

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: P562801

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562801
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-80-84-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5986.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

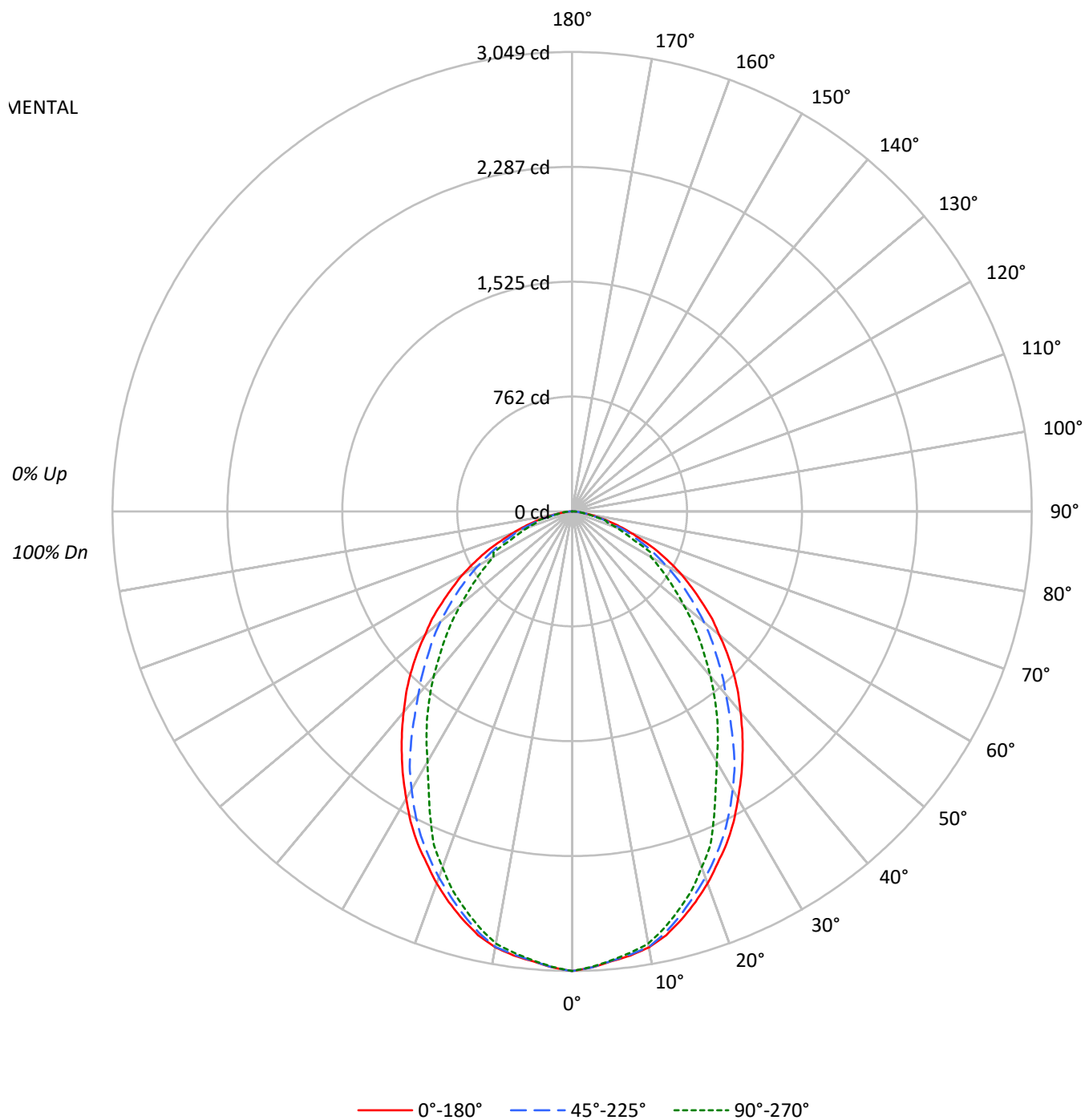
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	4103	4103	4103
5°	4047	4042	4037
10°	4012	4007	3978
15°	3904	3864	3810
20°	3760	3700	3599
25°	3606	3527	3307
30°	3417	3308	2979
35°	3237	3057	2756
40°	3052	2786	2508
45°	2878	2576	2267
50°	2664	2391	2022
55°	2464	2167	1811
60°	2258	1935	1622
65°	1986	1695	1436
70°	1637	1484	1220
75°	1301	1136	1191
80°	874	820	765
85°	545	653	763

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2878 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.8	4.7
10°-20°	779.0	13.0
20°-30°	1078.4	18.0
30°-40°	1149.9	19.2
40°-50°	1049.1	17.5
50°-60°	821.9	13.7
60°-70°	535.7	8.9
70°-80°	237.3	4.0
80°-90°	51.0	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°	2141.2	35.8
0°-40°	3291.2	55.0
0°-60°	5162.1	86.2
0°-90°	5986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3049	3049	3049	3049	3049	
5°	2996	2993	2993	2989	2989	284
15°	2802	2802	2774	2746	2736	788
25°	2429	2415	2376	2291	2228	1115
35°	1970	1956	1861	1720	1678	1232
45°	1512	1480	1354	1241	1192	1165
55°	1050	1019	924	814	772	942
65°	624	589	532	543	451	615
75°	250	233	219	208	229	268
85°	35	39	42	46	49	49
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3049.2	3049.2	3049.2	3049.2	3049.2
2.5°	3028.0	3028.0	3028.0	3024.5	3024.5
5°	2996.3	2992.8	2992.8	2989.3	2989.3
7.5°	2971.6	2968.1	2964.6	2961.1	2954.0
10°	2936.4	2936.4	2932.9	2915.2	2911.7
12.5°	2880.0	2876.5	2862.4	2837.7	2830.6
15°	2802.4	2802.4	2774.2	2746.0	2735.5
17.5°	2717.8	2714.3	2679.1	2650.9	2636.8
20°	2626.2	2619.1	2583.9	2538.1	2513.4
22.5°	2524.0	2524.0	2481.7	2421.7	2397.0
25°	2428.8	2414.7	2375.9	2291.3	2227.8
27.5°	2319.5	2298.3	2256.0	2136.2	2062.2
30°	2199.6	2189.1	2129.1	1974.0	1917.6
32.5°	2086.8	2069.2	2005.8	1843.6	1797.8
35°	1970.5	1956.4	1861.2	1720.2	1677.9
37.5°	1854.2	1836.6	1716.7	1603.9	1551.0
40°	1737.9	1716.7	1586.3	1484.1	1427.7
42.5°	1628.6	1600.4	1473.5	1364.2	1300.8
45°	1512.3	1480.5	1353.6	1240.8	1191.5
47.5°	1395.9	1367.7	1251.4	1135.1	1078.7
50°	1272.6	1247.9	1142.1	1025.8	965.9
52.5°	1170.3	1131.5	1029.3	913.0	863.6
55°	1050.5	1018.7	923.6	814.3	772.0
57.5°	941.2	909.5	821.3	719.1	683.9
60°	839.0	793.1	719.1	631.0	602.8
62.5°	726.2	690.9	627.5	553.4	588.7
65°	623.9	588.7	532.3	542.9	451.2
67.5°	511.1	493.5	444.2	394.8	380.7
70°	416.0	394.8	377.2	324.3	310.2
72.5°	331.4	310.2	285.5	257.3	246.8
75°	250.3	232.7	218.6	208.0	229.1
77.5°	172.7	165.7	155.1	144.5	141.0
80°	112.8	109.3	105.8	102.2	98.7
82.5°	67.0	67.0	67.0	67.0	67.0
85°	35.3	38.8	42.3	45.8	49.4
87.5°	21.2	21.2	24.7	28.2	31.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)