

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: P590967

Luminaire Tested: FSR-24-2-LD4-4STD-50-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590967
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-LD4-4STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7769.0 lumens
Efficiency: N/A
Efficacy: 116.7 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

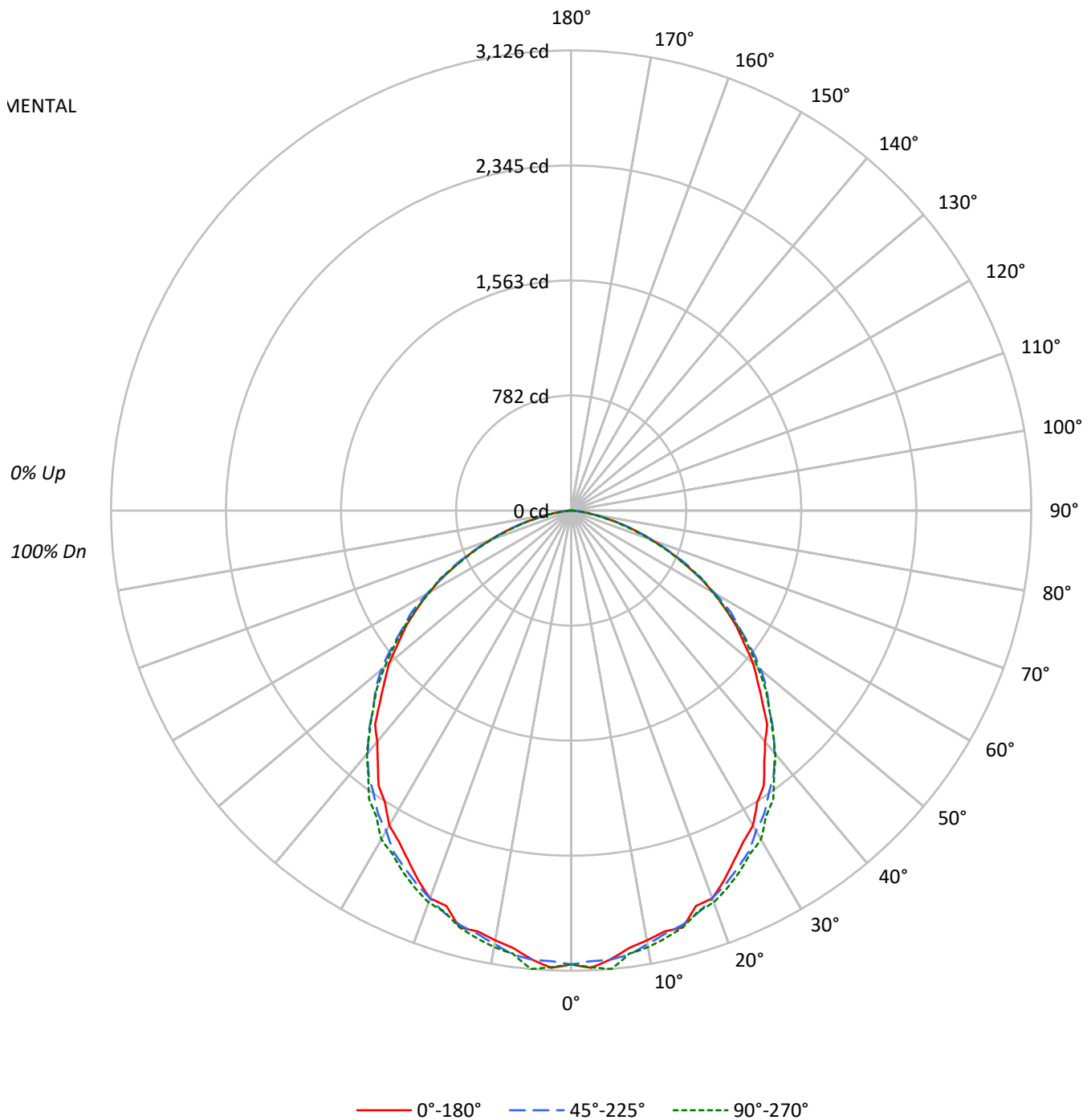
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8295	8295	8295
5°	8268	8271	8445
10°	8100	8171	8228
15°	8164	8120	8165
20°	8026	8026	8112
25°	7780	7950	8037
30°	7672	7807	8015
35°	7492	7688	7861
40°	7200	7547	7581
45°	6983	7231	7242
50°	6753	7058	6923
55°	6434	6560	6513
60°	6017	6077	5968
65°	5365	5502	5327
70°	4604	4619	4490
75°	3645	3637	3497
80°	2442	2374	2283
85°	1328	1315	1229

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7417 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.0	3.7
10°-20°	821.8	10.6
20°-30°	1231.2	15.8
30°-40°	1459.2	18.8
40°-50°	1461.9	18.8
50°-60°	1240.9	16.0
60°-70°	836.6	10.8
70°-80°	367.6	4.7
80°-90°	59.7	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°	2342.9	30.2
0°-40°	3802.2	48.9
0°-60°	6505.0	83.7
0°-90°	7769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3082	3082	3082	3082	3082	
5°	3061	3054	3062	3053	3126	289
15°	2930	2897	2915	2930	2931	816
25°	2620	2634	2677	2712	2707	1211
35°	2281	2287	2340	2394	2393	1416
45°	1835	1869	1900	1949	1903	1419
55°	1372	1362	1398	1389	1388	1220
65°	843	831	864	831	837	838
75°	351	344	350	325	336	376
85°	43	42	43	41	40	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3082.5	3082.5	3082.5	3082.5	3082.5
2.5°	3109.2	3085.7	3063.8	3089.3	3104.8
5°	3060.7	3053.5	3061.8	3052.7	3126.3
7.5°	2997.8	3025.2	3041.2	3031.2	3035.6
10°	2964.3	2954.8	2990.2	3014.9	3011.3
12.5°	2928.5	2942.8	2944.8	2971.5	2973.9
15°	2930.5	2896.7	2914.6	2929.7	2930.9
17.5°	2816.7	2853.3	2865.6	2900.3	2857.3
20°	2802.7	2776.1	2802.7	2838.2	2832.6
22.5°	2717.2	2687.3	2744.6	2776.1	2774.1
25°	2620.1	2634.4	2677.4	2712.4	2706.8
27.5°	2534.9	2551.6	2612.9	2661.1	2630.0
30°	2469.2	2460.9	2512.6	2555.6	2579.5
32.5°	2351.8	2382.1	2442.6	2485.1	2462.5
35°	2280.6	2287.3	2340.3	2394.4	2392.8
37.5°	2156.0	2187.4	2261.9	2277.0	2263.1
40°	2049.7	2081.2	2148.4	2164.7	2158.0
42.5°	1971.3	1976.9	2034.6	2053.3	2023.5
45°	1834.8	1869.0	1900.1	1949.0	1902.9
47.5°	1718.6	1734.5	1801.4	1814.5	1790.2
50°	1613.1	1618.7	1685.9	1669.6	1653.7
52.5°	1480.6	1504.1	1541.9	1538.7	1520.0
55°	1371.5	1362.4	1398.2	1388.6	1388.2
57.5°	1240.6	1256.5	1286.0	1270.8	1246.5
60°	1118.0	1118.4	1129.1	1112.0	1108.8
62.5°	981.5	986.3	988.6	967.5	1001.8
65°	842.6	831.4	864.1	831.0	836.6
67.5°	714.8	720.4	717.2	696.5	704.5
70°	585.1	592.2	587.1	563.6	570.7
72.5°	466.5	457.7	463.3	433.8	447.4
75°	350.6	343.5	349.8	325.2	336.3
77.5°	238.8	244.4	240.4	227.3	234.8
80°	157.6	153.2	153.2	145.7	147.3
82.5°	91.9	87.6	86.4	84.0	87.6
85°	43.0	41.8	42.6	41.4	39.8
87.5°	15.5	15.9	15.9	15.1	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)