

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: P558500

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-93-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558500
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-LD4-1HI-35-UNV-93-86-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 784.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

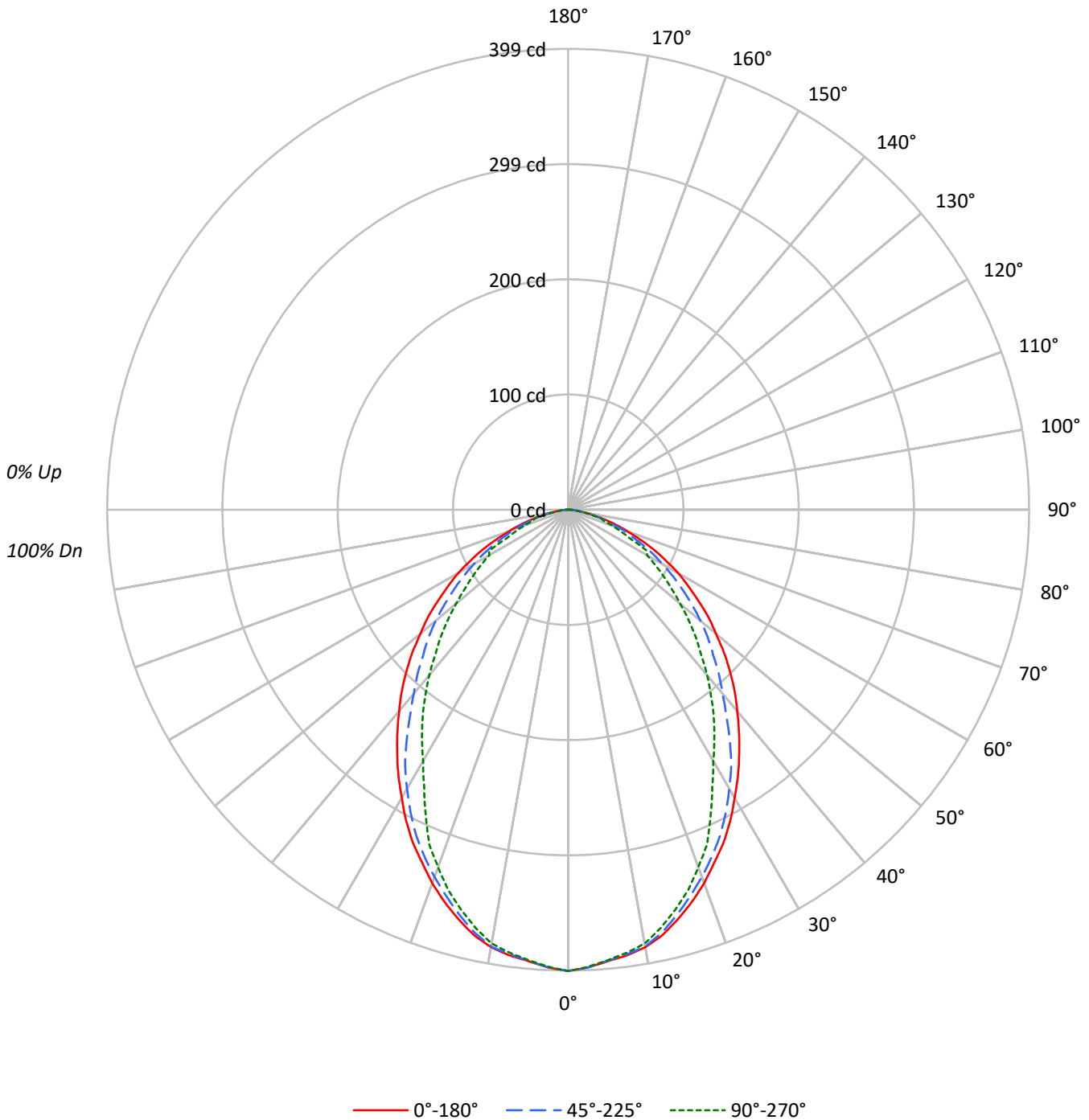
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													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°	4299	4299	4299
5°	4240	4236	4230
10°	4204	4198	4169
15°	4090	4048	3993
20°	3940	3876	3771
25°	3778	3696	3466
30°	3581	3466	3122
35°	3392	3204	2888
40°	3198	2920	2628
45°	3016	2699	2376
50°	2792	2505	2118
55°	2582	2271	1897
60°	2366	2028	1699
65°	2081	1775	1505
70°	1715	1555	1278
75°	1364	1189	1248
80°	917	862	800
85°	568	679	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3016 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	4.7
10°-20°	102.0	13.0
20°-30°	141.2	18.0
30°-40°	150.6	19.2
40°-50°	137.4	17.5
50°-60°	107.6	13.7
60°-70°	70.2	8.9
70°-80°	31.1	4.0
80°-90°	6.7	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°	280.4	35.8
0°-40°	431.1	55.0
0°-60°	676.1	86.2
0°-90°	784.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	784.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	392	392	392	392	392	37
15°	367	367	363	360	358	103
25°	318	316	311	300	292	146
35°	258	256	244	225	220	161
45°	198	194	177	162	156	153
55°	138	133	121	107	101	123
65°	82	77	70	71	59	81
75°	33	30	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	399.4	399.4	399.4	399.4	399.4
2.5°	396.6	396.6	396.6	396.1	396.1
5°	392.4	392.0	392.0	391.5	391.5
7.5°	389.2	388.7	388.3	387.8	386.9
10°	384.6	384.6	384.1	381.8	381.4
12.5°	377.2	376.7	374.9	371.7	370.7
15°	367.0	367.0	363.3	359.7	358.3
17.5°	356.0	355.5	350.9	347.2	345.3
20°	344.0	343.0	338.4	332.4	329.2
22.5°	330.6	330.6	325.0	317.2	313.9
25°	318.1	316.3	311.2	300.1	291.8
27.5°	303.8	301.0	295.5	279.8	270.1
30°	288.1	286.7	278.9	258.5	251.2
32.5°	273.3	271.0	262.7	241.5	235.5
35°	258.1	256.2	243.8	225.3	219.8
37.5°	242.8	240.5	224.8	210.1	203.1
40°	227.6	224.8	207.8	194.4	187.0
42.5°	213.3	209.6	193.0	178.7	170.4
45°	198.1	193.9	177.3	162.5	156.1
47.5°	182.8	179.1	163.9	148.7	141.3
50°	166.7	163.4	149.6	134.4	126.5
52.5°	153.3	148.2	134.8	119.6	113.1
55°	137.6	133.4	121.0	106.6	101.1
57.5°	123.3	119.1	107.6	94.2	89.6
60°	109.9	103.9	94.2	82.6	78.9
62.5°	95.1	90.5	82.2	72.5	77.1
65°	81.7	77.1	69.7	71.1	59.1
67.5°	66.9	64.6	58.2	51.7	49.9
70°	54.5	51.7	49.4	42.5	40.6
72.5°	43.4	40.6	37.4	33.7	32.3
75°	32.8	30.5	28.6	27.2	30.0
77.5°	22.6	21.7	20.3	18.9	18.5
80°	14.8	14.3	13.9	13.4	12.9
82.5°	8.8	8.8	8.8	8.8	8.8
85°	4.6	5.1	5.5	6.0	6.5
87.5°	2.8	2.8	3.2	3.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)