

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: P559323

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559323
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-82-94-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1106.0 lumens
Efficiency: N/A
Efficacy: 94.5 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

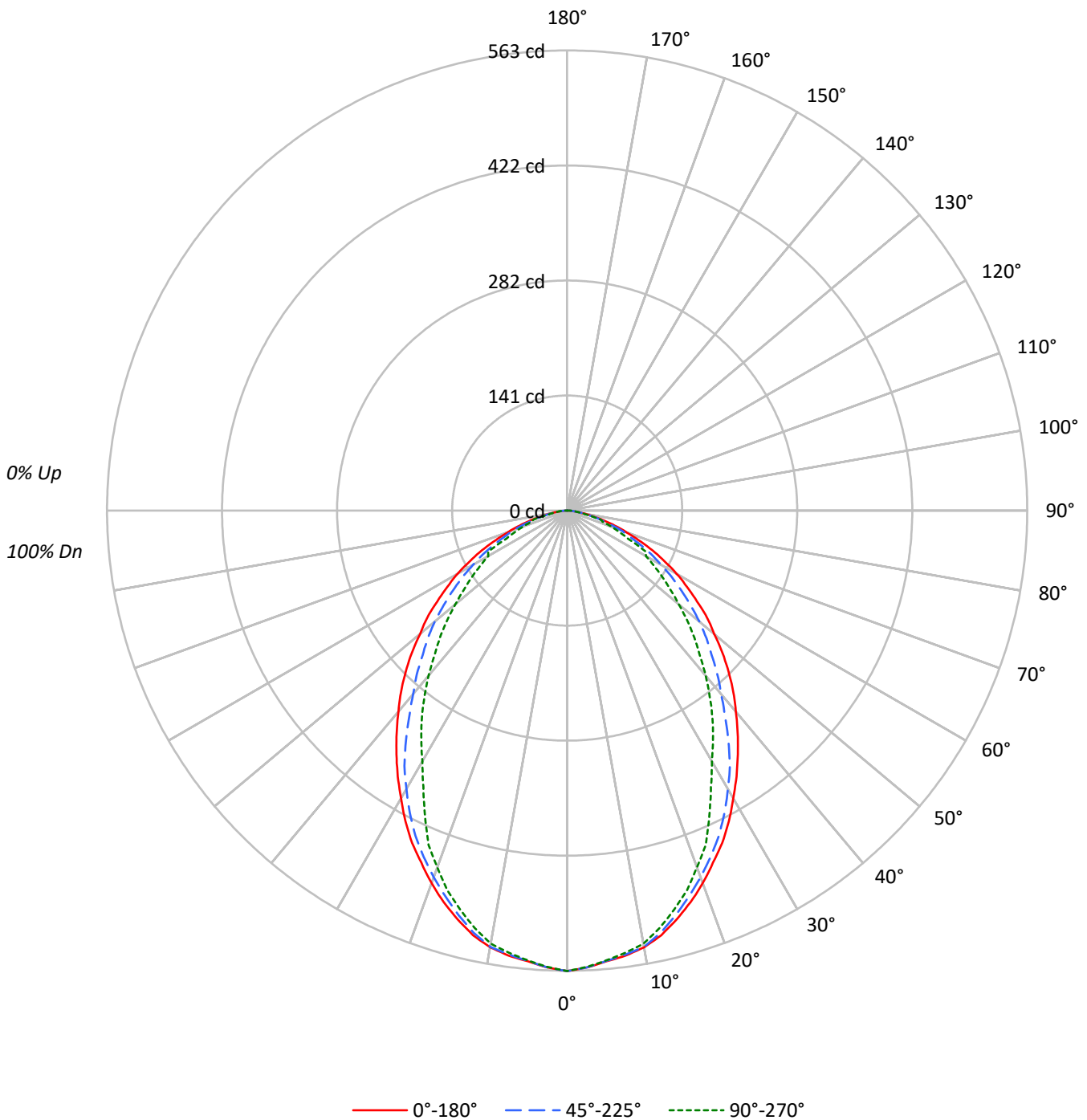
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6064	6064	6064
5°	5982	5975	5968
10°	5930	5923	5880
15°	5770	5712	5632
20°	5558	5468	5320
25°	5330	5214	4888
30°	5051	4890	4404
35°	4784	4519	4073
40°	4512	4118	3707
45°	4253	3807	3350
50°	3937	3533	2989
55°	3643	3202	2676
60°	3337	2861	2398
65°	2937	2504	2124
70°	2420	2194	1803
75°	1921	1680	1759
80°	1289	1209	1128
85°	803	963	1124

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4253 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	4.7
10°-20°	143.9	13.0
20°-30°	199.3	18.0
30°-40°	212.5	19.2
40°-50°	193.8	17.5
50°-60°	151.9	13.7
60°-70°	99.0	8.9
70°-80°	43.8	4.0
80°-90°	9.4	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°	395.6	35.8
0°-40°	608.1	55.0
0°-60°	953.8	86.2
0°-90°	1106.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1106.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	554	553	553	552	552	53
15°	518	518	513	507	505	146
25°	449	446	439	423	412	206
35°	364	362	344	318	310	228
45°	279	274	250	229	220	215
55°	194	188	171	150	143	174
65°	115	109	98	100	83	114
75°	46	43	40	38	42	50
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	563.4	563.4	563.4	563.4	563.4
2.5°	559.5	559.5	559.5	558.8	558.8
5°	553.6	553.0	553.0	552.3	552.3
7.5°	549.1	548.4	547.8	547.1	545.8
10°	542.5	542.5	541.9	538.6	538.0
12.5°	532.1	531.5	528.9	524.3	523.0
15°	517.8	517.8	512.6	507.4	505.4
17.5°	502.2	501.5	495.0	489.8	487.2
20°	485.2	483.9	477.4	468.9	464.4
22.5°	466.3	466.3	458.5	447.4	442.9
25°	448.8	446.1	439.0	423.4	411.6
27.5°	428.6	424.7	416.8	394.7	381.0
30°	406.4	404.5	393.4	364.7	354.3
32.5°	385.6	382.3	370.6	340.6	332.2
35°	364.1	361.5	343.9	317.8	310.0
37.5°	342.6	339.3	317.2	296.3	286.6
40°	321.1	317.2	293.1	274.2	263.8
42.5°	300.9	295.7	272.2	252.1	240.3
45°	279.4	273.5	250.1	229.3	220.1
47.5°	257.9	252.7	231.2	209.7	199.3
50°	235.1	230.6	211.0	189.5	178.5
52.5°	216.2	209.1	190.2	168.7	159.6
55°	194.1	188.2	170.6	150.5	142.6
57.5°	173.9	168.0	151.8	132.9	126.4
60°	155.0	146.5	132.9	116.6	111.4
62.5°	134.2	127.7	115.9	102.3	108.8
65°	115.3	108.8	98.3	100.3	83.4
67.5°	94.4	91.2	82.1	72.9	70.3
70°	76.9	72.9	69.7	59.9	57.3
72.5°	61.2	57.3	52.8	47.5	45.6
75°	46.2	43.0	40.4	38.4	42.3
77.5°	31.9	30.6	28.7	26.7	26.1
80°	20.8	20.2	19.5	18.9	18.2
82.5°	12.4	12.4	12.4	12.4	12.4
85°	6.5	7.2	7.8	8.5	9.1
87.5°	3.9	3.9	4.6	5.2	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)