

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: P590985

Luminaire Tested: FSR-24-2-LD4-4STD-50-UNV-82-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590985
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-LD4-4STD-50-UNV-82-88-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6295.0 lumens
Efficiency: N/A
Efficacy: 94.5 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

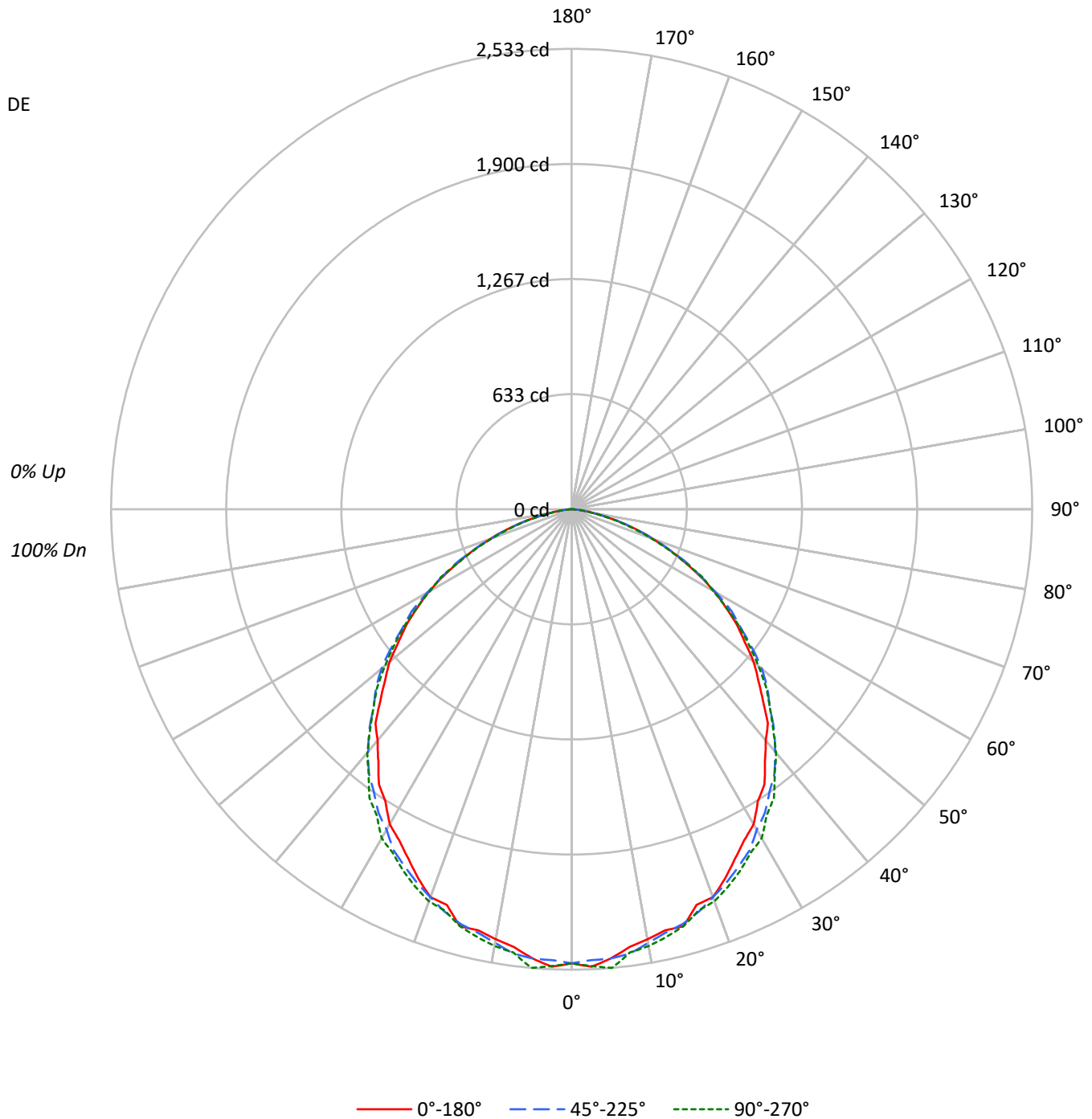
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590985

CATALOG NUMBER: FSR-24-2-LD4-4STD-50-UNV-82-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590985

CATALOG NUMBER: FSR-24-2-LD4-4STD-50-UNV-82-88-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	6721	6721	6721
5°	6699	6702	6843
10°	6563	6621	6667
15°	6615	6579	6616
20°	6503	6503	6573
25°	6304	6441	6512
30°	6217	6326	6495
35°	6070	6229	6369
40°	5834	6115	6142
45°	5658	5859	5868
50°	5472	5719	5610
55°	5214	5315	5278
60°	4876	4924	4836
65°	4347	4458	4316
70°	3730	3743	3639
75°	2954	2948	2833
80°	1979	1925	1849
85°	1074	1065	994

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6010 cd/sqm



TEST NUMBER: P590985

CATALOG NUMBER: FSR-24-2-LD4-4STD-50-UNV-82-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.9	3.7
10°-20°	665.9	10.6
20°-30°	997.6	15.8
30°-40°	1182.4	18.8
40°-50°	1184.5	18.8
50°-60°	1005.5	16.0
60°-70°	677.9	10.8
70°-80°	297.9	4.7
80°-90°	48.4	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°	1898.4	30.2
0°-40°	3080.8	48.9
0°-60°	5270.8	83.7
0°-90°	6295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2498	2498	2498	2498	2498	
5°	2480	2474	2481	2474	2533	234
15°	2374	2347	2362	2374	2375	662
25°	2123	2135	2169	2198	2193	981
35°	1848	1853	1896	1940	1939	1147
45°	1487	1514	1540	1579	1542	1150
55°	1111	1104	1133	1125	1125	989
65°	683	674	700	673	678	679
75°	284	278	284	264	272	304
85°	35	34	34	34	32	50
90°	0	0	0	0	0	



TEST NUMBER: P590985

CATALOG NUMBER: FSR-24-2-LD4-4STD-50-UNV-82-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2497.7	2497.7	2497.7	2497.7	2497.7
2.5°	2519.3	2500.3	2482.5	2503.2	2515.8
5°	2480.0	2474.2	2480.9	2473.5	2533.2
7.5°	2429.0	2451.3	2464.2	2456.1	2459.6
10°	2401.9	2394.2	2422.9	2442.9	2440.0
12.5°	2372.9	2384.5	2386.1	2407.7	2409.7
15°	2374.5	2347.1	2361.6	2373.9	2374.8
17.5°	2282.3	2311.9	2321.9	2350.0	2315.2
20°	2271.0	2249.4	2271.0	2299.7	2295.2
22.5°	2201.6	2177.5	2223.9	2249.4	2247.8
25°	2123.0	2134.6	2169.4	2197.8	2193.3
27.5°	2053.9	2067.5	2117.2	2156.2	2131.0
30°	2000.7	1994.0	2035.9	2070.7	2090.1
32.5°	1905.6	1930.1	1979.1	2013.6	1995.3
35°	1847.9	1853.4	1896.3	1940.1	1938.8
37.5°	1746.9	1772.4	1832.7	1845.0	1833.7
40°	1660.8	1686.3	1740.8	1754.0	1748.5
42.5°	1597.3	1601.8	1648.6	1663.7	1639.5
45°	1486.7	1514.4	1539.6	1579.2	1541.8
47.5°	1392.5	1405.4	1459.6	1470.2	1450.6
50°	1307.1	1311.6	1366.1	1352.9	1340.0
52.5°	1199.7	1218.7	1249.3	1246.8	1231.6
55°	1111.3	1103.9	1132.9	1125.2	1124.9
57.5°	1005.2	1018.1	1042.0	1029.7	1010.0
60°	905.9	906.2	914.9	901.0	898.5
62.5°	795.3	799.1	801.1	784.0	811.7
65°	682.7	673.7	700.1	673.4	677.9
67.5°	579.2	583.7	581.1	564.4	570.8
70°	474.1	479.9	475.7	456.6	462.5
72.5°	378.0	370.9	375.4	351.5	362.5
75°	284.1	278.3	283.5	263.5	272.5
77.5°	193.5	198.0	194.8	184.1	190.3
80°	127.7	124.2	124.2	118.0	119.3
82.5°	74.5	70.9	70.0	68.0	70.9
85°	34.8	33.9	34.5	33.5	32.2
87.5°	12.6	12.9	12.9	12.3	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)