

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: P562843

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562843
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5580.0 lumens
Efficiency: N/A
Efficacy: 119.2 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

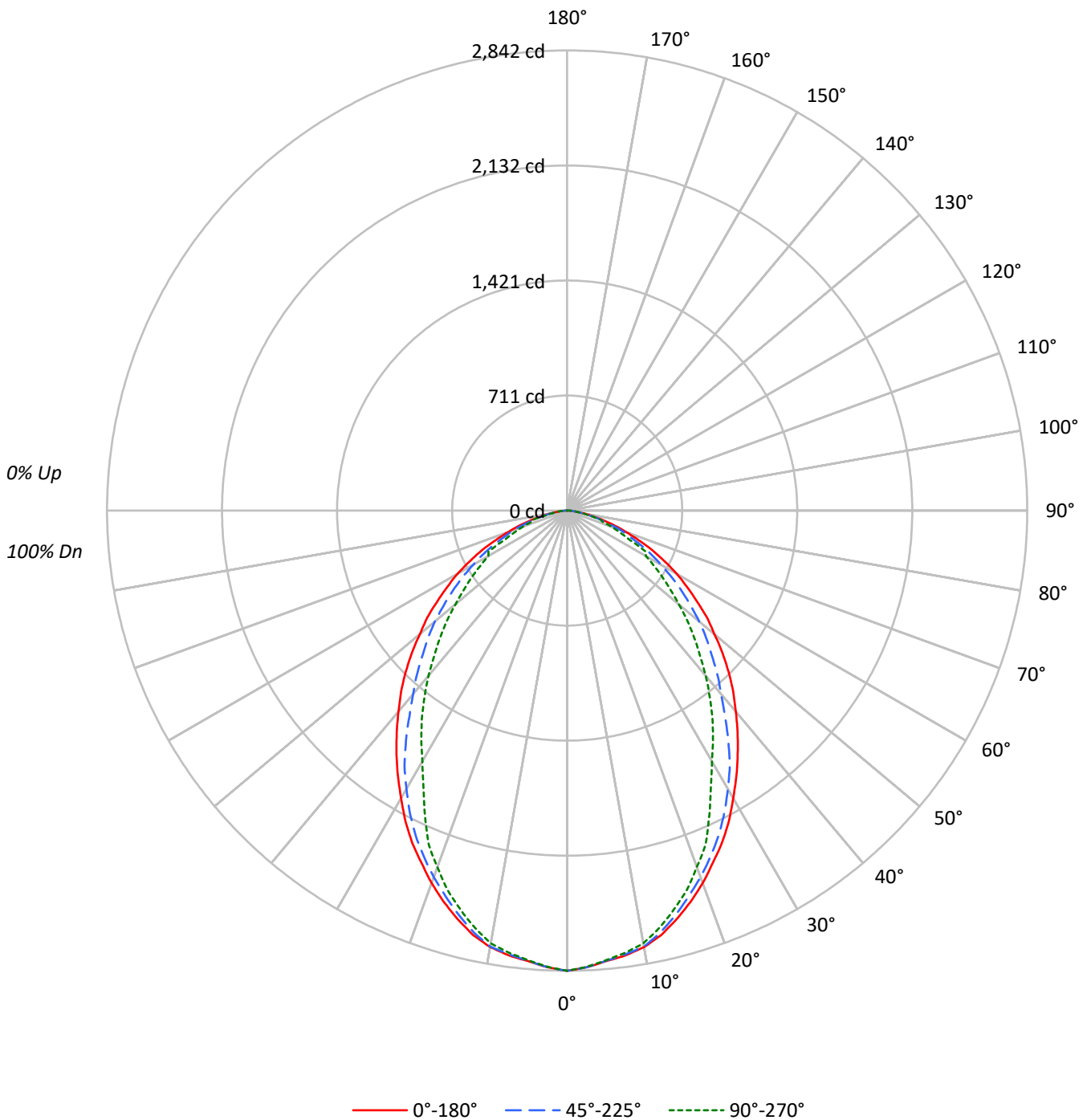
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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									100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87									87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75									75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65									65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56									56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50									50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44									44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40									40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36									36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33									33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30									30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3824	3824	3824
5°	3772	3768	3764
10°	3740	3735	3708
15°	3639	3602	3552
20°	3505	3449	3355
25°	3361	3288	3083
30°	3186	3084	2777
35°	3017	2850	2569
40°	2845	2597	2337
45°	2682	2401	2113
50°	2483	2229	1885
55°	2297	2019	1688
60°	2105	1804	1512
65°	1852	1580	1339
70°	1525	1383	1138
75°	1213	1059	1110
80°	815	764	713
85°	508	608	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2682 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.6	4.7
10°-20°	726.1	13.0
20°-30°	1005.3	18.0
30°-40°	1071.9	19.2
40°-50°	977.9	17.5
50°-60°	766.1	13.7
60°-70°	499.3	8.9
70°-80°	221.2	4.0
80°-90°	47.5	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°	1996.0	35.8
0°-40°	3067.9	55.0
0°-60°	4812.0	86.2
0°-90°	5580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2842	2842	2842	2842	2842	
5°	2793	2790	2790	2786	2786	265
15°	2612	2612	2586	2560	2550	734
25°	2264	2251	2215	2136	2077	1039
35°	1837	1824	1735	1604	1564	1148
45°	1410	1380	1262	1157	1111	1086
55°	979	950	861	759	720	878
65°	582	549	496	506	421	573
75°	233	217	204	194	214	250
85°	33	36	39	43	46	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2842.4	2842.4	2842.4	2842.4	2842.4
2.5°	2822.7	2822.7	2822.7	2819.4	2819.4
5°	2793.1	2789.8	2789.8	2786.5	2786.5
7.5°	2770.1	2766.8	2763.5	2760.2	2753.7
10°	2737.2	2737.2	2733.9	2717.5	2714.2
12.5°	2684.7	2681.4	2668.2	2645.2	2638.6
15°	2612.4	2612.4	2586.1	2559.8	2549.9
17.5°	2533.5	2530.2	2497.3	2471.1	2457.9
20°	2448.1	2441.5	2408.6	2365.9	2342.9
22.5°	2352.8	2352.8	2313.3	2257.5	2234.5
25°	2264.0	2250.9	2214.8	2135.9	2076.7
27.5°	2162.2	2142.5	2103.0	1991.3	1922.3
30°	2050.5	2040.6	1984.7	1840.2	1787.6
32.5°	1945.3	1928.9	1869.7	1718.6	1675.9
35°	1836.9	1823.7	1735.0	1603.6	1564.1
37.5°	1728.4	1712.0	1600.3	1495.1	1445.8
40°	1620.0	1600.3	1478.7	1383.4	1330.8
42.5°	1518.1	1491.8	1373.5	1271.7	1212.5
45°	1409.7	1380.1	1261.8	1156.7	1110.7
47.5°	1301.3	1275.0	1166.5	1058.1	1005.5
50°	1186.2	1163.2	1064.7	956.2	900.4
52.5°	1090.9	1054.8	959.5	851.1	805.1
55°	979.2	949.6	860.9	759.1	719.6
57.5°	877.4	847.8	765.6	670.3	637.5
60°	782.1	739.3	670.3	588.2	561.9
62.5°	676.9	644.1	584.9	515.9	548.8
65°	581.6	548.8	496.2	506.0	420.6
67.5°	476.5	460.0	414.0	368.0	354.9
70°	387.7	368.0	351.6	302.3	289.2
72.5°	308.9	289.2	266.2	239.9	230.0
75°	233.3	216.9	203.7	193.9	213.6
77.5°	161.0	154.4	144.6	134.7	131.4
80°	105.2	101.9	98.6	95.3	92.0
82.5°	62.4	62.4	62.4	62.4	62.4
85°	32.9	36.1	39.4	42.7	46.0
87.5°	19.7	19.7	23.0	26.3	29.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)