

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: P590875

Luminaire Tested: FSR-24-2-LD4-4LO-50-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590875
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-LD4-4LO-50-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 5934.0 lumens
Efficiency: N/A
Efficacy: 126.8 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

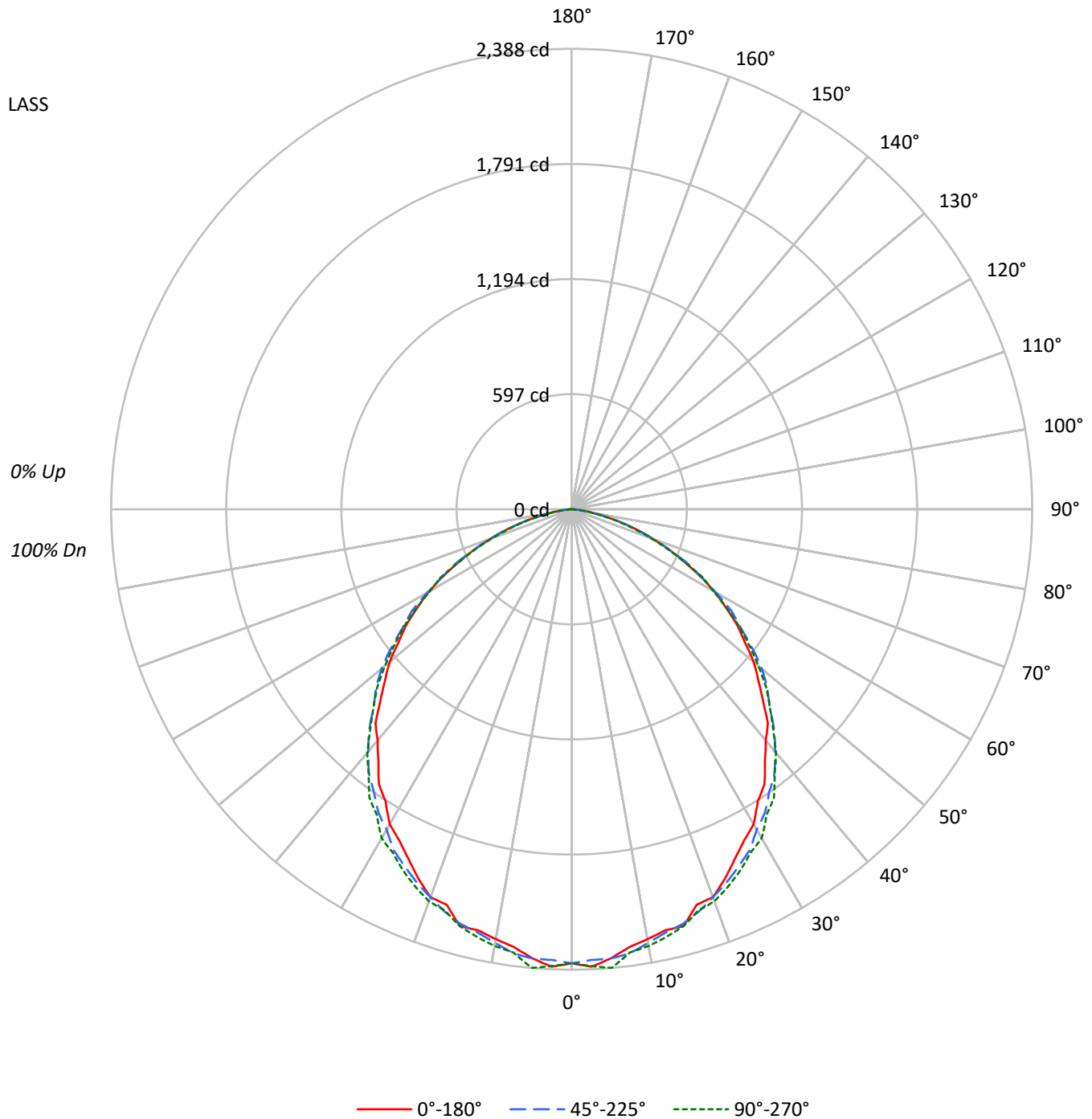
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6336	6336	6336
5°	6315	6317	6450
10°	6187	6241	6285
15°	6236	6202	6237
20°	6131	6131	6196
25°	5942	6072	6139
30°	5860	5963	6122
35°	5722	5872	6004
40°	5500	5765	5790
45°	5333	5523	5531
50°	5158	5391	5288
55°	4915	5010	4974
60°	4596	4641	4558
65°	4098	4202	4069
70°	3516	3528	3430
75°	2784	2778	2671
80°	1866	1813	1743
85°	1013	1003	939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5665 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.5	3.7
10°-20°	627.7	10.6
20°-30°	940.4	15.8
30°-40°	1114.6	18.8
40°-50°	1116.6	18.8
50°-60°	947.8	16.0
60°-70°	639.0	10.8
70°-80°	280.8	4.7
80°-90°	45.6	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°	1789.6	30.2
0°-40°	2904.1	48.9
0°-60°	4968.6	83.7
0°-90°	5934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5934.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2354	2354	2354	2354	2354	
5°	2338	2332	2339	2332	2388	220
15°	2238	2212	2226	2238	2239	624
25°	2001	2012	2045	2072	2068	925
35°	1742	1747	1788	1829	1828	1082
45°	1401	1428	1451	1489	1453	1084
55°	1048	1041	1068	1061	1060	932
65°	644	635	660	635	639	640
75°	268	262	267	248	257	287
85°	33	32	32	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2354.5	2354.5	2354.5	2354.5	2354.5
2.5°	2374.8	2356.9	2340.2	2359.6	2371.5
5°	2337.7	2332.3	2338.7	2331.7	2387.9
7.5°	2289.7	2310.7	2322.8	2315.2	2318.6
10°	2264.2	2256.9	2283.9	2302.8	2300.0
12.5°	2236.8	2247.8	2249.3	2269.6	2271.5
15°	2238.3	2212.5	2226.2	2237.7	2238.6
17.5°	2151.4	2179.4	2188.8	2215.2	2182.4
20°	2140.8	2120.4	2140.8	2167.8	2163.6
22.5°	2075.4	2052.6	2096.4	2120.4	2118.9
25°	2001.2	2012.2	2045.0	2071.7	2067.5
27.5°	1936.2	1948.9	1995.7	2032.5	2008.8
30°	1886.0	1879.6	1919.1	1952.0	1970.2
32.5°	1796.3	1819.4	1865.6	1898.2	1880.8
35°	1741.9	1747.1	1787.5	1828.8	1827.6
37.5°	1646.8	1670.8	1727.6	1739.2	1728.5
40°	1565.6	1589.6	1641.0	1653.4	1648.3
42.5°	1505.7	1510.0	1554.0	1568.3	1545.5
45°	1401.4	1427.6	1451.3	1488.7	1453.4
47.5°	1312.7	1324.8	1375.9	1385.9	1367.4
50°	1232.1	1236.4	1287.7	1275.3	1263.1
52.5°	1130.9	1148.8	1177.7	1175.3	1161.0
55°	1047.6	1040.6	1067.9	1060.6	1060.3
57.5°	947.6	959.7	982.2	970.7	952.1
60°	853.9	854.2	862.4	849.4	846.9
62.5°	749.7	753.3	755.1	739.0	765.2
65°	643.6	635.1	660.0	634.7	639.0
67.5°	546.0	550.2	547.8	532.0	538.1
70°	446.9	452.3	448.4	430.5	435.9
72.5°	356.3	349.6	353.9	331.4	341.7
75°	267.8	262.3	267.2	248.4	256.9
77.5°	182.4	186.7	183.6	173.6	179.4
80°	120.4	117.0	117.0	111.3	112.5
82.5°	70.2	66.9	66.0	64.1	66.9
85°	32.8	31.9	32.5	31.6	30.4
87.5°	11.9	12.2	12.2	11.6	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)