

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: P559394

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559394
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-12-1-LD4-2LO-50-UNV-93-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1031.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

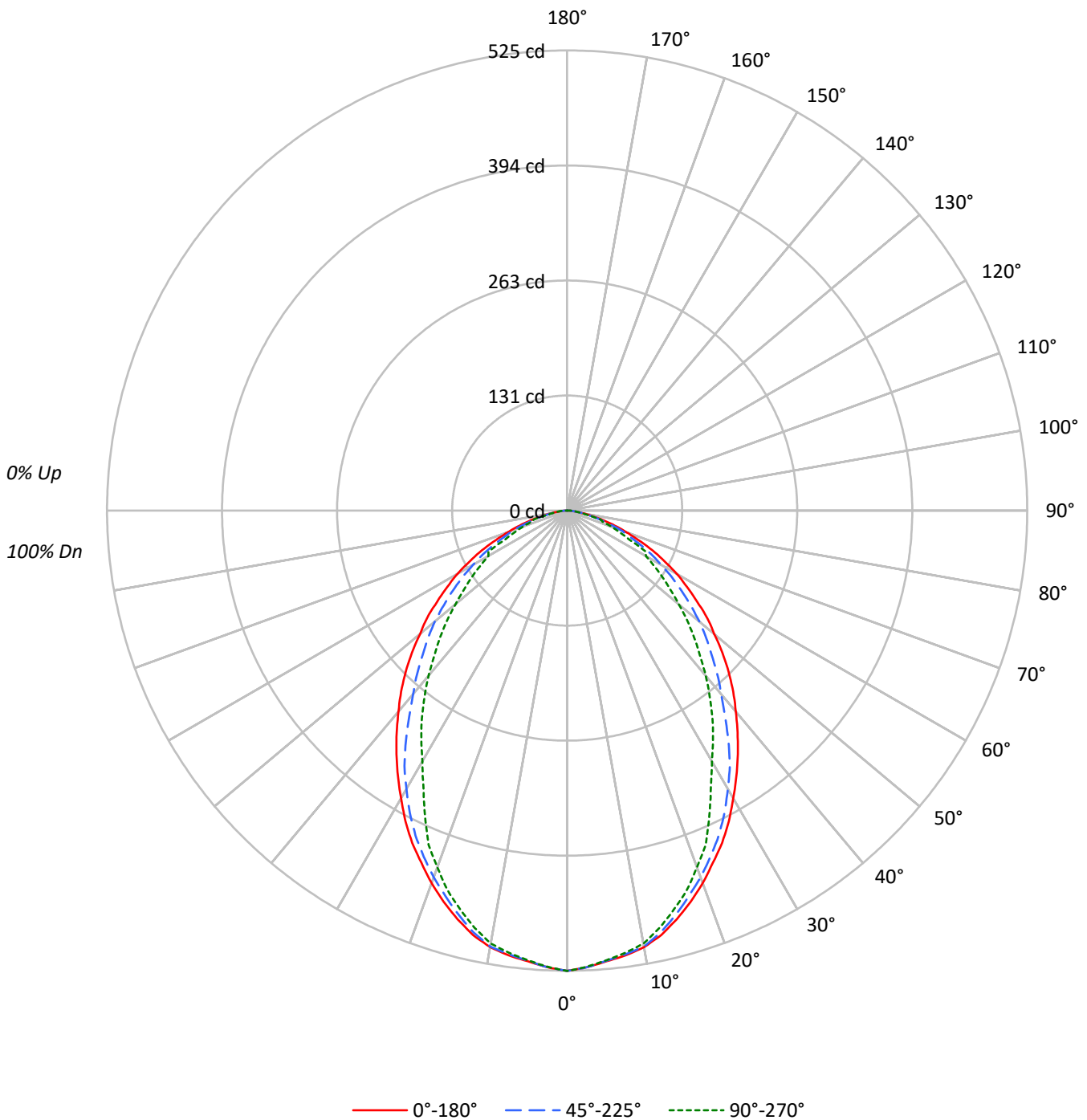
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5653	5653	5653
5°	5576	5570	5564
10°	5527	5521	5481
15°	5379	5324	5250
20°	5181	5097	4959
25°	4968	4860	4557
30°	4709	4558	4105
35°	4460	4213	3798
40°	4206	3839	3455
45°	3965	3548	3124
50°	3671	3294	2786
55°	3395	2986	2496
60°	3111	2667	2235
65°	2738	2336	1979
70°	2253	2046	1681
75°	1792	1564	1643
80°	1203	1128	1054
85°	753	902	1050

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3965 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	4.7
10°-20°	134.2	13.0
20°-30°	185.7	18.0
30°-40°	198.1	19.2
40°-50°	180.7	17.5
50°-60°	141.6	13.7
60°-70°	92.3	8.9
70°-80°	40.9	4.0
80°-90°	8.8	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°	368.8	35.8
0°-40°	566.8	55.0
0°-60°	889.1	86.2
0°-90°	1031.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1031.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	516	516	516	515	515	49
15°	483	483	478	473	471	136
25°	418	416	409	395	384	192
35°	339	337	321	296	289	212
45°	260	255	233	214	205	201
55°	181	176	159	140	133	162
65°	108	101	92	94	78	106
75°	43	40	38	36	40	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	525.2	525.2	525.2	525.2	525.2
2.5°	521.5	521.5	521.5	520.9	520.9
5°	516.1	515.5	515.5	514.9	514.9
7.5°	511.8	511.2	510.6	510.0	508.8
10°	505.7	505.7	505.1	502.1	501.5
12.5°	496.0	495.4	493.0	488.7	487.5
15°	482.7	482.7	477.8	473.0	471.1
17.5°	468.1	467.5	461.4	456.6	454.1
20°	452.3	451.1	445.0	437.1	432.9
22.5°	434.7	434.7	427.4	417.1	412.9
25°	418.3	415.9	409.2	394.6	383.7
27.5°	399.5	395.9	388.6	367.9	355.2
30°	378.9	377.0	366.7	340.0	330.3
32.5°	359.4	356.4	345.5	317.5	309.6
35°	339.4	337.0	320.6	296.3	289.0
37.5°	319.4	316.3	295.7	276.2	267.1
40°	299.3	295.7	273.2	255.6	245.9
42.5°	280.5	275.6	253.8	235.0	224.0
45°	260.5	255.0	233.1	213.7	205.2
47.5°	240.4	235.6	215.5	195.5	185.8
50°	219.2	214.9	196.7	176.7	166.4
52.5°	201.6	194.9	177.3	157.2	148.7
55°	180.9	175.5	159.1	140.2	133.0
57.5°	162.1	156.6	141.5	123.9	117.8
60°	144.5	136.6	123.9	108.7	103.8
62.5°	125.1	119.0	108.1	95.3	101.4
65°	107.5	101.4	91.7	93.5	77.7
67.5°	88.0	85.0	76.5	68.0	65.6
70°	71.6	68.0	65.0	55.9	53.4
72.5°	57.1	53.4	49.2	44.3	42.5
75°	43.1	40.1	37.6	35.8	39.5
77.5°	29.7	28.5	26.7	24.9	24.3
80°	19.4	18.8	18.2	17.6	17.0
82.5°	11.5	11.5	11.5	11.5	11.5
85°	6.1	6.7	7.3	7.9	8.5
87.5°	3.6	3.6	4.2	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)