

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: P558752

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558752
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-93-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 500.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

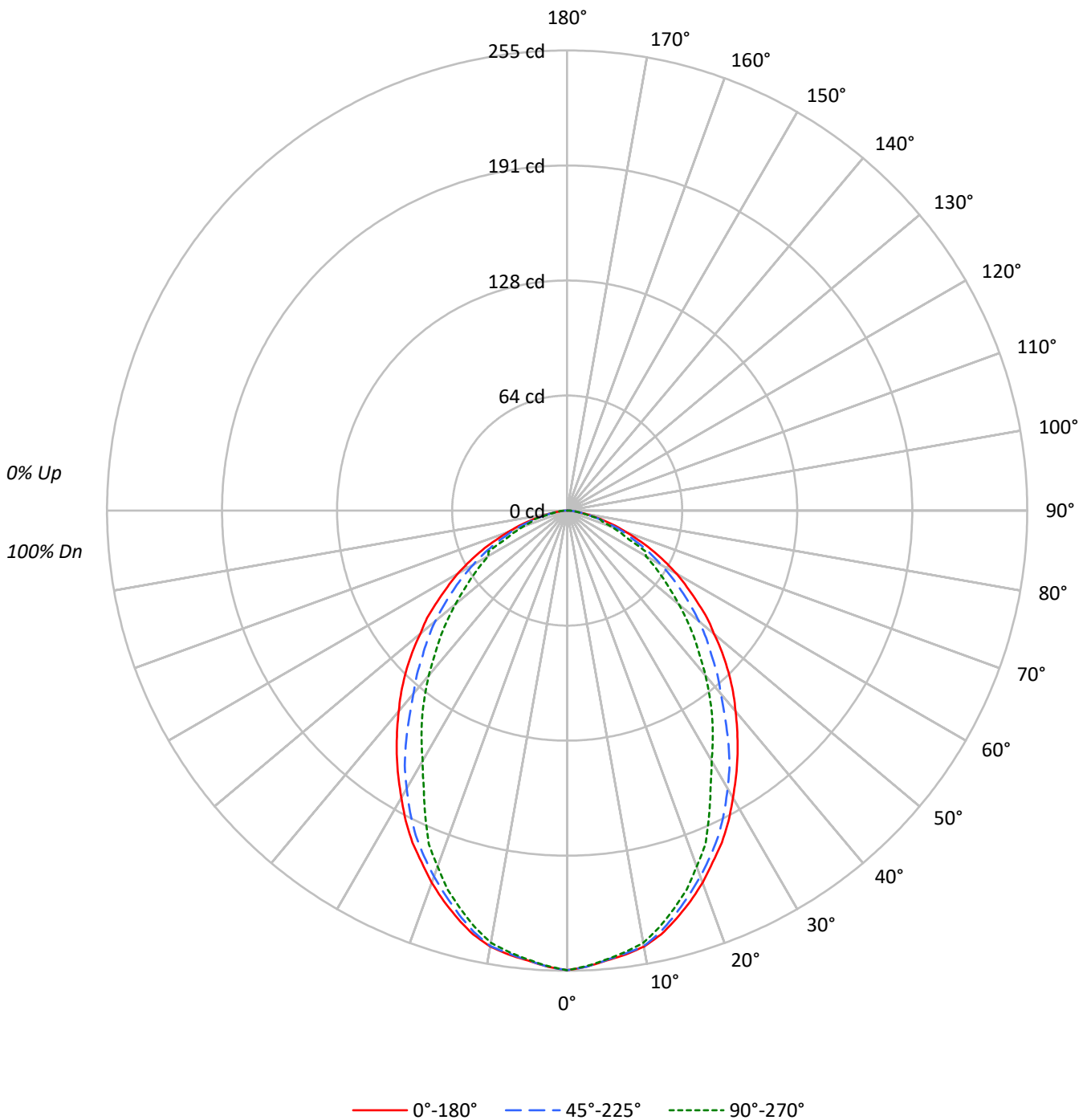
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2742	2742	2742
5°	2704	2701	2698
10°	2681	2678	2658
15°	2609	2582	2546
20°	2513	2472	2404
25°	2410	2358	2210
30°	2283	2210	1991
35°	2163	2043	1842
40°	2040	1862	1675
45°	1923	1722	1515
50°	1780	1598	1351
55°	1646	1447	1210
60°	1509	1294	1083
65°	1327	1133	960
70°	1092	991	815
75°	869	761	794
80°	583	545	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	4.7
10°-20°	65.1	13.0
20°-30°	90.1	18.0
30°-40°	96.1	19.2
40°-50°	87.6	17.5
50°-60°	68.6	13.7
60°-70°	44.7	8.9
70°-80°	19.8	4.0
80°-90°	4.3	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°	178.9	35.8
0°-40°	274.9	55.0
0°-60°	431.2	86.2
0°-90°	500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	255	255	255	255	255	
5°	250	250	250	250	250	24
15°	234	234	232	229	228	66
25°	203	202	198	191	186	93
35°	165	163	156	144	140	103
45°	126	124	113	104	100	97
55°	88	85	77	68	64	79
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°	254.7	254.7	254.7	254.7	254.7
2.5°	252.9	252.9	252.9	252.6	252.6
5°	250.3	250.0	250.0	249.7	249.7
7.5°	248.2	247.9	247.6	247.3	246.7
10°	245.3	245.3	245.0	243.5	243.2
12.5°	240.6	240.3	239.1	237.0	236.4
15°	234.1	234.1	231.7	229.4	228.5
17.5°	227.0	226.7	223.8	221.4	220.2
20°	219.4	218.8	215.8	212.0	209.9
22.5°	210.8	210.8	207.3	202.3	200.2
25°	202.9	201.7	198.5	191.4	186.1
27.5°	193.7	192.0	188.4	178.4	172.2
30°	183.7	182.8	177.8	164.9	160.2
32.5°	174.3	172.8	167.5	154.0	150.2
35°	164.6	163.4	155.5	143.7	140.2
37.5°	154.9	153.4	143.4	134.0	129.6
40°	145.2	143.4	132.5	124.0	119.2
42.5°	136.0	133.7	123.1	113.9	108.6
45°	126.3	123.7	113.1	103.6	99.5
47.5°	116.6	114.2	104.5	94.8	90.1
50°	106.3	104.2	95.4	85.7	80.7
52.5°	97.8	94.5	86.0	76.3	72.1
55°	87.7	85.1	77.1	68.0	64.5
57.5°	78.6	76.0	68.6	60.1	57.1
60°	70.1	66.2	60.1	52.7	50.3
62.5°	60.7	57.7	52.4	46.2	49.2
65°	52.1	49.2	44.5	45.3	37.7
67.5°	42.7	41.2	37.1	33.0	31.8
70°	34.7	33.0	31.5	27.1	25.9
72.5°	27.7	25.9	23.8	21.5	20.6
75°	20.9	19.4	18.3	17.4	19.1
77.5°	14.4	13.8	13.0	12.1	11.8
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	2.1	2.4	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)