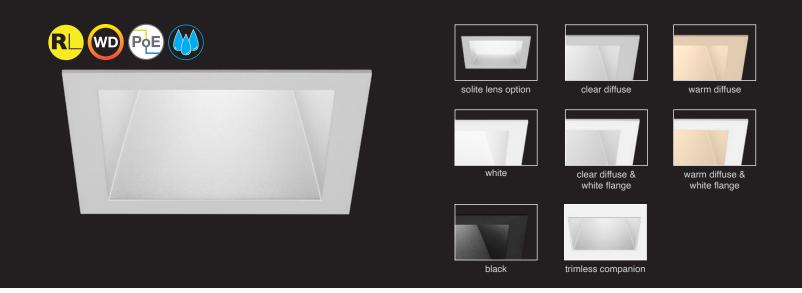
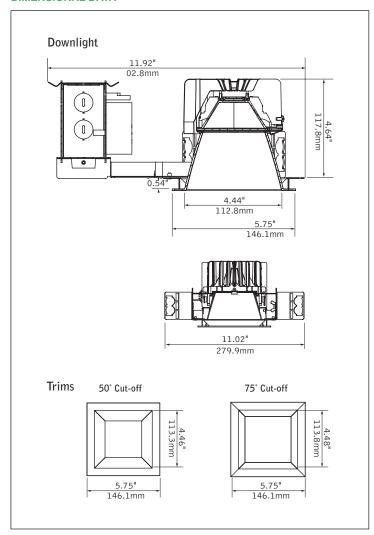
# ID+ 4.5" x 4.5"





#### **DIMENSIONAL DATA**



# **FEATURES**

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

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

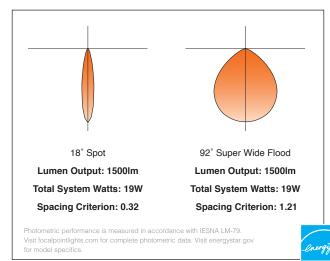
Right Light: Standard delivered lumen outputs 1000, 1500, 2000, 2500, and 3000.

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

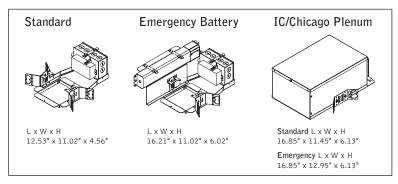
PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

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

#### **PERFORMANCE**



#### **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.

#### **Flectrical**

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

Torsion springs pull single molded die-cast trim tight to the ceiling with no visible fasteners within the trim.

# Optics

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

Optic	Cut-Off	Lumen	Distribution Beam Spread   Spacing Criteria						
Optic	Degree	Output	SP	NFL	FL1	FL2	WFL	VWFL	SWFL
DN	DN 50°	1000- 2500	18°   .32	23°   .40	34°   .56	45°   .72	52°   .86	70°   1.08	-
DIN		3000	-	25°   .43	39°   .64	47°   .74	52°   .86	70°   1.08	-
DSS	75°	1000- 2500	-	-	-	-	-	70°   1.01	92°   1.21
D22	/5	3000	-	-	-	-	-	70°   1.00	94°   1.22

# **PERFORMANCE CHART\*** - see page 3.

HOUSING ORDERING		
Housing Series ID+ 4.5" Square Downlight	FLC44D	FLC44D
Trim Type	SO	SO
Square Overlap Color Options		
Standard White, 80 & 90 CRI Warm Dim	SW WDM	
(1500 & 2000 lumens only. UNV & EM not available.)  Lumen Output		
1000 Lumens	1000L	
1500 Lumens 2000 Lumens	1500L 2000L	
2500 Lumens	2500L	
3000 Lumens (Not available with SP distribution, LFP or LTE.)	3000L	
Voltage UNV 120V/277V	UNV	
(IC housing only. Not available with LFP or LTE.)  120V	120	
277V	277	
Low Voltage (IC housing: 2000L max. T housing: 1000L only.)	LV	
Control System & Dimming Level 0-10V - 0% Dimming	LZ1	
0-10V - 1% Dimming	L11	
0-10V - 10% Dimming Low Voltage, PoE compatible	LD1 LVN	
(No driver. Not available with EM. LV Voltage only.)		
Forward Phase (120V only) Lutron Hi-Lume EcoSystem (LDE1) -	LFP	
1% Dimming	LH1	
Lutron 5-Series EcoSystem (LDE5) - 5% Dimming	LU5	
Lutron Hi-Lume - Forward Phase -		
1% Dimming (120V only) DALI - 0% Dimming	LTE DZ1	
DALI - 1% Dimming  Housing Type	D11	
IC Rated / Airtight	IC	
(L11, LD1, LVN, LH1, LU5 2000L max. LZ1, D11, DZ1, LFP 1500L max. LTE 1000L only. LC44AT required for Airtight.		
Not available with EM.)  Thermally Protected	Т	
Factory Options Bar Hangers	BH	
Chicago Plenum / National Plenum	CP	
Emergency Battery  Must order LC44EM trim. Not wet location or outdoor rated.)	EM	
Outdoor Rated (LD1 driver only. IC housing 1500L max. See dimming Performance Chart on page 3.)	OD	
Performance Chart on page 3.)  Bracket for 6" slot pre-engineered ceiling	TZB	
TRIM & LED MODULE		
4.5" Square Reflector	LC44	
4.5" Square Reflector - Airtight (IC housing required for Airtight rating)	LC44AT	
4.5" Square Reflector - Emergency (Required for "EM" option. DN optic only.	LC44EM	
Not wet location or outdoor rated.)  Trim Type		SDO
Square Die-Cast Overlap	SDO	
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 <b>or</b> 90+ CRI 3500K, 80+ CRI <b>or</b> 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 with 50° cut-off	DN	
Super Short Cone with Solite Lens 75° cut-off	DSS	
· (VWFL or SWFL only) <b>Distribution</b>		
Spot Narrow Flood	SP NFL	
Flood 1	FL1	
Flood 2 Wide Flood	FL2 WFL	
Very Wide Flood	VWFL	
Super Wide Flood (DSS Optic only) Color	SWFL	
Clear Diffuse Warm Diffuse	CD WD	
Black (Black Flange Finish only)	BK	
White (White Flange Finish only) Flange Finish	WH	
Non-Painted (Clear and warm diffuse only)  Black Painted	NP BP	
White Painted	WP	
		5.1

# **SQUARE DOWNLIGHT PERFORMANCE CHART**

Lui	nen Output	Delivered Lumens	System Watts	LPW
	1000L	1016	11	89
	1500L	1527	19	80
WD	1500L	1480	25	58
	2000L	2028	26	79
WD	2000L	2079	37	57
	2500L	2452	32	76
	3000L	2941	36	81

Based on downlight (DN) optic, 3500K, 80CRI, Wide Flood, Clear Diffuse. 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%

# **SQUARE DOWNLIGHT LUMEN MULTIPLIER TABLE**

# Color Temperature & CRI

Trim Type	Optic		Color Temperature	Multiplier
	ALL	ALL	2700K, 80+ CRI [27K]	0.93
			2700K, 90+ CRI [927K]	0.75
			3000K, 80+ CRI [30K]	0.93
			3000K, 90+ CRI [930K]	0.81
			3500K, 80+ CRI [35K]	1.00
ALI			3500K, 90+ CRI [935K]	0.81
ALL			4000K, 80+ CRI [40K]	1.00
			4000K, 90+ CRI [940K]	0.87
		1500	2700 1000V 00 . CDI [02710W]	0.93
		2000	2700-1800K, 90+ CRI [92718W]	1.09
		1500	3000-1800K, 90+ CRI [93018W]	0.99
		2000		1.04

# Distribution

Tring True	Ontio	Distribution	Multiplier	
Trim Type	Optic	Distribution	1000 - 2500L	3000L
		Spot [SP]	1.05	-
	Downlight with 50° cut-off [DN]  Flood 1 [FL1]  Flood 2 [FL2]  Wide Flood [\frac{1}{2}]	Narrow Flood [NFL]	1.04	1.04
Square Die-Cast Trimless [SDT]		Flood 1 [FL1]	0.97	0.96
Square Die-Cast Milliess [SD1]		Flood 2 [FL2]	0.99	0.98
		Wide Flood [WFL]	1.00	1.00
		Very Wide Flood [VWFL]	0.94	0.93
		Spot [SP]	1.03	-
	Developh with 50° and off [DNI]	Narrow Flood [NFL]	1.02	1.04 0.96 0.98 1.00 0.93
Square Die-Cast Overlap [SDO]		Flood 1 [FL1]	0.96	0.93
Square Die-Cast Overlap [SDO]	Downlight with 50° cut-off [DN]	Flood 2 [FL2]	0.97	0.94
		Wide Flood [WFL]	0.98	0.98
		Very Wide Flood [VWFL]	0.90	0.90
Squara Dio Cost Trimlosa (SDT)	Super Short Cone with Solite Lens Very Wide Flood [VWFL] 0.0		0.87	0.88
Square Die-Cast Trimless [SDT]	with 75° cut-off [DSS]	Super Wide Flood [SWFL]	0.81	0.84
Square Die Coet Overlan [SDO]	Super Short Cone with Solite Lens with 75° cut-off [DSS]	Very Wide Flood [VWFL]	0.80	0.82
Square Die-Cast Overlap [SDO]		Super Wide Flood [SWFL]	0.81	0.75

## Color

Trim Type	Optic	Color	Multiplier
	Downlight with 50° cut-off [DN]	Clear Diffuse [CD]	1.00
		Warm Diffuse [WD]	0.84
		White [WH]	1.11
Square Die-Cast Trimless [SDT]		Black [BK]	0.65
and Square Die-Cast Overlap [SDO]		Clear Diffuse [CD]	1.00
	Super Short Cone with Solite Lens	Warm Diffuse [WD]	1.01
	with 75° cut-off [DSS]	White [WH]	1.16
		Black [BK]	0.93

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**

 $\textbf{Formula:} \ (\texttt{Lumen Output Value}) \ x \ (\texttt{Color Temperature \& CRI}) \ x \ (\texttt{Distribution}) \ x \ (\texttt{Color})$ 

Example: LC44-SDO-2000L-935K-DN-NFL-WH

(2000) x (0.81) x (1.02) x (1.11) ≈ 1834 lm (estimated delivered lumens)