

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: P561843

Luminaire Tested: FSR-12-4-LD4-2STD-50-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-4-LD4-2STD-50-UNV-80-85-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6688.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

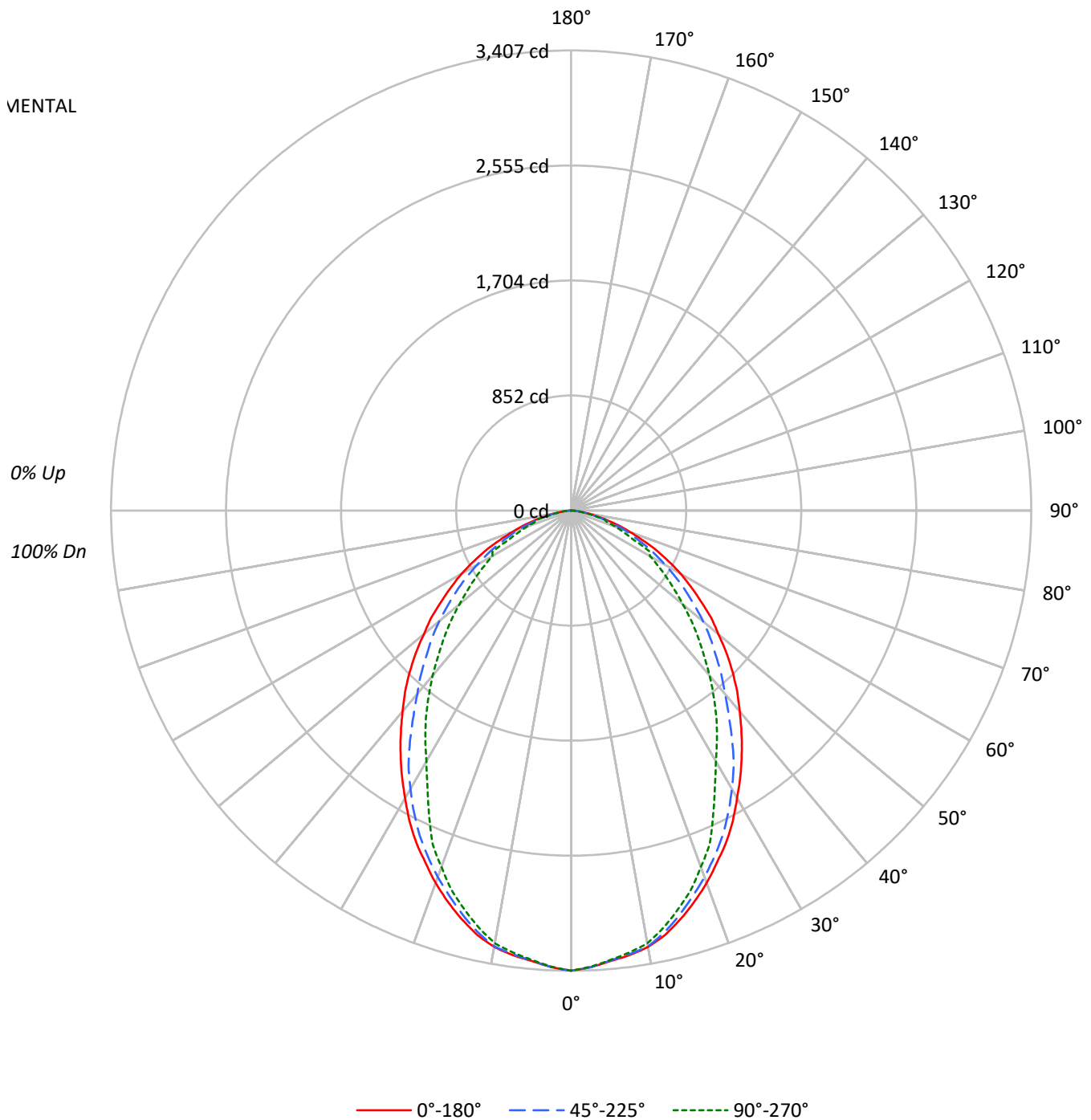
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9168	9168	9168
5°	9043	9032	9022
10°	8964	8954	8889
15°	8723	8635	8515
20°	8403	8267	8041
25°	8057	7882	7391
30°	7636	7392	6657
35°	7232	6831	6159
40°	6821	6226	5603
45°	6430	5756	5066
50°	5952	5342	4518
55°	5507	4841	4046
60°	5045	4324	3625
65°	4439	3787	3210
70°	3656	3316	2727
75°	2907	2539	2662
80°	1953	1832	1709
85°	1216	1460	1701

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6430 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.1	4.7
10°-20°	870.3	13.0
20°-30°	1204.9	18.0
30°-40°	1284.8	19.2
40°-50°	1172.1	17.5
50°-60°	918.2	13.7
60°-70°	598.4	8.9
70°-80°	265.1	4.0
80°-90°	56.9	0.9
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°	2392.3	35.8
0°-40°	3677.1	55.0
0°-60°	5767.5	86.2
0°-90°	6688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6688.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3407	3407	3407	3407	3407	
5°	3348	3344	3344	3340	3340	318
15°	3131	3131	3100	3068	3056	880
25°	2714	2698	2654	2560	2489	1246
35°	2202	2186	2080	1922	1875	1376
45°	1690	1654	1512	1386	1331	1301
55°	1174	1138	1032	910	862	1053
65°	697	658	595	606	504	687
75°	280	260	244	232	256	300
85°	39	43	47	51	55	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3406.8	3406.8	3406.8	3406.8	3406.8
2.5°	3383.1	3383.1	3383.1	3379.2	3379.2
5°	3347.7	3343.8	3343.8	3339.8	3339.8
7.5°	3320.1	3316.2	3312.3	3308.3	3300.4
10°	3280.7	3280.7	3276.8	3257.1	3253.2
12.5°	3217.7	3213.8	3198.0	3170.5	3162.6
15°	3131.1	3131.1	3099.6	3068.1	3056.3
17.5°	3036.6	3032.6	2993.2	2961.7	2946.0
20°	2934.2	2926.3	2886.9	2835.7	2808.1
22.5°	2819.9	2819.9	2772.7	2705.7	2678.2
25°	2713.6	2697.9	2654.5	2560.0	2489.1
27.5°	2591.5	2567.9	2520.6	2386.7	2304.0
30°	2457.6	2445.8	2378.8	2205.5	2142.5
32.5°	2331.6	2311.9	2241.0	2059.8	2008.6
35°	2201.6	2185.9	2079.5	1922.0	1874.7
37.5°	2071.6	2051.9	1918.0	1792.0	1732.9
40°	1941.7	1918.0	1772.3	1658.1	1595.1
42.5°	1819.6	1788.1	1646.3	1524.2	1453.3
45°	1689.6	1654.2	1512.4	1386.3	1331.2
47.5°	1559.6	1528.1	1398.2	1268.2	1205.2
50°	1421.8	1394.2	1276.1	1146.1	1079.1
52.5°	1307.6	1264.2	1150.0	1020.1	964.9
55°	1173.7	1138.2	1031.9	909.8	862.5
57.5°	1051.6	1016.1	917.7	803.4	764.1
60°	937.4	886.2	803.4	705.0	673.5
62.5°	811.3	771.9	701.0	618.3	657.7
65°	697.1	657.7	594.7	606.5	504.1
67.5°	571.1	551.4	496.2	441.1	425.4
70°	464.7	441.1	421.4	362.3	346.6
72.5°	370.2	346.6	319.0	287.5	275.7
75°	279.6	259.9	244.2	232.4	256.0
77.5°	193.0	185.1	173.3	161.5	157.5
80°	126.0	122.1	118.2	114.2	110.3
82.5°	74.8	74.8	74.8	74.8	74.8
85°	39.4	43.3	47.3	51.2	55.1
87.5°	23.6	23.6	27.6	31.5	35.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)