

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: P559754

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559754
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-12-2-LD4-1HI-50-UNV-81-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1592.0 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

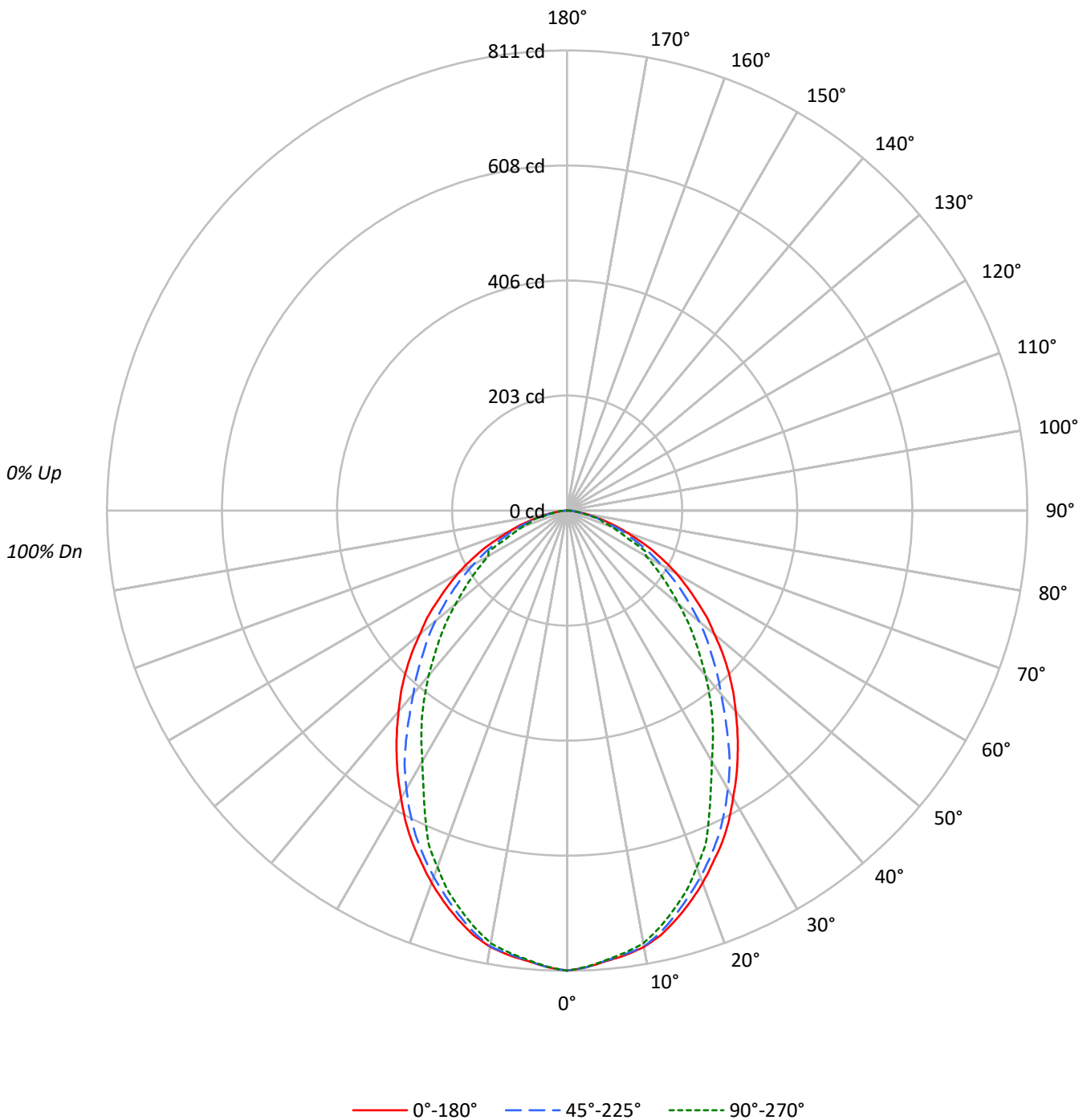
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4364	4364	4364
5°	4305	4300	4295
10°	4268	4263	4232
15°	4153	4111	4053
20°	4000	3936	3828
25°	3836	3752	3518
30°	3636	3519	3169
35°	3443	3252	2932
40°	3247	2964	2668
45°	3061	2740	2412
50°	2833	2544	2151
55°	2622	2305	1926
60°	2401	2059	1725
65°	2113	1803	1528
70°	1740	1578	1298
75°	1385	1208	1266
80°	930	871	815
85°	580	698	809

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3061 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	4.7
10°-20°	207.2	13.0
20°-30°	286.8	18.0
30°-40°	305.8	19.2
40°-50°	279.0	17.5
50°-60°	218.6	13.7
60°-70°	142.5	8.9
70°-80°	63.1	4.0
80°-90°	13.6	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°	569.5	35.8
0°-40°	875.3	55.0
0°-60°	1372.9	86.2
0°-90°	1592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1592.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	811	811	811	811	811	
5°	797	796	796	795	795	76
15°	745	745	738	730	728	210
25°	646	642	632	609	592	297
35°	524	520	495	458	446	328
45°	402	394	360	330	317	310
55°	279	271	246	217	205	251
65°	166	157	142	144	120	164
75°	67	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.9	810.9	810.9	810.9	810.9
2.5°	805.3	805.3	805.3	804.4	804.4
5°	796.9	795.9	795.9	795.0	795.0
7.5°	790.3	789.4	788.4	787.5	785.6
10°	780.9	780.9	780.0	775.3	774.4
12.5°	765.9	765.0	761.3	754.7	752.8
15°	745.3	745.3	737.8	730.3	727.5
17.5°	722.8	721.9	712.5	705.0	701.3
20°	698.4	696.6	687.2	675.0	668.4
22.5°	671.3	671.3	660.0	644.1	637.5
25°	645.9	642.2	631.9	609.4	592.5
27.5°	616.9	611.3	600.0	568.1	548.4
30°	585.0	582.2	566.3	525.0	510.0
32.5°	555.0	550.3	533.4	490.3	478.1
35°	524.1	520.3	495.0	457.5	446.3
37.5°	493.1	488.4	456.6	426.6	412.5
40°	462.2	456.6	421.9	394.7	379.7
42.5°	433.1	425.6	391.9	362.8	345.9
45°	402.2	393.8	360.0	330.0	316.9
47.5°	371.3	363.8	332.8	301.9	286.9
50°	338.4	331.9	303.8	272.8	256.9
52.5°	311.3	300.9	273.8	242.8	229.7
55°	279.4	270.9	245.6	216.6	205.3
57.5°	250.3	241.9	218.4	191.3	181.9
60°	223.1	210.9	191.3	167.8	160.3
62.5°	193.1	183.8	166.9	147.2	156.6
65°	165.9	156.6	141.6	144.4	120.0
67.5°	135.9	131.3	118.1	105.0	101.3
70°	110.6	105.0	100.3	86.3	82.5
72.5°	88.1	82.5	75.9	68.4	65.6
75°	66.6	61.9	58.1	55.3	60.9
77.5°	45.9	44.1	41.3	38.4	37.5
80°	30.0	29.1	28.1	27.2	26.3
82.5°	17.8	17.8	17.8	17.8	17.8
85°	9.4	10.3	11.3	12.2	13.1
87.5°	5.6	5.6	6.6	7.5	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)