

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: P558697

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558697
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-35-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 497.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

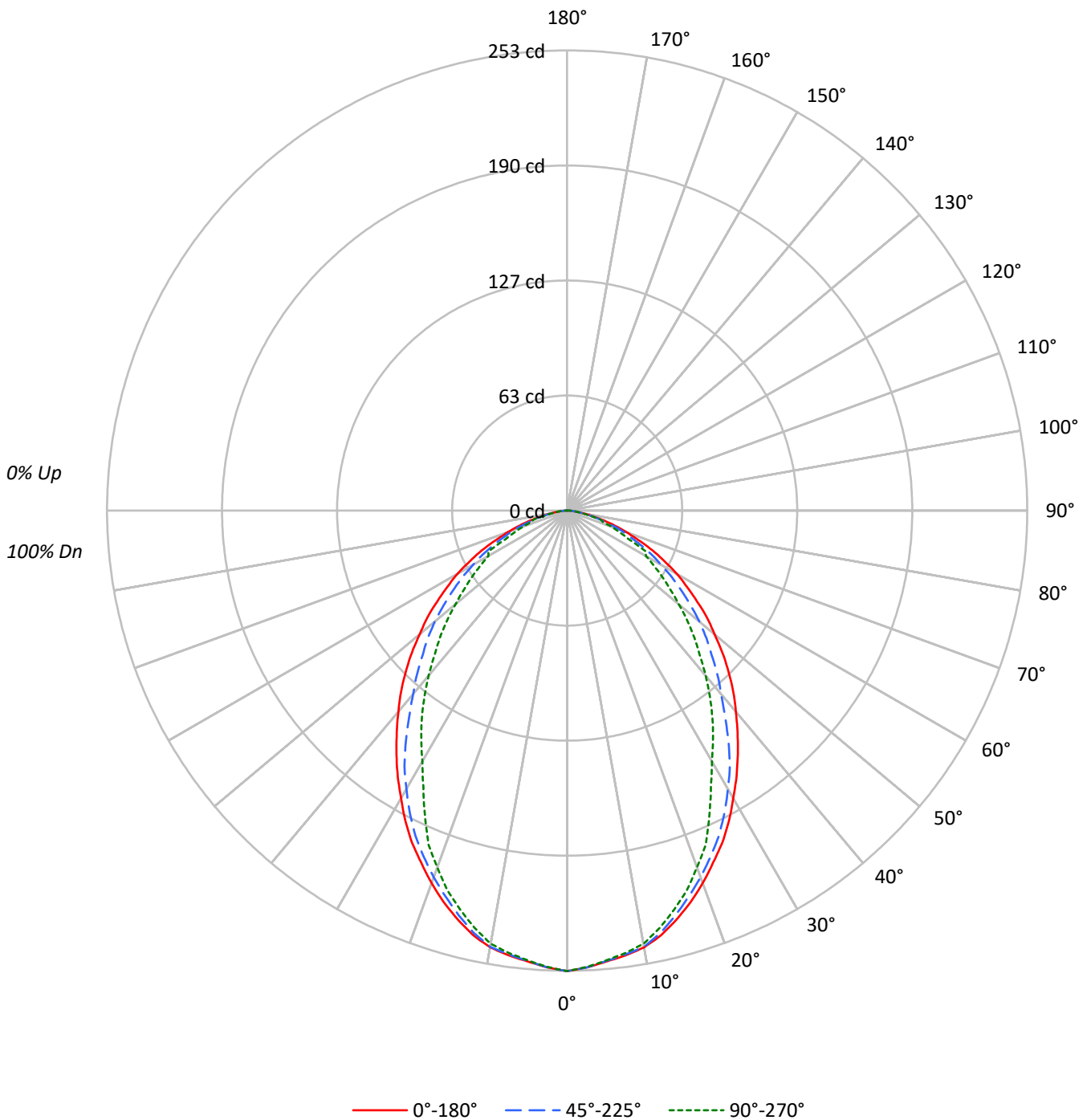
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	47	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2725	2725	2725
5°	2688	2685	2682
10°	2665	2661	2643
15°	2593	2566	2531
20°	2497	2457	2391
25°	2396	2343	2197
30°	2270	2197	1979
35°	2150	2030	1830
40°	2028	1851	1665
45°	1912	1711	1506
50°	1770	1587	1343
55°	1636	1439	1203
60°	1500	1285	1076
65°	1319	1126	955
70°	1086	985	812
75°	865	753	790
80°	583	545	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1912 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	4.7
10°-20°	64.7	13.0
20°-30°	89.5	18.0
30°-40°	95.5	19.2
40°-50°	87.1	17.5
50°-60°	68.2	13.7
60°-70°	44.5	9.0
70°-80°	19.7	4.0
80°-90°	4.2	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°	177.8	35.8
0°-40°	273.3	55.0
0°-60°	428.6	86.2
0°-90°	497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	253	253	253	253	253	
5°	249	248	248	248	248	24
15°	233	233	230	228	227	65
25°	202	200	197	190	185	93
35°	164	162	154	143	139	102
45°	126	123	112	103	99	97
55°	87	85	77	68	64	78
65°	52	49	44	45	38	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	253.2	253.2	253.2	253.2	253.2
2.5°	251.4	251.4	251.4	251.1	251.1
5°	248.8	248.5	248.5	248.2	248.2
7.5°	246.7	246.4	246.1	245.8	245.3
10°	243.8	243.8	243.5	242.0	241.8
12.5°	239.1	238.8	237.7	235.6	235.0
15°	232.7	232.7	230.3	228.0	227.1
17.5°	225.7	225.4	222.4	220.1	218.9
20°	218.0	217.5	214.5	210.7	208.7
22.5°	209.6	209.6	206.0	201.1	199.0
25°	201.7	200.5	197.3	190.2	185.0
27.5°	192.6	190.8	187.3	177.4	171.2
30°	182.6	181.8	176.8	163.9	159.2
32.5°	173.3	171.8	166.5	153.1	149.3
35°	163.6	162.4	154.5	142.8	139.3
37.5°	153.9	152.5	142.5	133.2	128.8
40°	144.3	142.5	131.7	123.2	118.5
42.5°	135.2	132.9	122.3	113.3	108.0
45°	125.6	122.9	112.4	103.0	98.9
47.5°	115.9	113.6	103.9	94.2	89.6
50°	105.7	103.6	94.8	85.2	80.2
52.5°	97.2	93.9	85.5	75.8	71.7
55°	87.2	84.6	76.7	67.6	64.1
57.5°	78.1	75.5	68.2	59.7	56.8
60°	69.7	65.9	59.7	52.4	50.0
62.5°	60.3	57.4	52.1	46.0	48.9
65°	51.8	48.9	44.2	45.1	37.5
67.5°	42.4	41.0	36.9	32.8	31.6
70°	34.5	32.8	31.3	26.9	25.8
72.5°	27.5	25.8	23.7	21.4	20.5
75°	20.8	19.3	18.1	17.3	19.0
77.5°	14.3	13.8	12.9	12.0	11.7
80°	9.4	9.1	8.8	8.5	8.2
82.5°	5.6	5.6	5.6	5.6	5.6
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.0	2.3	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)