

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: P561840

Luminaire Tested: FSR-12-4-LD4-2STD-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561840
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-12-4-LD4-2STD-50-UNV-80-84-EDD-90
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5936.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

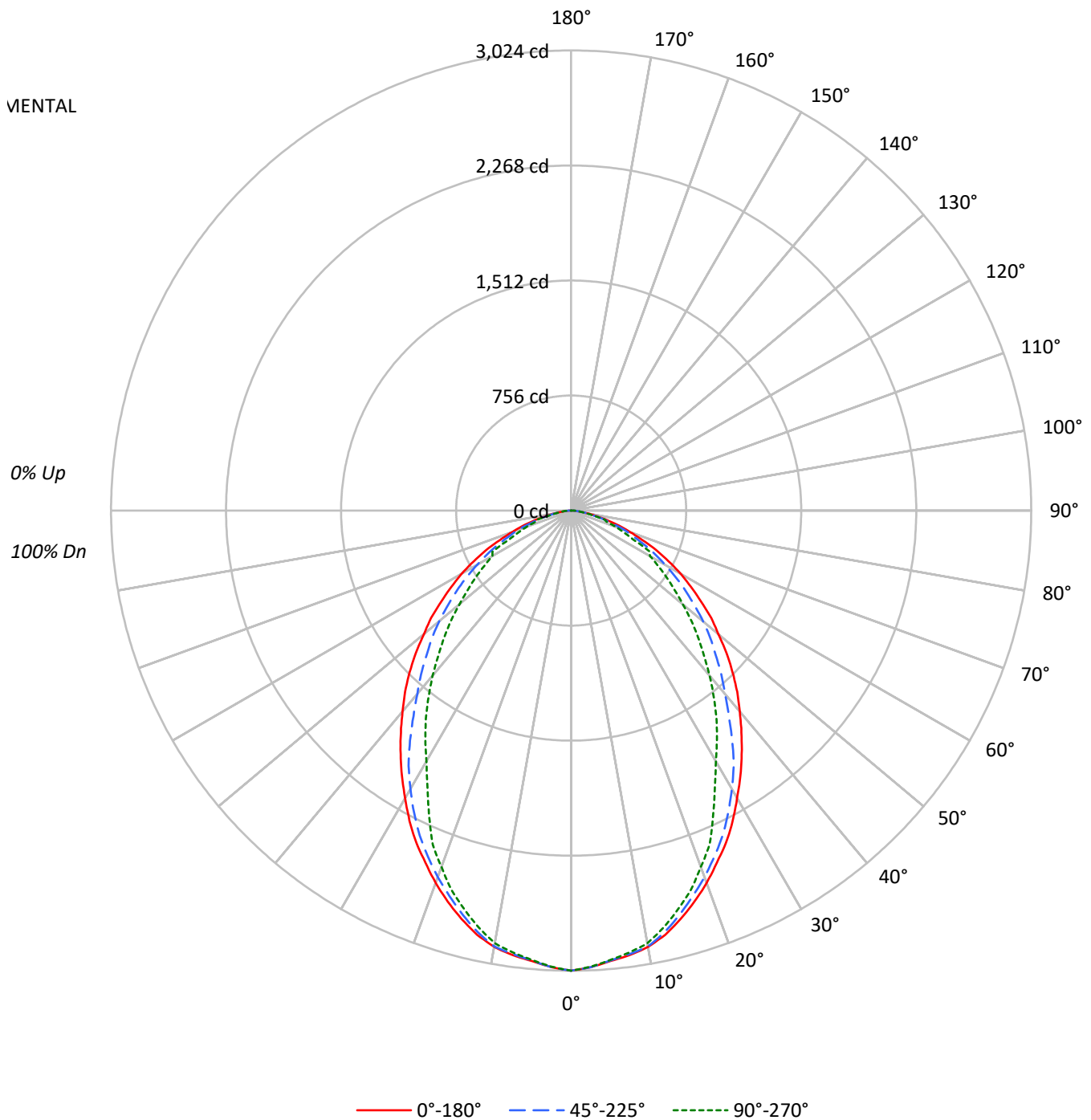
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P561840

CATALOG NUMBER: FSR-12-4-LD4-2STD-50-UNV-80-84-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P561840

CATALOG NUMBER: FSR-12-4-LD4-2STD-50-UNV-80-84-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8137	8137	8137
5°	8026	8017	8007
10°	7957	7947	7890
15°	7742	7664	7557
20°	7458	7338	7137
25°	7151	6996	6559
30°	6778	6561	5909
35°	6419	6063	5466
40°	6054	5526	4973
45°	5707	5108	4496
50°	5283	4742	4010
55°	4887	4297	3591
60°	4478	3838	3217
65°	3940	3361	2849
70°	3246	2943	2420
75°	2581	2253	2362
80°	1734	1626	1517
85°	1081	1294	1510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5707 cd/sqm

TEST NUMBER: P561840

CATALOG NUMBER: FSR-12-4-LD4-2STD-50-UNV-80-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.5	4.7
10°-20°	772.5	13.0
20°-30°	1069.4	18.0
30°-40°	1140.3	19.2
40°-50°	1040.3	17.5
50°-60°	815.0	13.7
60°-70°	531.2	8.9
70°-80°	235.3	4.0
80°-90°	50.5	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°	2123.4	35.8
0°-40°	3263.7	55.0
0°-60°	5119.0	86.2
0°-90°	5936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3024	3024	3024	3024	3024	
5°	2971	2968	2968	2964	2964	282
15°	2779	2779	2751	2723	2713	781
25°	2408	2394	2356	2272	2209	1106
35°	1954	1940	1846	1706	1664	1222
45°	1500	1468	1342	1230	1182	1155
55°	1042	1010	916	808	766	934
65°	619	584	528	538	447	610
75°	248	231	217	206	227	266
85°	35	38	42	45	49	49
90°	0	0	0	0	0	



TEST NUMBER: P561840

CATALOG NUMBER: FSR-12-4-LD4-2STD-50-UNV-80-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3023.7	3023.7	3023.7	3023.7	3023.7
2.5°	3002.7	3002.7	3002.7	2999.2	2999.2
5°	2971.3	2967.8	2967.8	2964.3	2964.3
7.5°	2946.8	2943.3	2939.8	2936.3	2929.3
10°	2911.9	2911.9	2908.4	2890.9	2887.4
12.5°	2855.9	2852.4	2838.5	2814.0	2807.0
15°	2779.0	2779.0	2751.1	2723.1	2712.6
17.5°	2695.1	2691.6	2656.7	2628.7	2614.7
20°	2604.2	2597.3	2562.3	2516.9	2492.4
22.5°	2502.9	2502.9	2460.9	2401.5	2377.0
25°	2408.5	2394.5	2356.1	2272.2	2209.2
27.5°	2300.1	2279.2	2237.2	2118.4	2044.9
30°	2181.3	2170.8	2111.4	1957.6	1901.6
32.5°	2069.4	2051.9	1989.0	1828.2	1782.8
35°	1954.1	1940.1	1845.7	1705.9	1663.9
37.5°	1838.7	1821.2	1702.4	1590.5	1538.1
40°	1723.3	1702.4	1573.0	1471.7	1415.7
42.5°	1615.0	1587.0	1461.2	1352.8	1289.9
45°	1499.6	1468.2	1342.3	1230.5	1181.5
47.5°	1384.3	1356.3	1240.9	1125.6	1069.7
50°	1261.9	1237.5	1132.6	1017.2	957.8
52.5°	1160.5	1122.1	1020.7	905.4	856.4
55°	1041.7	1010.2	915.9	807.5	765.5
57.5°	933.3	901.9	814.5	713.1	678.2
60°	832.0	786.5	713.1	625.7	597.8
62.5°	720.1	685.1	622.2	548.8	583.8
65°	618.7	583.8	527.8	538.3	447.4
67.5°	506.9	489.4	440.4	391.5	377.5
70°	412.5	391.5	374.0	321.6	307.6
72.5°	328.6	307.6	283.1	255.2	244.7
75°	248.2	230.7	216.7	206.2	227.2
77.5°	171.3	164.3	153.8	143.3	139.8
80°	111.9	108.4	104.9	101.4	97.9
82.5°	66.4	66.4	66.4	66.4	66.4
85°	35.0	38.5	41.9	45.4	48.9
87.5°	21.0	21.0	24.5	28.0	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)