

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: P590934

Luminaire Tested: FSR-24-2-LD4-4STD-40-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590934
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-LD4-4STD-40-UNV-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7726.0 lumens
Efficiency: N/A
Efficacy: 116.0 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

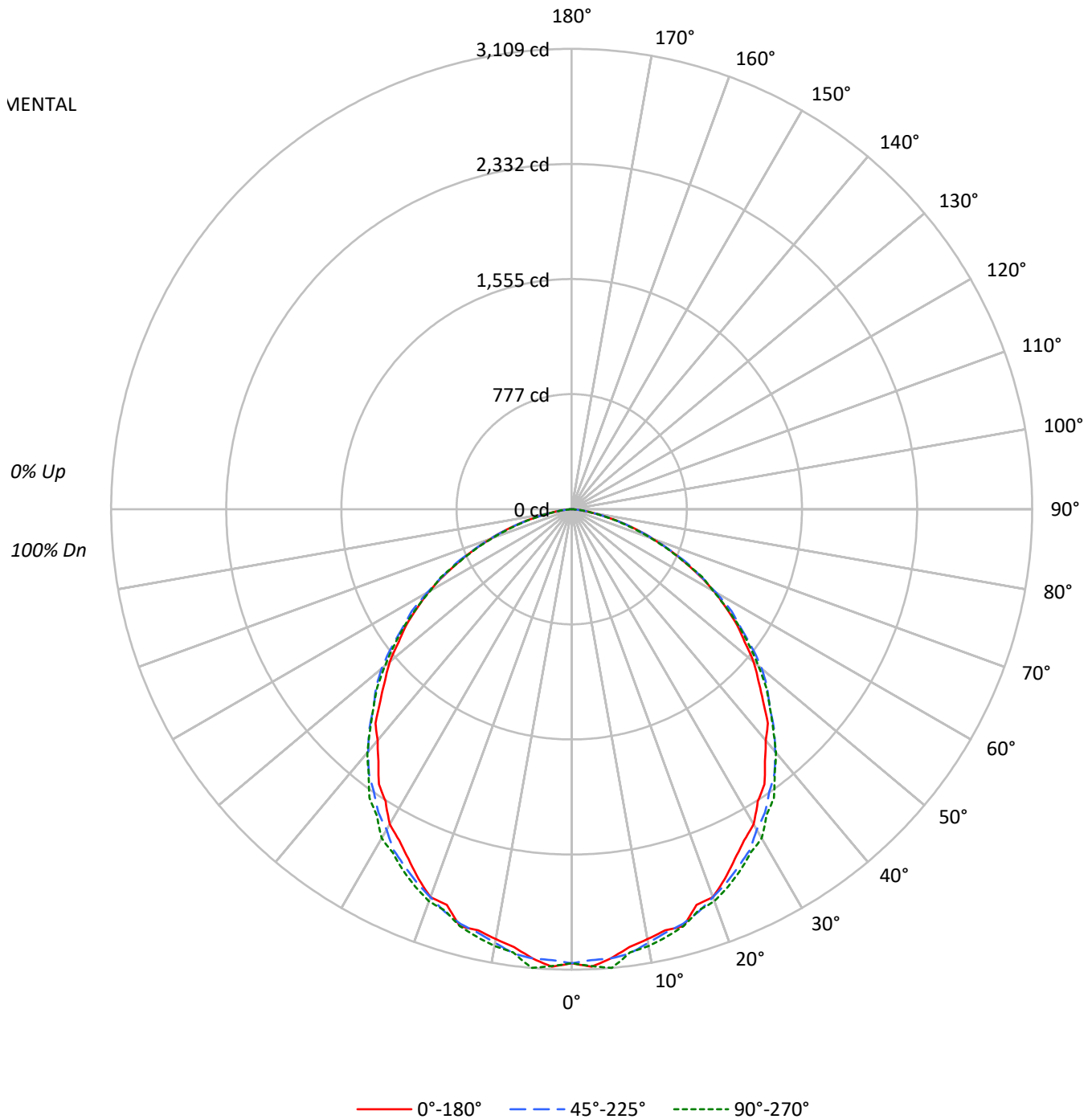
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8249	8249	8249
5°	8222	8225	8398
10°	8055	8126	8183
15°	8119	8075	8120
20°	7982	7982	8067
25°	7736	7906	7992
30°	7630	7764	7971
35°	7450	7645	7817
40°	7161	7505	7539
45°	6944	7191	7201
50°	6716	7019	6885
55°	6399	6524	6477
60°	5984	6043	5935
65°	5335	5472	5298
70°	4578	4593	4466
75°	3625	3617	3478
80°	2428	2362	2269
85°	1318	1309	1223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7376 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.4	3.7
10°-20°	817.2	10.6
20°-30°	1224.4	15.8
30°-40°	1451.1	18.8
40°-50°	1453.8	18.8
50°-60°	1234.1	16.0
60°-70°	832.0	10.8
70°-80°	365.6	4.7
80°-90°	59.4	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°	2330.0	30.2
0°-40°	3781.1	48.9
0°-60°	6469.0	83.7
0°-90°	7726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3066	3066	3066	3066	3066	
5°	3044	3037	3045	3036	3109	287
15°	2914	2881	2898	2914	2915	812
25°	2606	2620	2663	2697	2692	1205
35°	2268	2275	2327	2381	2380	1408
45°	1825	1859	1890	1938	1892	1411
55°	1364	1355	1390	1381	1381	1213
65°	838	827	859	826	832	833
75°	349	342	348	323	334	374
85°	43	42	42	41	40	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3065.5	3065.5	3065.5	3065.5	3065.5
2.5°	3092.0	3068.6	3046.9	3072.2	3087.6
5°	3043.7	3036.6	3044.9	3035.8	3109.0
7.5°	2981.2	3008.5	3024.3	3014.4	3018.8
10°	2947.9	2938.4	2973.7	2998.2	2994.6
12.5°	2912.3	2926.6	2928.5	2955.1	2957.4
15°	2914.3	2880.6	2898.5	2913.5	2914.7
17.5°	2801.1	2837.5	2849.8	2884.2	2841.5
20°	2787.2	2760.7	2787.2	2822.5	2816.9
22.5°	2702.1	2672.5	2729.4	2760.7	2758.7
25°	2605.6	2619.8	2662.6	2697.4	2691.8
27.5°	2520.9	2537.5	2598.4	2646.3	2615.5
30°	2455.6	2447.2	2498.7	2541.4	2565.2
32.5°	2338.8	2368.9	2429.0	2471.4	2448.8
35°	2267.9	2274.7	2327.3	2381.1	2379.6
37.5°	2144.1	2175.3	2249.3	2264.4	2250.5
40°	2038.4	2069.6	2136.5	2152.8	2146.0
42.5°	1960.4	1965.9	2023.3	2041.9	2012.3
45°	1824.6	1858.7	1889.6	1938.2	1892.3
47.5°	1709.1	1724.9	1791.4	1804.5	1780.3
50°	1604.2	1609.7	1676.6	1660.4	1644.6
52.5°	1472.4	1495.7	1533.3	1530.2	1511.6
55°	1363.9	1354.8	1390.5	1381.0	1380.6
57.5°	1233.7	1249.5	1278.8	1263.8	1239.6
60°	1111.8	1112.2	1122.9	1105.9	1102.7
62.5°	976.0	980.8	983.2	962.2	996.2
65°	837.9	826.8	859.3	826.4	832.0
67.5°	710.9	716.4	713.2	692.7	700.6
70°	581.8	589.0	583.8	560.5	567.6
72.5°	463.9	455.2	460.7	431.4	444.9
75°	348.7	341.6	347.9	323.4	334.5
77.5°	237.5	243.0	239.1	226.0	233.5
80°	156.7	152.4	152.4	144.9	146.4
82.5°	91.4	87.1	85.9	83.5	87.1
85°	42.7	41.6	42.4	41.2	39.6
87.5°	15.4	15.8	15.8	15.0	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)