

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: P562681

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562681
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-80-88-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4921.0 lumens
Efficiency: N/A
Efficacy: 105.2 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

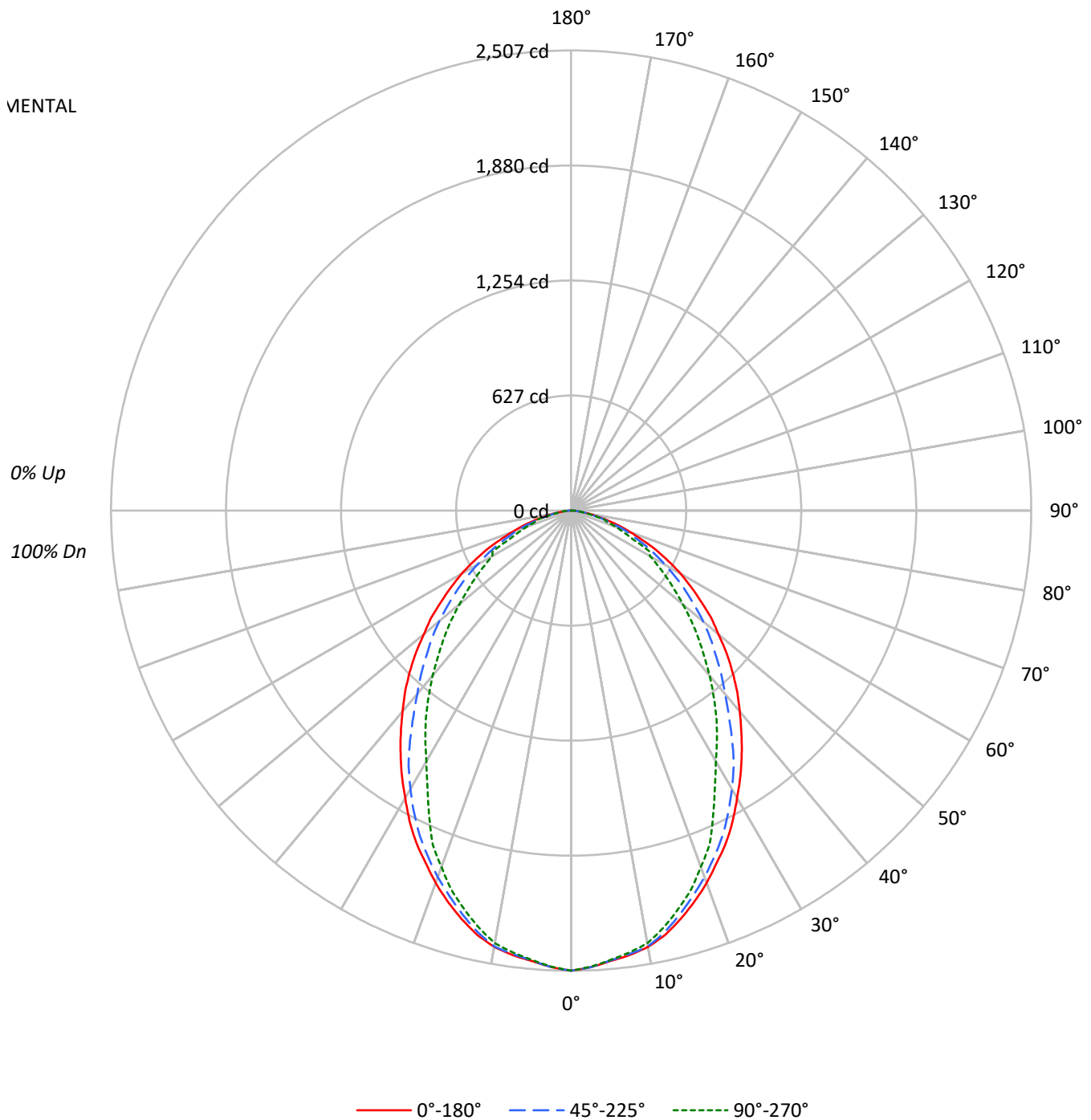
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3373	3373	3373
5°	3327	3323	3319
10°	3298	3294	3270
15°	3209	3177	3132
20°	3091	3042	2958
25°	2964	2900	2719
30°	2809	2719	2449
35°	2661	2513	2266
40°	2509	2291	2062
45°	2366	2117	1864
50°	2190	1965	1662
55°	2026	1781	1489
60°	1856	1591	1333
65°	1633	1393	1181
70°	1345	1220	1003
75°	1070	934	979
80°	718	673	628
85°	448	537	627

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2366 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	4.7
10°-20°	640.4	13.0
20°-30°	886.6	18.0
30°-40°	945.3	19.2
40°-50°	862.4	17.5
50°-60°	675.6	13.7
60°-70°	440.4	8.9
70°-80°	195.1	4.0
80°-90°	41.9	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°	1760.3	35.8
0°-40°	2705.6	55.0
0°-60°	4243.7	86.2
0°-90°	4921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2507	2507	2507	2507	2507	
5°	2463	2460	2460	2457	2457	234
15°	2304	2304	2281	2258	2249	648
25°	1997	1985	1953	1884	1832	917
35°	1620	1608	1530	1414	1379	1013
45°	1243	1217	1113	1020	980	958
55°	864	838	759	669	635	775
65°	513	484	438	446	371	505
75°	206	191	180	171	188	221
85°	29	32	35	38	41	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2506.7	2506.7	2506.7	2506.7	2506.7
2.5°	2489.3	2489.3	2489.3	2486.4	2486.4
5°	2463.2	2460.3	2460.3	2457.4	2457.4
7.5°	2442.9	2440.0	2437.1	2434.2	2428.4
10°	2414.0	2414.0	2411.1	2396.6	2393.7
12.5°	2367.6	2364.7	2353.1	2332.8	2327.0
15°	2303.8	2303.8	2280.7	2257.5	2248.8
17.5°	2234.3	2231.4	2202.4	2179.2	2167.6
20°	2158.9	2153.1	2124.2	2086.5	2066.2
22.5°	2074.9	2074.9	2040.1	1990.9	1970.6
25°	1996.7	1985.1	1953.2	1883.6	1831.5
27.5°	1906.8	1889.4	1854.7	1756.1	1695.3
30°	1808.3	1799.6	1750.3	1622.8	1576.5
32.5°	1715.6	1701.1	1648.9	1515.6	1477.9
35°	1619.9	1608.3	1530.1	1414.2	1379.4
37.5°	1524.3	1509.8	1411.3	1318.5	1275.1
40°	1428.7	1411.3	1304.1	1220.0	1173.7
42.5°	1338.8	1315.7	1211.3	1121.5	1069.3
45°	1243.2	1217.1	1112.8	1020.1	979.5
47.5°	1147.6	1124.4	1028.8	933.1	886.8
50°	1046.1	1025.9	938.9	843.3	794.0
52.5°	962.1	930.2	846.2	750.6	710.0
55°	863.6	837.5	759.3	669.4	634.6
57.5°	773.7	747.7	675.2	591.2	562.2
60°	689.7	652.0	591.2	518.7	495.5
62.5°	597.0	568.0	515.8	455.0	484.0
65°	512.9	484.0	437.6	446.3	370.9
67.5°	420.2	405.7	365.1	324.6	313.0
70°	342.0	324.6	310.1	266.6	255.0
72.5°	272.4	255.0	234.7	211.5	202.9
75°	205.8	191.3	179.7	171.0	188.4
77.5°	142.0	136.2	127.5	118.8	115.9
80°	92.7	89.8	86.9	84.0	81.1
82.5°	55.1	55.1	55.1	55.1	55.1
85°	29.0	31.9	34.8	37.7	40.6
87.5°	17.4	17.4	20.3	23.2	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)