



# 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 3 different optics and IP66 and IK06 as standard.

#### POWER

##### 11W

11W / metre



SC



AL

##### 23W

23W / metre



SC



AL

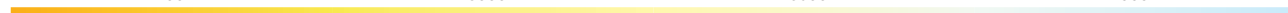
#### COLOUR TEMPERATURE

2700K

3000K

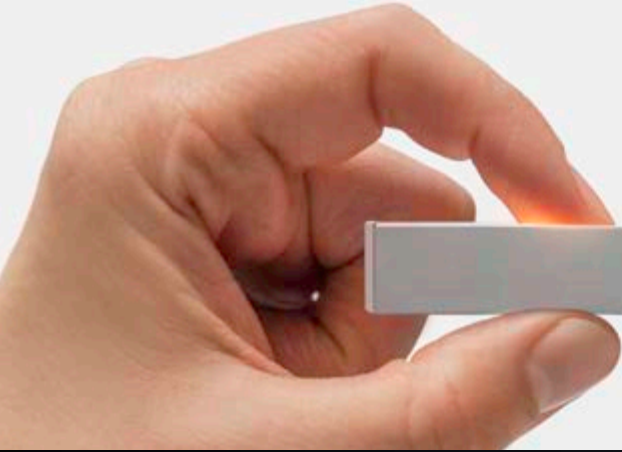
3500K

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)	90+	
Dimmable	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)	
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	IK06 – IK08 (Standard)	
	<ul style="list-style-type: none"> <li>▪ IK Rating of IK06 passed without marks to the extrusion and polyurethane material</li> <li>▪ IK Rating of IK07 and IK08 passed with minor marks to the extrusion and polyurethane material</li> <li>▪ Cable exit / entry not part of the IK Rating test</li> </ul>	
Max Continuous Connection Length	Please refer to installation limitations (Page 08)	

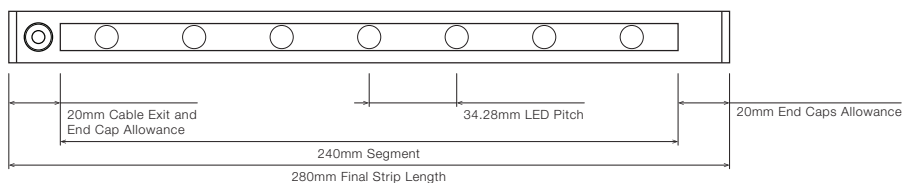
## LUMEN / METRE MATRIX

POWER	LUMINOUS FLUX			
	2700K CRI	3000K CRI	3500K CRI	4000K CRI
<b>11W</b> 11W / metre				
<b>SC Profile (50D Optics)</b>				
	NM	830 lm / metre	NM	NM
<b>SC Profile (O4018D Optics)</b>				
	NM	NM	NM	840 lm / metre
<b>23W</b> 23W / metre				
<b>SC Profile (50D Optics)</b>				
	NM	1,668 lm / metre	NM	NM
<b>SC Profile (O4018D Optics)</b>				
	NM	NM	NM	1,700 lm / metre

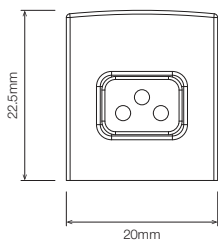
✘ : CCT / Profile combination NOT AVAILABLE    NM : Lumen output NOT MEASURED

■ DIMENSIONS

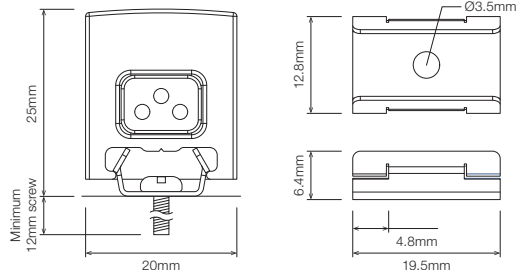
For final strip lengths please refer to the "Product Length" table.



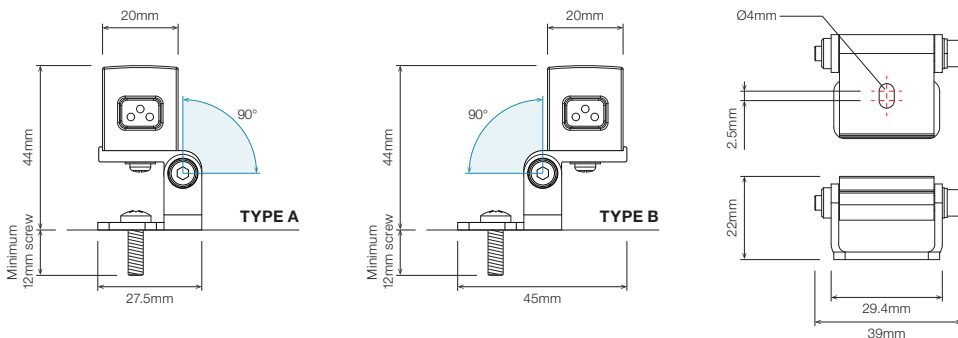
STANDARD PROFILE



WITH STAINLESS STEEL C-CLIP <sup>1</sup>



ROTATING MOUNTING BRACKET, TYPE A/B ROTATING CLIP <sup>1</sup>



<sup>1</sup> Recommended spacing between Mounting Brackets is maximum 500mm and Mounting Clips is maximum 300mm.

## PRODUCT LENGTH

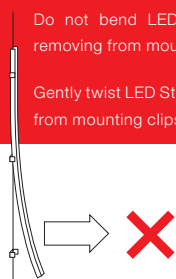
FULL SEGMENTS (S)	EXACT STRIP LENGTH	END CAP ALLOWANCE	FINAL LENGTH
1	240mm	add 40mm	280mm
2	480mm	add 40mm	520mm
3	720mm	add 40mm	760mm
4	960mm	add 40mm	1,000mm
5	1,200mm	add 40mm	1,240mm
6	1,440mm	add 40mm	1,480mm
7	1,680mm	add 40mm	1,720mm
8	1,920mm	add 40mm	1,960mm
9	2,160mm	add 40mm	2,200mm
10	2,400mm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

<sup>1</sup> Custom lengths - contact Coolon LED for more information.

### ⚠ WARNING

Do not bend LED strip when removing from mounting clips.

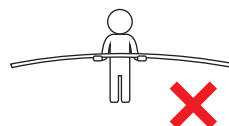
Gently twist LED Strip to remove from mounting clips.



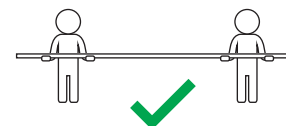
### ⚠ WARNING

PLEASE HANDLE LONG LED STRIPS WITH CARE.

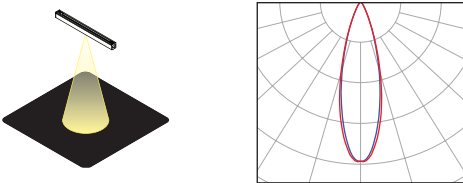
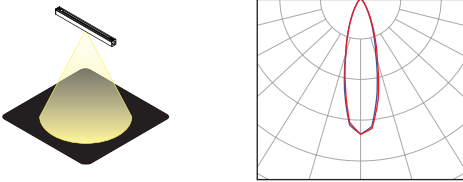
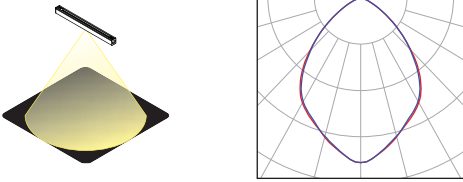
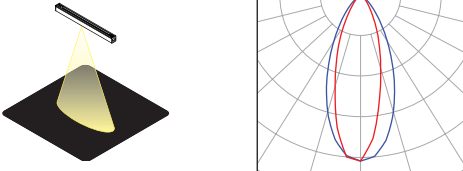
LED Strips must not be bent.



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



■ POLAR DISTRIBUTION

OPTIC	POLAR DISTRIBUTION
<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>	

■ DIFFUSER / LOUVRE

SC - No Louvre



AL - Asymmetric Louvre



■ PROFILE COLOUR

BLK - Black (Standard)



WHT - White

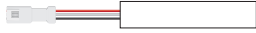








CST - Custom Colour <sup>1</sup>



<sup>1</sup> Custom colours available on request.

WIRING CONFIGURATION

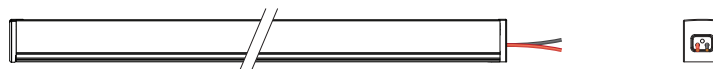
CONNECTOR TYPE	DRAWING	MALE	FEMALE
OC2.1MO Connector 2+1 pin Male Only			
OC2.1MF Connector 2+1 pin Male + Female			
SMPLC.1 Sample Type Connector 2.5mm			

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

WIRING COLOUR CODE	
Red	+ VDC
Black	GND
White	PWM Control

WIRING POSITION

WS - Wire from Side



Ideal for fittings installed individually or vertically.

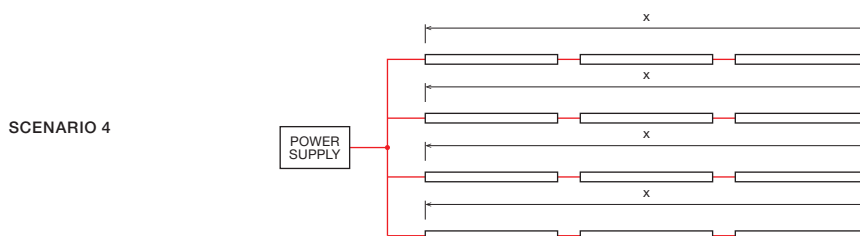
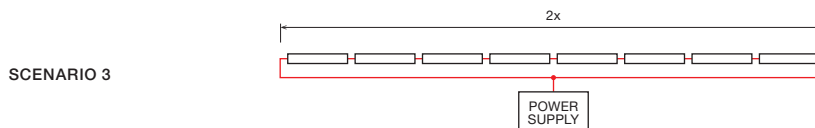
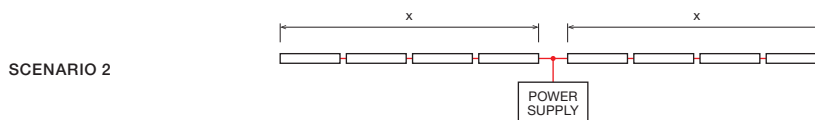
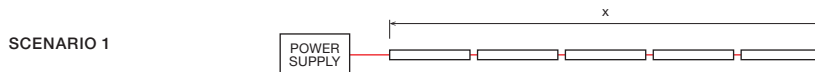
IP RATING

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

23W VERSION

MAX. CONTINUOUS CONNECTION LENGTH (X)	CONNECTOR TYPE
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2,500 mm	With 2+1 pin connectors (OC2.1MO / OC2.1MF / SMPLC.1)
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- Please consult Coolon for details on extension cable between LED fittings, drivers and power supplies.

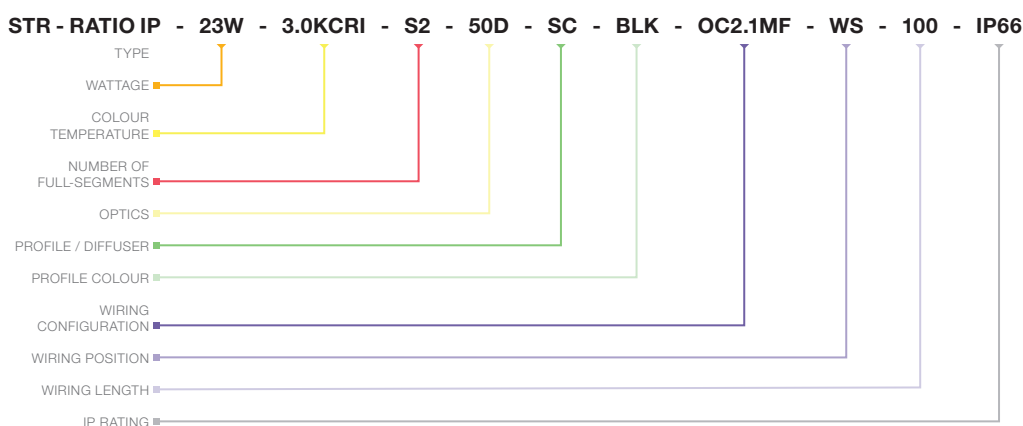
**⚠ WARNING**

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 <sup>1</sup> 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
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

OPTICS PAGE 06

30D	30° Beam
50D	50° Beam
80D	80° Beam
O4018D	Oval 40° x 18° Beam

PROFILE / LOUVRE PAGE 06

SC	No Louvre
AL	Asymmetric Louvre

PROFILE COLOUR <sup>2</sup> PAGE 06

BLK	Black (Standard)
WHT	White
CST	Custom Colour

WIRING CONFIGURATION PAGE 07

OC2.1MO	Outdoor Connector 2+1 pin Male Only
OC2.1MF	Outdoor Connector 2+1 pin Male + Female
SMPLC.1	Sample Type Connector 2.5mm

WIRING POSITION PAGE 07

WS	Wire from Side
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WIRING LENGTH PAGE 07

100	100mm
250	250mm


IP RATING PAGE 07

IP66	Outdoor Use
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
<sup>1</sup> Other CCT subject to availability.

<sup>2</sup> Custom colours available on request.


## ■ ACCESSORIES

	PRODUCT CODE	DESCRIPTION
<b>MOUNTING</b>		
	MC-CCLIP20	Stainless Steel C-Clip for P20 Profile
	MBR-RB-TA-BLK	Rotating Bracket, TYPE A Rotating Clip - Black
	MBR-RB-TB-BLK	Rotating Bracket, TYPE B Rotating Clip - Black

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

	PRODUCT CODE	DESCRIPTION
<b>CONTROLLER</b>		
	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 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