

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: P590492

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590492
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3HI-50-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7048.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

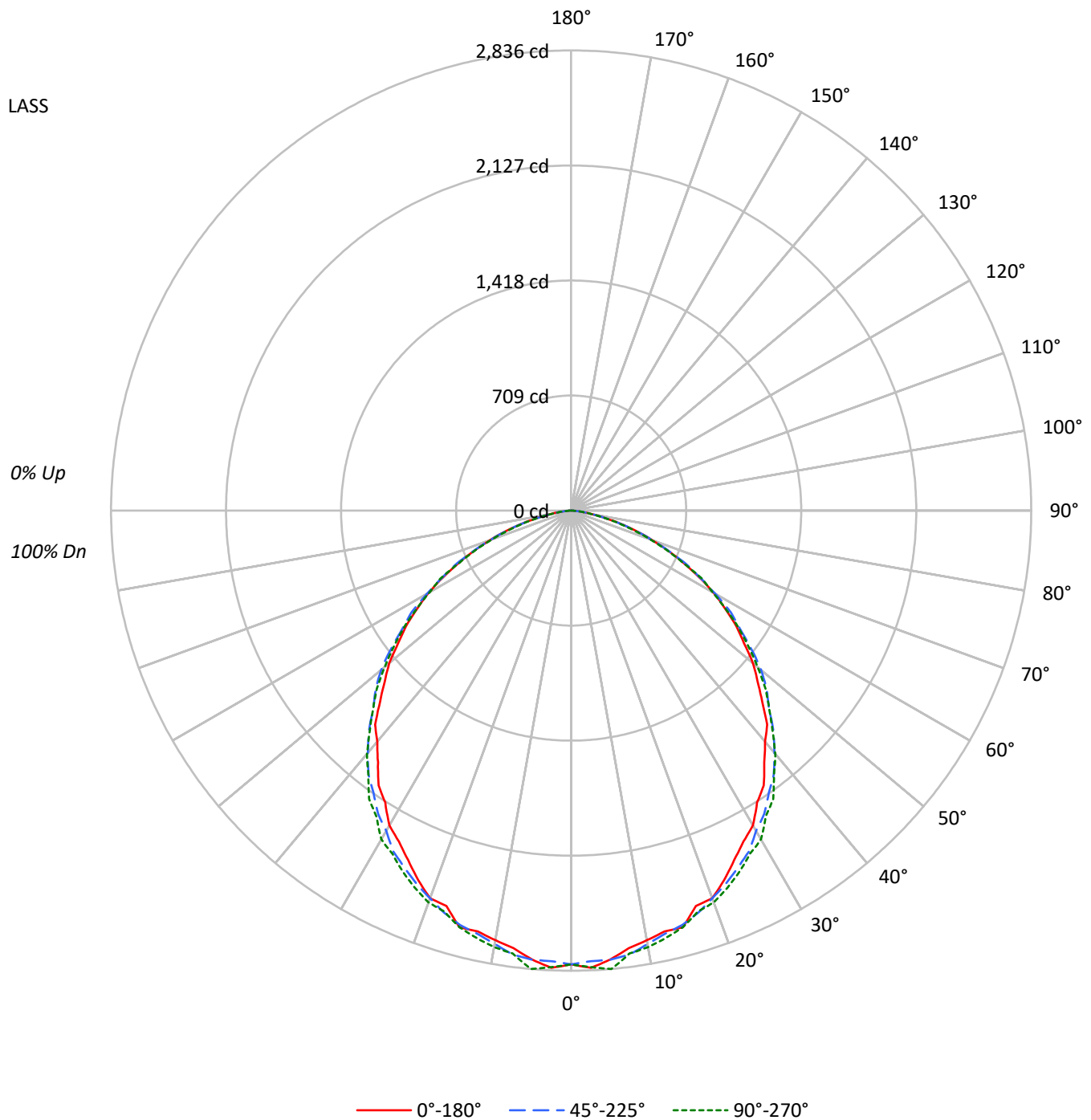
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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																												
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29																												
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7525	7525	7525
5°	7500	7503	7661
10°	7348	7412	7465
15°	7406	7366	7407
20°	7281	7281	7359
25°	7057	7212	7291
30°	6961	7083	7271
35°	6796	6975	7131
40°	6532	6846	6877
45°	6334	6560	6570
50°	6126	6403	6280
55°	5837	5951	5909
60°	5458	5513	5414
65°	4867	4991	4833
70°	4176	4190	4074
75°	3307	3300	3172
80°	2216	2154	2070
85°	1204	1192	1115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6729 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.0	3.7
10°-20°	745.5	10.6
20°-30°	1116.9	15.8
30°-40°	1323.8	18.8
40°-50°	1326.2	18.8
50°-60°	1125.8	16.0
60°-70°	759.0	10.8
70°-80°	333.5	4.7
80°-90°	54.2	0.8
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°	2125.5	30.2
0°-40°	3449.3	48.9
0°-60°	5901.3	83.7
0°-90°	7048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2796	2796	2796	2796	2796	
5°	2777	2770	2778	2769	2836	262
15°	2658	2628	2644	2658	2659	741
25°	2377	2390	2429	2461	2456	1099
35°	2069	2075	2123	2172	2171	1285
45°	1664	1696	1724	1768	1726	1288
55°	1244	1236	1268	1260	1259	1107
65°	764	754	784	754	759	760
75°	318	312	317	295	305	341
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2796.5	2796.5	2796.5	2796.5	2796.5
2.5°	2820.7	2799.4	2779.5	2802.6	2816.7
5°	2776.6	2770.1	2777.7	2769.4	2836.2
7.5°	2719.6	2744.5	2758.9	2749.9	2753.9
10°	2689.2	2680.6	2712.7	2735.1	2731.8
12.5°	2656.7	2669.7	2671.5	2695.7	2697.9
15°	2658.5	2627.8	2644.1	2657.8	2658.9
17.5°	2555.3	2588.5	2599.7	2631.1	2592.1
20°	2542.6	2518.4	2542.6	2574.8	2569.7
22.5°	2465.0	2437.9	2489.9	2518.4	2516.6
25°	2376.9	2389.9	2428.9	2460.7	2455.6
27.5°	2299.6	2314.8	2370.4	2414.1	2385.9
30°	2240.1	2232.5	2279.4	2318.4	2340.1
32.5°	2133.5	2161.0	2215.9	2254.5	2233.9
35°	2068.9	2075.1	2123.1	2172.2	2170.7
37.5°	1955.9	1984.4	2051.9	2065.7	2053.0
40°	1859.5	1888.0	1949.0	1963.8	1957.7
42.5°	1788.4	1793.4	1845.8	1862.7	1835.7
45°	1664.5	1695.6	1723.7	1768.1	1726.3
47.5°	1559.1	1573.5	1634.2	1646.1	1624.1
50°	1463.4	1468.5	1529.5	1514.7	1500.2
52.5°	1343.2	1364.5	1398.8	1395.9	1378.9
55°	1244.2	1235.9	1268.4	1259.8	1259.4
57.5°	1125.4	1139.9	1166.6	1152.9	1130.9
60°	1014.2	1014.6	1024.3	1008.8	1005.9
62.5°	890.4	894.7	896.9	877.8	908.8
65°	764.4	754.3	783.9	753.9	759.0
67.5°	648.5	653.5	650.6	631.9	639.1
70°	530.8	537.3	532.6	511.3	517.8
72.5°	423.2	415.2	420.3	393.6	405.8
75°	318.1	311.6	317.4	295.0	305.1
77.5°	216.6	221.7	218.1	206.2	213.0
80°	143.0	139.0	139.0	132.2	133.6
82.5°	83.4	79.4	78.4	76.2	79.4
85°	39.0	37.9	38.6	37.6	36.1
87.5°	14.1	14.4	14.4	13.7	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)