



RATIO IP

LED STRIP STR-RATIO IP





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

Nestled in a compact 20 x 22.5 mm extrusion, the Ratio IP is available with 6 different optics and IP66 and IK08 as standard.

POWER

11W

11W / metre



SC

AL

ML

23W

23W / metre



SC

AL

ML

COLOUR TEMPERATURE

2700K

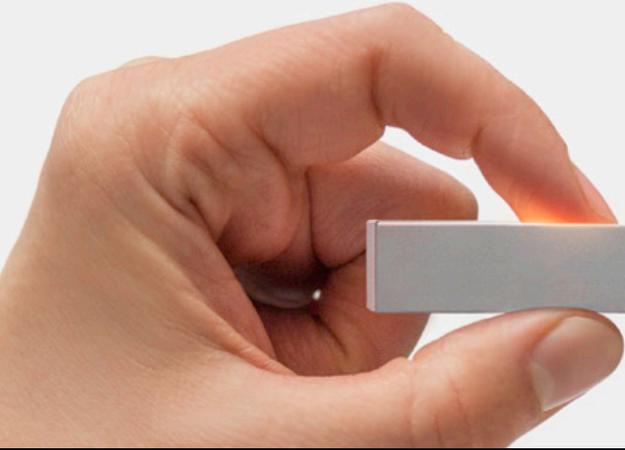
3000K

3500K

4000K

COMPACT SIZE

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



ELEGANT ENCAPSULATION

Ratio IP utilises Coolon's encapsulation technology to deliver a truly extraordinary outdoor luminaire. IP66, IK08, shock and abrasion resistance, thermal protection, and dashing good looks, all in one.



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 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 IP	
Description	Ratio IP Medium Power 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° – 110°)	
External Heatsink Required	No	
Ambient Operating Temp	Ta -40°C to 50°C	
Thermal Operating	Yes (Active)	
Reverse Polarity Protection	Yes	
Reported Lumen Maintenance TM21-11 (@ Ts = 85°C, If = 700mA)	L70 (17K) > 103,000 hours L90 (17K) > 103,000 hours Ratio IP max. operating values (@ Ts = 40°C, If = 230mA)	
IP Rating	IP66	
IK Rating	IK08	
	▪ Cable exit / entry not part of the IK Rating test	
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	770 lm/m	702 lm/m	642 lm/m
	4000K	854 lm/m	746 lm/m	693 lm/m	875 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
ML	2700K	NM	402 lm/m	NM	454 lm/m	NM	NM
	3000K	NM	447 lm/m	NM	500 lm/m	NM	NM
	4000K	NM	458 lm/m	NM	518 lm/m	NM	NM

23W 23W / Metre

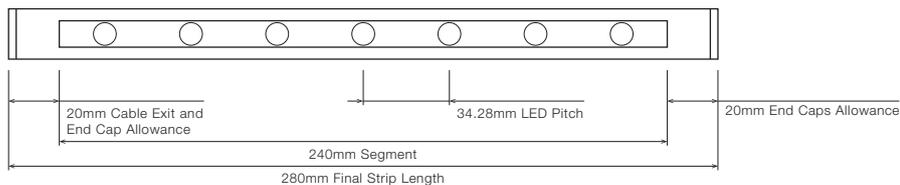
PROFILE	CCT	30D	50D	80D	O4018D	O10040D	A7030D22
SC	2700K	1,469 lm/m	1,319 lm/m	1,277 lm/m	1,409 lm/m	1,328 lm/m	1,225 lm/m
	3000K	1,616 lm/m	1,466 lm/m	1,419 lm/m	1,565 lm/m	1,475 lm/m	1,348 lm/m
	4000K	1,708 lm/m	1,504 lm/m	1,456 lm/m	1,770 lm/m	1,513 lm/m	1,397 lm/m
AL	2700K	904 lm/m	620 lm/m	495 lm/m	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
ML	2700K	NM	844 lm/m	NM	954 lm/m	NM	NM
	3000K	NM	938 lm/m	NM	1,050 lm/m	NM	NM
	4000K	NM	962 lm/m	NM	1,088 lm/m	NM	NM

NM : Lumen output NOT MEASURED

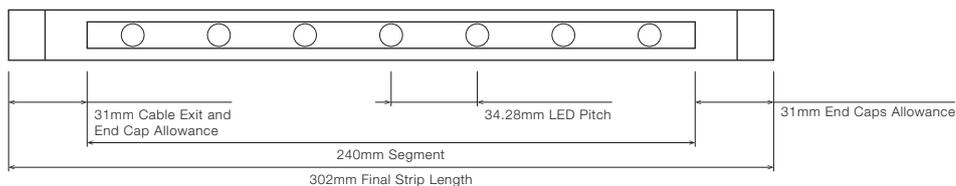
■ DIMENSIONS

For final strip lengths please refer to the "Product Length" table.

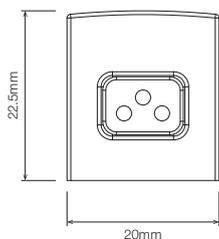
WS • Wire from Side



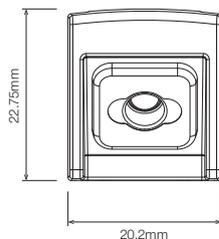
WA • Wire Angled



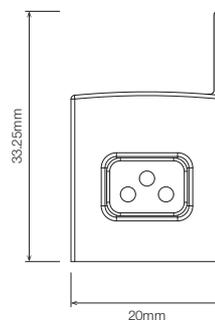
STANDARD PROFILE (WS)



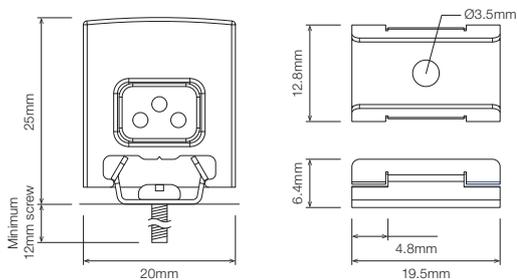
STANDARD PROFILE (WA)



WITH BAFFLE



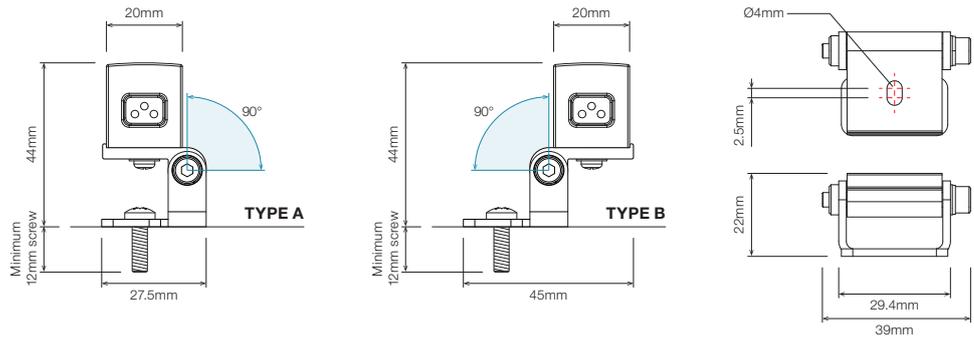
WITH STAINLESS STEEL C-CLIP¹



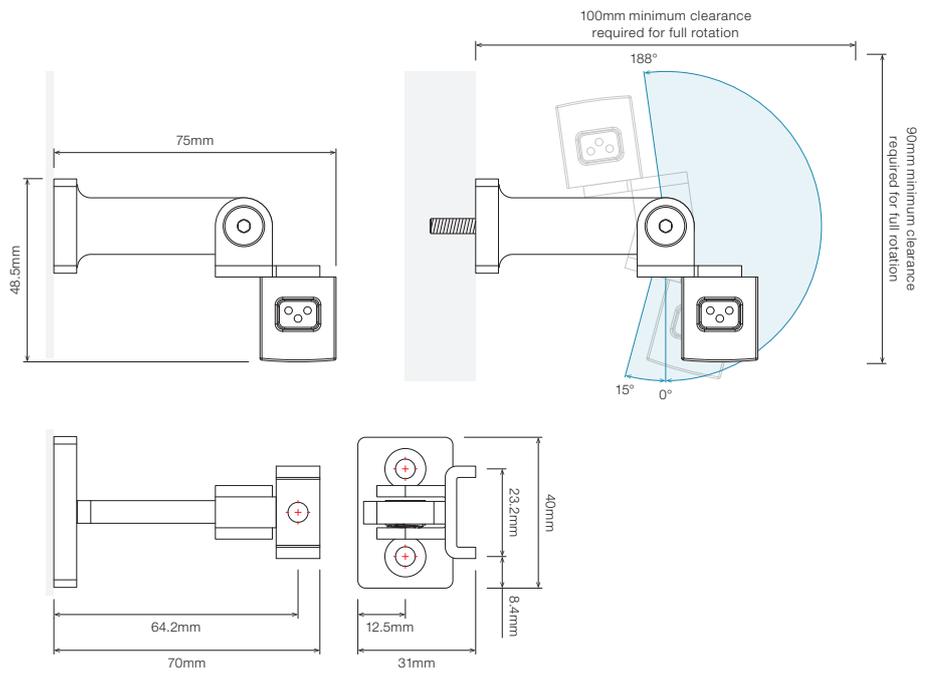
¹ Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.

■ DIMENSIONS

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



WITH SHORT OUTREACH ADJUSTABLE ARM ¹



■ PRODUCT LENGTH (WS)

FULL SEGMENTS	EXACT STRIP LENGTH	END CAP ALLOWANCE	FINAL LENGTH
S1	240mm	add 40mm	280mm
S2	480mm	add 40mm	520mm
S3	720mm	add 40mm	760mm
S4	960mm	add 40mm	1,000mm
S5	1,200mm	add 40mm	1,240mm
S6	1,440mm	add 40mm	1,480mm
S7	1,680mm	add 40mm	1,720mm
S8	1,920mm	add 40mm	1,960mm
S9	2,160mm	add 40mm	2,200mm
S10	2,400mm	add 40mm	2,440mm
S11	2,640mm	add 40mm	2,680mm
S12	2,880mm	add 40mm	2,920mm

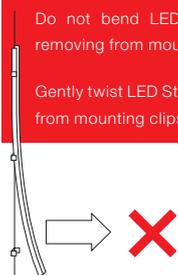
■ PRODUCT LENGTH (WA)

FULL SEGMENTS (S)	EXACT STRIP LENGTH	END CAP ALLOWANCE	FINAL LENGTH
S1_WA	240mm	add 62mm	302mm
S2_WA	480mm	add 62mm	542mm
S3_WA	720mm	add 62mm	782mm
S4_WA	960mm	add 62mm	1,022mm
S5_WA	1,200mm	add 62mm	1,262mm
S6_WA	1,440mm	add 62mm	1,502mm
S7_WA	1,680mm	add 62mm	1,742mm
S8_WA	1,920mm	add 62mm	1,982mm
S9_WA	2,160mm	add 62mm	2,222mm
S10_WA	2,400mm	add 62mm	2,462mm
S11_WA	2,640mm	add 62mm	2,702mm
S12_WA	2,880mm	add 62mm	2,942mm

⚠ WARNING

Do not bend LED strip when removing from mounting clips.

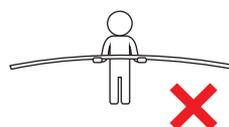
Gently twist LED Strip to remove from mounting clips.



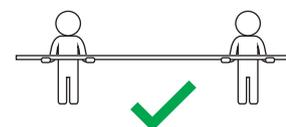
⚠ WARNING

PLEASE HANDLE LONG LED STRIPS WITH CARE.

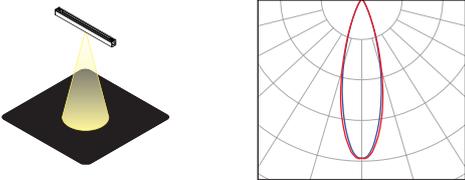
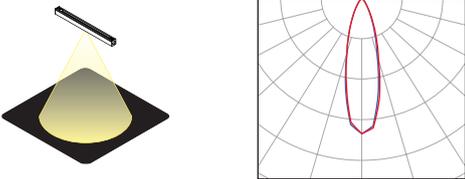
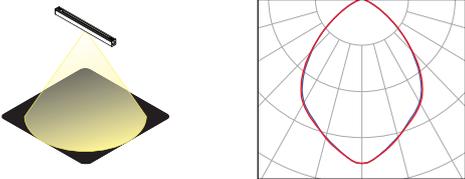
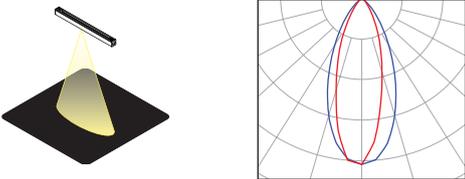
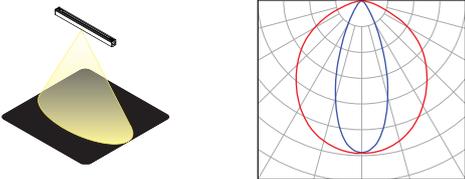
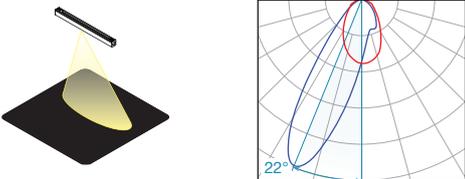
LED Strips must not be bent.



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



■ POLAR DISTRIBUTION

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

■ DIFFUSER / LOUVRE

SC - No Louvre



AL - Asymmetric Louvre



ML - Micro Louvre



■ PROFILE COLOUR

BLK - Black (Standard)



B-BLK - Black with Baffle



WHT - White



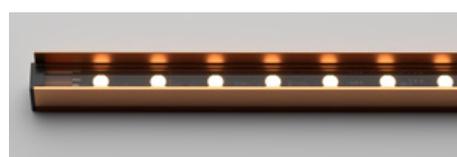
B-WHT - White with Baffle



CST - Custom Colour ¹



B-CST - Custom Colour with Baffle ¹



¹ Custom colours available on request.

WIRING CONFIGURATION

CONNECTOR TYPE	DRAWING	MALE	FEMALE
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			
FC4MO Flat Connector 2+1 pin Male Only			
FC4MF Flat Connector 2+1 pin Male + Female			
SMPLC.1 Sample Type Connector 2.5mm			

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

WIRING COLOUR CODE

	OC2.1MO / OC2.1MF	LC2.1MO / LC2.1MF	FC4MO / FC4MF
+ 24V	Red	Green	Brown and Red
- GND	Black	Black	Orange
PWM Dimming	White	White	Yellow

WIRING POSITION

WS - Wire from Side



Ideal for fittings installed individually or vertically.

WA - Wire Angled

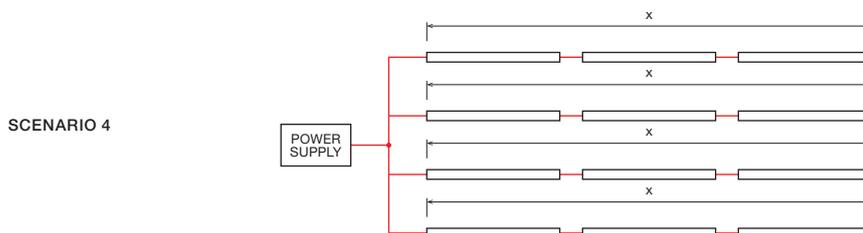
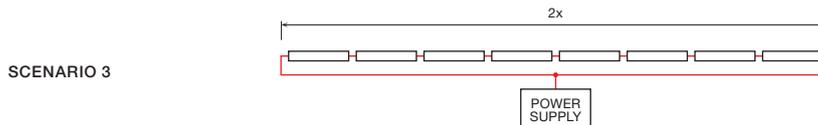
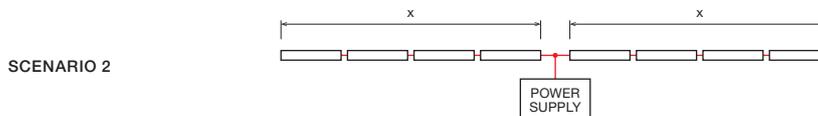
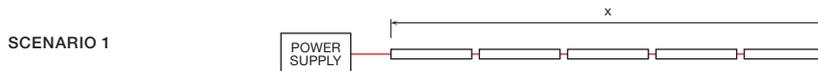


IP RATING

IP66

Fully protected against dust.
Protected against wave-like water jets from all directions.

■ INSTALLATION LIMITS



11W VERSION

MAX. CONTINUOUS CONNECTION LENGTH (X)	CONNECTOR TYPE
5,500 mm	With 2+1 pin Connectors (OC2.1MO / OC2.1MF / SMPLC.1)
9,000 mm	With 2+1 pin Locking Connectors (LC2.1MO / LC2.1MF)
11,000 mm	With 4 pin Flat Connectors (FC4MO / FC4MF)

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

23W VERSION

MAX. CONTINUOUS CONNECTION LENGTH (X)	CONNECTOR TYPE
2,500 mm	With 2+1 pin connectors (OC2.1MO / OC2.1MF / SMPLC.1)
4,500 mm	With 2+1 pin Locking Connectors (LC2.1MO / LC2.1MF)
5,500 mm	With 4 pin Flat Connectors (FC4MO / FC4MF)

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

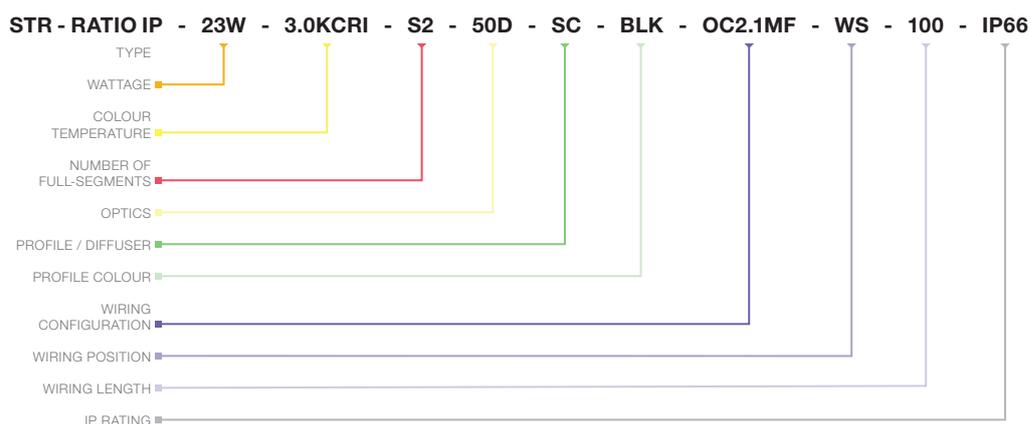
⚠ WARNING

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

✗

✗

ORDERING EXAMPLE



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 05

S1	280mm	S1_WA	302mm
S2	520mm	S2_WA	542mm
S3	760mm	S3_WA	782mm
S4	1,000mm	S4_WA	1,022mm
S5	1,240mm	S5_WA	1,262mm
S6	1,480mm	S6_WA	1,502mm
S7	1,720mm	S7_WA	1,742mm
S8	1,960mm	S8_WA	1,982mm
S9	2,200mm	S9_WA	2,222mm
S10	2,440mm	S10_WA	2,462mm
S11	2,680mm	S11_WA	2,702mm
S12	2,920mm	S12_WA	2,942mm

OPTICS PAGE 06

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 06

SC	No Louvre
AL	Asymmetric Louvre
ML	Micro Louvre

PROFILE COLOUR ² PAGE 06

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 07

OC2.1MO	Outdoor Connector 2+1 pin Male Only
OC2.1MF	Outdoor Connector 2+1 pin Male + Female
LC2.1MO	Locking Connector 2+1 pin Male Only
LC2.1MF	Locking Connector 2+1 pin Male + Female
FC4MO	Flat Connector 4 pin Male Only
FC4MF	Flat Connector 4 pin Male + Female
SMPLC.1	Sample Type Connector 2.5mm

WIRING POSITION PAGE 07

WS	Wire from Side
WA	Wire Angled

WIRING LENGTH PAGE 07

100	100mm
250	250mm

IP RATING PAGE 07

IP66	Outdoor Use
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¹ Other CCT subject to availability.

² Custom colours available on request.

³ End caps available in black or white only.

■ ACCESSORIES

	PRODUCT CODE	DESCRIPTION
MOUNTING		
	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
<p>¹ Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.</p>		
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-NEO	NEO Outdoor DALI Point 1 channel Driver with PWM Logic Output
POWER SUPPLY FOR OUTDOOR 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

■ PHOTOGRAPHY

	LOCATION	LIGHTING PARTNER	PHOTOGRAPHER
Cover Photo	Sydney Gateway Mesh Wall	Jadecross	Jackie Chan https://www.jackiechan.com.au/