

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: P590516

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-93-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590516
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-50-UNV-93-97-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7062.0 lumens
Efficiency: N/A
Efficacy: 109.0 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

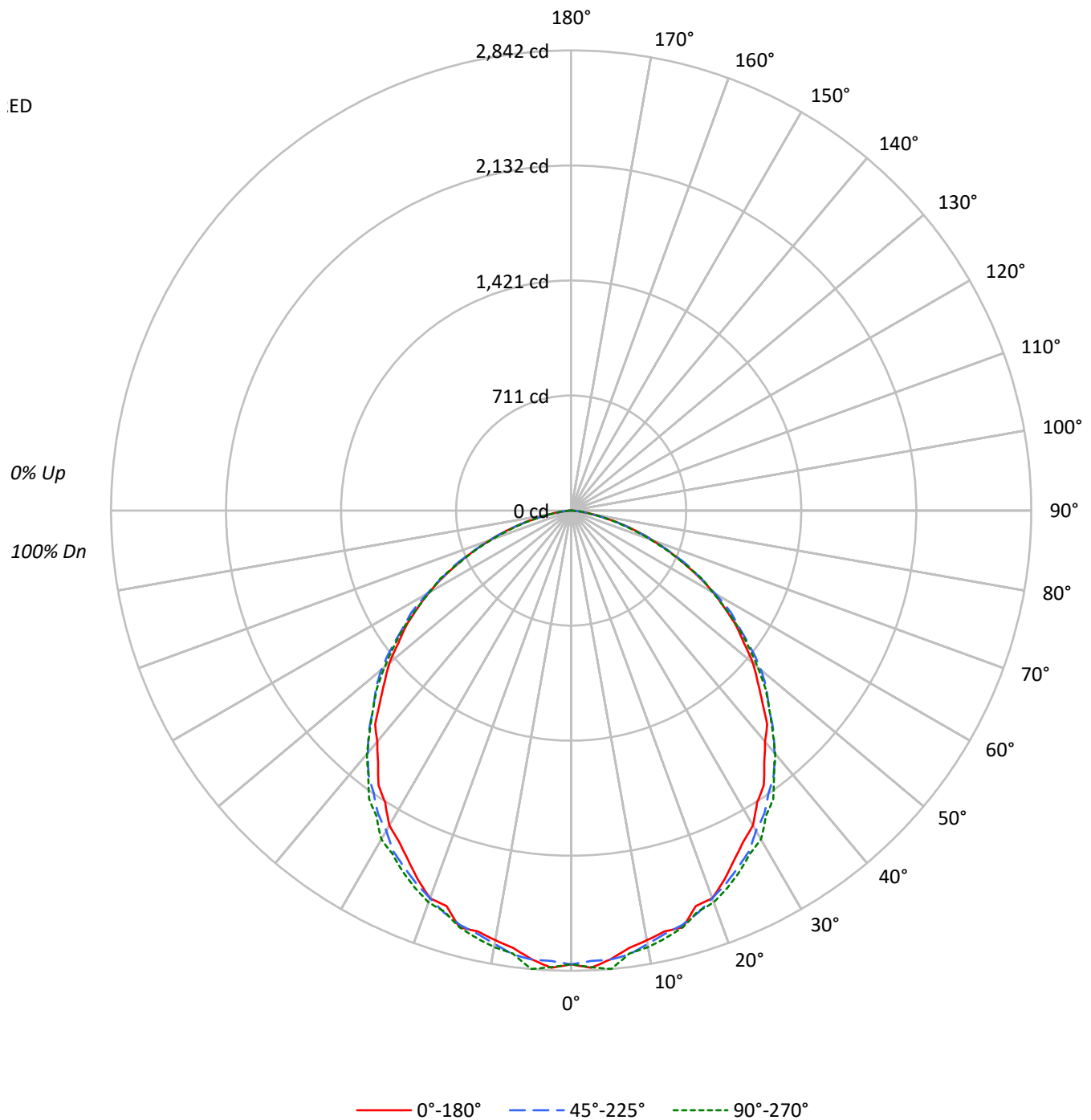
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590516

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-93-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590516

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-93-97-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°	7540	7540	7540
5°	7515	7518	7676
10°	7363	7427	7480
15°	7421	7381	7422
20°	7296	7296	7373
25°	7071	7226	7306
30°	6974	7097	7286
35°	6810	6988	7145
40°	6545	6860	6891
45°	6347	6573	6583
50°	6139	6416	6293
55°	5849	5963	5920
60°	5470	5524	5424
65°	4877	5001	4842
70°	4184	4198	4082
75°	3314	3306	3178
80°	2221	2159	2075
85°	1207	1195	1118

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6742 cd/sqm



TEST NUMBER: P590516

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-93-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.6	3.7
10°-20°	747.0	10.6
20°-30°	1119.2	15.8
30°-40°	1326.4	18.8
40°-50°	1328.9	18.8
50°-60°	1128.0	16.0
60°-70°	760.5	10.8
70°-80°	334.2	4.7
80°-90°	54.3	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°	2129.7	30.2
0°-40°	3456.2	48.9
0°-60°	5913.0	83.7
0°-90°	7062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2802	2802	2802	2802	2802	
5°	2782	2776	2783	2775	2842	262
15°	2664	2633	2649	2663	2664	742
25°	2382	2395	2434	2466	2460	1101
35°	2073	2079	2127	2176	2175	1287
45°	1668	1699	1727	1772	1730	1290
55°	1247	1238	1271	1262	1262	1109
65°	766	756	785	755	760	762
75°	319	312	318	296	306	342
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



TEST NUMBER: P590516

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-93-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2802.0	2802.0	2802.0	2802.0	2802.0
2.5°	2826.3	2804.9	2785.0	2808.2	2822.3
5°	2782.1	2775.6	2783.2	2774.9	2841.8
7.5°	2725.0	2749.9	2764.4	2755.4	2759.3
10°	2694.6	2685.9	2718.1	2740.5	2737.3
12.5°	2662.0	2675.0	2676.8	2701.1	2703.3
15°	2663.8	2633.1	2649.4	2663.1	2664.2
17.5°	2560.4	2593.6	2604.9	2636.3	2597.3
20°	2547.7	2523.4	2547.7	2579.9	2574.8
22.5°	2469.9	2442.8	2494.9	2523.4	2521.6
25°	2381.6	2394.7	2433.7	2465.6	2460.5
27.5°	2304.2	2319.4	2375.1	2418.9	2390.7
30°	2244.5	2236.9	2283.9	2323.0	2344.7
32.5°	2137.8	2165.3	2220.3	2259.0	2238.4
35°	2073.0	2079.2	2127.3	2176.5	2175.1
37.5°	1959.8	1988.4	2056.0	2069.8	2057.1
40°	1863.2	1891.8	1952.9	1967.7	1961.6
42.5°	1791.9	1797.0	1849.4	1866.4	1839.3
45°	1667.8	1698.9	1727.2	1771.7	1729.7
47.5°	1562.2	1576.7	1637.4	1649.4	1627.3
50°	1466.3	1471.4	1532.5	1517.7	1503.2
52.5°	1345.8	1367.2	1401.6	1398.7	1381.7
55°	1246.7	1238.4	1270.9	1262.3	1261.9
57.5°	1127.7	1142.2	1168.9	1155.2	1133.1
60°	1016.3	1016.6	1026.4	1010.8	1007.9
62.5°	892.2	896.5	898.7	879.5	910.6
65°	765.9	755.8	785.4	755.4	760.5
67.5°	649.8	654.8	651.9	633.1	640.4
70°	531.8	538.3	533.6	512.3	518.8
72.5°	424.0	416.1	421.1	394.3	406.6
75°	318.7	312.2	318.0	295.6	305.7
77.5°	217.1	222.1	218.5	206.6	213.5
80°	143.3	139.3	139.3	132.4	133.9
82.5°	83.6	79.6	78.5	76.3	79.6
85°	39.1	38.0	38.7	37.6	36.2
87.5°	14.1	14.5	14.5	13.7	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)