

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: P562715

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562715
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5433.0 lumens
Efficiency: N/A
Efficacy: 116.1 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

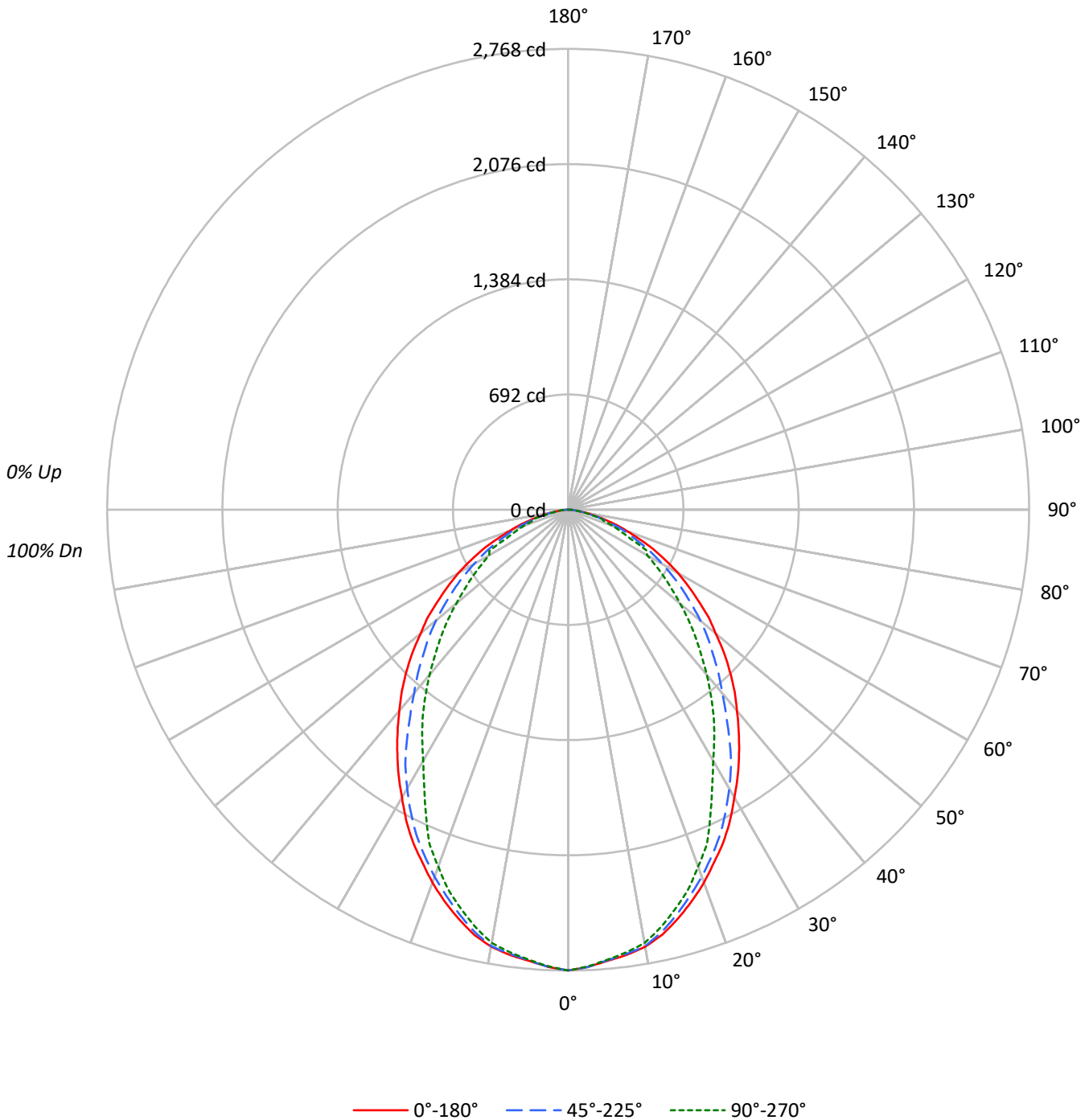
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3724	3724	3724
5°	3673	3669	3664
10°	3641	3637	3611
15°	3543	3507	3458
20°	3413	3358	3266
25°	3273	3201	3002
30°	3102	3002	2704
35°	2938	2775	2501
40°	2770	2529	2276
45°	2612	2338	2058
50°	2418	2170	1835
55°	2236	1966	1644
60°	2049	1756	1472
65°	1803	1538	1304
70°	1485	1347	1107
75°	1181	1031	1081
80°	793	744	694
85°	494	593	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2612 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.6	4.7
10°-20°	707.0	13.0
20°-30°	978.8	18.0
30°-40°	1043.7	19.2
40°-50°	952.2	17.5
50°-60°	745.9	13.7
60°-70°	486.2	8.9
70°-80°	215.4	4.0
80°-90°	46.3	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°	1943.4	35.8
0°-40°	2987.1	55.0
0°-60°	4685.2	86.2
0°-90°	5433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2768	2768	2768	2768	2768	
5°	2720	2716	2716	2713	2713	258
15°	2544	2544	2518	2492	2483	715
25°	2204	2192	2156	2080	2022	1012
35°	1788	1776	1689	1561	1523	1118
45°	1373	1344	1229	1126	1081	1057
55°	953	925	838	739	701	855
65°	566	534	483	493	410	558
75°	227	211	198	189	208	243
85°	32	35	38	42	45	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2767.5	2767.5	2767.5	2767.5	2767.5
2.5°	2748.3	2748.3	2748.3	2745.1	2745.1
5°	2719.5	2716.3	2716.3	2713.1	2713.1
7.5°	2697.1	2693.9	2690.7	2687.5	2681.1
10°	2665.1	2665.1	2661.9	2645.9	2642.7
12.5°	2613.9	2610.7	2597.9	2575.5	2569.1
15°	2543.5	2543.5	2517.9	2492.3	2482.7
17.5°	2466.8	2463.6	2431.6	2406.0	2393.2
20°	2383.6	2377.2	2345.2	2303.6	2281.2
22.5°	2290.8	2290.8	2252.4	2198.0	2175.6
25°	2204.4	2191.6	2156.4	2079.6	2022.0
27.5°	2105.2	2086.0	2047.6	1938.8	1871.7
30°	1996.4	1986.8	1932.4	1791.7	1740.5
32.5°	1894.1	1878.1	1820.5	1673.3	1631.7
35°	1788.5	1775.7	1689.3	1561.3	1522.9
37.5°	1682.9	1666.9	1558.1	1455.7	1407.7
40°	1577.3	1558.1	1439.7	1347.0	1295.8
42.5°	1478.1	1452.5	1337.4	1238.2	1180.6
45°	1372.6	1343.8	1228.6	1126.2	1081.4
47.5°	1267.0	1241.4	1135.8	1030.2	979.0
50°	1155.0	1132.6	1036.6	931.0	876.6
52.5°	1062.2	1027.0	934.2	828.6	783.9
55°	953.4	924.6	838.2	739.1	700.7
57.5°	854.2	825.5	745.5	652.7	620.7
60°	761.5	719.9	652.7	572.7	547.1
62.5°	659.1	627.1	569.5	502.3	534.3
65°	566.3	534.3	483.1	492.7	409.5
67.5°	463.9	447.9	403.1	358.3	345.5
70°	377.5	358.3	342.3	294.3	281.5
72.5°	300.7	281.5	259.2	233.6	224.0
75°	227.2	211.2	198.4	188.8	208.0
77.5°	156.8	150.4	140.8	131.2	128.0
80°	102.4	99.2	96.0	92.8	89.6
82.5°	60.8	60.8	60.8	60.8	60.8
85°	32.0	35.2	38.4	41.6	44.8
87.5°	19.2	19.2	22.4	25.6	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)