

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: P561713

Luminaire Tested: FSR-12-4-LD4-2STD-35-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561713
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-35-UNV-80-84-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6643.0 lumens
Efficiency: N/A
Efficacy: 99.7 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

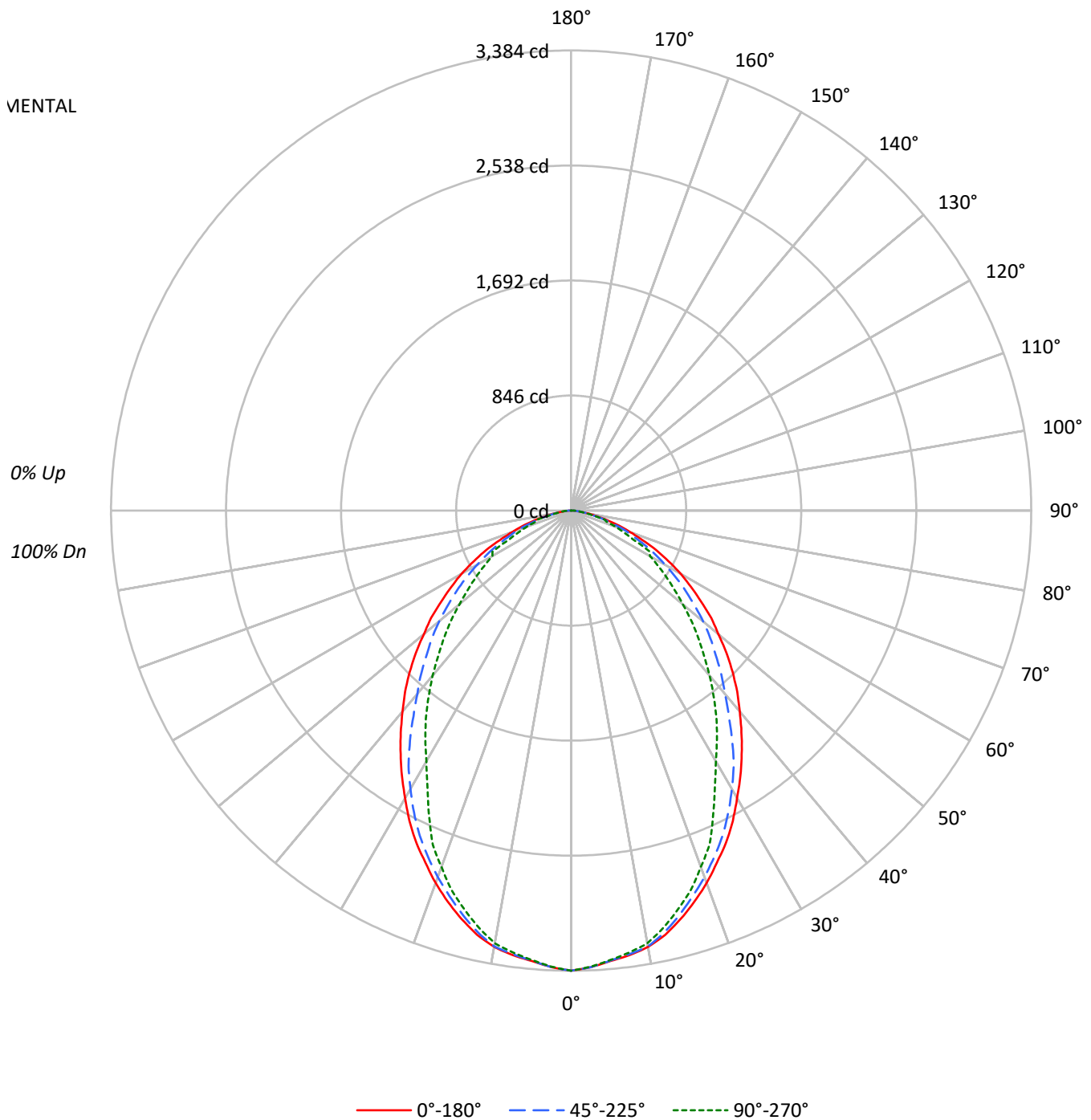
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P561713

CATALOG NUMBER: FSR-12-4-LD4-2STD-35-UNV-80-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P561713

CATALOG NUMBER: FSR-12-4-LD4-2STD-35-UNV-80-84-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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9106	9106	9106
5°	8982	8972	8961
10°	8904	8894	8829
15°	8664	8577	8457
20°	8346	8212	7987
25°	8003	7829	7341
30°	7585	7342	6613
35°	7184	6785	6117
40°	6775	6184	5565
45°	6387	5717	5032
50°	5912	5306	4487
55°	5469	4808	4019
60°	5011	4295	3600
65°	4409	3761	3188
70°	3632	3294	2709
75°	2887	2521	2644
80°	1940	1819	1697
85°	1207	1448	1692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6387 cd/sqm

TEST NUMBER: P561713

CATALOG NUMBER: FSR-12-4-LD4-2STD-35-UNV-80-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.0	4.7
10°-20°	864.5	13.0
20°-30°	1196.8	18.0
30°-40°	1276.1	19.2
40°-50°	1164.2	17.5
50°-60°	912.1	13.7
60°-70°	594.4	8.9
70°-80°	263.4	4.0
80°-90°	56.5	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°	2376.3	35.8
0°-40°	3652.4	55.0
0°-60°	5728.6	86.2
0°-90°	6643.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3384	3384	3384	3384	3384	
5°	3325	3321	3321	3317	3317	316
15°	3110	3110	3079	3047	3036	874
25°	2695	2680	2637	2543	2472	1237
35°	2187	2171	2066	1909	1862	1367
45°	1678	1643	1502	1377	1322	1293
55°	1166	1131	1025	904	857	1046
65°	692	653	591	602	501	682
75°	278	258	242	231	254	298
85°	39	43	47	51	55	54
90°	0	0	0	0	0	



TEST NUMBER: P561713

CATALOG NUMBER: FSR-12-4-LD4-2STD-35-UNV-80-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3383.9	3383.9	3383.9	3383.9	3383.9
2.5°	3360.4	3360.4	3360.4	3356.5	3356.5
5°	3325.2	3321.3	3321.3	3317.4	3317.4
7.5°	3297.8	3293.9	3290.0	3286.1	3278.2
10°	3258.7	3258.7	3254.8	3235.2	3231.3
12.5°	3196.1	3192.2	3176.5	3149.1	3141.3
15°	3110.0	3110.0	3078.7	3047.4	3035.7
17.5°	3016.1	3012.2	2973.1	2941.8	2926.2
20°	2914.4	2906.6	2867.5	2816.6	2789.2
22.5°	2801.0	2801.0	2754.0	2687.5	2660.1
25°	2695.3	2679.7	2636.7	2542.8	2472.4
27.5°	2574.1	2550.6	2503.7	2370.7	2288.5
30°	2441.1	2429.3	2362.8	2190.7	2128.1
32.5°	2315.9	2296.3	2225.9	2046.0	1995.1
35°	2186.8	2171.1	2065.5	1909.0	1862.1
37.5°	2057.7	2038.1	1905.1	1779.9	1721.3
40°	1928.6	1905.1	1760.4	1646.9	1584.3
42.5°	1807.3	1776.0	1635.2	1513.9	1443.5
45°	1678.2	1643.0	1502.2	1377.0	1322.2
47.5°	1549.1	1517.8	1388.7	1259.7	1197.1
50°	1412.2	1384.8	1267.5	1138.4	1071.9
52.5°	1298.8	1255.7	1142.3	1013.2	958.4
55°	1165.8	1130.6	1024.9	903.7	856.7
57.5°	1044.5	1009.3	911.5	798.0	758.9
60°	931.0	880.2	798.0	700.2	668.9
62.5°	805.9	766.7	696.3	614.2	653.3
65°	692.4	653.3	590.7	602.4	500.7
67.5°	567.2	547.7	492.9	438.1	422.5
70°	461.6	438.1	418.6	359.9	344.3
72.5°	367.7	344.3	316.9	285.6	273.8
75°	277.7	258.2	242.5	230.8	254.3
77.5°	191.7	183.9	172.1	160.4	156.5
80°	125.2	121.3	117.4	113.4	109.5
82.5°	74.3	74.3	74.3	74.3	74.3
85°	39.1	43.0	46.9	50.9	54.8
87.5°	23.5	23.5	27.4	31.3	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)