

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: P563032

Luminaire Tested: FSR-24-4-LD4-2STD-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563032
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-50-UNV-82-88-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5477.0 lumens
Efficiency: N/A
Efficacy: 82.2 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

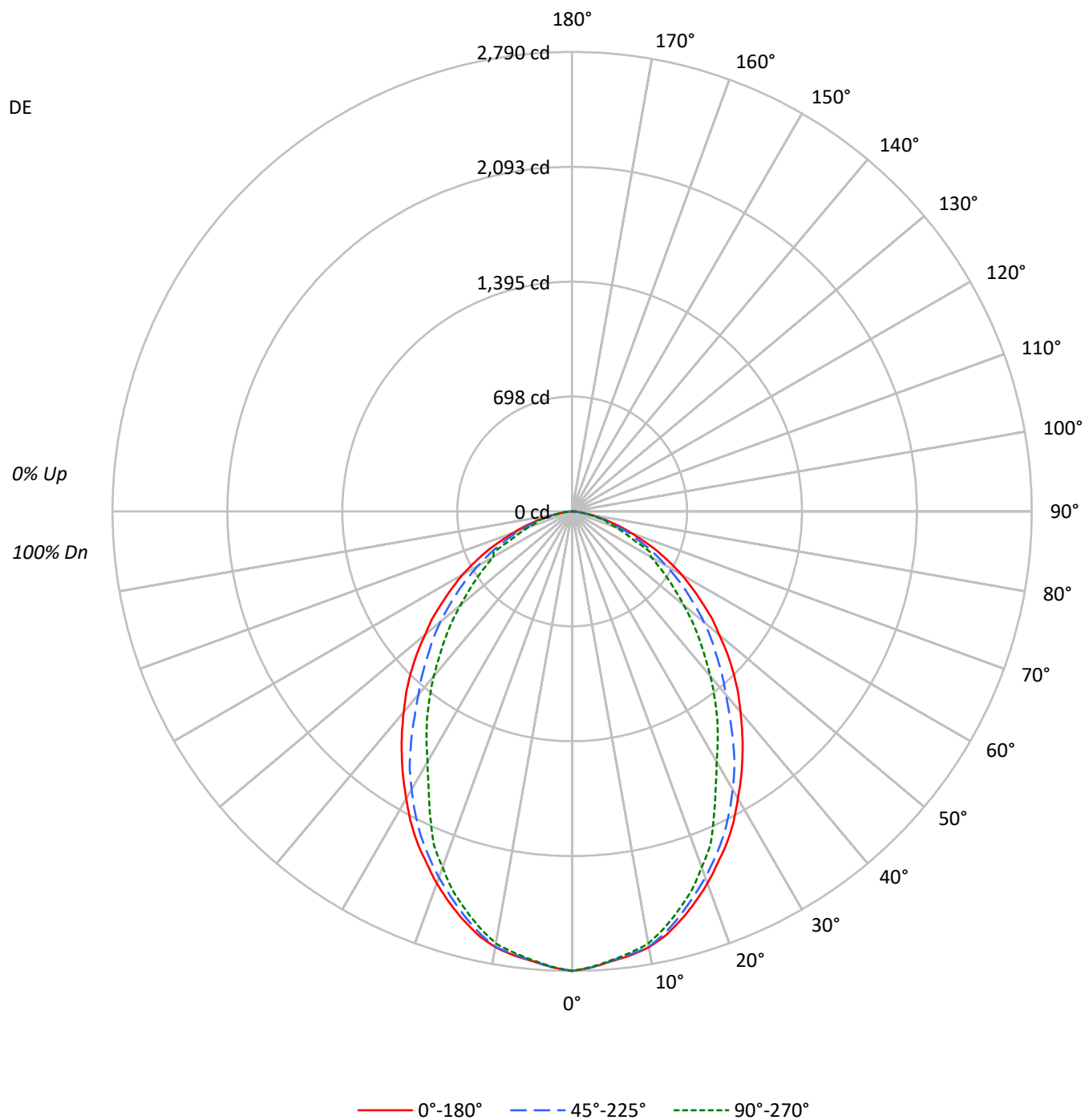
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10	70	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
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3754	3754	3754
5°	3703	3698	3694
10°	3671	3666	3640
15°	3572	3536	3486
20°	3441	3385	3293
25°	3299	3227	3026
30°	3127	3027	2726
35°	2961	2797	2522
40°	2793	2549	2294
45°	2633	2357	2074
50°	2437	2187	1850
55°	2255	1982	1657
60°	2066	1771	1484
65°	1818	1550	1314
70°	1497	1358	1116
75°	1190	1040	1090
80°	800	750	700
85°	499	597	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2633 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.7	4.7
10°-20°	712.7	13.0
20°-30°	986.7	18.0
30°-40°	1052.1	19.2
40°-50°	959.9	17.5
50°-60°	752.0	13.7
60°-70°	490.1	8.9
70°-80°	217.1	4.0
80°-90°	46.6	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°	1959.2	35.8
0°-40°	3011.3	55.0
0°-60°	4723.1	86.2
0°-90°	5477.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5477.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2790	2790	2790	2790	2790	
5°	2742	2738	2738	2735	2735	260
15°	2564	2564	2538	2512	2503	721
25°	2222	2209	2174	2096	2038	1020
35°	1803	1790	1703	1574	1535	1127
45°	1384	1355	1238	1135	1090	1066
55°	961	932	845	745	706	862
65°	571	539	487	497	413	563
75°	229	213	200	190	210	245
85°	32	36	39	42	45	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2789.9	2789.9	2789.9	2789.9	2789.9
2.5°	2770.6	2770.6	2770.6	2767.3	2767.3
5°	2741.5	2738.3	2738.3	2735.1	2735.1
7.5°	2719.0	2715.7	2712.5	2709.3	2702.8
10°	2686.7	2686.7	2683.5	2667.3	2664.1
12.5°	2635.1	2631.9	2619.0	2596.4	2589.9
15°	2564.1	2564.1	2538.3	2512.5	2502.9
17.5°	2486.7	2483.5	2451.3	2425.4	2412.5
20°	2402.9	2396.4	2364.2	2322.2	2299.7
22.5°	2309.3	2309.3	2270.6	2215.8	2193.2
25°	2222.3	2209.4	2173.9	2096.5	2038.4
27.5°	2122.3	2102.9	2064.2	1954.6	1886.8
30°	2012.6	2002.9	1948.1	1806.2	1754.6
32.5°	1909.4	1893.3	1835.2	1686.8	1644.9
35°	1803.0	1790.1	1703.0	1574.0	1535.3
37.5°	1696.5	1680.4	1570.7	1467.5	1419.1
40°	1590.1	1570.7	1451.4	1357.9	1306.3
42.5°	1490.1	1464.3	1348.2	1248.2	1190.1
45°	1383.7	1354.6	1238.5	1135.3	1090.2
47.5°	1277.2	1251.4	1145.0	1038.6	987.0
50°	1164.3	1141.8	1045.0	938.6	883.7
52.5°	1070.8	1035.3	941.8	835.4	790.2
55°	961.1	932.1	845.0	745.1	706.3
57.5°	861.2	832.1	751.5	658.0	625.7
60°	767.6	725.7	658.0	577.3	551.5
62.5°	664.4	632.2	574.1	506.4	538.6
65°	570.9	538.6	487.0	496.7	412.8
67.5°	467.7	451.5	406.4	361.2	348.3
70°	380.6	361.2	345.1	296.7	283.8
72.5°	303.2	283.8	261.3	235.4	225.8
75°	229.0	212.9	200.0	190.3	209.6
77.5°	158.0	151.6	141.9	132.2	129.0
80°	103.2	100.0	96.8	93.5	90.3
82.5°	61.3	61.3	61.3	61.3	61.3
85°	32.3	35.5	38.7	41.9	45.2
87.5°	19.4	19.4	22.6	25.8	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)