

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: P563515

Luminaire Tested: FSR-24-4-LD4-3STD-40-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563515
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-LD4-3STD-40-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11852.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

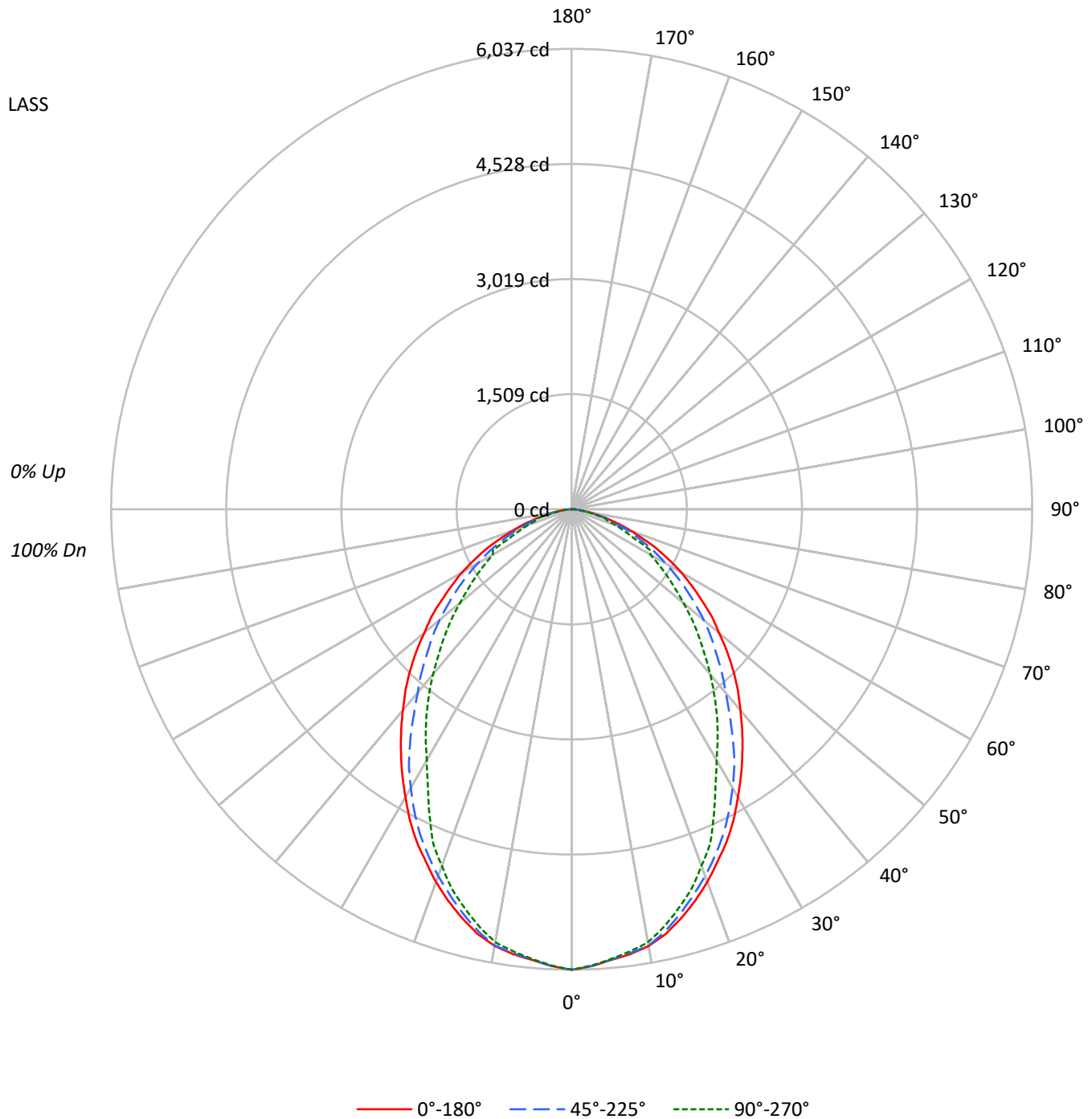
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8123	8123	8123
5°	8013	8003	7994
10°	7943	7934	7877
15°	7729	7651	7544
20°	7445	7325	7125
25°	7139	6984	6548
30°	6766	6550	5899
35°	6408	6053	5457
40°	6044	5517	4965
45°	5697	5100	4489
50°	5274	4734	4003
55°	4879	4290	3586
60°	4470	3831	3212
65°	3933	3355	2844
70°	3240	2938	2416
75°	2576	2249	2359
80°	1730	1623	1514
85°	1078	1294	1508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5697 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	562.0	4.7
10°-20°	1542.3	13.0
20°-30°	2135.2	18.0
30°-40°	2276.8	19.2
40°-50°	2077.1	17.5
50°-60°	1627.2	13.7
60°-70°	1060.6	8.9
70°-80°	469.9	4.0
80°-90°	100.9	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°	4239.6	35.8
0°-40°	6516.4	55.0
0°-60°	10220.7	86.2
0°-90°	11852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6037	6037	6037	6037	6037	
5°	5933	5926	5926	5919	5919	563
15°	5549	5549	5493	5437	5416	1560
25°	4809	4781	4704	4537	4411	2208
35°	3902	3874	3685	3406	3322	2439
45°	2994	2931	2680	2457	2359	2306
55°	2080	2017	1829	1612	1528	1866
65°	1235	1166	1054	1075	893	1217
75°	496	461	433	412	454	531
85°	70	77	84	91	98	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6037.3	6037.3	6037.3	6037.3	6037.3
2.5°	5995.4	5995.4	5995.4	5988.4	5988.4
5°	5932.6	5925.6	5925.6	5918.6	5918.6
7.5°	5883.7	5876.7	5869.7	5862.8	5848.8
10°	5813.9	5813.9	5806.9	5772.0	5765.1
12.5°	5702.2	5695.3	5667.3	5618.5	5604.5
15°	5548.7	5548.7	5492.9	5437.0	5416.1
17.5°	5381.2	5374.2	5304.4	5248.6	5220.7
20°	5199.7	5185.8	5116.0	5025.2	4976.4
22.5°	4997.3	4997.3	4913.6	4794.9	4746.0
25°	4808.9	4780.9	4704.2	4536.7	4411.0
27.5°	4592.5	4550.6	4466.9	4229.6	4083.0
30°	4355.2	4334.3	4215.6	3908.5	3796.8
32.5°	4131.9	4097.0	3971.3	3650.3	3559.5
35°	3901.5	3873.6	3685.2	3406.0	3322.2
37.5°	3671.2	3636.3	3399.0	3175.7	3071.0
40°	3440.9	3399.0	3140.8	2938.4	2826.7
42.5°	3224.5	3168.7	2917.4	2701.1	2575.4
45°	2994.2	2931.4	2680.1	2456.8	2359.1
47.5°	2763.9	2708.0	2477.7	2247.4	2135.7
50°	2519.6	2470.7	2261.4	2031.0	1912.4
52.5°	2317.2	2240.4	2038.0	1807.7	1710.0
55°	2079.9	2017.1	1828.6	1612.3	1528.5
57.5°	1863.5	1800.7	1626.2	1423.8	1354.0
60°	1661.1	1570.4	1423.8	1249.3	1193.5
62.5°	1437.8	1368.0	1242.3	1095.8	1165.6
65°	1235.4	1165.6	1053.9	1074.8	893.4
67.5°	1012.0	977.1	879.4	781.7	753.8
70°	823.6	781.7	746.8	642.1	614.2
72.5°	656.1	614.2	565.3	509.5	488.6
75°	495.5	460.6	432.7	411.8	453.7
77.5°	342.0	328.0	307.1	286.2	279.2
80°	223.3	216.4	209.4	202.4	195.4
82.5°	132.6	132.6	132.6	132.6	132.6
85°	69.8	76.8	83.8	90.7	97.7
87.5°	41.9	41.9	48.9	55.8	62.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)