# )+ 3.5" x 3.5" Trimless LED WALL WASH

FOCAL POINT









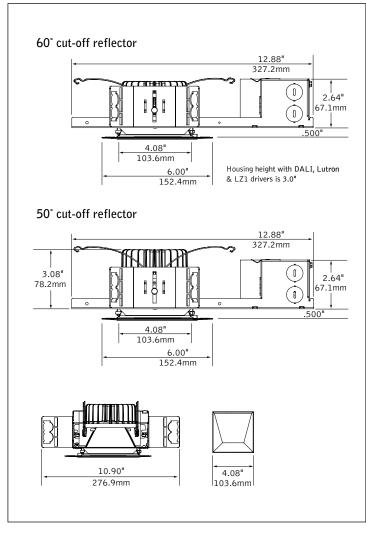




die-cast white

overlap companion

# **DIMENSIONAL DATA**



# **FEATURES**

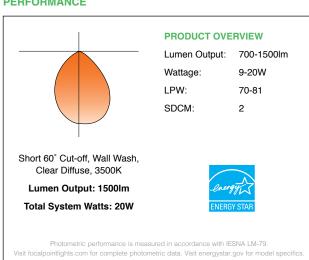
Less than 2.64" low profile housing available.

ChromaSure: Color consistency resulting in a 2-step MacAdam ellipse across the entire ID+ product line.

Field adjustability of ceiling thickness from 0.5" - 1.5".

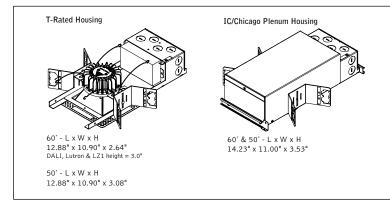
50° cut-off and 60° cut-off reflector options available.

Outdoor rating permits use in outdoor covered ceiling applications.



# 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. Restrictive airflow per ASTM-E283. 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. Accommodates ceiling thicknesses up to 0.5" standard, field adjustable up to 1.5" thickness. For thicker ceiling consult factory. Fixture will not exceed 5 lb.

#### Electrical

Choice of constant current dimming drivers. Power factor > .9 typical. For Emergency Battery option see downlight overlap companion.

#### 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 420,000 hours

 L90 at >55,000 hours
 L90 at 109,000 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, CRI>80 or >90. Color accuracy within 2 SDCM. Aluminum heat sink provides appropriate thermal management.

#### Aesthetics

Die–formed aluminum reflector ensures glare free optics. Full die-cast painted reflectors also available. Torsion springs pull trim tight to the ceiling with no visible fasteners within the trim.

#### Optics

50-degree or 60-degree cut-off to light source and its image. Wall wash features acrylic diffuser to provide smooth illumination down the wall.

PERFORMANCE TABLE - see page 3.

Housing Series		FLC33W
ID+ 3.5" Square	FLC33W	
Trim Type		ST
••	OT	
Square Trimless	ST	
Lumen Output		
700 Lumen	700L	
900 Lumen	900L	
1100 Lumen	1100L	
1300 Lumen	1300L	
1500 Lumen	1500L	
	ISOUL	
Voltage		
120V	120	
277V	277	
Control System & Dimming Level		
0-10V - 0% Dimming	LZ1	
0-10V - 1% Dimming	L11	
0-10V - 10% Dimming	LD1	
Forward Phase (120V only. 900 & 1300 Lumens only.)	LFP	
Lutron Hi-Lume EcoSystem (LDE1) -		
1% Dimming	LH1	
(700 &1500 lumens not available.)		
Lutron 5-Series EcoSystem (LDE5) -		
5% Dimming	LU5	
(1300 Lumens only)		
Lutron Hi-Lume - Forward Phase -		
1% Dimming (120V only. 1500 lumens not available.)	LTE	
DALI - 0% Dimming	DZ1	
DALI - 1% Dimming	D11	
· · · · ·		
Housing Type		
IC Rated / Airtight	IC	
(Available options: L11 & LD1: 700, 900 & 1100 Lumens. LFP: 900 & 1300 Lumens.)		
Thermally Protected, Non-IC	т	
Thermally Protected, Non-IC Wood	TW	
(Wood ceiling installation kit required) (T & TW housing height = 3.0" for LZ1, LH1, LTE,	1 **	
(T & TW housing height = 3.0" for LZ1, LH1, LTE, LU5, D11 & DZ1)		
Factory Options	DU	
Bar Hangers	BH	
Chicago Plenum	CP	
(LD1 driver and T-rated bousing only. Not available	OD	
(LD1 driver and T-rated housing only. Not available ith CP. See dimming performance table on page 3.)		
TRIM & LED MODULE		
Aperture		LC33
3.5" Square Reflector	LC33	
Trim Type		
Square Trimless	ST	
Square Die-Cast Trimless	SDT	
(Die-cast trim available in Black or	001	
White finishes only)		
Lumen Output		
(Trim & housing output must match)		
700 Lumen	700L	
900 Lumen	900L	
1100 Lumen	1100L	
1300 Lumen		
	1300L	
1500 Lumen	1300L 1500L	
1500 Lumen		
1500 Lumen Color Temperature	1500L	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI	1500L 27K <b>or</b> 927K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI	1500L 27K or 927K 30K or 930K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI	1500L 27K or 927K 30K or 930K 35K or 935K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 4000K, 80+ CRI or 90+ CRI 00ptic	1500L 27K or 927K 30K or 930K 35K or 935K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 4000K, 80+ CRI or 90+ CRI	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 4000K, 80+ CRI or 90+ CRI Optic Tall Cone with 50° cut-off	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 4000K, 80+ CRI or 90+ CRI 0ptic Tall Cone with 50° cut-off (Not available with Die-Cast trims.)	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           000K           100 CRI or 90+ CRI           500 CRI or 90+ CRI           2500 CRI or 90+ CRI           3500 CRI or 90+ CRI           000 CRI or 90+ CRI	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           0ptic           Tall Cone with 50° cut-off           (Not available with Die-Cast trims.)           Short Cone with 60° cut-off           Cloar           Cloar           Cloar           Cloar           Office	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           0ptic           Tall Cone with 50° cut-off           (Not available with Die-Cast trims.)           Short Cone with 60° cut-off           Color           Clear Diffuse           (ST trim only)           Warm Diffuse	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 4000K, 80+ CRI or 90+ CRI 0000 Tall Cone with 50° cut-off (Not available with Die-Cast trims.) Short Cone with 60° cut-off Color Clear Diffuse (ST trim only) Warm Diffuse Black	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           0ptic           Tall Cone with 50° cut-off           (Not available with Die-Cast trims.)           Short Cone with 60° cut-off           Color           Clear Diffuse           (ST trim only)           Warm Diffuse	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           00tic           Tall Cone with 50° cut-off           (Not available with Die-Cast trims.)           Short Cone with 60° cut-off           (St trim only)           Warm Diffuse           Black	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 00tic Tall Cone with 50° cut-off (Not available with Die-Cast trims.) Short Cone with 60° cut-off Color Clear Diffuse (ST trim only) Warm Diffuse Black White	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK WH	
1500 Lumen           Color Temperature           2700K, 80+ CRI or 90+ CRI           3000K, 80+ CRI or 90+ CRI           3500K, 80+ CRI or 90+ CRI           4000K, 80+ CRI or 90+ CRI           0ptic           Tall Cone with 50° cut-off           (Not available with Die-Cast trims.)           Short Cone with 60° cut-off           (St trim only)           Warm Diffuse           Black           White           ACCESSORIES	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 00tic Tall Cone with 50° cut-off (Not available with Die-Cast trims.) Short Cone with 60° cut-off Color Clear Diffuse (ST trim only) Warm Diffuse Black White	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK WH	
1500 Lumen Color Temperature 2700K, 80+ CRI or 90+ CRI 3000K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 3500K, 80+ CRI or 90+ CRI 000K, 80+ CRI 000K, 80+ CRI 000K, 80+ CRI 000K, 80+ CRI 000K, 80+ CRI 000K, 80+ CR	1500L 27K or 927K 30K or 930K 35K or 935K 40K or 940K WWT WWS CD WD BK WH	

**HOUSING ORDERING** 

### SQUARE WALL WASH PERFORMANCE TABLE

Lumen Output	Delivered Lumens	System Watts	LPW
700L	706	9	81
900L	855	11	81
1100L	1059	15	70
1300L	1261	18	71
1500L	1477	20	74

OUTDOOR RATED (OD) DRIVER DIMMING PERFORMANCE TABLE

Lumen Output	Minimum Dimming Level
700L	37%
900L	29%
1100L	23%
1300L	19%
1500L	17%

Based on Trimless, Short Cone, 3500K, 80CRI, Wide Flood, Clear Diffuse. Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

# SQUARE WALL WASH LUMEN MULTIPLIER TABLE

#### **Color Temperature & CRI**

Trim Type	Optic	Color Temperature	Multiplier
		2700K, 80+ CRI [27K]	0.93
		2700K, 90+ CRI [927K]	0.75
		3000K, 80+ CRI [30K]	0.93
	ALL	3000K, 90+ CRI [930K]	0.81
ALL	ALL	3500K, 80+ CRI [35K]	1.00
		3500K, 90+ CRI [935K]	0.81
		4000K, 80+ CRI [40K]	1.00
		4000K, 90+ CRI [940K]	0.87

# Distribution

Trim Type	Optic	Distribution	Multiplier
Square Trimless [ST]	Tall Cone with 50° cut-off [WWT]	Wall Wash	0.77
	Short Cone with 60° cut-off [WWS]	Wall Wash	0.96
	Tall Cone with 50° cut-off [WWT]	Wall Wash	0.79
Square Overlap [SO]	Short Cone with 60° cut-off [WWS]	Wall Wash	0.89
Sqaure Die-Cast Trimless [SDT]	Short Cone with 60° cut-off [WWS]	Wall Wash	1.07
Square Die-Cast Overlap [SDO]	Short Cone with 60° cut-off [WWS]	Wall Wash	0.98

## Color

Trim Type	Optic	Color	Multiplier
		Clear Diffuse [CD]	1.00
Square Trimless [ST]	Tall Cone with 50° cut-off [WWT]	Warm Diffuse [WD]	1.02
and Square Overlap [SO]	and Short Cone with 60° cut-off [WWS]	White [WH]	1.15
		Black [BK]	0.79
Square Die-Cast Trimless [SDT]		Warm Diffuse [WD]	0.88
and	Short Cone with 60° cut-off [WWS]	White [WH]	1.00
Square Die-Cast Overlap [SDO]		Black [BK]	0.76

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: LC33-ST-1100L-935K-WWS-WH

(1100) x (0.81) x (0.96) x (1.15)  $\approx$  984 lm (estimated delivered lumens)

# ID+ 3.5" x 3.5" Trimless

LED WALL WASH

# WALL WASH DESIGN GUIDE - 1500 LUMEN EXAMPLE

Distance from ceiling		Footcandles																	
		Fixtures 3' from Wall					Fixtures 3.5' from Wall					Fixtures 4' from Wall							
		3' OC		3.5' OC		3' OC			3.5' OC			3' OC			3.5' OC				
	3"	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2
0	6"	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3
÷	9"	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3
	12"	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3
	2'	10	10	10	9	9	9	8	8	8	7	7	7	7	7	7	6	6	6
:	3'	14	14	14	13	13	13	12	12	12	10	10	10	10	10	10	8	8	8
	4'	17	17	17	15	15	15	14	14	14	12	12	12	12	12	12	10	10	9
4	5'	18	18	18	16	16	16	16	16	16	14	14	14	14	13	13	12	11	11
	6'	17	17	17	15	15	15	16	16	16	14	14	14	14	14	14	12	12	12
	7'	15	15	15	13	13	13	15	15	15	13	13	13	14	14	14	12	12	12
	8'	14	14	14	12	12	12	14	14	14	12	12	12	14	14	14	12	12	12
:	9'	12	12	12	10	10	10	12	12	12	11	11	11	13	13	13	11	11	11
1	0'	10	10	10	9	9	9	11	11	11	9	9	9	11	11	11	9	9	9

