

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: P560737

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560737
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-12-2-LD4-2STD-50-UNV-93-84-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3140.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

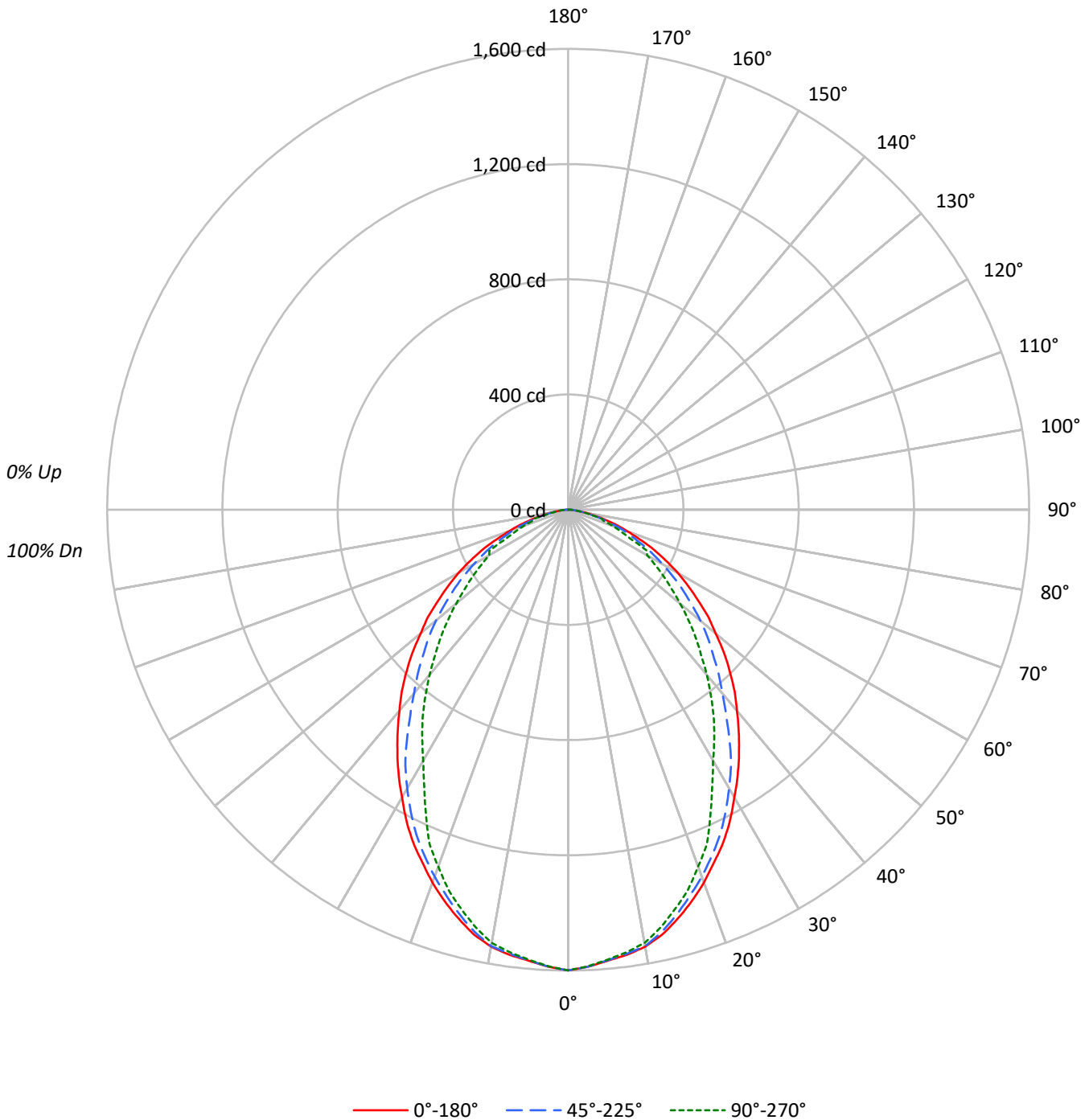
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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	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	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°	8608	8608	8608
5°	8491	8481	8471
10°	8418	8408	8347
15°	8191	8108	7995
20°	7890	7763	7551
25°	7565	7401	6940
30°	7170	6941	6251
35°	6791	6414	5783
40°	6405	5846	5262
45°	6038	5405	4757
50°	5589	5016	4243
55°	5170	4546	3800
60°	4737	4060	3404
65°	4168	3556	3014
70°	3434	3114	2560
75°	2730	2383	2499
80°	1835	1720	1605
85°	1142	1371	1599

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6038 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.9	4.7
10°-20°	408.6	13.0
20°-30°	565.7	18.0
30°-40°	603.2	19.2
40°-50°	550.3	17.5
50°-60°	431.1	13.7
60°-70°	281.0	8.9
70°-80°	124.5	4.0
80°-90°	26.7	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°	1123.2	35.8
0°-40°	1726.4	55.0
0°-60°	2707.8	86.2
0°-90°	3140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3140.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1572	1570	1570	1568	1568	149
15°	1470	1470	1455	1440	1435	413
25°	1274	1267	1246	1202	1169	585
35°	1034	1026	976	902	880	646
45°	793	777	710	651	625	611
55°	551	534	484	427	405	494
65°	327	309	279	285	237	323
75°	131	122	115	109	120	141
85°	18	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1599.5	1599.5	1599.5	1599.5	1599.5
2.5°	1588.4	1588.4	1588.4	1586.5	1586.5
5°	1571.7	1569.9	1569.9	1568.0	1568.0
7.5°	1558.8	1556.9	1555.1	1553.2	1549.5
10°	1540.3	1540.3	1538.5	1529.2	1527.4
12.5°	1510.7	1508.9	1501.5	1488.5	1484.8
15°	1470.0	1470.0	1455.2	1440.5	1434.9
17.5°	1425.7	1423.8	1405.3	1390.5	1383.1
20°	1377.6	1373.9	1355.4	1331.4	1318.4
22.5°	1324.0	1324.0	1301.8	1270.3	1257.4
25°	1274.0	1266.6	1246.3	1201.9	1168.6
27.5°	1216.7	1205.6	1183.4	1120.6	1081.7
30°	1153.8	1148.3	1116.9	1035.5	1005.9
32.5°	1094.7	1085.4	1052.1	967.1	943.0
35°	1033.6	1026.3	976.3	902.4	880.2
37.5°	972.6	963.4	900.5	841.3	813.6
40°	911.6	900.5	832.1	778.5	748.9
42.5°	854.3	839.5	772.9	715.6	682.3
45°	793.3	776.6	710.1	650.9	625.0
47.5°	732.2	717.5	656.4	595.4	565.8
50°	667.5	654.6	599.1	538.1	506.7
52.5°	613.9	593.6	539.9	478.9	453.0
55°	551.0	534.4	484.5	427.1	405.0
57.5°	493.7	477.1	430.8	377.2	358.7
60°	440.1	416.0	377.2	331.0	316.2
62.5°	380.9	362.4	329.1	290.3	308.8
65°	327.3	308.8	279.2	284.8	236.7
67.5°	268.1	258.9	233.0	207.1	199.7
70°	218.2	207.1	197.9	170.1	162.7
72.5°	173.8	162.7	149.8	135.0	129.4
75°	131.3	122.0	114.6	109.1	120.2
77.5°	90.6	86.9	81.4	75.8	74.0
80°	59.2	57.3	55.5	53.6	51.8
82.5°	35.1	35.1	35.1	35.1	35.1
85°	18.5	20.3	22.2	24.0	25.9
87.5°	11.1	11.1	12.9	14.8	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)