ID+ 4.5" Trimless

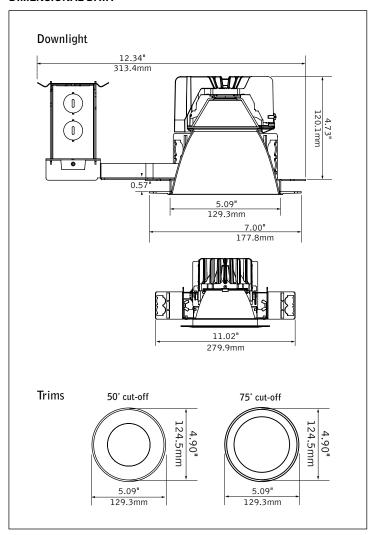






DIMENSIONAL DATA

LED DOWNLIGHT



FEATURES

Field adjustability of ceiling thickness from 0.5" to 3.0".

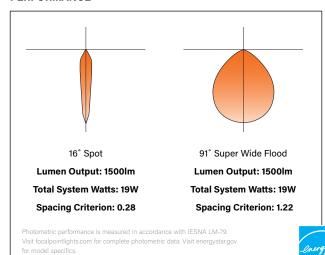
50° or 75° cutoff to light source and its image.

Right Light: Standard delivered lumen outputs 1000, 1500, 2000, 2500, and 3000.

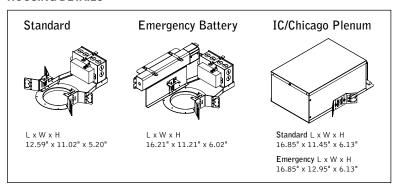
Warm Dim: Lighting that enhances spaces with a warm glow, reminiscent of incandescent or halogen light sources.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

PERFORMANCE



HOUSING DETAILS



HOUSING SPECIFICATIONS

Construction

Thermally protected housing for new construction applications. Insulation to be kept 3" away from housing. Type IC inherently protected, suitable for direct contact with insulation. Butterfly brackets allow mounting to 1/2" emt. Order bar hangers as an accessory. Die-cast aluminum heat sink designed for maximum thermal dissipation. Die-formed housing and integral junction box with (7) 1/2" pry-outs. T-rated: UL & cUL Listed for (6) #14 AWG (3 in, 3 out) 90°C conductors and feed through-branch wiring. IC/CP housing: UL & cUL Listed for (8) #12 AWG (4 in, 4 out) 90°C conductors and feed through-branch wiring for IC/CP housing. Accommodates ceiling thicknesses up to 0.5" standard, field adjustable up to 3.0" thickness. For thicker ceiling consult factory. Order TZB option for TechZone compatible housing brackets. T-rated housing will not exceed 6lb, IC/CP housing will not exceed 12lb.

Electrical

Choice of constant current dimming drivers. Power factor > .9 typical. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

Emergency

Emergency Battery Pack: Bodine BSL17C-C2. Emergency output —7W for 90 minutes. Maximum mounting height: 25.8ft. (Black reflector: 18.0ft.) Not wet location or outdoor rated.

Labels

UL and cUL Listed. Suitable for Dry, Damp or Wet Locations, indoor use only. Specify Outdoor rated (OD) for outdoor recessed ceiling applications.

Lumen Maintenance

Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED System rated for operation in ambient environments up to 25°C. 5-year limited warranty. Fixture with Outdoor rated option must be installed in a covered ceiling and is warrantied for operation in ambient environments between -20°C to +40°C.

TRIM & LED SPECIFICATIONS

LED System

Proprietary array incorporates premium LEDs on a robust platform. May be specified in 2700K, 3000K, 3500K or 4000K, 80+ CRI or 90+ CRI. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. Color accuracy within 2 SDCM. Aluminum heat sink provides appropriate thermal management.

Aesthetics

Parabolic reflector cone ensures glare free optics. Reflector is .050" spun aluminum. Torsion springs pull trim tight to the ceiling with no visible fasteners.

Optics

50-degree or 75-degree cut-off to light source and its image.

Optic	Cut-Off Degree	Lumen	Distribution Beam Spread Spacing Criteria						
Optic		Output	SP	NFL	FL1	FL2	WFL	VWFL	SWFL
DN	50°	1000- 2500	16° .28	24° .40	35° .56	42° .66	51° .78	-	-
		3000	-	26° .44	36° .58	41° .64	52° .78	-	-
DSS	∠ 75°	1000- 2500	-	-	-	-	-	70° 1.00	91° 1.22
		3000	-	-	-	-	-	70° 1.00	91° 1.24

PERFORMANCE CHART* - see	page 3.
PENFONIVIAINCE CHAN I * - See	page 3.

HOUSING ORDERING Housing Series		ELC4D
ID+ 4.5" Round Downlight	FLC4D	FLC4D
Trim Type Round Trimless	RT	RT
Color Options Standard White, 80 & 90 CRI	SW	
Warm Dim	WDM	
(1500 & 2000 lumens only. UNV & EM not available.) Lumen Output		
1000 Lumens 1500 Lumens	1000L 1500L	
2000 Lumens	2000L	
2500 Lumens 3000 Lumens	2500L 3000L	
(Not available with SP distribution, LFP or LTE.) Voltage		
UNV 120V/277V	UNV	
(IC housing only. Not available with LFP or LTE.) 120V	120	
277V Low Voltage	277 LV	
(IC housing: 2000L max. T & TW housings: 1000L only.) Control System & Dimming Level		
0-10V - 0% Dimming	LZ1	
0-10V - 1% Dimming 0-10V - 10% Dimming	L11 LD1	
Low Voltage, PoE compatible	LVN	
(No driver. Not available with EM. LV Voltage only.) Forward Phase (120V only)	LFP	
Lutron Hi-Lume EcoSystem (LDE1) -	I LI1	
1% Dimming Lutron Hi-Lume - Forward Phase -	LH1	
1% Dimming (120V only)	LTE DZ1	
DALI - 0% Dimming DALI - 1% Dimming	D11	
Housing Type IC Rated / Airtight	IC	
(L11, LD1, LVN, LH1 2000L max. LZ1, D11, DZ1, LFP 1500L max. LTE 1000L only, LC4AT required for Airtight.		
Not available with EM.)	т	
Thermally Protected, Non-IC Thermally Protected, Non-IC Wood	TW	
(Wood ceiling installation kit required) Factory Options		
Bar Hangers	BH CP	
Chicago Plenum Emergency Battery	EM	
(Must order LC4EM trim. Not wet location, airtight or outdoor rated.)		
Outdoor Rated (LD1 driver only. IC housing 1500L max. See dimming	OD	
Performance Chart on page 3.)		
TRIM & LED MODULE Aperture		
4.5" Round Reflector 4.5" Round Reflector - Airtight	LC4 LC4AT	
(IC housing required for Airtight rating)		
4.5" Round Reflector - Emergency (Required for "EM" option. DN optic only.	LC4EM	
Not wet location or outdoor rated.) Trim Type		
Round Trimless Round Die-Cast Trimless	RT RDT	
(DSS, VWFL & SWFL options only)		
Lumen Output (Trim & Housing output must match)		
1000 Lumens 1500 Lumens	1000L 1500L	
2000 Lumens	2000L	
2500 Lumens 3000 Lumens	2500L 3000L	
(Not available with SP distribution) Color Temperature		
2700K, 80+ CRI or 90+ CRI	27K or 927K	
3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI	30K or 930K 35K or 935K	
4000K, 80+ CRI or 90+ CRI Warm Dim: 2700-1800K, 90+ CRI	40K or 940K 92718W	
(1500 & 2000 lumens only)		
Warm Dim: 3000-1800K, 90+ CRI (1500 & 2000 lumens only)	93018W	
Optic Downlight	DN	
Super Short Cone with Solite Lens 75° cut-off	DSS	
(Die-cast trim, RDT, with VWFL or SWFL only) Distribution		
Spot Narrow Flood	SP NFL	
Flood 1	FL1	
Flood 2 Wide Flood	FL2 WFL	
Very Wide Flood (DSS Optic only) Super Wide Flood (DSS Optic only)	VWFL SWFL	
Color		
Clear Diffuse Warm Diffuse	CD WD	
Black White	BK WH	
ACCESSORIES		
Wood Ceiling Installation Kit	I C4-WOOD-KIT	

HOUSING ORDERING

Wood Ceiling Installation Kit LC4-WOOD-KIT

ROUND DOWNLIGHT PERFORMANCE CHART

OUTDOOR RATED (OD) DRIVER DIMMING PERFORMANCE CHART

Lum	en Output	Delivered Lumens	System Watts	LPW
	1000L	1061	11	93
	1500L	1595	19	83
WD	1500L	1433	25	57
	2000L	2119	26	83
WD	2000L	2014	37	55
	2500L	2562	32	80
	3000L	3087	36	85

Lumen Output	Minimum Dimming Level
1000L	25%
1500L	16%
2000L	12%
2500L	10%
3000L	10%

Based on downlight (DN) optic, 3500K, 80CRI, Wide Flood, Clear Diffuse. WDM base on 3000 - 1800K, 90 CRI. Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

ROUND DOWNLIGHT LUMEN MULTIPLIER TABLE

Color Temperature & CRI

Trim Type	Optic	Lumen Output	Color Temperature	Multiplier
	ALL	ALL	2700K, 80+ CRI [27K]	0.93
			2700K, 90+ CRI [927K]	0.80
			3000K, 80+ CRI [30K]	0.97
			3000K, 90+ CRI [930K]	0.85
			3500K, 80+ CRI [35K]	1.00
ALL			3500K, 90+ CRI [935K]	0.83
ALL			4000K, 80+ CRI [40K]	1.01
			4000K, 90+ CRI [940K]	0.86
		1500	2700-1800K, 90+ CRI [92718W]	0.94
		2000	3000-1800K, 90+ CRI [92/18W]	1.01
		1500		0.96
		2000		1.01

Distribution

Trim Type	Optic	Distribution	Multiplier	
			1000 - 2500L	3000L
	Round Downlight with 50° cut-off [DN]	Spot [SP]	1.07	-
		Narrow Flood [NFL]	1.03	1.05
Round Trimless [RT]		Flood 1 [FL1]	0.99	1.01
		Flood 2 [FL2]	0.99	0.98
		Wide Flood [WFL]	1.02	1.03
		Spot [SP]	1.07	-
	Round Downlight with 50° cut-off [DNT]	Narrow Flood [NFL]	1.12	1.11
Round Overlap [RO]		Flood 1 [FL1]	1.07	1.01
		Flood 2 [FL2]	1.00	1.02
		Wide Flood [WFL]	1.01	1.02
Deviced Die Oest Trimber [DDT]	Super Short Cone with Solite Lens with 75° cut-off [DSS]	Very Wide Flood [VWFL]	0.83	0.84
Round Die-Cast Trimless [RDT]		Super Wide Flood [SWFL]	0.80	0.81
Davind Dia Cost Overlan [DDO]	Super Short Cone with Solite Lens	Very Wide Flood [VWFL]	0.80	0.83
Round Die-Cast Overlap [RDO]	with 75° cut-off [DSS]	Super Wide Flood [SWFL]	0.82	0.82

Color

Trim Type	Optic	Color	Multiplier
	Davind Davin light with 50° aut off [DN]	Clear Diffuse [CD]	1.00
Round Trimless [RT] and		Warm Diffuse [WD]	0.86
Round Overlap [RO]	Round Downlight with 50° cut-off [DN]	White [WH]	1.00
1.2.3		Black [BK]	0.50
	Super Short Cone with Solite Lens with 75° cut-off [DSS]	Clear Diffuse [CD]	1.00
Round Die-Cast Trimless [RDT]		Warm Diffuse [WD]	0.95
and Round Die-Cast Overlap [RDO]		White [WH]	1.10
		Black [BK]	0.85

Multiplier charts are provided to aid with estimation of lumen levels across options. Apply multipliers against ordered Lumen Output to estimate Delivered Lumens. An estimation should make use of all tables through consecutive application of three multipliers. Refer to IES files for most accurate photometric information

How To Use Lumen Multipliers

Formula: (Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Color)

Example: LC4-RT-2000L-935K-DN-NFL-WH

(2000) x (0.83) x (1.03) x (1.00) \approx 1710 lm (estimated delivered lumens)