

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: P558698

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558698
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-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 494.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

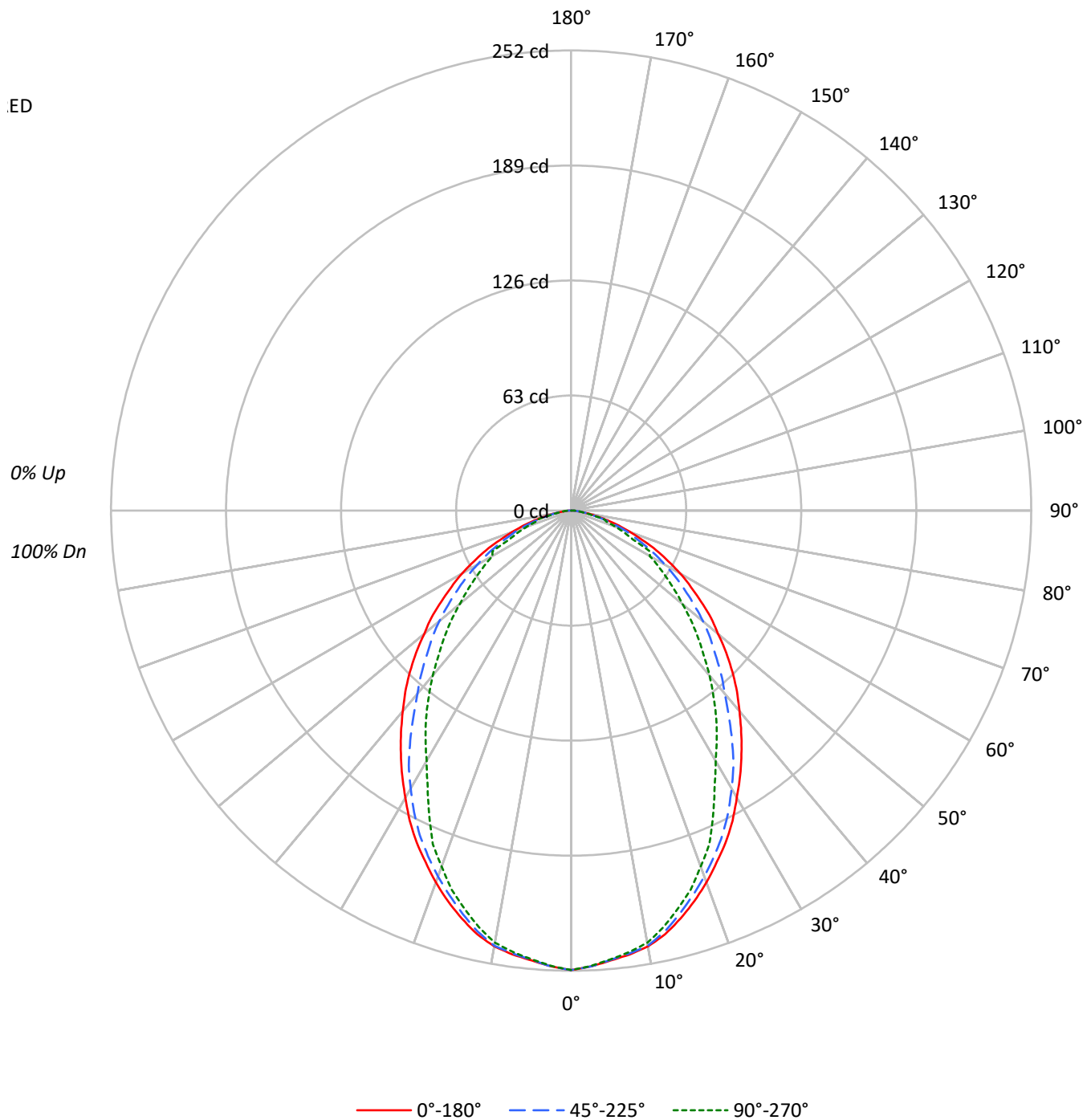
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2708	2708	2708
5°	2672	2669	2666
10°	2648	2645	2626
15°	2578	2551	2515
20°	2482	2442	2376
25°	2380	2329	2184
30°	2256	2184	1968
35°	2137	2018	1820
40°	2015	1839	1655
45°	1900	1700	1496
50°	1758	1579	1335
55°	1627	1430	1195
60°	1490	1277	1070
65°	1312	1118	947
70°	1079	979	806
75°	861	749	786
80°	576	539	502
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1900 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	4.7
10°-20°	64.3	13.0
20°-30°	89.0	18.0
30°-40°	94.9	19.2
40°-50°	86.6	17.5
50°-60°	67.8	13.7
60°-70°	44.2	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°	176.7	35.8
0°-40°	271.6	55.0
0°-60°	426.0	86.2
0°-90°	494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	247	247	247	247	247	23
15°	231	231	229	227	226	65
25°	200	199	196	189	184	92
35°	163	162	154	142	138	102
45°	125	122	112	102	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°	251.6	251.6	251.6	251.6	251.6
2.5°	249.9	249.9	249.9	249.6	249.6
5°	247.3	247.0	247.0	246.7	246.7
7.5°	245.2	244.9	244.7	244.4	243.8
10°	242.3	242.3	242.0	240.6	240.3
12.5°	237.7	237.4	236.2	234.2	233.6
15°	231.3	231.3	228.9	226.6	225.7
17.5°	224.3	224.0	221.1	218.8	217.6
20°	216.7	216.1	213.2	209.5	207.4
22.5°	208.3	208.3	204.8	199.9	197.8
25°	200.4	199.3	196.1	189.1	183.9
27.5°	191.4	189.7	186.2	176.3	170.2
30°	181.5	180.7	175.7	162.9	158.3
32.5°	172.2	170.8	165.5	152.1	148.4
35°	162.6	161.5	153.6	142.0	138.5
37.5°	153.0	151.6	141.7	132.4	128.0
40°	143.4	141.7	130.9	122.5	117.8
42.5°	134.4	132.1	121.6	112.6	107.3
45°	124.8	122.2	111.7	102.4	98.3
47.5°	115.2	112.9	103.3	93.7	89.0
50°	105.0	103.0	94.3	84.7	79.7
52.5°	96.6	93.4	84.9	75.3	71.3
55°	86.7	84.1	76.2	67.2	63.7
57.5°	77.7	75.1	67.8	59.3	56.4
60°	69.2	65.5	59.3	52.1	49.7
62.5°	59.9	57.0	51.8	45.7	48.6
65°	51.5	48.6	43.9	44.8	37.2
67.5°	42.2	40.7	36.7	32.6	31.4
70°	34.3	32.6	31.1	26.8	25.6
72.5°	27.3	25.6	23.6	21.2	20.4
75°	20.7	19.2	18.0	17.2	18.9
77.5°	14.3	13.7	12.8	11.9	11.6
80°	9.3	9.0	8.7	8.4	8.1
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)