

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P563901

Luminaire Tested: FSR-24-4-LD4-4LO-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-4LO-40-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11670.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

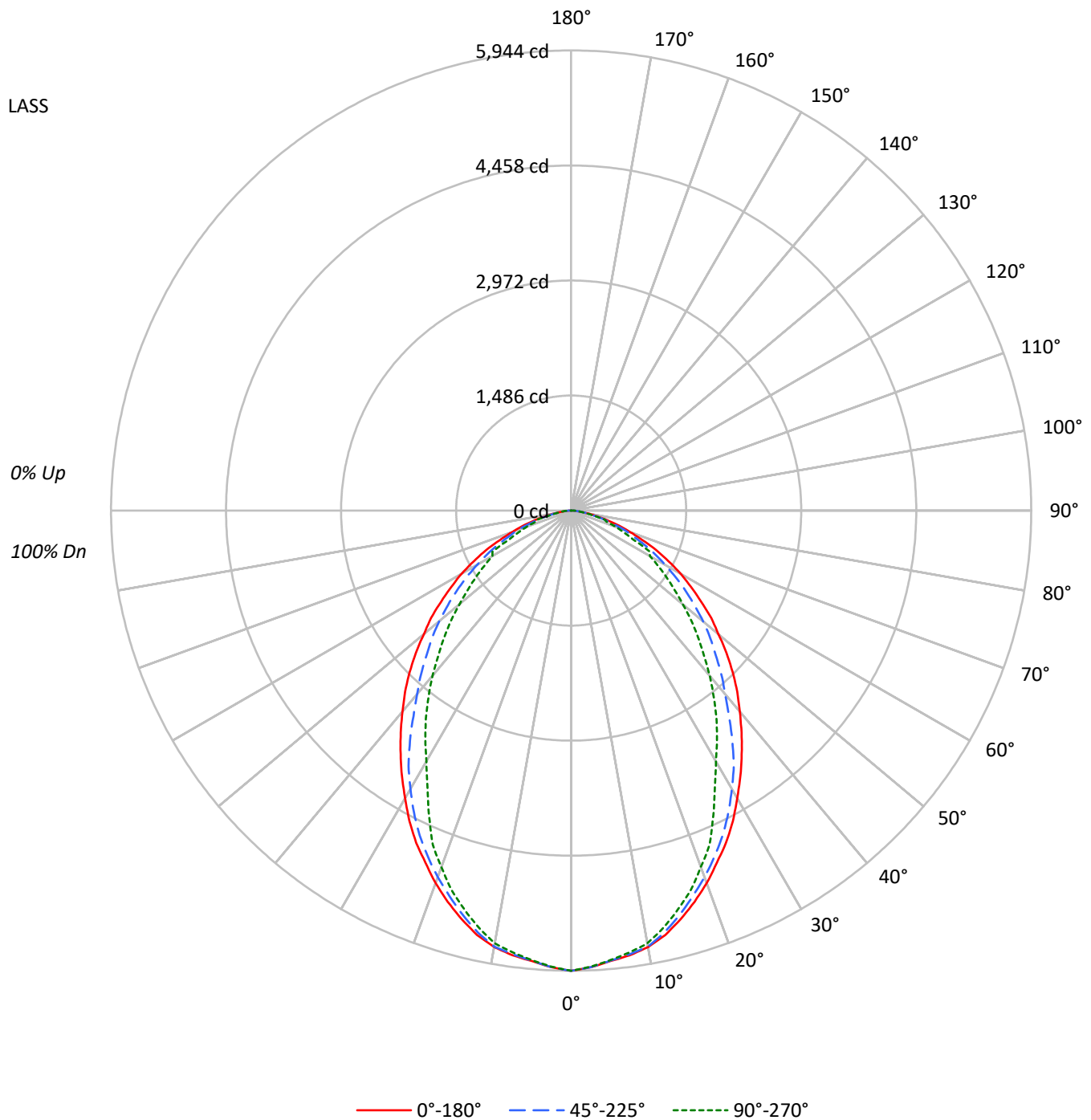
Input Watts (W): 93.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7998	7998	7998
5°	7890	7880	7871
10°	7821	7812	7755
15°	7610	7534	7428
20°	7331	7213	7016
25°	7030	6876	6448
30°	6662	6449	5808
35°	6310	5960	5373
40°	5951	5432	4889
45°	5610	5022	4420
50°	5193	4661	3942
55°	4804	4224	3530
60°	4401	3772	3162
65°	3873	3304	2801
70°	3190	2893	2379
75°	2536	2215	2322
80°	1704	1598	1491
85°	1061	1274	1485

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5610 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	553.4	4.7
10°-20°	1518.6	13.0
20°-30°	2102.5	18.0
30°-40°	2241.8	19.2
40°-50°	2045.2	17.5
50°-60°	1602.2	13.7
60°-70°	1044.3	8.9
70°-80°	462.7	4.0
80°-90°	99.3	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4174.5	35.8
0°-40°	6416.3	55.0
0°-60°	10063.7	86.2
0°-90°	11670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5944	5944	5944	5944	5944	
5°	5842	5835	5835	5828	5828	554
15°	5464	5464	5408	5354	5333	1536
25°	4735	4708	4632	4467	4343	2174
35°	3842	3814	3629	3354	3271	2402
45°	2948	2886	2639	2419	2323	2271
55°	2048	1986	1800	1588	1505	1837
65°	1216	1148	1038	1058	880	1199
75°	488	454	426	406	447	523
85°	69	76	82	89	96	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5944.5	5944.5	5944.5	5944.5	5944.5
2.5°	5903.3	5903.3	5903.3	5896.4	5896.4
5°	5841.5	5834.6	5834.6	5827.7	5827.7
7.5°	5793.4	5786.5	5779.6	5772.7	5759.0
10°	5724.6	5724.6	5717.8	5683.4	5676.5
12.5°	5614.7	5607.8	5580.3	5532.2	5518.5
15°	5463.5	5463.5	5408.5	5353.5	5332.9
17.5°	5298.5	5291.7	5223.0	5168.0	5140.5
20°	5119.9	5106.1	5037.4	4948.1	4900.0
22.5°	4920.6	4920.6	4838.1	4721.3	4673.2
25°	4735.0	4707.5	4631.9	4467.0	4343.3
27.5°	4522.0	4480.7	4398.3	4164.6	4020.3
30°	4288.3	4267.7	4150.9	3848.5	3738.5
32.5°	4068.4	4034.0	3910.3	3594.2	3504.9
35°	3841.6	3814.1	3628.6	3353.7	3271.2
37.5°	3614.8	3580.5	3346.8	3126.9	3023.8
40°	3388.0	3346.8	3092.5	2893.2	2783.3
42.5°	3175.0	3120.0	2872.6	2659.6	2535.9
45°	2948.2	2886.4	2639.0	2419.1	2322.8
47.5°	2721.4	2666.5	2439.7	2212.9	2102.9
50°	2480.9	2432.8	2226.6	1999.8	1883.0
52.5°	2281.6	2206.0	2006.7	1779.9	1683.7
55°	2047.9	1986.1	1800.5	1587.5	1505.0
57.5°	1834.9	1773.1	1601.2	1401.9	1333.2
60°	1635.6	1546.3	1401.9	1230.1	1175.2
62.5°	1415.7	1347.0	1223.3	1079.0	1147.7
65°	1216.4	1147.7	1037.7	1058.3	879.7
67.5°	996.5	962.1	865.9	769.7	742.2
70°	810.9	769.7	735.3	632.3	604.8
72.5°	646.0	604.8	556.7	501.7	481.1
75°	487.9	453.6	426.1	405.5	446.7
77.5°	336.7	323.0	302.4	281.8	274.9
80°	219.9	213.0	206.2	199.3	192.4
82.5°	130.6	130.6	130.6	130.6	130.6
85°	68.7	75.6	82.5	89.3	96.2
87.5°	41.2	41.2	48.1	55.0	61.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)