COOLON

RATIO
LED STRIP STR-RATIO

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The Ratio LED strip is our most elegant product offering that provides inspiring directional light and glare control. The Ratio is our most compact profile/product that features a broad range of optics, colour temperatures and glare control options.

The flexibility of the Ratio is further complemented with the availability of 2 wattages (11W and 23W) and various lengths. With no compromise on aesthetic it is easy to customise the perfect lighting effect for the most demanding of lighting projects.

POWER

11W 11W / metre		
	LL	HL

23W 23W / metre		
	LL	HL

COLOUR TEMPERATURE

2700K   3000K   3500K   4000K

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COMPACT SIZE

Reduced form factor can provide much freedom and simplicity to a designer. At only 20x22.5mm the 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.

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▪ TECHNICAL SPECIFICATIONS

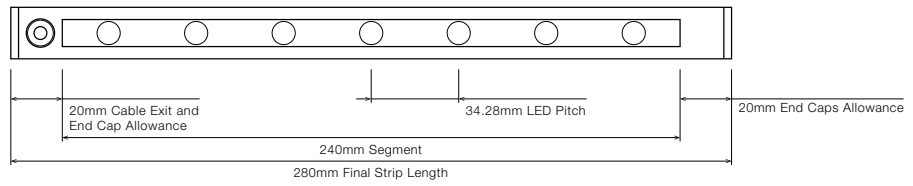|	11W VERSION	23W VERSION
Product Code	STR-RATIO	
Description	Ratio Medium Power Beam Control LED Strip	
Segment Length (S)	240mm	
Segment Width	10.50mm	
LED Pitch	34.28mm	
LEDs Per Segment	7	
Operating Voltage	24VDC	
Typical Power Consumption per Segment	2.5W per 240mm Segment	5.3W per 240mm Segment
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 -10°C to 50°C	
Thermal Operating	Yes (Active)	
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 (Page 09)	

▪ COLOUR BINNING
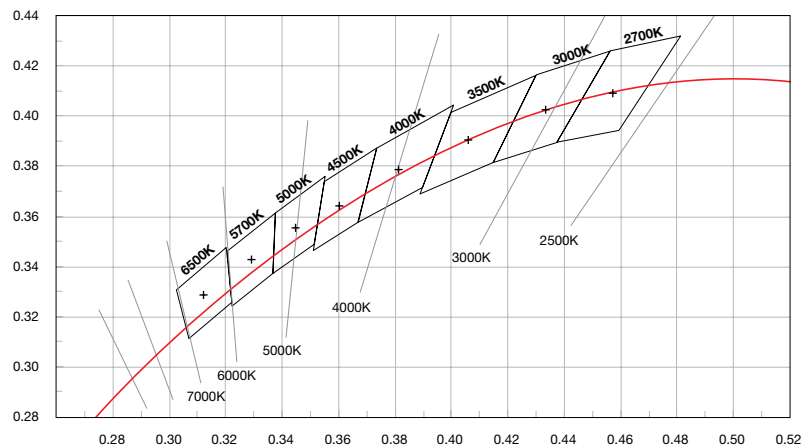
▪ LUMEN / METRE MATRIX

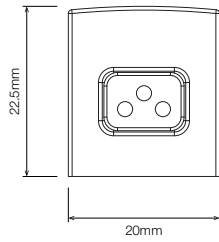| POWER	LUMINOUS FLUX			
11W 11W / metre	2700K CRI	3000K CRI	3500K CRI	4000K CRI
LL Profile (L15 Optics)	506 lm / metre	517 lm / metre	NM	528 lm / metre
LL Profile (L25 Optics)	539 lm / metre	550 lm / metre	NM	561 lm / metre
LL Profile (O209 Optics)	418 lm / metre	429 lm / metre	NM	440 lm / metre
HL Profile (L15 Optics)	561 lm / metre	572 lm / metre	NM	583 lm / metre
HL Profile (L25 Optics)	616 lm / metre	627 lm / metre	NM	638 lm / metre
HL Profile (O209 Optics)	440 lm / metre	451 lm / metre	NM	462 lm / metre
23W 23W / metre				
LL Profile (L15 Optics)	1,035 lm / metre	1,058 lm / metre	NM	1,081 lm / metre
LL Profile (L25 Optics)	1,104 lm / metre	1,127 lm / metre	NM	1,150 lm / metre
LL Profile (O209 Optics)	828 lm / metre	881 lm / metre	NM	874 lm / metre
HL Profile (L15 Optics)	1,150 lm / metre	1,173 lm / metre	NM	1,196 lm / metre
HL Profile (L25 Optics)	1,265 lm / metre	1,288 lm / metre	NM	1,311 lm / metre
HL Profile (O209 Optics)	1,035 lm / metre	1,065 lm / metre	NM	1,081 lm / metre

NOTE: Extrapolated lumen output per metre.

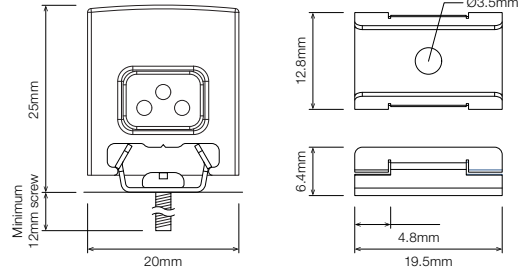✖ : CCT / Profile combination NOT AVAILABLE   NM : Lumen output NOT MEASURED

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▪ DIMENSIONS

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

20mm Cable Exit and
End Cap Allowance

34.28mm LED Pitch

20mm End Caps Allowance

240mm Segment

280mm Final Strip Length

STANDARD PROFILE

22.5mm

20mm

WITH STAINLESS STEEL C-CLIP

25mm

Minimum 12mm screw

20mm

Ø3.5mm

12.8mm

6.4mm

4.8mm

19.5mm

WITH ROTATING CLIP

+/– 90° Rotation

45mm Minimum clearance

Minimum 12mm screw

40mm Minimum clearance

12mm

33mm

37mm

WITH SUSPENSION KIT

3000mm (adjustable)

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▪ 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.

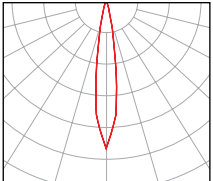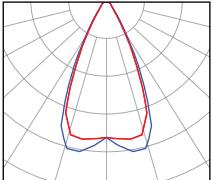Gently twist LED Strip to remove from mounting clips.

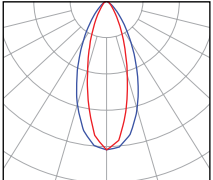⚠ **WARNING**

PLEASE HANDLE LONG LED STRIPS WITH CARE.

LED Strips must not be bent.

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

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▪ POLAR DISTRIBUTION

OPTIC	BEAM ANGLE	POLAR DISTRIBUTION
L15	25° – 30° Beam	
L25	42° – 50° Beam	
O209	Oval 40° x 18° Beam	

▪ DIFFUSER / LOUVRE

LL · Longitudinal Louvre

HL · Honeycomb Louvre

▪ PROFILE COLOUR

BLK · Black (Standard)

WHT · White
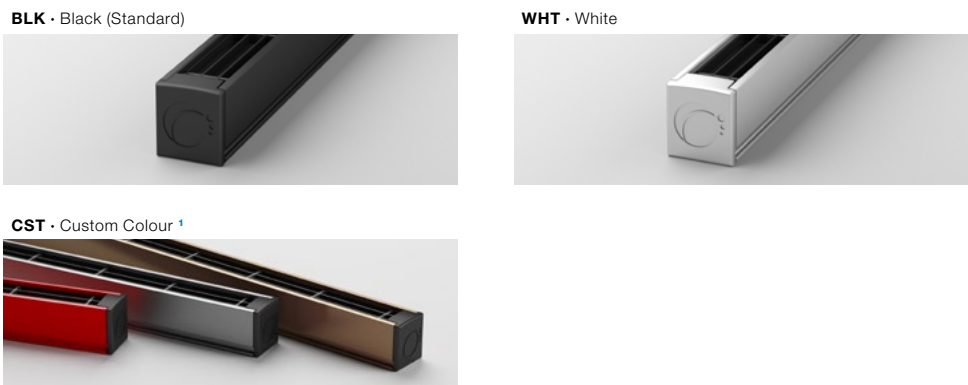
CST · Custom Colour [1]

[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		▥	▦
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	
Red	+ VDC
Black	GND
White	PWM Control

▪ WIRING POSITION

WB - Wire from back
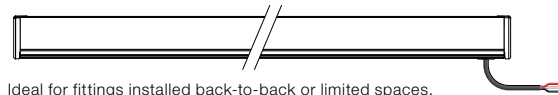
Ideal for fittings installed back-to-back or limited spaces.

WS - Wire from Side
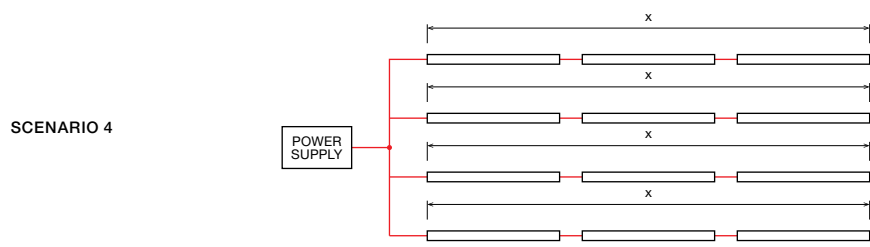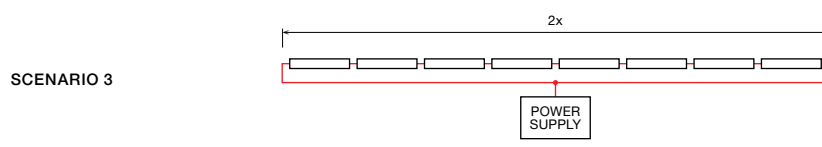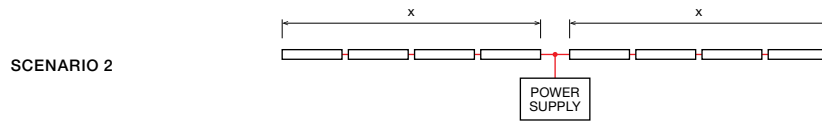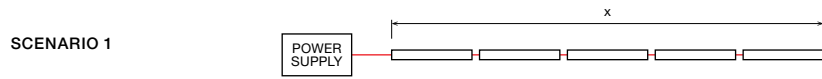
Ideal for fittings installed individually or vertically.

▪ IP RATING

IP40

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

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▪ 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 / 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 / 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.

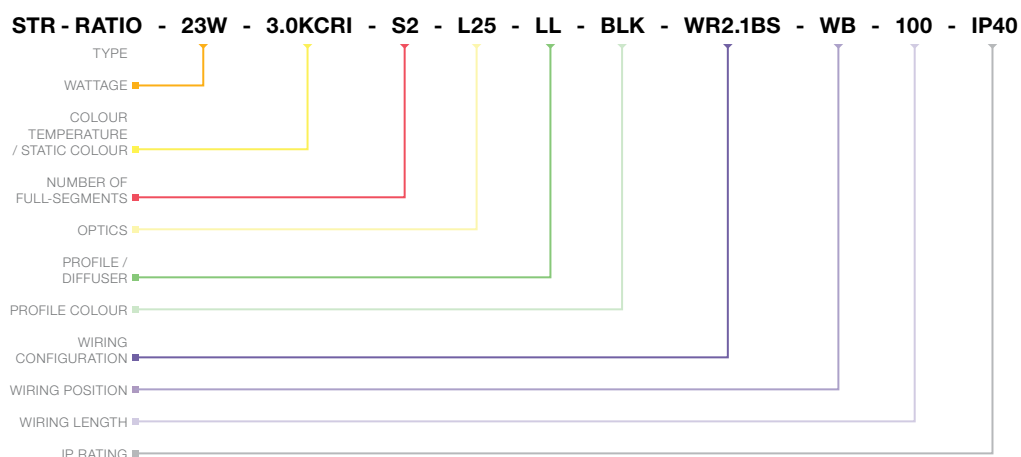## ⚠ WARNING

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

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■ ORDERING EXAMPLE

STR - RATIO - 23W - 3.0KCRI - S2 - L25 - LL - BLK - WR2.1BS - WB - 100 - IP40

TYPE
WATTAGE
COLOUR TEMPERATURE / STATIC COLOUR
NUMBER OF FULL-SEGMENTS
OPTICS
PROFILE / DIFFUSER
PROFILE COLOUR
WIRING CONFIGURATION
WIRING POSITION
WIRING LENGTH
IP RATING

■ 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

L15	25° – 30° Beam
L25	42° – 50° Beam
O209	Oval 40° x 18° Beam

■ PROFILE / LOUVRE PAGE 07

LL	Longitudinal Louvre
HL	Honeycomb Louvre

■ PROFILE COLOUR [2] PAGE 07

BLK	Black (Standard)
WHT	White
CST	Custom Colour [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
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

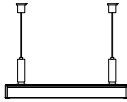[1] Other CCT subject to availability.

[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

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▪ ACCESSORIES

	PRODUCT CODE	DESCRIPTION
MOUNTING		
	MC-CCLIP20	Stainless Steel C-Clip for P20 Profile
	MC-STR-P20R-BLK	Rotating Clip Mount for P20 Profile - Black
	MC-STR-P20R-WHT	Rotating Clip Mount for P20 Profile - White

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

	PRODUCT CODE	DESCRIPTION
SUSPENSION KIT		
	MSK-STR-3000-0CG-BLK	Suspension Kit, 3000mm Wire, No Cable Grip, Black
	MSK-STR-3000-1CG-BLK	Suspension Kit, 3000mm Wire, 1 Cable Grip, Black
	MSK-STR-3000-2CG-BLK	Suspension Kit, 3000mm Wire, 2 Cable Grips, Black

[2] Minimum of 2 suspensions required per fitting or maximum of 3 per long fitting

	PRODUCT CODE	DESCRIPTION
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

	PRODUCT CODE	DESCRIPTION
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

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