

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: P562884

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562884
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-81-86-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6012.0 lumens
Efficiency: N/A
Efficacy: 90.3 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

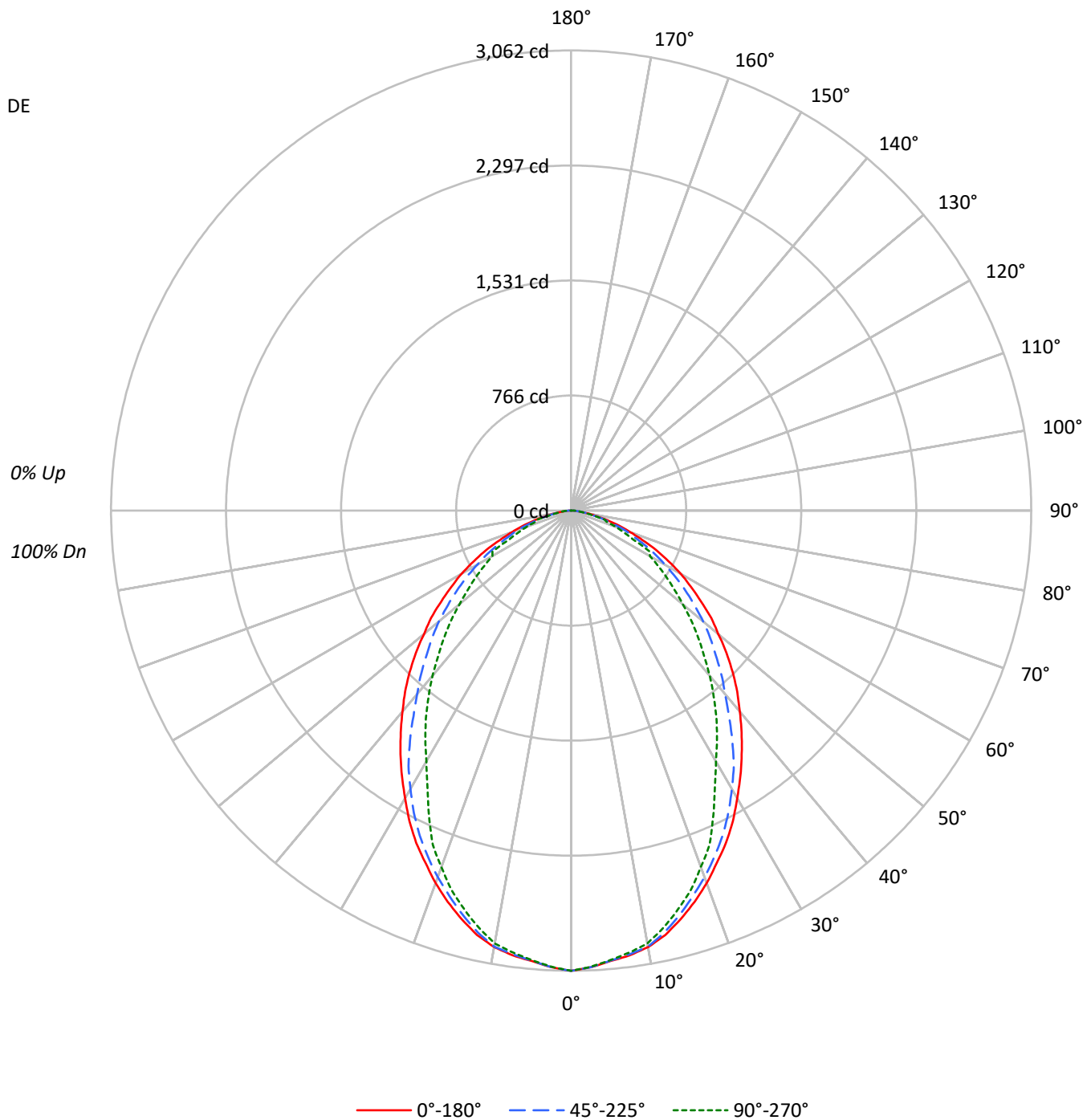
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4120	4120	4120
5°	4064	4060	4055
10°	4029	4024	3995
15°	3921	3881	3827
20°	3777	3716	3614
25°	3621	3543	3322
30°	3432	3322	2992
35°	3251	3070	2768
40°	3066	2798	2519
45°	2890	2587	2277
50°	2675	2401	2031
55°	2475	2176	1819
60°	2267	1943	1629
65°	1995	1702	1443
70°	1644	1490	1226
75°	1307	1141	1196
80°	878	823	768
85°	546	656	766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2890 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	4.7
10°-20°	782.4	13.0
20°-30°	1083.1	18.0
30°-40°	1154.9	19.2
40°-50°	1053.6	17.5
50°-60°	825.4	13.7
60°-70°	538.0	8.9
70°-80°	238.4	4.0
80°-90°	51.2	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°	2150.5	35.8
0°-40°	3305.5	55.0
0°-60°	5184.5	86.2
0°-90°	6012.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3062	3062	3062	3062	3062	
5°	3009	3006	3006	3002	3002	286
15°	2815	2815	2786	2758	2747	791
25°	2439	2425	2386	2301	2238	1120
35°	1979	1965	1869	1728	1685	1237
45°	1519	1487	1360	1246	1197	1170
55°	1055	1023	928	818	775	946
65°	627	591	535	545	453	618
75°	251	234	220	209	230	269
85°	35	39	42	46	50	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3062.4	3062.4	3062.4	3062.4	3062.4
2.5°	3041.2	3041.2	3041.2	3037.6	3037.6
5°	3009.3	3005.8	3005.8	3002.2	3002.2
7.5°	2984.5	2981.0	2977.5	2973.9	2966.8
10°	2949.1	2949.1	2945.6	2927.9	2924.4
12.5°	2892.5	2889.0	2874.8	2850.0	2842.9
15°	2814.6	2814.6	2786.3	2758.0	2747.3
17.5°	2729.6	2726.1	2690.7	2662.4	2648.2
20°	2637.6	2630.5	2595.1	2549.1	2524.3
22.5°	2534.9	2534.9	2492.4	2432.2	2407.5
25°	2439.3	2425.2	2386.2	2301.2	2237.5
27.5°	2329.6	2308.3	2265.8	2145.5	2071.1
30°	2209.2	2198.6	2138.4	1982.6	1926.0
32.5°	2095.9	2078.2	2014.5	1851.6	1805.6
35°	1979.1	1964.9	1869.3	1727.7	1685.2
37.5°	1862.2	1844.5	1724.2	1610.9	1557.8
40°	1745.4	1724.2	1593.2	1490.5	1433.9
42.5°	1635.7	1607.3	1479.9	1370.1	1306.4
45°	1518.8	1487.0	1359.5	1246.2	1196.6
47.5°	1402.0	1373.7	1256.8	1140.0	1083.4
50°	1278.1	1253.3	1147.1	1030.3	970.1
52.5°	1175.4	1136.5	1033.8	917.0	867.4
55°	1055.0	1023.2	927.6	817.8	775.3
57.5°	945.3	913.4	824.9	722.2	686.8
60°	842.6	796.6	722.2	633.7	605.4
62.5°	729.3	693.9	630.2	555.8	591.2
65°	626.6	591.2	534.6	545.2	453.2
67.5°	513.4	495.7	446.1	396.5	382.4
70°	417.8	396.5	378.8	325.7	311.6
72.5°	332.8	311.6	286.8	258.4	247.8
75°	251.4	233.7	219.5	208.9	230.1
77.5°	173.5	166.4	155.8	145.2	141.6
80°	113.3	109.8	106.2	102.7	99.1
82.5°	67.3	67.3	67.3	67.3	67.3
85°	35.4	38.9	42.5	46.0	49.6
87.5°	21.2	21.2	24.8	28.3	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)