

Job Information

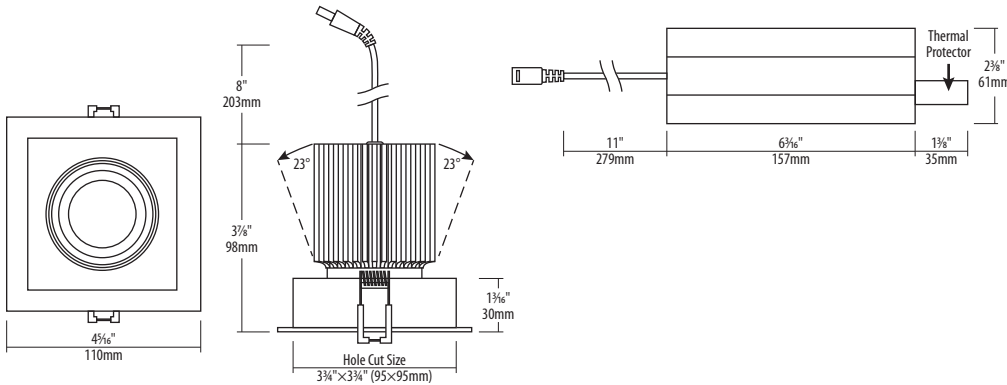
Project Name	
Type	
Location	
Quantity	
Date	

Description

The SIGMA 2 series boasts a sleek modern look with a broad offering of shapes, including pinspots, slots, and slopes. In addition, choose between multiples, regressed optics and tailed beam angles to match the intended look and feel of your architectural space. Add a hex cell louver, a softening, or a linear spread lens to further customize your fixture to further meet desired optical performance.

Technical Drawings

Mounting: Remodel



* Required for Non-IC models only.



FIXTURE SPECIFICATIONS

Aperture	2 5/16" (58mm)
Application	Recessed
Approved Location	Damp
Certification	cETLus
CRI	90
Dimming	Yes
Hole Cut Size	3 3/4" x 3 3/4" (95mm x 95mm)
Max. Ceiling Thickness	1" (25mm)
Power Factor	>0.9
Power Supply Type	Constant Current
Lumen Maintenance	70% @ 50,000 Hrs
THD	<20%
Title 24	Yes
TM-30 Annex E	P2 / V- / F3

Delivered Lumens Per Head	Option	Lumens/ Watt	Driver Wattage
762	A,B	103	7
1060	C,D	94	11
1584	E,F	73	22

Ordering Guide Example: S221WS-A30MC-T1-RM1

S221	Trim Color	Trimless Option	Source Lumens Per Head ¹	Color Temp.	Beam Angle	Lens Options	Driver Options	Voltage	Mounting	Shipping
	B : Black W : White	S : No adapter T : Trimless Adapter Included 1 : Trimless Adapter in 1/2" drywall ¹¹ 5 : Trimless Adapter in 5/8" drywall ¹¹	A : 700 (IC Rated) ⁹ B : 700 (IC Box) C : 1100 (IC Rated) D : 1100 (IC Box) E : 1600 (Non-IC) F : 1600 (IC Box) M : 900 (DTW, Non-IC) ² N : 900 (DTW, IC Box) ²	27 : 2700 K 30 : 3000 K 35 : 3500 K 40 : 4000 K DW : Dim-to-Warm ³ 50 : 5000 K	S : Spot N : Narrow ² M : Medium W : Wide	C : Clear protective lens / TIR for DTW 1 : Honeycomb Louver 2 : Soft Lens ⁸ 3 : Linear Spread Film (60° wide) ⁸ 4 : Light Bending Film (20° directional) ⁸ 5 : Honeycomb Louver with Soft Lens ⁸	T : TRIAC, ELV, 120V Input ⁴ C : TRIAC, ELV, 0-10V, 120-277V Input B : Rated -40°C, 0-10V, 120-277 & 347V Input D : DALI, Rated -40°C, 120-277V & 347V Input M : DMX, 120-277V Input ⁵ E : Emergency Backup, 0-10V, 120-277V Input ⁵ L : Lutron EcoSystem, 120-277V Input ⁵ Q : Casambi Enabled Driver, 120-277V Input ⁵	X : 120-277V ⁶ 1 : 120V 2 : 277V 3 : 347V 4 : 208V 5 : 240V	RM : Remodel ⁷ NC : New Construction AR : Architectural C-Channel Brackets NP : New Construction, Chicago Plenum ¹⁰	1 : Ship Complete 2 : Ship Rough-in First

Example items for "Ship Rough-in First":

First: S221WS-C30MC-T1-NC2

Second: S221WS-C30MC2

Notes:

¹ Delivered lumens provided are based on 3000 K with wide reflector.

² Only available for DTW models.

³ DTW models are only IC rated with an IC Box (Source Lumens Per Head option N).

⁴ Only available in 120V (Voltage option 1).

⁵ Not available in 347V.

⁶ Available with Source Lumens Per Head option; A, B, C, D, F or N only.

⁷ Not available with IC Box (option B, D, F or N).

⁸ Not available for DTW models.

⁹ Only available with Driver Options "T" or "C".

¹⁰ Only available with IC Box (option B, D, F or N).

¹¹ Adapter ships separately.

QuickShip option is available on orders of 100 pieces or less. QuickShip lead time may vary for orders greater than 100 pieces. No additional shipment rates apply. Subject to availability.

For additional options please consult your

A-Line representative. All trademarks are the property of their respective owners. Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Features

Beam Angle

Multi-faceted reflector available for fixed CCT models in spot (15°), medium (40°) or wide (50°) beam angles. Dim-to-Warm CCT option is equipped with a multi-faceted TIR lens which eliminates hot spots and provide for a sharp cut-off. This option is available with 15°, 24°, 38° and 60° beam angles.

LED Characteristics

Available with high powered BRIDGELUX® LED chip that maintains high lumens per watt with a typical 90 CRI.

LED Characteristics – Dim-to-Warm

Available with high powered LED chip that dims from 3000 K to 2000 K with a typical 90 CRI.

LED Optics

Integrated clear protective lens with fixed CCT models. Optional honeycomb, soft lens, and light bending films are also available. Dim-to-Warm models contain an integrated TIR lens.

Dimming

Multiple dimming options are available. 100~10% dimming with TRIAC/ELV, 100~1% dimming with 0-10V, and dim to off with compatible devices. Compatible with OnCloud dimmer. See LED Driver

Options for details. Consult factory for compatible dimmers.

Thermal Performance

Extruded aluminum heat sink ensures optimal heat dissipation and LED life.

LED Driver

The LED driver is remote mounted to allow for a lower operating temperature of the LED, longer life, and serviceable separate from the fixture. Includes an 18" (457mm) plenum rated FT6 wire with DC 2.1 connector from the driver to fixture. Inrush current for all drivers is compliant with NEMA 410. See LED Driver Options for more specific details.

System Protection

Integral thermal protection provided on Non-IC models to indicate improper installations. Mounted to the junction box and will disconnect if insulation is detected. Insulation must maintain 3" (76mm) clearance from top or sides.

IC Box and New Construction Chicago Plenum

Single wall aluminum housing allows fixture to be installed in insulated ceiling applications. The housing is equipped with rigid hanger bars for easy installation without warping or moving. With Mounting option "NP" the fixture is built in accordance with City of Chicago

Environmental Air (CCEA).

Hanger Bars – New Construction and IC Box

Rigid hanger bars extend up to 25" (635mm). Score lines on the hanger bars allow for tool-less shortening down to 12" (305mm). Built-in line-up foot allows for accurate housing height during installation. Integrated T-bar clips easily snap onto T-bars.

Hanger Bars – Architectural C-Channel

Architectural frame bracket accepts C-channel and EMT conduit. Vertically adjustable.

Trimless Option

Trimless adapter provides a flush and seamless ceiling mount. Trimless adapter is also available prefabricated in level 5 drywall for ease of installation.

Shipping

Fixtures can be shipped complete or with rough-in components first, and the remainder once requested. Drywall options ship separately.

Environment

Suitable for use in damp locations.

Warranty

5-Year warranty.

QuickShip Made-To-Order

Made-To-Order products ship within seven business days of an order being released.

ONLINE PRODUCT DETAILS
AND DOCUMENTATION



LED Driver Options

(T) **TRIAC** : Dimming for 120V only, 100~10% dimming.

(C) **TRIAC/ELV/0-10V** : TRIAC/ELV dimming for 120V only, 100~10% dimming. 1% Dimming over 0-10V is optional, but required for 277V & 347V dimming.

(B) **Rated -40** : Low temperature driver operation. Dimming to 1% over 0-10V.

(D) **DALI** : DALI soft dimming to 1%. Dim-to-off with standby power <0.3W. Rated to -40.

(M) **DMX** : DMX/RDM soft dimming to 0.1%. Dim-to-off with standby power <0.3W.

(E) **Emergency Backup** : Integrated emergency battery with switchable output of 5W for 180 minutes, or 10W for 90 minutes of operation during an outage.

(L) : **Lutron EcoSystem** : Suitable for integration into a planned or existing EcoSystem® lighting control solution. Dimming down to 1% with compatible controls.

(Q) **Casambi Enabled** : Casambi wireless module included. Wireless dimming to 1% provided over 0-10V signal from module.

Accessories



P-3750S-1

95mm square pre-mounting plate for Sigma 2 fixtures.



ALB-27

27" Linear hanger bar, 2-pack.



LC-CRTL-DIM-1

Smart Wi-Fi dimmer, 150W, 120V.
* Compatible with TRIAC Driver.



VBE-1¹

Vapour barrier extender. For use in new construction applications.



VBE-2²

Vapour barrier extender. For use in remodel applications.

Trimless



P-5000S

125mm x 125mm square pre-mounting plate for Sigma 2 fixtures.



S2-ZCS-3

110mm Sigma 2 square trimless adapter.



S2-PDW1S-3

Trimless Adapter in 1/2" drywall.

S2-PDW5S-3

Trimless Adapter in 5/8" drywall.

Lens Options



S2-HC-LVR

Honeycomb louver.



S2-SL-LENS

Soft lens.



S2-LS60-LENS

Linear spread film (60° wide).



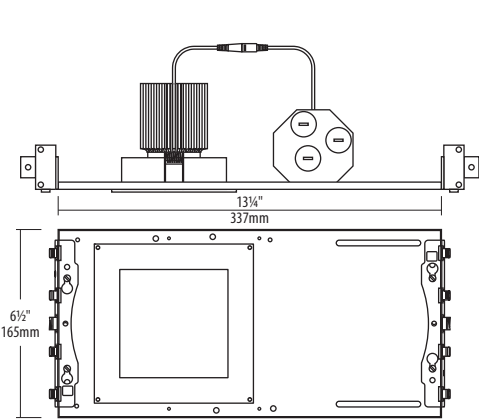
S2-LB20-LENS

Light bending film (20° directional).

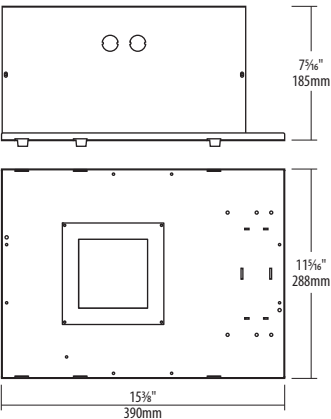
¹ VBE-1 needed for T24 on new construction applications.

² VBE-2 needed for T24 on remodel applications.

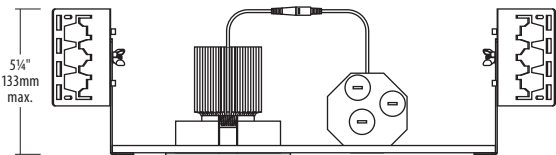
Mounting: New Construction



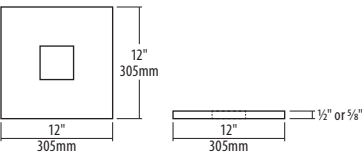
Mounting: IC Box / New Construction Chicago Plenum



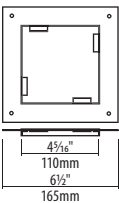
Mounting: Architectural



Mounting: Trimless Adapter in Drywall

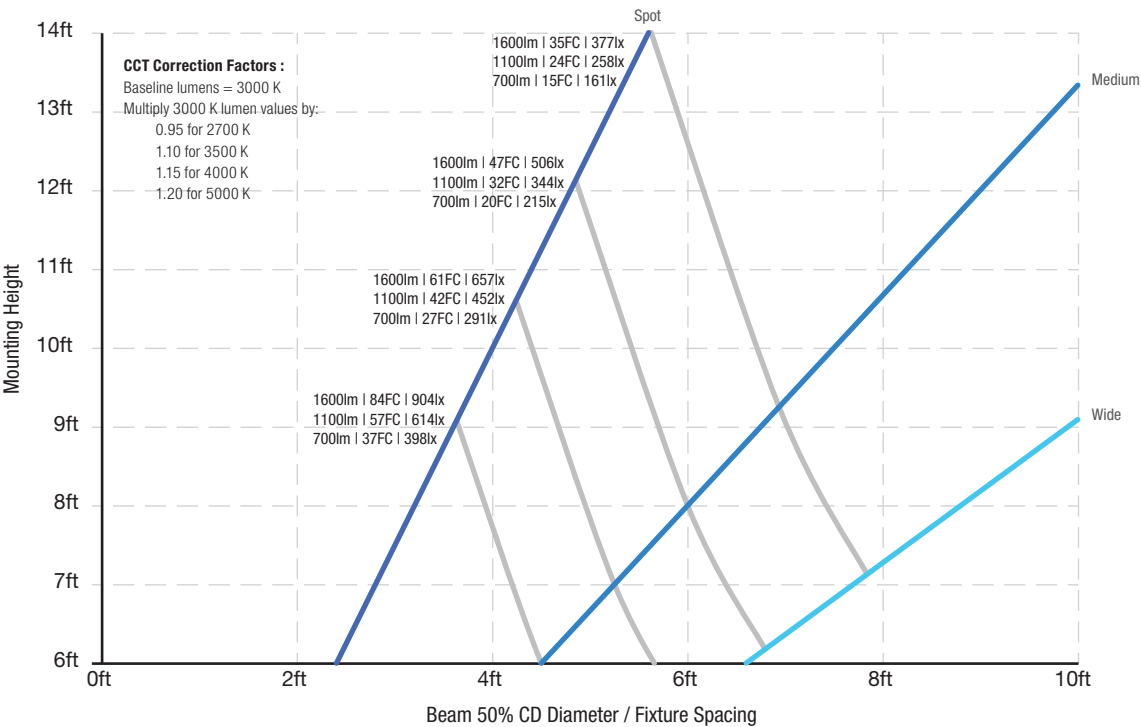


Mounting: Trimless Adapter



Luminaire Budgetary Diagram

Mounting Height vs. Fixture Spacing
Sample reference with 90 CRI at 3000 K CCT



- To use Liteline's Budgetary Diagram:
1. Determine mounting height above work surface for application on Y axis.
 2. Determine appropriate spacing by comparing beam cone size on X axis.
 3. Select appropriate beam angle and lumen package from slope line at intersection point.

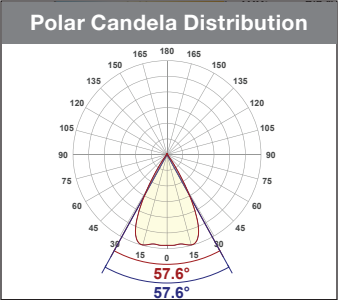
Photometry

Note : All photometric data is based on 3000 K CCT, wide beam spread, white trim and clear protective lens.

CCT Correction Factors :

Baseline lumens = 3000 K
Multiply 3000 K lumen values by:
0.95 for 2700 K
1.10 for 3500 K
1.15 for 4000 K
1.20 for 5000 K

S221Wx-A30WC-xx-xxx : SIGMA 2, 7W, wide beam spread, clear protective lens



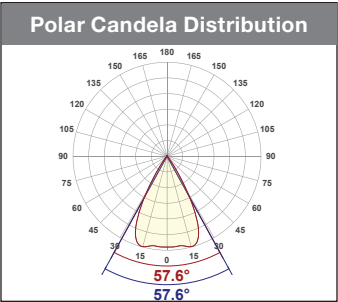
Beam Details

D	Lux	FC	L	W
4'	566	53	4.4'	4.4'
8'	142	13	8.8'	8.8'
12'	63	6	13.2'	13.2'
16'	35	3	17.6'	17.6'
20'	23	2	22'	22'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	610	80.05%
0-40	697	91.47%
0-60	720	94.49%
60-90	16.0	2.10%
70-100	13.4	1.76%
90-120	11.9	1.56%
0-90	736	96.59%
90-180	25.8	3.39%
0-180	762	100%

S221Wx-C30WC-xx-xxx : SIGMA 2, 11W, wide beam spread, clear protective lens



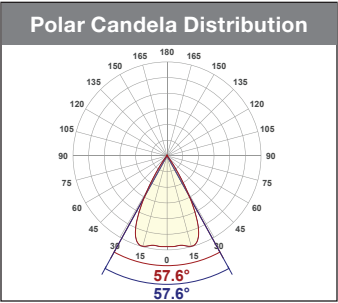
Beam Details

D	Lux	FC	L	W
4'	800	74	4.4'	4.4'
8'	200	19	8.8'	8.8'
12'	89	8	13.2'	13.2'
16'	50	5	17.6'	17.6'
20'	32	3	22'	22'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	861	81.23%
0-40	985	92.92%
0-60	1016	95.85%
60-90	17.7	1.67%
70-100	13.7	1.29%
90-120	11.9	1.12%
0-90	1033	97.45%
90-180	26.5	2.50%
0-180	1060	100%

S221Wx-E30WC-xx-xxx : SIGMA 2, 22W, wide beam spread, clear protective lens



Beam Details

D	Lux	FC	L	W
4'	1209	112	4.4'	4.4'
8'	302	28	8.8'	8.8'
12'	134	12	13.2'	13.2'
16'	76	7	17.6'	17.6'
20'	48	4	22'	22'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1303	82.26%
0-40	1489	94.00%
0-60	1533	96.78%
60-90	22.1	1.40%
70-100	15.5	0.98%
90-120	12.7	0.80%
0-90	1555	98.17%
90-180	29.1	1.84%
0-180	1584	100%