

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: P559406

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559406
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-50-UNV-93-97-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 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: 1006.0 lumens
Efficiency: N/A
Efficacy: 86.0 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

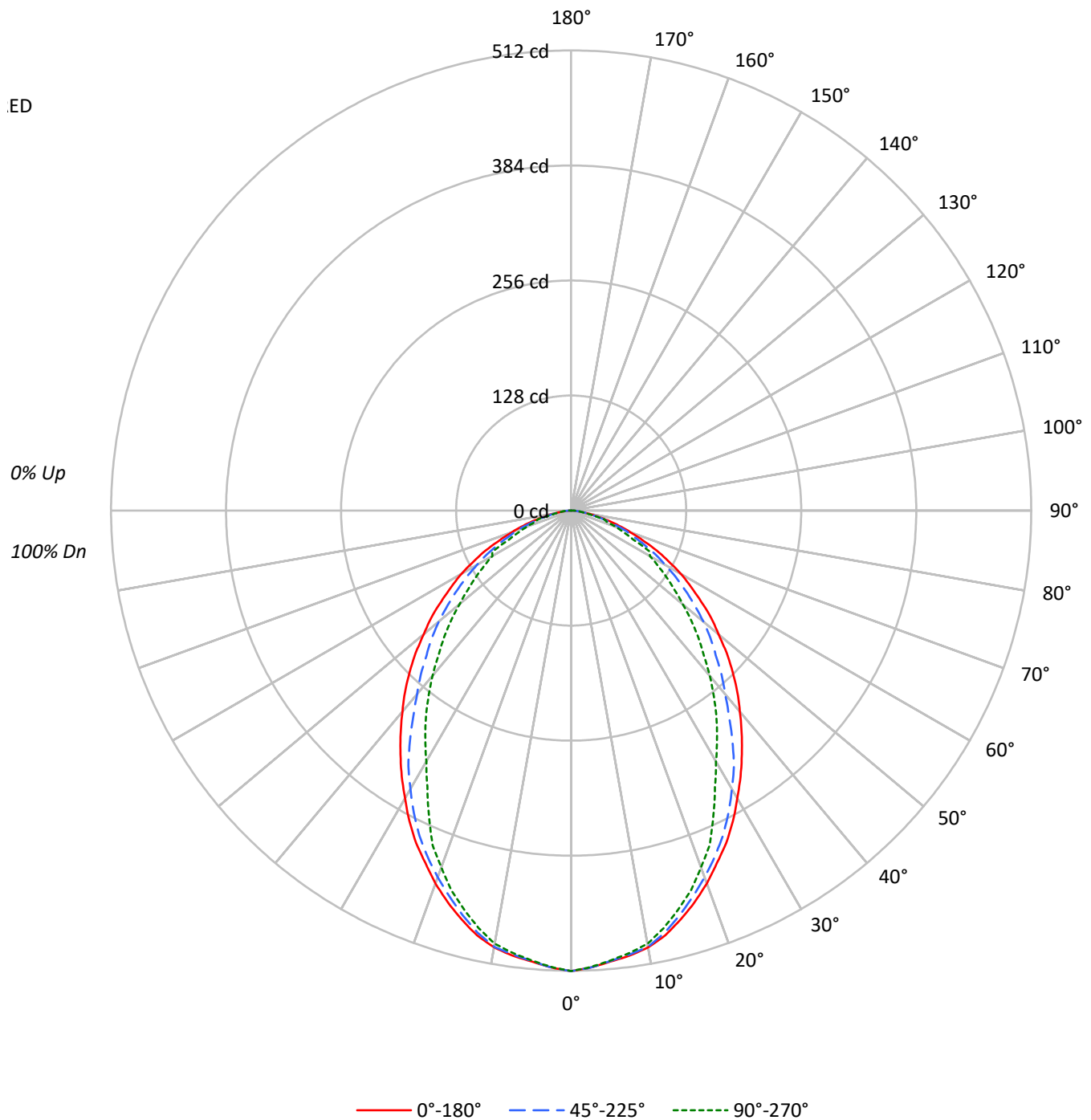
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5515	5515	5515
5°	5441	5435	5428
10°	5394	5387	5348
15°	5249	5195	5123
20°	5056	4974	4838
25°	4848	4742	4447
30°	4595	4447	4006
35°	4352	4110	3706
40°	4104	3746	3371
45°	3868	3463	3048
50°	3582	3213	2718
55°	3312	2913	2434
60°	3035	2603	2181
65°	2672	2280	1931
70°	2200	1995	1640
75°	1751	1526	1601
80°	1178	1103	1029
85°	729	877	1025

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3868 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	4.7
10°-20°	130.9	13.0
20°-30°	181.2	18.0
30°-40°	193.3	19.2
40°-50°	176.3	17.5
50°-60°	138.1	13.7
60°-70°	90.0	8.9
70°-80°	39.9	4.0
80°-90°	8.6	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°	359.9	35.8
0°-40°	553.1	55.0
0°-60°	867.5	86.2
0°-90°	1006.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1006.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	504	503	503	502	502	48
15°	471	471	466	462	460	132
25°	408	406	399	385	374	187
35°	331	329	313	289	282	207
45°	254	249	228	208	200	196
55°	176	171	155	137	130	158
65°	105	99	90	91	76	103
75°	42	39	37	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°	512.4	512.4	512.4	512.4	512.4
2.5°	508.9	508.9	508.9	508.3	508.3
5°	503.6	503.0	503.0	502.4	502.4
7.5°	499.4	498.8	498.2	497.6	496.4
10°	493.5	493.5	492.9	489.9	489.3
12.5°	484.0	483.4	481.0	476.9	475.7
15°	471.0	471.0	466.2	461.5	459.7
17.5°	456.8	456.2	450.2	445.5	443.1
20°	441.4	440.2	434.2	426.5	422.4
22.5°	424.2	424.2	417.1	407.0	402.8
25°	408.2	405.8	399.3	385.1	374.4
27.5°	389.8	386.3	379.1	359.0	346.6
30°	369.7	367.9	357.8	331.8	322.3
32.5°	350.7	347.8	337.1	309.8	302.1
35°	331.2	328.8	312.8	289.1	282.0
37.5°	311.6	308.7	288.5	269.6	260.7
40°	292.1	288.5	266.6	249.4	239.9
42.5°	273.7	269.0	247.6	229.3	218.6
45°	254.1	248.8	227.5	208.5	200.2
47.5°	234.6	229.9	210.3	190.8	181.3
50°	213.9	209.7	191.9	172.4	162.3
52.5°	196.7	190.2	173.0	153.4	145.1
55°	176.5	171.2	155.2	136.8	129.7
57.5°	158.2	152.8	138.0	120.9	114.9
60°	141.0	133.3	120.9	106.0	101.3
62.5°	122.0	116.1	105.5	93.0	98.9
65°	104.9	98.9	89.5	91.2	75.8
67.5°	85.9	82.9	74.6	66.4	64.0
70°	69.9	66.4	63.4	54.5	52.1
72.5°	55.7	52.1	48.0	43.2	41.5
75°	42.1	39.1	36.7	35.0	38.5
77.5°	29.0	27.8	26.1	24.3	23.7
80°	19.0	18.4	17.8	17.2	16.6
82.5°	11.3	11.3	11.3	11.3	11.3
85°	5.9	6.5	7.1	7.7	8.3
87.5°	3.6	3.6	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)