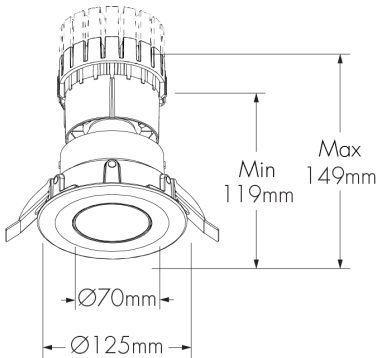
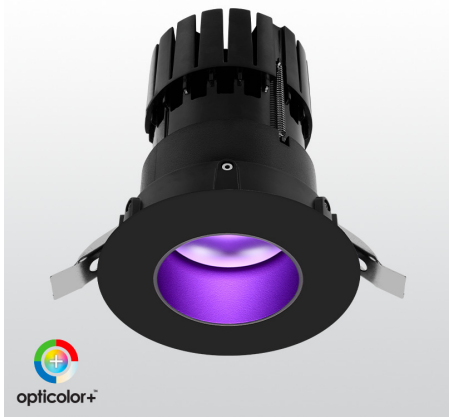


Project Name

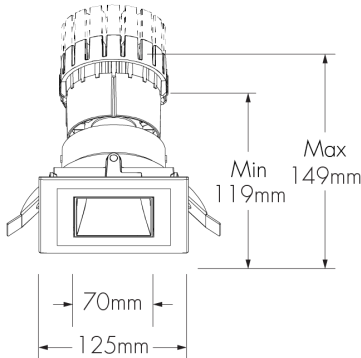
Qty

Type

Catalog / Part Number



Round trim
(Shown with 25 mm in ceiling springs)
Round trim ceiling cutout: Ø114 mm



Square trim
(Shown with 25 mm in ceiling springs)
Square trim ceiling cutout: 114 mm x 114 mm

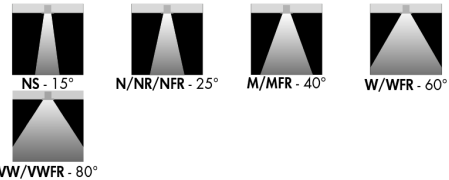
Photometric Summary

Based on Medium Faceted Reflector Optic (Nominal 40°), MRGBWP in Optidrive™ (White 3000K 96 CRI)

Nominal Output [lm]	Delivered Output [lm] ^[1]	Power (120V) [W]	Efficacy [lm/W]
700	404	11	37
1000	652	16	41
1300	898	23	39
2000	1,185	32	37

[1] Consult website for latest LTD files.

Optics



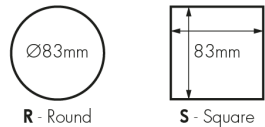
Colour and Colour Temperature



Colour Rendering

CRI
90+

Ceiling Cutout Shapes



Decorative Bezel (Round Trim)



PB - Pinhole

Decorative Bezel (Square Trim)



PB - Pinhole

Standard Finishes for Decorative Bezel

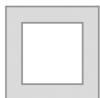


MBK - Matte black

Trim Shapes



PR - Pinhole
round



PS - Pinhole
square



PSR - Pinhole square
round hole

Standard Finishes for Trim



MWH - Matte white



MBK - Matte black



NKS - Nickel satin



CC - Custom colour
and finish
(specify 4-digit
RAL K7 colour)



SP - Special colour
(choose from colour
palette in complete
specification sheet)

Rating

IP20

Control

DMX/RDM

Certifications



Optics (Nominal Distribution)

NS: Narrow Spot Distribution 15°
N: Narrow Distribution 25°
NR: Narrow Reflector 25°
NFR: Narrow Facetted Reflector 25°
M: Medium Reflector 40°
MFR: Medium Facetted Reflector 40°
W: Wide Reflector 60°
WFR: Wide Facetted Reflector 60°
VW: Very Wide Reflector 80°
VWFR: Very Wide Facetted Reflector 80°

Decorative Bezel Finish

MBK: Matte Black

Trim Finish

MWH: Matte White
MBK: Matte Black
NKS: Nickel Satin
CC: Custom colour Trim (specify 4-digit RAL K7 colour)
SP: Special colour (choose from colour palette in complete specification sheet)

Certifications

CE compliant, RoHS

Warranty

5-year limited warranty

Performance

Delivered Output

Up to 1,185 lm
Narrow Facetted Reflector Optic 25°, MRGBWP Optidrive™ Enabled (White 3000K CRI 95+, DMX/RDM)
Up to 1,238 lm
Narrow Facetted Reflector Optic 25°, MRGBWP Optidrive™ Enabled (White 4000K CRI 95+, DMX/RDM)

Delivered Intensity

Up to 5,410 cd
Narrow Spot Optic 15°, MRGBWP Optidrive™ Enabled (White 3000K CRI 95+, DMX/RDM)
Up to 5,648 cd
Narrow Spot Optic 15°, MRGBWP Optidrive™ Enabled (White 4000K CRI 95+, DMX/RDM)

Colour Consistency

3 SDCM (in white light colour temperatures)

Colour Rendering

90: CRI 90+ (White Light Only)

Lumen Maintenance

L95 55,000 hrs (Ta 25 °C)

Electrical and Control

Voltage

220/240: 220-240 volts

Wattage Range

11W to 32W (wattage will vary based on voltage, output and optic, refer to Power Consumption table for details)

Control

DMX/RDM: DMX/RDM (Configurable to 3, 4, or 5 channel control via RDM in the field)

Environmental

Ingress Protection Rating

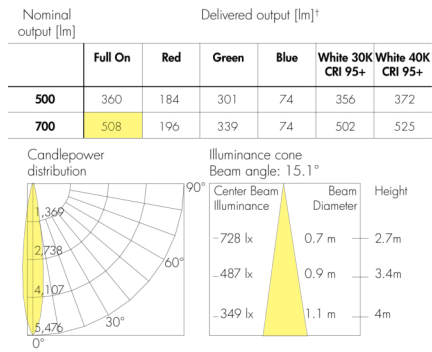
IP20

Operating Temperature (Ceiling Cavity Ambient Temperature)

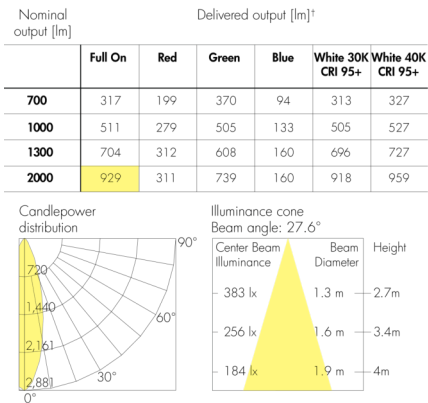
-20 °C to 40 °C

Photometric Information

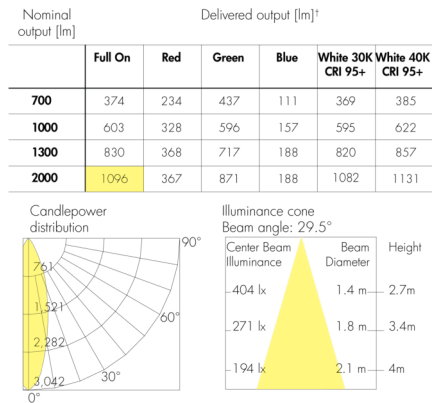
NS - Narrow Spot (Nominal 15°), 4000K



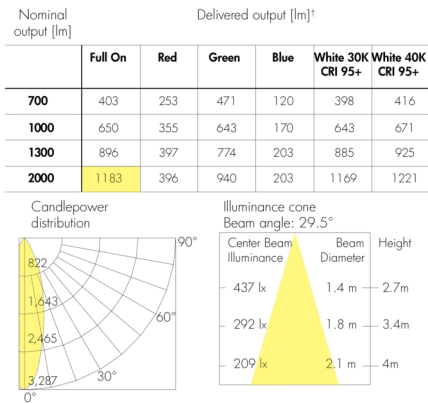
N - Narrow (Nominal 20°), 4000K



NR - Narrow Reflector (Nominal 25°), 4000K



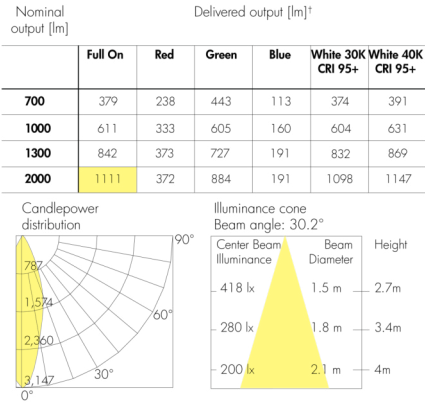
NFR - Narrow Facetted Reflector (Nominal 25°), 4000K



Photometric information is based on a factory-set Optidrive™ mode configuration.

† Consult website for LDT files. Delivered output: +/- 10% tolerance.
Consult Power Consumption section for wattage information.

M - Medium Reflector (Nominal 40°), 4000K

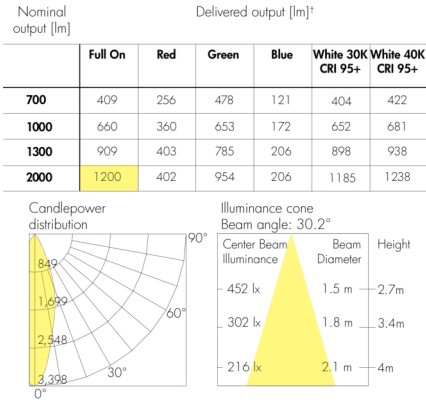


Candlepower distribution

Beam angle: 30.2°

Height	Center Beam Illuminance	Beam Diameter
2.7m	418 lx	1.5 m
3.4m	280 lx	1.8 m
4m	200 lx	2.1 m

MFR - Medium Facetted Reflector (Nominal 40°), 4000K [1]

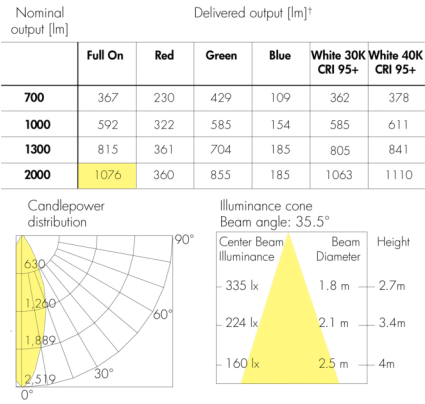


Candlepower distribution

Beam angle: 30.2°

Height	Center Beam Illuminance	Beam Diameter
2.7m	452 lx	1.5 m
3.4m	302 lx	1.8 m
4m	216 lx	2.1 m

W - Wide (Nominal 60°), 4000K

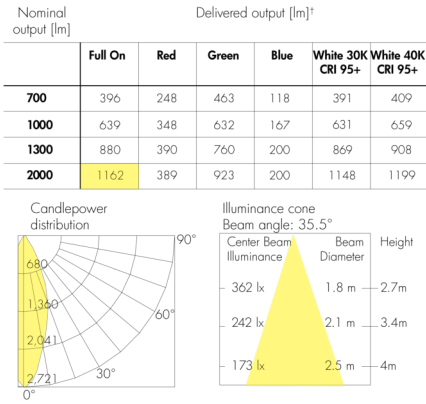


Candlepower distribution

Beam angle: 35.5°

Height	Center Beam Illuminance	Beam Diameter
2.7m	335 lx	1.8 m
3.4m	224 lx	2.1 m
4m	160 lx	2.5 m

WFR - Wide Facetted Reflector (Nominal 60°), 4000K

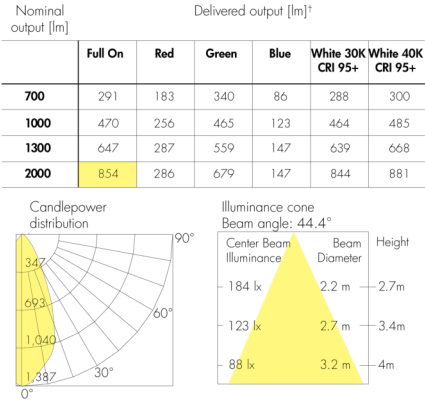


Candlepower distribution

Beam angle: 35.5°

Height	Center Beam Illuminance	Beam Diameter
2.7m	362 lx	1.8 m
3.4m	242 lx	2.1 m
4m	173 lx	2.5 m

VW - Very Wide Reflector (Nominal 80°), 4000K

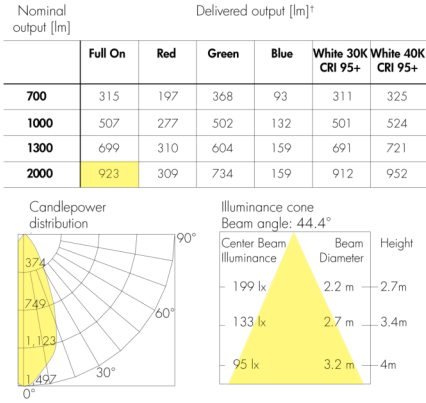


Candlepower distribution

Beam angle: 44.4°

Height	Center Beam Illuminance	Beam Diameter
2.7m	184 lx	2.2 m
3.4m	123 lx	2.7 m
4m	88 lx	3.2 m

VWFR - Very Wide Facetted Reflector (Nominal 80°), 4000K



Candlepower distribution

Beam angle: 44.4°

Height	Center Beam Illuminance	Beam Diameter
2.7m	199 lx	2.2 m
3.4m	133 lx	2.7 m
4m	95 lx	3.2 m

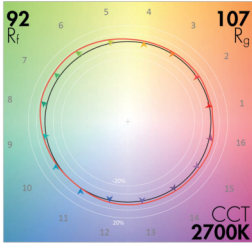
Photometric information is based on a factory-set Optidrive™ mode configuration.

† Consult website for LDT files. Delivered output: +/- 10% tolerance.
Consult Power Consumption section for wattage information.

TM-30

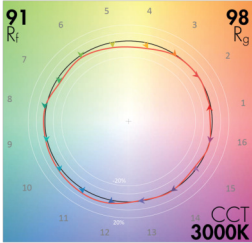
2700K - CRI 90+

CRI 90+				
CCT	CIE		TM-30	
2700K	R _a	90	92	R _f
	R ₉	76	107	R _g



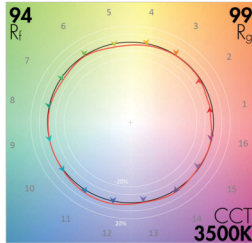
3000K - CRI 90+

CRI 90+				
CCT	CIE		TM-30	
3000K	R _a	96	91	R _f
	R ₉	94	98	R _g



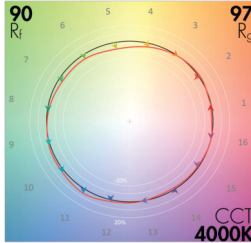
3500K - CRI 90+

CRI 90+				
CCT	CIE		TM-30	
3500K	R _a	97	94	R _f
	R ₉	83	99	R _g



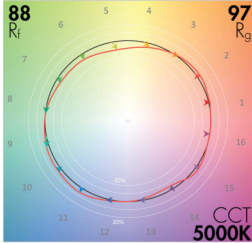
4000K - CRI 90+

CRI 90+				
CCT	CIE		TM-30	
4000K	R _a	95	90	R _f
	R ₉	97	97	R _g



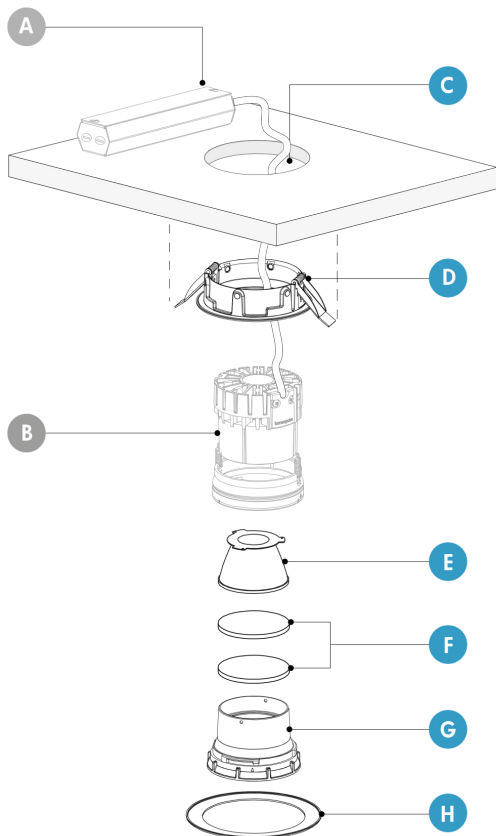
5000K - CRI 90+

CRI 90+				
CCT	CIE		TM-30	
5000K	R _a	91	88	R _f
	R ₉	78	97	R _g



Refer to TM-30 Reference Guide for details.

Exploded Overview - Part Selection



- Standard parts
- A - Ceiling driver box
- B - Lumencore body (heatsink, universal fixing ring, LED module)
- Customizable Parts
- C - Ceiling cutout shape (round or square)
- D - Ceiling mounting ring (round or square, based on ceiling cutout selection)
- E - Optic*
- F - Optical accessory (up to two optical accessories can be combined in the fixture, field changeable)
- G - Decorative bezel**
- H - Trim (round or square, based on ceiling ring selection)**
- *Field changeable. Consult Interchangeable Optics section of the specification sheet for details. Consult factory for ordering details.
- **Field changeable, consult installation instructions for details. Consult factory for ordering details.

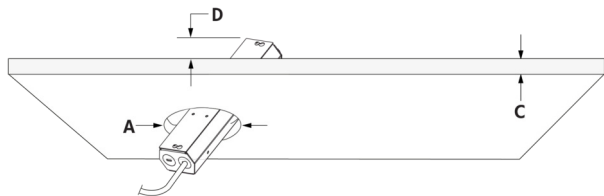
Ceiling Requirements

Ceiling Cavity Space Requirements (Length x Width x Height)

Installation type	Control	Output/Colour Rendering				
		L05	L07	L10	L13	L20
		CR90				
External re-model box wired to luminaire	DMX/RDM	305mm x 305mm x 210mm				

Above dimensions include any keep out requirements for proper airflow and thermal cooling.

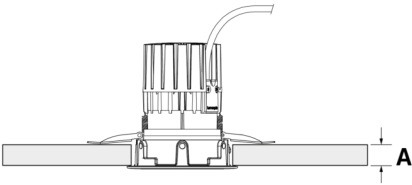
Ceiling Cutout



- A - Ceiling cutout: Ø114 mm
- B - Ceiling cutout: 114 mm x 114 mm
- C - Maximum ceiling thickness: 51 mm
- D - Minimum ceiling height: refer to Ceiling Cavity Space Requirements table

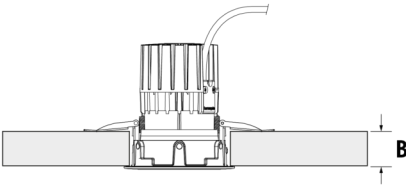
Ceiling Thickness Options

Ceiling Thickness 1



A - Ceiling thickness range: 1 mm to 25 mm

Ceiling Thickness 2



B - Ceiling thickness range: 27 mm to 51 mm

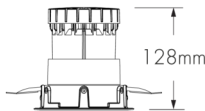
Ceiling springs are field changeable, consult installation instructions and factory for details.

Lumen Output and Heatsink Height

Optic	Short Heatsink	Tall Heatsink
	Lumen Output	
NS, NSR, NSFR	L05	L07
N, NR, NFR, M, MFR, W, WFR, VV, VVFR	L07, L10, L13	L20

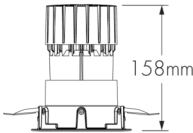
Dimensions

Short Heatsink



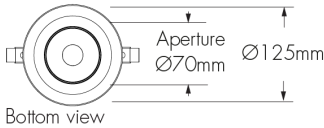
Front view

Tall Heatsink



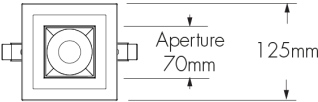
Front view

RD - Round Shape, Round Trim



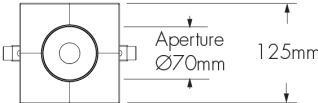
Bottom view

SQ - Square Shape, Square Trim



Bottom view

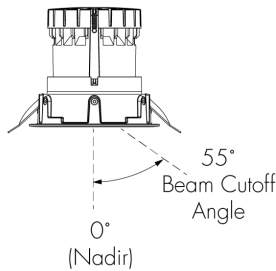
SR - Square Shape, Round Hole



Bottom view

Beam Cutoff Angle

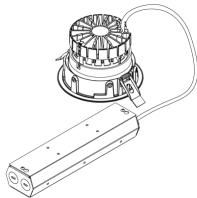
PB - Pinhole



Front view

Configurations

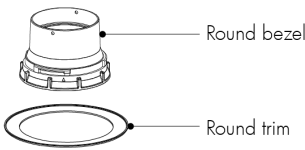
MRGBWP



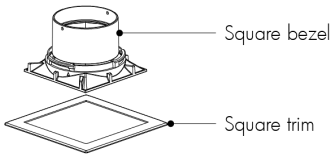
External re-model box wired to luminaire.

Ceiling Cutout Shape Options

RD - Round Ceiling Cutout



SQ - Square Ceiling Cutout



Decorative Bezel Options

RD - Compatible Round Decorative Bezels



SQ - Compatible Square Decorative Bezels



Standard Finishes - Decorative Bezels



MBK - Matte black

Trim Shape Options

RD - Compatible Round Trim Shapes



PR - Pinhole round



PSR - Pinhole square trim with round hole

SQ - Compatible Square Trim Shapes



PS - Pinhole square

Standard Finishes - Trims



MWH - Matte white



MBK - Matte black



NKS - Nickel satin



CC - Custom colour*



SP - Special colour**

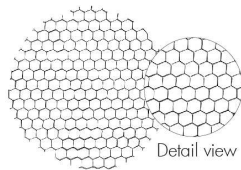
*Custom colour: specify 4-digit RAL K7 colour.
**Special colour: choose one of the colours from the special colours palette for decorative bezels and trims. Contact manufacturer for additional information.

SP - Special Colours (Palette For Trims)

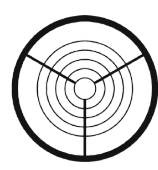
							
MBR - Matte brown	MOR - Matte orange	MGR - Matte green	MBL - Matte blue	MSI - Matte silver	GWH - Glossy white	GBK - Glossy black	GYL - Glossy yellow
							
GLR - Glossy red	GVI - Glossy violet	GGR - Glossy green	GIY - Glossy ivory	CGY - Concrete grey	MLG - Metalized grey	IBR - Italian brick red	PWH - Parget white

Optical Accessories

HL - Honeycomb Louver



XLVR - Concentric Ring Louver



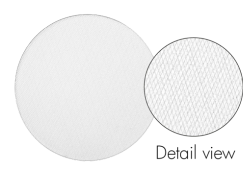
CL - Clear Glass Lens



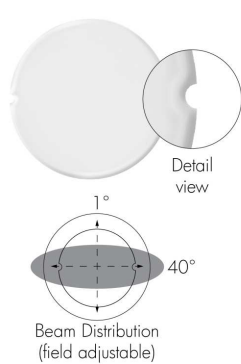
SL - Softening Glass Lens



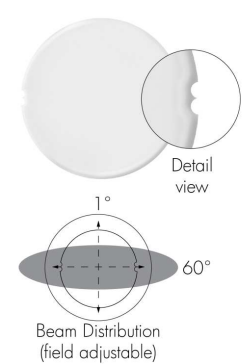
PD - Prismatic Diffuser



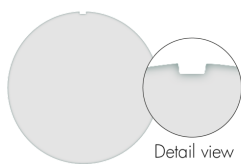
LSN - Linear Spread Lens Narrow (1° x 40°)



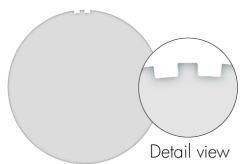
LSW - Linear Spread Lens Wide (1° x 60°)



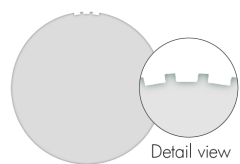
BW1 - Beam Widening Lens (+10°)



BW2 - Beam Widening Lens (+20°)



BW3 - Beam widening lens (+30°)



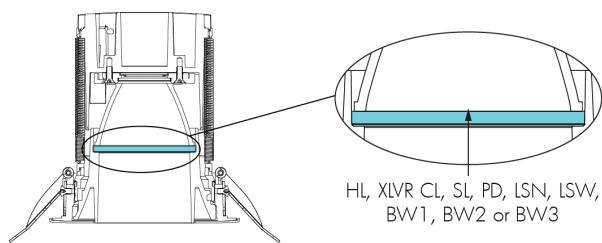
Refer to Beam Widening Lens table for beam distribution based on optic installed in the fixture.

Refer to Beam Widening Lens table for beam distribution based on optic installed in the fixture.

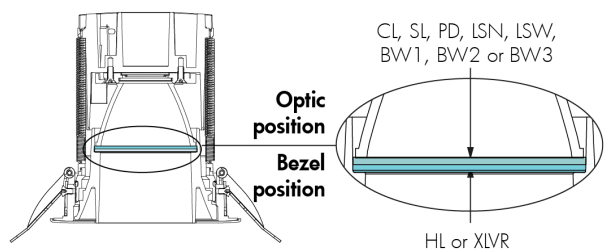
Refer to Beam Widening Lens table for beam distribution based on optic installed in the fixture.

Optical Accessories - Installation Options (Field Changeable)

One Optical Accessory Installed



Two Optical Accessories Installed



Accessories specified in the fixture code will ship from the factory in the position shown above.

Optics

TIR Optic - Total Internal Reflection



Applicable to NS (15°) and N (25°) distributions.

Semi-Specular Reflector



Applicable to NR (25°), M (40°), W (60°) and VW (80°) distributions.

Facetted Reflector



Applicable to NFR (25°), MFR (40°), WFR (60°) and VWFR (80°) distributions.

Beam Widening Lenses

	Optic installed in fixture									
	NS 15°	N 25°	NR 25°	NFR 25°	M 40°	MFR 40°	W 60°	WFR 60°	VW 80°	VWFR 80°
BW1	17°	30°	30°	30°	41°	41°	61°	61°	81°	81°
BW2	24°	34°	34°	34°	45°	45°	63°	63°	82°	82°
BW3	33°	41°	41°	41°	50°	50°	67°	67°	85°	85°

The above beam angles are nominal beam angles.
Variations in beam angles can be seen due to different LES sizes. For exact beam calculations please consult factory.
Beam widening lenses should not be used with other accessories with the nominal results above.

Interchangeable Optics

	Optic installed in fixture					
	NS 15°	N 25°	NR 25°	M 40°	W 60°	VW 80°
Interchangeable optics	N/A	NR	N	N	N	N
		NFR	NFR	NR	NR	NR
		M	M	NFR	NFR	NFR
		MFR	MFR	MFR	M	M
		W	W	W	MFR	MFR
		WFR	WFR	WFR	WFR	W
		VW	VW	VW	VW	WFR
		VWFR	VWFR	VWFR	VWFR	VWFR
			NFR 25°	MFR 40°	WFR 60°	VWFR 80°
			N	N	N	N
			NR	NR	NR	NR
			M	NFR	NFR	NFR
			MFR	M	M	M
			W	W	MFR	MFR
			WFR	WFR	W	W
			VW	VW	VW	WFR
			VWFR	VWFR	VWFR	VW

The optic options listed above are field changeable. Consult factory and installation instructions for details.

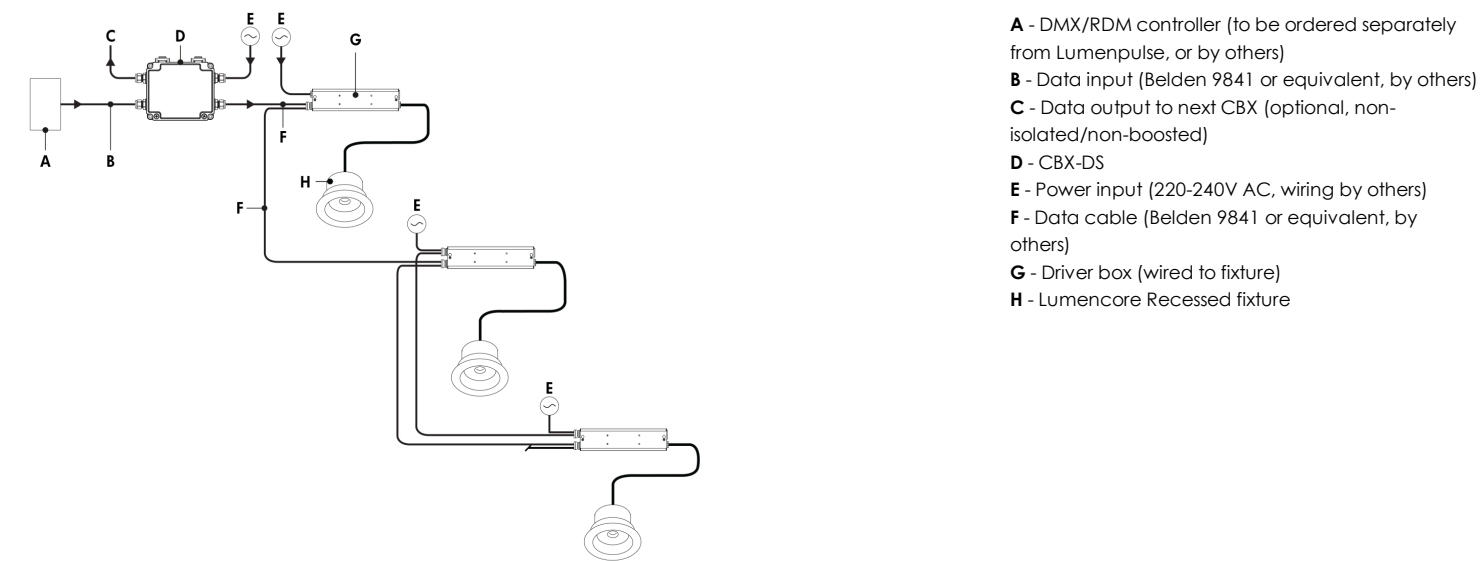
Power Consumption

Output [lm]	Power consumption [W]	
	NS (15°)	N (25°) - NR (25°) - NFR (25°) - M (40°) - MFR (40°) W (60°) - WFR (60°) - VW (80°) - VWFR (80°)
500	14	N/A
700	21	11
1000	N/A	16
1300	N/A	23
2000	N/A	32

Power Consumption values are based on a MRGBWP Full On configuration.

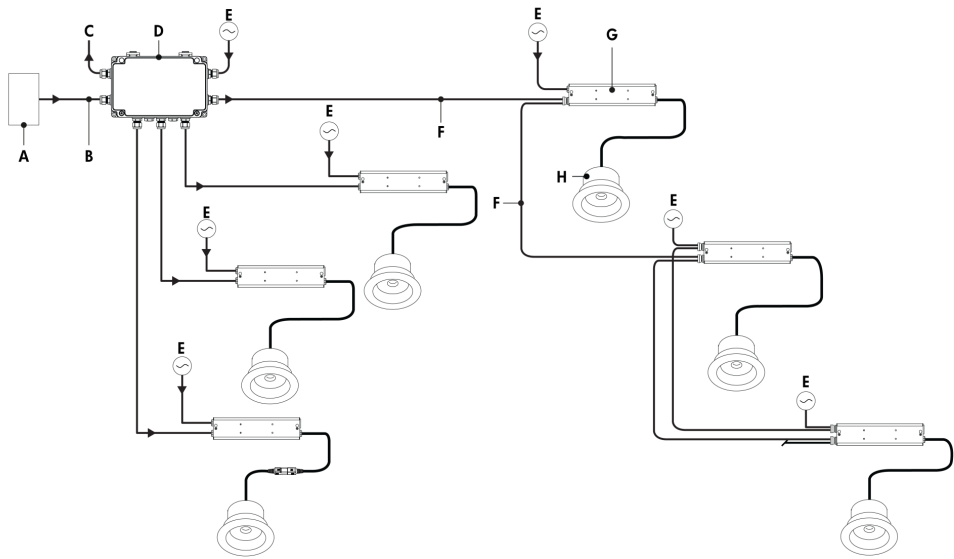
Typical Wiring Diagrams

Daisy Chain Layout (DMX/RDM)



The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
Maximum of 1 output per CBX-DS.
Each fixture requires 3, 4, or 5 DMX addresses depending on control mode selected onsite.
DMX terminator is required at the end of each run to maintain data integrity. Two (2x) DMX lumenterminators included per CBX-DS. See installation instructions for details.

Star Layout (DMX/RDM)



- A - DMX/RDM controller (to be ordered separately from Lumenpulse, or by others)
- B - Data input (Belden 9841 or equivalent, by others)
- C - Data output to next CBX (optional, non-isolated/non-boosted)
- D - CBX-ST
- E - Power input (220-240V AC, wiring by others)
- F - Data cable (Belden 9841 or equivalent, by others)
- G - Driver box (wired to fixture)
- H - Lumencore Recessed fixture

The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
Maximum of 6 outputs per CBX-ST.
Each fixture requires 3, 4, or 5 DMX addresses depending on control mode selected onsite.
DMX terminator is required at the end of each run to maintain data integrity. Six (6x) DMX lumenterminators included per CBX-ST. See installation instructions for details.

How to Order

Housing ⁽¹⁾	Certification	Type	Voltage	Cutout	Output (Nominal Lumens)	Colour and Colour Temperature	Colour Rendering	Optics (Nominal Distribution)	Control
LCRS Lumencore Recessed Small - 102 mm	B CE	P Pinhole	220/240 220-240 volts	R Round S Square	L05 500 lm ⁽²⁾ L07 700 lm L10 1000 lm ⁽³⁾ L13 1300 lm ⁽³⁾ L20 2000 lm ⁽³⁾	MRGBWP MRGBW With Opticolor+ ⁽⁴⁾	90 CRI 90+ (White Light Only) ⁽⁴⁾	NS Narrow Spot Distribution 15° ⁽⁵⁾ N Narrow Distribution 25° NR 25° Reflector NFR 25° Facetted Reflector M 40° Reflector MFR 40° Facetted Reflector W 60° Reflector ⁽⁶⁾ WFR 60° Facetted Reflector ⁽⁶⁾ VW 80° Reflector ⁽⁶⁾ VWFR 80° Facetted Reflector ⁽⁶⁾	DMX/RDM DMX/RDM (Configurable to 3, 4, or 5 channel control via RDM in the field) ⁽⁷⁾ ⁽⁸⁾ ⁽⁹⁾

Notes:

1. Refer to website product configurator for all exceptions.

2. Available for NS optic only.

3. Available for N, NR, NFR, M, MFR, W, WFR, VW and VWFR optics only.

4. CRI 90 applies only to white light colour temperatures from 2700K to 5000K.

5. Available up to 700 lumens.

6. Beam angle will be affected by the Pinhole bezel. Consult factory for details.

7. Configurable between 8 or 16-bit dimming control via RDM. DMX/RDM requires LumenID, LumenID software and onsite commissioning.

8. A Control Box (CBX-DS or CBX-ST) and lumenID (LID) must be specified.

9. Consult the Lumencore Recessed Opticolor+™ Brochure for details.

How to Order

Decorative Bezel	Decorative Bezel Finish	Trim	Trim Finish	Ceiling Thickness	Accessories ⁽¹⁴⁾
PB Pinhole	MBK Matte Black	PR Pinhole Round ⁽¹⁰⁾ PS Pinhole Square ⁽¹¹⁾ PSR Pinhole Square Trim with Round Hole ⁽¹⁰⁾	MWH Matte White MBK Matte Black NKS Nickel Satin CC Custom Colour Trim ⁽¹²⁾ SP Special colour (choose from colour palette in complete specification sheet) ⁽¹³⁾	1 1 mm to 25 mm Ceiling Thickness 2 27 mm to 51 mm Ceiling Thickness	NA No Accessory HL Honeycomb Louver XLVR Concentric Ring Louver ⁽²⁾ ⁽¹⁵⁾ CL Clear Glass Lens SL Softening Glass Lens PD Prismatic Diffuser ⁽¹⁶⁾ LSN Linear Spread Lens Narrow (1° x 40°) ⁽¹⁷⁾ LSW Linear Spread Lens Wide (1° x 60°) ⁽¹⁷⁾ BW1 Beam Widening Lens (+10°) ⁽¹⁷⁾ BW2 Beam Widening Lens (+20°) ⁽¹⁷⁾ BW3 Beam Widening Lens (+30°) ⁽¹⁷⁾

Notes:

2. Available for NS optic only.

10. Cannot be combined with square ceiling cutout.

11. Cannot be combined with round ceiling cutout.

12. Longer lead times can be expected for custom RAL colour finishes.

13. Please specify colour from special colour palette on Lumencore specification sheets.

14. Maximum two accessories per fixture.

15. Can be combined with PD accessory only.

16. Recommended to be combined with HL or XLVR accessory only.

17. For optimal performance, it is not recommended to mix with other accessories.