

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: P589871

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-93-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1HI-35-UNV-93-86-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2324.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

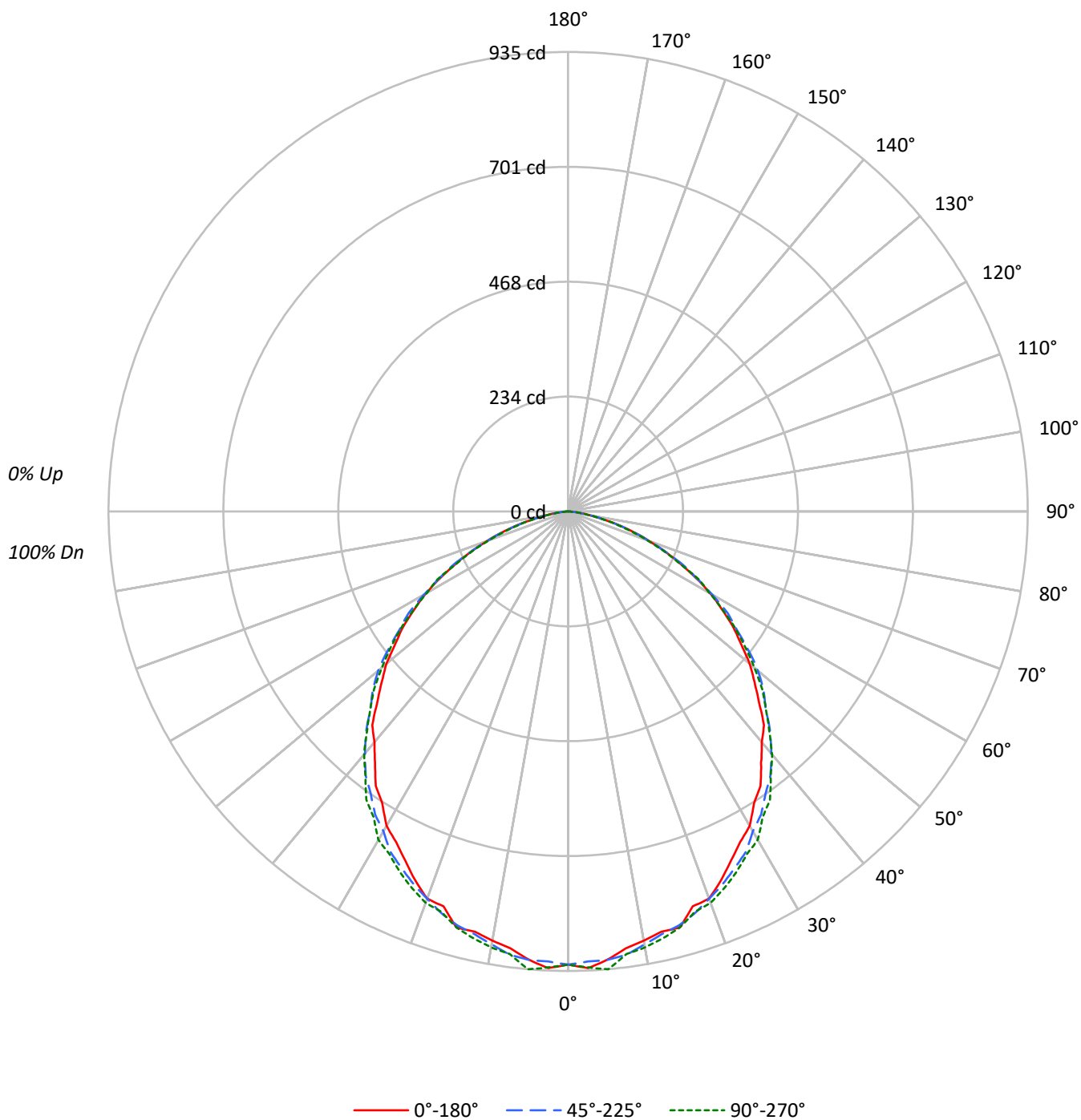
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73		
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62		
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53		
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46		
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41		
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36		
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32		
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29		
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2481	2481	2481
5°	2473	2474	2526
10°	2423	2444	2461
15°	2442	2429	2442
20°	2401	2401	2426
25°	2327	2378	2404
30°	2295	2335	2398
35°	2241	2300	2351
40°	2154	2258	2268
45°	2089	2163	2166
50°	2020	2111	2071
55°	1925	1962	1948
60°	1800	1818	1785
65°	1605	1646	1594
70°	1377	1382	1343
75°	1091	1089	1046
80°	730	710	683
85°	398	392	367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2219 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	3.7
10°-20°	245.8	10.6
20°-30°	368.3	15.8
30°-40°	436.5	18.8
40°-50°	437.3	18.8
50°-60°	371.2	16.0
60°-70°	250.3	10.8
70°-80°	110.0	4.7
80°-90°	17.9	0.8
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°	700.9	30.2
0°-40°	1137.4	48.9
0°-60°	1945.9	83.7
0°-90°	2324.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	916	913	916	913	935	86
15°	877	866	872	876	877	244
25°	784	788	801	811	810	362
35°	682	684	700	716	716	424
45°	549	559	568	583	569	425
55°	410	408	418	415	415	365
65°	252	249	258	249	250	251
75°	105	103	105	97	101	112
85°	13	12	13	12	12	19
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	922.1	922.1	922.1	922.1	922.1
2.5°	930.1	923.1	916.5	924.1	928.8
5°	915.6	913.4	915.9	913.2	935.2
7.5°	896.7	905.0	909.7	906.7	908.1
10°	886.7	883.9	894.5	901.9	900.8
12.5°	876.0	880.3	880.9	888.9	889.6
15°	876.6	866.5	871.9	876.4	876.7
17.5°	842.6	853.5	857.2	867.6	854.7
20°	838.4	830.4	838.4	849.0	847.3
22.5°	812.8	803.9	821.0	830.4	829.8
25°	783.8	788.0	800.9	811.4	809.7
27.5°	758.3	763.3	781.6	796.0	786.7
30°	738.6	736.1	751.6	764.5	771.6
32.5°	703.5	712.6	730.7	743.4	736.6
35°	682.2	684.2	700.1	716.3	715.8
37.5°	644.9	654.3	676.6	681.1	677.0
40°	613.1	622.6	642.7	647.6	645.5
42.5°	589.7	591.4	608.6	614.2	605.3
45°	548.9	559.1	568.4	583.0	569.2
47.5°	514.1	518.9	538.9	542.8	535.5
50°	482.5	484.2	504.3	499.4	494.7
52.5°	442.9	449.9	461.2	460.3	454.7
55°	410.3	407.5	418.3	415.4	415.3
57.5°	371.1	375.9	384.7	380.2	372.9
60°	334.4	334.6	337.8	332.6	331.7
62.5°	293.6	295.0	295.7	289.4	299.7
65°	252.0	248.7	258.5	248.6	250.3
67.5°	213.8	215.5	214.5	208.4	210.7
70°	175.0	177.2	175.6	168.6	170.7
72.5°	139.5	136.9	138.6	129.8	133.8
75°	104.9	102.7	104.7	97.3	100.6
77.5°	71.4	73.1	71.9	68.0	70.2
80°	47.1	45.8	45.8	43.6	44.1
82.5°	27.5	26.2	25.8	25.1	26.2
85°	12.9	12.5	12.7	12.4	11.9
87.5°	4.6	4.8	4.8	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)