

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: P590434

Luminaire Tested: FSR-24-2-LD4-3HI-35-UNV-81-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590434
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-LD4-3HI-35-UNV-81-94-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6837.0 lumens
Efficiency: N/A
Efficacy: 105.5 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

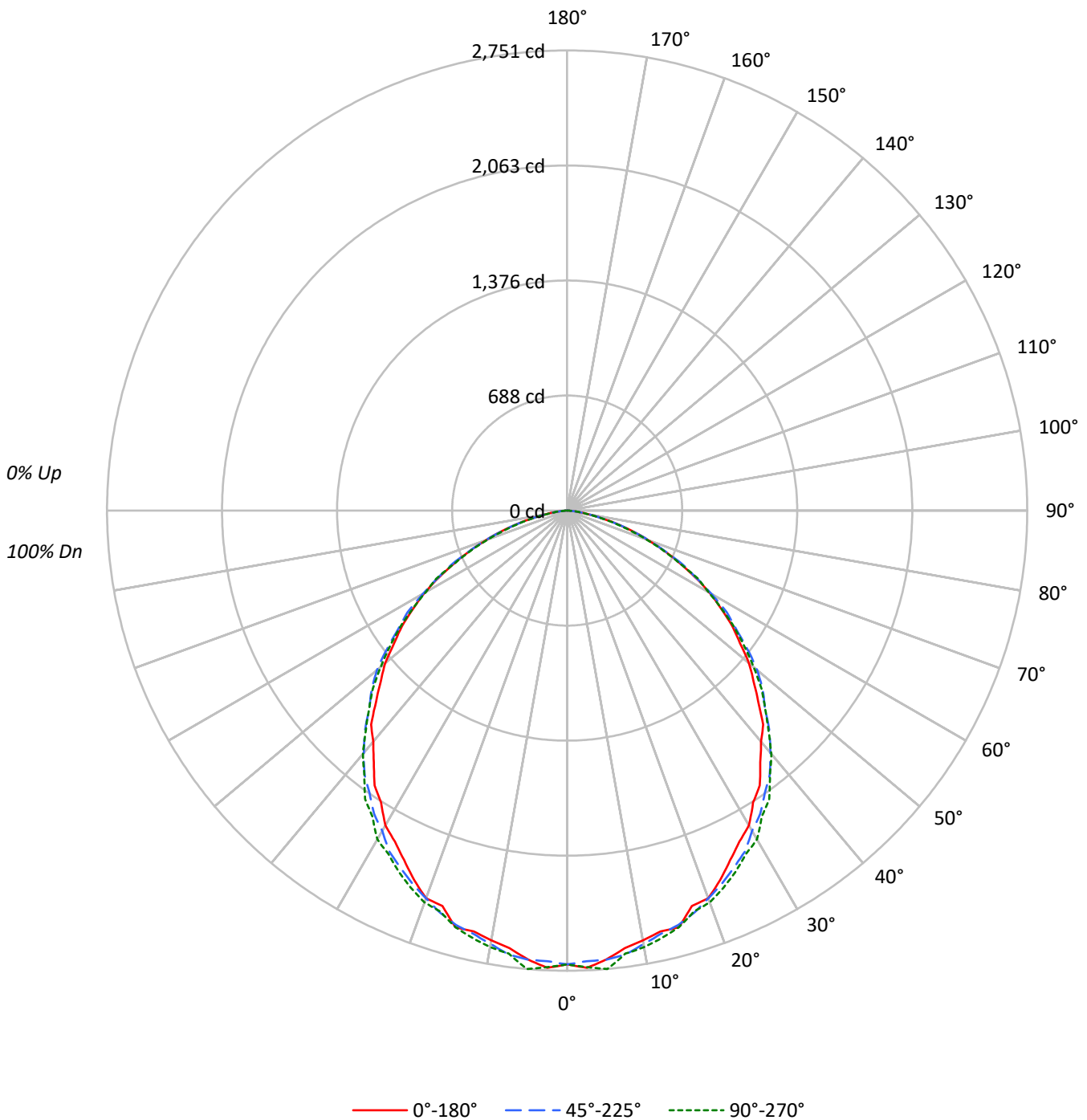
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590434

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-81-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590434

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-81-94-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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																												
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°	7300	7300	7300
5°	7276	7279	7432
10°	7128	7191	7241
15°	7185	7146	7186
20°	7063	7063	7139
25°	6846	6996	7073
30°	6752	6871	7054
35°	6593	6766	6918
40°	6336	6642	6671
45°	6145	6363	6373
50°	5943	6211	6092
55°	5663	5773	5732
60°	5295	5348	5252
65°	4721	4842	4688
70°	4051	4065	3952
75°	3209	3201	3078
80°	2149	2089	2008
85°	1167	1158	1081

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6527 cd/sqm



TEST NUMBER: P590434

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.2	3.7
10°-20°	723.2	10.6
20°-30°	1083.5	15.8
30°-40°	1284.2	18.8
40°-50°	1286.5	18.8
50°-60°	1092.1	16.0
60°-70°	736.3	10.8
70°-80°	323.5	4.7
80°-90°	52.6	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°	2061.9	30.2
0°-40°	3346.0	48.9
0°-60°	5724.6	83.7
0°-90°	6837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2713	2713	2713	2713	2713	
5°	2694	2687	2694	2686	2751	254
15°	2579	2549	2565	2578	2579	719
25°	2306	2318	2356	2387	2382	1066
35°	2007	2013	2060	2107	2106	1246
45°	1615	1645	1672	1715	1675	1249
55°	1207	1199	1230	1222	1222	1074
65°	742	732	760	731	736	737
75°	309	302	308	286	296	331
85°	38	37	38	36	35	55
90°	0	0	0	0	0	



TEST NUMBER: P590434

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2712.7	2712.7	2712.7	2712.7	2712.7
2.5°	2736.2	2715.6	2696.3	2718.7	2732.4
5°	2693.5	2687.2	2694.5	2686.5	2751.3
7.5°	2638.1	2662.3	2676.3	2667.6	2671.4
10°	2608.7	2600.3	2631.5	2653.2	2650.1
12.5°	2577.2	2589.8	2591.6	2615.0	2617.1
15°	2579.0	2549.2	2564.9	2578.2	2579.3
17.5°	2478.8	2511.0	2521.9	2552.3	2514.5
20°	2466.5	2443.1	2466.5	2497.7	2492.8
22.5°	2391.2	2364.9	2415.4	2443.1	2441.3
25°	2305.7	2318.4	2356.2	2387.0	2382.1
27.5°	2230.8	2245.5	2299.4	2341.8	2314.5
30°	2173.0	2165.6	2211.2	2249.0	2270.0
32.5°	2069.7	2096.3	2149.5	2187.0	2167.0
35°	2007.0	2012.9	2059.5	2107.2	2105.8
37.5°	1897.3	1925.0	1990.5	2003.8	1991.6
40°	1803.8	1831.5	1890.7	1905.1	1899.1
42.5°	1734.8	1739.7	1790.5	1807.0	1780.7
45°	1614.7	1644.8	1672.1	1715.2	1674.6
47.5°	1512.4	1526.4	1585.3	1596.8	1575.5
50°	1419.6	1424.5	1483.7	1469.3	1455.3
52.5°	1303.0	1323.6	1356.9	1354.1	1337.6
55°	1207.0	1198.9	1230.5	1222.1	1221.7
57.5°	1091.8	1105.8	1131.7	1118.4	1097.0
60°	983.9	984.2	993.7	978.6	975.8
62.5°	863.7	867.9	870.0	851.5	881.6
65°	741.5	731.7	760.4	731.3	736.2
67.5°	629.1	634.0	631.2	613.0	620.0
70°	514.9	521.2	516.6	496.0	502.3
72.5°	410.5	402.8	407.7	381.8	393.7
75°	308.6	302.3	307.9	286.2	296.0
77.5°	210.2	215.1	211.6	200.0	206.7
80°	138.7	134.8	134.8	128.2	129.6
82.5°	80.9	77.1	76.0	73.9	77.1
85°	37.8	36.8	37.5	36.4	35.0
87.5°	13.7	14.0	14.0	13.3	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)