

ID+ 4.5"

LED DOWNLIGHT



FOCAL POINT®



Solite lens option



clear diffuse



warm diffuse



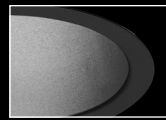
white



clear diffuse & white flange



warm diffuse & white flange

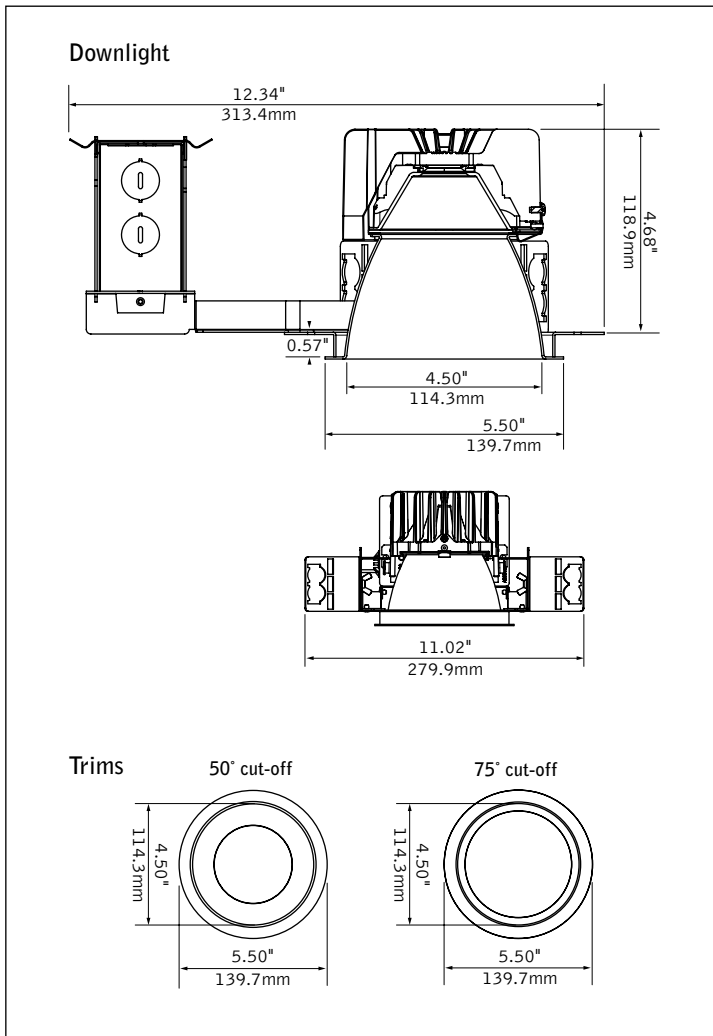


black



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.

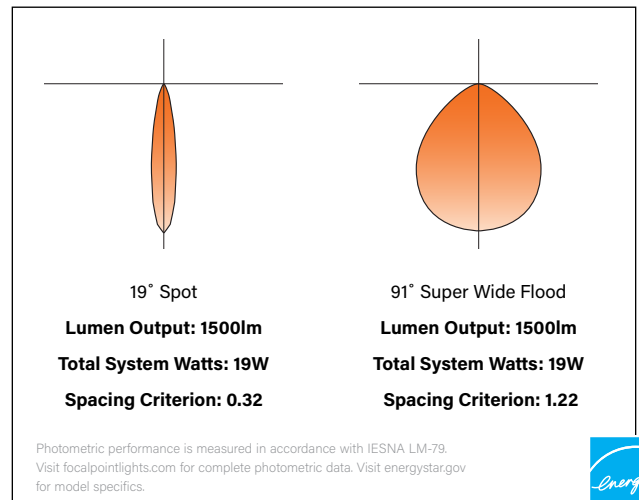
Right Light: Standard delivered lumen outputs 1000, 1500, 2000, 2500, and 3000.

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.

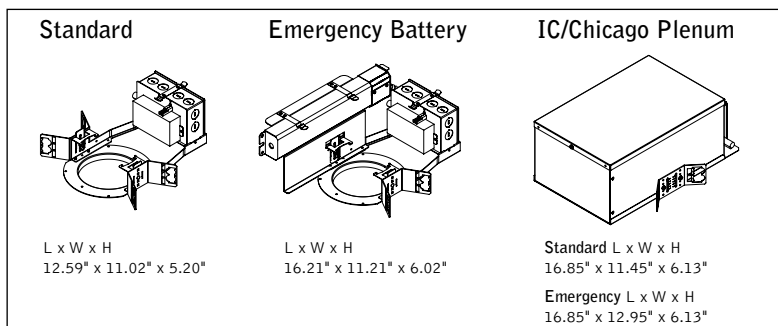
PERFORMANCE



fixture:

project:

HOUSING DETAILS



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 warranted 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-flanged. 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	50°	1000-2500	19° .32	24° .42	34° .54	44° .68	59° .92	-	-	
		3000	-	25° .42	35° .58	44° .70	60° .94	-	-	
DSS	75°	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		
Trim Type		RO
Round Overlap		RO
Color Options		
Standard White, 80 & 90 CRI		SW
Warm Dim		WDM
<small>(1500 & 2000 lumens only. UNV & EM not available.)</small>		
Lumen Output		
1000 Lumens		1000L
1500 Lumens		1500L
2000 Lumens		2000L
2500 Lumens		2500L
3000 Lumens		3000L
<small>(Not available with SP distribution or LFP)</small>		
Voltage		
UNV 120V/277V		UNV
<small>(IC housing only. Not available with LFP)</small>		
120V		120
277V		277
Low Voltage		LV
<small>(IC housing; 2000L max. T housing; 1000L only)</small>		
Control System & Dimming Level		
0-10V - 0% Dimming		LZ1
0-10V - 1% Dimming		LT1
0-10V - 10% Dimming		LD1
Low Voltage, PoE compatible		LVN
<small>(No driver. Not available with EM. LV Voltage only)</small>		
Forward Phase (120V only)		LFP
Lutron Hi-Lume EcoSystem (LDE1) -		
1% Dimming		LH1
DALI - 0% Dimming		DZ1
DALI - 1% Dimming		DT1
Housing Type		IC
<small>(LT1, LD1, LVN, LH1 2000L max. LZ1, DT1, DZ1, LFP 1500L max. LC4AT required for Airtight. Not available with EM.)</small>		
Thermally Protected		T
Factory Options		
Bar Hangers		BH
Chicago Plenum		CP
Emergency Battery**		EM
<small>(Must order LC4EM trim. Not wet location or outdoor rated.)</small>		
Outdoor Rated		OD
<small>(LD1 driver only. IC housing 1500L max. See dimming Performance Chart on page 3.)</small>		
Bracket for 6" slot pre-engineered ceiling		TZB

TRIM & LED MODULE

Aperture		
4.5" Round Reflector - Airtight		LC4
<small>(IC housing required for Airtight rating)</small>		LC4AT
4.5" Round Reflector - Emergency**		LC4EM
<small>(Required for "EM" option. DN optic only. Not wet location or outdoor rated.)</small>		
Trim Type		
Round		RO
Round Die-Cast Overlap		RDO
<small>(DSS, VWFL & SWFL options only)</small>		
Lumen Output		
<small>(Trim & Housing output must match)</small>		
1000 Lumens		1000L
1500 Lumens		1500L
2000 Lumens		2000L
2500 Lumens		2500L
3000 Lumens		3000L
<small>(Not available with SP distribution)</small>		
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
<small>(1500 & 2000 lumens only)</small>		
Warm Dim: 3000-1800K, 90+ CRI		93018W
<small>(1500 & 2000 lumens only)</small>		
Optic		
Downlight with 50° cut-off		DN
Super Short Cone with Solite Lens 75° cut-off		DSS
<small>(Die-cast trim, RDO, with VWFL or SWFL only)</small>		
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		
<small>(Clear and warm diffuse only)</small>		NP
Black Painted		BP
White Painted		WP

QS 5/10 DAY** Options in orange qualify for the Quickship program. All options 5-day up to 200 pieces except Emergency Battery and 4.5" Round Reflector - Emergency 10-day only.

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	1.01	
1500	0.96			
2000	1.01			
			2700-1800K, 90+ CRI [92718W]	1.01
			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)