

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: P559514

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559514
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-LD4-2STD-40-UNV-82-94-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1245.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

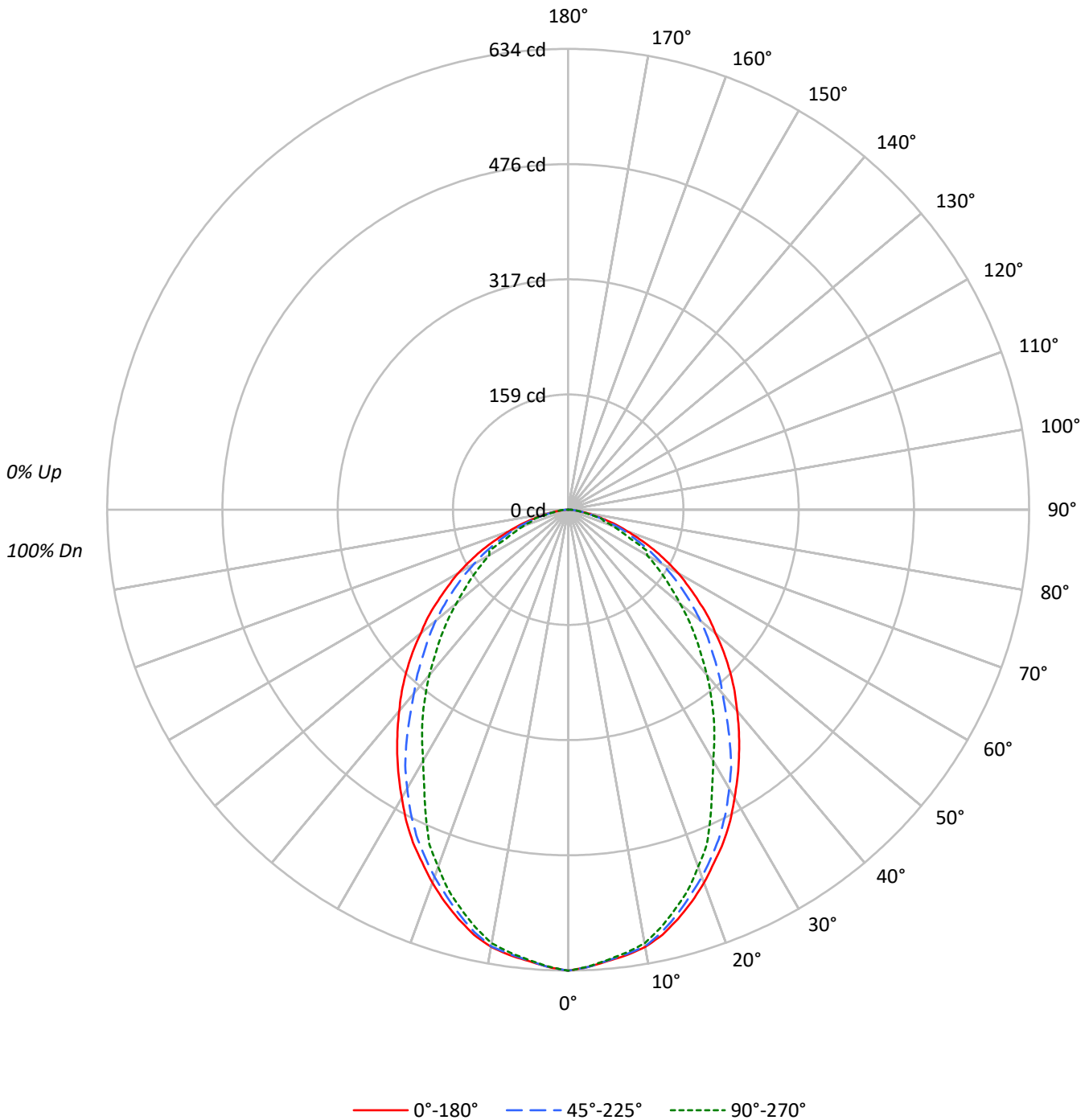
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	6826	6826	6826
5°	6734	6726	6717
10°	6675	6667	6619
15°	6496	6430	6340
20°	6257	6156	5987
25°	5999	5869	5504
30°	5686	5504	4957
35°	5385	5087	4586
40°	5078	4636	4172
45°	4787	4285	3772
50°	4433	3977	3364
55°	4100	3605	3014
60°	3757	3221	2700
65°	3306	2819	2389
70°	2722	2467	2030
75°	2167	1892	1984
80°	1457	1364	1271
85°	902	1087	1272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4787 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.0	4.7
10°-20°	162.0	13.0
20°-30°	224.3	18.0
30°-40°	239.2	19.2
40°-50°	218.2	17.5
50°-60°	170.9	13.7
60°-70°	111.4	8.9
70°-80°	49.4	4.0
80°-90°	10.6	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°	445.3	35.8
0°-40°	684.5	55.0
0°-60°	1073.6	86.2
0°-90°	1245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1245.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	623	622	622	622	622	59
15°	583	583	577	571	569	164
25°	505	502	494	477	463	232
35°	410	407	387	358	349	256
45°	314	308	282	258	248	242
55°	218	212	192	169	161	196
65°	130	122	111	113	94	128
75°	52	48	46	43	48	56
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.2	634.2	634.2	634.2	634.2
2.5°	629.8	629.8	629.8	629.1	629.1
5°	623.2	622.5	622.5	621.7	621.7
7.5°	618.1	617.3	616.6	615.9	614.4
10°	610.7	610.7	610.0	606.3	605.6
12.5°	599.0	598.3	595.3	590.2	588.7
15°	582.9	582.9	577.0	571.1	568.9
17.5°	565.3	564.5	557.2	551.3	548.4
20°	546.2	544.7	537.4	527.9	522.7
22.5°	524.9	524.9	516.1	503.7	498.6
25°	505.1	502.2	494.2	476.6	463.4
27.5°	482.4	478.0	469.2	444.3	428.9
30°	457.5	455.3	442.8	410.6	398.8
32.5°	434.0	430.4	417.2	383.4	373.9
35°	409.8	406.9	387.1	357.8	349.0
37.5°	385.6	382.0	357.1	333.6	322.6
40°	361.4	357.1	329.9	308.7	296.9
42.5°	338.7	332.9	306.5	283.7	270.5
45°	314.5	307.9	281.5	258.1	247.8
47.5°	290.3	284.5	260.3	236.1	224.3
50°	264.7	259.5	237.5	213.4	200.9
52.5°	243.4	235.3	214.1	189.9	179.6
55°	218.5	211.9	192.1	169.4	160.6
57.5°	195.8	189.2	170.8	149.6	142.2
60°	174.5	165.0	149.6	131.2	125.4
62.5°	151.0	143.7	130.5	115.1	122.4
65°	129.8	122.4	110.7	112.9	93.8
67.5°	106.3	102.6	92.4	82.1	79.2
70°	86.5	82.1	78.4	67.5	64.5
72.5°	68.9	64.5	59.4	53.5	51.3
75°	52.1	48.4	45.5	43.3	47.7
77.5°	35.9	34.5	32.3	30.1	29.3
80°	23.5	22.7	22.0	21.3	20.5
82.5°	13.9	13.9	13.9	13.9	13.9
85°	7.3	8.1	8.8	9.5	10.3
87.5°	4.4	4.4	5.1	5.9	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)