MSF (MAXSAFE) Series

Low Profile Ceiling Mount Maximum Security LED Light

Project:	
Type:	
Catalog # :	

FME Lighting | 877 - 234 - 8460 | info@fmelighting.com

SPECIFICATIONS

Mounting
Surface mounts to ceiling.

Clamshell Housing
One piece, die formed cold rolled steel with seams welded and ground smooth and 14 gauge lens retainers. Hinge free housing removes completely from back-plate and hangs freely from either side for ease of installation. 304 Stainless steel available.

Back Plate
16 gauge die-formed cold rolled steel with continuous drop channel providing contraband drop slot / irretrievable blade trap. 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 pre-treatment for superior adhesion and corrosion resistance. Brushed stainless steel available.

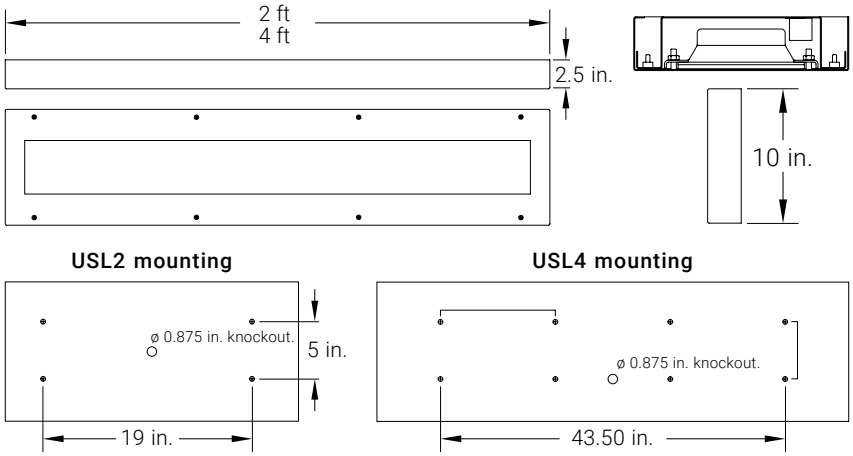
Hardware
Recessed, stainless steel, tamper-proof fasteners.

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

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.
IP66 Rated, optional IP67 Rating available. Constructed to pass MIL-S-901 Grade A, Type A, High Impact Shock Test and MIL-S-167 Type 1, Vibration Test

DIMENSIONS



ORDERING INFORMATION

ORDERING GUIDE

Series	Luminary Size	LED Designation	Voltage	CCT	CRI	Material Gauge	Material	Finish
MSF	2 = 2 ft. fixture 4 = 4 ft. fixture	Refer to the LED Source Table on Page 2 for available options.	V = Variable, 120-277V, 50/60Hz HV1 = 347VAC, 60Hz	S = 3000K T = 3500K I = 4000K C = 5000K	8 = 80 CRI 9 = 90 CRI	MIN = 16 gauge, minimum security MED = 14 gauge, medium security MAX = 12 gauge, maximum security	CR = Cold Rolled: Standard SS = Stainless Steel	W = White: Standard B = Brushed (Stainless Steel Only)

Internal Lens	External Lens	Door Fasteners	Electrical Access	UL Listing	Accessory
OP = Optic Plus LED diffusing acrylic, standard DL = .125 in. LED diffusing Lexan PA = .125 in. K12 prismatic acrylic PP1 = .125 in K12 prismatic polycarbonate PP2 = .156 in. K12 prismatic polycarbonate PP3 = .187 in. K12 prismatic polycarbonate PT = .156 in. C73 prismatic tempered glass	CL1 = .187 in. clear polycarbonate CL2 = .250 in. clear polycarbonate CL3 = .375 in. clear polycarbonate CL4 = .500 in. clear polycarbonate CT1 = .187 in. clear tempered glass CT2 = .250 in. clear tempered glass CT3 = .375 in. clear tempered glass	AH = Stainless steel allen head with pin TH = Stainless steel torx head with pin N = Phillips, non-security	B = 0.875 in. diameter knockout(s), standard	DL = Damp Location WL = Wet Location (IP66)	2W = Two-circuit wired CA = Canadian UL Listing EM = Emergency battery backup F = Fuse holder IO = Integral Occ Sensor NIL = Night light, LED (Amber available) 5-100% Adjustable SB = Stainless Steel Backplate IP = IP67 Rated

MAXSAFE Series

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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	
2' Fixture									
1W24	2438	106	2475	108	2548	111	2619	114	23.0
2W45	4484	113	4551	115	4685	118	4816	122	39.6
2W60	6000	109	6091	111	6270	114	6446	118	54.8
4' Fixture									
1W25	2534	114	2572	115	2648	119	2722	122	22.3
1W45	4484	113	4551	115	4685	118	4816	122	39.6
1W60	6000	109	6091	111	6270	114	6446	118	54.8
2W80	7723	114	7839	116	8070	119	8296	123	67.6
2W109	10521	112	10680	114	10994	117	11302	121	93.7
2W125	12001	109	12181	111	12540	114	12891	118	109.6

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		
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
75	.156 in. C73 prismatic tempered glass	.97
122	Optic Plus diffusing acrylic	1.00
90 CRI Multiplier		.86

External Lens		
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

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:

MSF-XX[1]_____-OP-CL1-(XX[2]/LUMENS)

LUMENS = You provide the lumens.

XX[1] = We will determine the number of rows.

XX[2] = We will provide the wattage information.

Typical Cell Using a 2’ MSF

Reflectance: 70/70/20 LLF: 0.80 Room Dimension: 11'x7'x8'

Calculation Summary

Label	Units	Avg	Max	Min	Avg/Min	Max/Min
All Points (3' plane)	Fc	34.73	67.40	15.10	2.30	4.46
Grooming	Fc	28.49	41.20	20.10	1.42	2.05
Room	Fc	36.23	67.40	15.10	2.40	4.46
Task	Fc	29.26	39.80	20.80	1.41	1.91