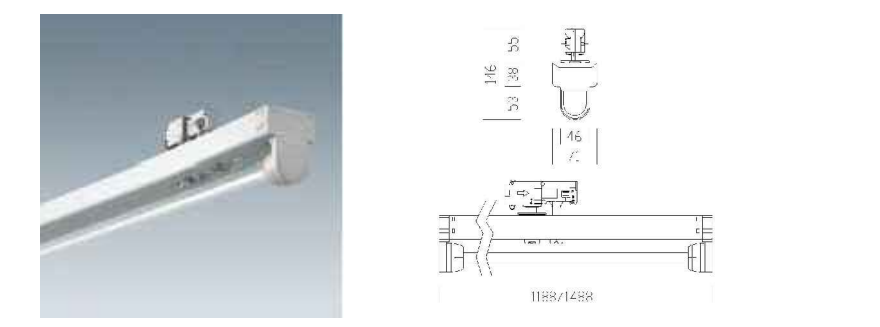


EQUIPMENTS DETAILS



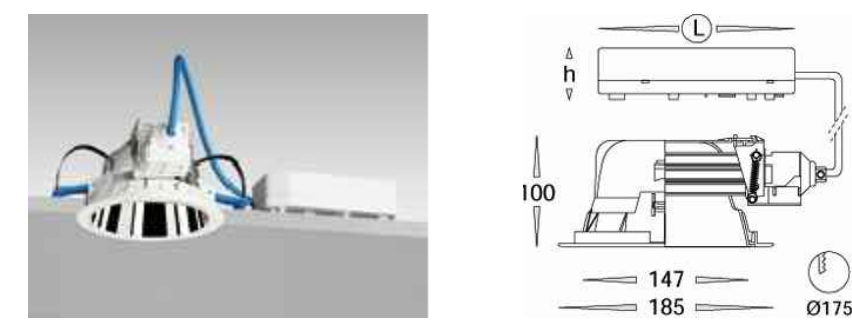
Manufacturer: DISANO
Model: ELESYSTEM
FLC 80W :
N. Lamps :1 Watt : 80W
Weight kg : 1.85

Fixture housing: Galvanized steel previously stove enamelled with UV-stabilised white polyester resin; rounded edges to prevent cutting; polycarbonate end caps.
 Lampholder: Polycarbonate with bronze contacts, quick connection, with protective collars to prevent lamp from falling.
 Electric gear: Traditional 230V/50Hz power system or with 230-240V/50-60Hz electronic ballast. Hard wire, cross-section 0.50 sqmm, and high-temperature resistant (up to 90°C) PVC-HT sheath, in accordance with CEI 20-20 standards. Standard supply: Nylon fastening pawl and adaptor for power connection with protective 3.15A protection fuse.
 Regulations: Manufactured in compliance with EN60598 - CEI 34 -21 standards. The level of protection complies with the EN60529 standard. Other versions: With electronic dimming ballast. Emergency version: In maintained version. In the event of a black-out a single lamp connected to the back-up circuit stays on. Run time 60 minutes.
 On request: A "Main Control System" to supervise the emergency versions.



Manufacturer: DISANO
Model: ELESYSTEM
FLC 18W :
N. Lamps :1 Watt : 18W
Weight kg : 1.7

Housing: Rectangular in f.g. nylon, grey (RAL 7035), vandal-resistant, UV-stabilized (part to be recessed into wall)
 Frame: In AISI 316 stainless steel, ideal for seaside areas too.
 Diffuser: In tempered glass resistant to thermal shocks and impact (UNI 7142 and British Standard 3193 tests).
 Reflector: asymmetric in scored aluminium
 Lampholder: In polycarbonate, with phosphor bronze contacts
 Electric gear: 230V/50Hz power supply. Hard wire, 0.50 sqmm cross-section, 2P terminal block with maximum allowed lead cross-section of 2.5 mm².
 Equipment: Rubber gasket. With polycarbonate gear tray
 Regulations: Produced according to applicable EN 60598-1/CEI 34-21 standards, IP65IK08 degree of protection according to EN 60529 standards. This product can be installed on normally inflammable surfaces. Double insulation class.



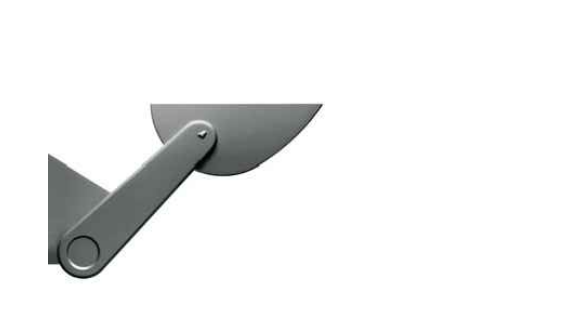
Manufacturer: TARGETTI
Model: CCT FLASH
TC-TEL 26W :
N. Lamps :2 Watt : 26W
Weight kg : 0.8

Downlight for horizontally mounted compact fluorescent TC-T or TC-TEL lamps. White polycarbonate body and bezel. Polycarbonate reflector with "Scratch Proof formula" treatment and 99.9% pure aluminium deposited in high vacuum. Rapid mounting system to false ceilings by means of patented "one-touch" spring clips. Complete with remote ballast housed in a polycarbonate box with flexible positioning system. Luminous distribution: transverse 2x46°, axial 2x44°. Efficiency 59%. Hinged lampholder for easy relamping. Complete with remote electronic ballast. Maintained emergency version, autonomy 1hr. Restart time less than 0.5 seconds. For installation in public places.



Manufacturer: DISANO
Model: FLOOR
JM 70W :
N. Lamps : 1 Watt : 70W
Weight kg : 3

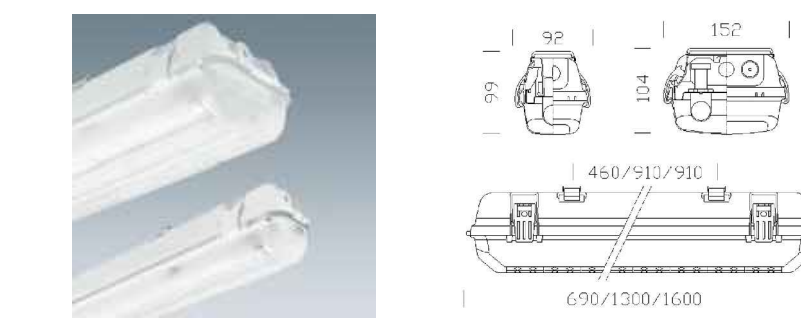
Housing/frame: In diecast aluminium (flush with ground). Reflector: Asymmetric, in anodized and polished aluminium. Diffuser: In clear tempered glass for JM-SAP-TS70 versions and lenticular tempered glass for INC/FLC versions. Resistant to thermal shocks, impacts.
 Painting: In several stages. First stage: black epoxy cationic electrocoating, resistant to corrosive and saline environments. Second stage: UV-stabilizer priming, and lastly rough finish with graphite acrylic coating.
 Lampholder: In ceramics, with silver plated contacts. Socket E27; Rxs; G24d-3.
 Electric gear: 230-240V/50Hz power supply. Hard wire, 0.50 sqmm cross section and PVC-HT sheath or silicone wire terminated with quick-connect admiralty brass clamps, with glass braid, 1.0 sqmm cross section. 2P+T terminal block with maximum allowed lead cross section of 4 sqmm. Standard supply: Versions with fixing frame, flat or convex screens and recess mounting box in fiberglass nylon.
 Equipment: Silicone rubber gasket. Removable electric gear tray for easy maintenance. Two cable glands in fiberglass nylon Ø 1/2 gas thread.
 Regulations: Produced according to applicable EN60598-1 CEI 34-21 standards, IP67IK08 degree of protection according to EN 60529 standards. The equipment has passed the static load resistance test (EN 60598-2-13) with an applied weight of 40kN equal to 4000kg.
 Prolonged exposure to floodlights should be avoided. If children or animals are present, we recommend using the fixtures with FLC lamps, which make them trafficable.



Manufacturer: ARTEMIDE
Model: PRADO
JM 150W :
N. Lamps : 1 Watt : 150W
Weight kg : 1.5

Spotlight for metal halide, halogen or compact fluorescent lamp. Incorporated electronic control gear and UV filter or safety glass

Characteristics Item Code: M054101
 Mounting location: Wall surface
 Designer name: Zebulon
 Colour: White
 Material: Aluminium
 Environment: Indoor
 Optical Light emission : Indirect asymmetrical
 Diffuser finish material: UV-filter
 Lamps Lamp category: Metal halide lamps
 Lamp type: HIT-DE-CE
 Lamp power (W): 150
 Bases: RX7s
 Number of lamps: 1
 Lamps description: 1 x HIT-DE 150w RX7s
 Electrical Control gear availability: Included
 Control gear mounting: Integrated
 Control gear type: Electronic
 Emergency Availability: Without
 Mains voltage (V): 230V



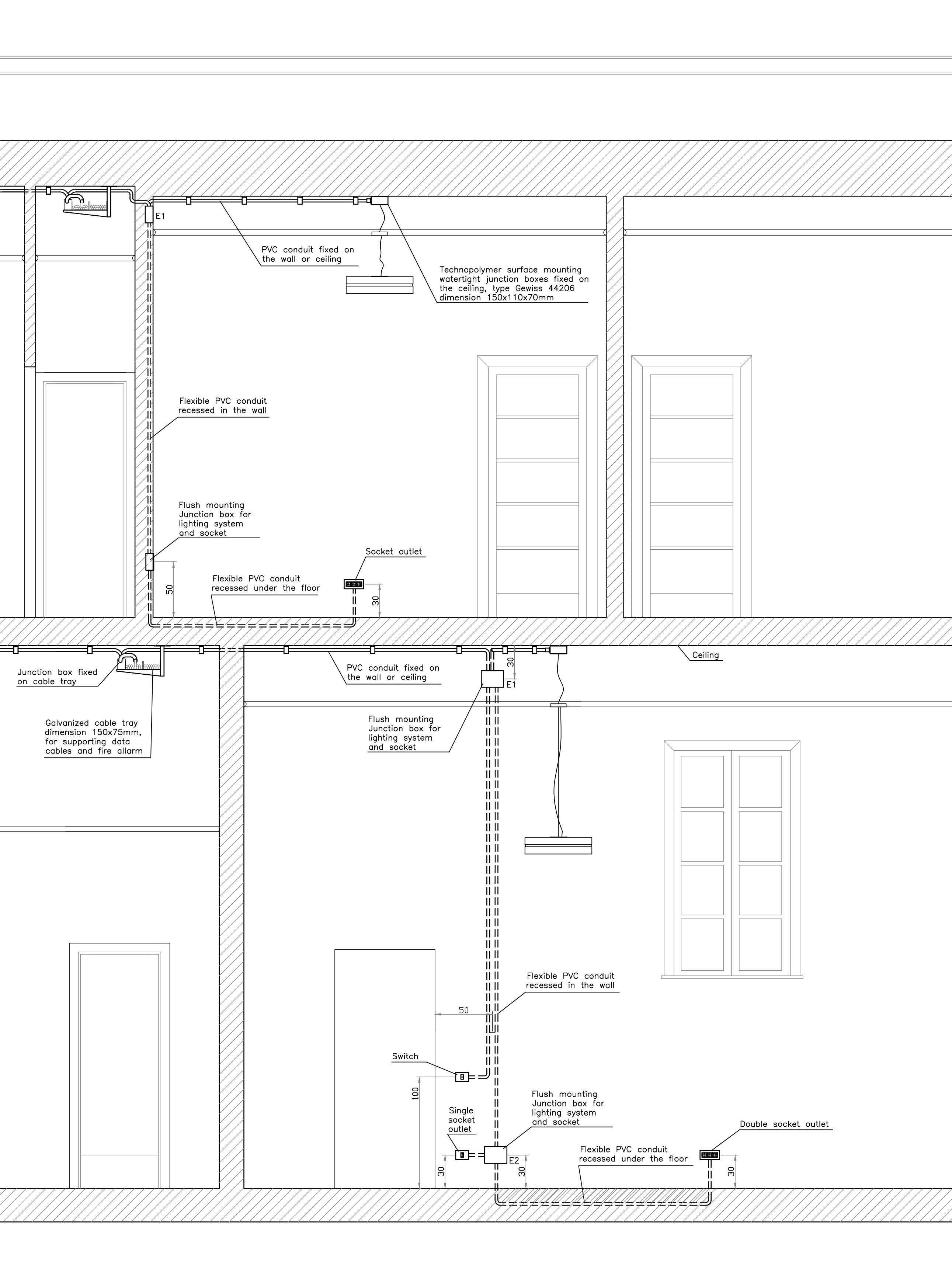
Manufacturer: DISANO
Model: HIDRO
FL 2X36W :
N. Lamps : 2 Watt : 36W
Weight kg : 3.1

HOUSING: Injection moulded, in RAL 7035 grey polycarbonate, vandal resistant and self-extinguishing, UV stabilized, H2 mechanical resistance due to the frame reinforced by internal ribbing.
 DIFFUSER: Injection moulded, in V2 self-extinguishing polycarbonate, UV stabilized, clear polycarbonate, prismatic inside for better light control and high lighting performance. The external smooth finish facilitates cleaning, essential to maintain maximum lighting efficiency.
 REFLECTOR: In cold rolled steel, hot-dip galvanized, anti-cracking, coating with 7/7µ epoxy primer, UV-stabilized coating, anti-yellowing, high-gloss polyester, white, 20 µ thick.
 LAMPHOLDER: In white polycarbonate, with phosphor bronze contacts. Socket G13.
 ELECTRIC GEAR: 230-240V/50Hz power supply, with electronic ballast. Hard wire, 0.50 sqmm cross-section PVC-HTsheath resistant up to 90°C, according to CEI20-20 standards 2P+T terminal block with fuse holder, maximum allowed lead cross-section of 2.5 sqmm.
 EQUIPMENT: 3.15 A protective fuse. Nylon fibreglass cable gland, Ø 1/2 gas thread. Environment-friendly gasket in polyurethane foam. Latches in f.g. nylon. Provision for clamping with steel screws.
 REGULATIONS: Produced according to applicable EN60598-1 CEI34-21 standards, degree of protection IP66IK08 according to EN60529. Can be installed on normally inflammable surfaces. It has been granted the ENEC European Certificate of Conformity. Glow wire tested at 850°C. THE POLYCARBONATE WATER-PROOF LIGHTING fittings have a level of water protection rated at IP66IK08 if installed in environments with temperatures that do not exceed 45°C. Direct exposure to sunlight causes the temperature to readily exceed 45°C, compromising the degree of protection IP66IK08. The lighting fittings must be used appropriately without changing the mechanical and protection features and must not be installed on surfaces subject to strong vibrations, outdoors on cables or poles.



Manufacturer: DISANO
Model: SAFETY 615
FLC 111W :
N. Lamps : 1 Watt : 111W
Weight kg : 1

Housing: Vandal-resistant, self-extinguishing, UV-stabilized, anti-yellowing grey polycarbonate. Diffuser: Vandal resistant, V2 self-extinguishing, UV-stabilized clear polycarbonate, anti-glare frosted inside; smooth, dust-proof outside.
 Reflector: Reflecting white polycarbonate.
 Lampholder: Polycarbonate with phosphorus bronze contacts
 Electric gear: 230V-240/60Hz power supply with electronic ballast. Hard wire, cross-section 0.50 sqmm, and high-temperature resistant (up to 90°C) PVC-HT sheath, in accordance with CEI 20-20 standards. 2P terminal block (maximum allowed lead cross-section 2.5 sqmm.).
 Equipment: Rubber cable gland Ø 1/2 inch gas thread (min cable Ø 9, max Ø 12 mm) to maintain IP65 protection. Standard inspection LED.
 Regulations: Manufactured in compliance with EN60598 - CEI 34 -21 standards. The level of protection complies with the EN60529 standard.
 S.A. Emergency (Maintained): In the event of a black-out the one lamp connected to the back-up circuit stays on, thus avoiding the inconvenience caused by a sudden absence of all light.
 Emergency run time: 60 minutes. When power is restored, the battery recharges automatically in 12 hours.
 On request: with troubleshooting (sub-code -0066).

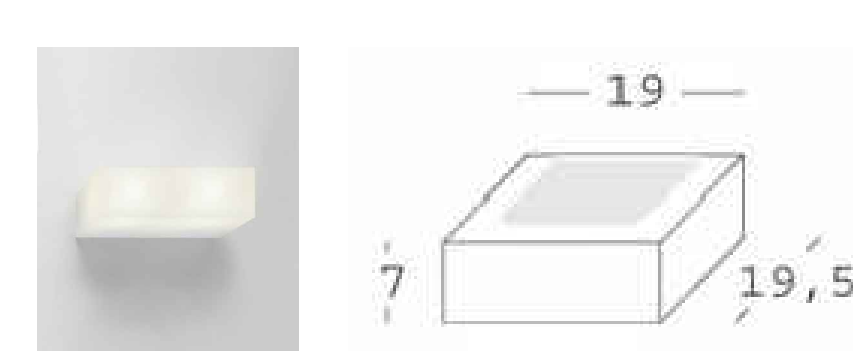


DETAIL
 Typical lighting wiring and socket
 Scale 1:25



Manufacturer: TARGETTI
Model: DESE
HIT-DE 150W :
N. Lamps :1 Watt : 150W
Weight kg : 1.2

Ceiling mounted, suspended and wall mounted fixture for compact fluorescent, discharge and halogen lamps. Aluminium housing with black polycarbonate anti glare bezel; bayonet mounting to the housing for quick relamping. Transparent polycarbonate insert to be installed between the housing and the anti-glare louvre, replaceable with polished colored inserts. Aluminium reflector with reflective treatment obtained by high vacuum deposition of 99.9% pure aluminium. Permanent emergency version available. Autonomy 1hr. Restart time less than 0.5 seconds. Complies with CEI-EN 60598-2-22 regulations regarding installation in public places. 230V power-factor-corrected control gear installed in the housing of the luminaire. Luminous distribution 2x35°. Efficiency 50%. Complete with tempered safety glass.



Manufacturer: TARGETTI
Model: JANE
FLC 2x26W :
N. Lamps :2 Watt : 26W
Weight kg : 1.1

Fittings for compact fluorescent lamps TC-TEL in transparent methacrylate (PMMA), h=70 mm partially milled and sanded. Provided with 230V electronic ballast.



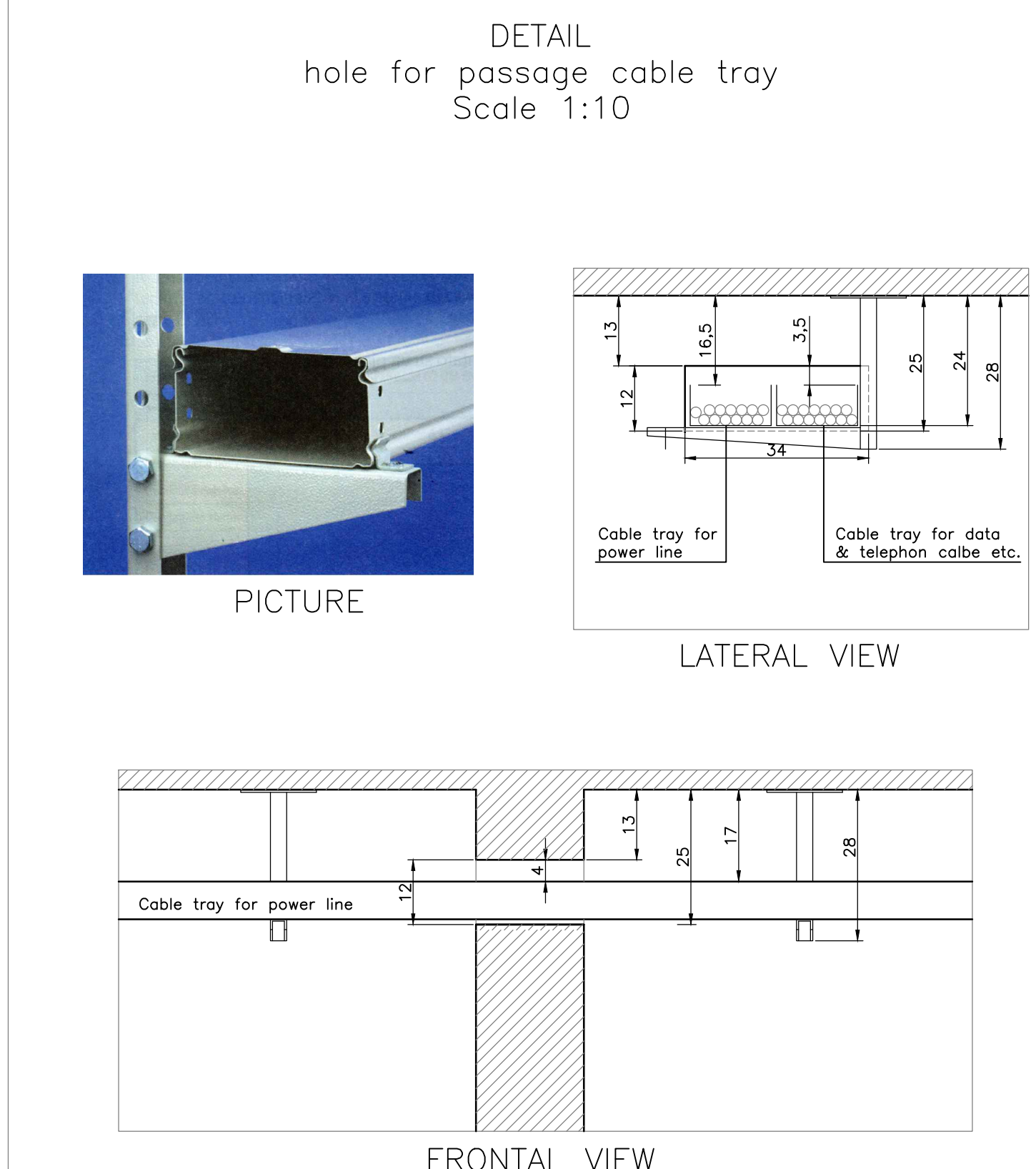
Manufacturer: ILTI LUCE
Model: LUX 33
LED 6x3W :
N. Lamps :6 Watt : 3W
Weight kg : 1.2

Adjustable Led spot for external. Body in anodized aluminium obtained from a round billet to optimize heat dissipation; gasket for protection against dust and water, tight cable gland in metal. Projector with 6 Led 3W 700mA high emission (18W tot.), internal driver at 10/30V DC. This driver is able to adjust the drop in tension in case of longest cable using 24V DC feeders. Optic with 6 lenses 10/25/40° beam fixed on electronic circuit, protective glass and threaded ring in aluminium. Stainless steel drilled brackets in order to fix and adjust the spot. The spot can be also fixed using the accessories and peg for the ground. IP68. 12V version on demand (suggested for water immersion).



Manufacturer: ILTI LUCE
Model: MINILUX
LED 4,5W :
N. Lamps : medium emission strip
Weight kg : 0.5

IP65 modular system. Aluminium structure with a Led strip medium emission. Clear polycarbonate tube a 1,6 cm with fixing rackets in stainless steel. Minilux can be in length of 100, 200, 300 cm and it can be installed in external also. Led can be cool white, warm white or coloured. The system is also composed with feeding cap and end cap.



CATHEDRAL OF BENGHAZI
BENGHAZI, LIBIA

FINASSET
 FINASSET GENERAL CONTRACTOR

Architectural, electric and mechanical systems project

Architect in charge and team coordinator: Arch. Carlo Formichi

بخار تنمية وتطوير
المراكز الادارية

WORKING DESIGN
ELECTRICAL PATTERNS
CATHEDRAL, BUILDING 1, 3
 LIGHTING SYSTEM AND SAFETY
 LIGHTING SYSTEM
 DETAILS

DRAWING: **ES1.09**

SCALE: /

DATE: May 2009

UPDATING: