



# KLEO X 105

## Linear

Engineered for high performance and versatility

# KLEO X 105 Linear

## Direct Illumination

Evolved from products past, and designed for the forward-thinking innovators of Australia's design and construction world, mLight is excited to expand the range of Kleo X; the enhanced face of commercial, education, and healthcare lighting solutions.

### Physical

#### Dimensions

105 mm W x 120 mm H

121 mm W x 100 mm H *recessed without bracket system*

#### Finish Options

Powdercoat Black, White, Silver

*Other powdercoat colours available upon request*

Decorative Timber, Concrete, Rust

*Other powdercoat colours available upon request*

Antimicrobial Powder Coating (AMC)

#### Environmental

IP20

IP65 *restrictions apply, see page 4 for details*

### Electrical

#### Control Gear

Integrated *Flicker Free*

#### Power Consumption Range

10.0 to 78.0 W/m

10.0 to 70.0 W/m *recessed*

#### Luminous Efficacy

Up to 137 lm/W @ 1600 lm/m, 11.7 W/m, CRI 80+,

*T<sub>a</sub> 65°C, Diffused*

#### Lumen Maintenance

72,000 hours (L80/B10 at T<sub>a</sub> 25°C)

#### Dimming Options

Fixed Output

1 - 10V

DSI

SwitchDIM

DALI-2

#### Control Options

MasterConnect *see page 4 for details*

Casambi

#### Weight

5.0 kg/m *same across all mounting options*

#### Mounting Options

Wire Suspended

Rod Suspended

Surface Mounted

Wall Mounted

Recessed *Suitable surface material thickness 8 - 22 mm*

#### Ambient Operating Temperature

T<sub>a</sub> 0° to 45 °C

IC Thermal Compliance 

### Photometrics

#### Flux Range

1400 to 9900 Lm/m @ 4000K, CRI 80+,

*T<sub>a</sub> max 45°C, Diffused*

1400 to 8960 Lm/m @ 4000K, CRI 80+,

*T<sub>a</sub> max 45°C, Diffused*

*typical lumen packages - see page 5 for details*

*other packages available upon request*

#### Distributions

Diffused

Asymmetric

Batwing

Smooth Glare Control

Silver Louvre *Low Glare <UGR19*

*Subject to lighting calculations*

Indirect available *see page 3 for details*

#### Light Source

LED Boards SDCM<3

mLight PLL Boards *see page 4 for details*

#### Correlated Colour Temperature

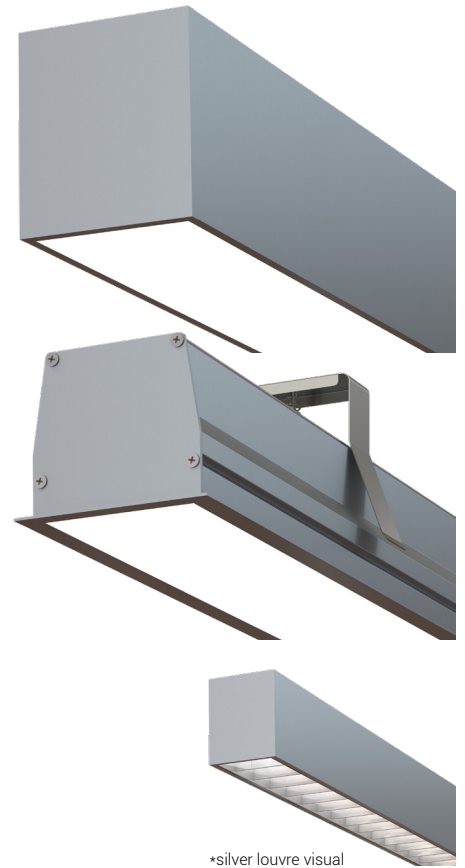
3000 K, 4000 K *standard*

2700 K, 5000 K, 6500 K *available upon request*

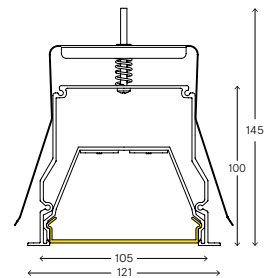
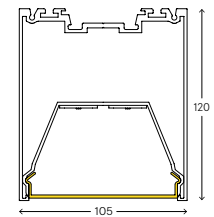
#### Colour Rendering Index

80+ *LED boards*

90+ *mLight PLL boards*



\*silver louvre visual



VIC/TAS Chapter LIGHTING INNOVATION  
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*Optical and Electrical values are subject to a tolerance of +/- 10%.*

*Lumen Output values are "delivered" lumens, which take into consideration losses in the diffuser. These values are more relevant than source lumens, as luminaire efficiency is accounted for. Values given above are based on 4000K and T<sub>a</sub> of 65°C*

*All product specifications are correct at time of printing, and subject to change without notice.*

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# KLEO X 105 Linear

## Indirect Illumination

Evolved from products past, and designed for the forward-thinking innovators of Australia's design and construction world, mLight are excited to expand the range of Kleo X; the enhanced face of commercial, education, and healthcare lighting solutions.

### Physical

#### Dimensions

105 mm W x 120 mm H

#### Weight

5.5 kg/m

#### Finish Options

Powdercoat Black, White, Silver  
*Other powdercoat colours available upon request*  
Decorative Timber, Concrete, Rust  
*Other powdercoat colours available upon request*  
Antimicrobial Powder Coating (AMC)

#### Mounting Options

Wire Suspended  
Rod Suspended  
Wall Mounted

#### Environmental

IP20

#### Ambient Operating Temperature

T<sub>a</sub> 0° to 45 °C

### Electrical

#### Control Gear

Integrated *Flicker Free*

#### Flux Range

*Indirect Only*

700 to 8200 Lm/m @ 4000K, CRI 80+,  
T<sub>a</sub> max 45°C, Batwing-Up

*With Direct; Indirect limited to*

700 to 4200 Lm/m  
*typical lumen packages - see page 5 for details*  
*other packages available upon request*

#### Luminous Efficacy

Up to 131 lm/W @ 1020 lm/m, 7.8 W/m, CRI 80+, T<sub>c</sub> 65°C, Batwing-Up

**Distributions** *see page 6 for details*

Batwing-Up  
Narrow-Up  
Asymmetric-Up

#### Lumen Maintenance

72,000 hours (L80/B10 at T<sub>a</sub> 25° C)

#### Light Source

LED Boards SDCM<3  
mLight PLL Boards *see page 4 for details*

#### Dimming Options

Fixed Output  
1 - 10V  
DSI  
SwitchDIM  
DALI-2

#### Correlated Colour Temperature

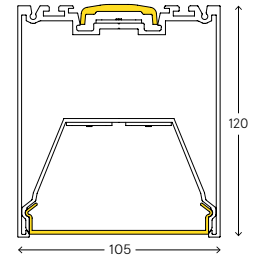
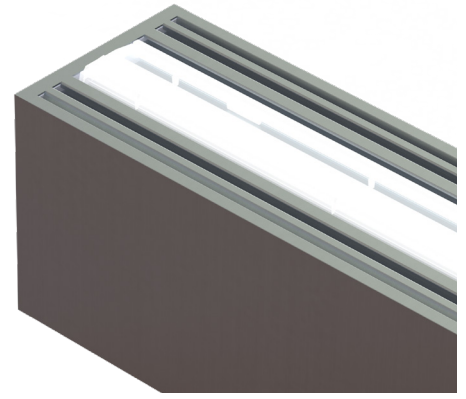
3000 K, 4000 K *standard*  
2700 K, 5000 K, 6500 K *available upon request*

#### Control Options

MasterConnect *see page 4 for details*  
Casambi

#### Colour Rendering Index

80+ LED boards  
90+ mLight PLL boards



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*Optical and Electrical values are subject to a tolerance of +/- 10%.*

*Lumen Output values are "delivered" lumens, which take into consideration losses in the diffuser. These values are more relevant than source lumens, as luminaire efficiency is accounted for. Values given above are based on 4000K and T<sub>c</sub> of 65°C*

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# KLEO X 105 Linear

## Options

### Intersections

2, 3 and 4 way custom joins available

### Light Source

Tuneable (2700 - 6500 K)  
RGB or RGBW Tape

2 SDCM mLight PLL Boards  
3 SDCM LED Boards

### Emergency

Maintained  
Duration  
3 Hours  
Classification for Diffused  
C0 D50  
C90 D50  
Luminous Surface  
280mm in length  
Environmental  
Ingress Protection up to IP65  
Minimum length of 1124mm

Non-maintained available

### Environmental

Ingress protection up to IP65  
Maximum length 5400mm including endcaps  
Mitre joins and/or sensors not available with IP  
Not available in anodised finish

### Sensors

Occupancy  
Daylight Harvesting



A lighting management ecosystem to allow businesses to easily optimise lighting comfort, save energy, gain valuable data insights and cost effectively scale to their environment as business needs evolve.

### Antimicrobial Powder Coating

Kleo X powder coating adds antimicrobial protection, helping to prevent bacterial and microbial growth on the coated surface.



Optical and Electrical values are subject to a tolerance of +/- 10%.

Lumen Output values are "delivered" lumens, which take into consideration losses in the diffuser. These values are more relevant than source lumens, as luminaire efficiency is accounted for. Values given above are based on 4000K and T<sub>c</sub> of 65°C  
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## Additional Info

### Warranty

Product  
10 Years  
Terms and conditions apply

Maintained EMG 2 Years

### Cyanosis

Approved using mLight PLL Boards

### Colour Rendering Index refer to Figure 1

R<sub>a</sub> 91  
The CRI is a measure of the ability of a light source to accurately portray the colours of various objects in space. Originally consisting of 8 sample colours, the CRI now extends to 15 samples. R9 to R15 are special colours of high chroma; R9 evaluates red, whilst R15 is for skin tones.

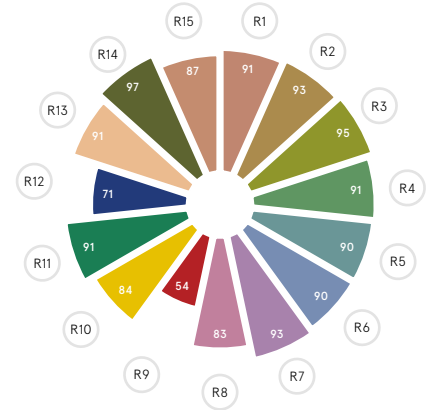


Figure 1 - Colour Rendering Index for 4000K, 90CRI

### TM30 refer to Figure 2

R<sub>f</sub> 90  
R<sub>g</sub> 99  
IES TM-30 provides further metrics to assist in tailoring your lighting solution. The measured values quantify colour rendering in three main areas; observation (colour fidelity (R<sub>f</sub>)), intensity (colour gamut (R<sub>g</sub>)) and shift in intensity (colour vector graphics).

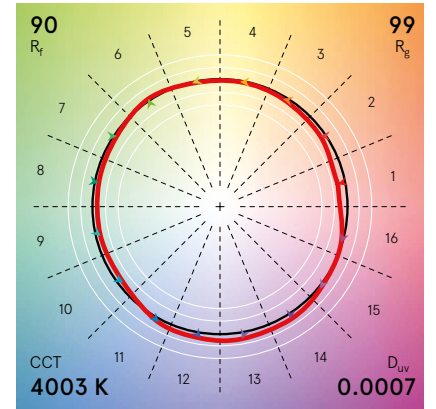


Figure 2 - Colour Vector Graphics for 4000K, 90CRI

### Color Quality Scale refer to Figure 3

Q<sub>a</sub> 90  
The CQS is a metric which involves several facets of colour quality, including colour rendering, chromatic discrimination and observer preferences. The scale uses fifteen highly saturated colours, chosen as they more accurately span the range of common object colours.

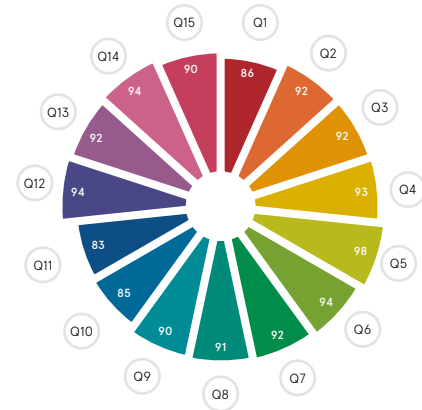


Figure 3 - Colour Quality Scale for 4000K, 90CRI

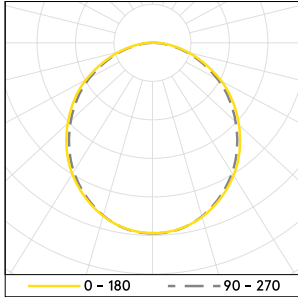
# KLEO X 105 Linear

## Configurations & Specific Data

**LED Boards**  
3 SDCM, 80+ CRI

**mLight Precision Linear LED (PLL) Boards**  
2 SDCM, 90+ CRI

### Diffused



**Flux Range**  
1400 to 9900 Lm/m  
*\*Maximum limited to 8480 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 11.7 W/m  
2000 lm/m, 15.1 W/m  
2400 lm/m, 18.4 W/m  
2800 lm/m, 21.8 W/m

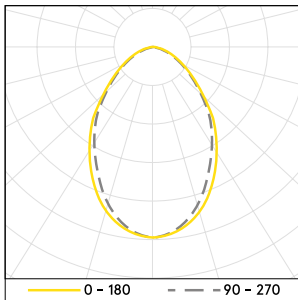
**Luminous Efficacy**  
Up to 137 Lm/W @ 1600 lm, 11.7 W/m, Tc 65°C

**Flux Range**  
1640 to 6540 Lm/m  
*\*Maximum limited to 5680 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 15.2 W/m  
2000 lm/m, 19.5 W/m  
2400 lm/m, 24.2 W/m  
2800 lm/m, 28.8 W/m

**Luminous Efficacy**  
Up to 108 Lm/W @ 1640 lm, 15.2 W/m, Tc 65°C

### Smooth Glare Control



**Flux Range**  
1140 to 8040 Lm/m  
*\*Maximum limited to 6880 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 14.8 W/m  
2000 lm/m, 19.0 W/m  
2400 lm/m, 23.1 W/m  
2800 lm/m, 27.3 W/m

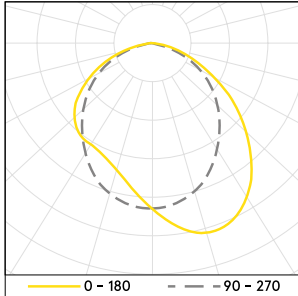
**Luminous Efficacy**  
Up to 108 Lm/W @ 1600 lm, 14.8 W/m, Tc 65°C

**Flux Range**  
1340 to 5300 Lm/m  
*\*Maximum limited to 4600 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 19.2 W/m  
2000 lm/m, 25.0 W/m  
2400 lm/m, 30.8 W/m  
2800 lm/m, 34.5 W/m

**Luminous Efficacy**  
Up to 83 Lm/W @ 1600 lm, 19.2 W/m, Tc 65°C

### Asymmetric



**Flux Range**  
1180 to 8360 Lm/m  
*\*Maximum limited to 4580 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 14.2 W/m  
2000 lm/m, 18.2 W/m  
2400 lm/m, 22.2 W/m  
2800 lm/m, 26.1 W/m

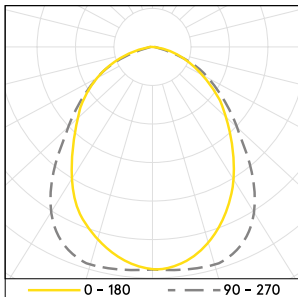
**Luminous Efficacy**  
Up to 113 Lm/W @ 1600 lm, 14.2 W/m, Tc 65°C

**Flux Range**  
1400 to 5520 Lm/m  
*\*Maximum limited to 4800 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1600 lm/m, 18.2 W/m  
2000 lm/m, 23.8 W/m  
2400 lm/m, 29.2 W/m  
2800 lm/m, 34.9 W/m

**Luminous Efficacy**  
Up to 88 Lm/W @ 1600 lm, 18.2 W/m, Tc 65°C

### Batwing Down



**Flux Range**  
1300 to 6380 Lm/m  
*\*Maximum limited to 5520 Lm/m when combined with indirect*

**Typical Lumen Packages**  
1200 lm/m, 11 W/m  
1600 lm/m, 14.7 W/m  
2000 lm/m, 18.3 W/m  
2400 lm/m, 22 W/m  
2800 lm/m, 25.6 W/m

**Luminous Efficacy**  
Up to 109.1 Lm/W @ 1200 lm, 11 W/m, Tc 65°C



Low Glare  
UGR <19



Emergency Options  
Maintained and/or  
Non maintained



IP Rated



MasterConnect  
compatible

CASAMBI

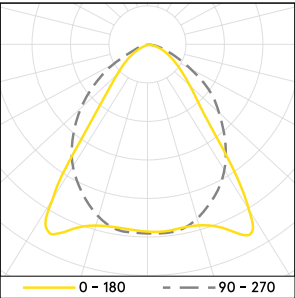
IES files available online  
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# KLEO X 105 Linear

## Configurations & Specific Data

### Silver Louvre



### LED Boards

3 SDCM, 80+ CRI

### Flux Range

1420 to 10040 Lm/m

*\*Maximum limited to 8600 Lm/m when combined with indirect*

### Typical Lumen Packages

1600 lm/m, 11.5 W/m

2000 lm/m, 14.8 W/m

2400 lm/m, 18.2 W/m

2800 lm/m, 21.5 W/m

### Luminous Efficacy

Up to 139 Lm/W @ 1600 lm, 11.5 W/m, T<sub>c</sub> 65°C

### mLight Precision Linear LED (PLL) Boards

2 SDCM, 90+ CRI

### Flux Range

1680 to 6620 Lm/m

*\*Maximum limited to 5740 Lm/m when combined with indirect*

### Typical Lumen Packages

1680 lm/m, 15.2 W/m

2000 lm/m, 19.2 W/m

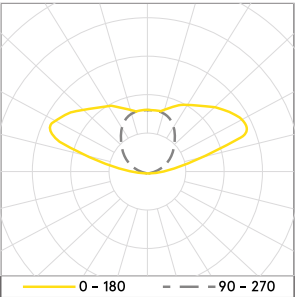
2400 lm/m, 23.8 W/m

2800 lm/m, 28.4 W/m

### Luminous Efficacy

Up to 111 Lm/W @ 1600 lm, 15.2 W/m, T<sub>c</sub> 65°C

### Batwing-Up



### Flux Range

700 to 8200 Lm/m

*\*Maximum limited to 3020 Lm/m when combined with direct*

### Typical Lumen Packages

1020 lm/m, 7.8 W/m

2060 lm/m, 16.6 W/m

### Luminous Efficacy

Up to 131 Lm/W @ 1020 lm, 7.8 W/m, T<sub>c</sub> 65°C

### Flux Range

820 to 5110 Lm/m

*\*Maximum limited to 2060 Lm/m when combined with direct*

### Typical Lumen Packages

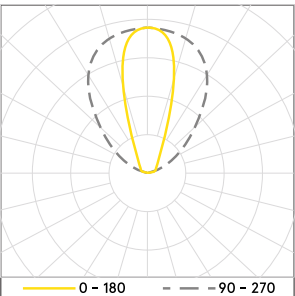
1020 lm/m, 10.2 W/m

2060 lm/m, 22.7 W/m

### Luminous Efficacy

Up to 100 Lm/W @ 1020 lm, 10.2 W/m, T<sub>c</sub> 65°C

### Narrow-Up



### Flux Range

770 to 9070 Lm/m

*\*Maximum limited to 3340 Lm/m when combined with direct*

### Typical Lumen Packages

1020 lm/m, 6.9 W/m

2060 lm/m, 14.9 W/m

### Luminous Efficacy

Up to 148 Lm/W @ 1020 lm, 6.9 W/m, T<sub>c</sub> 65°C

### Flux Range

900 to 5660 Lm/m

*\*Maximum limited to 2280 Lm/m when combined with direct*

### Typical Lumen Packages

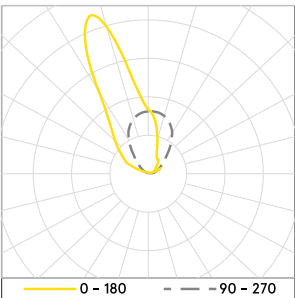
1020 lm/m, 8.9 W/m

2060 lm/m, 20.2 W/m

### Luminous Efficacy

Up to 115 Lm/W @ 1020 lm, 8.9 W/m, T<sub>c</sub> 65°C

### Asymmetric-Up



### Flux Range

750 to 8850 Lm/m

*\*Maximum limited to 3260 Lm/m when combined with direct*

### Typical Lumen Packages

1020 lm/m, 7.1 W/m

2060 lm/m, 15.3 W/m

### Luminous Efficacy

Up to 144 Lm/W @ 1020 lm, 7.1 W/m, T<sub>c</sub> 65°C

### Flux Range

880 to 5520 Lm/m

*\*Maximum limited to 2220 Lm/m when combined with direct*

### Typical Lumen Packages

1020 lm/m, 9.2 W/m

2060 lm/m, 20.8 W/m

### Luminous Efficacy

Up to 111 Lm/W @ 1020 lm, 9.2 W/m, T<sub>c</sub> 65°C



Low Glare  
UGR <19



Emergency Options  
Maintained and/or  
Non maintained



IP Rated



MasterConnect  
compatible

CASAMBI

IES files available online

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# KLEO X 105 Linear

## How to specify...

### Specification Statement

Use the below statement for your schedules, specifications, or quotes.

Guide: Copy and paste into your document.  
Remove unwanted options in **Green**.  
Add custom data points where noted in **Blue**.

KLEO X 105 with 10 Year Product Warranty, as manufactured by mLight Pty Ltd. Product complete with mConnect system, LightLock, Photron Chamber, RotaTech and Retina Light Control, **(LED boards with 3 SDCM / Precision Linear LED Boards with 2 SDCM)**, integrated **(DALI / Fixed Output / 1-10V / DSI / Casambi / MasterConnect Ecosystem)** control gear, supports for **(Wire Suspended / Rod Suspended / Surface Mounted / Wall Mounted / Recessed)**. Dimensions 78 mm wide x 95 mm tall x **(xxxx)** mm long, including endcaps. Finished in **(Black PC / White PC / Silver PC / Decorative Coating / Custom Colour)**, IP **(20/ 65)** rated, Direct Light with **(Diffused / Batwing Down / Smooth Glare Control / Silver Louvre Glare Control / Asymmetric)** distribution, **(xxxx) Lm/m, (xxxx) W/m, Indirect Light with (Batwing-Up, Narrow-Up, Asymmetric-Up) distribution, (xxxx) Lm/m, (xxxx) W/m, L80 B10 72,000 hrs at Ta 25°C, (Cyanosis Approved) (Maintained Emergency as per specification). MasterConnect shall be installed as per specification.** Installation as per MLight recommendations.

### Coding System

Use the below to code your solution for ease of quoting and discussing with our team.  
Start with **KX105** and then follow on with additional codes.

EG: KX105-RM-B-9-30-DIF-2800-B-UP-2060

| Mounting        | Code | Finish             | Code | CRI | Code | CCT / Light | Code | Direct Distribution         | Code | Direct Lumen Package | Code | Indirect Distribution | Code | Indirect Lumen Package | Code | Dimming Option | Code |
|-----------------|------|--------------------|------|-----|------|-------------|------|-----------------------------|------|----------------------|------|-----------------------|------|------------------------|------|----------------|------|
| Rod Suspended   | RS   | Black PC           | B    | 80+ | 8    | 2700 K      | 27   | Diffused                    | DIF  | MIN                  | MIN  | Batwing-Up            | B-UP | MIN                    | MIN  | DALI-2         | DA2  |
| Wire Suspended  | WS   | White PC           | W    | 90+ | 9    | 3000 K      | 30   | Batwing Down                | BAT  | 1600                 | 1600 | Narrow-Up             | N-UP | 1020                   | 1020 | Fixed Output   | FO   |
| Surface Mounted | SM   | Silver PC          | S    |     |      | 4000 K      | 40   | Smooth Glare Control        | SGC  | 2000                 | 2000 | Asymmetric-Up         | A-UP | 2060                   | 2060 | SwitchDIM      | SD   |
| Wall Mounted    | WM   | Decorative Coating | D    |     |      | 5000 K      | 50   | Silver Louvre Glare Control | LBL  | 2400                 | 2400 |                       |      | MAX                    | MAX  |                |      |
| Recessed        | RM   | Custom Colour      | C    |     |      | 6500 K      | 65   | Asymmetric                  | ASY  | 2800                 | 2800 |                       |      | Custom                 | #### |                |      |
| Combination     | CM   | Anti Microbial     | AMC  |     |      | Tuneable    | TU   |                             |      | MAX                  | MAX  |                       |      |                        |      |                |      |
|                 |      |                    |      |     |      | RGB         | RGB  |                             |      | Custom               | #### |                       |      |                        |      |                |      |
|                 |      |                    |      |     |      | RGBW        | RGBW |                             |      |                      |      |                       |      |                        |      |                |      |

INTEGRATE LIGHT WITH LIFE, BEAUTIFULLY

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