

CLUSTER

RECESSED LINEAR

DESCRIPTION

Cluster is the precise, and scalable family of downlights, wall washers, and adjustables, available in both linear and planar configurations and for recessed, pendant, and surface mounting. Based on a fundamental 1.2" square cell, Cluster delivers lighting that is optically sophisticated and aesthetically refined. Cluster recessed linear downlights range from a single point to a 15 cell luminaire, all with a choice of precision optics, beam spreads and subtle louver treatments. Nominal light output is 200 lumens per cell.

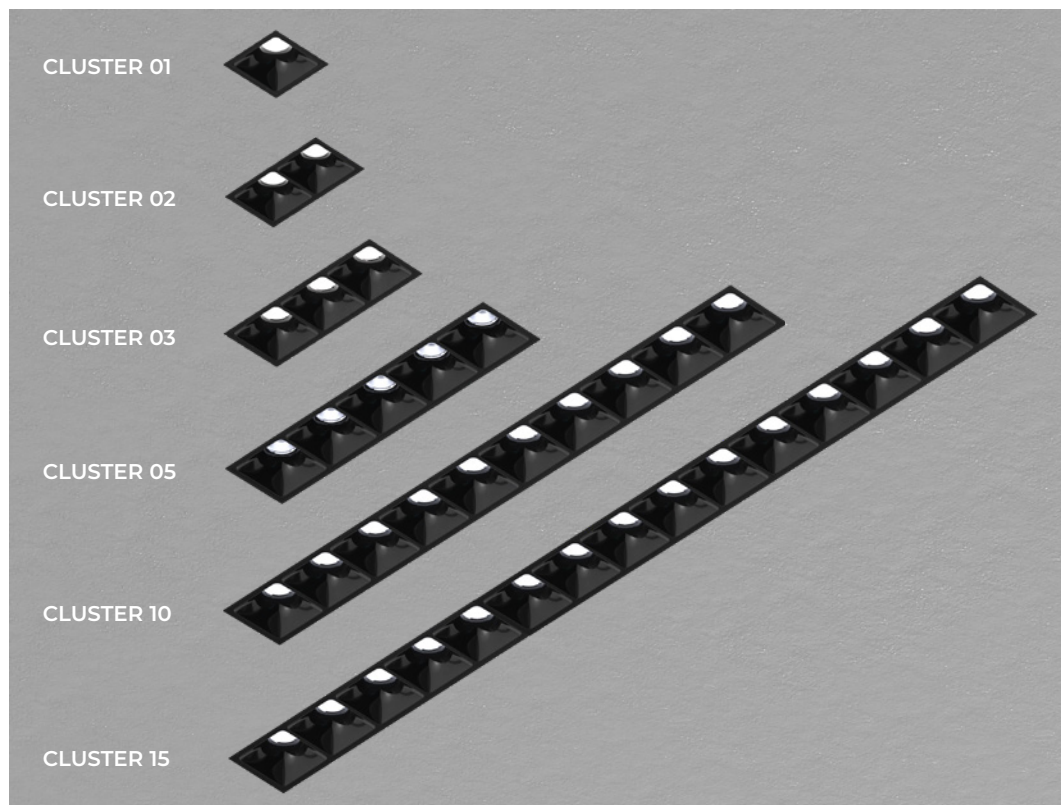
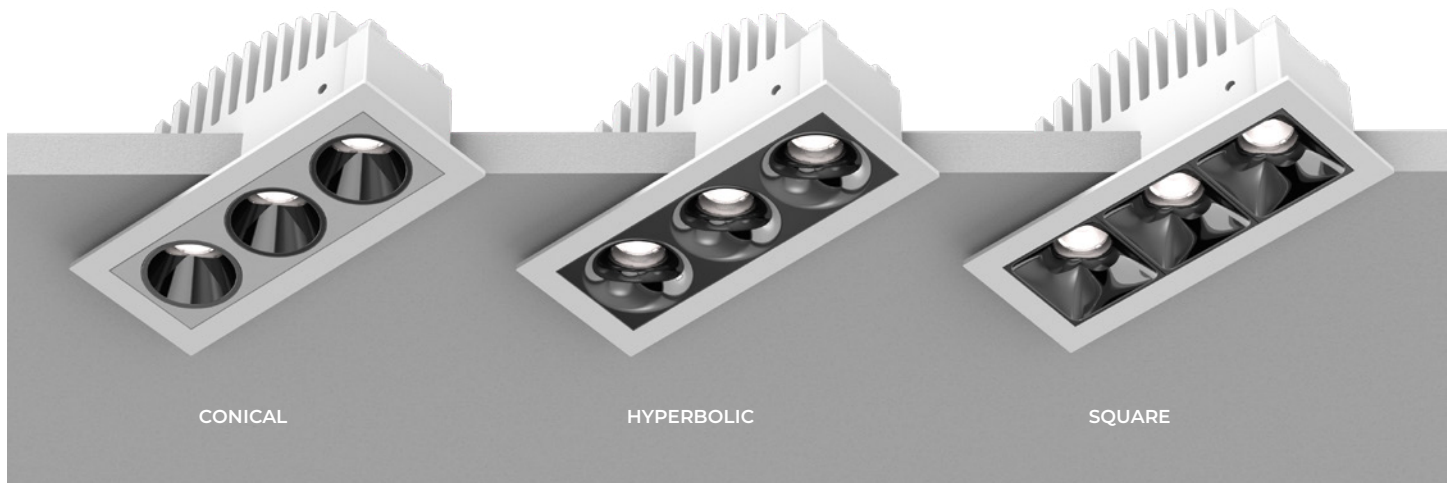
All recessed Cluster can install in a variety of ceiling types and materials, with either an integral driver or a remote driver that is capable of powering multiple luminaires.

LUMENWERX

PROJECT: _____

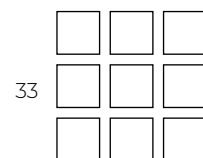
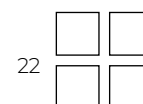
TYPE: _____

NOTES: _____



PLANAR SIZES

See planar spec sheet



1 - MOUNTING (Example: CLUR05-OF-FMB-TRM-INTEGRAL-120-923-D1) Consult pages 3-4 for details before specifying

Mounting can be ordered separately.

LUMINAIRE ID	INSTALLATION TYPE	MOUNTING OPTION ^{1,2}	TRIM TYPE	DRIVER	VOLTAGE	LUMEN PACKAGE ³	DIMMING
CLUR01 - Cluster Recessed 1x1 CLUR02 - Cluster Recessed 2x1 CLUR03 - Cluster Recessed 3x1 CLUR05 - Cluster Recessed 5x1 CLUR10 - Cluster Recessed 10x1 CLUR15 - Cluster Recessed 15x1	OF - Open Frame Type Non-IC IC - Type-IC RM - Remodel Type Non-IC CP - Chicago Plenum Type-IC (CCEA)	ASB - Adjustable standard bar hangers FMB - Flush mount bars ACB - Adjustable commercial bar hangers AHC - Adjustable hat channel bars NA - Not applicable ¹ See page 4 for more details. ² Specify NA for remodel (RM) installation type.	TRM - Flanged trim TLMP - Trimless drywall mudplate TLMW - Trimless millwork	INTEGRAL	120 - 120V 277 - 277V	200 - 200 lm (CLUR01) 380 - 380 lm (CLUR02) 578 - 578 lm (CLUR03) 923 - 923 lm (CLUR05) 1791 - 1791 lm (CLUR10) 2600 - 2600 lm (CLUR15) ³ Lumen packages shown at 3500K, with SOF-NFL 25°. For other, see lumen output multipliers on page 6.	CLUR01, CLUR02 ND - No dimming CLUR03, CLUR05, CLUR10, CLUR15 D1 - 1% 0-10V ELV ⁴ - ELV 120V TRI ⁴ - TRIAC 120V only.
				REMOTE	FOR FULL REMOTE DRIVER SPECIFICATION, SEE "REMOTE DRIVER" SECTION BELOW.		

2 - LIGHT (Example: CLURL05-TRM-SW-SOF-NFL-90-30-TMW-CON-MF01) Consult page 5 for details before specifying

LUMINAIRE ID	TRIM TYPE	SW	OPTIC	BEAM	CRI	CLR. TEMP.	TRIM FINISH ⁷	LOUVER	LOUVER FINISH
CLURL01 - Cluster Recessed 1x1 CLURL02 - Cluster Recessed 2x1 CLURL03 - Cluster Recessed 3x1 CLURL05 - Cluster Recessed 5x1 CLURL10 - Cluster Recessed 10x1 CLURL15 - Cluster Recessed 15x1	TRM - Flanged trim TLMP - Trimless drywall mudplate TLMW - Trimless millwork	SW - Static white	SOF - Soft edge downlight REF - Sharp edge downlight	SPT ⁵ - Spot NFL ⁶ - Narrow flood FLD - Flood WFL - Wide flood ⁵ Available with REF only. ⁶ Available with SOF only.	90 - 90 CRI	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	TMW - Textured matte white TMB - Textured matte black CF# - Custom finish, specify RAL# ⁷ Applicable for trim and trimless. Body finish matches trim finish.	CON ⁸ - Conical HYP - Hyperbolic SQR - Square ⁸ Faceplate matches body finish black and white only.	MF01 - Matte white MF04 - Matte black BL05 - Black chrome GL06 - Gold CP06 - Copper

3 - REMOTE DRIVER OPTIONAL (Ex: RDB1-4X-CLUR05-120-577-RD1) Consult page 6 for details before specifying

Continue here for full remote driver specifications. Remote driver can be ordered separately.

REMOTE DRIVER ⁹	LUM. QTY. ¹⁰	LUMINAIRE ID	VOLTAGE	LUMEN PACKAGE ^{11,12}	DIMMING ¹³
RDB# - Remote driver ⁹ If multiple driver boxes needed, specify a line number for each driver type used. (e.g. RDB1-4X-CLUR05-...-RD1 RDB2-2X-CLUR05-...-RD1 ...)	#X - Number of luminaires ¹⁰ Specify number of luminaires per remote driver. (e.g. 3X)	CLUR01 - Cluster Recessed 1x1 CLUR02 - Cluster Recessed 2x1 CLUR03 - Cluster Recessed 3x1 CLUR05 - Cluster Recessed 5x1 CLUR10 - Cluster Recessed 10x1 CLUR15 - Cluster Recessed 15x1	120 - 120V 277 - 277V UNV - 120V-277V	### - Low 50 lm - Med 125 lm - High 200 lm (CLUR01) ### - Low 95 lm - Med 238 lm - High 380 lm (CLUR02) ### - Low 145 lm - Med 362 lm - High 578 lm (CLUR03) ### - Low 230 lm - Med 577 lm - High 923 lm (CLUR05) ### - Low 448 lm - Med 1120 lm - High 1791 lm (CLUR10) ### - Low 650 lm - Med 1625 lm - High 2600 lm (CLUR15) ¹¹ Watts and lumen per watts will vary based on the number of light units per remote driver as well as on the type of driver selected. ¹² Low and medium lumen packages are not available with RELV and RTRI dimming options.	RD1 - 1% 0-10V RELV ¹⁴ - ELV 120V RTRI ¹⁴ - TRIAC 120V RDA ¹⁵ - DALI RLTEA2W ¹⁴ - Lutron 1% - 2 wire FP 120V RLDE1 ¹⁵ - Lutron Hi-lume 1% Eco ¹³ For configurations involving different cluster sizes on a remote driver, please consult factory. ¹⁴ Available with 120V only. ¹⁵ On-site commissioning is required.

EXAMPLE ORDER CODES

WHEN SPECIFYING WITH INTEGRAL DRIVER	
MOUNTING	CLUR05-OF-FMB-TRM-INTEGRAL-120-923-D1
LIGHT	CLURL05-TRM-SW-SOF-NFL-90-30-TMW-CON-MF01
REMOTE DRIVER	N/A

WHEN SPECIFYING WITH REMOTE DRIVER ¹⁶	
MOUNTING	CLUR05-OF-FMB-TRM-REMOTE
LIGHT	CLURL05-TRM-SW-SOF-NFL-90-30-TMW-CON-MF01
REMOTE DRIVER	Remote driver 1: RDB1-4X-CLUR05-120-577-RD1 Remote driver 2: RDB2-2X-CLUR05-120-577-RD1

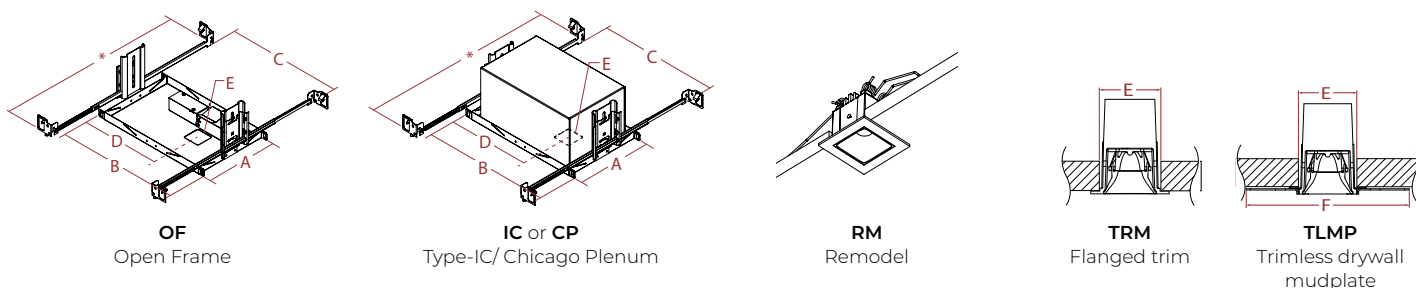
¹⁶ When specifying with multiple remote driver boxes, each driver used needs to be on a separate line and be numbered for the ordering codes.

MOUNTING

Cluster can be installed in a wide range of ceiling conditions and with various ceiling trim options. Spring clips clamp the lighting unit to the mounting frame (or directly to the ceiling for remodel). Maximum ceiling thickness is 1.25".

INSTALLATION TYPE	MOUNTING OPTION ^{1,2}	TRIM TYPE
OF - Open Frame Type Non-IC IC - Type-IC RM - Remodel Type Non-IC CP - Chicago Plenum Type-IC (CCEA)	ASB - Adjustable standard bar hangers FMB - Flush mount bars ACB - Adjustable commercial bar hangers AHC - Adjustable hat channel bars NA - Not applicable	TRM - Flanged trim TLMP - Trimless drywall mudplate TLMW - Trimless millwork
¹ For detailed mounting option dimensions, see page 4. ² Specify NA for remodel (RM) installation type.		

INSTALLATION TYPE ⁴



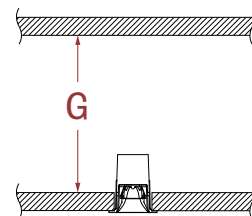
⁴ Drawings shown with adjustable standard bar hangers.

	A HOUSING WIDTH	B HOUSING LENGTH	C SPACING BETWEEN BARS	D DISTANCE FROM CUT-OUT
CLUR01	7"	11 11/16"	11 1/8"	7 7/32"
CLUR02	7"	11 11/16"	11 1/8"	6 7/8"
CLUR03	8 9/16"	13 5/16"	12 3/4"	5 3/8"
CLUR05	8 9/16"	13 5/16"	12 3/4"	6 5/8"
CLUR10	10 1/16"	19 5/16"	18 3/4"	10 5/8"
CLUR15	10 1/16"	25 5/16"	26 9/16"	12 1/16"

E CUT-OUT DIMENSIONS	F MUDPLATE DIMENSIONS
1 9/16" x 1 9/16"	3 29/32" x 3 29/32"
2 3/4" x 1 9/16"	5 3/32" x 3 29/32"
4" x 1 9/16"	6 5/16" x 3 29/32"
6 3/8" x 1 9/16"	8 11/16" x 3 29/32"
12 3/8" x 1 9/16"	14 11/16" x 3 29/32"
18 3/8" x 1 9/16"	20 11/16" x 3 29/32"

PLENUM CLEARANCE DIMENSIONS

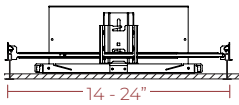
	G PLENUM CLEARANCE HEIGHT			
	REMOTE & INTEGRAL		INTEGRAL	REMOTE
	OPEN FRAME	IC / CP	REMODEL	REMODEL
CLUR01	4 13/16"	4 7/8"	4"	2 5/32"
CLUR02	4 13/16"	4 7/8"	4"	1 15/16"
CLUR03	4 13/16"	5 3/8"	4 13/16"	2 5/32"
CLUR05	4 13/16"	5 3/8"	4"	2 5/32"
CLUR10	4 13/16"	5 3/8"	4"	2 5/32"
CLUR15	4 13/16"	5 3/8"	4"	2 5/32"



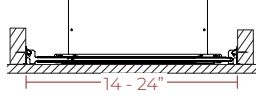
CLUSTER RECESSED LINEAR

LUMENWERX

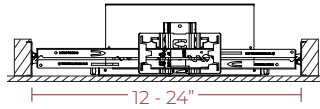
MOUNTING OPTIONS



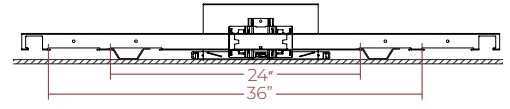
ASB - Adjustable standard bar hangers
Grid ceiling or drywall with variable height (commercial applications)



FMB - Flush mount bracket
Drywall/metal/wood frame mounting (residential applications)



ACB - Adjustable commercial bar hangers
Grid ceiling, drywall, metal, wood, frame mounting (also openings for multiple hanging options such as hat channel, IC channel and metal tubing, supplied by others)



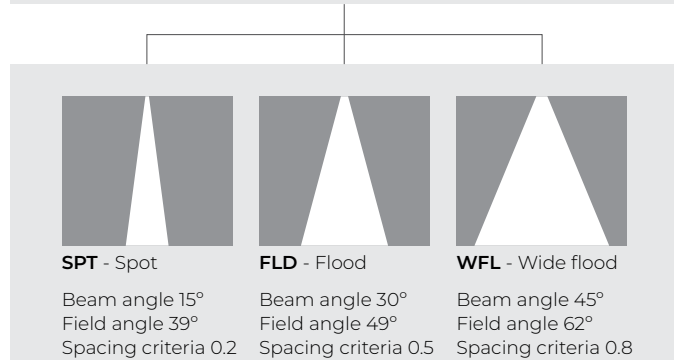
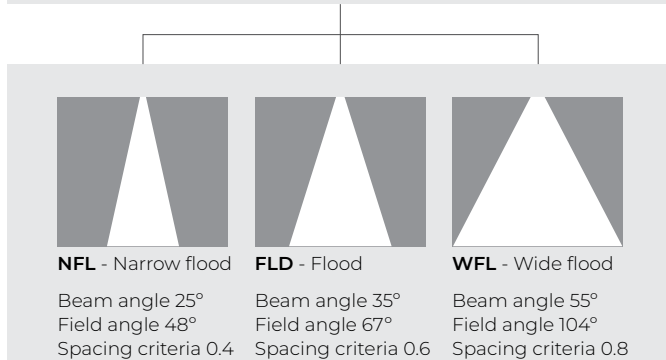
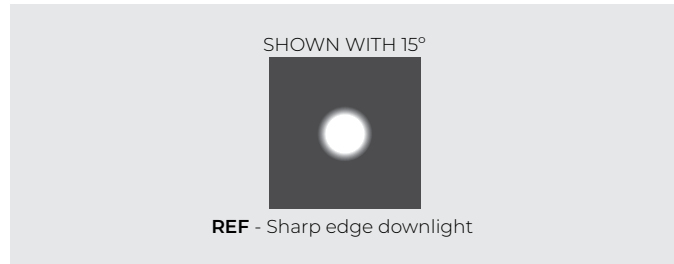
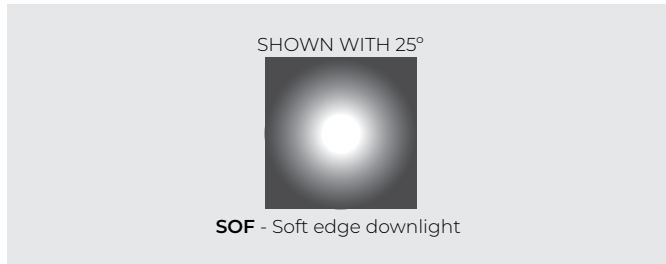
AHC - Adjustable hat channel bars
With adjustable height

FIXTURE DIMENSIONS

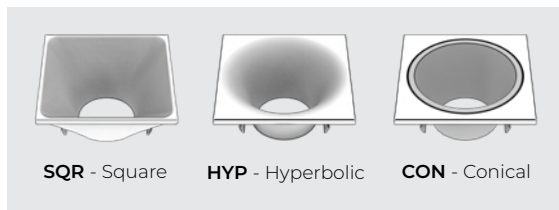
	BODY TYPE	
	TRM Flanged trim	TLMP Trimless drywall mudplate
CLURL01		
CLURL02		
CLURL03		
CLURL05		
CLURL10		
CLURL15		

LIGHT

OPTICS & BEAM ANGLE

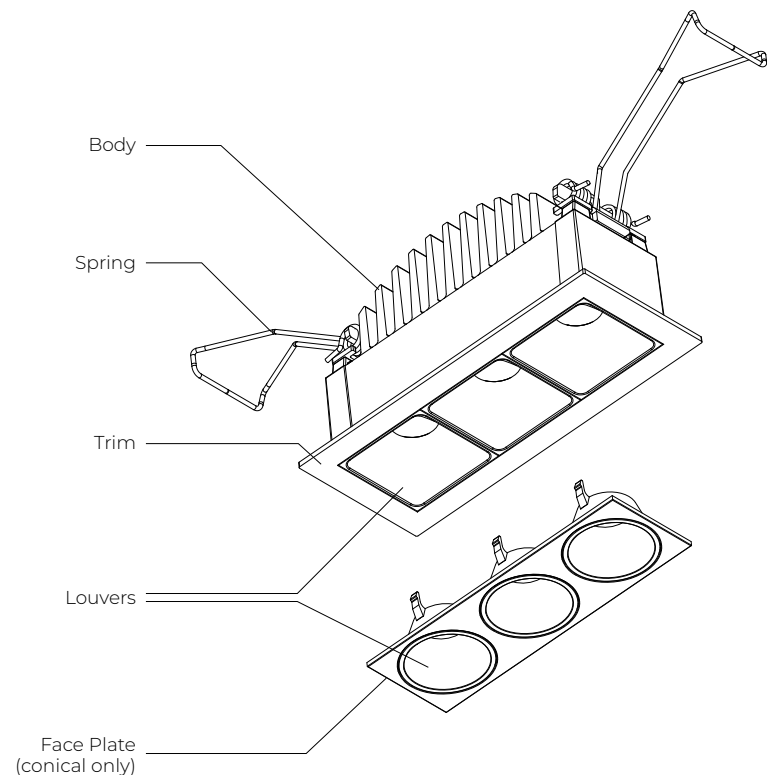
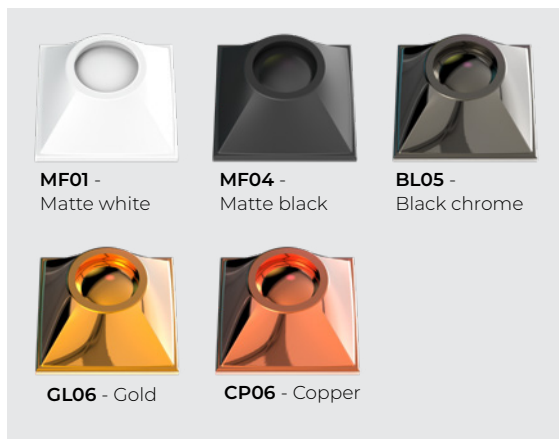


LOUVER SHAPE



LOUVER FINISH

Louver is injection molded with integral texture and color



INTEGRAL DRIVER

Diagram illustrating the connection between the Driver Enclosure and the Lighting Element:

- The **Driver Enclosure** contains the **Driver**.
- A cable connects the Driver to the **Quick-Splice Connector**.
- The Quick-Splice Connector connects to the **Lighting Element**, which contains three circular light sources.

GENERAL LUMEN OUTPUT MULTIPLIER AT 90 CRI

LUMEN PACKAGE (AT 3500K, SOFT 25° BEAM) - INTEGRAL DRIVER

REMOTE DRIVER

LUMEN PACKAGE¹ (AT 3500K) - REMOTE DRIVER

¹ Watts and lumen per watts will vary based on the number of lighting units per remote driver as well as on the type of driver selected.

NUMBER OF LIGHTING UNITS PER DRIVER - MINIMUM AND MAXIMUM

Diagram illustrating a connection in series for a remote enclosure. The circuit includes a DRIVER, a REMOTE ENCLOSURE, and three ELECTRICAL components connected in series.

6/7

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OPTICS

SOFT-EDGED FEATHERED BEAM (SOF)

The Soft-Edged Feathered Beam blends the light into darker areas for a gentle brightness transition. Each LED emitter directs light through a single, custom molded circular optic using total internal reflection (TIR) to shape the light. A 0.5" reflective square louver provides a cut off with a UGR of 10. Three different TIR elements create a choice of beam spread: 25° narrow flood (NFL), 35° flood (FLD), or 55° wide flood (WFL), or 55° wide flood (WFL).

SHARP-EDGED CUT-OFF BEAM (REF)

The Sharp-Edged Cut-Off Beam creates dramatic impact, limiting the spread of light outside of the primary beam. A molded conical reflector redirects light from each emitter into the desired beam angle. A 0.5" reflective square louver provides a cut off with a UGR of 10. Three different TIR elements create a choice of beam spread: 15° spot (SPT), 30° flood (FLD), or 45° wide flood (WFL).

LIGHT SOURCE

Custom array of high-flux LEDs mounted onto aluminum-backed circuitry. Available in 2700K, 3000K, 3500K and 4000K with a minimum 90 CRI with elevated R9 value. Color consistency is maintained to within 3 SDCM. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

WEIGHT

	BODY		OPEN FRAME		TYPE-IC WITH CHICAGO PLENUM	
	Lb	Kg	Lb	Kg	Lb	Kg
CLUR01	0.50	0.20	1.44	0.65	3.73	1.69
CLUR02	0.60	0.25	1.42	0.64	3.72	1.69
CLUR03	0.70	0.30	2.30	1.04	5.34	2.42
CLUR05	1.10	0.50	2.50	1.13	5.35	2.43
CLUR10	2.00	0.90	3.49	1.58	7.99	3.62
CLUR15	3.00	1.36	4.10	1.87	9.90	4.50

CONSTRUCTION

Housing - Die-cast aluminum (0.95" nominal)

Optics - Polycarbonate

Mounting frame - 22 gauge galvanized sheet metal

Driver housing - 18 gauge galvanized sheet

Mounting clips - Ø1.0-1.4mm spring clips

CERTIFICATIONS

ETL - Rated for indoor dry/damp locations.

Conforms to UL 1598 Standard and certified to CAN/CSA Standard C22.2 No. 250.0

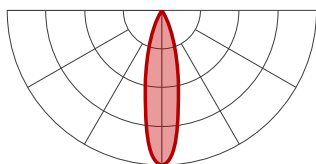
Chicago plenum - City of Chicago approved (CCEA) when specified with CP installation type option.

IC rated - Suitable for direct contact with insulation when specified with IC or CP installation type options.

WARRANTY

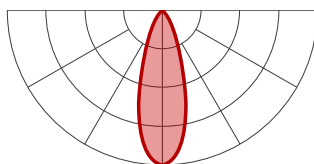
Lumenwerx provides a five-year limited warranty on electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

SOFT-EDGE DOWNLIGHT



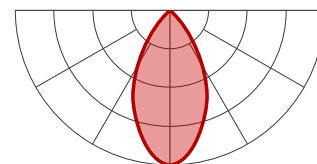
NFL - Narrow flood

Beam angle 25°
Field angle 48°
Spacing criteria 0.4



FLD - Flood

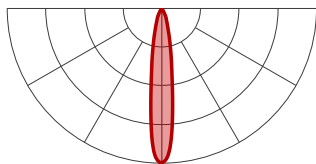
Beam angle 35°
Field angle 67°
Spacing criteria 0.6



WFL - Wide flood

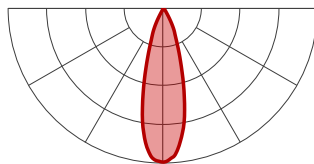
Beam angle 55°
Field angle 104°
Spacing criteria 0.8

SHARP-EDGE DOWNLIGHT



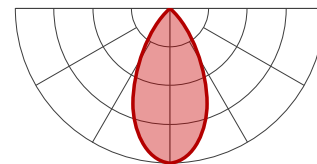
SPT - Spot

Beam angle 15°
Field angle 39°
Spacing criteria 0.2



FLD - Flood

Beam angle 30°
Field angle 49°
Spacing criteria 0.5



WFL - Wide flood

Beam angle 45°
Field angle 62°
Spacing criteria 0.8