

**POWER LED PRO RANGE from INOX | NEW for 2010**



**ACCENT LIGHTS  
DOWNLIGHTS  
WALL & CEILING LIGHTS**

**+44 (0)1702 461222  
sales@inox.co.uk  
www.inox.co.uk**

#### ACCENT LIGHTS



DDC-65010 SERIES

#### DOWN LIGHTS



DD-37000 SERIES



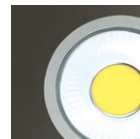
DD-20510 SERIES



DD-20560 SERIES



DD-37110 SERIES



DD-20010 SERIES

#### WALL & CEILING LIGHTS

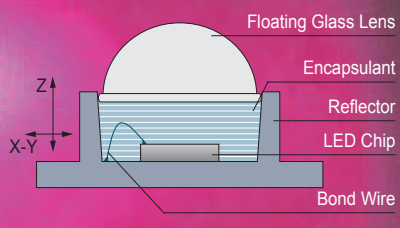


DD-38021 SERIES



DD-38111 SERIES

ACCENT SPOT | POWER LED

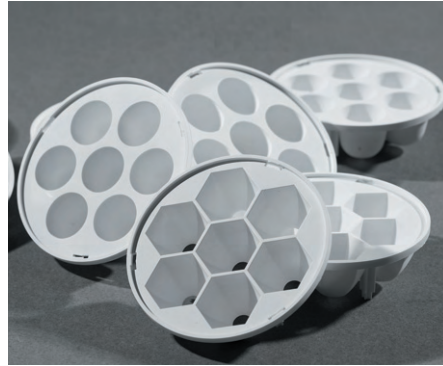


**POWER LED**

**POWER LEDs**  
The reflector mechanically constrains the encapsulant in the X-Y plane while allowing expansion and contraction in the Z dimension.

- Floating Lens  
Allows encapsulate to expand and contract with temperate:
  - To protect wire bond
  - To minimize stress in the package that could cause delamination
- Glass Lens  
Can handle high temperature and humidity  
Doesn't degrade over LED lifetime

Option-A (Reflector type)



ACC-01  
Reflector  
/Round type  
50°

Option-B (Lens type)



ACC-03  
Beam Angle Lens  
/Narrow 10°



ACC-04  
Beam Angle Lens  
/Narrow 15°



ACC-05  
Beam Angle Lens  
/Medium 20°

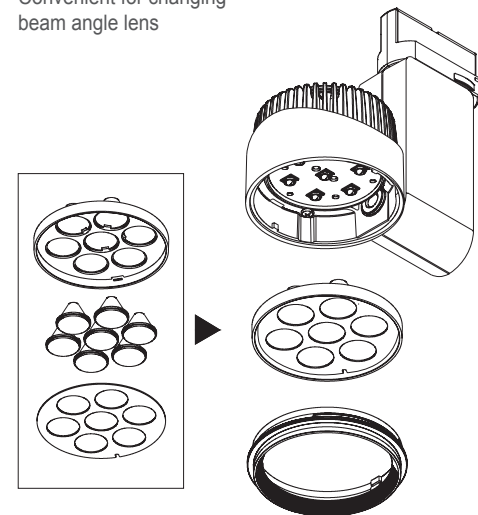


ACC-06  
Beam Angle Lens  
/Medium 30°



ACC-07  
Beam Angle Lens  
/Wide 40°

Convenient for changing beam angle lens



**PRODUCT PROFILE**

This new spot light LED system has been designed compact shape. In order to solve heat problem, with using heat sink include cooler system, it enhance safety, high efficiency light performance and advanced durability of lighting fixture.

- Polycarbonate round type of reflector make high efficiency light performance.
- Beam Angle Lens (5 beam angle / 10°, 15°, 20°, 30°, 40°)
- Color Temperature (3,000K / 4,000K / 5,000K)

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)



22W 7 LED = 50W-75W HAL

LED 7 LED

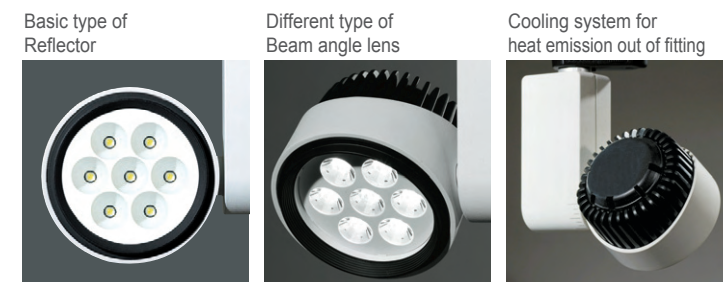
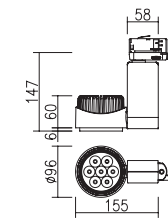
ACCENT SPOT | POWER LED



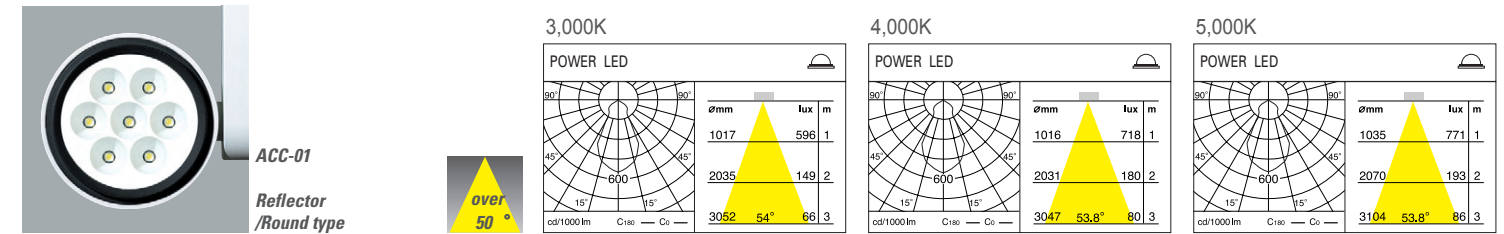
5,000K      4,000K      3,000K

|                          |   |
|--------------------------|---|
| <b>LAMP HOUSING</b>      | AL. Die-Casting, Electrostatic Powder Coating<br>Adjustable Angle (Tilt $\angle$ 180 °) |
| <b>HEAT SINK</b>         | AL. Die-Casting, Electrostatic Powder Coating (Black only)                              |
| <b>MOUNTING RING</b>     | AL. Die-Casting, Electrostatic Powder Coating (Black only)                              |
| <b>GEAR BOX</b>          | AL. Die-Casting, Electrostatic Powder Coating   |
| <b>ACCESSORY ADAPTER</b> | PC / BEAM ANGLE LENS  |

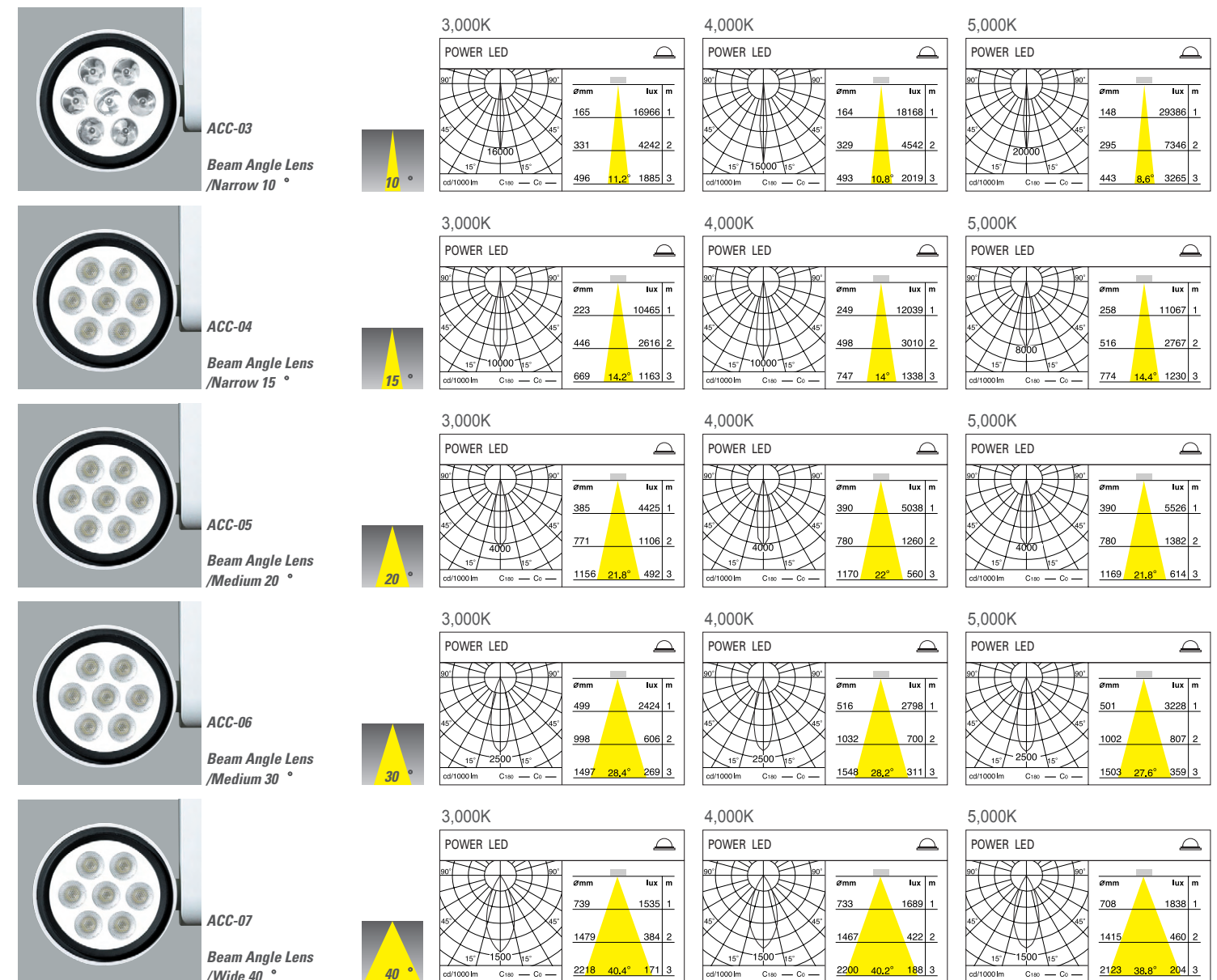
| LAMP                    |   |
|-------------------------|---|
| Power LED               |   |
| Input Voltage           | 100-240VAC, 50-60Hz                     |
| Rated Input Power       | 22W (nominal)                           |
| Rated LED Input Voltage | 22.5V DC (nominal)                      |
| Rated LED Input Current | 780mA DC (constant current)             |
| Color Temperature (CRI) | 5,000K (75) / 4,000K (75) / 3,000K (80) |



OPTION-A (REFLECTOR/PC)



OPTION-B (BEAM ANGLE LENS)



SPECIAL DOWNLIGHT | POWER LED

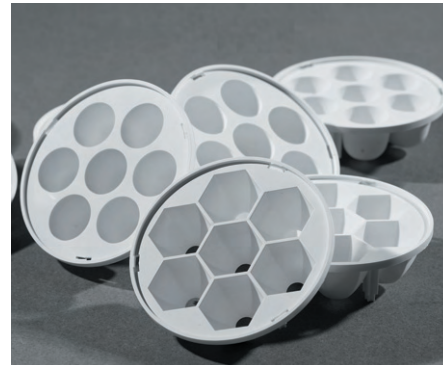


**POWER LED**

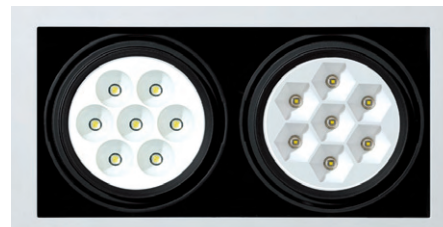
**POWER LEDs**  
The reflector mechanically constrains the encapsulant in the X-Y plane while allowing expansion and contraction in the Z dimension.

- Floating Lens  
Allows encapsulate to expand and contract with temperate:
  - To protect wire bond
  - To minimize stress in the package that could cause delamination
- Glass Lens  
Can handle high temperature and humidity  
Doesn't degrade over LED lifetime

Option-A (Reflector type)



Option-B (Lens type)



ACC-01 Reflector /Round type  
50°

ACC-02 Reflector /Honeycomb type  
60°



ACC-03 Beam Angle Lens /Narrow 10°

ACC-04 Beam Angle Lens /Narrow 15°

ACC-05 Beam Angle Lens /Medium 20°

ACC-06 Beam Angle Lens /Medium 30°

ACC-07 Beam Angle Lens /Wide 40°



**PRODUCT PROFILE**

This new LED Downlight system is all in one lighting fixture which is combined fitting and heat sink and also consists of very simple and sturdy design. The honeycomb & round type of reflector consists of Polycarbonate material. With using this reflector, light can be distributed widely and high efficiency performance. As far as square type of LED Downlight system, it is available to supply 1spot, 2spots and 3spots

- Polycarbonate reflector (round type & honeycomb type)
- Beam Angle Lens (5 beam angle / 10°, 15°, 20°, 30°, 40°)
- Color Temperature (3,000K / 4,000K / 5,000K)

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)



11W 7 LED = 35W-50W HAL

LED 7 LED

**SPECIAL DOWNLIGHT | POWER LED**



**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**ADJUSTABLE RING** AL. Die-Casting, Electrostatic Powder Coating Adjustable Angle (Both Rings Tilt <math>\angle 20^\circ</math>)  
**MOUNTING RING** AL. Die-Casting, Electrostatic Powder Coating  
**ACCESSORY** PC / BEAM ANGLE LENS  
**HOUSING** Steel

**LAMP**

|                         |   |
|-------------------------|---|
| Power LED               |   |
| Input Voltage           | 100-240VAC, 50-60Hz                     |
| Rated Input Power       | 11W (nominal)                           |
| Rated LED Input Voltage | 22.5V DC (nominal)                      |
| Rated LED Input Current | 350mA DC (constant current)             |
| Color Temperature (CRI) | 5,000K (75) / 4,000K (75) / 3,000K (80) |



**DD-37000** LED 11W

Weight: 0.5 kg  
 ∅ 119mm (4 7/8")



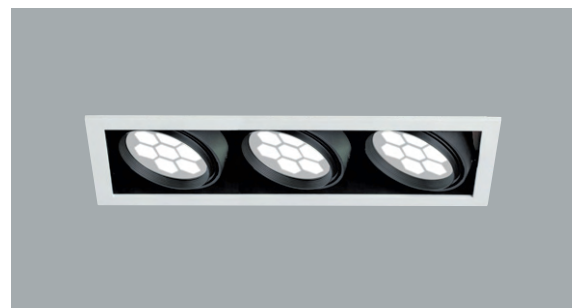
**DD-37010** LED 11W

Weight: 1.0 kg  
 120 x 120mm (4 7/8" x 4 7/8")



**DD-37020** LED 11W x 2

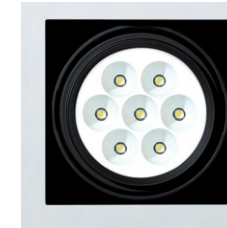
Weight: 1.5 kg  
 225 x 120mm (8 9/16" x 4 7/8")



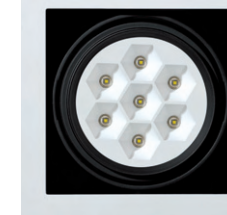
**DD-37030** LED 11W x 3

Weight: 2.0 kg  
 330 x 120mm (13" x 4 7/8")

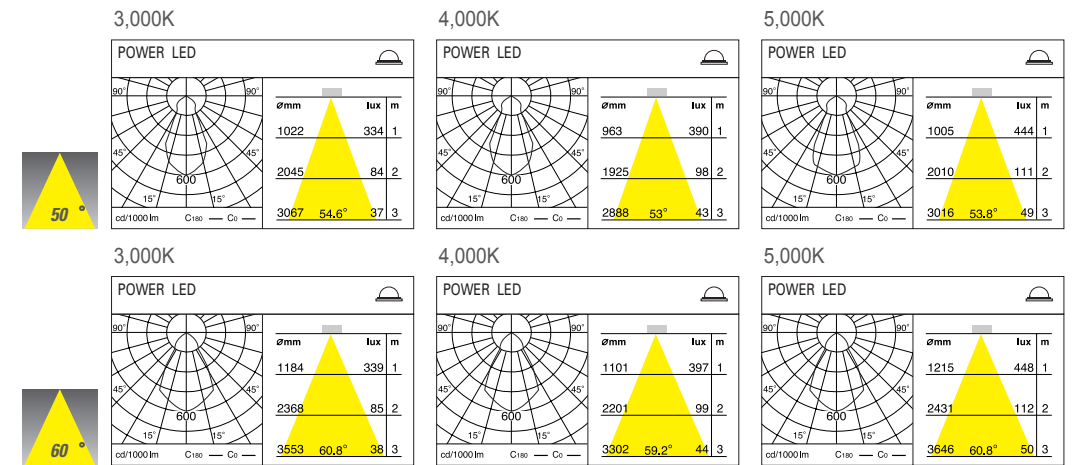
**OPTION-A (REFLECTOR/PC)**



**ACC-01**  
Reflector /Round type



**ACC-02**  
Reflector /Honeycomb type



**OPTION-B (BEAM ANGLE LENS)**



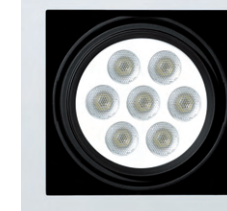
**ACC-03**  
Beam Angle Lens /Narrow 10°



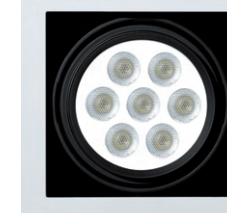
**ACC-04**  
Beam Angle Lens /Narrow 15°



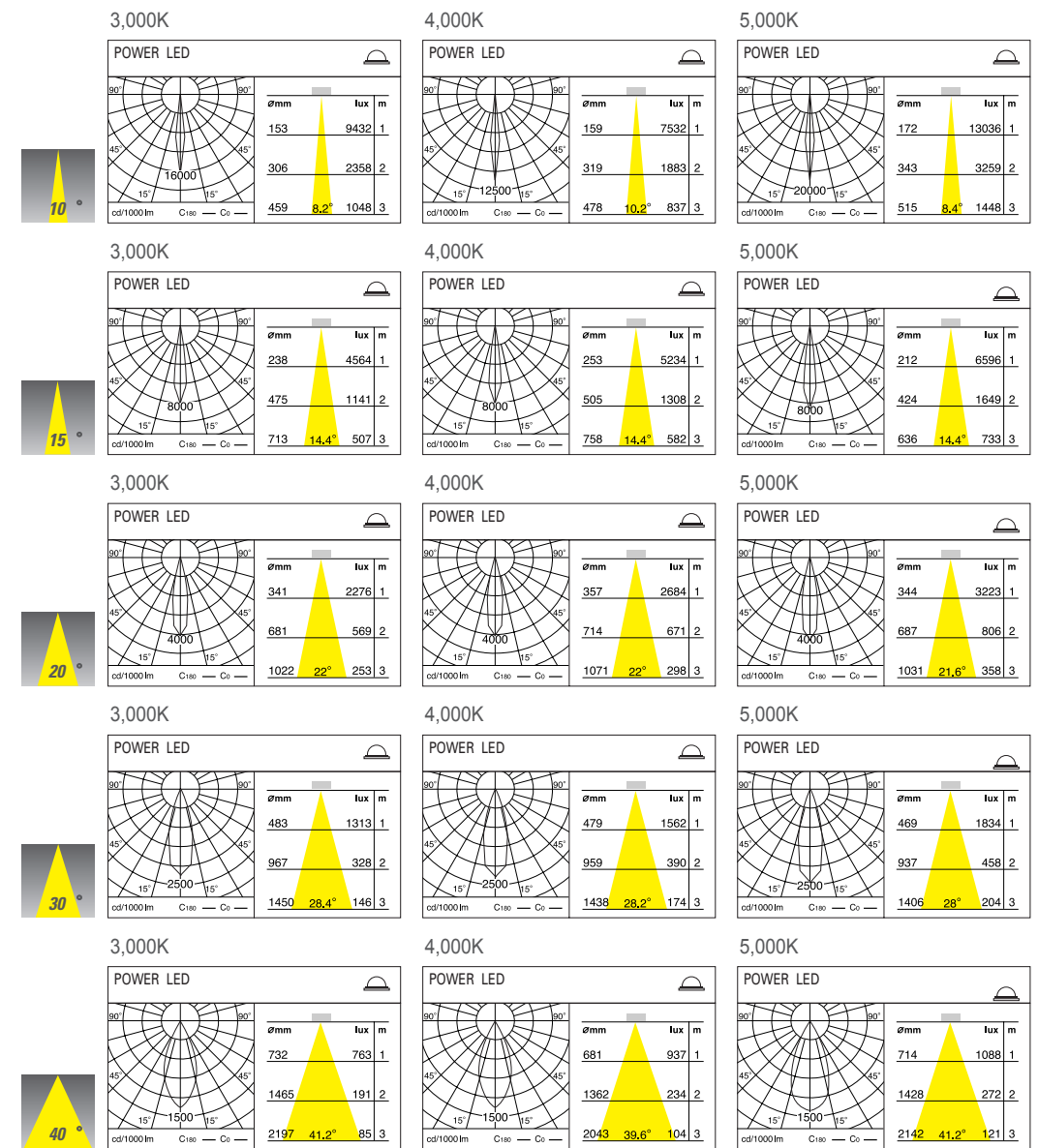
**ACC-05**  
Beam Angle Lens /Medium 20°



**ACC-06**  
Beam Angle Lens /Medium 30°



**ACC-07**  
Beam Angle Lens /Wide 40°



DOWNLIGHT | LED



**PRODUCT PROFILE**

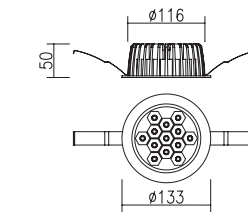
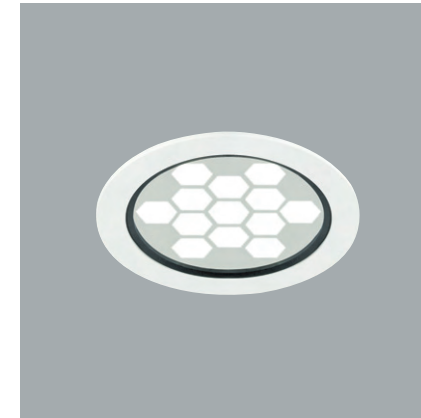
This new LED Downlight system is all in one lighting fixture which is combined fitting and heat sink and also consists of very simple and sturdy design. The honeycomb & round type of reflector consists of Polycarbonate material. With using this reflector, light can be distributed widely and high efficiency performance.

One of weak point of LED is that it is very sensitive about high temperature atmosphere of inside fitting. In order to solve this problem, with using heat sink, it can be emitted heat from inside fitting to outside easily. It is excellent airflow system for LED system.

- Polycarbonate reflector (round type & honeycomb type)
- Color Temperature (3,000K / 4,000K / 5,000K)

\* Average life time 40,000 hours  
(Life time could be flexible on environmental situation.)

5,000K      4,000K      3,000K

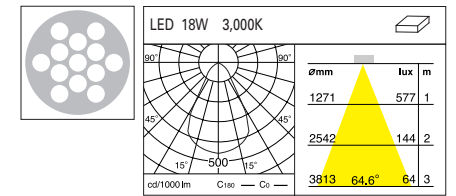
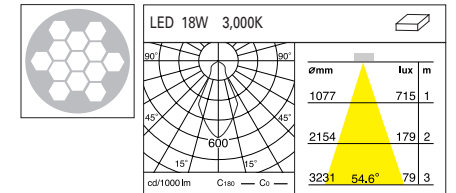


Weight : 0.5kg  
∅ 120 mm (4 7/16")

TRIM AL. Die-Casting, Electrostatic Powder Coating  
HOUSING AL. Die-Casting, Electrostatic Powder Coating  
REFLECTOR PC  
COVER PC

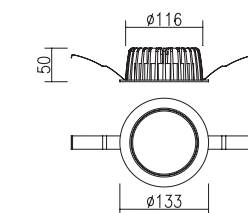
LAMP LED  
Input Voltage 100-240VAC, 50-60Hz  
Rated Input Power 18W (nominal)  
Rated LED Input Voltage 43V DC (nominal)  
Rated LED Input Current 350mA DC (constant current)  
Color Temperature (CRI) 5,000K (75) / 4,000K (80) / 3,000K (80)

**DD-20510**



LED 18W 13 LED = 35W-50W HAL

- White
- Black
- Gray

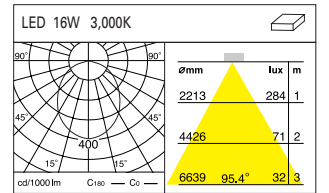


Weight : 0.5kg  
∅ 120 mm (4 7/16")

TRIM AL. Die-Casting, Electrostatic Powder Coating  
HOUSING AL. Die-Casting, Electrostatic Powder Coating  
COVER Housing Cover \_ PC

LAMP LED  
Input Voltage 100-240VAC, 50-60Hz  
Rated Input Power 16W (nominal)  
Rated LED Input Voltage 36V DC (nominal)  
Rated LED Input Current 350mA DC (constant current)  
Color Temperature (CRI) 5,000K (80) / 4,000K (80) / 3,000K (80)

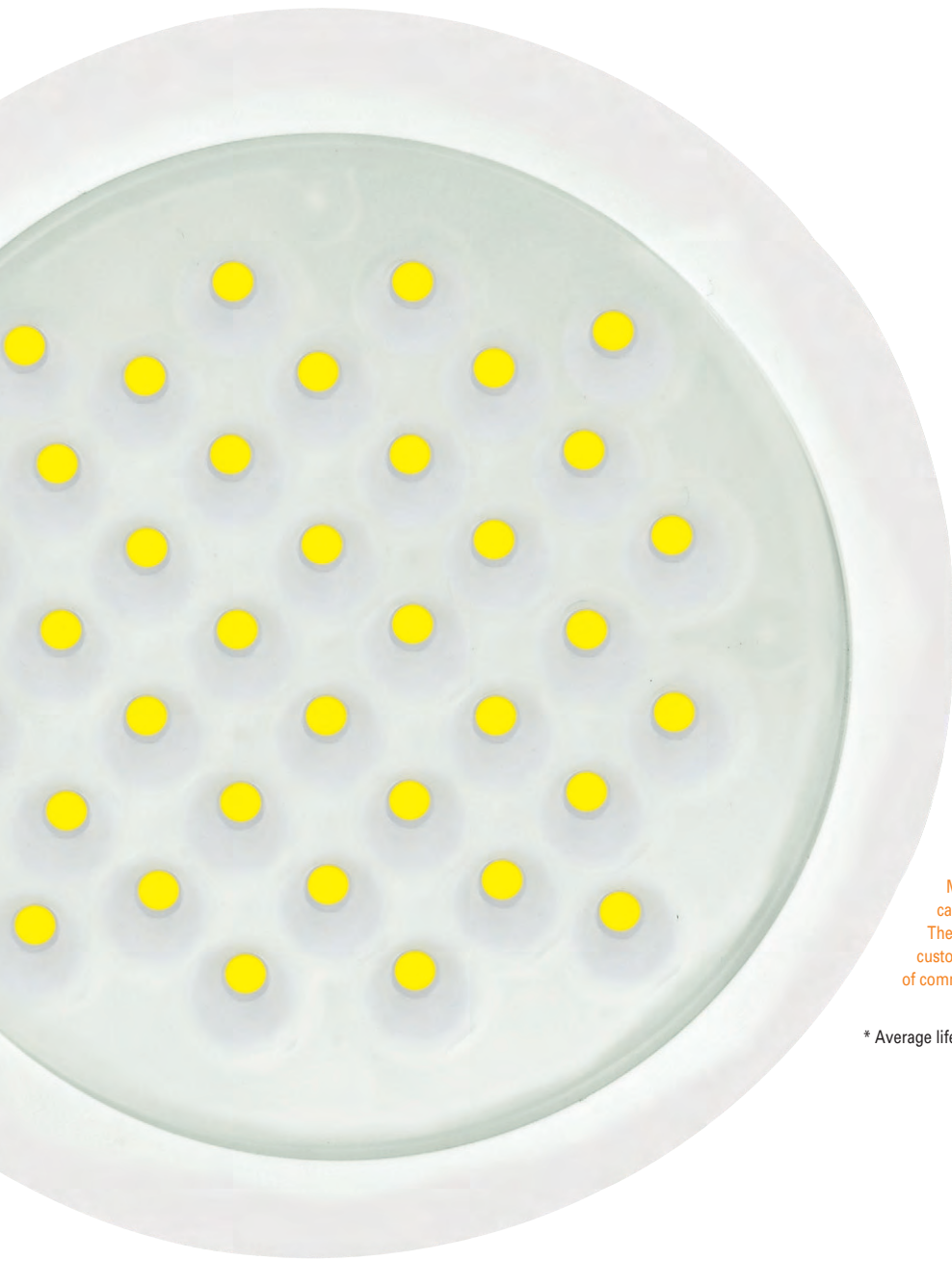
**DD-20520**



LED 16W LED = 35W HAL

- White
- Black
- Gray

DOWNLIGHT | SMD LED



**PRODUCT PROFILE**

Designed to reduce glare with use translucent acrylic and effect smooth and homogenous lighting performance.  
 Maximize of heat conduction and compact structure of fitting. Simple structure cause easy assembling and maintenance.  
 There are three type of color temperature 3000K, 4000K, and 5000K. Based on customers requirement. It can be used lighting application for different atmosphere of commercial area.

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)



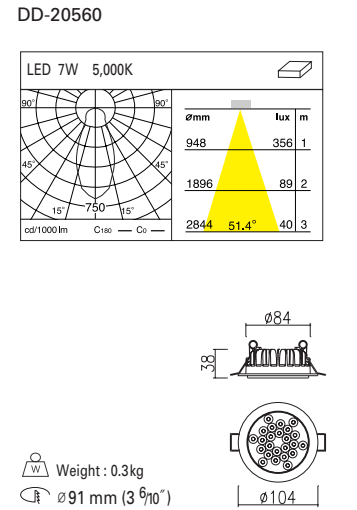
- White
- Black
- Gray

**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**HOUSING** AL. Die-Casting, Electrostatic Powder Coating  
**COVER** Housing Cover \_ Acrylic Plate

**LAMP** LED

|                         |   |
|-------------------------|---|
| Input Voltage           | 100-240VAC, 50-60Hz                     |
| Rated Input Power       | 7W (nominal)                            |
| Rated LED Input Voltage | 12V DC (nominal)                        |
| Rated LED Input Current | 350mA DC (constant current)             |
| Color Temperature (CRI) | 5,000K (80) / 4,000K (80) / 3,000K (80) |

LED 7W LED = 20W HAL



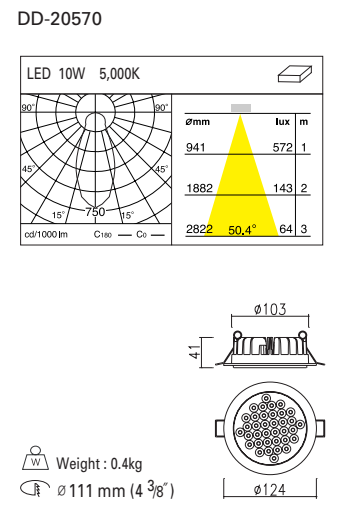
- White
- Black
- Gray

**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**HOUSING** AL. Die-Casting, Electrostatic Powder Coating  
**COVER** Housing Cover \_ Acrylic Plate

**LAMP** LED

|                         |   |
|-------------------------|---|
| Input Voltage           | 100-240VAC, 50-60Hz                     |
| Rated Input Power       | 10W (nominal)                           |
| Rated LED Input Voltage | 19.5V DC (nominal)                      |
| Rated LED Input Current | 350mA DC (constant current)             |
| Color Temperature (CRI) | 5,000K (80) / 4,000K (80) / 3,000K (80) |

LED 10W LED = 35W HAL



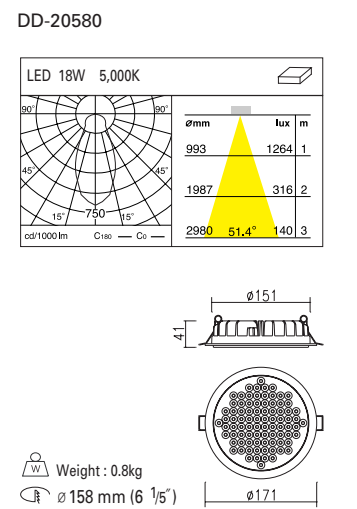
- White
- Black
- Gray

**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**HOUSING** AL. Die-Casting, Electrostatic Powder Coating  
**COVER** Housing Cover \_ Acrylic Plate

**LAMP** LED

|                         |   |
|-------------------------|---|
| Input Voltage           | 100-240VAC, 50-60Hz                     |
| Rated Input Power       | 18W (nominal)                           |
| Rated LED Input Voltage | 43V DC (nominal)                        |
| Rated LED Input Current | 350mA DC (constant current)             |
| Color Temperature (CRI) | 5,000K (80) / 4,000K (80) / 3,000K (80) |

LED 18W LED = 75W HAL





SPECIAL DOWNLIGHT | LED

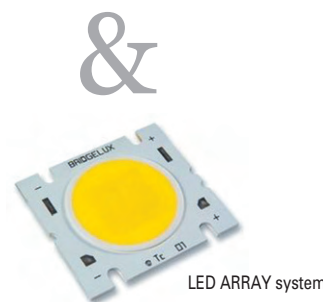


PRODUCT PROFILE

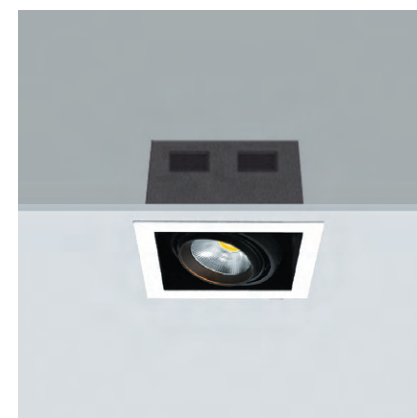
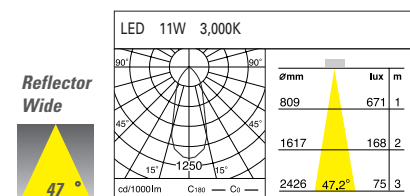
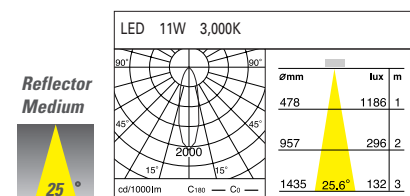
LED ARRAY system allow to produce fixture of homogenous lighting performance and high-efficiency natural looking light. And with use high efficiency reflector, it can be perform various beam angle.

- Homogenous lighting performance with use LED ARRAY system.
- High efficiency reflector for different type of beam angle.
- It is available to use multiple recessed downlight.
- Color Temperature (3,000K / 4,000K / 5,600K)

\* Average life time 40,000 hours  
(Life time could be flexible on environmental situation.)

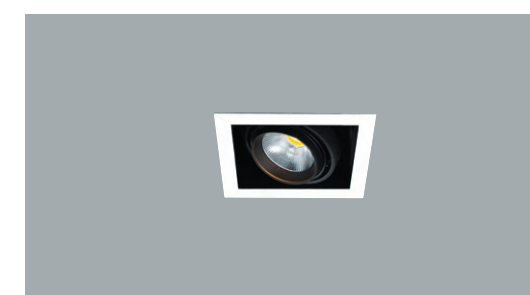


LED 11W LED = 35W HAL



|                 |  |
|-----------------|--|
| TRIM            | AL. Die-Casting, Electrostatic Powder Coating  |
| ADJUSTABLE RING | AL. Die-Casting, Electrostatic Powder Coating<br>Adjustable Angle (Both Rings Tilt <math>\angle 25^\circ</math>) |
| REFLECTOR       | AL. Anodized Specular Silver   |
| HOUSING         | Steel  |
| LAMP            | LED  |
|                 | Input Voltage 100-240VAC, 50-60Hz  |
|                 | Rated Input Power 11W (nominal)  |
|                 | Rated LED Input Voltage 11.5V DC (nominal)   |
|                 | Rated LED Input Current 700mA DC (constant current)  |
|                 | Color Temperature, CRI 5,600K (65) / 4,000K (80) / 3,000K (82)   |

DD-37110  
LED 11W



Weight : 0.4kg  
179 x 96mm (7" x 3 4/5")

DD-37120  
LED 11W x 2



Weight : 0.7kg  
179 x 96mm (7" x 3 4/5")

DD-37130  
LED 11W x 3



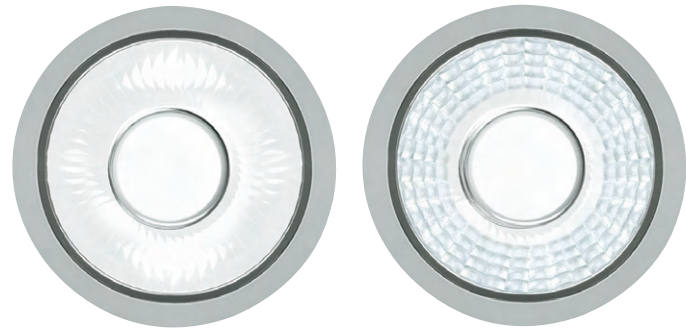
Weight : 1.0kg  
264 x 96mm (10 2/5" x 3 4/5")

DD-37150.04  
LED 11W x 4



Weight : 1.5kg  
345 x 96mm (13 3/5" x 3 4/5")

**FORTIMO DOWNLIGHT | FORTIMO DLM LED**



**PRODUCT PROFILE**

Philips fortimo LED downlight system has been designed for using real lighting application for commercial area such as office building, department, shops, shopping mall, etc. This real lighting application system will have been replaced for most public building in very near future due to energy saving, eco-friendly, long life time, safety and also preventing from environmental pollution. There are 2 types of high efficiency AL. Anodized reflector which is medium & wide beam angle available. It can be possible to make variety lighting performance for customer's requirement. RAAT provide full set of Philips Portimo LED downlight systems which is included driver for LED & cooler systems. That means, even end-user are able to use this LED system very easily.

- High color quality light, remaining stable over life.
- Instant, white, dimmable light
- Long life system, so less disruption & cost for maintenance.

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)

|                                  | Power output (W) | Light (lm) | Efcacy (lm/W) | Input voltage (V) | CCT (K) | CRI (R <sub>a</sub> ) | lm maintenance 35k hrs (%) | Class Factor | Power LED Module (C) | Tc life LED Module (C) | Tc max LED driver (C) | Tc life LED driver (C) |
|----------------------------------|------------------|------------|---------------|-------------------|---------|-----------------------|----------------------------|--------------|----------------------|------------------------|-----------------------|------------------------|
| Fortimo LED DLM 1100 lm, 18W/840 | 18               | 1100       | 62            | 220-240           | 4000    | 80                    | 70                         | 1            | >0.90                | 45                     | 65                    | 65                     |
| Fortimo LED DLM 1100 lm, 19W/830 | 19               | 1100       | 58            | 220-240           | 3000    | 80                    | 70                         | 1            | >0.90                | 45                     | 65                    | 65                     |
| Fortimo LED DLM 2000 lm, 32W/840 | 32               | 2000       | 63            | 220-240           | 4000    | 80                    | 70                         | 1            | >0.90                | 65                     | 65                    | 65                     |
| Fortimo LED DLM 2000 lm, 36W/830 | 36               | 2000       | 56            | 220-240           | 3000    | 80                    | 70                         | 1            | >0.90                | 65                     | 65                    | 65                     |

\* Caution : Please be aware that it could be not work properly in condition of space temperature over 35degree.

**Application areas**



**Offices & Public Buildings**  
Receptions, Board Rooms, Executive Meeting Rooms, Company Restaurants, Cinemas, Theatres, Swimming Pools



**Retail & Hospitality**  
Fashion Shps, Boutiques, Shose Shops, Hotel Receptions



Ø 155mm

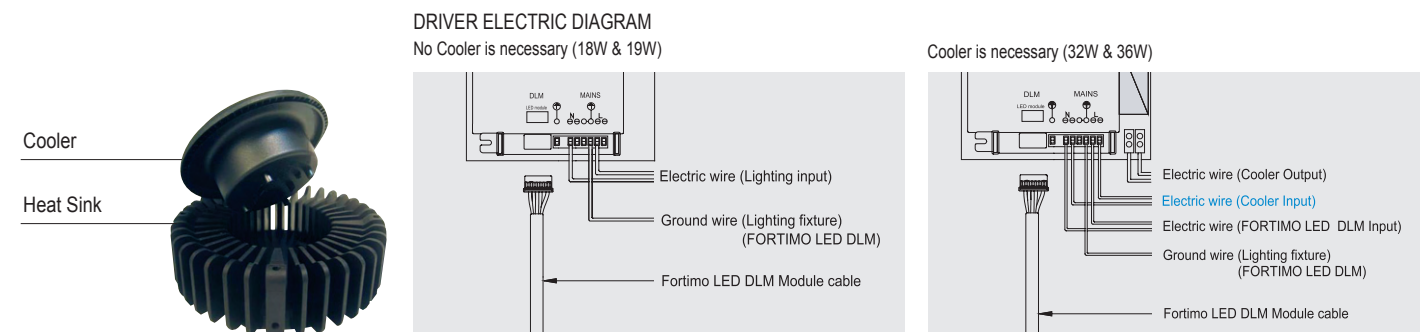
**DD-20010**  
Fortimo LED DLM2000 32W / 840 220-240V 4,000K  
Fortimo LED DLM2000 36W / 830 220-240V 3,000K

**DD-20011**  
Fortimo LED DLM1100 18W / 840 220-240V 4,000K  
Fortimo LED DLM1100 19W / 830 220-240V 3,000K

Ø 180mm

**DD-20020**  
Fortimo LED DLM2000 32W / 840 220-240V 4,000K  
Fortimo LED DLM2000 36W / 830 220-240V 3,000K

**DD-20021**  
Fortimo LED DLM1100 18W / 840 220-240V 4,000K  
Fortimo LED DLM1100 19W / 830 220-240V 3,000K



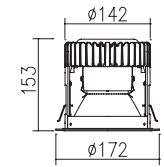
**FORTIMO DOWNLIGHT | FORTIMO DLM LED**



**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**HOUSING** Steel  
**REFLECTOR** Medium Reflector \_AL. Anodized Specular Silver Valley  
 Wide Reflector \_AL. Anodized Specular Silver Square with Etching  
**LAMP** Fortimo LED DLM 18W,19W, 32W, 36W

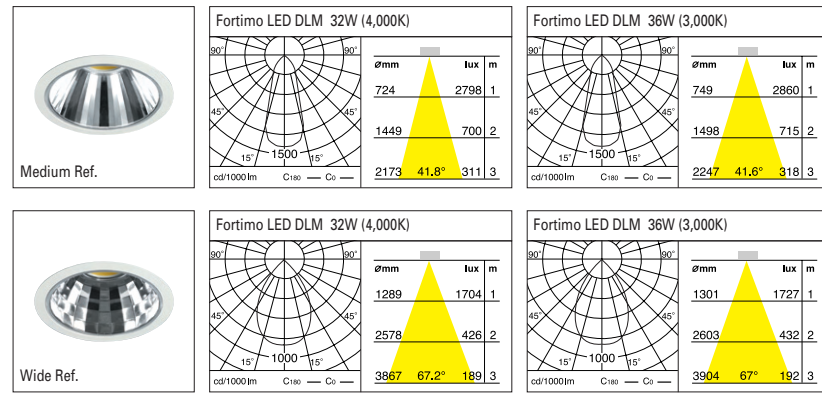
| Order No.       | Lamp                                | Wattage                     |
|-----------------|-------------------------------------|-----------------------------|
| <b>DD-20010</b> | with cooler Fortimo LED DLM 2000    | 32W (4,000K) / 36W (3,000K) |
| <b>DD-20011</b> | without cooler Fortimo LED DLM 1100 | 18W (4,000K) / 19W (3,000K) |

- White
- Black
- Gray

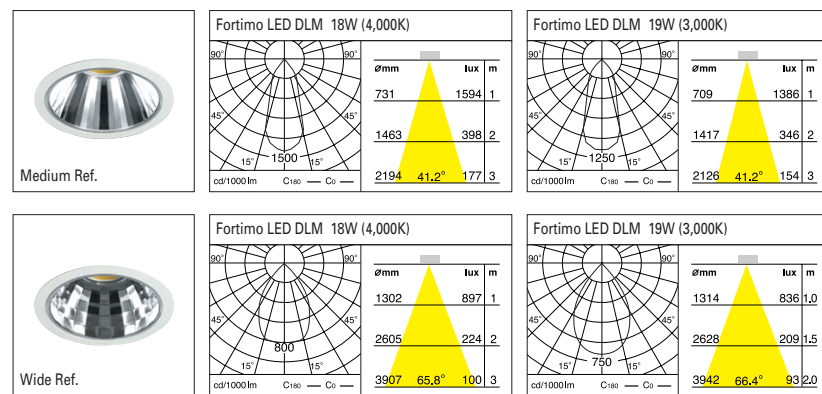


Weight : 1.1kg  
 ø 155 mm (6 1/16")

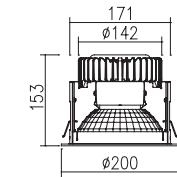
**DD-20010 Series with cooler**



**DD-20011 Series without cooler**



- White
- Black
- Gray

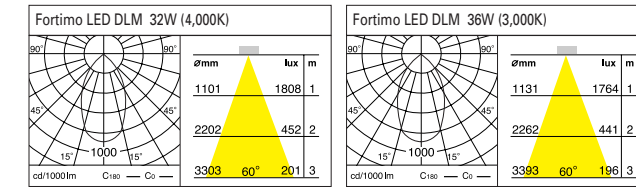


Weight : 1.3kg  
 ø 180 mm (7 1/16")

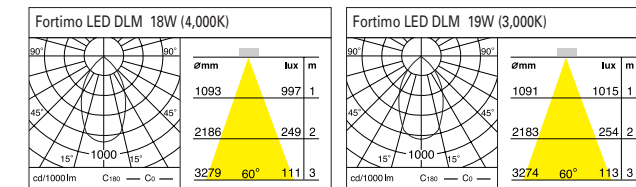
**TRIM** AL. Die-Casting, Electrostatic Powder Coating  
**HOUSING** Steel  
**REFLECTOR** Wide Reflector \_AL. Anodized Specular Silver Square with Embossing  
**LAMP** Fortimo LED DLM 18W,19W, 32W, 36W

| Order No.              | Lamp                                | Wattage  |
|------------------------|-------------------------------------|----------|
| <b>DD-20020 Series</b> | with cooler Fortimo LED DLM 2000    | 32W, 36W |
| <b>DD-20021 Series</b> | without cooler Fortimo LED DLM 1100 | 18W, 19W |

**DD-20020 Series with cooler**



**DD-20021 Series without cooler**



WALL & CEILING LIGHTS | POWER LED

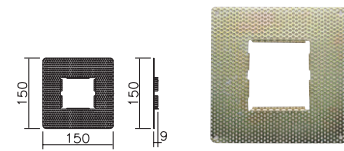


**DD-38021 Series**

- TRIM* AL. Plate, Electrostatic Powder Coating
- HOUSING* Steel Plate, 2T(2mm)
- REFLECTOR* AL. Plate, AL. Plate with Grooved Pattern
- LAMP* Power LED 1W (only 3,000K)

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)

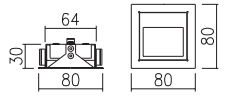
DD-38020-02 Steel mesh



- White
- Black
- Gray



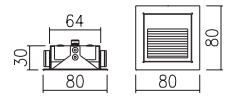
DD-38021 Power LED 1W



Weight: 0.1kg  
 68 x 68mm (2 7/10" x 2 7/10")

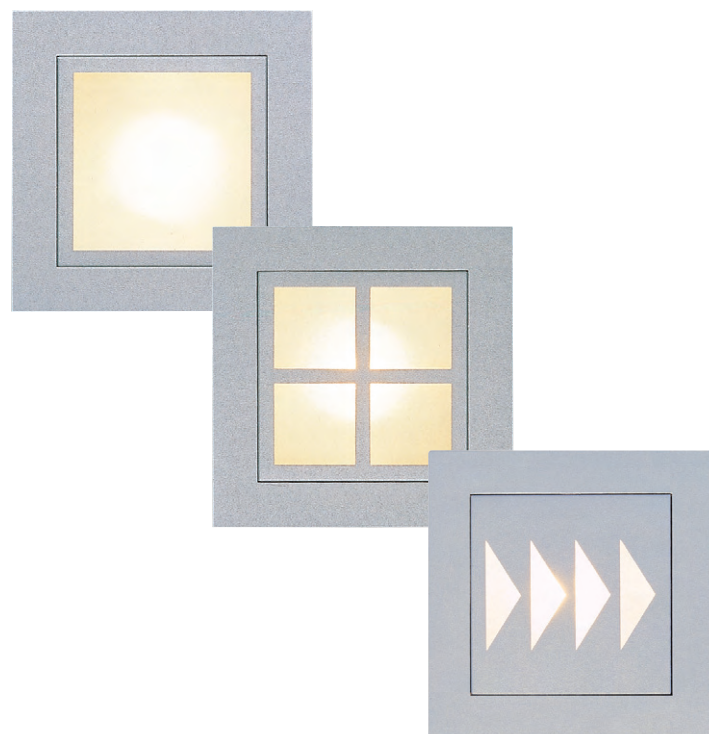


DD-38031 Power LED 1W



Weight: 0.1kg  
 68 x 68mm (2 7/10" x 2 7/10")

WALL & CEILING LIGHTS | POWER LED



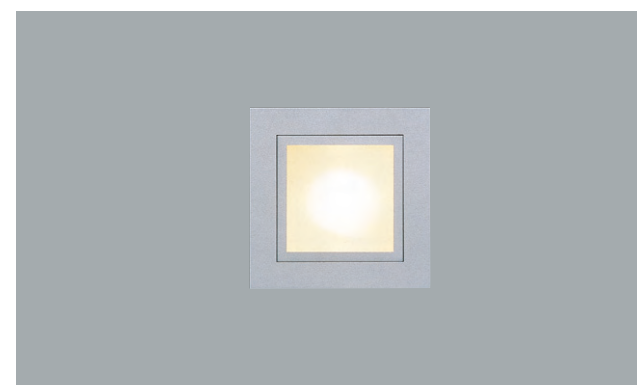
**DD-38111 Series**

*TRIM* AL. Plate, Electrostatic Powder Coating  
*HOUSING* Steel GI Plate  
*MOUNTING FRAME* AL. Plate , AL. Plate with Grooved Pattern  
*ACCESSORY* Glass Lens \_Frosted Tempered Glass

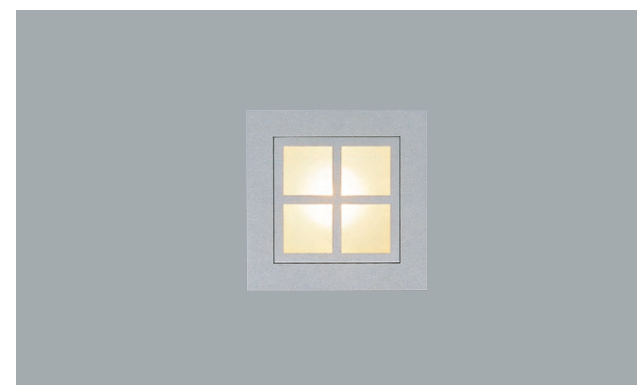
*LAMP* Power LED 1W (only 3,000K)

\* Average life time 40,000 hours (Life time could be flexible on environmental situation.)

White  
 Black  
 Gray  
 LED



△ 68 x 68mm (2 7/10" x 2 7/10")



△ 72 x 72mm (2 4/5" x 2 4/5")



△ 68 x 68mm (2 7/10" x 2 7/10")



△ 72 x 72mm (2 4/5" x 2 4/5")



△ 68 x 68mm (2 7/10" x 2 7/10")



△ 72 x 72mm (2 4/5" x 2 4/5")

