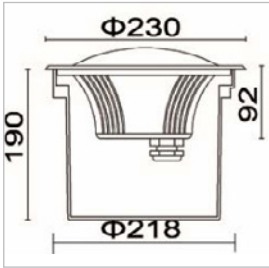
exadrus as 35w



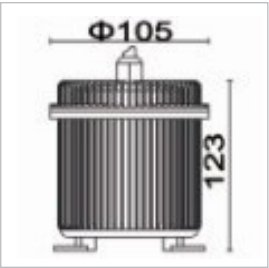
aquarius XL



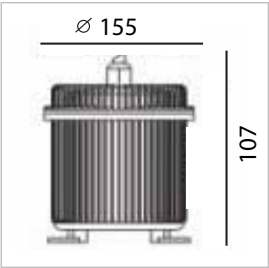
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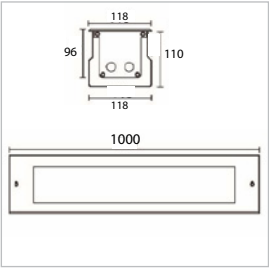
pool XL



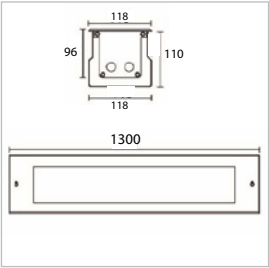
trf 150



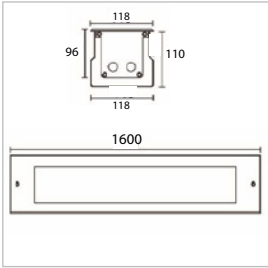
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exadrus as 21w

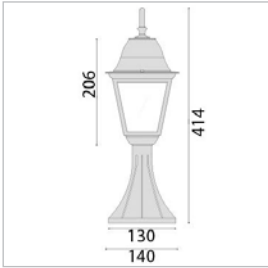


exadrus as 28w

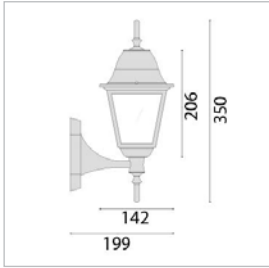


exadrus as 35w

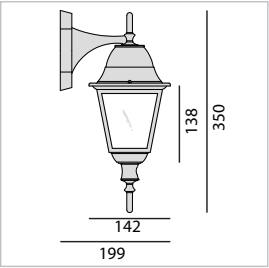
RÚSTICOS
RUSTIC
RÚSTICO
RUSTIQUE
RUSTICO



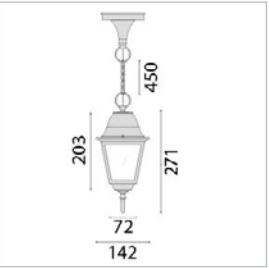
trento



messina

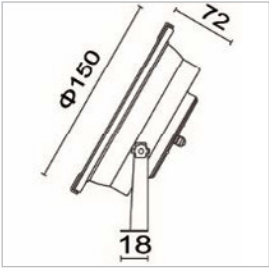


forli

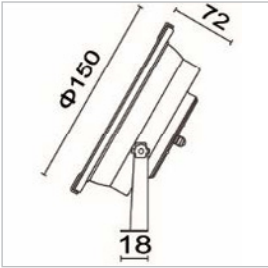


novara

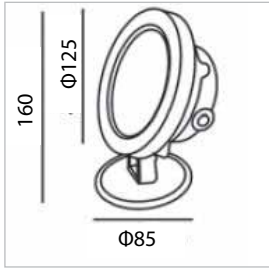
SUBMERSÃO E PISCINA
SUBMERSION AND POOL
INMERSION Y PISCINA
SUBMERSION ET PISCINE
IMMERSIONE E PISCINA



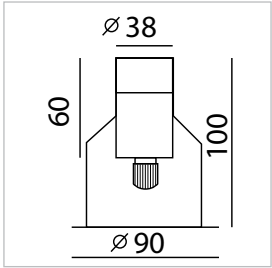
aqualed



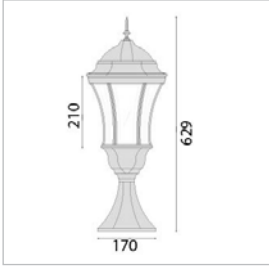
aqualed RGB



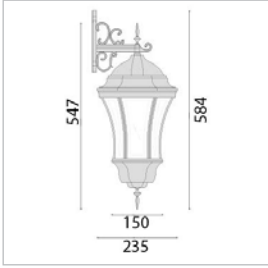
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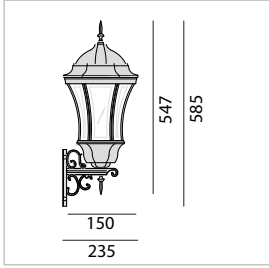
ocean



adana



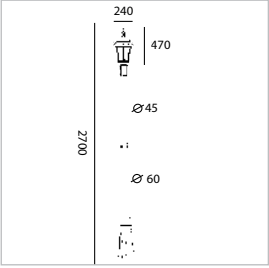
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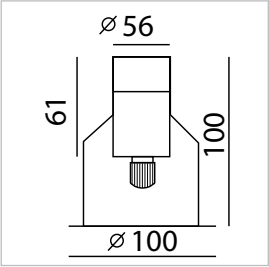
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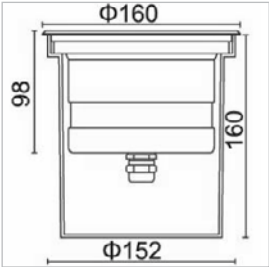
izmir



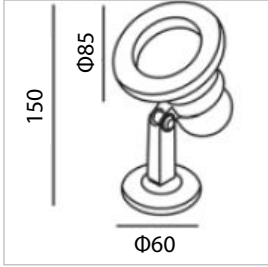
malatya 1



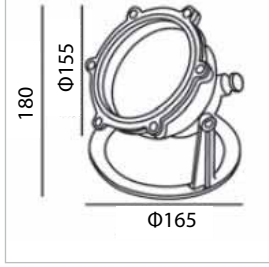
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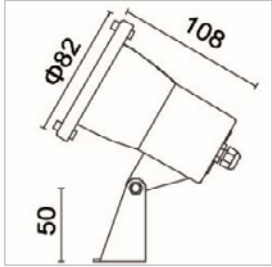
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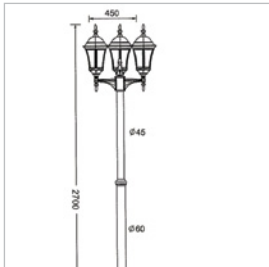
liz



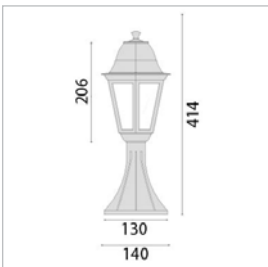
caldo



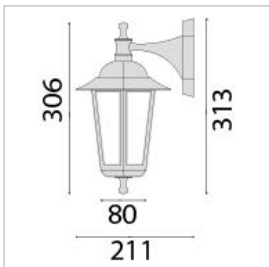
aquarius



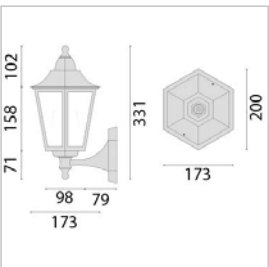
malatya 3



village



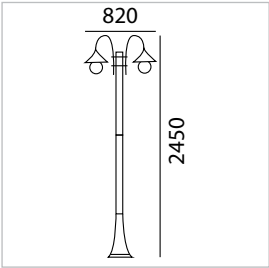
classic



antique



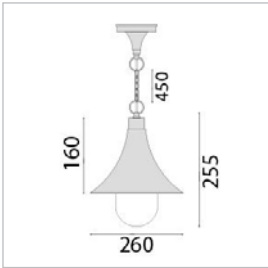
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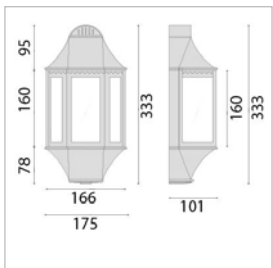
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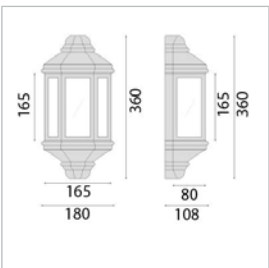
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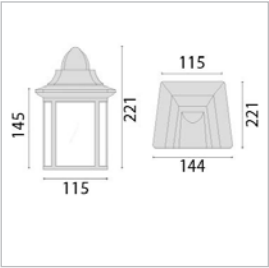
borba



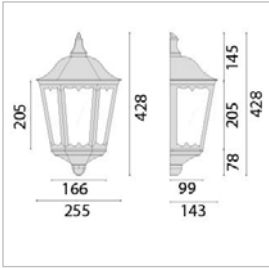
oltu



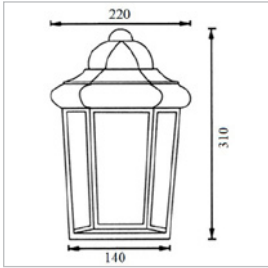
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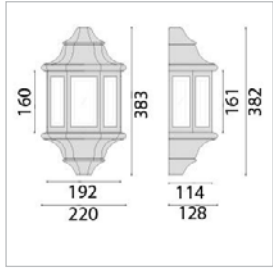
ocapuço



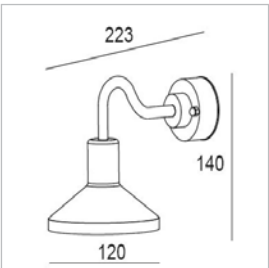
abegão



tocaia



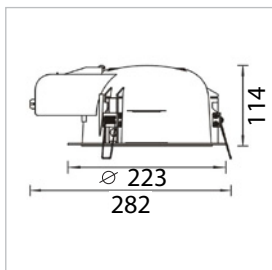
bojala



algisa

interior | interior | interior | intérieur | interni

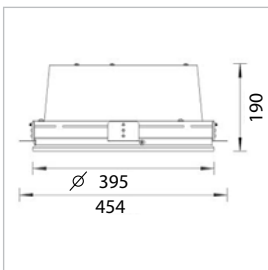
DOWNLIGHTS FLUORESCENTE
FLUORESCENT DOWNLIGHTS
LUMINARIAS FLUORESCENTE
DOWNLIGHT FLUOCOMPACT
LAMPADA FLUORESCENTI



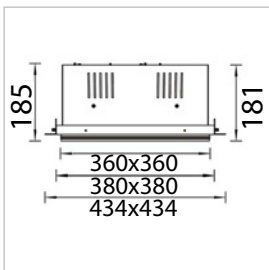
algera



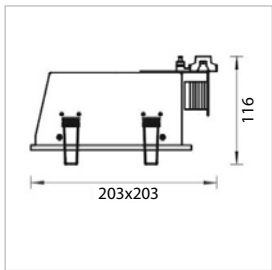
210



uzzabu



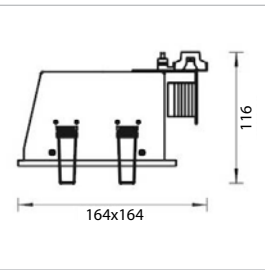
yhna



apazon



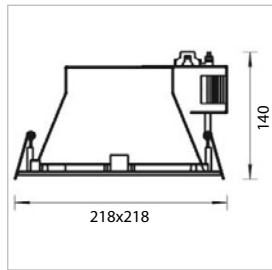
190 x 185



medium apazon



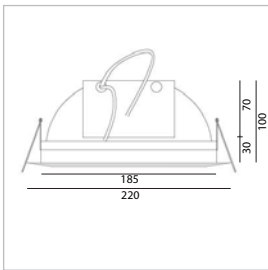
150 x 145



shop



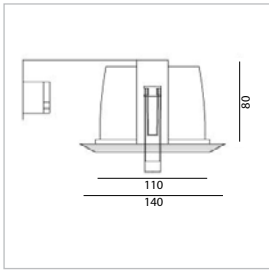
205 x 205



euro



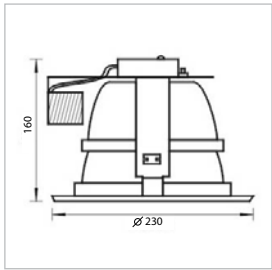
195



small euro



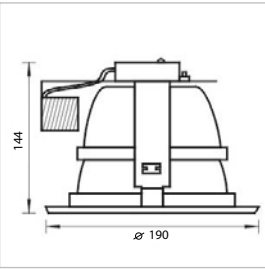
120



living



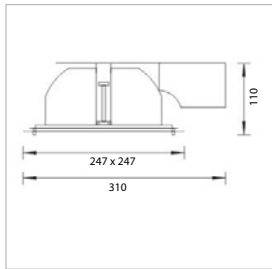
215



simply



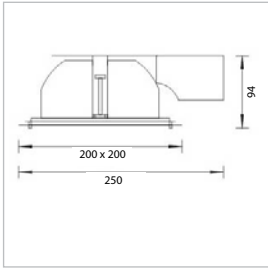
175



olie



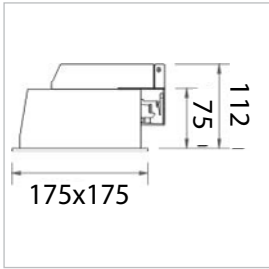
205 x 205



medium olie



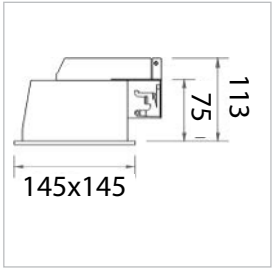
165 x 160



foluma



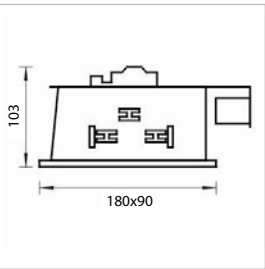
162 x 162



medium foluma



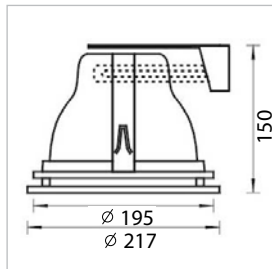
136 x 136



rectangle



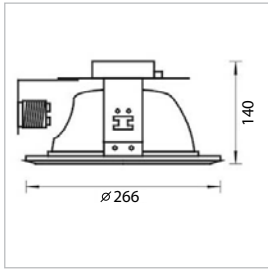
165 x 74



doblus



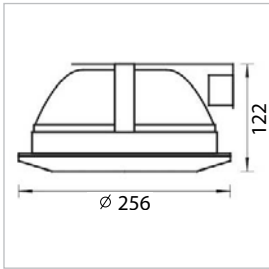
185



zeros



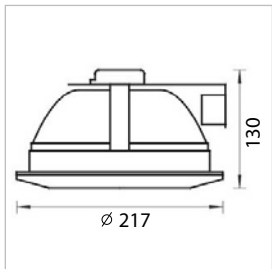
254



vitro



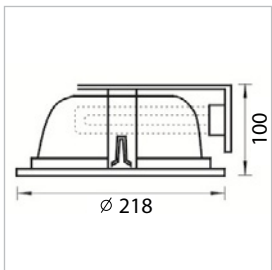
254



medium vitro



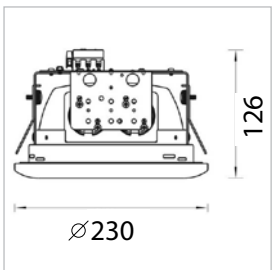
165



flat



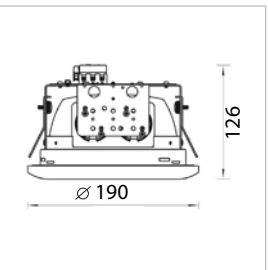
200



auoda



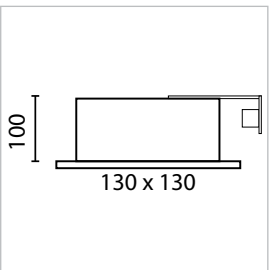
195



medium auoda



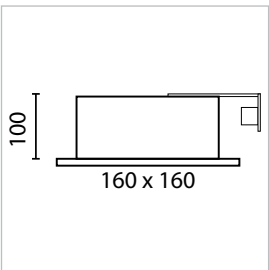
165



420



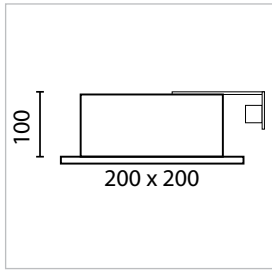
120 x 120



430



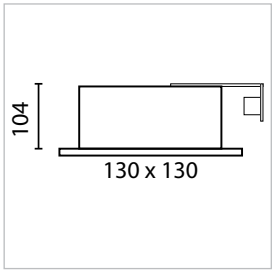
150 x 150



440



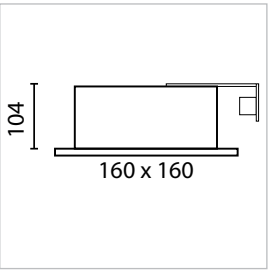
180 x 180



450



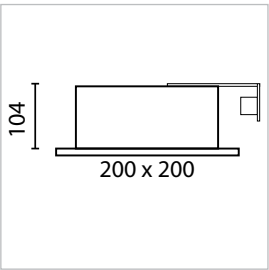
120 x 120



px 460



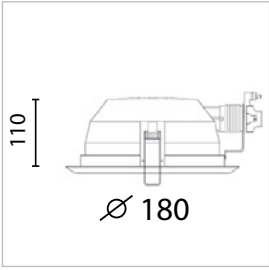
150 x 150



470



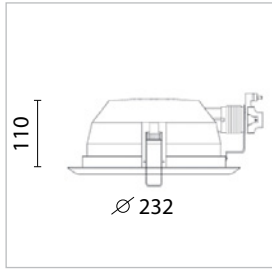
180 x 180



630



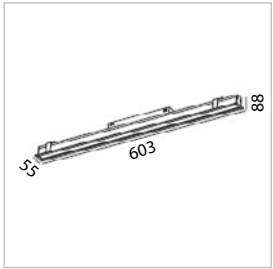
160



640



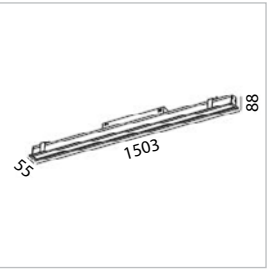
210



recess 14w



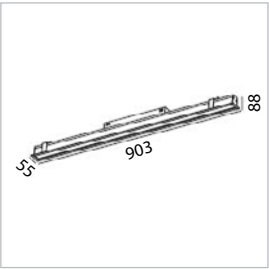
590 x 46



recess 35w



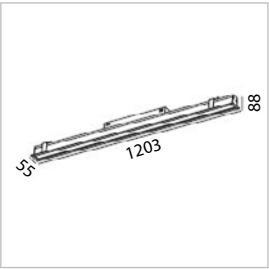
1490 x 46



recess 39w



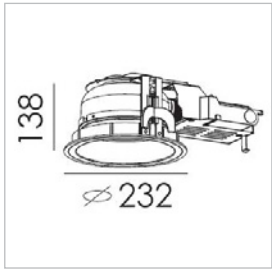
890 x 46



recess 54w



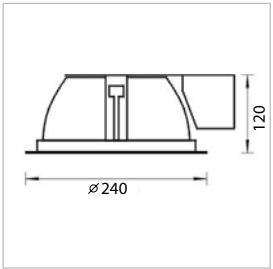
1190 x 46



doden



216

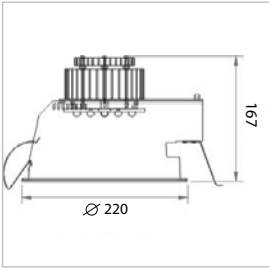


iris



225

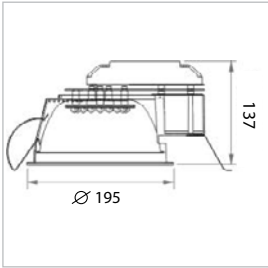
DOWNLIGHTS LED
LED DOWNLIGHTS
LUMINARIAS LED
DOWNLIGHT LED
LAMPADA LED



zeppa



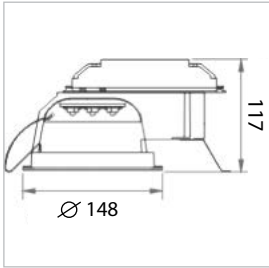
207



medium zeppa



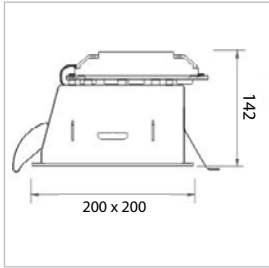
182



small zeppa



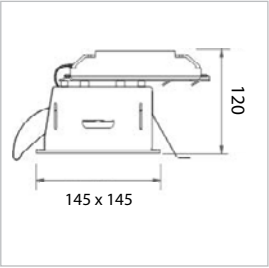
137



ogun



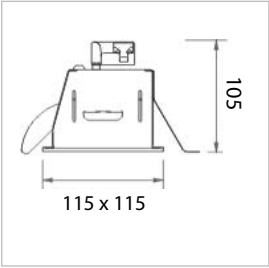
183 x 183



medium ogun



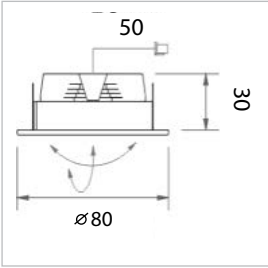
130 x 130



small ogun



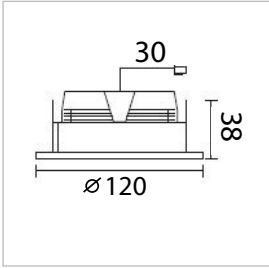
100 x 100



osciled 3



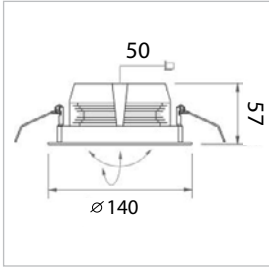
70



osciled 6



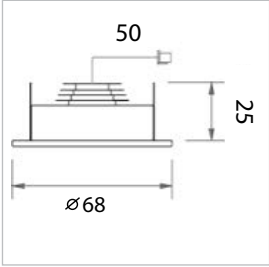
110



osciled 15



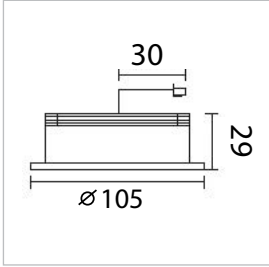
129



fixed 3



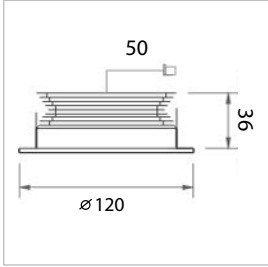
58



fixed 6



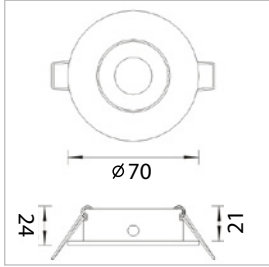
94



fixed 15



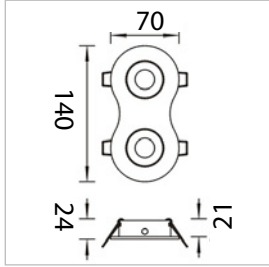
107



ikoku 1



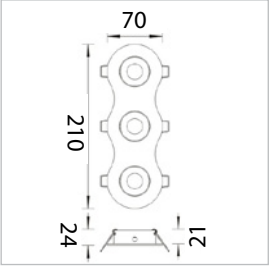
58



ikoku 2



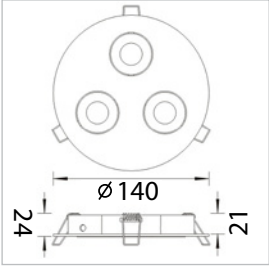
128 x 2R29



ikoku 3



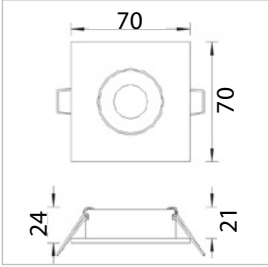
193 x 3R29



ikoku 3r



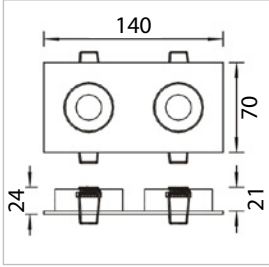
126



etron 1



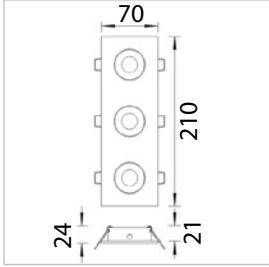
58



etron 2



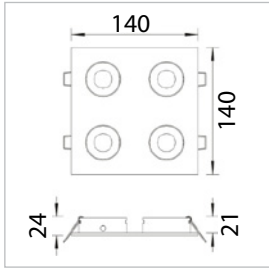
123 x 58



etron 3



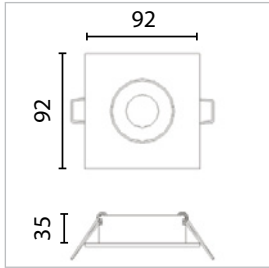
193 x 58



etron 4



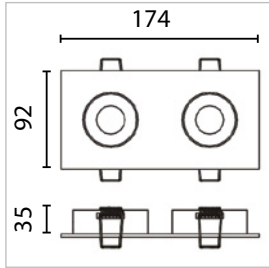
125 x 123



ledalum 1



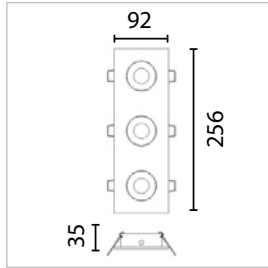
80



ledalum 2



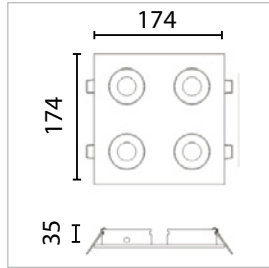
162 x 82



ledalum 3



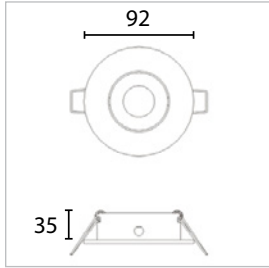
244 x 80



ledalum 4s



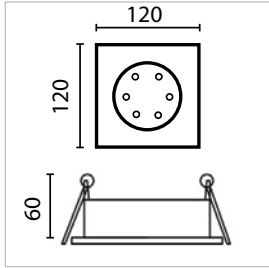
162 x 162



ledalum R



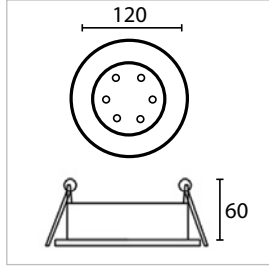
80



pelfus



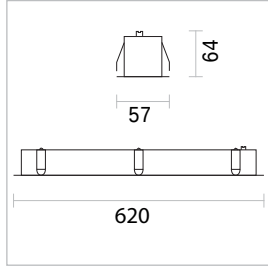
105



guiria



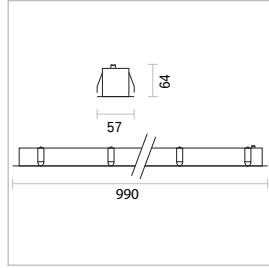
105



strettu 48



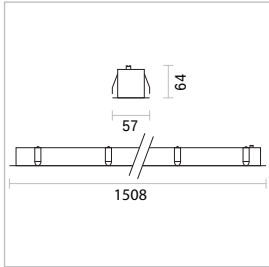
607 x 45



strettu 78



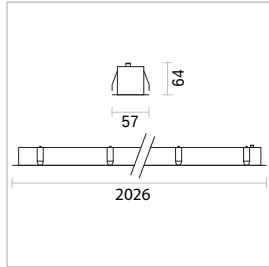
973 x 45



strettu 120



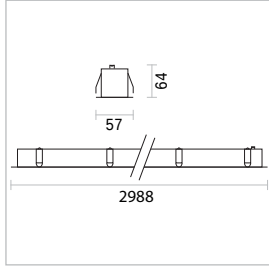
1490 x 45



strettu 162



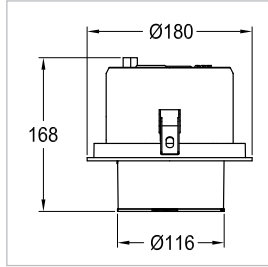
2007 x 45



strettu 240



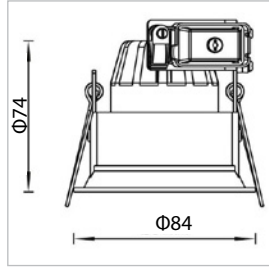
2970 x 45



wallwash



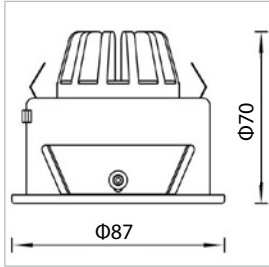
170



confort



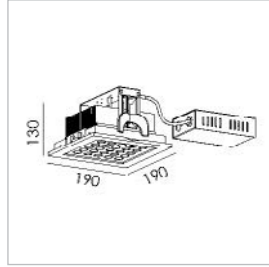
76



dosh



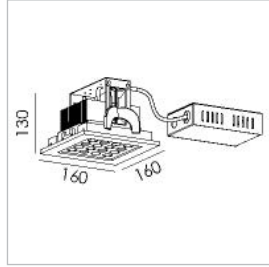
78



ebaloo



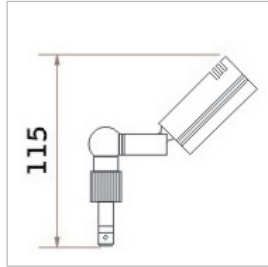
177 x 177



medium ebaloo



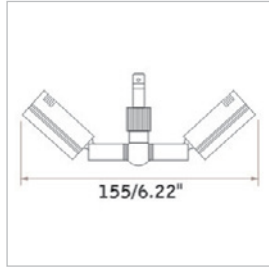
148 x 148



kokudo 1



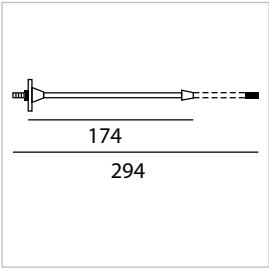
115



kokudo 2



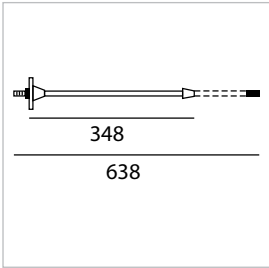
155/6.22"



aste 300



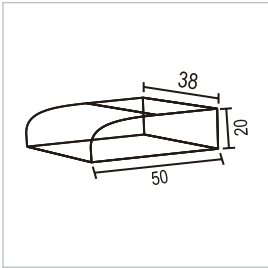
23



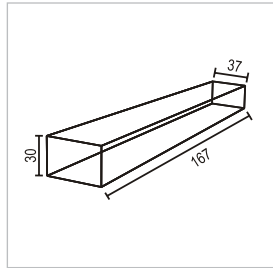
aste 600



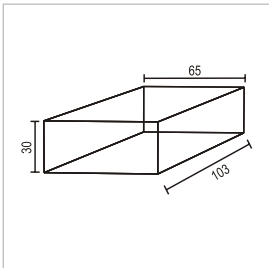
23



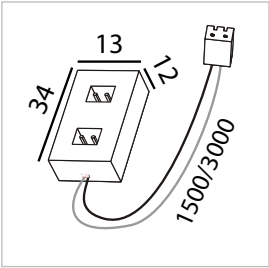
ldv 3w



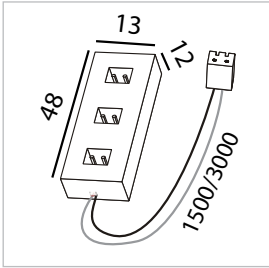
ldv 12w



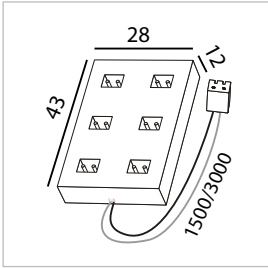
ldv 18w



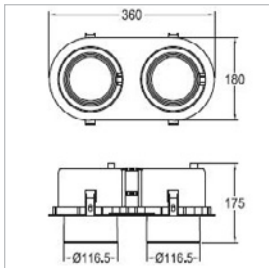
exmt / 2e



exmt / 3e



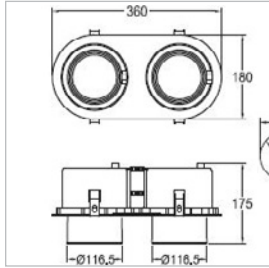
exmt / 6e



retorik 2 [HIR111 - CE - P]



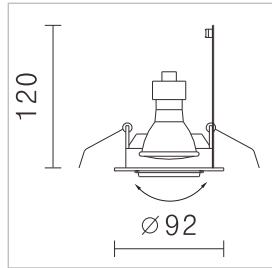
350 x 2R85



retorik 2 [HIT]



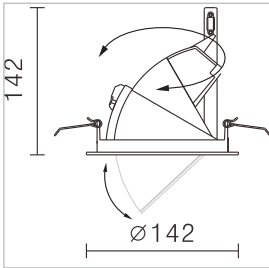
350 x 2R85



technik



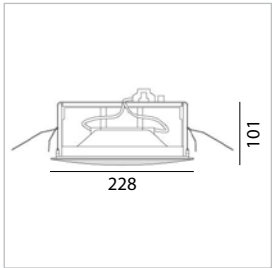
82



project



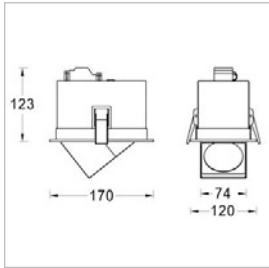
128



ornit



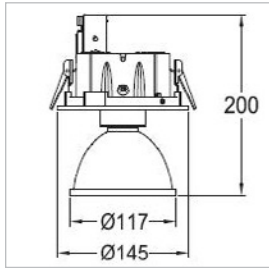
220 x 130



voltage



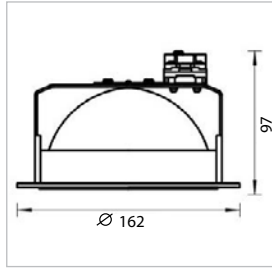
155 x 100



storm



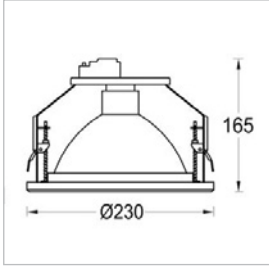
138



plus



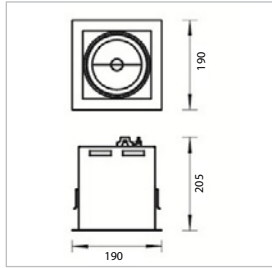
145



strike



217

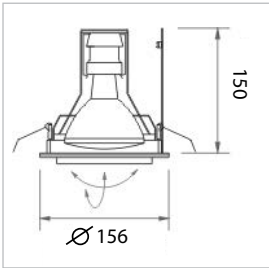


box 1



170 x 170

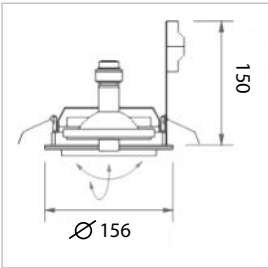
DOWNLIGHTS DESCARGA
DISCHARGE DOWNLIGHTS
LUMINARIAS DE DESCARGA
DOWNLIGHT DÉCHARGE
LAMPADA A SCARICA



circuspote [HIPAR 30-CE-P]



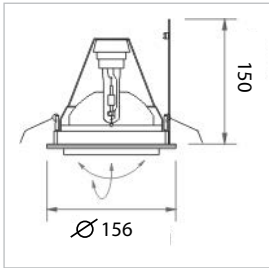
143



circuspote [HIR 111-CE-P]



143



circuspote [HIT]



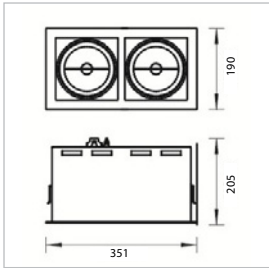
143



arteku



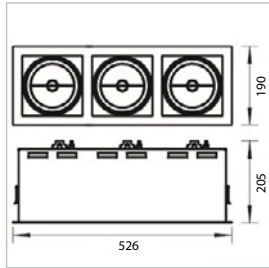
216



box 2



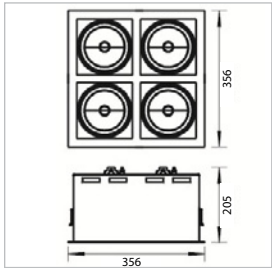
337 x 170



box 3



500 x 170

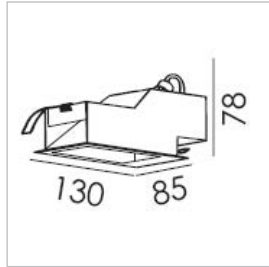


box 4



340 x 340

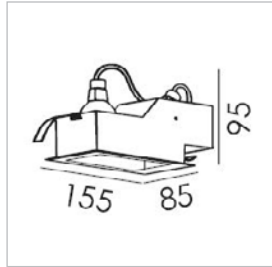
DOWNLIGHTS HALOGENEO
HALOGEN DOWNLIGHTS
LUMINARIA DE HALÓGENO
SPOT HALOGENE
LAMPADA ALOGENA



ozzo 1



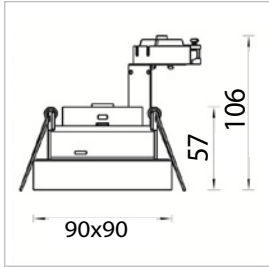
120 x 72



ozzo 2



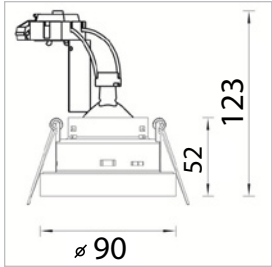
154 x 72



nano S



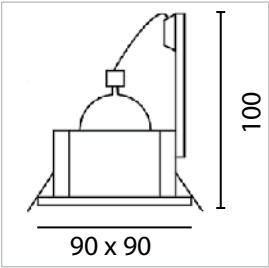
75



nano R

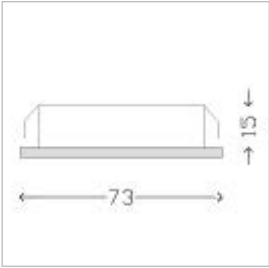


75



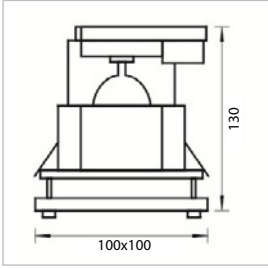
860

75 x 75



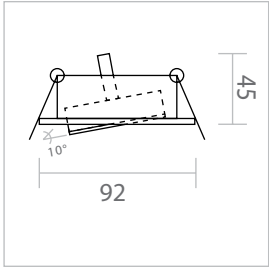
zotti

65



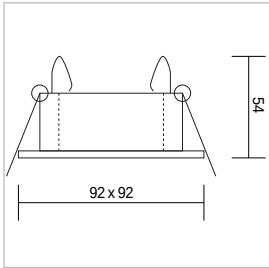
vuigu

82 x 82



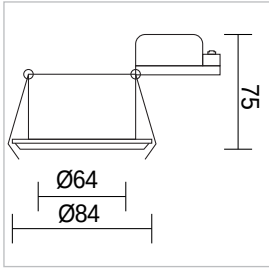
itsy

78



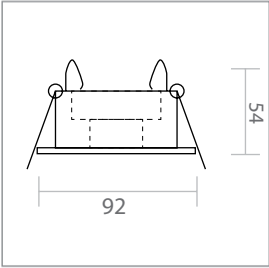
hure

78



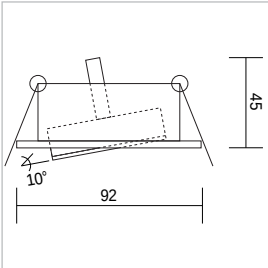
smet

72



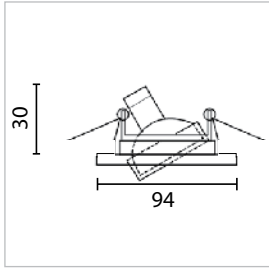
tretua

78



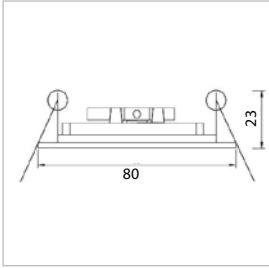
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78



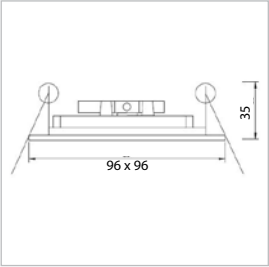
170

78



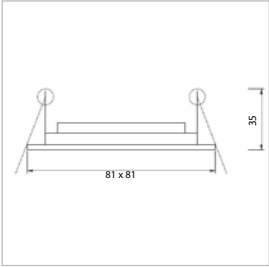
180

68



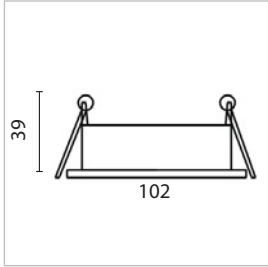
270

76



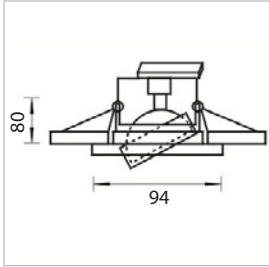
280

68



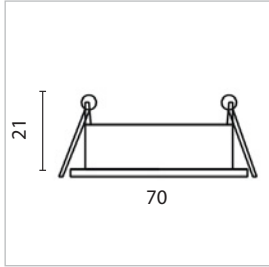
zedo

90



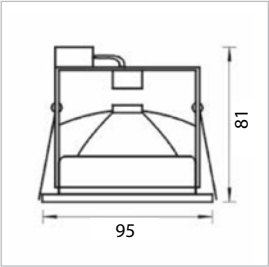
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82



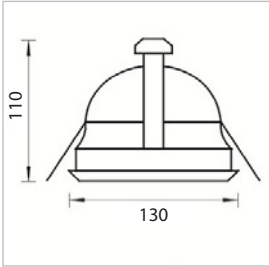
robus

55



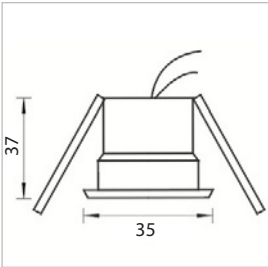
pixel

72



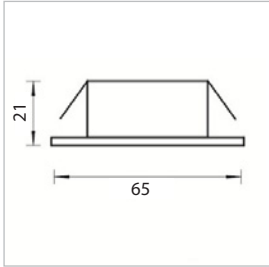
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95



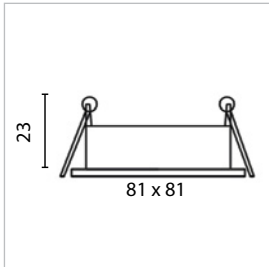
point

28



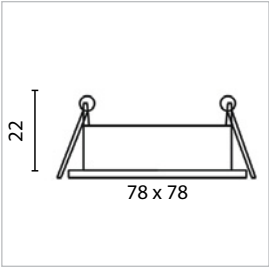
kai

60



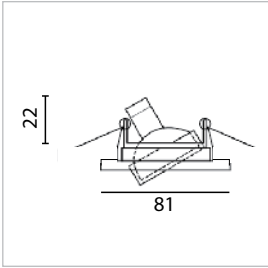
250

71



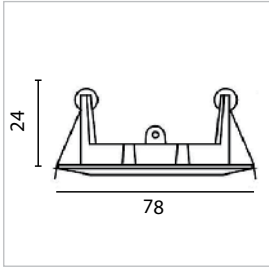
260

56



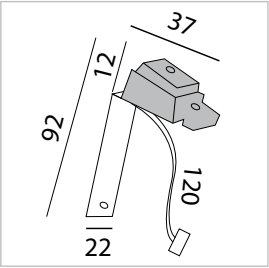
530

72

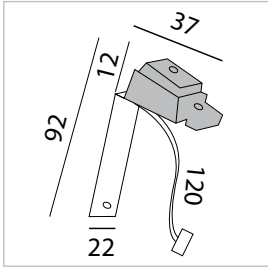


540

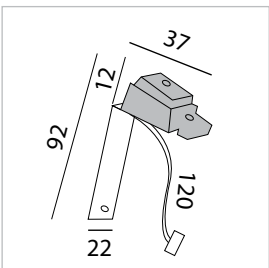
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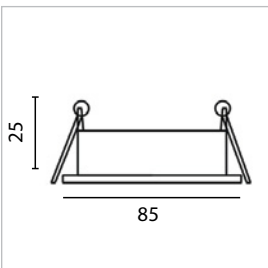
gu 10 - D - I



gu 10 - D - II

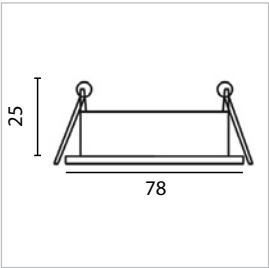


gu 5.3 - D - III



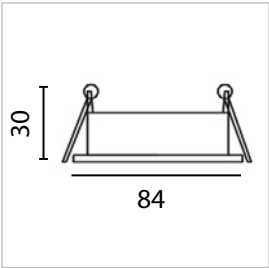
rondo

73



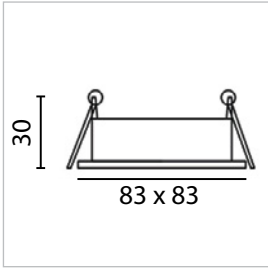
brusbu

66



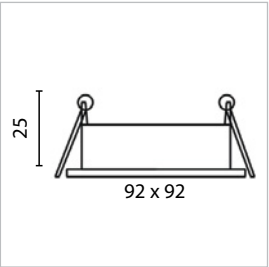
canuzapu

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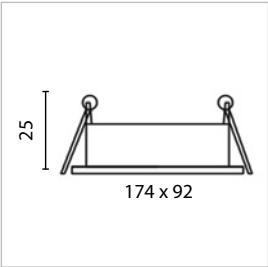
tuazam

60



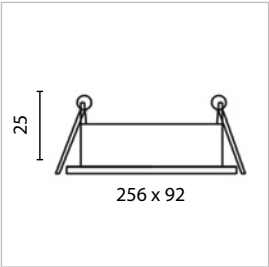
proton 1

80



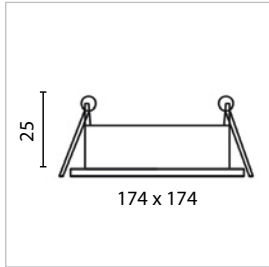
proton 2

162 x 82



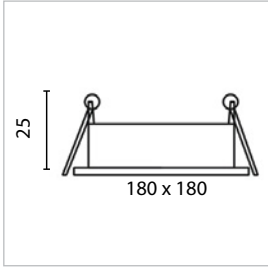
proton 3

244 x 82



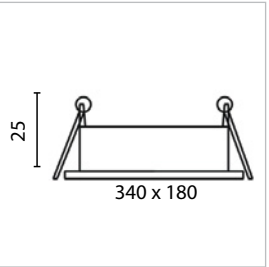
proton 4

162 x 162



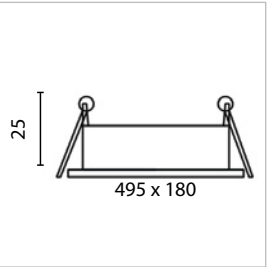
katrina 1

150



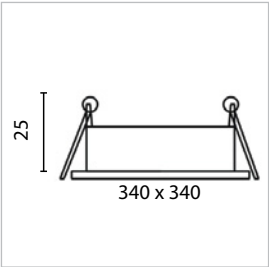
katrina 2

310 x 150



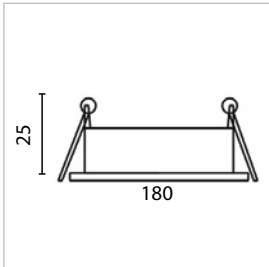
katrina 3

465 x 150



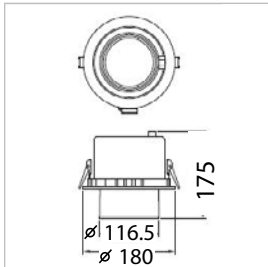
katrina 4S

310 x 310



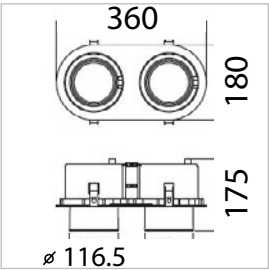
katrina R

150



retorik 1 [QR111]

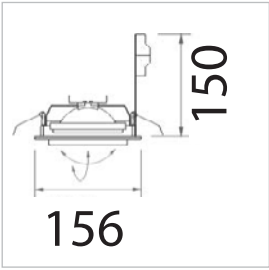
170



retorik 2 [QR111]



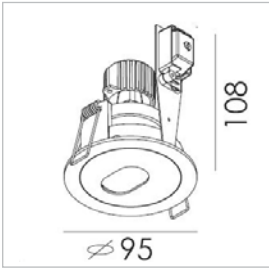
350 x 2R85



circuspot [QR111]



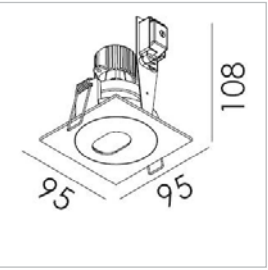
143



galaxo



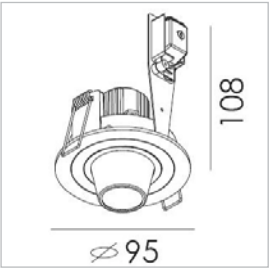
83



lwatt



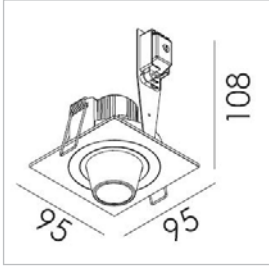
83



periscope



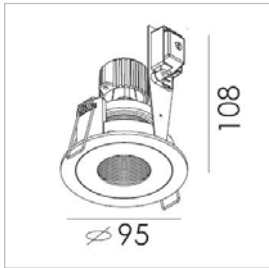
83



ciclone



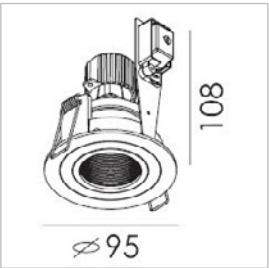
83



gizio



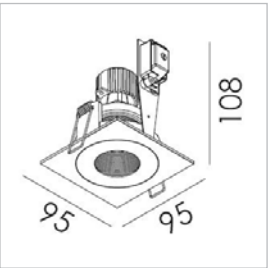
83



crean



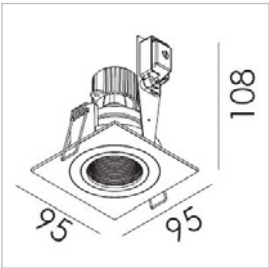
83



kik



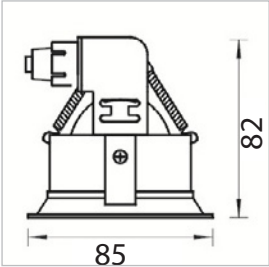
83



tondo



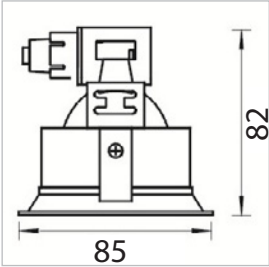
83



sensis



76

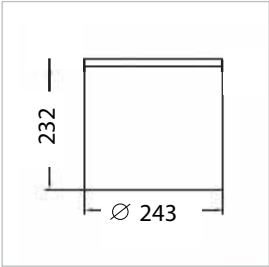


sensis m

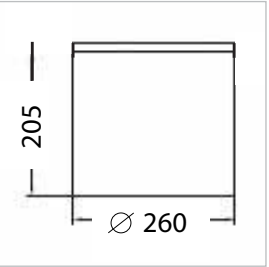


76

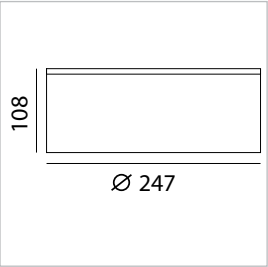
PROJECTORES
PROJECTORS
PROYECTORES
PROJEC TEURS
PROIETTORI



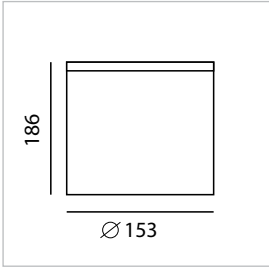
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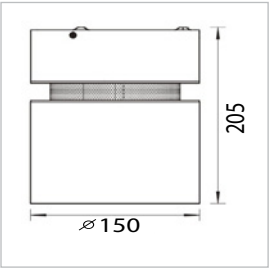
cielo xl



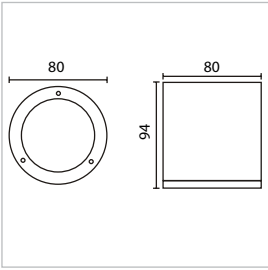
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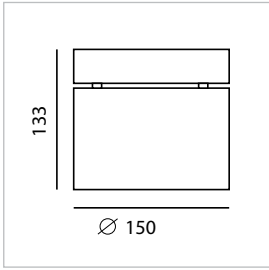
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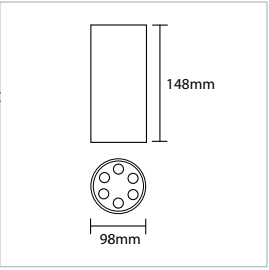
opacus



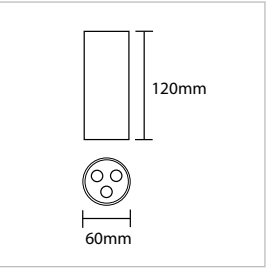
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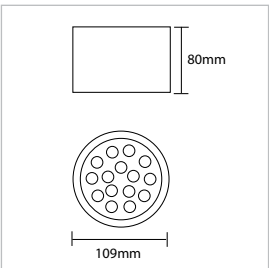
dafto



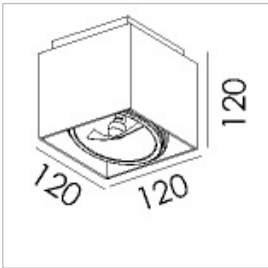
equinoce



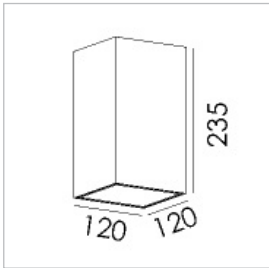
medium equinoce



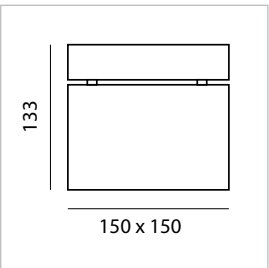
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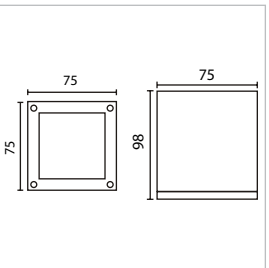
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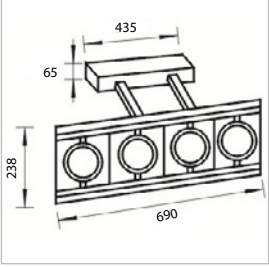
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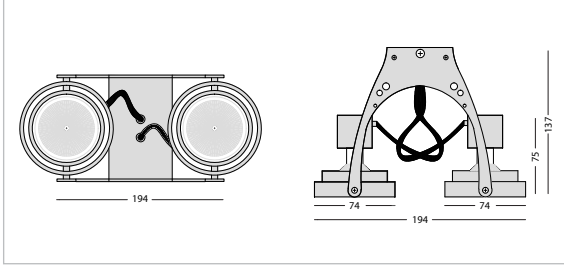
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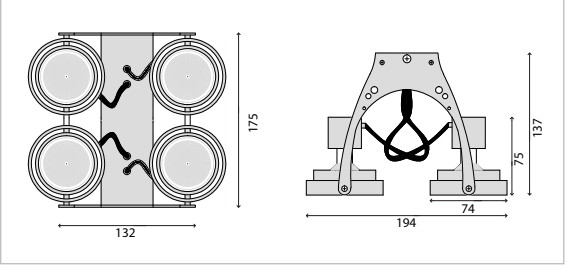
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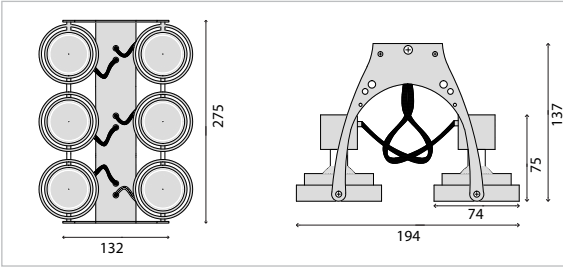
halo 111



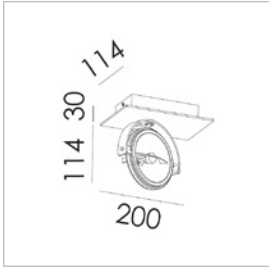
talosca 2



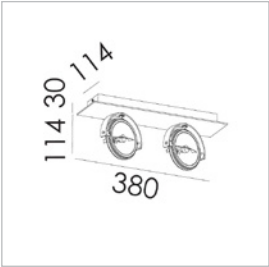
talosca 4



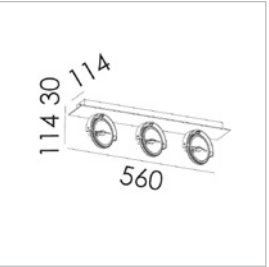
talosca 6



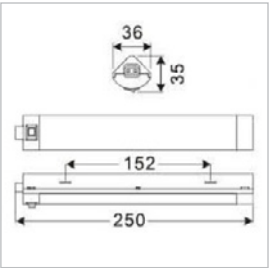
fredus 1



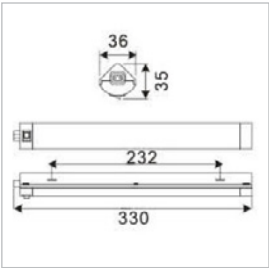
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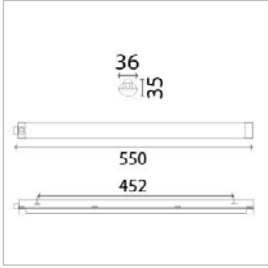
fredus 3



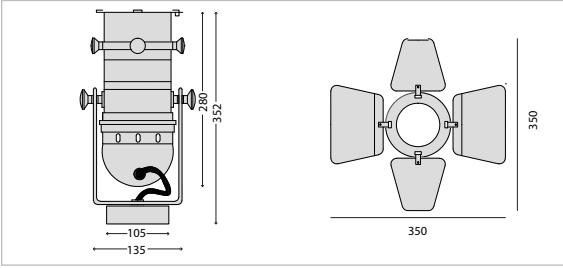
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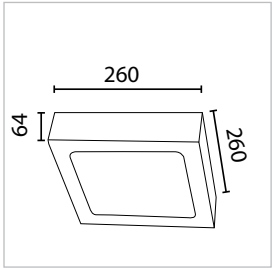
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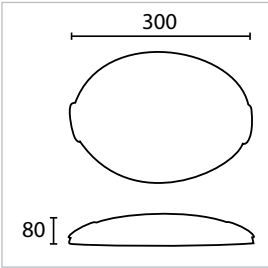
slimled 6.8W



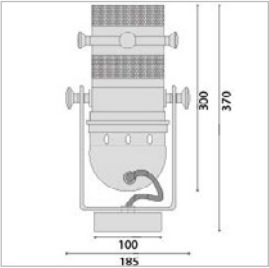
power base



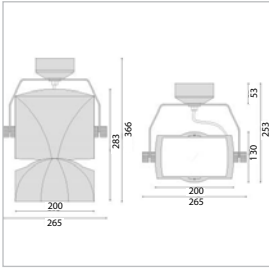
880



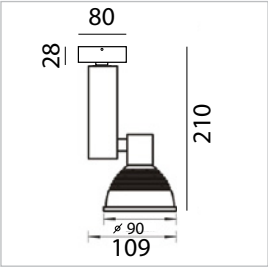
960



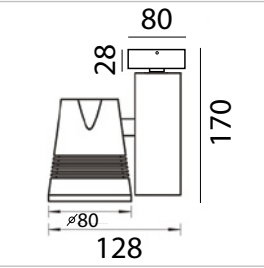
eventus base



profile

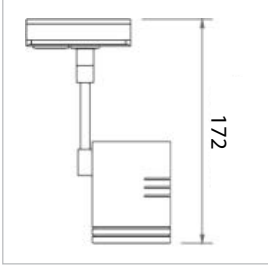


ledonix base

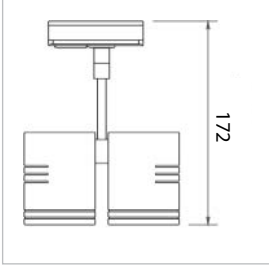


exua base

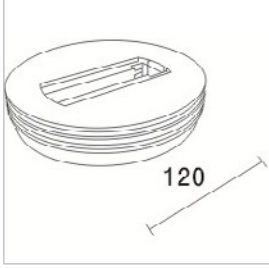
SISTEMA DE CARRIL
[1 E 3 CIRCUITOS]
RAIL SYSTEM
[1 AND 3 CIRCUITS]
SISTEMAS DE CARRIL
[1 Y 3 CIRCUITOS]
SYSTÈME DE RAILS
[1 ET 3 CIRCUITS]
SISTEMA A BINARI
[1 ET 3 CIRCUITI]



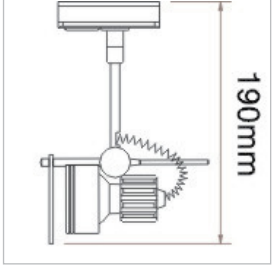
gemesu 1



gemesu 2

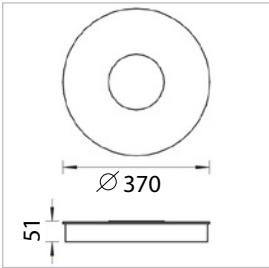


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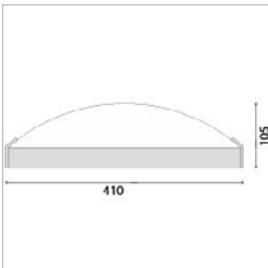


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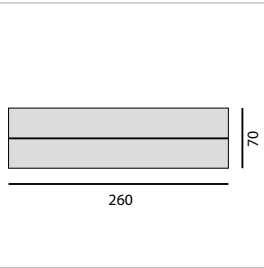
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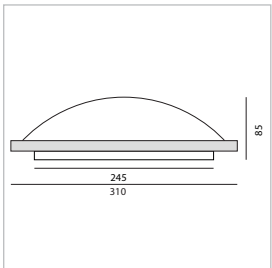
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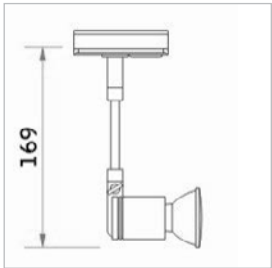
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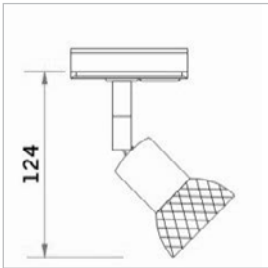
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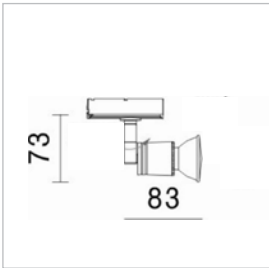
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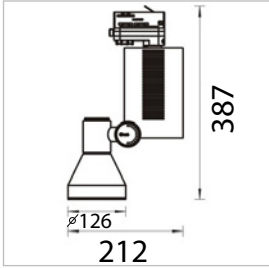
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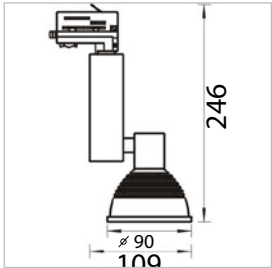
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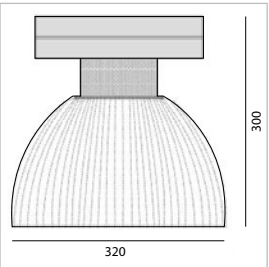
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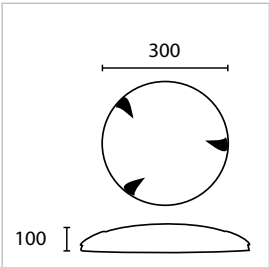
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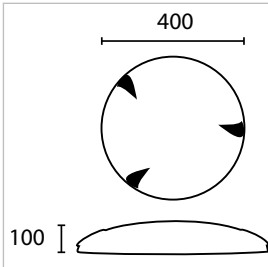
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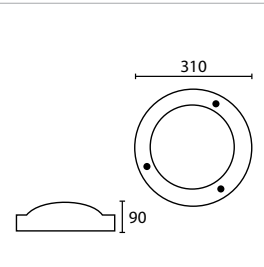
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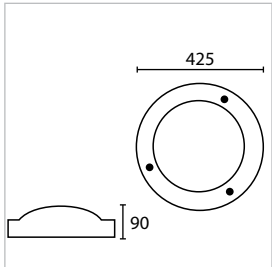
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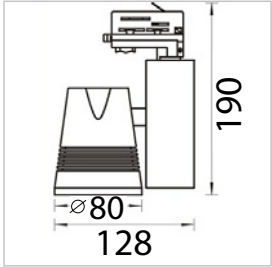
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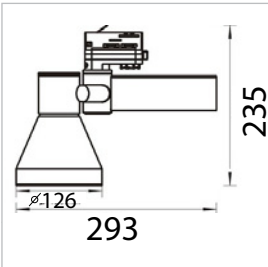
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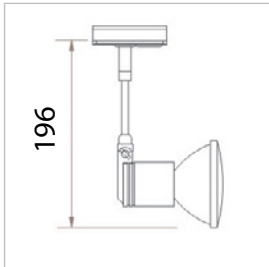
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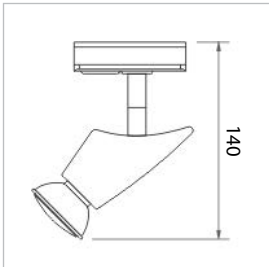
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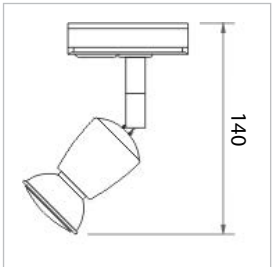
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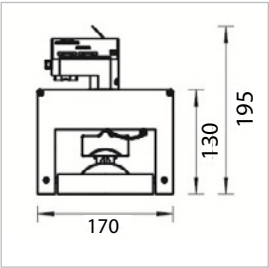
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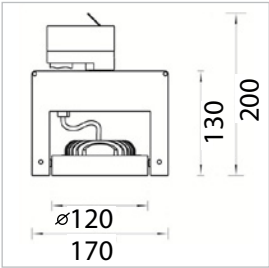
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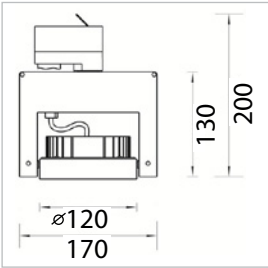
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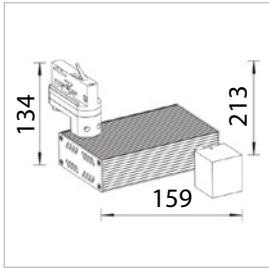
sniper [QR111]



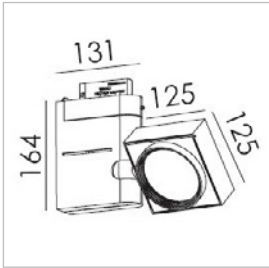
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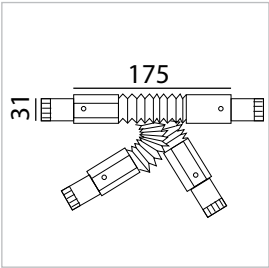
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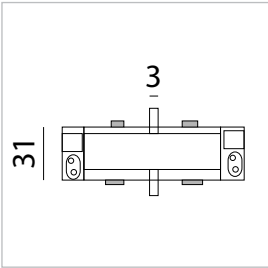
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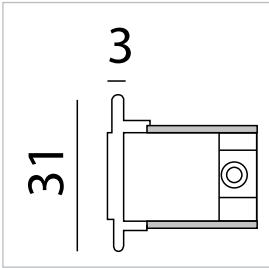
bizz [HIT - TC - CE]



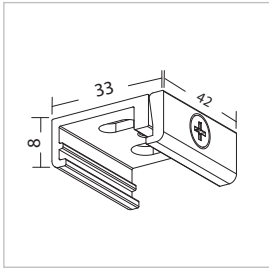
i3fl - rcs



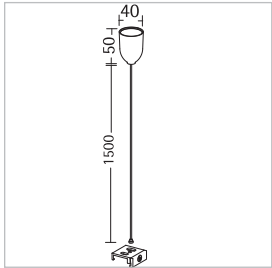
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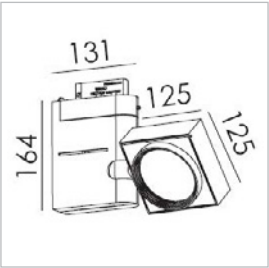
tp3 - rcs



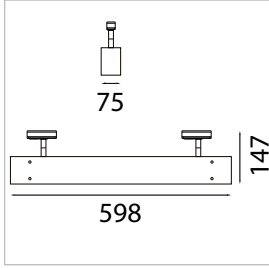
clip3 - rcs



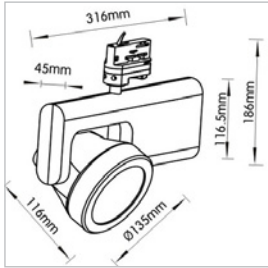
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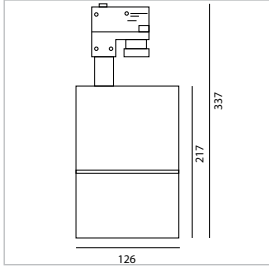
bizz [LED]



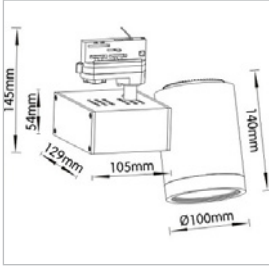
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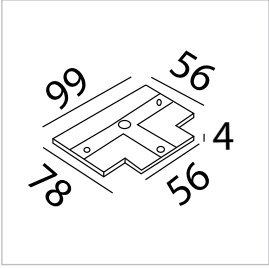
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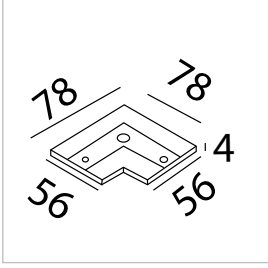
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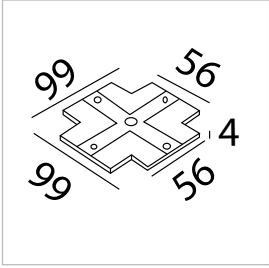
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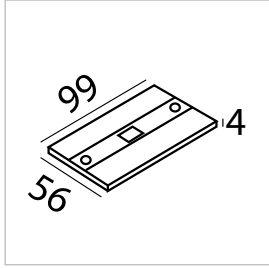
t3tp - rcs



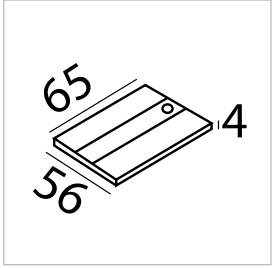
l3tp - rcs



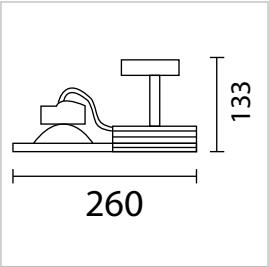
x3tp - rcs



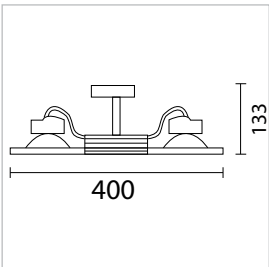
i3tp - rcs



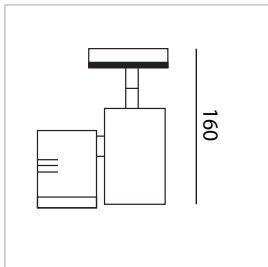
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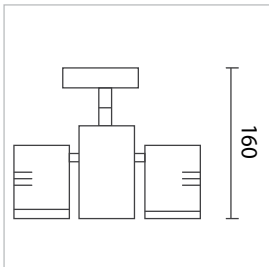
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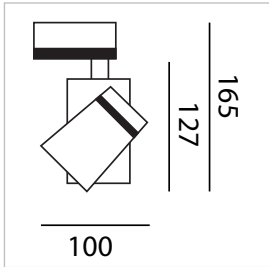
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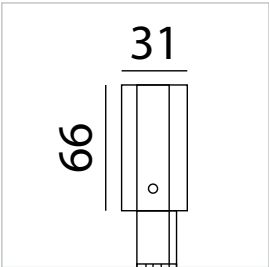
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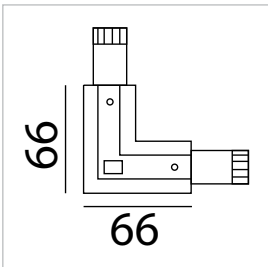
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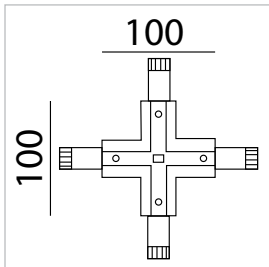
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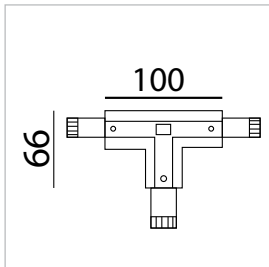
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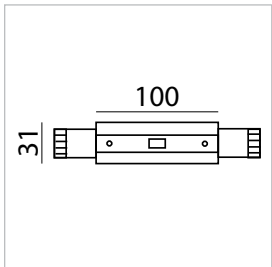
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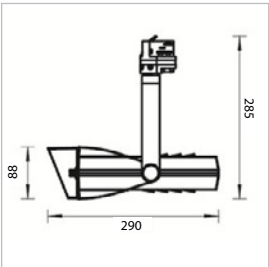
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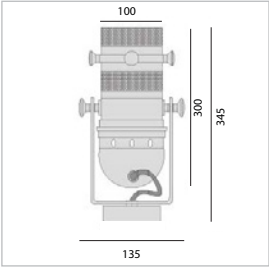
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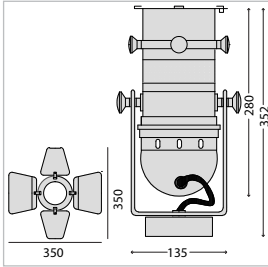
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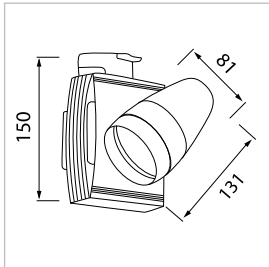
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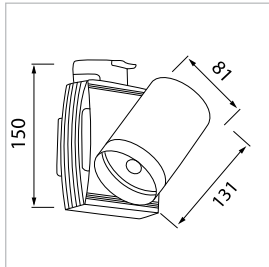
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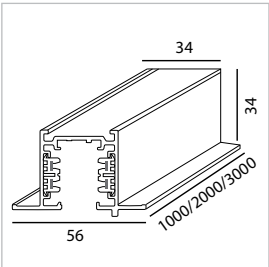
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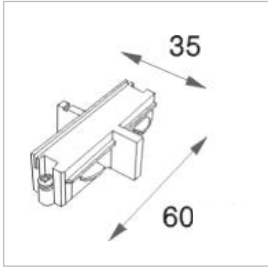
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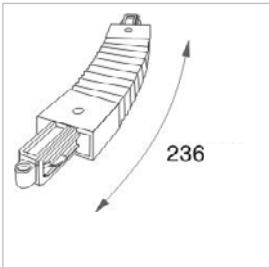
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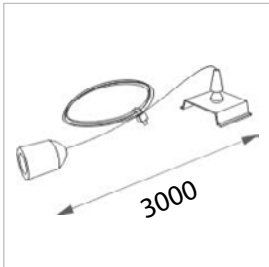
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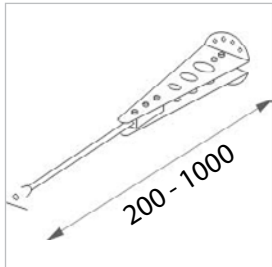
i1 - cr



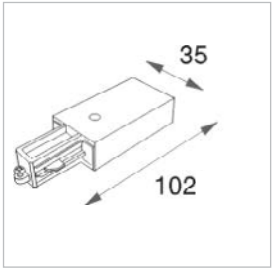
fl1 - cr



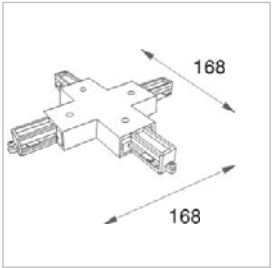
splk - cr



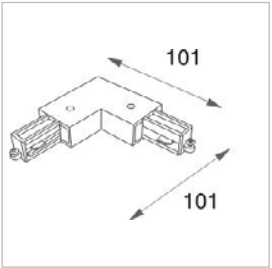
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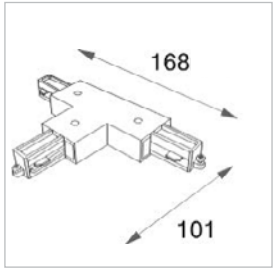
all - cr



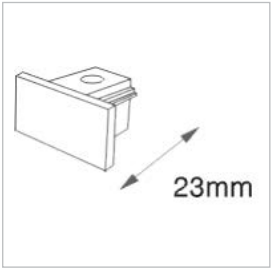
x1 - cr



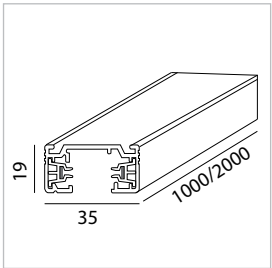
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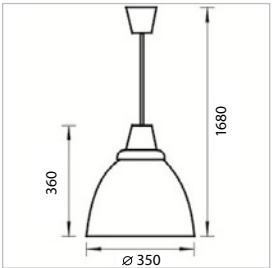
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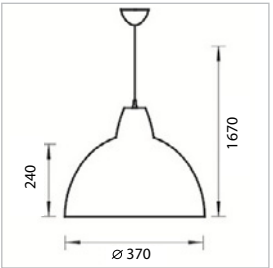
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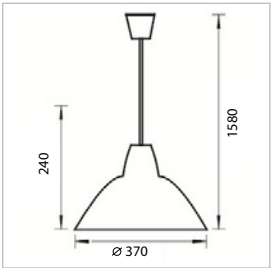
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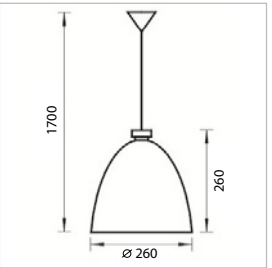
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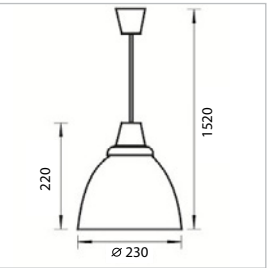
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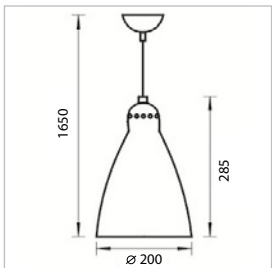
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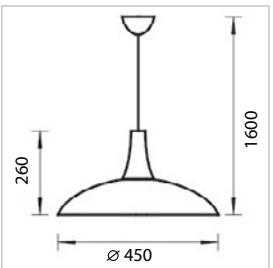
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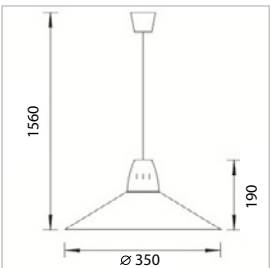
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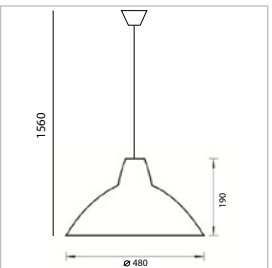
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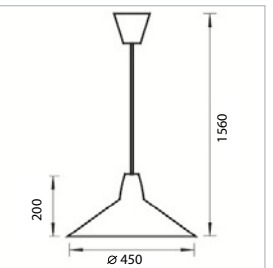
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alumo

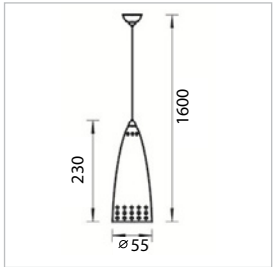


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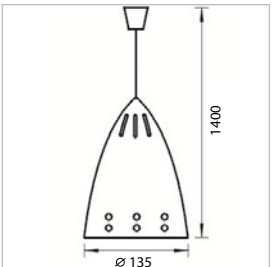


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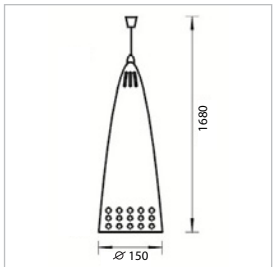
SUSPENSÕES
PENDANT
COLGANTES
SUSPENSIONS
A SOSPENSIONE



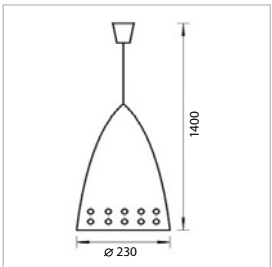
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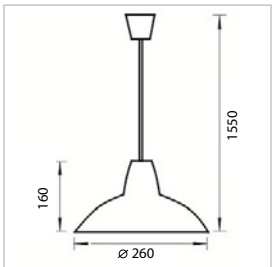
small snap



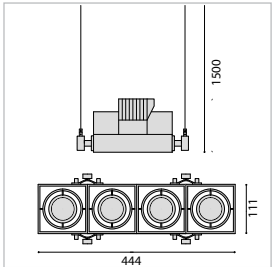
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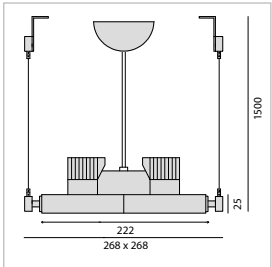
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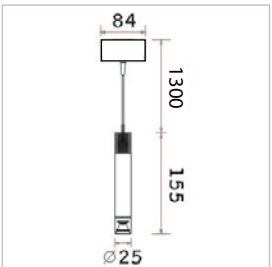
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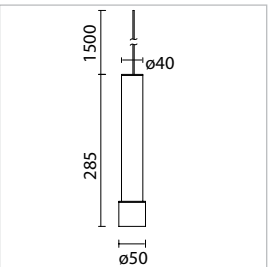
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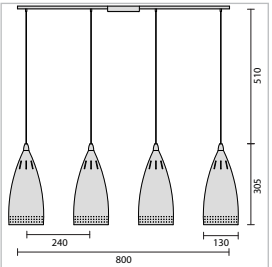
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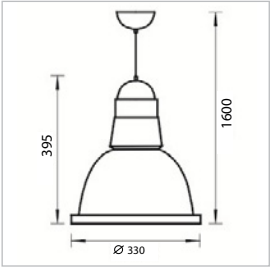
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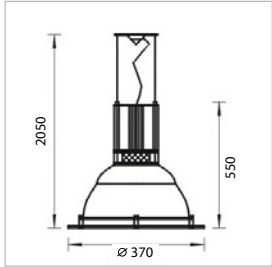
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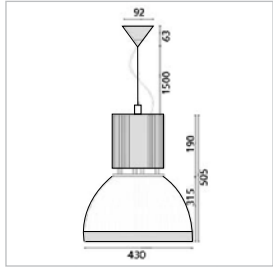
line snap



anupia



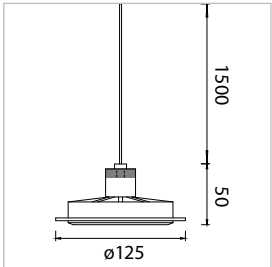
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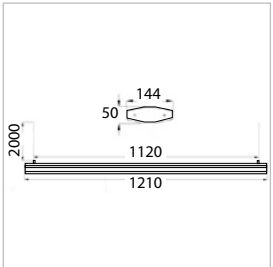
bucapu



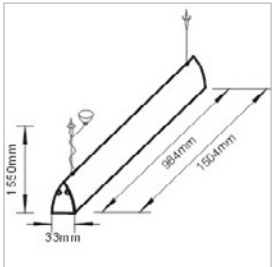
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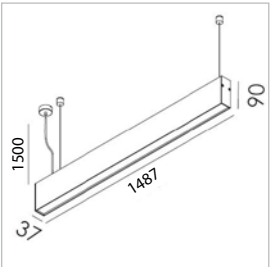
lucifer



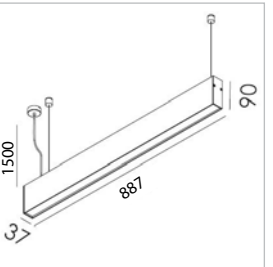
oberon



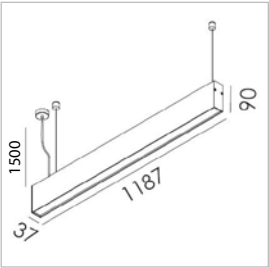
tresbula



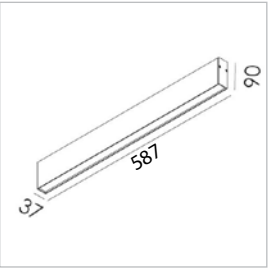
pelcan pendant [T16 35W]



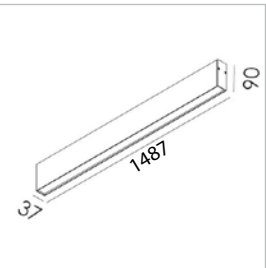
pelcan pendant [T16 39W]



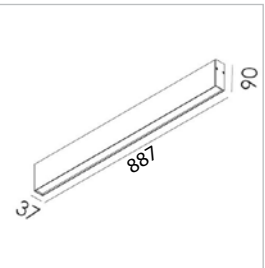
pelcan pendant [T16 54W]



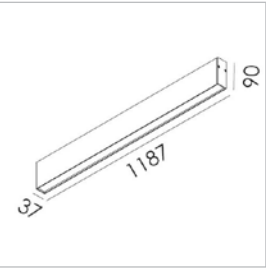
pelcan [T16 14W]



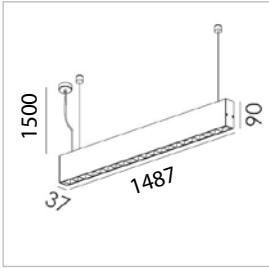
pelcan [T16 35W]



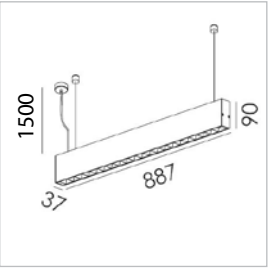
pelcan [T16 39W]



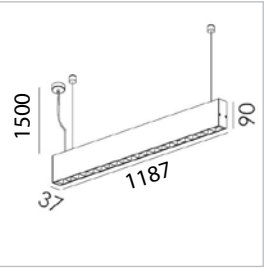
pelcan [T16 54W]



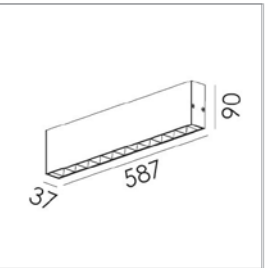
office pendant [T16 35W]



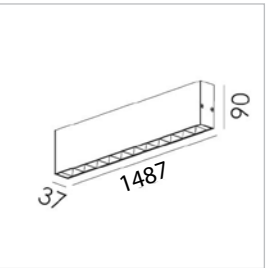
office pendant [T16 39W]



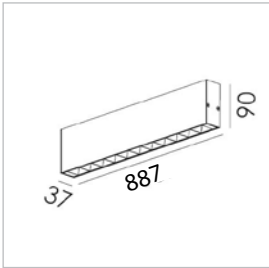
office pendant [T16 54W]



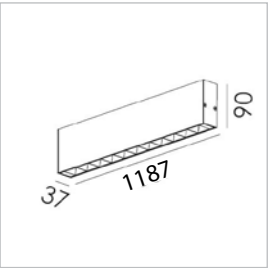
office [T16 14W]



office [T16 35W]

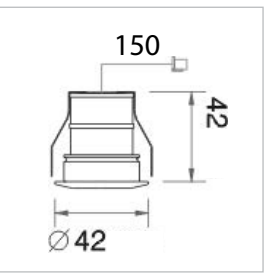


office [T16 39W]



office [T16 54W]

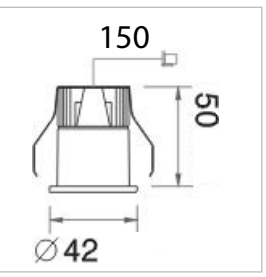
BALIZADORES E
SINALIZADORES
ORIENTATION LIGHTING AND
SIGNALETICS
BALIZADORES Y
SEÑALIZADORES
BALISAGE ET
SIGNALISATION
SEGNALETICA
E DIREZIONALE



adoxo



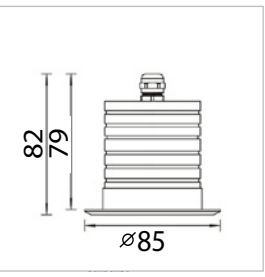
36



puck



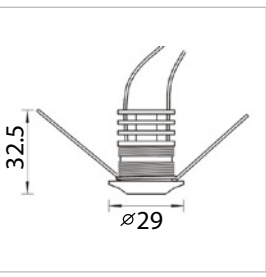
37



magneos



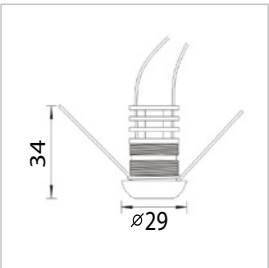
63



ulken



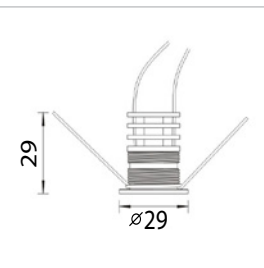
23



amizo



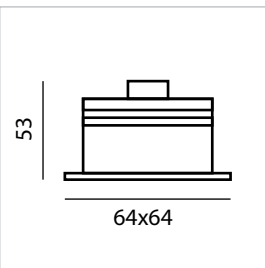
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ogasca



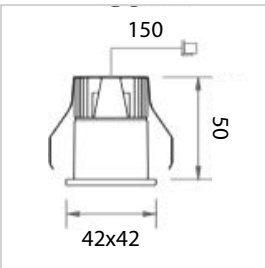
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magazon



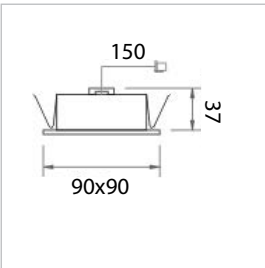
55



uzzle



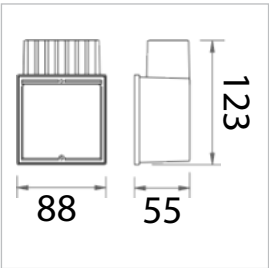
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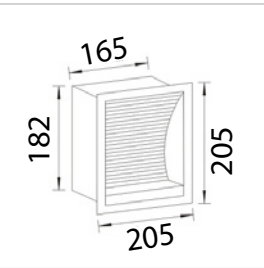
bobik



90x90



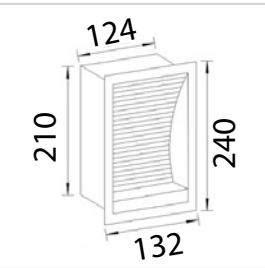
bobik [box]



frank



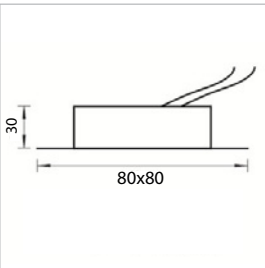
182x165



gilla



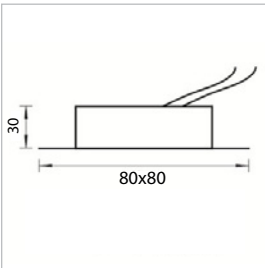
210x124



teco [QT9]



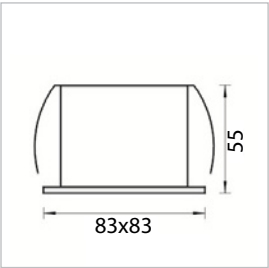
68x68



teco [led]



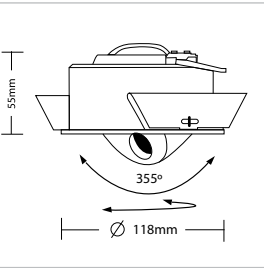
68x68



mini 7



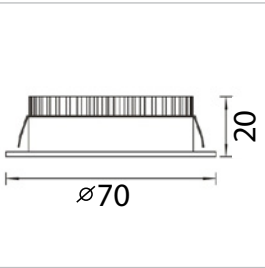
68x68



twoside



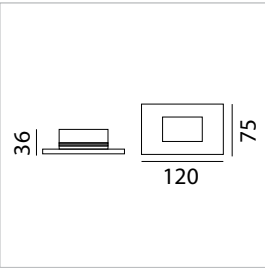
106



grazzle



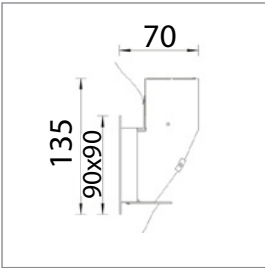
58



vigilius



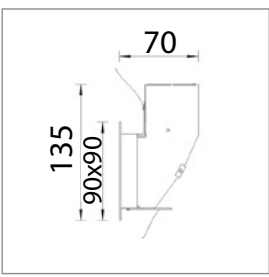
75x45



gaapu [QT12]



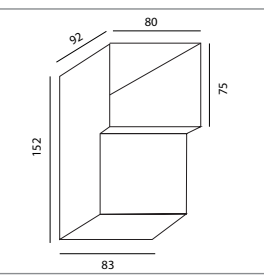
70x70



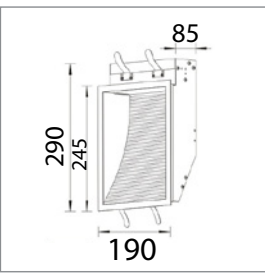
gaapu [led]



70x70



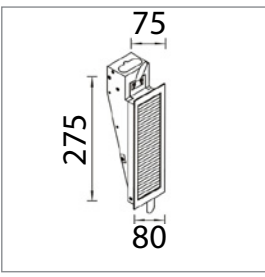
gaapu [box]



wokus



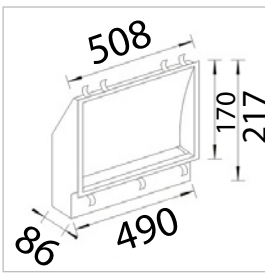
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medium wokus



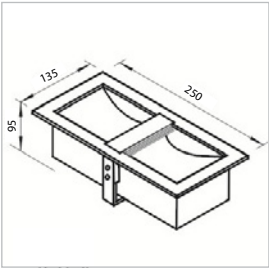
220x70



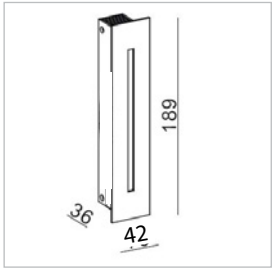
wing



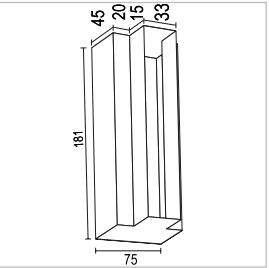
500x158



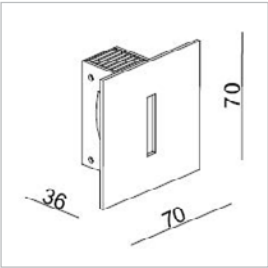
roof



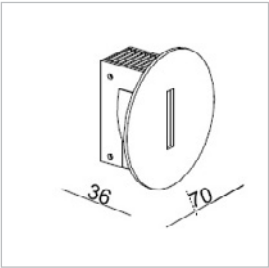
risk



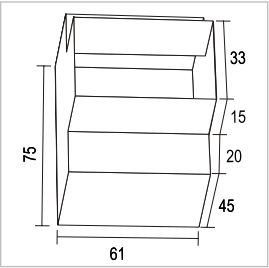
risk [box]



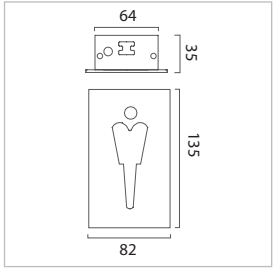
risk s



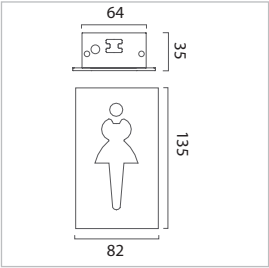
risk r



risk r/s [box]



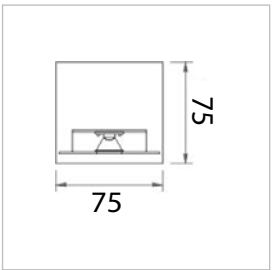
wc



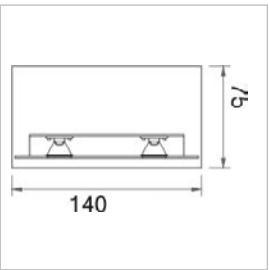
wc



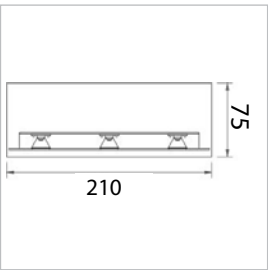
PAREDE E UPLIGHTS
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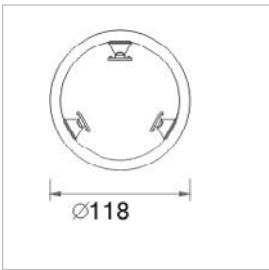
xenos 1



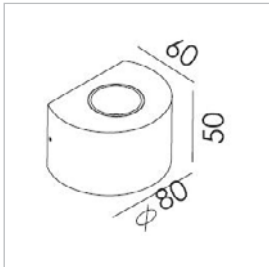
xenos 2



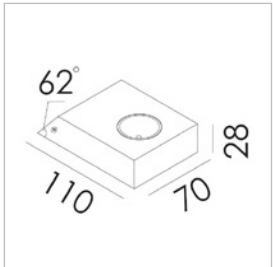
xenos 3



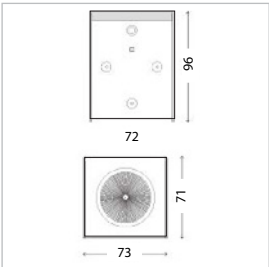
maxum



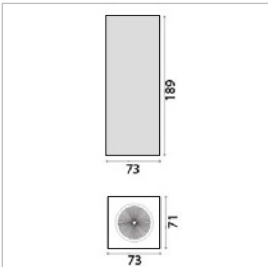
zupna



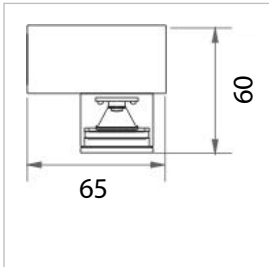
bezzee



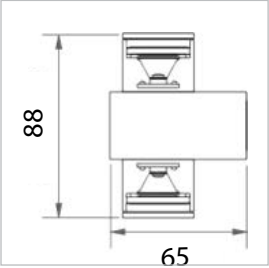
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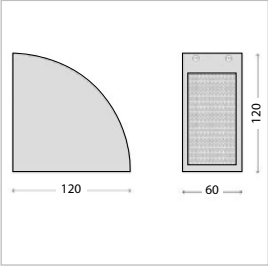
lucky 2



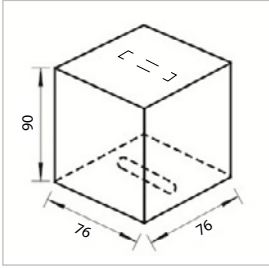
saxxo 1



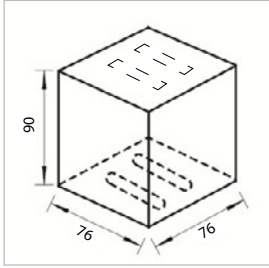
saxxo 2



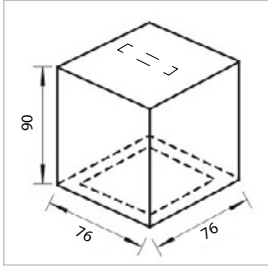
quart



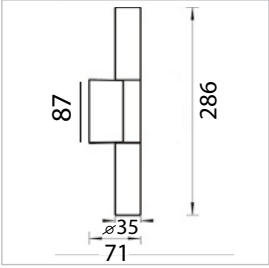
milos 6



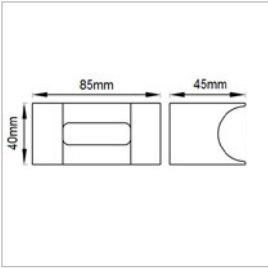
milos 7



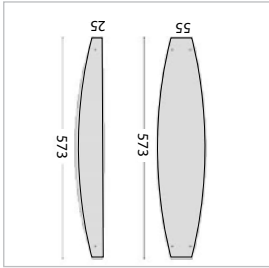
milos 8



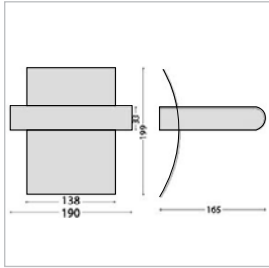
zesse



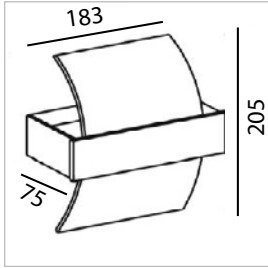
linea



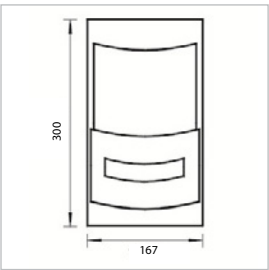
murano



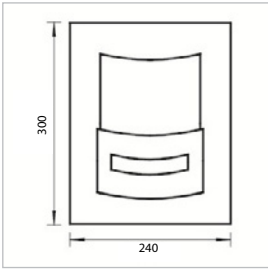
emma



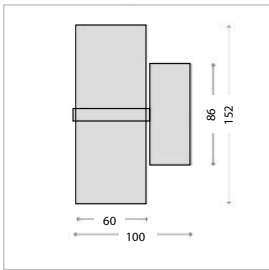
dibola



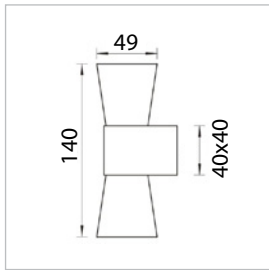
buuzzi



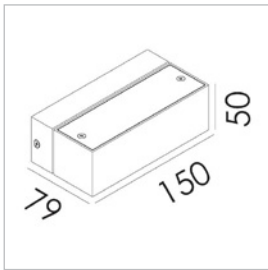
buuzzi xl



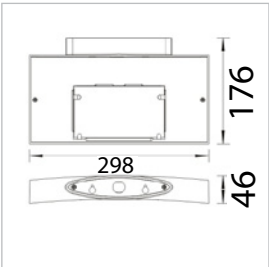
duo



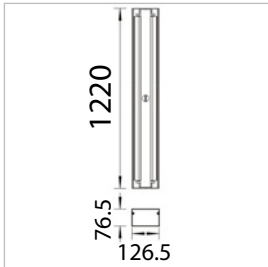
brick



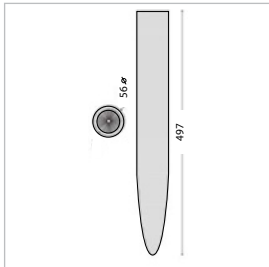
volcano



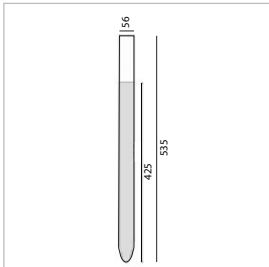
acazu



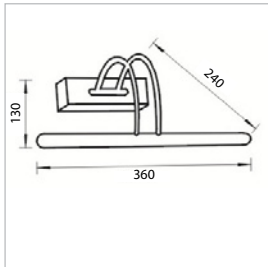
wercon



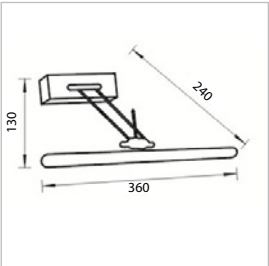
ucato



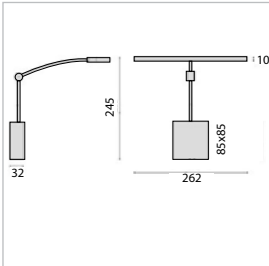
flush



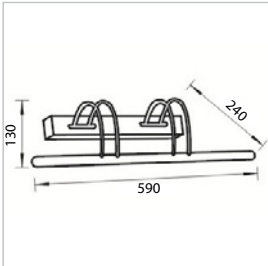
klee



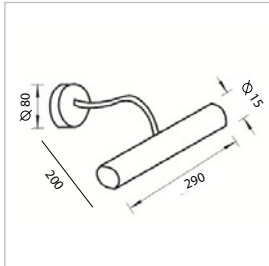
appel



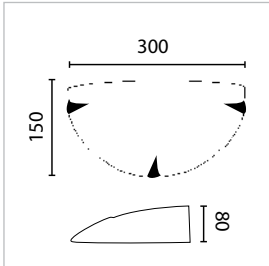
matisse



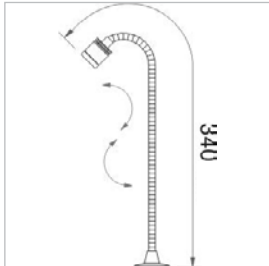
khalo



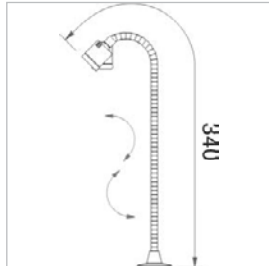
goya



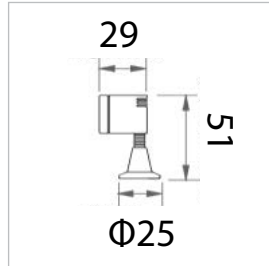
210



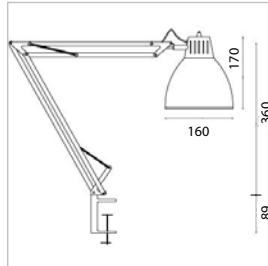
flexos 1



flexos 2



small flexos



table

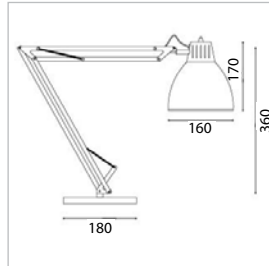
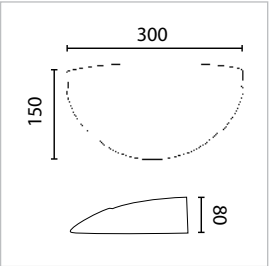
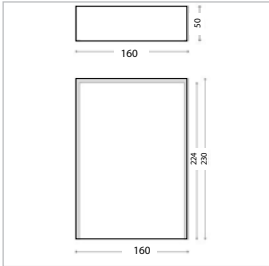


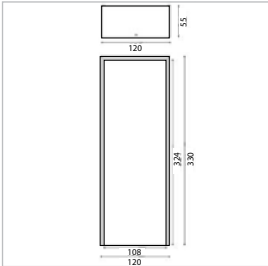
table base



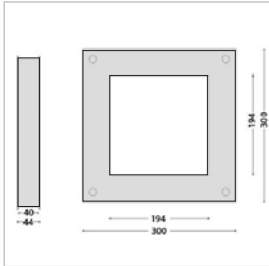
950



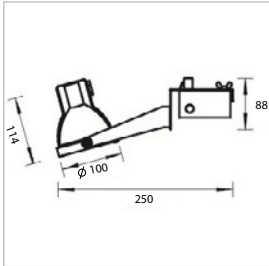
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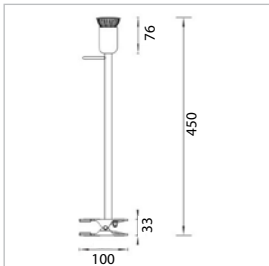
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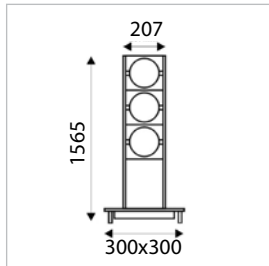
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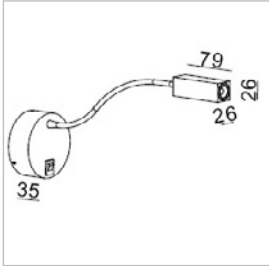
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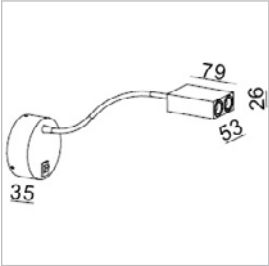
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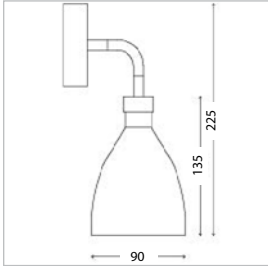
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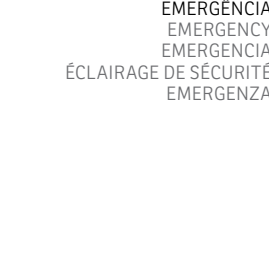
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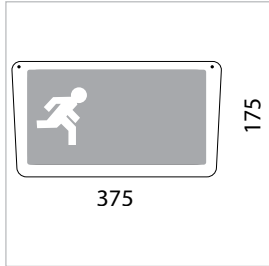
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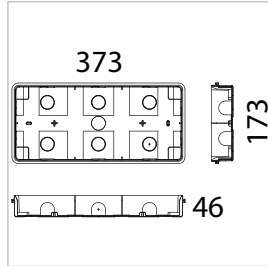
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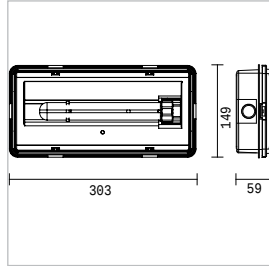
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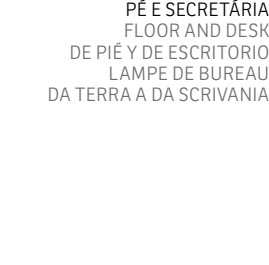
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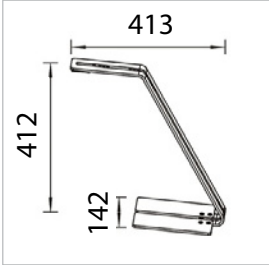
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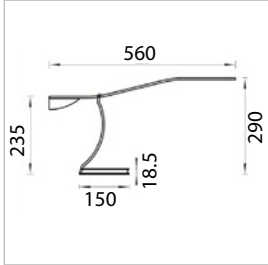
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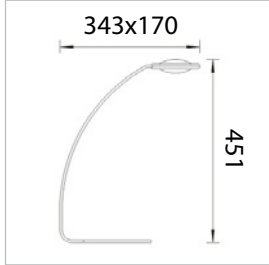
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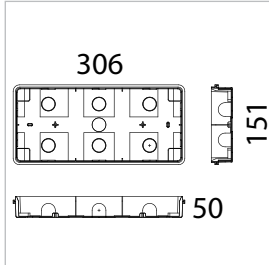
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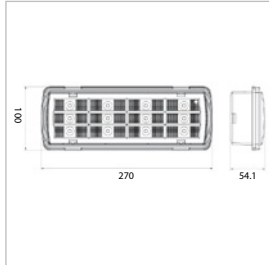
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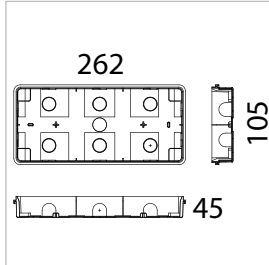
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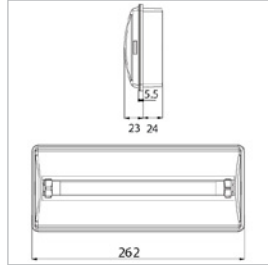
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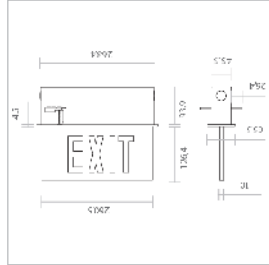
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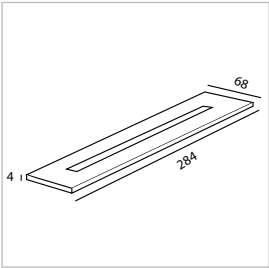
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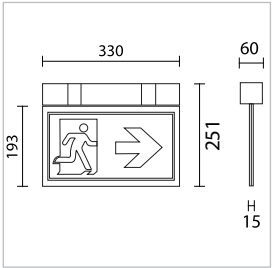
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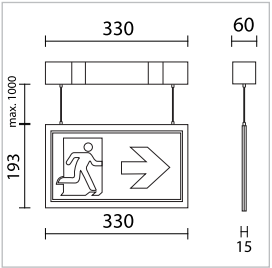
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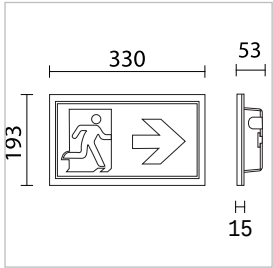
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visionled c



visionled p



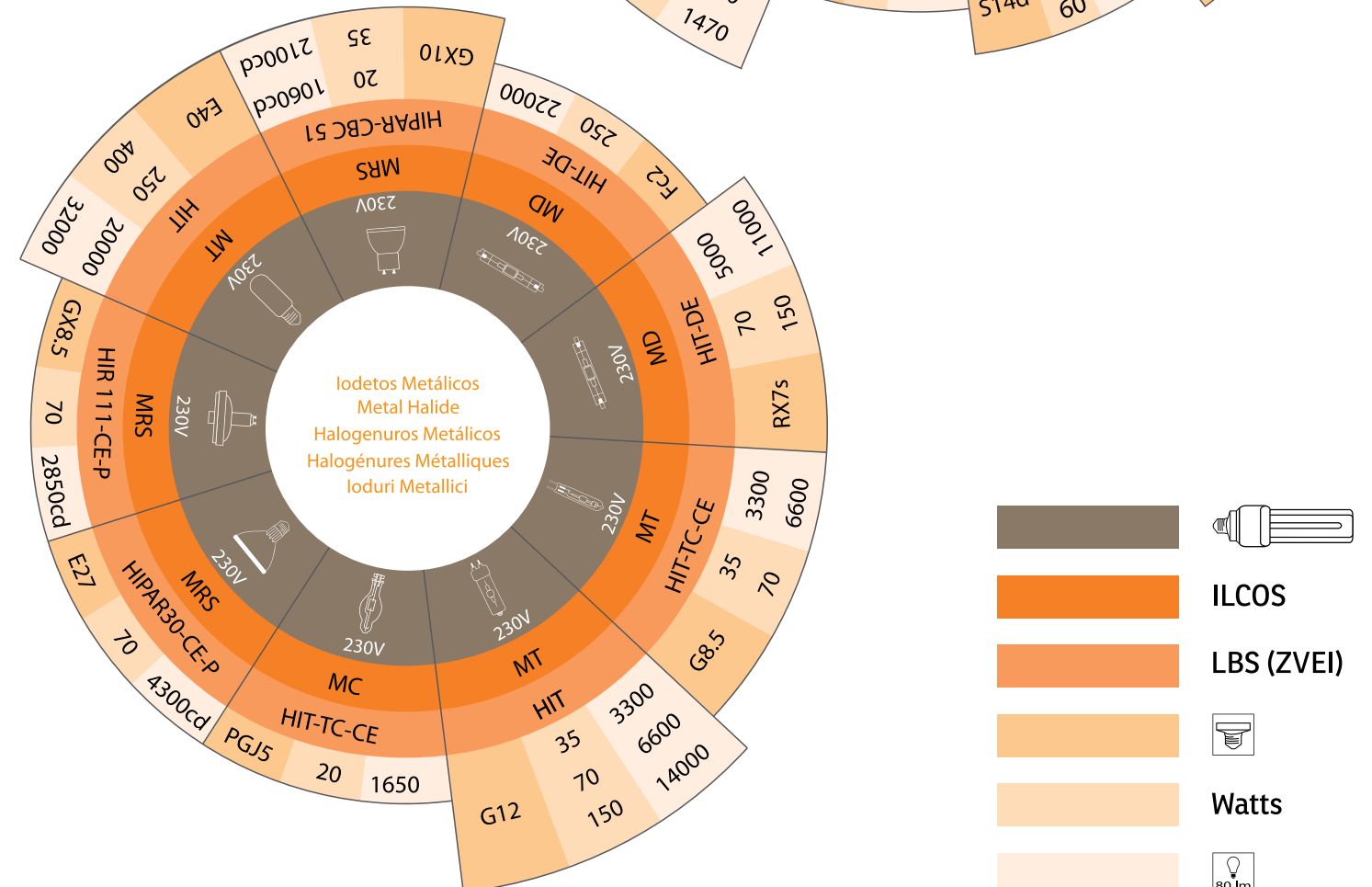
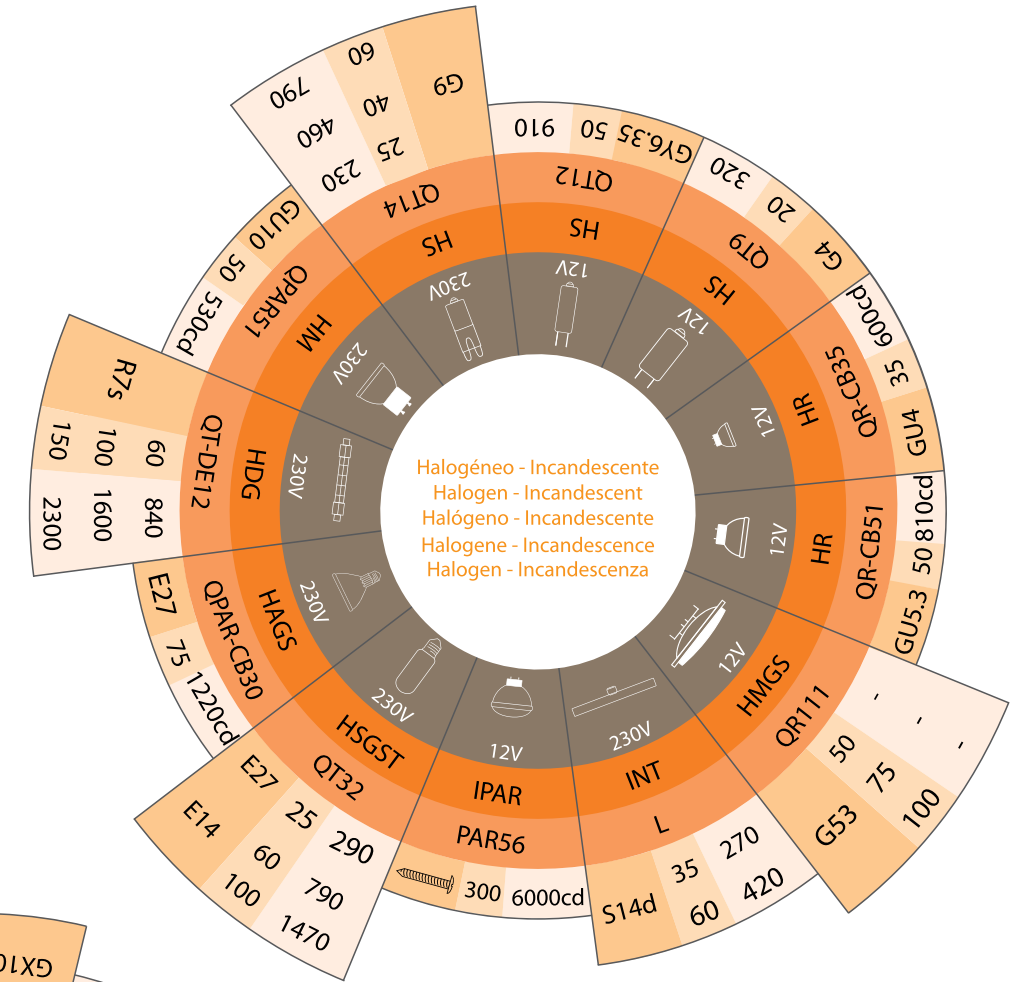
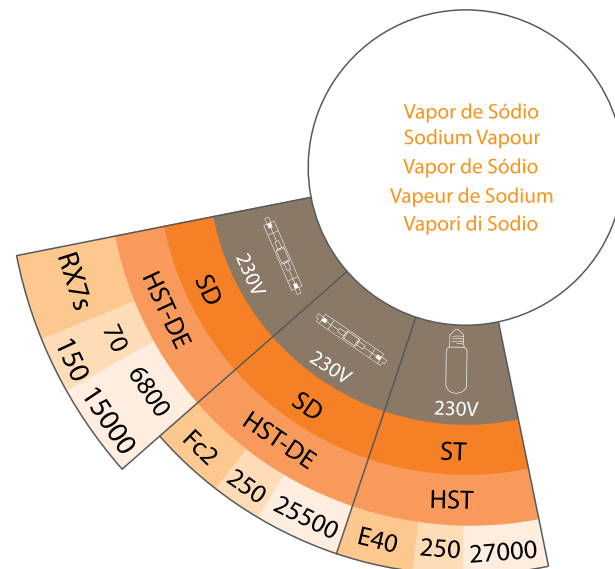
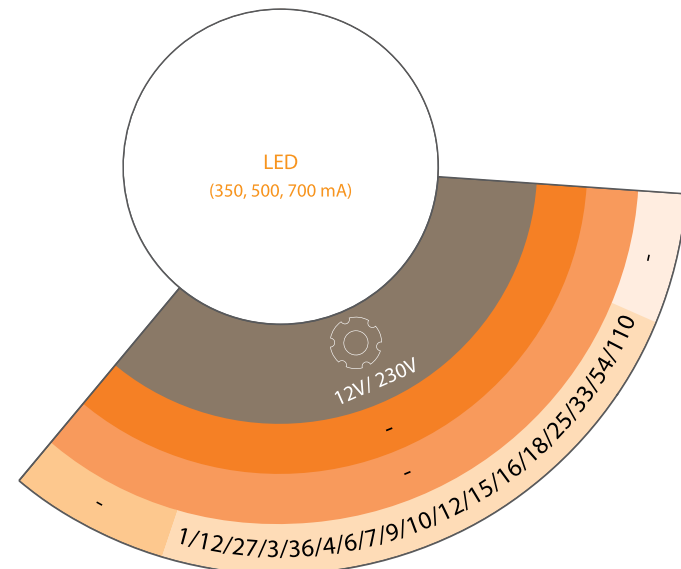
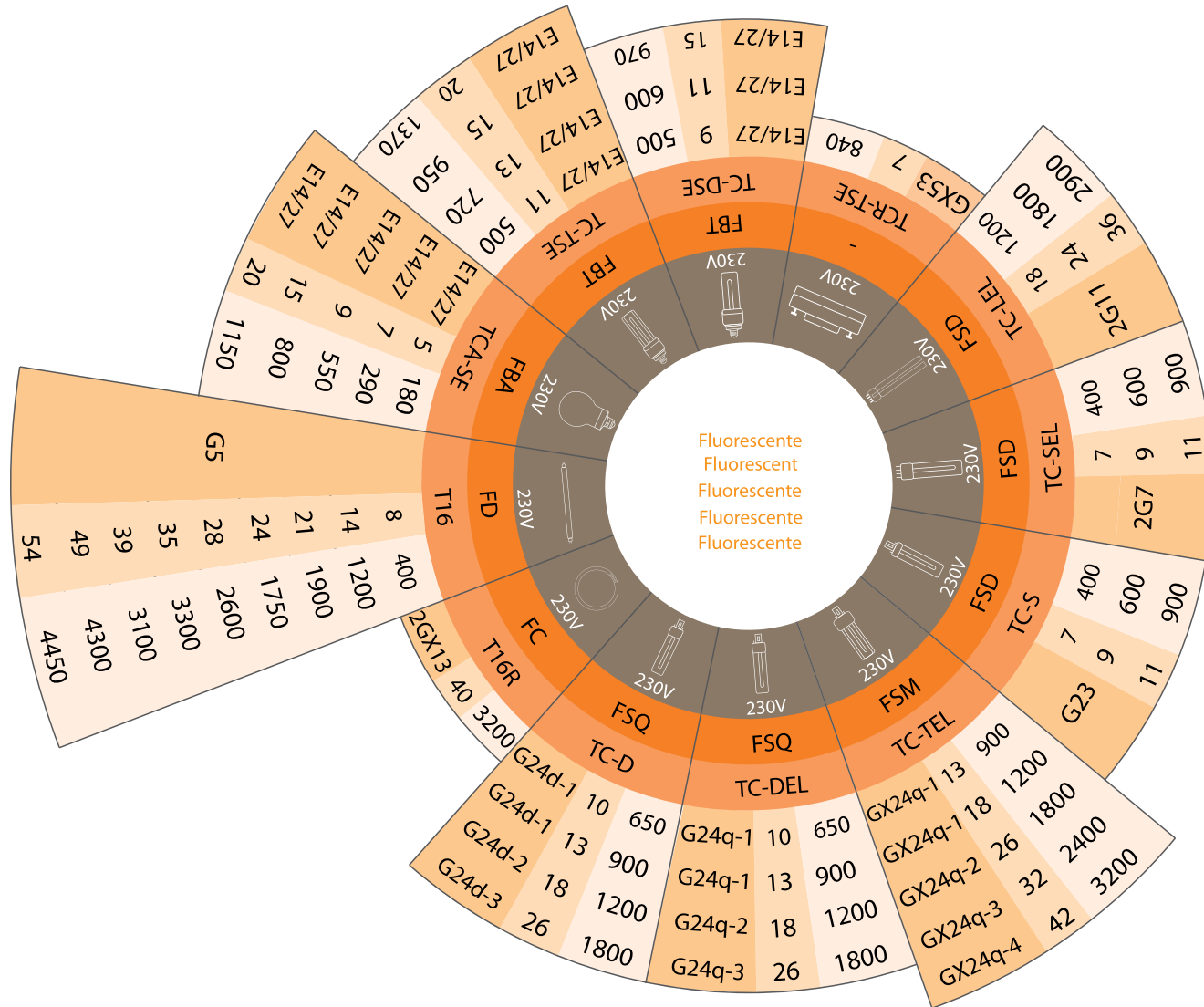
visionled w



250x140

Todas as unidades estão em milímetros (mm)
All units are in millimeters (mm)
Todas las unidades están en milímetros (mm)
Toutes les unités sont en millimètres (mm)
Tutte le unità sono espresse in millimetri (mm)

lâmpadas | lamps | lámparas | lampes | lampade



informações de suporte

CATÁLOGO PROFISSIONAL

Vocacionado directamente para o cliente profiissional, este dossier bastante completo dispõe de uma selecção criteriosa de aparelhos de iluminação para interior e exterior, resultando num catálogo com 485 páginas que inclui informação técnica e alguns conceitos de iluminação.

CATÁLOGO GERAL

Disponibilizamos em formato impresso, um dossier completo com elevado rigor técnico e ilustrativo toda a informação que os nossos clientes necessitam para efectuar a escolha da sua luminária. Nele, poderão encontrar uma vasta gama de artigos para aplicação interior ou exterior, acompanhada de fotografias ambiente, de produto, desenhos técnicos, e sugestões de aplicação.

available documentacion

PROFESSIONAL CATALOG

Directly geared for professional clients, this complete file presents a careful selection of indoo and outdoor luminary, resulting in a 268 pages catalog which includes technical information and some lighting concepts.

GENERAL CATALOG

We provide in a printed format, a complete file with all the technical and illustrative information that our customers need to choose the correct luminary. Here you can find a wide range of products for indoor and outdoor application, together with their photo, technical drawings and types of application.

LUMITEK CD

With the same information content included in the professional and general catalog, our customers can visualize all the information about our products in an informatic support which also allows an easy handling and storage.

información de soporte

CATÁLOGO PROFESIONAL

Orientado directamente para el cliente profesional, este sumario dispone una selección cuidada de luminarias para interior e exterior, siendo el resultado un catálogo con 268 páginas que incluye información técnica y algunos conceptos de iluminación.

CATÁLOGO GENERAL

Proporcionamos en formato impreso, un sumario completo con un alto nivel técnico e ilustrativo con toda la información que nuestros clientes necesitan para seleccionar la luminaria adecuada para sus necesidades. En él, podrán encontrar una extensa gama de productos para aplicación interior o exterior, apoyada en fotografías de productos, diseños técnicos y ambientes que permiten a su utilizador tener una visión de su aplicación.

CD LUMITEK

Con el mismo contenido que el catálogo general y profesional, nuestros clientes serán provistos de una herramienta de trabajo de fácil utilización y con gran portabilidad, permitiendo de esta forma la visualización de toda la información relacionada con nuestros productos en soporte informático.

documentacion disponible

CATALOGUE PROFESSIONNEL

Destiné directement au client professionnel, ce dossier complet présente une sélection assez complète de luminaires pour l'intérieur et l'extérieur, résultant dans un catalogue 268 pages qui comprend des informations techniques et des concepts d'éclairage.

CATALOGUE GÉNÉRAL

Nous fournissons un dossier complet avec toutes les informations techniques nécessaires pour aider le client à choisir son luminaire. Dans ce document, vous trouverez une large gamme de luminaire pour une utilisation en intérieur et extérieur, ainsi que leur photo, dessins techniques et des suggestions pour la mise en œuvre.

CD LUMITEK

Avec la même information incluse dans le catalogue général et professionnel, nos clients sont fournis avec un outil de travail d'usage facile, permettant ainsi la visualisation de toutes les informations sur nos produits sous forme électronique.

informazioni supplementari

CATALOGO PROFESSIONALE

Destinato direttamente al cliente professionale, questo sommario dispone di una selezione curata di lampade da interno e da esterno, ne risulta un catalogo con 268 pagine che includono informazioni tecniche e alcuni concetti di illuminazione.

CATALOGO GENERALE

Forniamo in formato stampato, un sommario completo con un alto livello tecnico e illustrativo completo di tutte le informazioni che i nostri clienti necessitano per scegliere la lampada adatta alle loro necessità. Potrete trovare un'ampia gamma di prodotti per l'applicazione da interno e da esterno, insieme alle fotografie dei prodotti, disegni tecnici e tipi di applicazione.

CD LUMITEK

Con lo stesso contenuto del catalogo generale e professionale, i nostri clienti potranno visualizzare tutte le informazioni relative ai nostri prodotti attraverso un supporto informatico di facile utilizzo.

INFORMAÇÃO TÉCNICA COMPLEMENTAR

Directamente vocacionado para os clientes profissionais, gabinetes de projecto e arquitectura, permite obter dados técnicos com maior especificidade sobre as nossas luminárias. Nele, encontram-se inclusos todos os dados relativos a cada luminária, assim como os respectivos certificados de conformidade. Para sua obtenção basta que sejam solicitados ao nosso departamento técnico.

WEBSITE

Ferramenta essencial no quotidiano de qualquer profissional ou potencial comprador, este meio de informação permite ao mais diversificado tipo de utilizador estabelecer contacto connosco. Elevado nível de interactividade, possibilita aos nossos clientes visualizar produtos, manter-se informado sobre campanhas de divulgação, promoções, lançamento de novos produtos, etc, a qualquer hora do dia ou local do planeta.

COMPLEMENTARY TECHNICAL INFORMATION

Directly geared for professional clients, architecture and project offices, it gives technical information with more details about our products. Here are included all the information related to each luminary as well as their certificates. To obtain this information, it must be required at our technical department.

WEBSITE

Essential for any professional or final customer, this means of information allows all the internet users to establish contact with us. With a high level of interactivity, costumers are able to visualize products, keeping informed about our promotions, release of new products, etc, anywhere at any hour.

INFORMACIÓN TÉCNICA COMPLEMENTAR

Directamente orientado para los clientes profesionales, oficinas de proyecto y arquitectura, permite obtener datos técnicos más específicos en relación a nuestras luminarias. En él, se encuentran incluidos todos los datos asociados a cada luminaria, así como los respectivos certificados de conformidad. Para obtenerlos, basta solicitarlos a nuestro departamento técnico.

WEBSITE

Herramienta fundamental en el día a día de cualquier profesional o potencial comprador, este medio de información permite a los diferentes tipos de utilizador, establecer contacto con nosotros. Siendo interactivo, permite a nuestros clientes visualizar los productos, mantenerse informado sobre campañas de divulgación, promociones, lanzamiento de nuevos productos, etc, a cualquier hora y en cualquier lugar del planeta.

INFORMATIONS TECHNIQUES COMPLÉMENTAIRES

Directement adapté aux bureaux d'études et d'architecture, permet plus de données techniques spécifiques sur nos luminaires. Dans ce document sont inclus toutes les informations relatives à chaque luminaire ainsi que leurs certificats. Pour obtenir cette information il faut contacté notre département technique.

WEBSITE

Un outil essentiel, ce moyen d'information permet une communication plus rapide. Avec un haut niveau d'interactivité, nous permettons à nos clients de visualiser les produits, se tenir informé sur nos promotions, lancement de nouveaux produits, etc...
.

INFORMAZIONI TECNICHE COMPLEMENTARI

Direttamente destinato ai nostri clienti professionali, studi di progettazione e architettura, consente di avere dati tecnici più specifici in relazione alle nostre lampade. Vi si trovano inclusi tutti i dati relativi ad ogni lampada, così come i rispettivi certificati di conformità. Per averli, basta sollecitarli al nostro ufficio tecnico.

WEBSITE

Strumento fondamentale nella quotidianità di qualsiasi acquirente professionale o cliente finale, questo mezzo di informazione consente agli utilizzatori di internet di stabilire un contatto con noi. Essendo interattivo, consente ai nostri clienti di visualizzare i prodotti, di mantenersi informati sulle campagne di divulgazione, promozione e lancio di nuovi articoli, etc, a qualsiasi ora e in qualsiasi posto del pianeta.

ficha técnica | technical information | información técnica | informations techniques | informazioni tecniche

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Interior: 120 g coated paper printed at 4/4 colors and 80 g coated paper printed at 1/1 color.

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