SO-LED

Correctional High Abuse LED Surface Mount Ceiling Surface

PRODUCT SPECIFICATION

The SO series is designed for use in all levels of correctional facilities and high abuse applications.

Mounting
Surface-mounts to ceiling.

Housing
Die-formed cold rolled steel with seams welded and ground smooth. 304 Stainless steel available.

Door
One piece, die formed cold rolled steel with seams welded and ground smooth and 14 gauge lens retainers. Freedom Hinge™ design permits removal and hinging from either side. 304 Stainless steel available.

Internal Lens
Optic Plus lens (standard) completely hides diode image while providing greater than 90% light transmission.

Finish
Polyester powder-coated after phosphate pretreatment for superior adhesion and corrosion resistance. Brushed stainless steel available.

Driver
0-10Vdc 1% dimming, >0.9 PF, <20% THD
Factory programmable, Operating temp -40°C Min. to 50°C Max

Hardware
Recessed, stainless steel, tamper-proof fasteners.

Wiring
Driver provided with pre-wired 3-wire self-aligning input power quick disconnect and 2-wire quick disconnect to LED module.

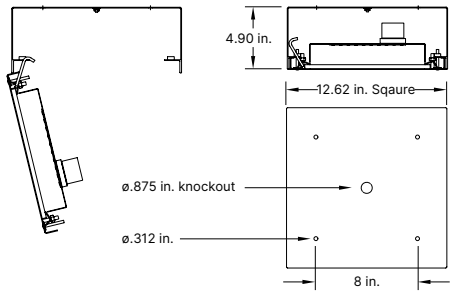
Certifications
UL Listed damp or wet location.
Covered ceilings only.

Job Name

Fixture Type

Catalog No.

Approval Date



one	two	three	four	five	six	seven	eight	nine	ten	eleven	twelve	thirteen	fourteen
SO -		-	/	-			-	DM -	/	-	K	-	

one LED Source
Refer to the LED Source Table on Page 2 for available options.

two Color Temperature
- 30 3000K
- 35 3500K
- 40 4000K
- 50 5000K

three CRI
- 80 80 CRI
- 90 90 CRI

four Material Gauge
- N 18 gauge, minimum security
- D 16 gauge, medium security
- X 14 gauge, maximum security

five Material
- A Aluminum
- C Cold rolled steel
- S 304 Stainless steel

six Finish
- R Brushed (Stainless steel only)
- W White

seven Voltage
- VAR Variable, 120-277 V, 50/60Hz
- 347 347VAC, 60Hz

eight Driver
- DM 0-10Vdc Dimming, standard

nine Internal Lens
- 122 Optic Plus LED diffusing acrylic, standard
- 130 .125 in. LED diffusing Lexan
- 53 .125 in. K12 prismatic acrylic
- 12 .125 in K12 prismatic polycarbonate
- 15 .156 in. K12 prismatic polycarbonate
- 16 .187 in. K12 prismatic polycarbonate

ten External Lens
- 33 .125 in. clear polycarbonate
- 30 .187 in. clear polycarbonate
- 32 .250 in. clear polycarbonate
- 36 .375 in. clear polycarbonate
- 38 .500 in. clear polycarbonate
- 90 .187 in. clear tempered glass
- 92 .250 in. clear tempered glass
- 96 .375 in. clear tempered glass

eleven Door Fasteners
- AP Stainless steel allen head with pin
- TP Stainless steel torx head with pin
- PH Phillips, non-security

twelve Electrical Access
- K 0.875 in. diameter knockout(s), standard

thirteen UL Listing
- D Damp Location
- W Wet Location

fourteen Options
- AM Anti-microbial coating (exposed areas)
- CU Canadian UL Listing
- EM Emergency battery back up
- FH Fuse and holder

Modifications are available to meet custom requirements.
Specifications and dimensions are subject to change without notice.

CRI	LED Life
>80	>100,000

LED Source (Box 2)	3000K		3500K		4000K		5000K		Input Watts
	Delivered Lumens	L/W	Delivered Lumens	L/W	Delivered Lumens	L/W	Delivered Lumens	L/W	
1' x 1' Fixture									
1W19	1680	98	1706	100	1756	103	1806	106	17.1
1W25	2250	98	2284	99	2351	102	2418	105	23.0
1W31	2769	96	2810	98	2893	101	2975	104	28.7

Delivered lumen output calculated using 122 inner lens and 32 (.250" Clear Polycarbonate) outer lens (Highlighted below).

Lens Multiplier - Use the multipliers below to adjust the delivered lumens

Internal Lens		
122	Optic Plus diffusing acrylic	1.00
130	.125 in. LED diffusing Lexan	.95
53	.125 in. K12 prismatic acrylic	1.00
12	.125 in K12 prismatic polycarbonate	.98
15	.156 in. K12 prismatic polycarbonate	.97
16	.187 in. K12 prismatic polycarbonate	.95
90 CRI Multiplier		**.83**

External Lens		
33	.125" Clear polycarbonate	1.03
30	.187" Clear polycarbonate	1.02
32	.250" Clear Polycarbonate	1.00
36	.375" Clear polycarbonate	.96
38	.500" Clear polycarbonate	.92
90	.187" Clear tempered glass	1.04
92	.250" Clear tempered glass	1.03
96	.375" Clear tempered glass	.99

Specified Output Option

LC Doane programmable drivers allows us to deliver a specific lumen output. If none of the options in the chart above fit your application, let us know the desired lumen output and we will do the rest. See the example how this will be specified:

Example Model:
SO-**1W**SO-40/80-DCW-VARDM-122/32-TPKD-(**XX**/**LUMENS**)

LUMENS = You provide the lumens.
XX = We will provide the wattage information.