

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: P559328

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559328
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-LD4-2LO-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: 999.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

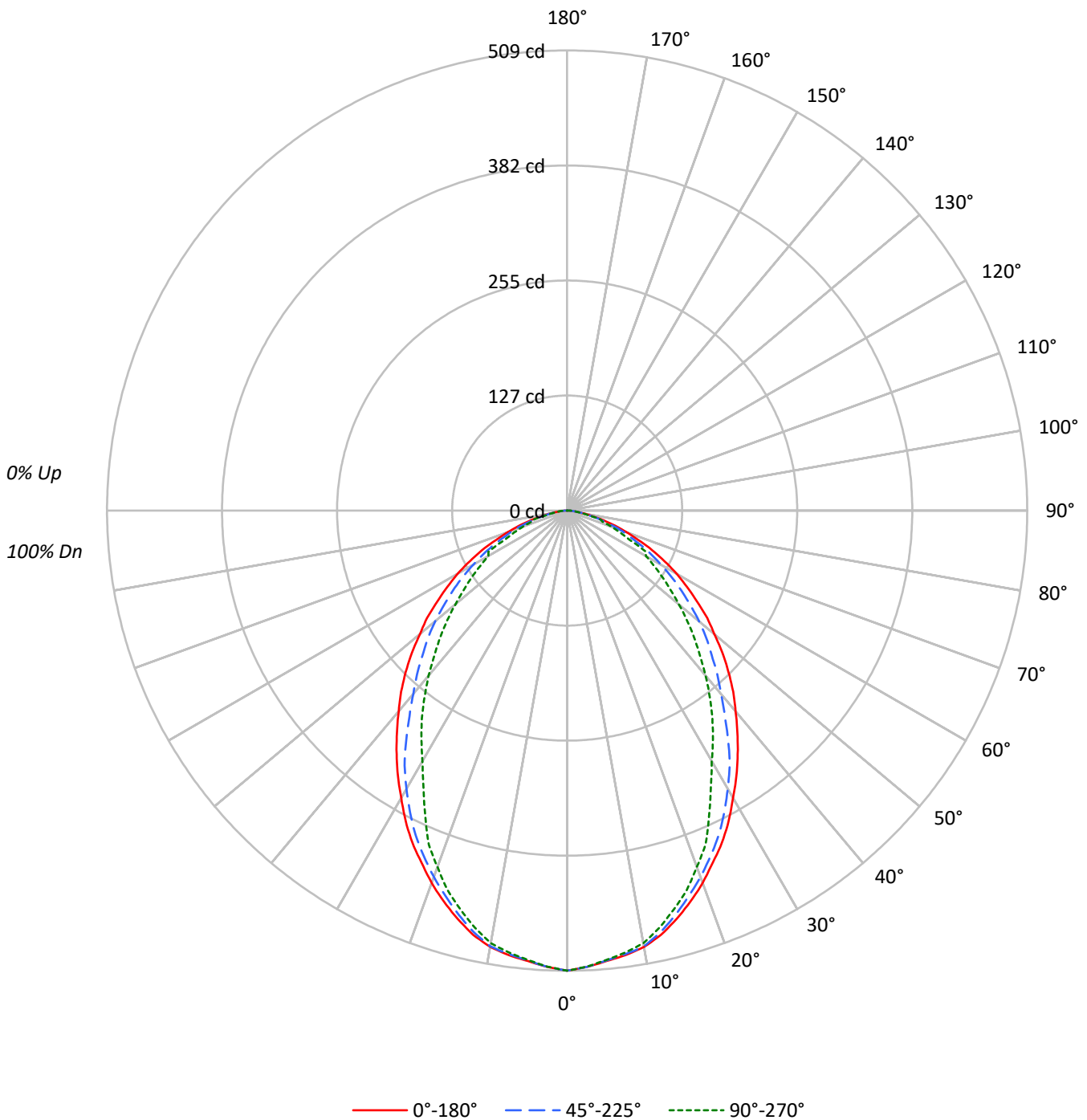
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5478	5478	5478
5°	5404	5397	5391
10°	5357	5350	5311
15°	5212	5159	5087
20°	5021	4939	4805
25°	4814	4709	4416
30°	4563	4416	3977
35°	4322	4081	3679
40°	4075	3719	3348
45°	3842	3439	3026
50°	3557	3192	2699
55°	3290	2892	2417
60°	3014	2583	2166
65°	2651	2262	1918
70°	2184	1980	1630
75°	1738	1518	1589
80°	1165	1091	1023
85°	729	877	1013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3842 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	4.7
10°-20°	130.0	13.0
20°-30°	180.0	18.0
30°-40°	191.9	19.2
40°-50°	175.1	17.5
50°-60°	137.2	13.7
60°-70°	89.4	8.9
70°-80°	39.6	4.0
80°-90°	8.5	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°	357.4	35.8
0°-40°	549.3	55.0
0°-60°	861.5	86.2
0°-90°	999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	999.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	500	500	500	499	499	47
15°	468	468	463	458	456	131
25°	405	403	396	382	372	186
35°	329	326	311	287	280	206
45°	252	247	226	207	199	194
55°	175	170	154	136	129	157
65°	104	98	89	91	75	103
75°	42	39	36	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.9	508.9	508.9	508.9	508.9
2.5°	505.3	505.3	505.3	504.8	504.8
5°	500.1	499.5	499.5	498.9	498.9
7.5°	495.9	495.3	494.8	494.2	493.0
10°	490.1	490.1	489.5	486.5	485.9
12.5°	480.6	480.1	477.7	473.6	472.4
15°	467.7	467.7	463.0	458.3	456.5
17.5°	453.6	453.0	447.1	442.4	440.0
20°	438.3	437.1	431.2	423.6	419.5
22.5°	421.2	421.2	414.2	404.2	400.0
25°	405.3	403.0	396.5	382.4	371.8
27.5°	387.1	383.6	376.5	356.5	344.2
30°	367.1	365.3	355.3	329.4	320.0
32.5°	348.3	345.3	334.7	307.7	300.0
35°	328.9	326.5	310.6	287.1	280.0
37.5°	309.4	306.5	286.5	267.7	258.9
40°	290.0	286.5	264.7	247.7	238.3
42.5°	271.8	267.1	245.9	227.7	217.1
45°	252.4	247.1	225.9	207.1	198.8
47.5°	233.0	228.3	208.8	189.4	180.0
50°	212.4	208.3	190.6	171.2	161.2
52.5°	195.3	188.8	171.8	152.4	144.1
55°	175.3	170.0	154.1	135.9	128.8
57.5°	157.1	151.8	137.1	120.0	114.1
60°	140.0	132.4	120.0	105.3	100.6
62.5°	121.2	115.3	104.7	92.4	98.2
65°	104.1	98.2	88.8	90.6	75.3
67.5°	85.3	82.4	74.1	65.9	63.5
70°	69.4	65.9	62.9	54.1	51.8
72.5°	55.3	51.8	47.7	42.9	41.2
75°	41.8	38.8	36.5	34.7	38.2
77.5°	28.8	27.6	25.9	24.1	23.5
80°	18.8	18.2	17.6	17.1	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)