

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: P562779

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562779
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-24-4-LD4-2LO-40-UNV-82-94-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5487.0 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

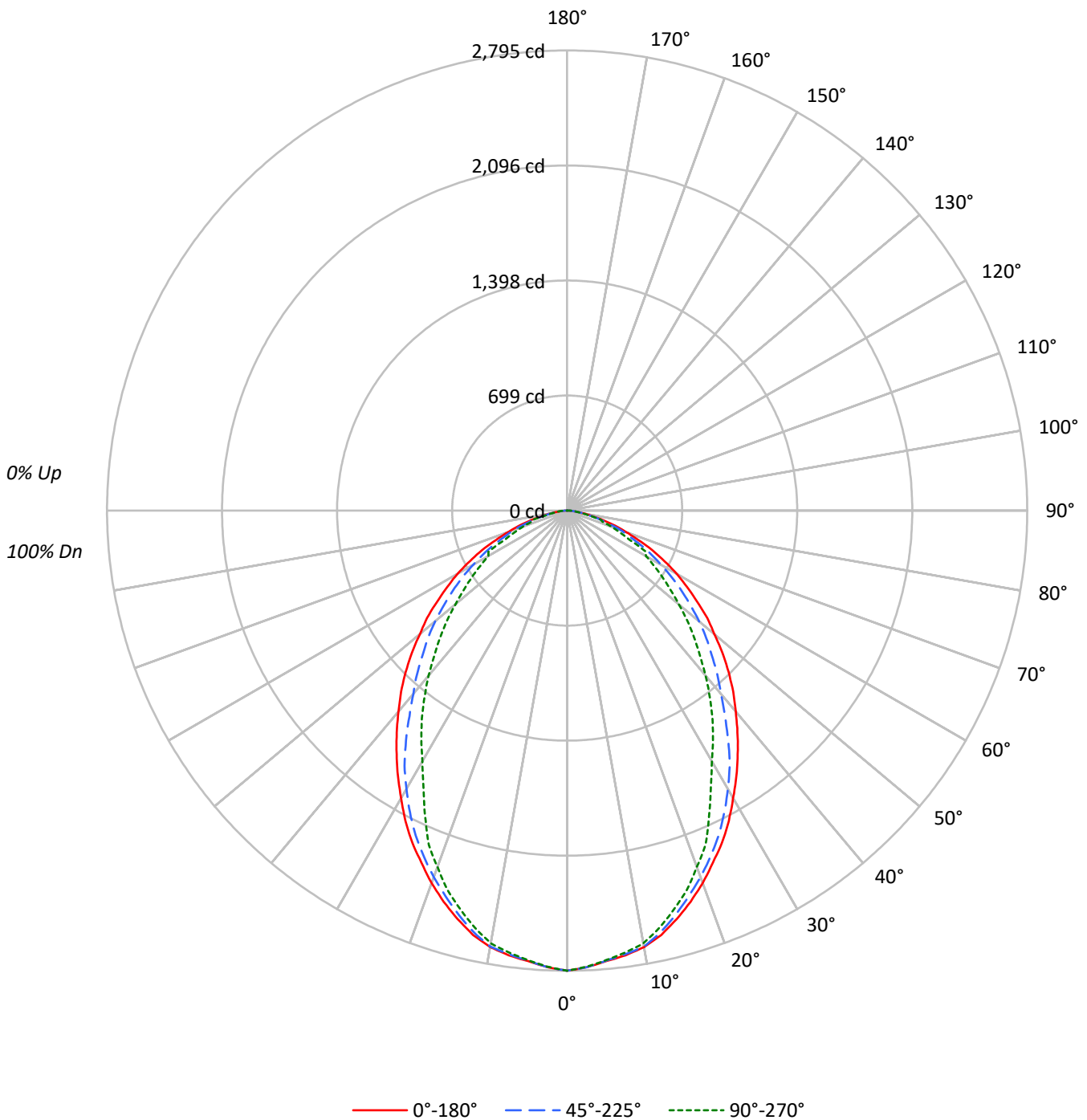
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	3761	3761	3761
5°	3710	3705	3701
10°	3677	3673	3647
15°	3578	3542	3493
20°	3447	3391	3299
25°	3305	3233	3032
30°	3133	3032	2731
35°	2967	2802	2526
40°	2798	2554	2298
45°	2638	2361	2078
50°	2442	2191	1853
55°	2259	1986	1660
60°	2069	1774	1487
65°	1821	1553	1317
70°	1500	1360	1118
75°	1193	1041	1092
80°	801	751	701
85°	499	599	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.2	4.7
10°-20°	714.0	13.0
20°-30°	988.5	18.0
30°-40°	1054.1	19.2
40°-50°	961.6	17.5
50°-60°	753.4	13.7
60°-70°	491.0	8.9
70°-80°	217.5	4.0
80°-90°	46.7	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°	1962.7	35.8
0°-40°	3016.8	55.0
0°-60°	4731.8	86.2
0°-90°	5487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2795	2795	2795	2795	2795	
5°	2746	2743	2743	2740	2740	261
15°	2569	2569	2543	2517	2507	722
25°	2226	2213	2178	2100	2042	1022
35°	1806	1793	1706	1577	1538	1129
45°	1386	1357	1241	1137	1092	1068
55°	963	934	847	746	708	864
65°	572	540	488	498	414	564
75°	229	213	200	191	210	246
85°	32	36	39	42	45	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2795.0	2795.0	2795.0	2795.0	2795.0
2.5°	2775.6	2775.6	2775.6	2772.4	2772.4
5°	2746.5	2743.3	2743.3	2740.1	2740.1
7.5°	2723.9	2720.7	2717.5	2714.2	2707.8
10°	2691.6	2691.6	2688.4	2672.2	2669.0
12.5°	2639.9	2636.7	2623.7	2601.1	2594.7
15°	2568.8	2568.8	2543.0	2517.1	2507.4
17.5°	2491.3	2488.0	2455.7	2429.9	2417.0
20°	2407.3	2400.8	2368.5	2326.5	2303.9
22.5°	2313.6	2313.6	2274.8	2219.8	2197.2
25°	2226.3	2213.4	2177.8	2100.3	2042.1
27.5°	2126.1	2106.8	2068.0	1958.1	1890.3
30°	2016.3	2006.6	1951.7	1809.5	1757.8
32.5°	1912.9	1896.7	1838.6	1689.9	1647.9
35°	1806.3	1793.3	1706.1	1576.8	1538.1
37.5°	1699.6	1683.5	1573.6	1470.2	1421.7
40°	1593.0	1573.6	1454.0	1360.3	1308.6
42.5°	1492.8	1467.0	1350.6	1250.5	1192.3
45°	1386.2	1357.1	1240.8	1137.4	1092.2
47.5°	1279.6	1253.7	1147.1	1040.5	988.8
50°	1166.5	1143.9	1046.9	940.3	885.4
52.5°	1072.8	1037.2	943.5	836.9	791.6
55°	962.9	933.8	846.6	746.4	707.6
57.5°	862.7	833.7	752.9	659.2	626.9
60°	769.0	727.0	659.2	578.4	552.5
62.5°	665.6	633.3	575.2	507.3	539.6
65°	571.9	539.6	487.9	497.6	413.6
67.5°	468.5	452.4	407.1	361.9	349.0
70°	381.3	361.9	345.7	297.3	284.3
72.5°	303.7	284.3	261.7	235.9	226.2
75°	229.4	213.3	200.3	190.6	210.0
77.5°	158.3	151.9	142.2	132.5	129.2
80°	103.4	100.2	96.9	93.7	90.5
82.5°	61.4	61.4	61.4	61.4	61.4
85°	32.3	35.5	38.8	42.0	45.2
87.5°	19.4	19.4	22.6	25.8	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)