

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: P590936

Luminaire Tested: FSR-24-2-LD4-4STD-40-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590936
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-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7391.0 lumens
Efficiency: N/A
Efficacy: 111.0 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

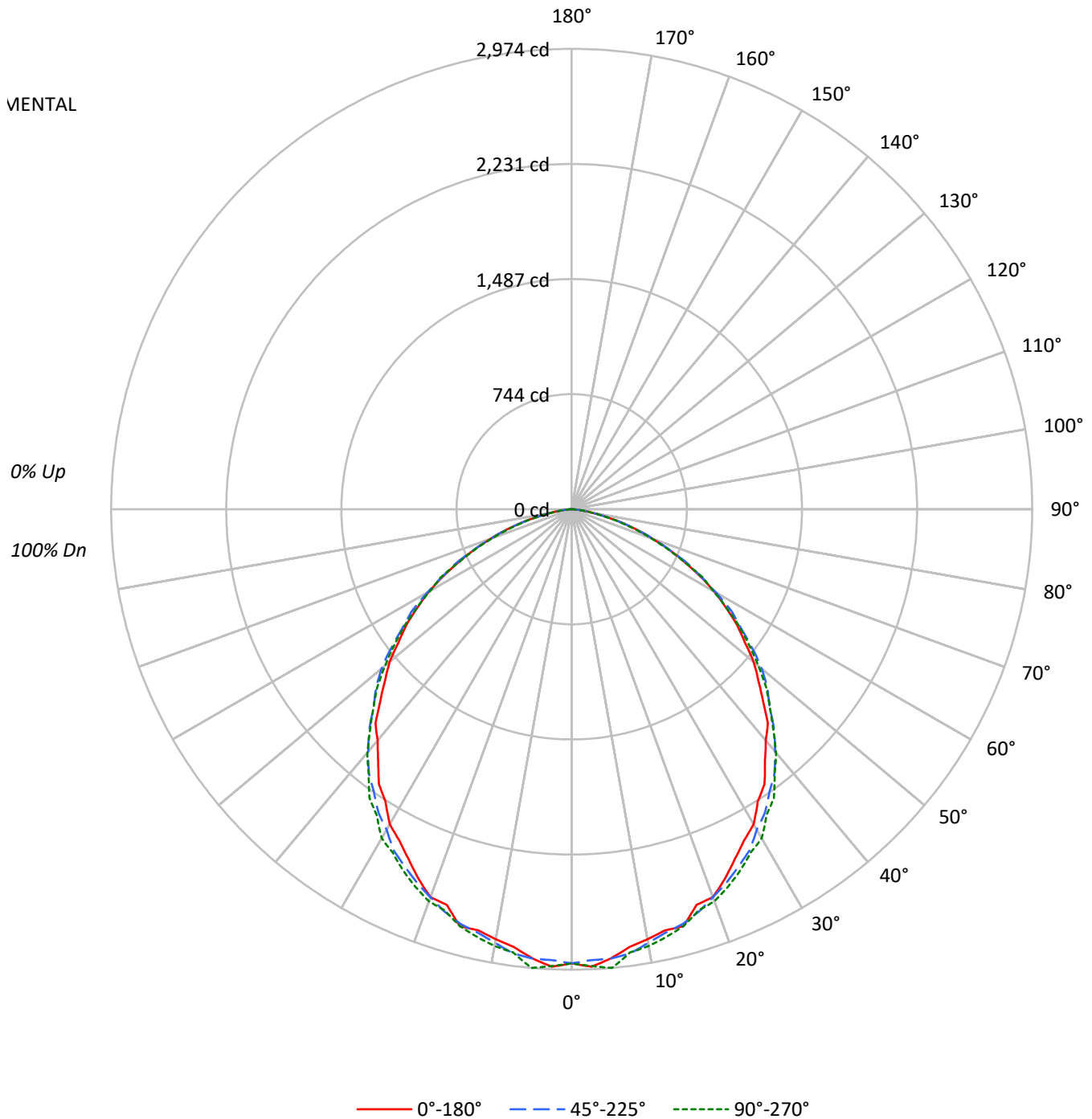
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86				86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73				73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62				62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53				53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46				46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41				41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36				36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32				32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29				29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26				26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7892	7892	7892
5°	7865	7868	8034
10°	7706	7773	7828
15°	7767	7725	7768
20°	7636	7636	7717
25°	7401	7563	7646
30°	7299	7428	7625
35°	7127	7314	7478
40°	6850	7180	7212
45°	6643	6879	6889
50°	6424	6715	6586
55°	6122	6241	6196
60°	5724	5781	5677
65°	5104	5234	5068
70°	4379	4394	4272
75°	3468	3460	3327
80°	2323	2259	2171
85°	1263	1250	1170

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7056 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.9	3.7
10°-20°	781.8	10.6
20°-30°	1171.3	15.8
30°-40°	1388.2	18.8
40°-50°	1390.8	18.8
50°-60°	1180.6	16.0
60°-70°	795.9	10.8
70°-80°	349.7	4.7
80°-90°	56.8	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°	2228.9	30.2
0°-40°	3617.2	48.9
0°-60°	6188.5	83.7
0°-90°	7391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2933	2933	2933	2933	2933	
5°	2912	2905	2913	2904	2974	275
15°	2788	2756	2773	2787	2788	777
25°	2493	2506	2547	2580	2575	1152
35°	2170	2176	2226	2278	2276	1347
45°	1746	1778	1808	1854	1810	1350
55°	1305	1296	1330	1321	1321	1161
65°	802	791	822	791	796	797
75°	334	327	333	309	320	358
85°	41	40	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2932.6	2932.6	2932.6	2932.6	2932.6
2.5°	2957.9	2935.6	2914.8	2939.0	2953.8
5°	2911.7	2904.9	2912.9	2904.2	2974.2
7.5°	2851.9	2878.0	2893.2	2883.7	2887.9
10°	2820.1	2811.0	2844.7	2868.2	2864.8
12.5°	2786.0	2799.7	2801.6	2826.9	2829.2
15°	2787.9	2755.7	2772.8	2787.2	2788.3
17.5°	2679.6	2714.5	2726.2	2759.1	2718.3
20°	2666.4	2641.0	2666.4	2700.1	2694.8
22.5°	2585.0	2556.6	2611.1	2641.0	2639.1
25°	2492.6	2506.2	2547.1	2580.4	2575.1
27.5°	2411.6	2427.5	2485.8	2531.6	2502.0
30°	2349.1	2341.1	2390.4	2431.2	2454.0
32.5°	2237.4	2266.2	2323.7	2364.2	2342.6
35°	2169.6	2176.0	2226.4	2277.9	2276.4
37.5°	2051.1	2081.0	2151.8	2166.2	2152.9
40°	1950.0	1979.9	2043.9	2059.4	2053.0
42.5°	1875.4	1880.7	1935.6	1953.4	1925.0
45°	1745.5	1778.1	1807.6	1854.2	1810.3
47.5°	1635.0	1650.1	1713.7	1726.2	1703.1
50°	1534.6	1539.9	1603.9	1588.4	1573.2
52.5°	1408.5	1430.9	1466.8	1463.8	1446.0
55°	1304.8	1296.1	1330.2	1321.1	1320.7
57.5°	1180.2	1195.4	1223.4	1209.0	1185.9
60°	1063.6	1064.0	1074.2	1057.9	1054.9
62.5°	933.7	938.3	940.5	920.5	953.0
65°	801.6	791.0	822.0	790.6	795.9
67.5°	680.0	685.3	682.3	662.6	670.2
70°	556.6	563.4	558.5	536.2	543.0
72.5°	443.8	435.4	440.7	412.7	425.6
75°	333.6	326.8	332.8	309.3	320.0
77.5°	227.2	232.5	228.7	216.2	223.4
80°	149.9	145.8	145.8	138.6	140.1
82.5°	87.5	83.3	82.2	79.9	83.3
85°	40.9	39.8	40.5	39.4	37.9
87.5°	14.8	15.1	15.1	14.4	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)