

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: P559020

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559020
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-LD4-1STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 698.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

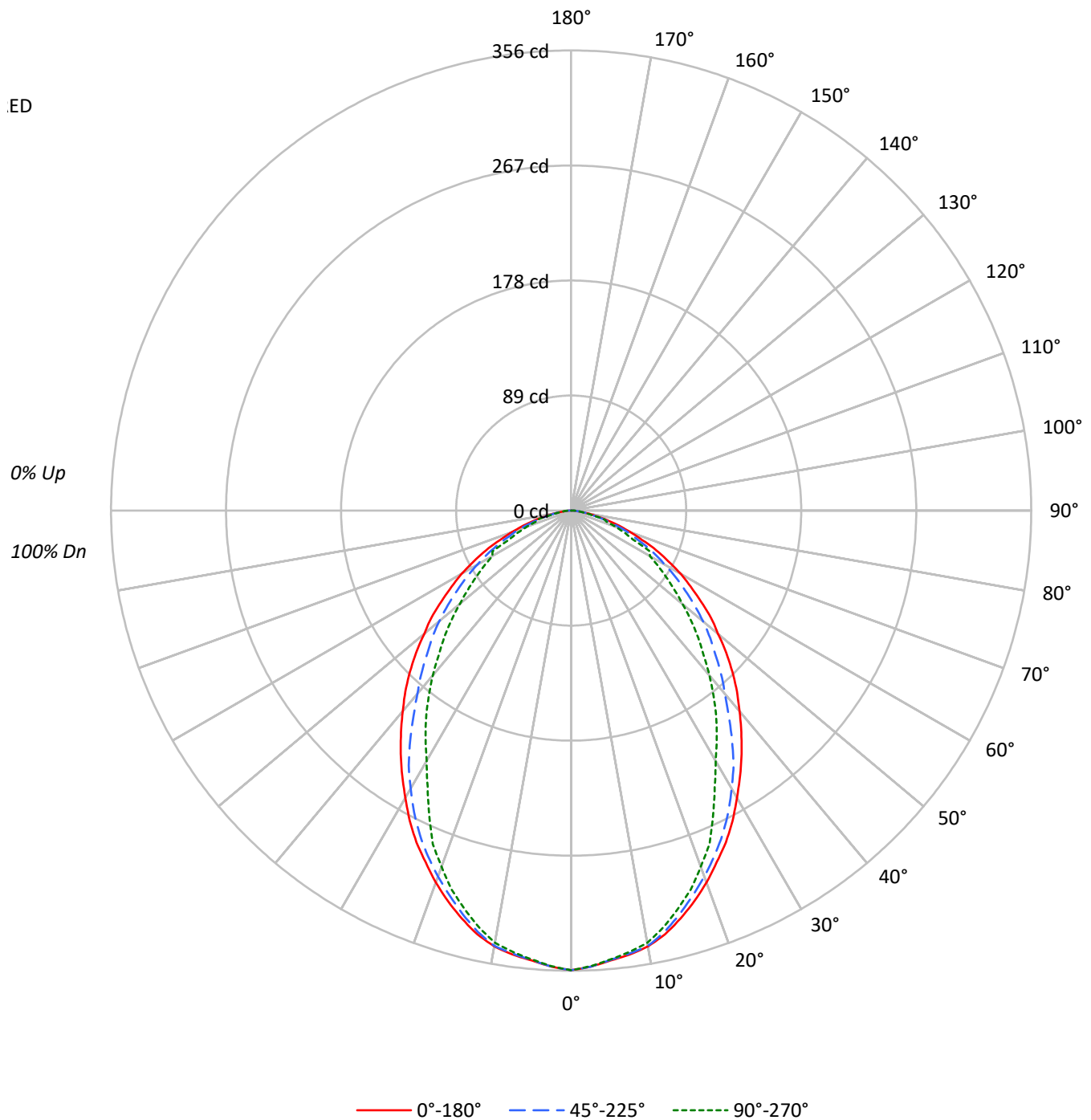
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3828	3828	3828
5°	3775	3771	3767
10°	3742	3738	3711
15°	3642	3605	3555
20°	3507	3451	3357
25°	3363	3290	3086
30°	3188	3086	2779
35°	3020	2851	2572
40°	2847	2599	2340
45°	2684	2402	2114
50°	2485	2231	1886
55°	2299	2021	1689
60°	2105	1806	1513
65°	1854	1582	1340
70°	1526	1385	1139
75°	1214	1061	1110
80°	818	762	713
85°	506	605	716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	4.7
10°-20°	90.8	13.0
20°-30°	125.8	18.0
30°-40°	134.1	19.2
40°-50°	122.3	17.5
50°-60°	95.8	13.7
60°-70°	62.5	8.9
70°-80°	27.7	4.0
80°-90°	5.9	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°	249.7	35.8
0°-40°	383.8	55.0
0°-60°	601.9	86.2
0°-90°	698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	698.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	356	356	356	356	356	
5°	349	349	349	349	349	33
15°	327	327	324	320	319	92
25°	283	282	277	267	260	130
35°	230	228	217	201	196	144
45°	176	173	158	145	139	136
55°	122	119	108	95	90	110
65°	73	69	62	63	53	72
75°	29	27	26	24	27	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	355.6	355.6	355.6	355.6	355.6
2.5°	353.1	353.1	353.1	352.7	352.7
5°	349.4	349.0	349.0	348.6	348.6
7.5°	346.5	346.1	345.7	345.3	344.5
10°	342.4	342.4	342.0	339.9	339.5
12.5°	335.8	335.4	333.8	330.9	330.1
15°	326.8	326.8	323.5	320.2	319.0
17.5°	316.9	316.5	312.4	309.1	307.5
20°	306.2	305.4	301.3	296.0	293.1
22.5°	294.3	294.3	289.4	282.4	279.5
25°	283.2	281.6	277.0	267.2	259.8
27.5°	270.5	268.0	263.1	249.1	240.5
30°	256.5	255.3	248.3	230.2	223.6
32.5°	243.3	241.3	233.9	215.0	209.6
35°	229.8	228.1	217.0	200.6	195.7
37.5°	216.2	214.2	200.2	187.0	180.9
40°	202.6	200.2	185.0	173.0	166.5
42.5°	189.9	186.6	171.8	159.1	151.7
45°	176.3	172.6	157.8	144.7	138.9
47.5°	162.8	159.5	145.9	132.4	125.8
50°	148.4	145.5	133.2	119.6	112.6
52.5°	136.5	131.9	120.0	106.5	100.7
55°	122.5	118.8	107.7	95.0	90.0
57.5°	109.7	106.0	95.8	83.9	79.7
60°	97.8	92.5	83.9	73.6	70.3
62.5°	84.7	80.6	73.2	64.5	68.6
65°	72.8	68.6	62.1	63.3	52.6
67.5°	59.6	57.5	51.8	46.0	44.4
70°	48.5	46.0	44.0	37.8	36.2
72.5°	38.6	36.2	33.3	30.0	28.8
75°	29.2	27.1	25.5	24.3	26.7
77.5°	20.1	19.3	18.1	16.9	16.4
80°	13.2	12.7	12.3	11.9	11.5
82.5°	7.8	7.8	7.8	7.8	7.8
85°	4.1	4.5	4.9	5.3	5.8
87.5°	2.5	2.5	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)