

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: P590513

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-93-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590513
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-93-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6239.0 lumens
Efficiency: N/A
Efficacy: 96.3 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

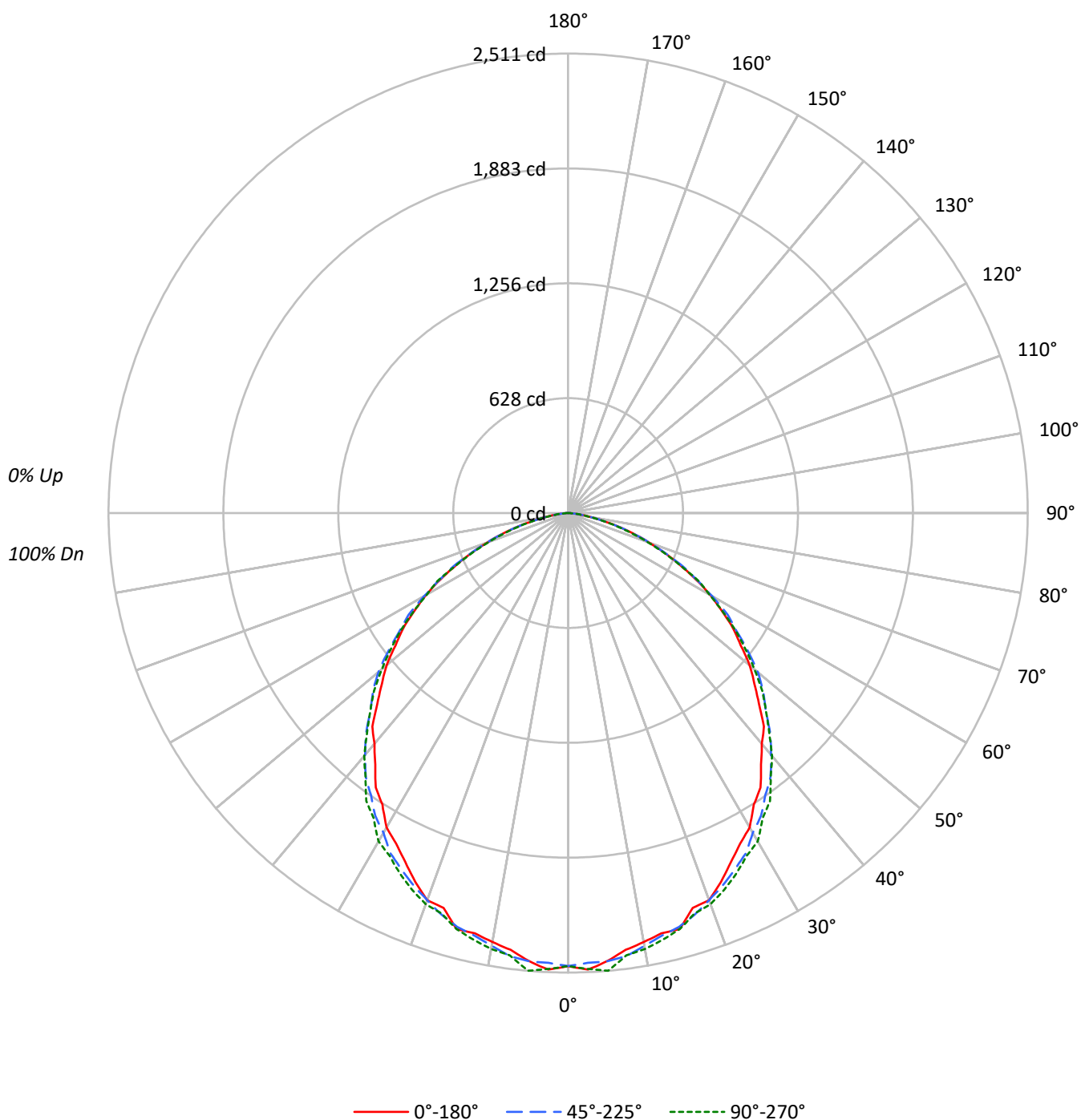
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	6662	6662	6662
5°	6639	6642	6782
10°	6505	6562	6608
15°	6556	6521	6557
20°	6446	6446	6514
25°	6247	6384	6454
30°	6161	6270	6437
35°	6016	6174	6313
40°	5782	6061	6088
45°	5608	5807	5815
50°	5423	5668	5560
55°	5167	5268	5230
60°	4832	4880	4793
65°	4308	4418	4278
70°	3696	3709	3606
75°	2928	2921	2808
80°	1962	1908	1833
85°	1065	1056	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 5957 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.9	3.7
10°-20°	659.9	10.6
20°-30°	988.7	15.8
30°-40°	1171.8	18.8
40°-50°	1174.0	18.8
50°-60°	996.5	16.0
60°-70°	671.9	10.8
70°-80°	295.2	4.7
80°-90°	48.0	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°	1881.5	30.2
0°-40°	3053.4	48.9
0°-60°	5223.9	83.7
0°-90°	6239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2476	2476	2476	2476	2476	
5°	2458	2452	2459	2452	2511	232
15°	2353	2326	2341	2353	2354	656
25°	2104	2116	2150	2178	2174	973
35°	1831	1837	1879	1923	1922	1137
45°	1474	1501	1526	1565	1528	1140
55°	1101	1094	1123	1115	1115	980
65°	677	668	694	667	672	673
75°	282	276	281	261	270	302
85°	34	34	34	33	32	50
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2475.5	2475.5	2475.5	2475.5	2475.5
2.5°	2496.9	2478.0	2460.5	2480.9	2493.4
5°	2457.9	2452.1	2458.9	2451.5	2510.6
7.5°	2407.4	2429.5	2442.2	2434.2	2437.8
10°	2380.5	2372.9	2401.3	2421.1	2418.3
12.5°	2351.8	2363.3	2364.9	2386.3	2388.2
15°	2353.4	2326.2	2340.6	2352.7	2353.7
17.5°	2262.0	2291.4	2301.3	2329.1	2294.6
20°	2250.8	2229.4	2250.8	2279.2	2274.8
22.5°	2182.1	2158.1	2204.1	2229.4	2227.8
25°	2104.1	2115.6	2150.1	2178.2	2173.8
27.5°	2035.7	2049.1	2098.3	2137.0	2112.1
30°	1982.9	1976.2	2017.8	2052.3	2071.5
32.5°	1888.7	1912.9	1961.5	1995.7	1977.5
35°	1831.4	1836.9	1879.4	1922.9	1921.6
37.5°	1731.4	1756.6	1816.4	1828.6	1817.4
40°	1646.1	1671.3	1725.3	1738.4	1733.0
42.5°	1583.1	1587.6	1633.9	1648.9	1625.0
45°	1473.5	1500.9	1525.9	1565.2	1528.1
47.5°	1380.1	1392.9	1446.6	1457.2	1437.7
50°	1295.4	1299.9	1353.9	1340.8	1328.0
52.5°	1189.0	1207.9	1238.2	1235.7	1220.6
55°	1101.4	1094.1	1122.8	1115.2	1114.8
57.5°	996.3	1009.0	1032.7	1020.6	1001.1
60°	897.8	898.1	906.8	893.0	890.5
62.5°	788.2	792.0	793.9	777.0	804.5
65°	676.6	667.7	693.9	667.4	671.8
67.5°	574.0	578.5	576.0	559.3	565.7
70°	469.8	475.6	471.4	452.6	458.3
72.5°	374.6	367.6	372.0	348.4	359.3
75°	281.6	275.8	280.9	261.1	270.1
77.5°	191.8	196.2	193.1	182.5	188.6
80°	126.6	123.1	123.1	117.0	118.3
82.5°	73.8	70.3	69.4	67.4	70.3
85°	34.5	33.6	34.2	33.2	32.0
87.5°	12.5	12.8	12.8	12.1	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)