

CLUSTER

PENDANT LINEAR

DESCRIPTION

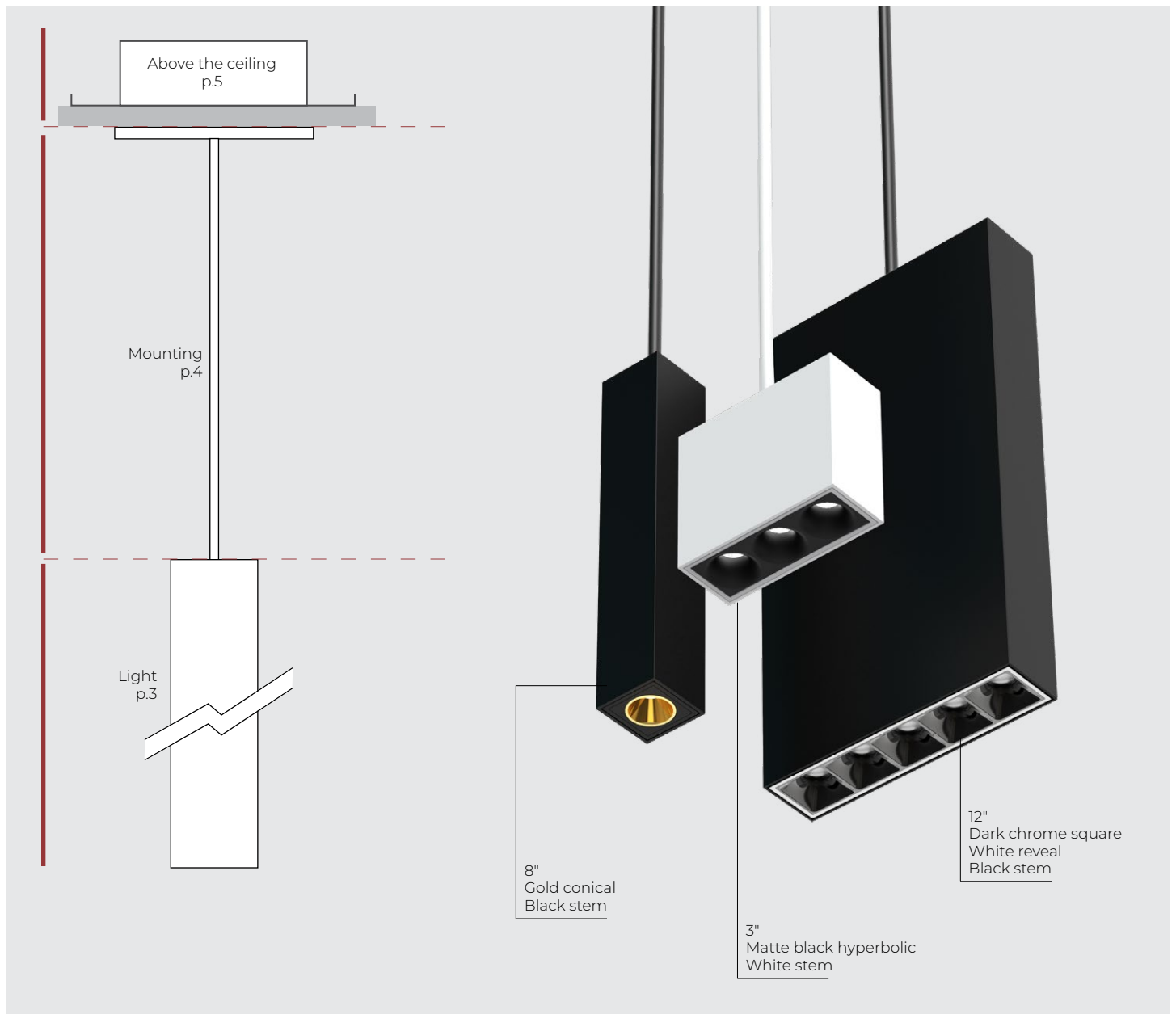
Cluster is the precise, and scalable family of downlights, wall washers, and adjustables, available in both linear and planar configurations and for recessed, pendant, and surface mounting. Based on a fundamental 1.2" square cell, Cluster delivers lighting that is optically sophisticated and aesthetically refined. Cluster pendant linear downlights are available in 1 cell, 3 cell, and 5 cell configurations, all with a choice of precision optics, beam spreads and subtle louver treatments. Pendant downlights fit a choice of 3", 8" or 12" deep cuboid enclosures. Nominal light output is 200 lumens per cell. Pendant Cluster can be suspended using stems. A canopy for conduit connection is available. Driver is either integral or remote, which is capable of powering multiple luminaires.

LUMENWERX

PROJECT: _____

TYPE: _____

NOTES: _____



LIGHT + MOUNTING

Consult pages 3-4 for details before specifying

LUMINAIRE ID		CUBOID HEIGHT	CUBOID FINISH	LOUVER			LOUVER FINISH	REVEAL FINISH
CLUP01 - Cluster Pendant 1x1 CLUP03 - Cluster Pendant 3x1 CLUP05 - Cluster Pendant 5x1		3 - 3" 8 - 8" 12 - 12"	TMW - Textured matte white TMB - Textured matte black CF# - Custom finish, specify RAL#	CON ¹ - Conical HYP - Hyperbolic SQR - Square ¹ Faceplate matches body finish black and white only.			MF01 - Matte white MF04 - Matte black BL05 - Black chrome GL06 - Gold CP06 - Copper	TMW - Textured matte white TMB - Textured matte black CF# - Custom finish, specify RAL#
SW			90					
LIGHT SOURCE	OPTIC	BEAM	CRI	COLOR TEMP.	DRIVER	VOLTAGE	LUMEN PACKAGE ⁴	DIMMING
SW - Static white	SOF - Soft edge downlight REF - Sharp edge downlight	SPT ² - Spot NFL ³ - Narrow flood FLD - Flood WFL - Wide flood ² Available with REF only. ³ Available with SOF only.	90 - 90 CRI	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	INTEGRAL	120 - 120V 277 - 277V	200 - 200 lm (CLUP01) 578 - 578 lm (CLUP03) 923 - 923 lm (CLUP05) ⁴ Lumen packages shown at 3500K, with SOF-NFL 25°. For other, see lumen output multipliers on page 5.	CLUP01 ND - No dimming CLUP03, CLUP05 DI ¹ - 1% 0-10V ELV ⁵ - ELV 120V TRI ⁵ - TRIAC 120V ⁵ Available with 120V only.
					REMOTE	FOR FULL REMOTE DRIVER SPECIFICATION, SEE "REMOTE DRIVER" SECTION BELOW.		
CANOPY TYPE		CANOPY FINISH			HANGER		LENGTH	
REG ⁶ - 4" octogonal junction box INT ⁷ - Integral driver on junction box CD ⁸ - Conduit box ⁶ Available with remote driver only. ⁷ Available with integral driver only. ⁸ Available with remote and integral driver.		TMW - Textured matte white TMB - Textured matte black CF# - Custom finish, specify RAL#			STEM ⁹ WHS - Textured white stem BKS - Textured black stem ⁹ Min 18" - max 48".		#IN - Length in inches	

REMOTE DRIVER OPTIONAL

Consult page 5 for details before specifying

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

REMOTE DRIVER ¹⁰	LUMINAIRE QTY. ¹¹	LUMINAI. ID	VOLTAGE	LUMEN PACKAGE ^{12,13}	DIMMING ¹⁴
RDB# - Remote driver ¹⁰ If multiple driver boxes needed, specify a line number for each driver type used. (e.g. RDB1-4X-CLUP03-...-RD1 RDB2-2X-CLUP03-...-RD1 ...)	#X - Number of luminaires ¹¹ Specify number of luminaires per remote driver. (e.g. 3X)	CLUP01 - Cluster Pendant 1x1 CLUP03 - Cluster Pendant 3x1 CLUP05 - Cluster Pendant 5x1	120 - 120V 277 - 277V UNV - 120V-277V	### - Low 50 lm - Med 125 lm - High 200 lm (CLUP01) ### - Low 145 lm - Med 362 lm - High 578 lm (CLUP03) ### - Low 230 lm - Med 577 lm - High 923 lm (CLUP05) ¹² 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. ¹³ Low and medium lumen packages are not available with RELV and RTRI dimming options.	RD1 - 1% 0-10V RELV ¹⁵ - ELV 120V RTRI ¹⁵ - TRIAC 120V RDA ¹⁶ - DALI RLTEA2W ¹⁵ - Lutron 1% - 2 wire FP 120V RLDE1 ¹⁶ - Lutron Hi-lume 1% Eco ¹⁴ For configurations involving different clusters sizes on a remote driver, please consult factory. ¹⁵ Available with 120V only. ¹⁶ On-site commissioning is required.

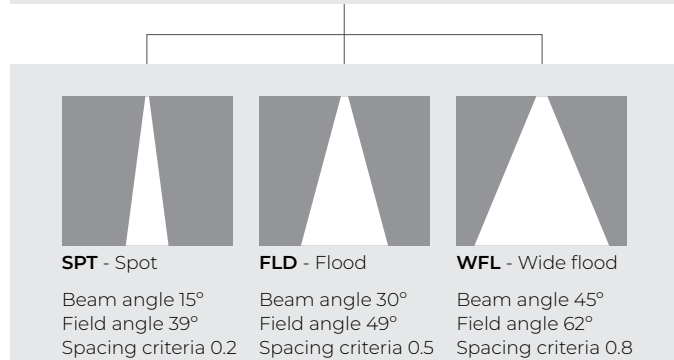
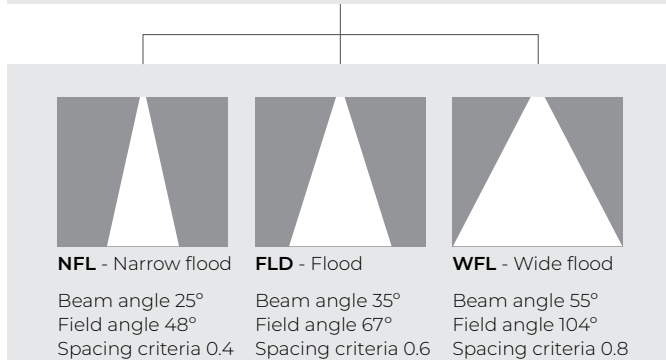
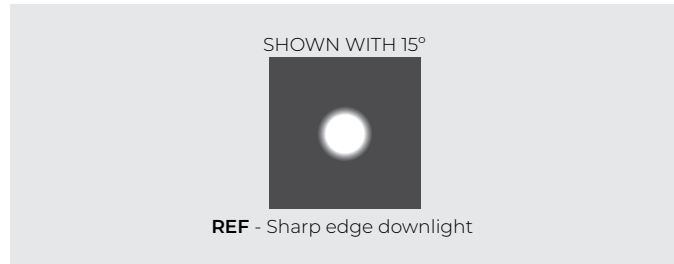
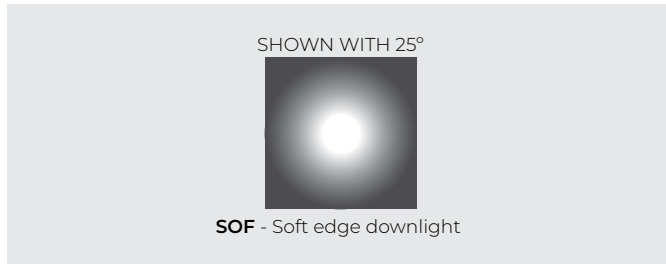
EXAMPLE ORDER CODES

WHEN SPECIFYING WITH INTEGRAL DRIVER		WHEN SPECIFYING WITH REMOTE DRIVER ¹⁷	
LIGHT + MOUNTING	CLUP03-3-TMW-SQR-MF01-TMW-SW-SOF-SPT-90-35-INTEGRAL-120-578-DI-REG-TMW-WHS-5IN	LIGHT + MOUNTING	CLUP03-3-TMW-SQR-MF01-TMW-SW-SOF-SPT-90-35-REMOTE-REG-TMW-WHS-5IN
REMOTE DRIVER	N/A	REMOTE DRIVER	Remote driver 1: RDB1-4X-CLUP03-120-362-RD1 Remote driver 2: RDB2-2X-CLUP03-120-362-RD1

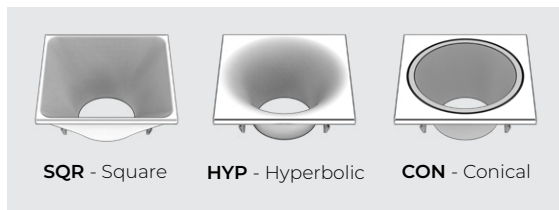
¹⁷ When specifying with multiple remote driver boxes, each driver used needs to be on a separate line and be numbered for the ordering codes.

LIGHT

OPTICS & BEAM ANGLE

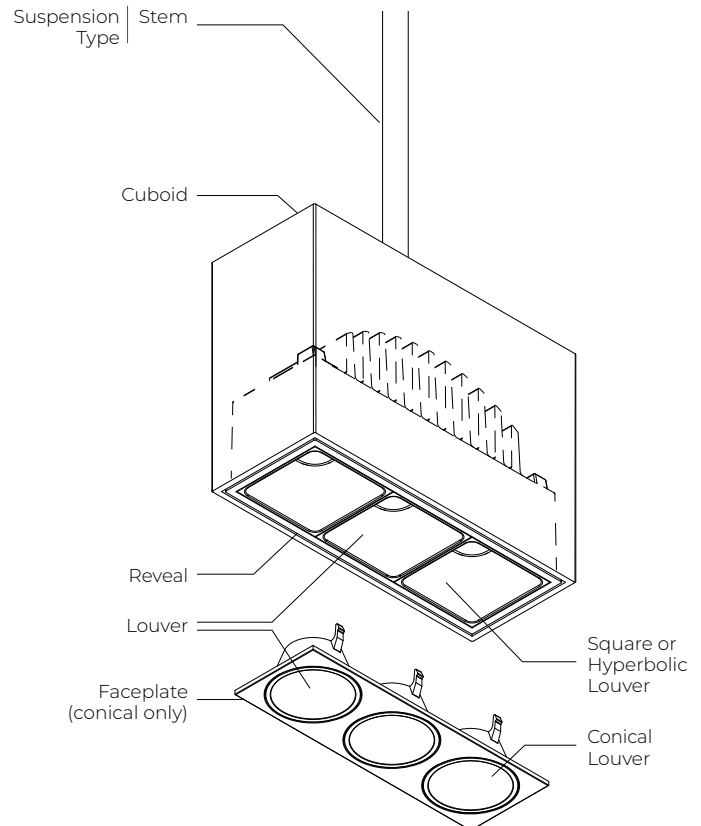


LOUVER SHAPE

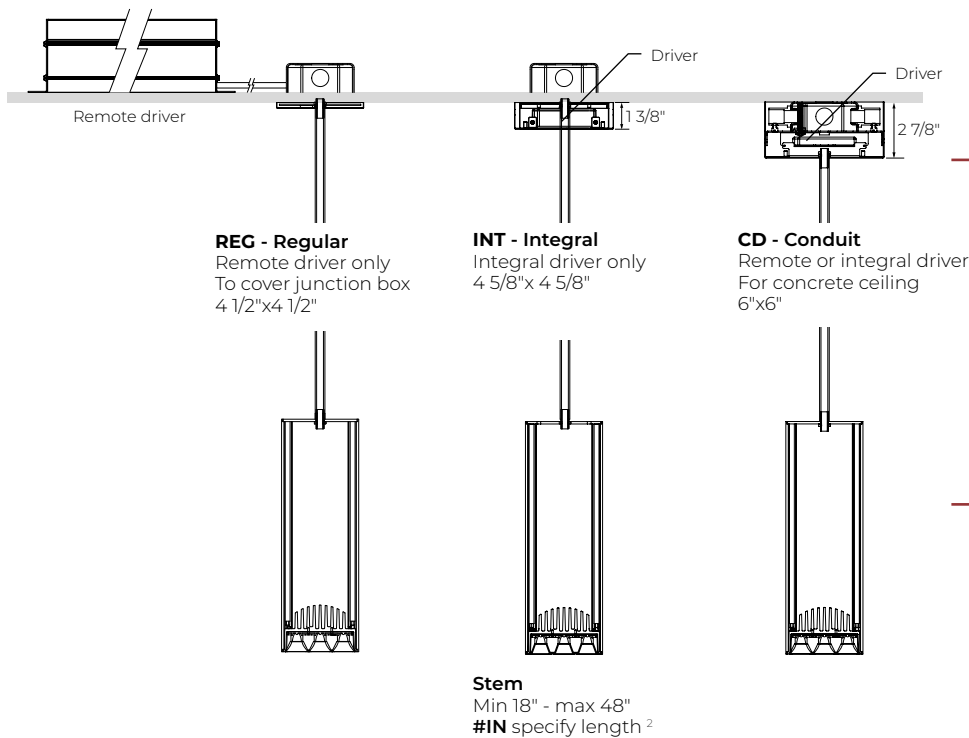


LOUVER FINISH

Louver is injection molded with integral texture and color



MOUNTING ¹



CANOPY

Regular	REG
Integral	INT
Conduit	CD
Finish	
Textured matte white	TMW
Textured matte black	TMB
Custom finish	CF#

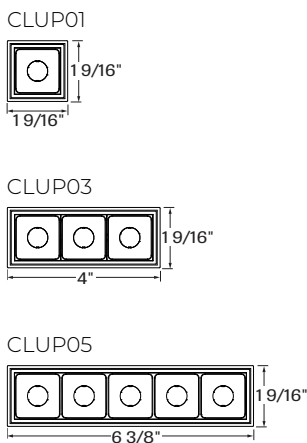
HANGER

Stem	
Textured white stem	WHS
Textured black stem	BKS

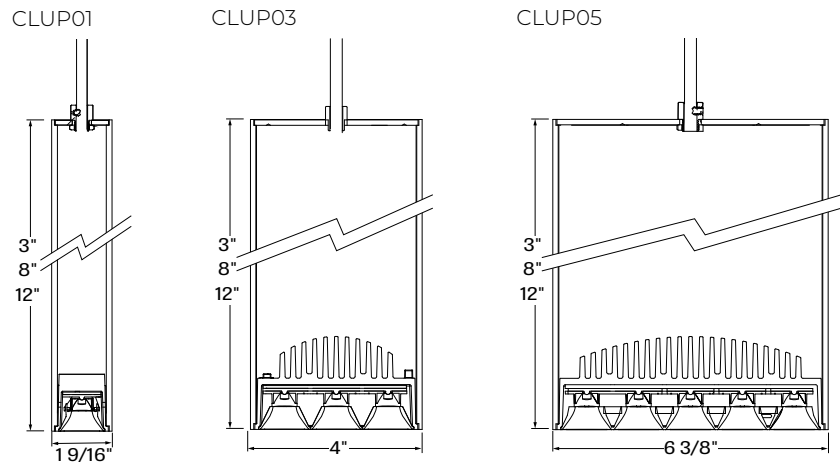
¹ Canopies can be specified with any suspension type. Not interchangeable on site.

² To specify, replace # with requested length. (e.g. 18IN)

BOTTOM VIEW



CROSS SECTION

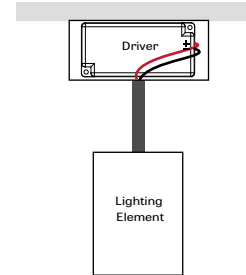


See planar spec sheet for more sizes

DRIVER

INTEGRAL CANOPY DRIVER

The integral driver is sized to the lighting unit and is connected directly with Class 2 wiring and quick-splice connectors. The driver is accessible for service through the canopy.



MULTIPLIER

GENERAL LUMEN OUTPUT MULTIPLIER AT 90 CRI

	2700K						3000K						3500K						4000K					
OPTICS	SOFT			SHARP			SOFT			SHARP			SOFT			SHARP			SOFT			SHARP		
BEAM ANGLE	25	35	55	15	30	45	25	35	55	15	30	45	25	35	55	15	30	45	25	35	55	15	30	45
LUMEN OUTPUT MULTIPLIER	0.87	0.92	0.82	0.80	0.84	0.86	0.93	0.99	0.87	0.86	0.89	0.92	1	1.06	0.94	0.92	0.96	0.99	1.03	1.09	0.97	0.95	0.99	1.02

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

LUMINAIRE ID	LUMEN OUTPUT	WATTS	EFFICACY LM/W
CLUP01	200 lm	3.3 W	60 lm/W
CLUP03	578 lm	7.8 W	74 lm/W
CLUP05	923 lm	11.8 W	78 lm/W

LUMEN PACKAGE	VOLTAGE	INTEGRAL DRIVER
Use the multiplier tables to calculate the lumen package	120 - 120V 277 - 277V	CLUP01 ND - No dimming CLUP03, CLUP05 D1 - 1% 0-10V ELV ¹ - ELV 120V TRI ¹ - TRIAC 120V ¹ Available with 120V only.

REMOTE DRIVER

The remote driver can power several lighting units, depending on their total power. The minimum and maximum number of lighting units and driver type are shown in the table below and must be observed. The remote driver and lighting units are wired together through connection boxes, which are furnished pre-wired to the driver enclosure. All wiring is Class 2 with quick-splice connectors. The remote driver requires access from above the ceiling (or an access panel).

LUMEN PACKAGE¹ (AT 3500K, SOFT 25° BEAM) - REMOTE DRIVER

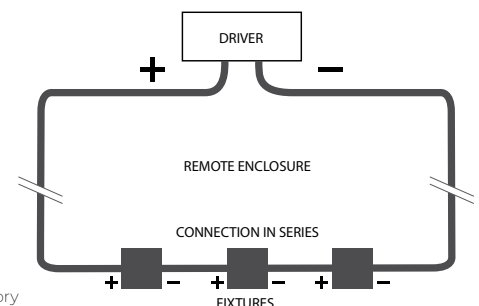
LUMINAIRE ID	LUMEN PACKAGE ²			VOLTAGE	REMOTE DRIVER	NUMBER OF LIGHTING UNITS PER DRIVER
CLUP01 CLUP03 CLUP05	LOW 50 lm 145 lm 230 lm	MEDIUM 125 lm 362 lm 577 lm	HIGH 200 lm 578 lm 923 lm	120 - 120V 277 - 277V UNV - 120V-277V	RD1 - 1% 0-10V RELV ³ - ELV 120V RTRI ³ - TRIAC 120V RDA ⁴ - DALI RLTEA2W ³ - Lutron 1% - 2 wire FP 120V RLDEI ⁴ - Lutron Hi-lume 1% Eco ³ Available with 120V only. ⁴ On-site commissioning is required.	See table below for maximum and minimum possible number of lighting units per each driver. For configurations involving different cluster sizes on a remote driver, please consult factory.

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

DRIVER TYPE	CLUP01	CLUP03	CLUP05
D1 - 1% 0-10V	8-24	3-8	2-4
ELV - ELV 120V	10-14	3-4	2
TRI - TRIAC 120V	10-14	3-4	2
DA - DALI	8-24	3-8	2-4
LTEA2W - Lutron 1% - 2 wire FP 120V	4-17	2-5	1-3
LDEI - Lutron Hi-lume 1% Eco	8-16	3-5	2-3

For any quantities of lighting units per driver that fall outside the minimum and maximum listed above, please consult factory



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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).

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		CUBOID 3"		CUBOID 8"		CUBOID 12"	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg
CLUP01	0.50	0.20	0.25	0.11	0.62	0.28	0.92	0.42
CLUP03	0.70	0.30	0.36	0.16	0.87	0.39	1.27	0.58
CLUP05	1.10	0.50	0.85	0.38	2.09	0.95	3.08	1.40

CONSTRUCTION

Housing - Die-cast aluminum (0.95" nominal)

Optics - Polycarbonate

Cuboid - Aluminum extrusion

Cover pendant - 18 gauge aluminum sheet

Extension bar - Galvanized steel

CERTIFICATIONS

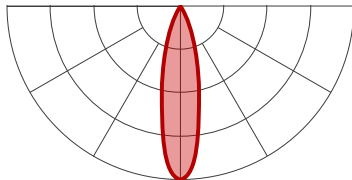
ETL - Rated for indoor dry/damp locations.

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

WARRANTY

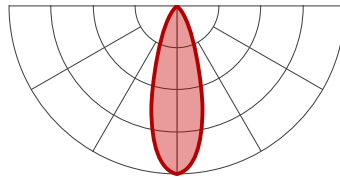
Lumenwerx provides a five-year limited warranty on electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated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

SOFT-EDGE DOWNLIGHT



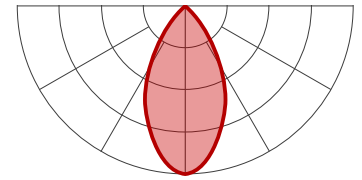
NFL - Narrow flood

Beam angle 25°
Field angle 48°
Spacing criteria 0.4



FLD - Flood

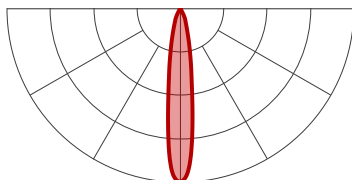
Beam angle 35°
Field angle 67°
Spacing criteria 0.6



WFL - Wide flood

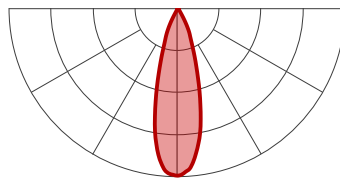
Beam angle 55°
Field angle 104°
Spacing criteria 0.8

SHARP-EDGE DOWNLIGHT



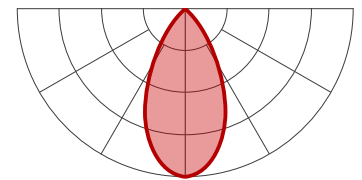
SPT - Spot

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