

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: P563768

Luminaire Tested: FSR-24-4-LD4-4HI-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563768
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-LD4-4HI-50-UNV-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14446.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

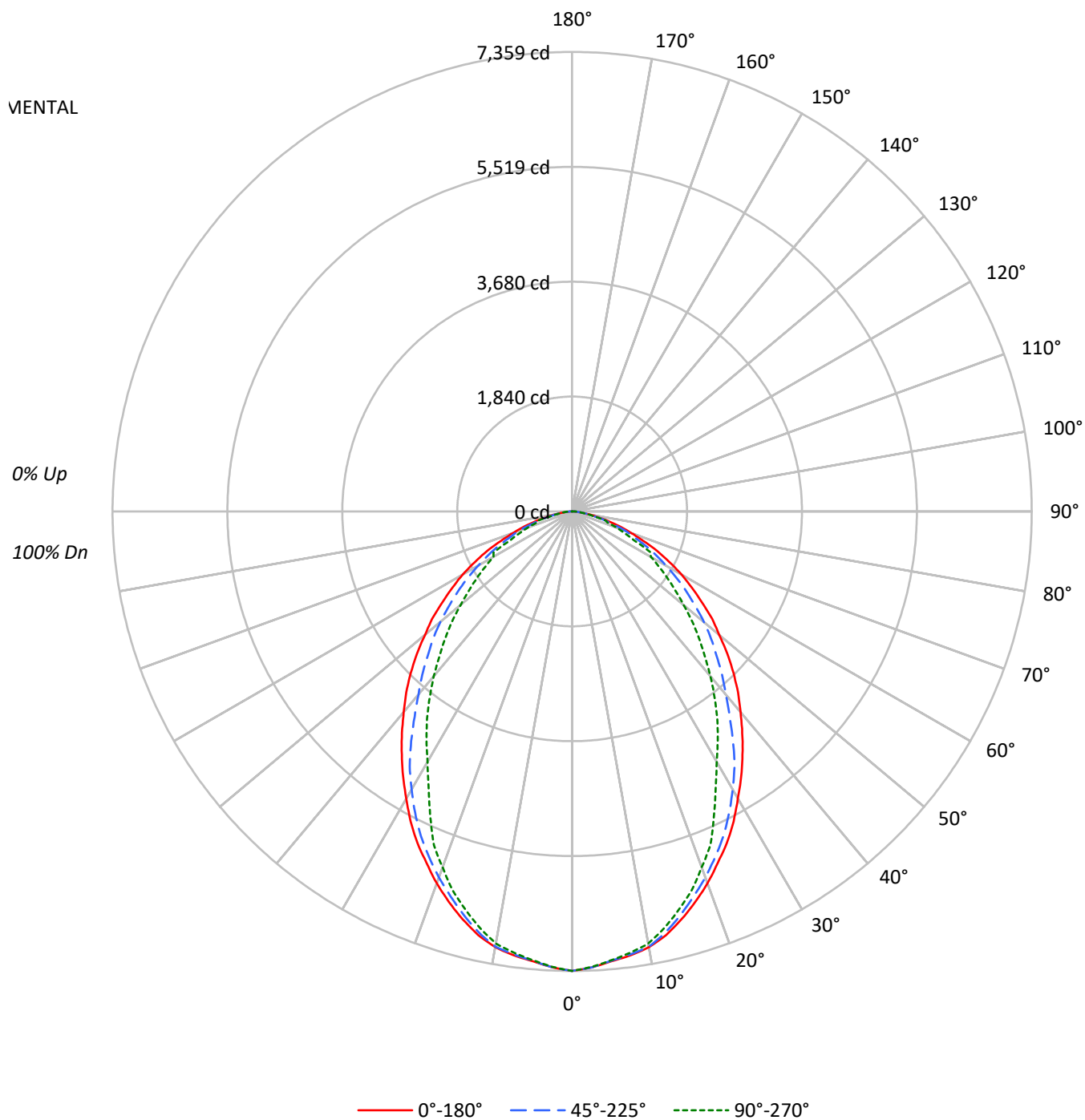
Input Watts (W): 172.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
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		
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°	9901	9901	9901
5°	9766	9755	9743
10°	9682	9670	9600
15°	9421	9326	9196
20°	9075	8929	8685
25°	8702	8512	7982
30°	8247	7983	7190
35°	7811	7378	6651
40°	7366	6724	6052
45°	6944	6216	5471
50°	6428	5770	4879
55°	5947	5228	4370
60°	5448	4670	3915
65°	4794	4090	3467
70°	3949	3581	2945
75°	3140	2742	2875
80°	2109	1977	1846
85°	1314	1576	1839

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6944 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	685.0	4.7
10°-20°	1879.9	13.0
20°-30°	2602.6	18.0
30°-40°	2775.1	19.2
40°-50°	2531.7	17.5
50°-60°	1983.4	13.7
60°-70°	1292.7	8.9
70°-80°	572.7	4.0
80°-90°	123.0	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°	5167.5	35.8
0°-40°	7942.6	55.0
0°-60°	12457.6	86.2
0°-90°	14446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7359	7359	7359	7359	7359	
5°	7231	7222	7222	7214	7214	686
15°	6763	6763	6695	6627	6602	1901
25°	5861	5827	5734	5530	5376	2691
35°	4755	4721	4492	4151	4049	2973
45°	3650	3573	3267	2994	2875	2811
55°	2535	2458	2229	1965	1863	2274
65°	1506	1421	1285	1310	1089	1484
75°	604	562	527	502	553	647
85°	85	94	102	111	119	118
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7358.6	7358.6	7358.6	7358.6	7358.6
2.5°	7307.6	7307.6	7307.6	7299.1	7299.1
5°	7231.0	7222.5	7222.5	7214.0	7214.0
7.5°	7171.4	7162.9	7154.4	7145.9	7128.9
10°	7086.4	7086.4	7077.9	7035.3	7026.8
12.5°	6950.3	6941.8	6907.7	6848.2	6831.2
15°	6763.1	6763.1	6695.0	6627.0	6601.5
17.5°	6558.9	6550.4	6465.4	6397.3	6363.3
20°	6337.8	6320.7	6235.7	6125.1	6065.5
22.5°	6091.0	6091.0	5989.0	5844.3	5784.8
25°	5861.4	5827.3	5733.8	5529.6	5376.5
27.5°	5597.6	5546.6	5444.5	5155.3	4976.6
30°	5308.4	5282.9	5138.3	4763.9	4627.8
32.5°	5036.2	4993.6	4840.5	4449.2	4338.6
35°	4755.4	4721.4	4491.7	4151.4	4049.4
37.5°	4474.7	4432.2	4142.9	3870.7	3743.1
40°	4194.0	4142.9	3828.2	3581.5	3445.4
42.5°	3930.3	3862.2	3555.9	3292.2	3139.1
45°	3649.5	3573.0	3266.7	2994.5	2875.4
47.5°	3368.8	3300.7	3020.0	2739.3	2603.2
50°	3071.0	3011.5	2756.3	2475.6	2330.9
52.5°	2824.3	2730.8	2484.1	2203.3	2084.2
55°	2535.1	2458.5	2228.8	1965.1	1863.0
57.5°	2271.4	2194.8	1982.1	1735.4	1650.4
60°	2024.7	1914.1	1735.4	1522.8	1454.7
62.5°	1752.5	1667.4	1514.3	1335.6	1420.7
65°	1505.7	1420.7	1284.6	1310.1	1088.9
67.5°	1233.5	1191.0	1071.9	952.8	918.8
70°	1003.8	952.8	910.3	782.6	748.6
72.5°	799.7	748.6	689.1	621.0	595.5
75°	604.0	561.5	527.4	501.9	553.0
77.5°	416.8	399.8	374.3	348.8	340.3
80°	272.2	263.7	255.2	246.7	238.2
82.5°	161.6	161.6	161.6	161.6	161.6
85°	85.1	93.6	102.1	110.6	119.1
87.5°	51.0	51.0	59.5	68.1	76.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)