

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: P562905

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-82-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562905
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-82-88-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6129.0 lumens
Efficiency: N/A
Efficacy: 92.0 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

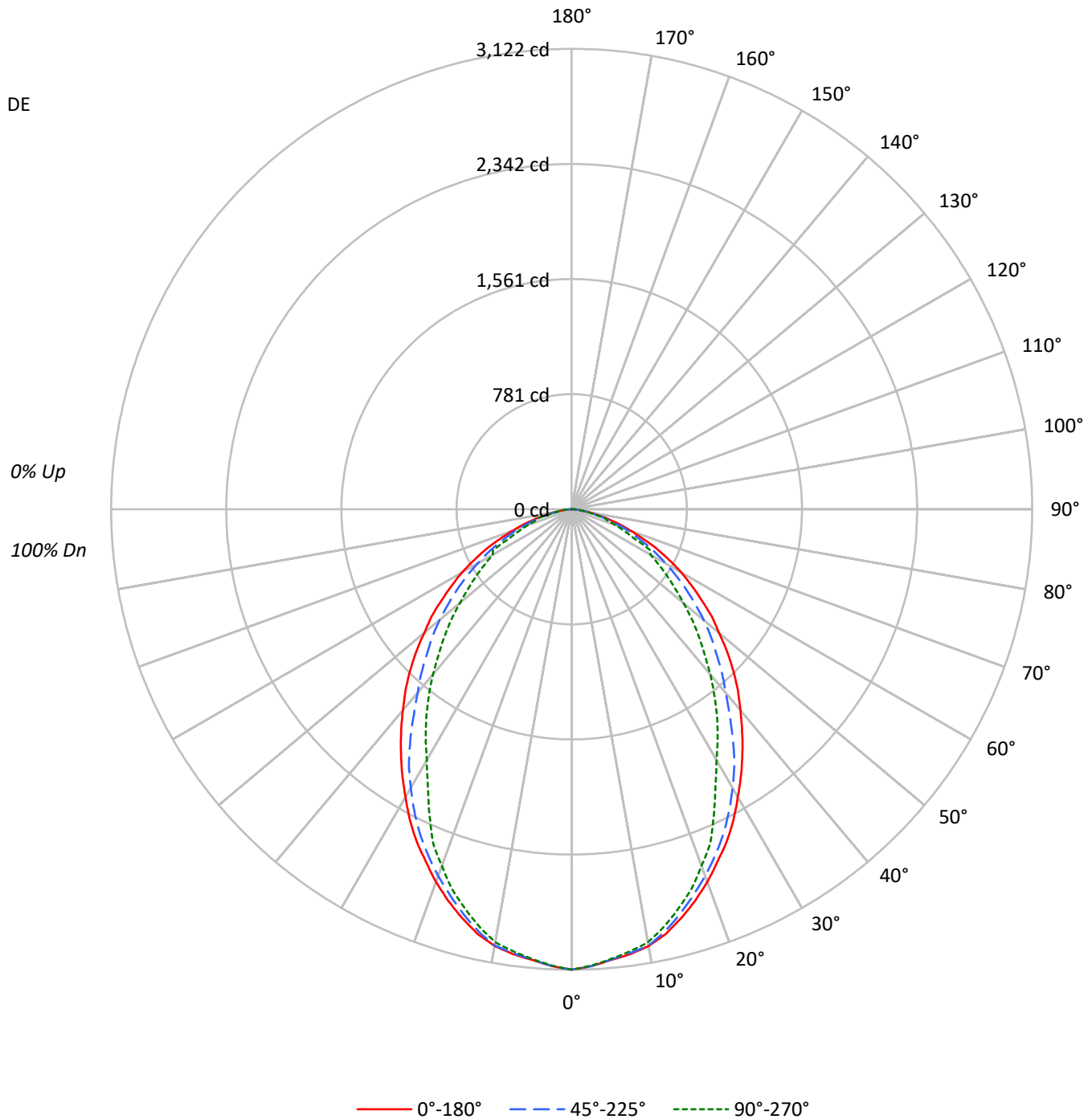
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4201	4201	4201
5°	4144	4139	4134
10°	4108	4103	4073
15°	3997	3957	3901
20°	3850	3788	3685
25°	3692	3612	3386
30°	3499	3387	3051
35°	3314	3130	2822
40°	3125	2853	2568
45°	2946	2637	2321
50°	2727	2448	2070
55°	2523	2218	1854
60°	2312	1981	1661
65°	2034	1735	1471
70°	1675	1519	1249
75°	1332	1163	1220
80°	895	839	783
85°	557	668	780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2946 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.6	4.7
10°-20°	797.6	13.0
20°-30°	1104.2	18.0
30°-40°	1177.4	19.2
40°-50°	1074.1	17.5
50°-60°	841.5	13.7
60°-70°	548.4	8.9
70°-80°	243.0	4.0
80°-90°	52.2	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°	2192.4	35.8
0°-40°	3369.8	55.0
0°-60°	5285.4	86.2
0°-90°	6129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6129.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3122	3122	3122	3122	3122	
5°	3068	3064	3064	3061	3061	291
15°	2869	2869	2840	2812	2801	807
25°	2487	2472	2433	2346	2281	1142
35°	2018	2003	1906	1761	1718	1261
45°	1548	1516	1386	1270	1220	1193
55°	1076	1043	946	834	790	965
65°	639	603	545	556	462	630
75°	256	238	224	213	235	275
85°	36	40	43	47	50	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3122.0	3122.0	3122.0	3122.0	3122.0
2.5°	3100.4	3100.4	3100.4	3096.8	3096.8
5°	3067.9	3064.3	3064.3	3060.7	3060.7
7.5°	3042.6	3039.0	3035.4	3031.8	3024.6
10°	3006.5	3006.5	3002.9	2984.9	2981.3
12.5°	2948.8	2945.2	2930.7	2905.5	2898.3
15°	2869.4	2869.4	2840.5	2811.6	2800.8
17.5°	2782.8	2779.1	2743.1	2714.2	2699.7
20°	2688.9	2681.7	2645.6	2598.7	2573.4
22.5°	2584.2	2584.2	2540.9	2479.6	2454.3
25°	2486.8	2472.4	2432.7	2346.0	2281.1
27.5°	2374.9	2353.3	2309.9	2187.2	2111.4
30°	2252.2	2241.4	2180.0	2021.2	1963.5
32.5°	2136.7	2118.6	2053.7	1887.7	1840.7
35°	2017.6	2003.2	1905.7	1761.3	1718.0
37.5°	1898.5	1880.4	1757.7	1642.2	1588.1
40°	1779.4	1757.7	1624.2	1519.5	1461.8
42.5°	1667.5	1638.6	1508.7	1396.8	1331.8
45°	1548.4	1515.9	1386.0	1270.5	1219.9
47.5°	1429.3	1400.4	1281.3	1162.2	1104.4
50°	1303.0	1277.7	1169.4	1050.3	988.9
52.5°	1198.3	1158.6	1053.9	934.8	884.3
55°	1075.6	1043.1	945.6	833.7	790.4
57.5°	963.7	931.2	841.0	736.3	700.2
60°	859.0	812.1	736.3	646.1	617.2
62.5°	743.5	707.4	642.5	566.7	602.8
65°	638.8	602.8	545.0	555.8	462.0
67.5°	523.3	505.3	454.8	404.2	389.8
70°	425.9	404.2	386.2	332.1	317.6
72.5°	339.3	317.6	292.4	263.5	252.6
75°	256.3	238.2	223.8	212.9	234.6
77.5°	176.9	169.6	158.8	148.0	144.4
80°	115.5	111.9	108.3	104.7	101.1
82.5°	68.6	68.6	68.6	68.6	68.6
85°	36.1	39.7	43.3	46.9	50.5
87.5°	21.7	21.7	25.3	28.9	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)