

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: P558757

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558757
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-LD4-1LO-40-UNV-93-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 576.0 lumens
Efficiency: N/A
Efficacy: 99.3 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

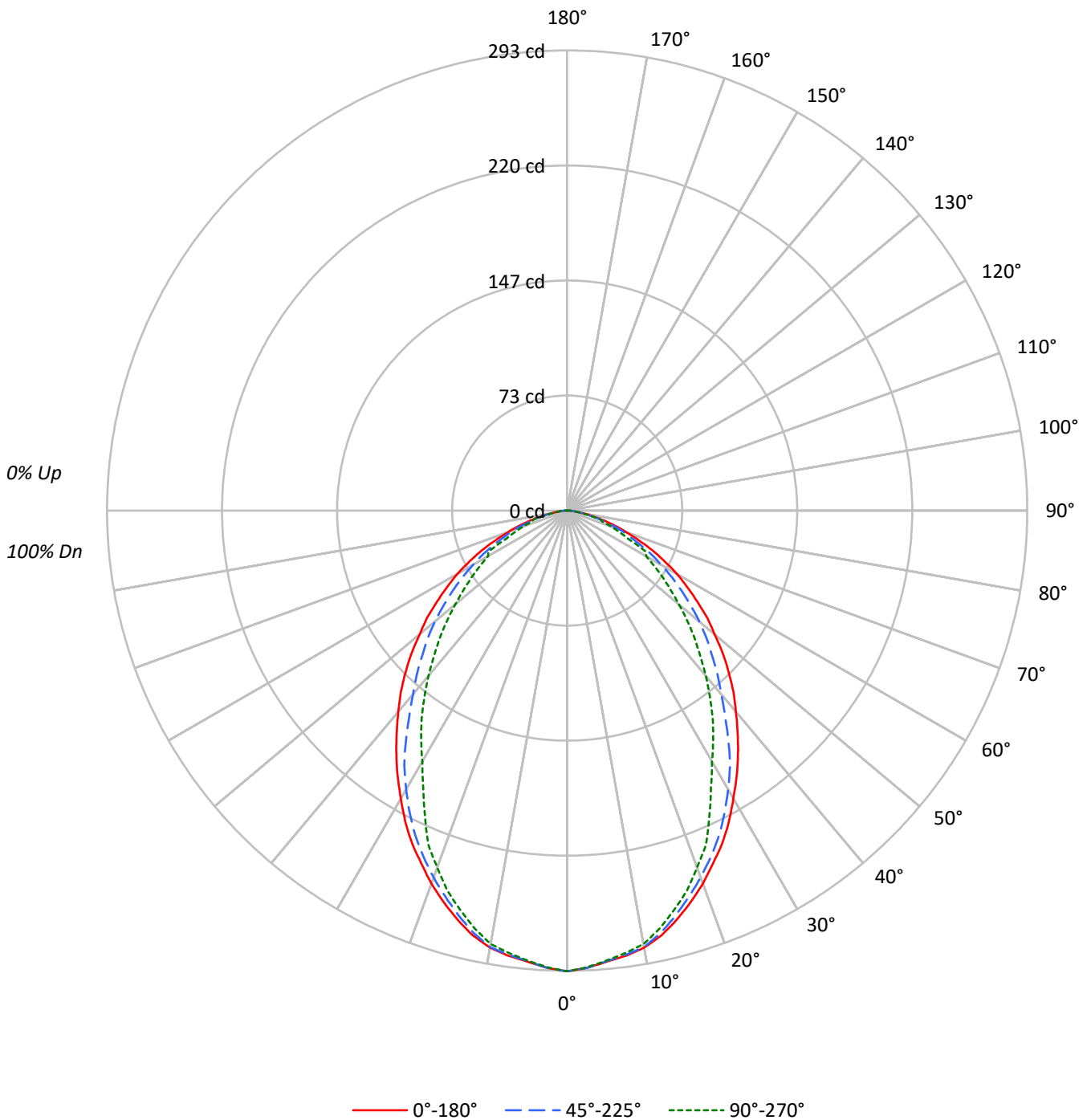
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	39	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°	3158	3158	3158
5°	3115	3112	3108
10°	3089	3084	3063
15°	3005	2974	2933
20°	2895	2848	2770
25°	2776	2715	2546
30°	2631	2547	2293
35°	2491	2353	2122
40°	2349	2144	1931
45°	2215	1983	1744
50°	2051	1840	1556
55°	1897	1668	1394
60°	1737	1490	1249
65°	1528	1304	1105
70°	1259	1142	938
75°	1002	873	915
80°	676	632	589
85°	420	506	580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2215 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	4.7
10°-20°	75.0	13.0
20°-30°	103.8	18.0
30°-40°	110.6	19.2
40°-50°	100.9	17.5
50°-60°	79.1	13.7
60°-70°	51.5	8.9
70°-80°	22.8	4.0
80°-90°	4.9	0.8
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°	206.0	35.8
0°-40°	316.7	55.0
0°-60°	496.7	86.2
0°-90°	576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	288	288	288	288	288	27
15°	270	270	267	264	263	76
25°	234	232	229	220	214	107
35°	190	188	179	166	162	119
45°	146	142	130	119	115	112
55°	101	98	89	78	74	91
65°	60	57	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	293.4	293.4	293.4	293.4	293.4
2.5°	291.4	291.4	291.4	291.0	291.0
5°	288.3	288.0	288.0	287.6	287.6
7.5°	285.9	285.6	285.3	284.9	284.2
10°	282.6	282.6	282.2	280.5	280.2
12.5°	277.1	276.8	275.4	273.1	272.4
15°	269.7	269.7	266.9	264.2	263.2
17.5°	261.5	261.2	257.8	255.1	253.7
20°	252.7	252.0	248.6	244.2	241.8
22.5°	242.9	242.9	238.8	233.0	230.7
25°	233.7	232.4	228.6	220.5	214.4
27.5°	223.2	221.2	217.1	205.6	198.4
30°	211.7	210.6	204.9	190.0	184.5
32.5°	200.8	199.1	193.0	177.4	173.0
35°	189.6	188.3	179.1	165.5	161.5
37.5°	178.4	176.7	165.2	154.3	149.2
40°	167.2	165.2	152.6	142.8	137.4
42.5°	156.7	154.0	141.8	131.3	125.2
45°	145.5	142.5	130.3	119.4	114.6
47.5°	134.3	131.6	120.4	109.2	103.8
50°	122.5	120.1	109.9	98.7	92.9
52.5°	112.6	108.9	99.0	87.9	83.1
55°	101.1	98.0	88.9	78.4	74.3
57.5°	90.6	87.5	79.0	69.2	65.8
60°	80.7	76.3	69.2	60.7	58.0
62.5°	69.9	66.5	60.4	53.3	56.6
65°	60.0	56.6	51.2	52.2	43.4
67.5°	49.2	47.5	42.7	38.0	36.6
70°	40.0	38.0	36.3	31.2	29.8
72.5°	31.9	29.8	27.5	24.8	23.7
75°	24.1	22.4	21.0	20.0	22.0
77.5°	16.6	15.9	14.9	13.9	13.6
80°	10.9	10.5	10.2	9.8	9.5
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.1	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)