

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: P562874

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562874
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-LD4-2STD-35-UNV-80-94-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6546.0 lumens
Efficiency: N/A
Efficacy: 98.3 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

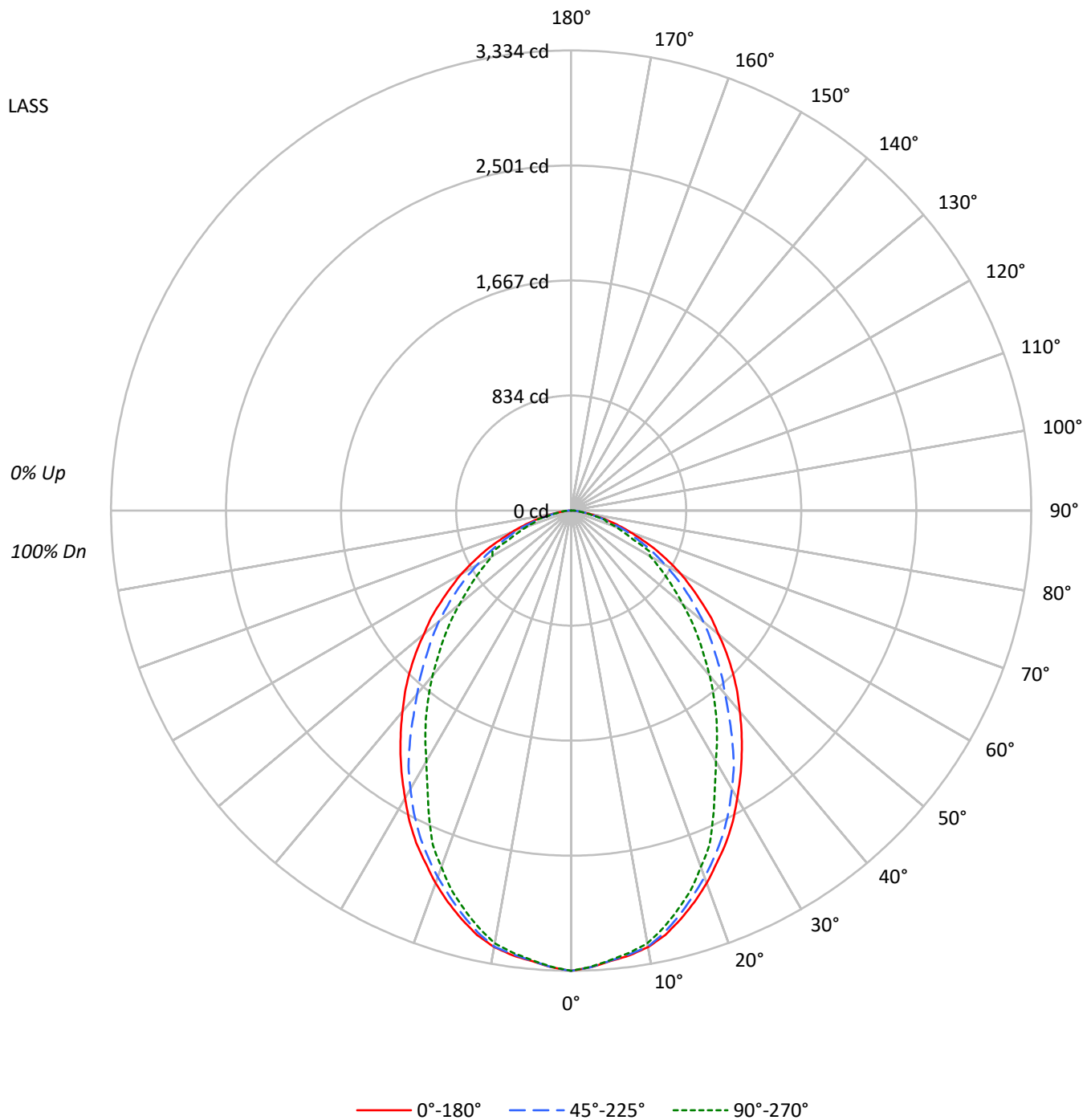
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4486	4486	4486
5°	4425	4420	4415
10°	4387	4382	4350
15°	4269	4226	4167
20°	4112	4046	3935
25°	3943	3857	3617
30°	3737	3617	3258
35°	3540	3343	3014
40°	3338	3047	2742
45°	3147	2817	2479
50°	2913	2614	2211
55°	2695	2369	1980
60°	2469	2116	1774
65°	2172	1853	1571
70°	1790	1623	1334
75°	1423	1242	1303
80°	956	896	836
85°	594	715	834

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3147 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.4	4.7
10°-20°	851.8	13.0
20°-30°	1179.3	18.0
30°-40°	1257.5	19.2
40°-50°	1147.2	17.5
50°-60°	898.7	13.7
60°-70°	585.8	8.9
70°-80°	259.5	4.0
80°-90°	55.7	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°	2341.6	35.8
0°-40°	3599.1	55.0
0°-60°	5645.0	86.2
0°-90°	6546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3334	3334	3334	3334	3334	
5°	3277	3273	3273	3269	3269	311
15°	3065	3065	3034	3003	2991	862
25°	2656	2641	2598	2506	2436	1219
35°	2155	2139	2035	1881	1835	1347
45°	1654	1619	1480	1357	1303	1274
55°	1149	1114	1010	890	844	1030
65°	682	644	582	594	493	672
75°	274	254	239	227	251	293
85°	38	42	46	50	54	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3334.4	3334.4	3334.4	3334.4	3334.4
2.5°	3311.3	3311.3	3311.3	3307.5	3307.5
5°	3276.6	3272.8	3272.8	3268.9	3268.9
7.5°	3249.6	3245.8	3241.9	3238.1	3230.4
10°	3211.1	3211.1	3207.2	3188.0	3184.1
12.5°	3149.4	3145.6	3130.1	3103.2	3095.4
15°	3064.6	3064.6	3033.8	3002.9	2991.4
17.5°	2972.1	2968.2	2929.7	2898.8	2883.4
20°	2871.9	2864.2	2825.6	2775.5	2748.5
22.5°	2760.1	2760.1	2713.8	2648.3	2621.3
25°	2656.0	2640.6	2598.2	2505.7	2436.3
27.5°	2536.5	2513.4	2467.1	2336.0	2255.1
30°	2405.4	2393.9	2328.3	2158.7	2097.0
32.5°	2282.1	2262.8	2193.4	2016.1	1966.0
35°	2154.9	2139.4	2035.4	1881.2	1834.9
37.5°	2027.7	2008.4	1877.3	1754.0	1696.1
40°	1900.4	1877.3	1734.7	1622.9	1561.2
42.5°	1780.9	1750.1	1611.3	1491.8	1422.4
45°	1653.7	1619.0	1480.3	1356.9	1302.9
47.5°	1526.5	1495.7	1368.5	1241.3	1179.6
50°	1391.6	1364.6	1249.0	1121.8	1056.2
52.5°	1279.8	1237.4	1125.6	998.4	944.4
55°	1148.7	1114.1	1010.0	890.5	844.2
57.5°	1029.2	994.6	898.2	786.4	747.8
60°	917.5	867.3	786.4	690.0	659.2
62.5°	794.1	755.6	686.2	605.2	643.8
65°	682.3	643.8	582.1	593.6	493.4
67.5°	559.0	539.7	485.7	431.7	416.3
70°	454.9	431.7	412.5	354.6	339.2
72.5°	362.4	339.2	312.2	281.4	269.8
75°	273.7	254.4	239.0	227.4	250.6
77.5°	188.9	181.2	169.6	158.0	154.2
80°	123.4	119.5	115.6	111.8	107.9
82.5°	73.2	73.2	73.2	73.2	73.2
85°	38.5	42.4	46.3	50.1	54.0
87.5°	23.1	23.1	27.0	30.8	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)