

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: P558764

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558764
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-93-96-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 495.0 lumens
Efficiency: N/A
Efficacy: 85.3 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

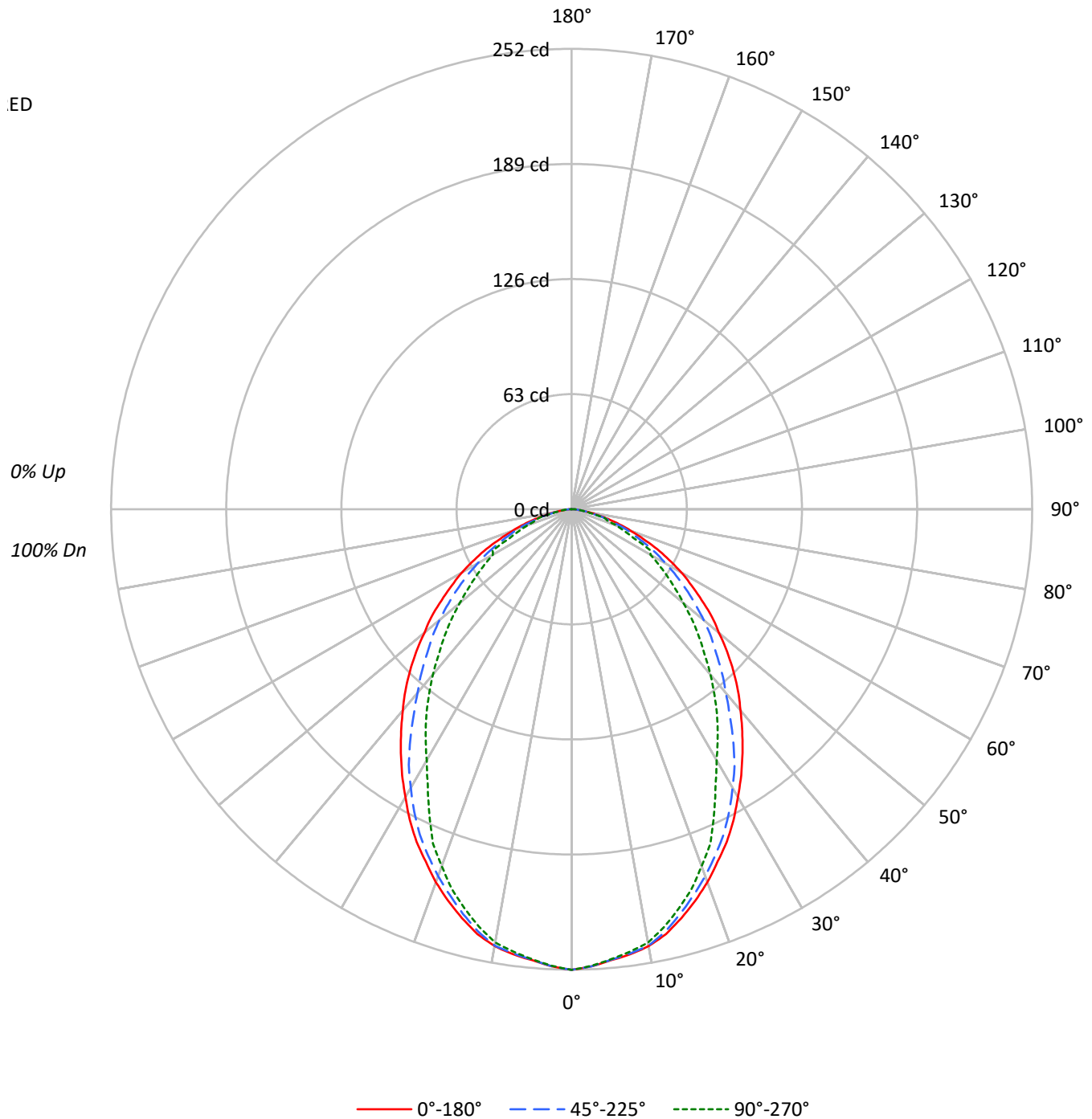
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	39	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°	2714	2714	2714
5°	2677	2674	2671
10°	2654	2651	2632
15°	2582	2556	2521
20°	2488	2448	2380
25°	2385	2334	2188
30°	2261	2189	1971
35°	2141	2022	1824
40°	2019	1844	1659
45°	1904	1703	1499
50°	1762	1581	1338
55°	1631	1434	1197
60°	1494	1281	1072
65°	1314	1121	950
70°	1083	982	809
75°	861	753	786
80°	576	539	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1904 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	4.7
10°-20°	64.4	13.0
20°-30°	89.2	18.0
30°-40°	95.1	19.2
40°-50°	86.7	17.5
50°-60°	68.0	13.7
60°-70°	44.3	8.9
70°-80°	19.6	4.0
80°-90°	4.2	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°	177.1	35.8
0°-40°	272.2	55.0
0°-60°	426.9	86.2
0°-90°	495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	495.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	248	248	248	247	247	24
15°	232	232	229	227	226	65
25°	201	200	196	190	184	92
35°	163	162	154	142	139	102
45°	125	122	112	103	98	96
55°	87	84	76	67	64	78
65°	52	49	44	45	37	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°	252.1	252.1	252.1	252.1	252.1
2.5°	250.4	250.4	250.4	250.1	250.1
5°	247.8	247.5	247.5	247.2	247.2
7.5°	245.7	245.4	245.2	244.9	244.3
10°	242.8	242.8	242.5	241.1	240.8
12.5°	238.2	237.9	236.7	234.7	234.1
15°	231.7	231.7	229.4	227.1	226.2
17.5°	224.7	224.5	221.5	219.2	218.0
20°	217.2	216.6	213.7	209.9	207.8
22.5°	208.7	208.7	205.2	200.3	198.2
25°	200.8	199.7	196.5	189.5	184.2
27.5°	191.8	190.1	186.6	176.6	170.5
30°	181.9	181.0	176.1	163.2	158.6
32.5°	172.6	171.1	165.9	152.5	148.7
35°	162.9	161.8	153.9	142.3	138.8
37.5°	153.3	151.9	142.0	132.6	128.3
40°	143.7	142.0	131.2	122.7	118.1
42.5°	134.7	132.3	121.8	112.8	107.6
45°	125.1	122.4	111.9	102.6	98.5
47.5°	115.4	113.1	103.5	93.9	89.2
50°	105.2	103.2	94.4	84.8	79.9
52.5°	96.8	93.6	85.1	75.5	71.4
55°	86.9	84.2	76.4	67.3	63.8
57.5°	77.8	75.2	67.9	59.5	56.6
60°	69.4	65.6	59.5	52.2	49.8
62.5°	60.0	57.1	51.9	45.8	48.7
65°	51.6	48.7	44.0	44.9	37.3
67.5°	42.3	40.8	36.7	32.6	31.5
70°	34.4	32.6	31.2	26.8	25.7
72.5°	27.4	25.7	23.6	21.3	20.4
75°	20.7	19.2	18.1	17.2	18.9
77.5°	14.3	13.7	12.8	12.0	11.7
80°	9.3	9.0	8.7	8.5	8.2
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.7	1.7	2.0	2.3	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)