

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: P562750

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562750
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-40-UNV-80-97-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4727.0 lumens
Efficiency: N/A
Efficacy: 101.0 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

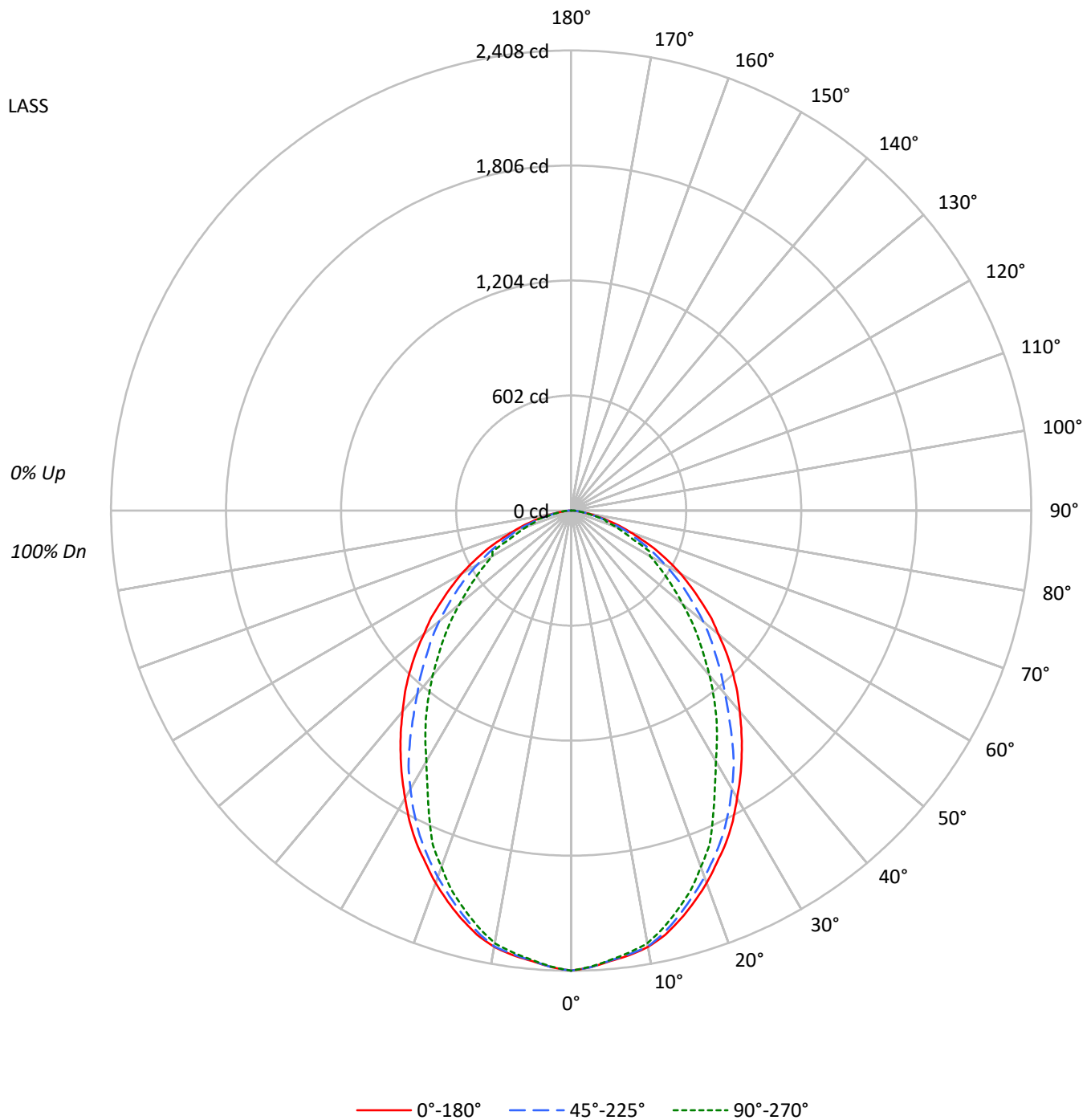
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3240	3240	3240
5°	3196	3192	3188
10°	3168	3164	3141
15°	3083	3052	3009
20°	2969	2922	2842
25°	2847	2785	2612
30°	2699	2612	2353
35°	2556	2414	2176
40°	2410	2200	1980
45°	2272	2034	1790
50°	2103	1888	1596
55°	1946	1711	1430
60°	1783	1528	1281
65°	1569	1338	1134
70°	1292	1172	964
75°	1027	897	940
80°	690	647	604
85°	429	516	602

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.1	4.7
10°-20°	615.1	13.0
20°-30°	851.6	18.0
30°-40°	908.1	19.2
40°-50°	828.4	17.5
50°-60°	649.0	13.7
60°-70°	423.0	8.9
70°-80°	187.4	4.0
80°-90°	40.2	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°	1690.9	35.8
0°-40°	2598.9	55.0
0°-60°	4076.4	86.2
0°-90°	4727.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4727.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2408	2408	2408	2408	2408	
5°	2366	2363	2363	2360	2360	225
15°	2213	2213	2191	2168	2160	622
25°	1918	1907	1876	1809	1759	881
35°	1556	1545	1470	1358	1325	973
45°	1194	1169	1069	980	941	920
55°	830	804	729	643	610	744
65°	493	465	420	429	356	486
75°	198	184	173	164	181	212
85°	28	31	33	36	39	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2407.9	2407.9	2407.9	2407.9	2407.9
2.5°	2391.2	2391.2	2391.2	2388.4	2388.4
5°	2366.1	2363.3	2363.3	2360.5	2360.5
7.5°	2346.6	2343.8	2341.1	2338.3	2332.7
10°	2318.8	2318.8	2316.0	2302.1	2299.3
12.5°	2274.3	2271.5	2260.3	2240.9	2235.3
15°	2213.0	2213.0	2190.7	2168.5	2160.1
17.5°	2146.2	2143.4	2115.6	2093.3	2082.2
20°	2073.8	2068.3	2040.4	2004.2	1984.8
22.5°	1993.1	1993.1	1959.7	1912.4	1892.9
25°	1917.9	1906.8	1876.2	1809.4	1759.3
27.5°	1831.7	1814.9	1781.5	1686.9	1628.4
30°	1737.0	1728.7	1681.3	1558.9	1514.3
32.5°	1647.9	1634.0	1583.9	1455.9	1419.7
35°	1556.1	1544.9	1469.8	1358.4	1325.0
37.5°	1464.2	1450.3	1355.6	1266.6	1224.8
40°	1372.3	1355.6	1252.6	1171.9	1127.4
42.5°	1286.1	1263.8	1163.6	1077.3	1027.2
45°	1194.2	1169.1	1068.9	979.9	940.9
47.5°	1102.3	1080.1	988.2	896.3	851.8
50°	1004.9	985.4	901.9	810.0	762.7
52.5°	924.2	893.6	812.8	721.0	682.0
55°	829.5	804.5	729.3	643.0	609.6
57.5°	743.2	718.2	648.6	567.9	540.0
60°	662.5	626.3	567.9	498.3	476.0
62.5°	573.4	545.6	495.5	437.0	464.9
65°	492.7	464.9	420.3	428.7	356.3
67.5°	403.6	389.7	350.7	311.8	300.6
70°	328.5	311.8	297.9	256.1	245.0
72.5°	261.7	245.0	225.5	203.2	194.9
75°	197.6	183.7	172.6	164.2	180.9
77.5°	136.4	130.8	122.5	114.1	111.3
80°	89.1	86.3	83.5	80.7	77.9
82.5°	52.9	52.9	52.9	52.9	52.9
85°	27.8	30.6	33.4	36.2	39.0
87.5°	16.7	16.7	19.5	22.3	25.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)