

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: P590679

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590679
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5826.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

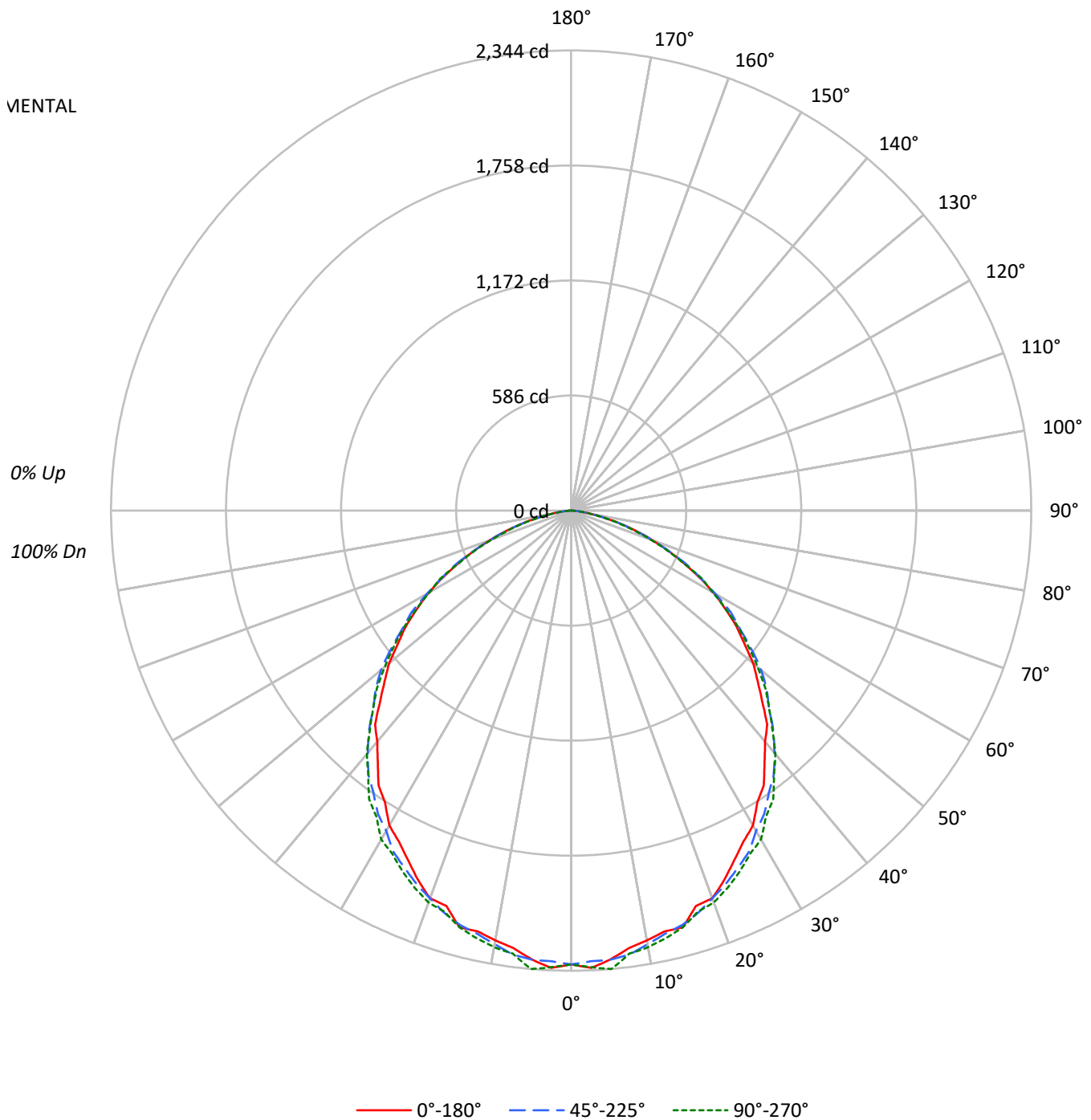
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590679

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590679

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6220	6220	6220
5°	6200	6202	6333
10°	6074	6127	6171
15°	6122	6089	6123
20°	6019	6019	6083
25°	5834	5961	6027
30°	5754	5855	6011
35°	5618	5765	5895
40°	5400	5660	5685
45°	5236	5423	5431
50°	5064	5293	5192
55°	4825	4919	4884
60°	4512	4557	4475
65°	4023	4126	3995
70°	3452	3463	3367
75°	2733	2728	2622
80°	1832	1781	1711
85°	994	985	920

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5562 cd/sqm



TEST NUMBER: P590679

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.4	3.7
10°-20°	616.3	10.6
20°-30°	923.3	15.8
30°-40°	1094.3	18.8
40°-50°	1096.3	18.8
50°-60°	930.6	16.0
60°-70°	627.4	10.8
70°-80°	275.7	4.7
80°-90°	44.8	0.8
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°	1757.0	30.2
0°-40°	2851.3	48.9
0°-60°	4878.1	83.7
0°-90°	5826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2312	2312	2312	2312	2312	
5°	2295	2290	2296	2289	2344	216
15°	2198	2172	2186	2197	2198	612
25°	1965	1976	2008	2034	2030	908
35°	1710	1715	1755	1796	1794	1062
45°	1376	1402	1425	1462	1427	1064
55°	1028	1022	1048	1041	1041	915
65°	632	624	648	623	627	628
75°	263	258	262	244	252	282
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



TEST NUMBER: P590679

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2311.6	2311.6	2311.6	2311.6	2311.6
2.5°	2331.6	2314.0	2297.6	2316.7	2328.3
5°	2295.2	2289.8	2296.1	2289.2	2344.4
7.5°	2248.0	2268.6	2280.6	2273.1	2276.4
10°	2223.0	2215.8	2242.4	2260.9	2258.2
12.5°	2196.1	2206.8	2208.3	2228.3	2230.1
15°	2197.6	2172.2	2185.7	2197.0	2197.9
17.5°	2112.2	2139.7	2148.9	2174.9	2142.7
20°	2101.8	2081.8	2101.8	2128.4	2124.2
22.5°	2037.6	2015.2	2058.2	2081.8	2080.3
25°	1964.8	1975.5	2007.8	2034.0	2029.9
27.5°	1900.9	1913.5	1959.4	1995.5	1972.3
30°	1851.7	1845.4	1884.2	1916.4	1934.4
32.5°	1763.6	1786.3	1831.7	1863.6	1846.6
35°	1710.2	1715.3	1755.0	1795.6	1794.4
37.5°	1616.8	1640.4	1696.2	1707.5	1697.1
40°	1537.1	1560.7	1611.1	1623.3	1618.3
42.5°	1478.3	1482.5	1525.8	1539.8	1517.4
45°	1375.9	1401.6	1424.9	1461.6	1427.0
47.5°	1288.8	1300.7	1350.9	1360.7	1342.5
50°	1209.7	1213.9	1264.3	1252.1	1240.1
52.5°	1110.3	1127.9	1156.3	1153.9	1139.8
55°	1028.5	1021.6	1048.5	1041.3	1041.0
57.5°	930.3	942.3	964.3	953.0	934.8
60°	838.4	838.7	846.7	833.9	831.5
62.5°	736.0	739.6	741.4	725.6	751.2
65°	631.8	623.5	648.0	623.2	627.4
67.5°	536.0	540.2	537.8	522.3	528.3
70°	438.7	444.1	440.2	422.6	428.0
72.5°	349.8	343.2	347.4	325.3	335.5
75°	262.9	257.6	262.4	243.8	252.2
77.5°	179.1	183.3	180.3	170.4	176.1
80°	118.2	114.9	114.9	109.2	110.4
82.5°	68.9	65.7	64.8	63.0	65.7
85°	32.2	31.3	31.9	31.0	29.8
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)