

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: P562697

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562697
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-LD4-2LO-35-UNV-81-88-EDD
Description: 2X4 FSR TROFFER WITH .156 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: 4675.0 lumens
Efficiency: N/A
Efficacy: 99.9 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

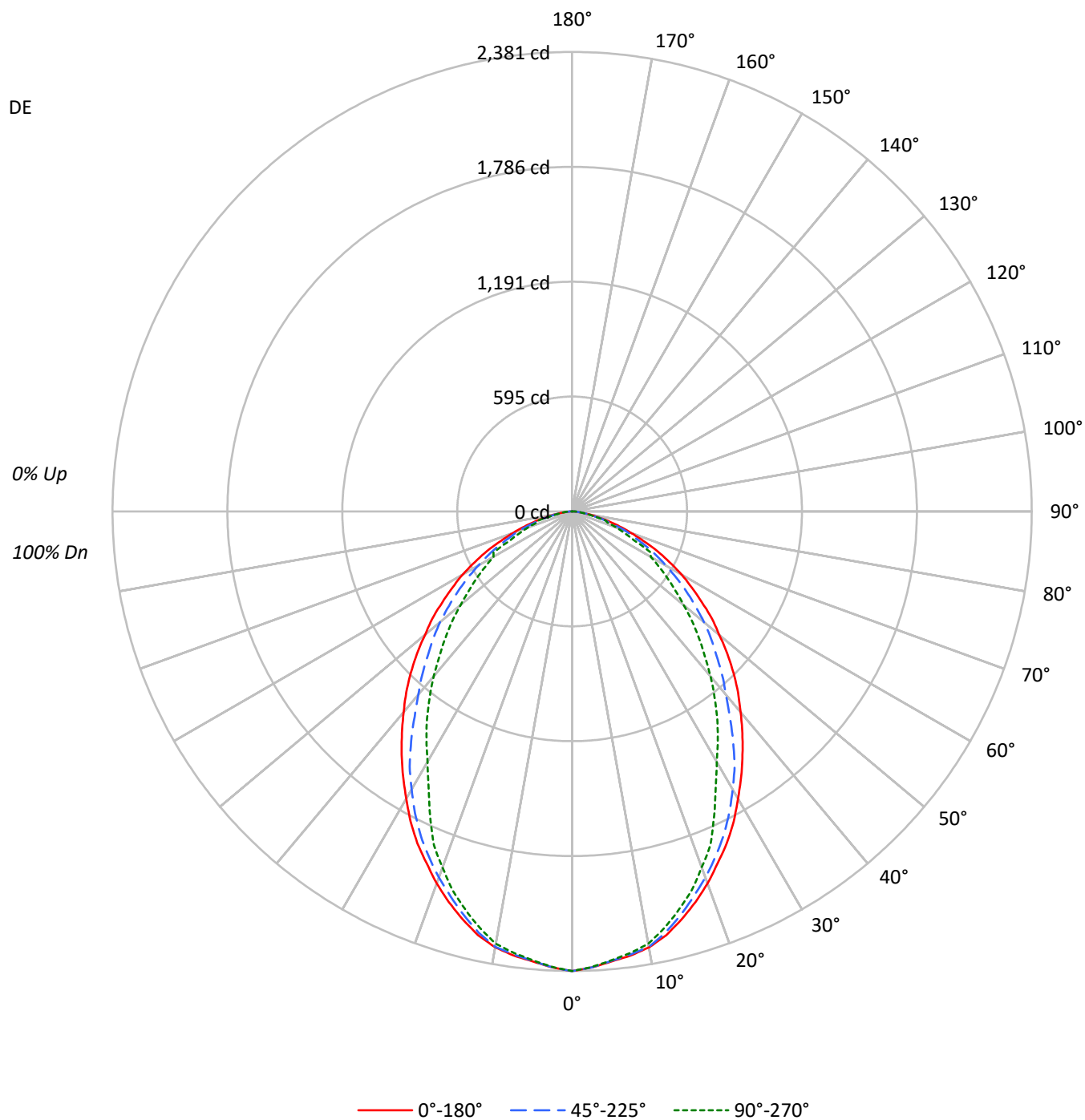
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	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	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°	3204	3204	3204
5°	3161	3157	3153
10°	3133	3129	3107
15°	3049	3018	2976
20°	2937	2889	2811
25°	2816	2755	2583
30°	2669	2583	2327
35°	2528	2388	2152
40°	2384	2176	1958
45°	2247	2012	1771
50°	2080	1867	1579
55°	1924	1692	1414
60°	1763	1511	1267
65°	1551	1323	1122
70°	1278	1159	953
75°	1016	887	930
80°	683	640	597
85°	425	509	594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2247 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	4.7
10°-20°	608.4	13.0
20°-30°	842.2	18.0
30°-40°	898.1	19.2
40°-50°	819.3	17.5
50°-60°	641.9	13.7
60°-70°	418.3	8.9
70°-80°	185.3	4.0
80°-90°	39.8	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°	1672.3	35.8
0°-40°	2570.3	55.0
0°-60°	4031.5	86.2
0°-90°	4675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2381	2381	2381	2381	2381	
5°	2340	2337	2337	2335	2335	222
15°	2189	2189	2167	2145	2136	615
25°	1897	1886	1856	1790	1740	871
35°	1539	1528	1454	1344	1310	962
45°	1181	1156	1057	969	930	910
55°	820	796	721	636	603	736
65°	487	460	416	424	352	480
75°	196	182	171	162	179	210
85°	28	30	33	36	38	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2381.4	2381.4	2381.4	2381.4	2381.4
2.5°	2364.9	2364.9	2364.9	2362.1	2362.1
5°	2340.1	2337.3	2337.3	2334.6	2334.6
7.5°	2320.8	2318.1	2315.3	2312.6	2307.1
10°	2293.3	2293.3	2290.5	2276.8	2274.0
12.5°	2249.2	2246.5	2235.5	2216.2	2210.7
15°	2188.7	2188.7	2166.6	2144.6	2136.4
17.5°	2122.6	2119.8	2092.3	2070.3	2059.3
20°	2051.0	2045.5	2018.0	1982.2	1962.9
22.5°	1971.2	1971.2	1938.1	1891.3	1872.1
25°	1896.8	1885.8	1855.6	1789.5	1739.9
27.5°	1811.5	1795.0	1761.9	1668.3	1610.5
30°	1717.9	1709.6	1662.8	1541.7	1497.7
32.5°	1629.8	1616.0	1566.5	1439.8	1404.1
35°	1539.0	1527.9	1453.6	1343.5	1310.4
37.5°	1448.1	1434.3	1340.7	1252.6	1211.3
40°	1357.3	1340.7	1238.9	1159.0	1115.0
42.5°	1271.9	1249.9	1150.8	1065.4	1015.9
45°	1181.1	1156.3	1057.2	969.1	930.5
47.5°	1090.2	1068.2	977.3	886.5	842.4
50°	993.8	974.6	892.0	801.1	754.3
52.5°	914.0	883.7	803.9	713.0	674.5
55°	820.4	795.6	721.3	636.0	602.9
57.5°	735.1	710.3	641.5	561.6	534.1
60°	655.2	619.4	561.6	492.8	470.8
62.5°	567.1	539.6	490.0	432.2	459.8
65°	487.3	459.8	415.7	424.0	352.4
67.5°	399.2	385.4	346.9	308.3	297.3
70°	324.9	308.3	294.6	253.3	242.3
72.5°	258.8	242.3	223.0	201.0	192.7
75°	195.5	181.7	170.7	162.4	178.9
77.5°	134.9	129.4	121.1	112.9	110.1
80°	88.1	85.3	82.6	79.8	77.1
82.5°	52.3	52.3	52.3	52.3	52.3
85°	27.5	30.3	33.0	35.8	38.5
87.5°	16.5	16.5	19.3	22.0	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)