COOLON

RATIO

LED STRIP | STR-RATIO





Ratio is our most elegant product that provides inspiring directional light with glare control. Ratio's utility is further enhanced by the availability of 2 wattages (11W and 23W), multiple optics and various lengths.

With no compromise on aesthetics, it is easy to customise the perfect lighting effect for the most demanding of lighting projects.

POWER

11W
11W / metre



SC AL HL LL ML

23W
23W / metre



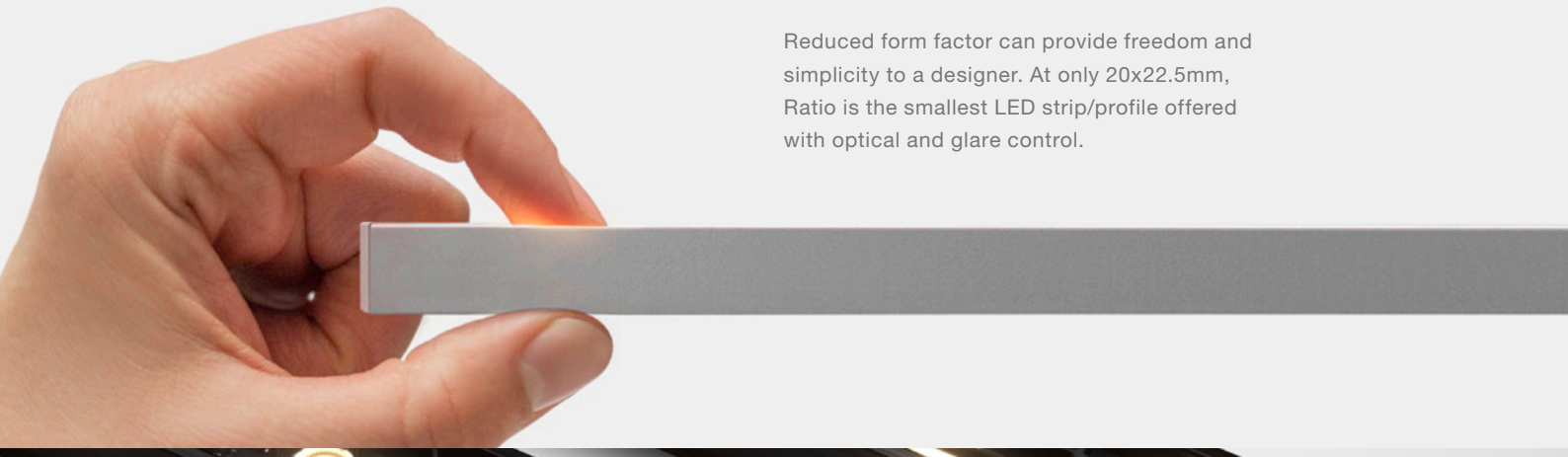
SC AL HL LL ML

COLOUR TEMPERATURE

2700K 3000K 3500K 4000K

COMPACT SIZE

Reduced form factor can provide freedom and simplicity to a designer. At only 20x22.5mm, Ratio is the smallest LED strip/profile offered with optical and glare control.





GLARE CONTROL

Visual comfort is key with Ratio, with precisely detailed louvres that integrate perfectly with the optics. Available in Honeycomb Louvre, providing glare control in all directions, or Longitudinal Louvre, ideal where the main viewing angle is from the side.

L90

LONG OPERATING LIFE

Coolon products use the world's most reputable LED manufacturers and the latest available standards to adequately report lumen maintenance. We strive to drive LEDs under their nominal current and use state-of-the-art heat dissipation methods, leading to durable electronics.

VARIOUS CCT & COLOUR BINNING CONSISTENCY

All products are offered in various colour temperatures, and manufactured using tighter bins, ensuring excellent consistency and uniformity.

5 YEARS

5 YEARS WARRANTY

Coolon luminaires are covered by a solid comprehensive manufacturer's warranty that covers a range of possible defects and performance parameters throughout the duration of the warranty period.

PROUDLY MADE IN AUSTRALIA

Our products are designed and manufactured in Australia. Engineered to perfection, using only the highest quality components and highly skilled labour, each luminaire is assembled and thoroughly tested to ensure that it exceeds the highest standards.

TECHNICAL SPECIFICATIONS

	11W VERSION	23W VERSION
Product Code	STR-RATIO	
Description	Ratio Beam Control LED Strip	
Segment Length (S)	240mm	
Segment Width	10.50mm	
LED Pitch	34.28mm	
LEDs Per Segment	7	
Operating Voltage	24VDC	
Typical Power Consumption per Segment	2.5W per 240mm Segment	5.3W per 240mm Segment
Typical Power Consumption per Metre	11W per metre	23W per metre
Typical Current	115mA per 240mm Segment	230mA per 240mm Segment
Colour Rendering Index (CRI & CCT variations)	90+, Single LED BIN from a 3-step MacAdam ellipse	
Dimmable	1 – 100% range through CTR-DALILOGIC or CTR-DIMMERLOGIC (sold separately)	
Effective Beam Angle	Varies with optics (30° – 50°)	
External Heatsink Required	No	
Ambient Operating Temp	Ta -10°C to 50°C	
Thermal Operating	Yes (Active)	
Reverse Polarity Protection	Yes	
Reported Lumen Maintenance TM21-11 (@ Ts = 85°C, I_f = 700mA)	L70 (17K) > 103,000 hours L90 (17K) > 103,000 hours Ratio max. operating values (@ Ts = 40°C, I_f = 230mA)	
IP Rating	IP40	
Max Continuous Connection Length	Please refer to installation limitations	

POWER & LUMEN OUTPUT

11W 11W / Metre

PROFILE	CCT	30D	50D	80D	O4018D	O10040D	A7030D22
SC	2700K	734 lm/m	654 lm/m	608 lm/m	693 lm/m	632 lm/m	583 lm/m
	3000K	808 lm/m	727 lm/m	676 lm/m	762 lm/m	702 lm/m	641 lm/m
	4000K	854 lm/m	746 lm/m	693 lm/m	790 lm/m	721 lm/m	665 lm/m
AL	2700K	431 lm/m	295 lm/m	236 lm/m	324 lm/m	300 lm/m	NM
	3000K	474 lm/m	328 lm/m	262 lm/m	360 lm/m	329 lm/m	NM
	4000K	491 lm/m	374 lm/m	269 lm/m	370 lm/m	341 lm/m	NM
HL	2700K	627 lm/m	591 lm/m	413 lm/m	457 lm/m	NM	NM
	3000K	697 lm/m	657 lm/m	458 lm/m	508 lm/m	NM	NM
	4000K	715 lm/m	674 lm/m	470 lm/m	521 lm/m	NM	NM
LL	2700K	445 lm/m	500 lm/m	330 lm/m	398 lm/m	NM	NM
	3000K	494 lm/m	556 lm/m	367 lm/m	442 lm/m	NM	NM
	4000K	507 lm/m	570 lm/m	377 lm/m	453 lm/m	NM	NM

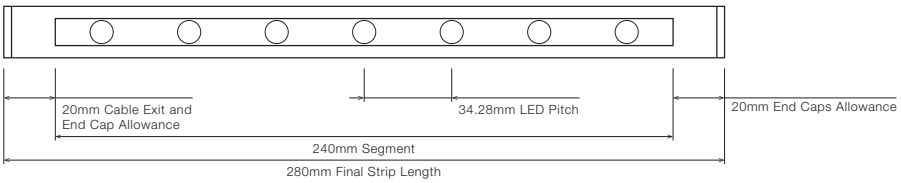
23W 23W / Metre

PROFILE	CCT	30D	50D	80D	O4018D	O10040D	A7030D22
SC	2700K	1,469 lm/m	1,319 lm/m	1,277 lm/m	1,455 lm/m	1,328 lm/m	1,224 lm/m
	3000K	1,616 lm/m	1,466 lm/m	1,419 lm/m	1,601 lm/m	1,475 lm/m	1,347 lm/m
	4000K	1,708 lm/m	1,504 lm/m	1,456 lm/m	1,659 lm/m	1,513 lm/m	1,396 lm/m
AL	2700K	904 lm/m	620 lm/m	495 lm/m	681 lm/m	629 lm/m	NM
	3000K	995 lm/m	689 lm/m	550 lm/m	757 lm/m	692 lm/m	NM
	4000K	1,031 lm/m	706 lm/m	564 lm/m	777 lm/m	717 lm/m	NM
HL	2700K	1,256 lm/m	1,241 lm/m	866 lm/m	959 lm/m	NM	NM
	3000K	1,395 lm/m	1,379 lm/m	963 lm/m	1,066 lm/m	NM	NM
	4000K	1,431 lm/m	1,415 lm/m	988 lm/m	1,094 lm/m	NM	NM
LL	2700K	934 lm/m	1,050 lm/m	694 lm/m	794 lm/m	NM	NM
	3000K	1,038 lm/m	1,167 lm/m	771 lm/m	882 lm/m	NM	NM
	4000K	1,065 lm/m	1,197 lm/m	791 lm/m	905 lm/m	NM	NM

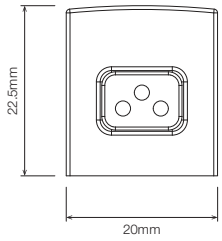
NM : Lumen output NOT MEASURED

DIMENSIONS

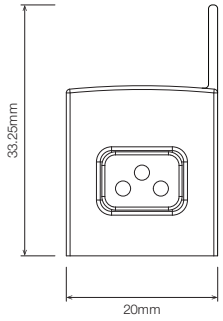
For final strip lengths please refer to the “Product Length” table (Page 06).



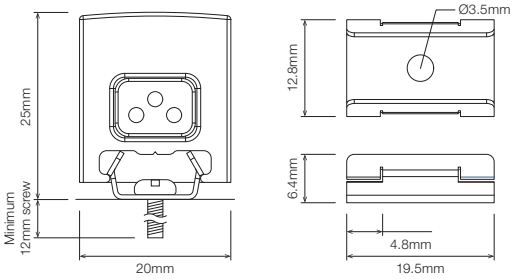
STANDARD PROFILE



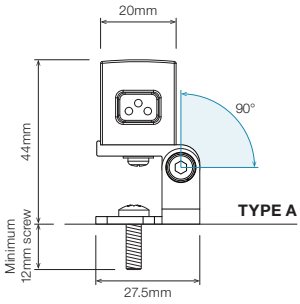
WITH BAFFLE

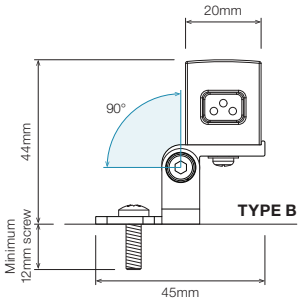


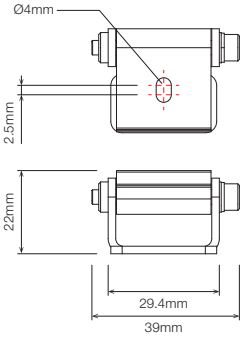
WITH STAINLESS STEEL C-CLIP [1]



WITH ROTATING MOUNTING BRACKET, TYPE A/B ROTATING CLIP [1]



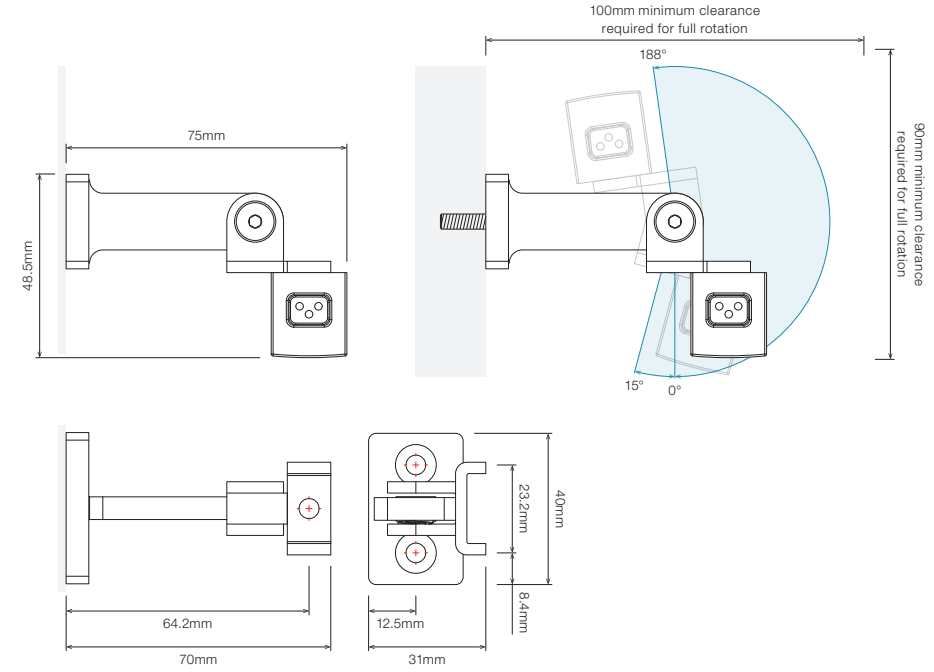




[1] Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.

DIMENSIONS

WITH SHORT OUTREACH ADJUSTABLE ARM [1]



WITH SUSPENSION KIT



[1] Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.

PRODUCT LENGTH

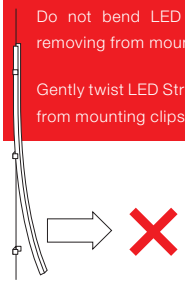
FULL SEGMENTS (S)	EXACT STRIP LENGTH	END CAP ALLOWANCE	FINAL LENGTH	
1	240mm	add 40mm	280mm	
2	480mm	add 40mm	520mm	
3	720mm	add 40mm	760mm	
4	960mm	add 40mm	1,000mm	
5	1,200mm	add 40mm	1,240mm	
6	1,440mm	add 40mm	1,480mm	
7	1,680mm	add 40mm	1,720mm	
8	1,920mm	add 40mm	1,960mm	[1]
9	2,160mm	add 40mm	2,200mm	[1]
10	2,400mm	add 40mm	2,440mm	[1]
11	2,640mm	add 40mm	2,680mm	[1]
12	2,880mm	add 40mm	2,920mm	[1]
13	3,120mm	add 40mm	3,160mm	[1]
14	3,360mm	add 40mm	3,400mm	[1]

[1] Custom lengths - contact Coolon LED for more information.

⚠ WARNING

Do not bend LED strip when removing from mounting clips.

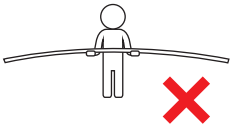
Gently twist LED Strip to remove from mounting clips.



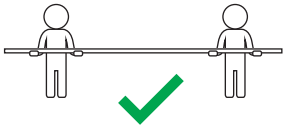
⚠ WARNING

PLEASE HANDLE LONG LED STRIPS WITH CARE.

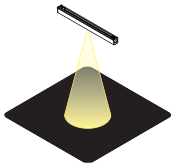
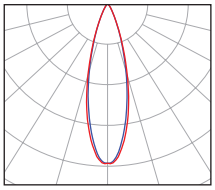
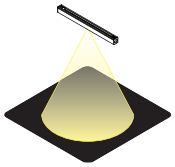
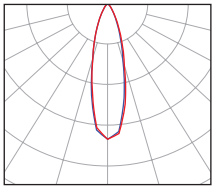
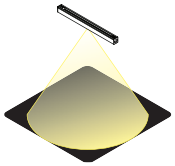
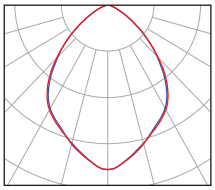
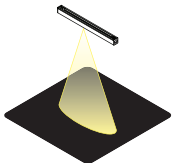
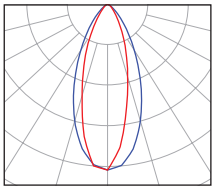
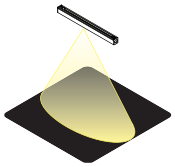
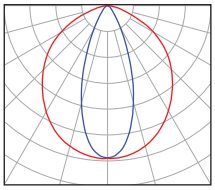
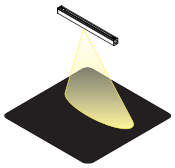
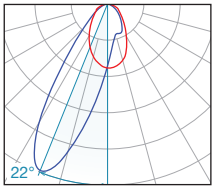
LED Strips must not be bent.



When handling LED Strips, please ensure that they are kept straight.



POLAR DISTRIBUTION

OPTIC		POLAR DISTRIBUTION
30D Medium Beam 30° Beam Angle		
50D Wide Beam 50° Beam Angle		
80D Wide Beam 80° Beam Angle		
O4018D Oval Beam Oval 40° x 18° Beam Angle		
O10040D Oval Beam Oval 100° x 40° Beam Angle		
A7030D22 Asymmetric Beam Asymmetric 70° x 30° Beam Angle		

DIFFUSER / LOUVRE

SC · Standard Clear



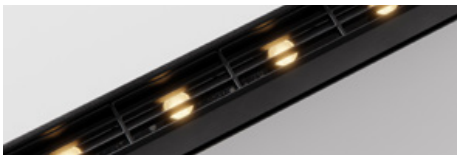
AL · Asymmetric Louvre



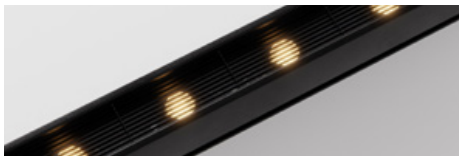
HL · Honeycomb Louvre



LL · Longitudinal Louvre



ML · Micro Louvre

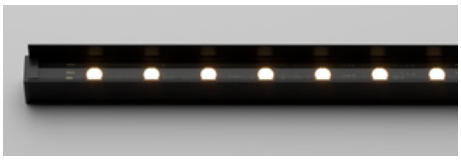


PROFILE COLOUR

BLK · Black (Standard)



B-BLK · Black with Baffle



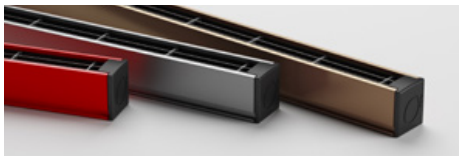
WHT · White



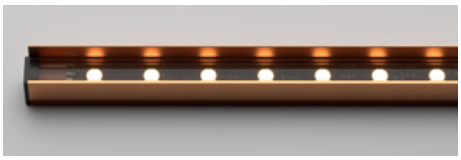
B-WHT · White with Baffle



CST · Custom Colour [1]

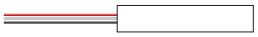
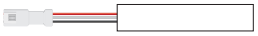
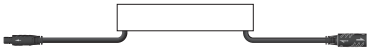
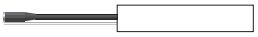


B-CST · Custom Colour with Baffle [1]



[1] Custom colours available on request.

WIRING CONFIGURATION

CONNECTOR TYPE	DRAWING	MALE	FEMALE
WR2.1OS Wire 2+1 Core One Side			
WR2.1BS Wire 2+1 Core Both Sides			
CBL2.1OS [1] Cable 2+1 Core One Side			
OC2.1MO Connector 2+1 pin Male Only			
OC2.1MF Connector 2+1 pin Male + Female			
LC2.1MO Locking Connector 2+1 pin Male Only			
LC2.1MF Locking Connector 2+1 pin Male + Female			
SMPLC.1 Sample Type Connector 2.5mm			

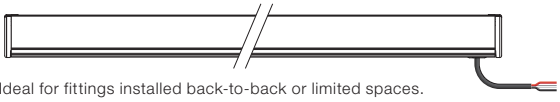
- Typical loom length for surface mount (WS) 100mm / 250mm.
- Typical cable length for suspended applications (WB) 3000mm.
- Please consult Coolon for details on extension cable between LED fittings, drivers and power supplies.

[1] Cable from one side (CBL2.1OS) is available as Wire from Back (WB) with Suspension Kit.

WIRING COLOUR CODE	
+ 24V	Red
– GND	Black
PWM Dimming	White

WIRING POSITION

WB - Wire from back



Ideal for fittings installed back-to-back or limited spaces.



WS - Wire from Side



Ideal for fittings installed individually or vertically.



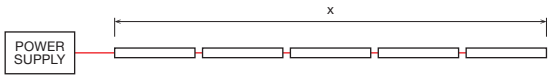
IP RATING

IP40

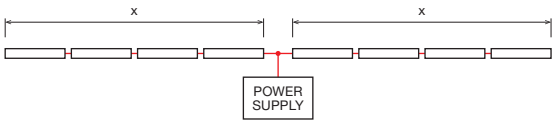
Protected against solid objects greater than 1mm. No protection against liquids.

INSTALLATION LIMITS

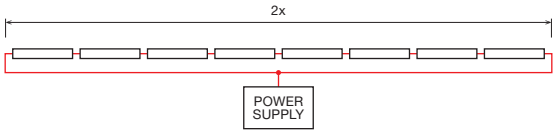
SCENARIO 1



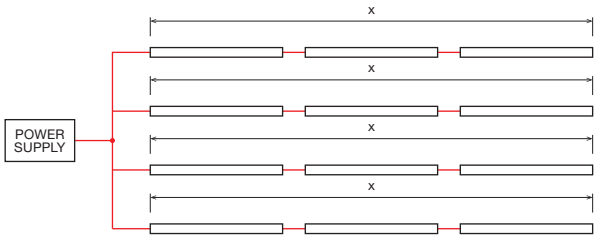
SCENARIO 2



SCENARIO 3



SCENARIO 4



11W VERSION

MAX. CONTINUOUS CONNECTION LENGTH (X)	CONNECTOR TYPE
12,200 mm	With 2+1 core (WR2.1OS / WR2.1BS)
5,500 mm	With 2+1 pin connectors (OC2.1MO / OC2.1MF / LC2.1MO / LC2.1MF / SMPLC.1)
3,400 mm / Single Fitting	With 2+1 cable (CBL2.1OS)

- Please consult Coolon for details on extension cable between LED fittings, drivers and power supplies.

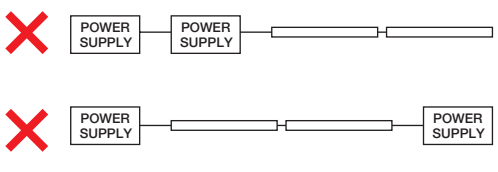
23W VERSION

MAX. CONTINUOUS CONNECTION LENGTH (X)	CONNECTOR TYPE
5,800 mm	With 2+1 core (WR2.1OS / WR2.1BS)
2,500 mm	With 2+1 pin connectors (OC2.1MO / OC2.1MF / LC2.1MO / LC2.1MF / SMPLC.1)
3,400 mm / Single Fitting	With 2+1 cable (CBL2.1OS)

- Please consult Coolon for details on extension cable between LED fittings, drivers and power supplies.

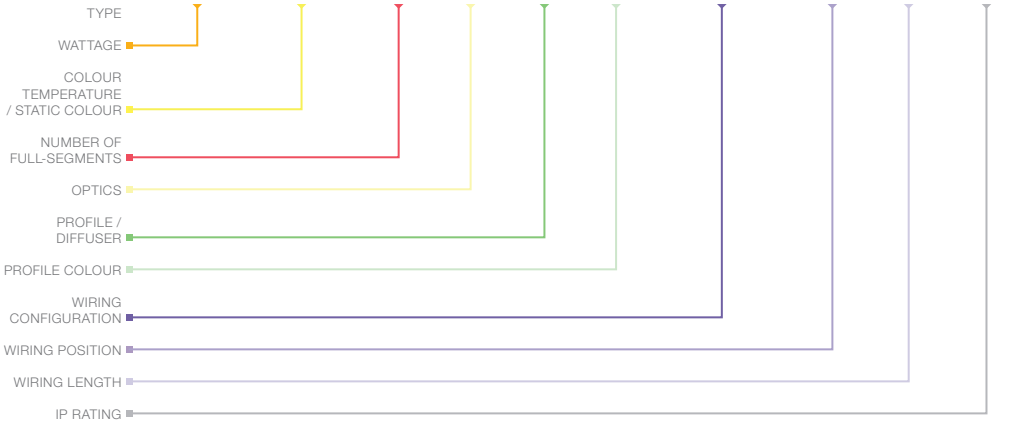
⚠ WARNING

Avoid connecting multiple power supplies into a single circuit, unless they are specifically designed to do so.



ORDERING EXAMPLE

STR - RATIO - 23W - 3.0KCRI - S2 - 50D - LL - BLK - WR2.1BS - WB - 100 - IP40



WATTAGE

11W	10.5W per metre
23W	23W per metre

COLOUR TEMPERATURE [1] PAGE 04

2.7KCRI	2700K CRI 90
3.0KCRI	3000K CRI 90
3.5KCRI	3500K CRI 90
4.0KCRI	4000K CRI 90

PRODUCT LENGTH PAGE 06

S1	280mm
S2	520mm
S3	760mm
S4	1,000mm
S5	1,240mm
S6	1,480mm
S7	1,720mm
S8	1,960mm
S9	2,200mm
S10	2,440mm
S11	2,680mm
S12	2,920mm
S13	3,160mm
S14	3,400mm

OPTICS PAGE 07

30D	30° Beam
50D	50° Beam
80D	80° Beam
O4018D	Oval 40° x 18° Beam
O10040D	Oval 100° x 40° Beam
A7030D22	Asymmetric 70° x 30° Beam

PROFILE / LOUVRE PAGE 07

SC	Standard Clear
AL	Asymmetric Louvre
HL	Honeycomb Louvre
LL	Longitudinal Louvre
ML	Micro Louvre

PROFILE COLOUR [2] PAGE 07

BLK	Black (Standard)
B-BLK	Black with Baffle
WHT	White
B-WHT	White with Baffle
CST	Custom Colour [3]
B-CST	Custom Colour with Baffle [3]

WIRING CONFIGURATION PAGE 08

WR2.1OS	Wire 2+1 Core One Side
WR2.1BS	Wire 2+1 Core Both Sides
CBL2.1OS	Cable 2+1 Core One Side
OC2.1MO	Connector 2+1 pin Male Only
OC2.1MF	Connector 2+1 pin Male + Female
LC2.1MO	Locking Connector 2+1 pin Male Only
LC2.1MF	Locking Connector 2+1 pin Male + Female
SMPLC.1	Sample Type Connector 2.5mm

WIRING POSITION PAGE 09

WB	Wire from Back [4]
WS	Wire from Side

WIRING LENGTH PAGE 09

100	100mm
250	250mm
3000	3,000mm [5]

IP RATING PAGE 09

IP40	Indoor Use

[1] Other CCT subject to availability.
[2] Custom colours available on request.
[3] End caps available in black or white only.
[4] Wiring from the back only available for CBL2.1OS
[5] 3000mm wiring length only available for CBL2.1OS

ACCESSORIES

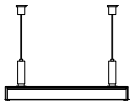
MOUNTING



PRODUCT CODE	DESCRIPTION
MC-CCLIP20	Stainless Steel C-Clip for P20 Profile
MBR-RB-TA-P20-BLK	Rotating Bracket, TYPE A Rotating Clip - Black
MBR-RB-TB-P20-BLK	Rotating Bracket, TYPE B Rotating Clip - Black
MBR-STR-ARM-70-SS	Short Outreach Adjustable Arm - Stainless Steel

[1] Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.

SUSPENSION KIT [2]



MSK-STR-SUSKIT_0-1.5M-BLK	Kit for fixtures ranging from 0m – 1.5m. (2 wires included)
MSK-STR-SUSKIT_1.6-2.5M-BLK	Kit for fixtures ranging from 1.6m – 2.5m. (3 wires included)
MSK-STR-SUSKIT_2.6-3.5M-BLK	Kit for fixtures ranging from 2.6m – 3.5m. (4 wires included)

[2] Solid Rod Suspension Kit available on request.

CONTROLLER



CTR-A2PWM 0-10V	Analogue to PWM converter for 0 – 10V dimming signal
CTR-DIMMERLOGIC	Coolon Universal Wall Dimmer with 0 – 10V and PWM Logic Output
CTR-DALI-LOGIC	Indoor DALI Point 1 channel Driver with PWM Logic Output
CTR-DALILOGIC-IP	Outdoor DALI Point 1 channel Driver with PWM Logic Output

POWER SUPPLY FOR INDOOR USE (IP67)



PWR-HLG-60H-24AU	Mean Well Power Supply HLG 60W 24V IP67
PWR-HLG-150H-24AU	Mean Well Power Supply HLG 150W 24V IP67
PWR-HLG-240H-24AU	Mean Well Power Supply HLG 240W 24V IP67
PWR-HLG-320H-24AU	Mean Well Power Supply HLG 320W 24V IP67