

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: P562685

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562685
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-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5777.0 lumens
Efficiency: N/A
Efficacy: 123.4 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

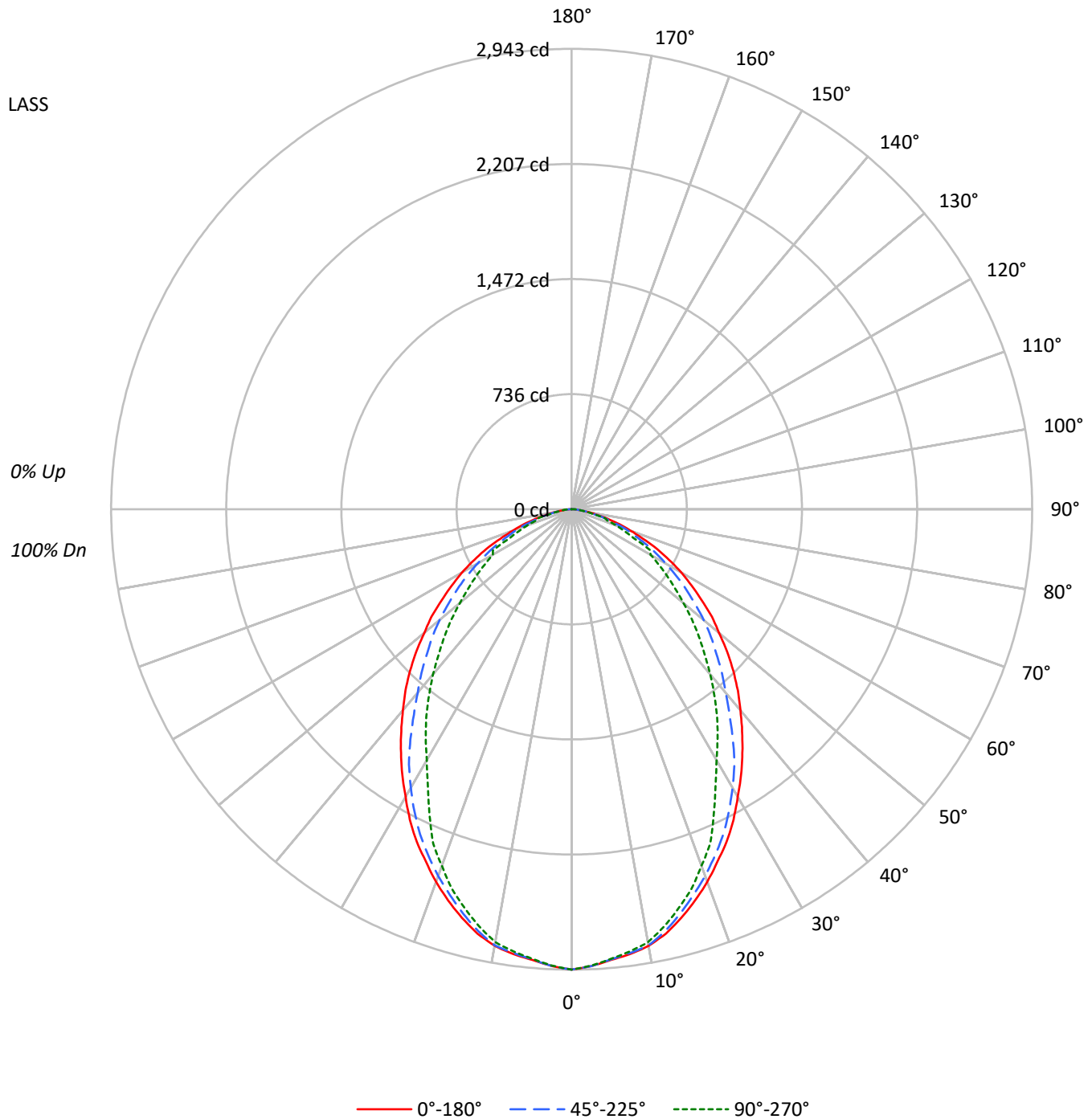
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3959	3959	3959
5°	3906	3901	3896
10°	3872	3867	3839
15°	3767	3729	3677
20°	3629	3571	3473
25°	3480	3404	3192
30°	3298	3192	2875
35°	3124	2950	2660
40°	2946	2689	2420
45°	2777	2486	2188
50°	2571	2307	1951
55°	2378	2091	1748
60°	2179	1868	1565
65°	1917	1635	1387
70°	1579	1432	1178
75°	1255	1096	1149
80°	844	791	738
85°	525	630	735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.9	4.7
10°-20°	751.8	13.0
20°-30°	1040.8	18.0
30°-40°	1109.8	19.2
40°-50°	1012.4	17.5
50°-60°	793.2	13.7
60°-70°	516.9	8.9
70°-80°	229.0	4.0
80°-90°	49.2	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°	2066.5	35.8
0°-40°	3176.3	55.0
0°-60°	4981.8	86.2
0°-90°	5777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2943	2943	2943	2943	2943	
5°	2892	2888	2888	2885	2885	274
15°	2705	2705	2677	2650	2640	760
25°	2344	2330	2293	2211	2150	1076
35°	1902	1888	1796	1660	1619	1189
45°	1460	1429	1306	1198	1150	1124
55°	1014	983	891	786	745	909
65°	602	568	514	524	436	593
75°	242	224	211	201	221	259
85°	34	37	41	44	48	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2942.7	2942.7	2942.7	2942.7	2942.7
2.5°	2922.3	2922.3	2922.3	2918.9	2918.9
5°	2891.7	2888.3	2888.3	2884.9	2884.9
7.5°	2867.9	2864.5	2861.1	2857.7	2850.9
10°	2833.9	2833.9	2830.5	2813.5	2810.0
12.5°	2779.4	2776.0	2762.4	2738.6	2731.8
15°	2704.6	2704.6	2677.4	2650.2	2639.9
17.5°	2622.9	2619.5	2585.5	2558.3	2544.7
20°	2534.5	2527.7	2493.7	2449.4	2425.6
22.5°	2435.8	2435.8	2395.0	2337.2	2313.4
25°	2344.0	2330.4	2292.9	2211.3	2150.1
27.5°	2238.5	2218.1	2177.3	2061.6	1990.2
30°	2122.8	2112.6	2054.8	1905.1	1850.7
32.5°	2014.0	1997.0	1935.7	1779.2	1735.0
35°	1901.7	1888.1	1796.3	1660.2	1619.4
37.5°	1789.4	1772.4	1656.8	1547.9	1496.9
40°	1677.2	1656.8	1530.9	1432.2	1377.8
42.5°	1571.7	1544.5	1422.0	1316.6	1255.3
45°	1459.5	1428.8	1306.4	1197.5	1149.9
47.5°	1347.2	1320.0	1207.7	1095.4	1041.0
50°	1228.1	1204.3	1102.2	990.0	932.1
52.5°	1129.5	1092.0	993.4	881.1	833.5
55°	1013.8	983.2	891.3	785.9	745.0
57.5°	908.3	877.7	792.7	694.0	660.0
60°	809.7	765.4	694.0	609.0	581.7
62.5°	700.8	666.8	605.6	534.1	568.1
65°	602.2	568.1	513.7	523.9	435.5
67.5°	493.3	476.3	428.7	381.0	367.4
70°	401.4	381.0	364.0	313.0	299.4
72.5°	319.8	299.4	275.6	248.3	238.1
75°	241.5	224.5	210.9	200.7	221.1
77.5°	166.7	159.9	149.7	139.5	136.1
80°	108.9	105.5	102.1	98.7	95.3
82.5°	64.6	64.6	64.6	64.6	64.6
85°	34.0	37.4	40.8	44.2	47.6
87.5°	20.4	20.4	23.8	27.2	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)