

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: P562554

Luminaire Tested: FSR-24-4-LD4-2HI-40-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562554
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-LD4-2HI-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8143.0 lumens
Efficiency: N/A
Efficacy: 94.2 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

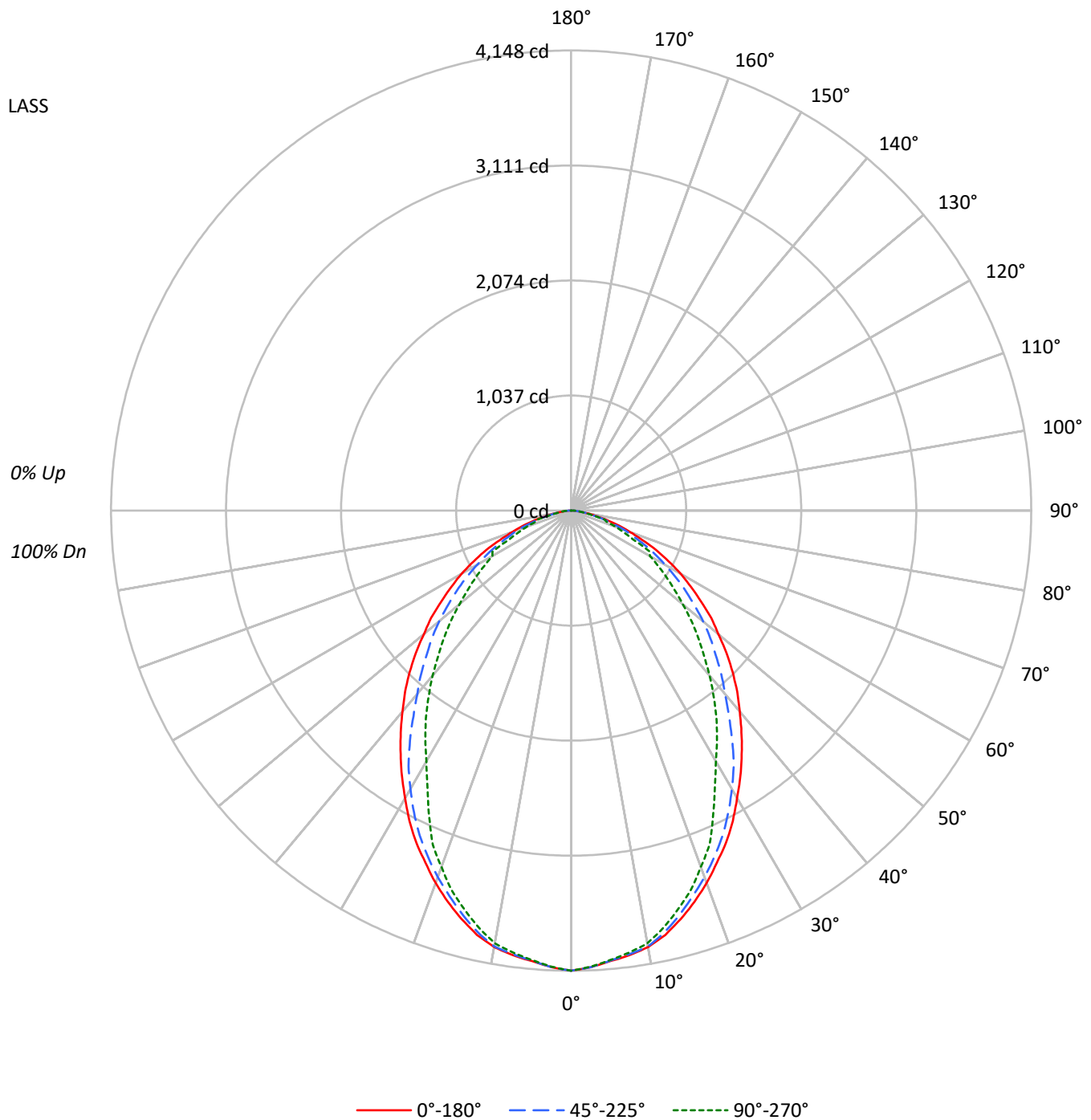
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5581	5581	5581
5°	5505	5499	5492
10°	5457	5451	5412
15°	5310	5257	5183
20°	5115	5033	4895
25°	4905	4798	4499
30°	4649	4500	4053
35°	4403	4159	3749
40°	4152	3790	3411
45°	3914	3504	3084
50°	3624	3252	2750
55°	3352	2947	2464
60°	3071	2632	2207
65°	2702	2305	1954
70°	2226	2019	1660
75°	1770	1546	1620
80°	1189	1115	1041
85°	741	888	1036

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3914 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.1	4.7
10°-20°	1059.7	13.0
20°-30°	1467.0	18.0
30°-40°	1564.3	19.2
40°-50°	1427.1	17.5
50°-60°	1118.0	13.7
60°-70°	728.7	8.9
70°-80°	322.8	4.0
80°-90°	69.3	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°	2912.8	35.8
0°-40°	4477.1	55.0
0°-60°	7022.2	86.2
0°-90°	8143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4148	4148	4148	4148	4148	
5°	4076	4071	4071	4066	4066	387
15°	3812	3812	3774	3736	3721	1072
25°	3304	3285	3232	3117	3031	1517
35°	2681	2661	2532	2340	2283	1676
45°	2057	2014	1841	1688	1621	1585
55°	1429	1386	1256	1108	1050	1282
65°	849	801	724	738	614	836
75°	340	316	297	283	312	365
85°	48	53	58	62	67	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4147.9	4147.9	4147.9	4147.9	4147.9
2.5°	4119.2	4119.2	4119.2	4114.4	4114.4
5°	4076.0	4071.2	4071.2	4066.4	4066.4
7.5°	4042.4	4037.6	4032.8	4028.1	4018.5
10°	3994.5	3994.5	3989.7	3965.7	3960.9
12.5°	3917.8	3913.0	3893.8	3860.2	3850.6
15°	3812.3	3812.3	3773.9	3735.5	3721.2
17.5°	3697.2	3692.4	3644.4	3606.1	3586.9
20°	3572.5	3562.9	3515.0	3452.6	3419.0
22.5°	3433.4	3433.4	3375.9	3294.4	3260.8
25°	3304.0	3284.8	3232.0	3116.9	3030.6
27.5°	3155.3	3126.5	3069.0	2906.0	2805.3
30°	2992.3	2977.9	2896.4	2685.4	2608.6
32.5°	2838.8	2814.8	2728.5	2507.9	2445.6
35°	2680.6	2661.4	2531.9	2340.1	2282.6
37.5°	2522.3	2498.4	2335.3	2181.9	2109.9
40°	2364.1	2335.3	2157.9	2018.8	1942.1
42.5°	2215.4	2177.1	2004.4	1855.8	1769.5
45°	2057.2	2014.0	1841.4	1687.9	1620.8
47.5°	1898.9	1860.6	1702.3	1544.1	1467.4
50°	1731.1	1697.5	1553.7	1395.4	1313.9
52.5°	1592.0	1539.3	1400.2	1242.0	1174.8
55°	1429.0	1385.8	1256.4	1107.7	1050.2
57.5°	1280.3	1237.2	1117.3	978.2	930.3
60°	1141.3	1078.9	978.2	858.4	820.0
62.5°	987.8	939.9	853.6	752.9	800.8
65°	848.8	800.8	724.1	738.5	613.8
67.5°	695.3	671.3	604.2	537.1	517.9
70°	565.8	537.1	513.1	441.2	422.0
72.5°	450.8	422.0	388.4	350.1	335.7
75°	340.5	316.5	297.3	282.9	311.7
77.5°	235.0	225.4	211.0	196.6	191.8
80°	153.4	148.7	143.9	139.1	134.3
82.5°	91.1	91.1	91.1	91.1	91.1
85°	48.0	52.7	57.5	62.3	67.1
87.5°	28.8	28.8	33.6	38.4	43.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)