

ID+ 4.5"

LED DOWNLIGHT



Solite lens option



clear diffuse



warm diffuse



white



clear diffuse &
white flange



warm diffuse &
white flange

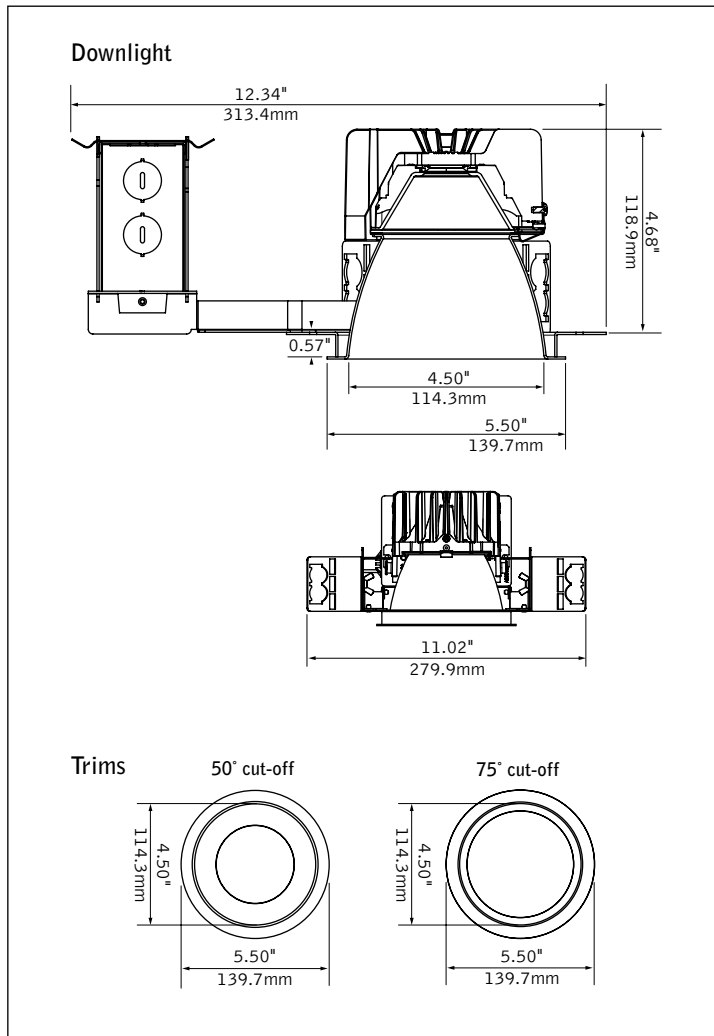


black



trimless companion

DIMENSIONAL DATA



FEATURES

Field adjustability of ceiling thickness from 0.5" to 3.0"

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

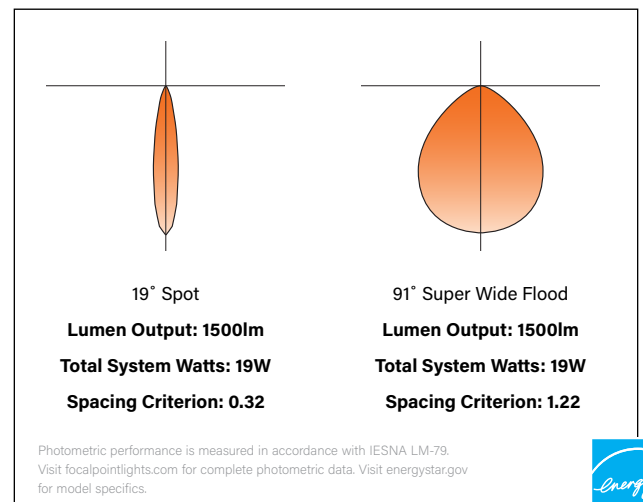
Right Light: Standard delivered lumen outputs 1000, 1500, 2000, 2500, and 3000.

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.

Compatible with common pre-engineered grid ceiling systems requiring luminaires fitting into a 6" slot.

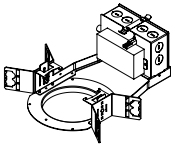
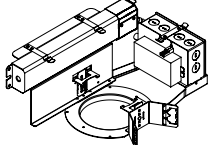
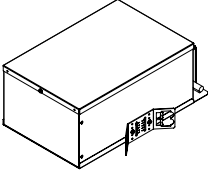
PERFORMANCE



fixture:

project:

HOUSING DETAILS

Standard	Emergency Battery	IC/Chicago Plenum
		
L x W x H 12.59" x 11.02" x 5.20"	L x W x H 16.21" x 11.21" x 6.02"	Standard L x W x H 16.85" x 11.45" x 6.13" Emergency L x W x H 16.85" x 12.95" x 6.13"

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

Reported: L70 at >55,000 hours Calculated: L70 at 204,000 hours
L90 at >55,000 hours L90 at 59,000 hours

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 within the trim. Trims are self-flicking. Non-painted trim matches reflector finish. White or Black painted flange may also be specified.

Optics

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

Op-tic	Cut-Off Degree	Lumen Output	Distribution Beam Spread							Spacing Criteria
			SP	NFL	FL1	FL2	WFL	VWFL	SWFL	
DN		1000-2500	19° .32	24° .42	34° .54	44° .68	59° .92	-	-	
		3000	-	25° .42	35° .58	44° .70	60° .94	-	-	
DSS		1000-2500	-	-	-	-	-	73° 1.00	91° 1.22	
		3000	-	-	-	-	-	68° .98	91° 1.22	

PERFORMANCE CHART* - see page 3.

Focal Point LLC reserves the right to change specifications for product improvement without notification.

HOUSING ORDERING

Housing Series	FLC4D	FLC4D
ID+ 4.5" Round Downlight	RO	RO
Trim Type		
Round Overlap	RO	
Color Options		
Standard White, 80 & 90 CRI	SW	
Warm Dim	WDM	
(1500 & 2000 lumens only. UNV & EM not available.)		
Lumen Output		
1000 Lumens	1000L	
1500 Lumens	1500L	
2000 Lumens	2000L	
2500 Lumens	2500L	
3000 Lumens	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	277	
Low Voltage	LV	
(IC housing; 2000L max. T housing; 1000L only)		
Control System & Dimming Level		
0-10V - 0% Dimming	LZ1	
0-10V - 1% Dimming	L11	
0-10V - 10% Dimming	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) -		
1% Dimming	LH1	
Lutron Hi-Lume - Forward Phase -		
1% Dimming (120V only)	LTE	
DALI - 0% Dimming	DZ1	
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.)		
Thermally Protected	T	
Factory Options		
Bar Hangers	BH	
Chicago Plenum	CP	
Emergency Battery	EM	
(Must order LC4EM trim. Not wet location or outdoor rated.)		
Outdoor Rated	OD	
(LD1 driver only. IC housing 1500L max. See dimming Performance Chart on page 3.)		
Bracket for 6" slot pre-engineered ceiling	TZB	



TRIM & LED MODULE

Aperture	
4.5" Round Reflector	LC4
4.5" Round Reflector - Airtight	LC4AT
(IC housing required for Airtight rating)	
4.5" Round Reflector - Emergency	LC4EM
(Required for "EM" option. DN optic only. Not wet location or outdoor rated.)	
Trim Type	
Round	RO
Round Die-Cast Overlap	RDO
(DSS, VWFL & SWFL options only)	
Lumen Output	
(Trim & Housing output must match)	
1000 Lumens	1000L
1500 Lumens	1500L
2000 Lumens	2000L
2500 Lumens	2500L
3000 Lumens	3000L
(Not available with SP distribution)	
Color Temperature	
2700K, 80+ CRI or 90+ CRI	27K or 927K
3000K, 80+ CRI or 90+ CRI	30K or 930K
3500K, 80+ CRI or 90+ CRI	35K or 935K
4000K, 80+ CRI or 90+ CRI	40K or 940K
Warm Dim: 2700-1800K, 90+ CRI	92718W
(1500 & 2000 lumens only)	
Warm Dim: 3000-1800K, 90+ CRI	93018W
(1500 & 2000 lumens only)	
Optic	
Downlight with 50° cut-off	DN
Super Short Cone with Solite Lens 75° cut-off	DSS
(Die-cast trim, RDO, with VWFL or SWFL only)	
Distribution	
Spot	SP
Narrow Flood	NFL
Flood 1	FL1
Flood 2	FL2
Wide Flood	WFL
Very Wide Flood (DSS Optic only)	VWFL
Super Wide Flood (DSS Optic only)	SWFL
Color	
Clear Diffuse	CD
Warm Diffuse	WD
Black (Black Painted flange only)	BK
White (White Painted flange only)	WH
Flange Finish	
Non-Painted, matches reflector color	NP
(Clear and warm diffuse only)	
Black Painted	BP
White Painted	WP



Options in orange qualify for the Quickship program. 5-day up to 200 pieces. Refer to Quickship Guide for complete details.

ROUND DOWNLIGHT PERFORMANCE CHART

Lumen Output	Delivered Lumens	System Watts	LPW
1000L	1045	11	92
1500L	1571	19	82
 1500L	1433	25	57
2000L	2087	26	82
 2000L	2014	37	55
2500L	2523	32	79
3000L	3050	36	84

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%

OUTDOOR RATED (OD) DRIVER DIMMING PERFORMANCE CHART

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

ROUND DOWNLIGHT LUMEN MULTIPLIER TABLE

Color Temperature & CRI

Trim Type	Optic	Lumen Output	Color Temperature	Multiplier
ALL	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
			3500K, 90+ CRI [935K]	0.83
			4000K, 80+ CRI [40K]	1.01
			4000K, 90+ CRI [940K]	0.86
		1500		0.94
		2000	2700-1800K, 90+ CRI [92718W]	1.01
		1500		0.96
		2000	3000-1800K, 90+ CRI [93018W]	1.01

Distribution

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

Color

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

Multiplier tables are provided to aid with estimation of lumen levels across options. Apply multipliers against ordered Lumen Output to estimate Delivered Lumens. 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-RO-2000L-935K-DN-NFL-WH
(2000) x (0.83) x (1.12) x (1.00) ≈ 1859 lm (estimated delivered lumens)