

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: P589847

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589847
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-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2319.0 lumens
Efficiency: N/A
Efficacy: 107.4 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

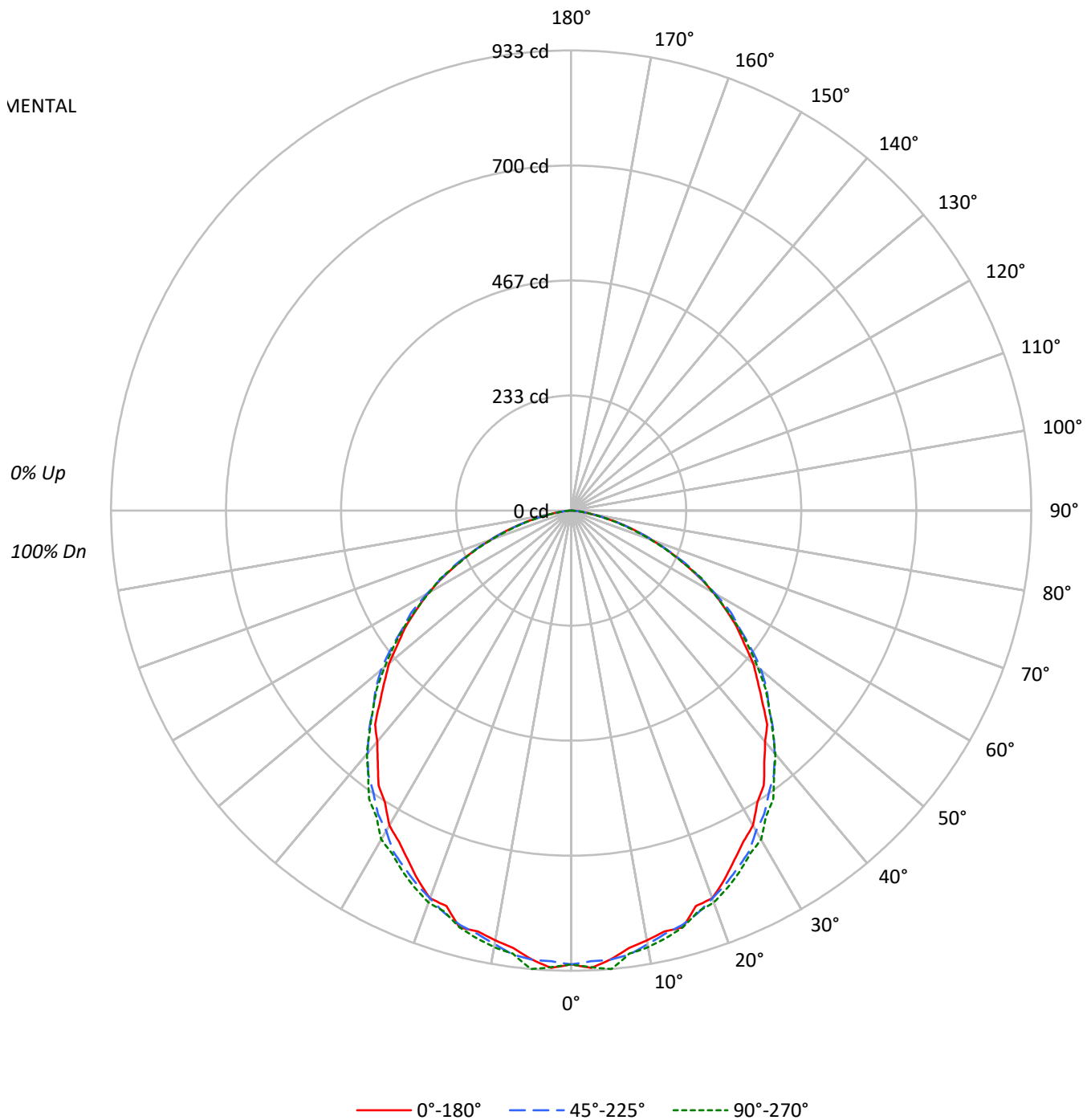
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589847

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	2476	2476	2476
5°	2468	2469	2521
10°	2418	2439	2456
15°	2437	2424	2437
20°	2396	2396	2421
25°	2322	2373	2399
30°	2290	2330	2393
35°	2236	2295	2346
40°	2149	2253	2263
45°	2084	2159	2162
50°	2016	2107	2066
55°	1921	1958	1944
60°	1796	1814	1781
65°	1601	1642	1590
70°	1374	1378	1341
75°	1089	1085	1044
80°	728	708	682
85°	395	392	367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2214 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	3.7
10°-20°	245.3	10.6
20°-30°	367.5	15.8
30°-40°	435.6	18.8
40°-50°	436.4	18.8
50°-60°	370.4	16.0
60°-70°	249.7	10.8
70°-80°	109.7	4.7
80°-90°	17.8	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°	699.3	30.2
0°-40°	1134.9	48.9
0°-60°	1941.7	83.7
0°-90°	2319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	914	911	914	911	933	86
15°	875	865	870	874	875	244
25°	782	786	799	810	808	362
35°	681	683	699	715	714	423
45°	548	558	567	582	568	424
55°	409	407	417	414	414	364
65°	252	248	258	248	250	250
75°	105	102	104	97	100	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°	920.1	920.1	920.1	920.1	920.1
2.5°	928.1	921.1	914.5	922.1	926.8
5°	913.6	911.4	913.9	911.2	933.2
7.5°	894.8	903.0	907.8	904.8	906.1
10°	884.8	882.0	892.6	899.9	898.9
12.5°	874.1	878.4	879.0	887.0	887.7
15°	874.7	864.6	870.0	874.5	874.9
17.5°	840.8	851.7	855.4	865.7	852.9
20°	836.6	828.6	836.6	847.2	845.5
22.5°	811.1	802.2	819.3	828.6	828.0
25°	782.1	786.3	799.2	809.6	808.0
27.5°	756.6	761.6	779.9	794.3	785.0
30°	737.0	734.6	750.0	762.8	770.0
32.5°	702.0	711.0	729.1	741.8	735.0
35°	680.7	682.8	698.6	714.7	714.2
37.5°	643.5	652.9	675.2	679.7	675.5
40°	611.8	621.2	641.3	646.2	644.1
42.5°	588.4	590.1	607.3	612.9	604.0
45°	547.7	557.9	567.2	581.8	568.0
47.5°	513.0	517.7	537.7	541.6	534.4
50°	481.5	483.2	503.2	498.4	493.6
52.5°	441.9	449.0	460.2	459.3	453.7
55°	409.4	406.7	417.4	414.5	414.4
57.5°	370.3	375.1	383.8	379.3	372.1
60°	333.7	333.8	337.0	331.9	331.0
62.5°	293.0	294.4	295.1	288.8	299.0
65°	251.5	248.2	257.9	248.1	249.7
67.5°	213.4	215.0	214.1	207.9	210.3
70°	174.6	176.8	175.2	168.2	170.4
72.5°	139.2	136.6	138.3	129.5	133.5
75°	104.7	102.5	104.4	97.1	100.4
77.5°	71.3	72.9	71.8	67.8	70.1
80°	47.0	45.7	45.7	43.5	44.0
82.5°	27.4	26.1	25.8	25.1	26.1
85°	12.8	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)