

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: P590485

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590485
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-LD4-3HI-50-UNV-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7375.0 lumens
Efficiency: N/A
Efficacy: 113.8 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

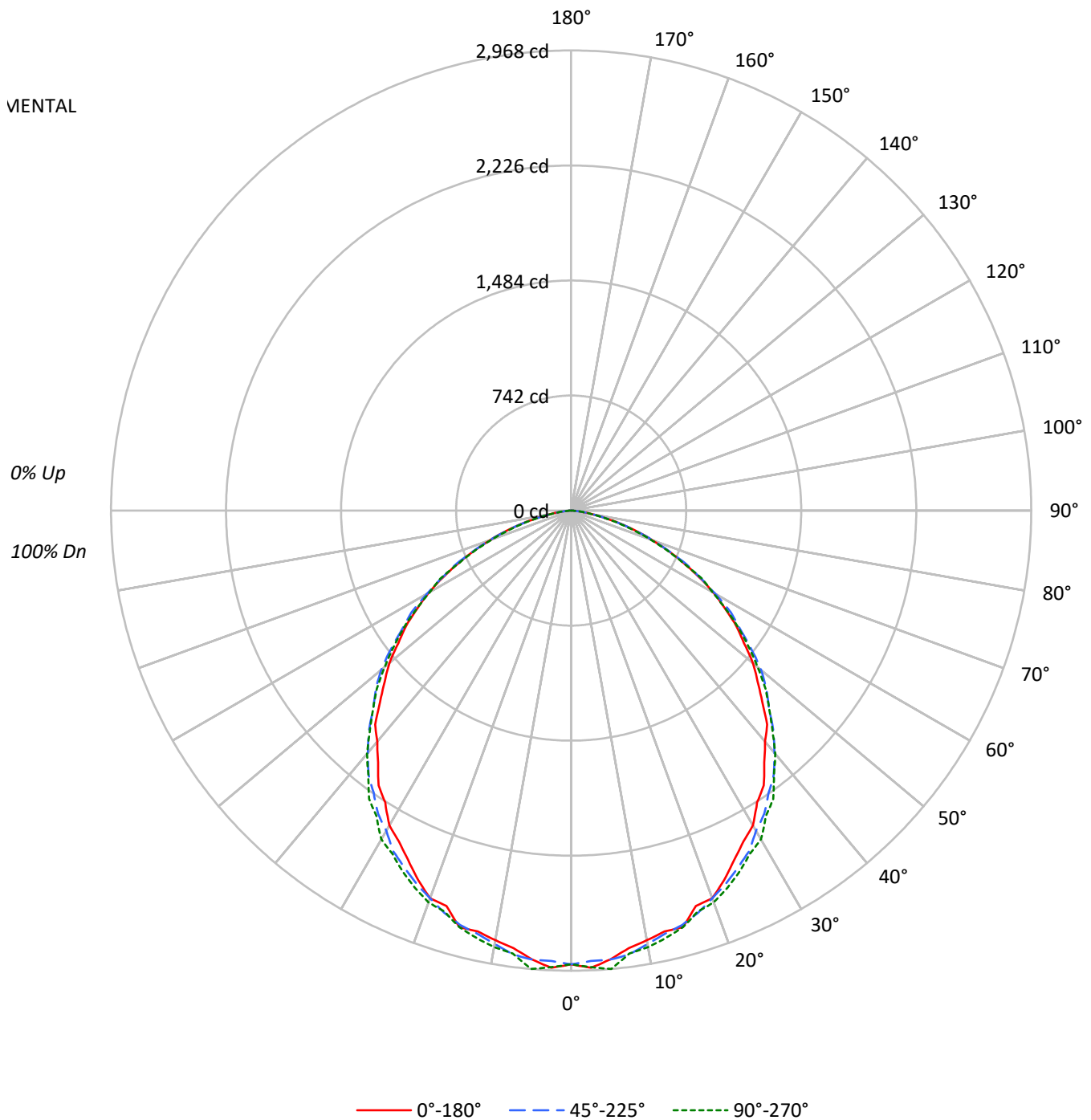
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7874	7874	7874
5°	7848	7851	8017
10°	7689	7756	7811
15°	7750	7708	7751
20°	7619	7619	7700
25°	7385	7546	7630
30°	7283	7411	7608
35°	7112	7298	7462
40°	6835	7164	7196
45°	6628	6864	6874
50°	6411	6700	6572
55°	6108	6227	6183
60°	5712	5769	5665
65°	5093	5223	5057
70°	4370	4385	4263
75°	3461	3453	3320
80°	2318	2255	2166
85°	1260	1247	1167

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7041 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.3	3.7
10°-20°	780.1	10.6
20°-30°	1168.8	15.8
30°-40°	1385.2	18.8
40°-50°	1387.8	18.8
50°-60°	1178.0	16.0
60°-70°	794.2	10.8
70°-80°	349.0	4.7
80°-90°	56.7	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°	2224.1	30.2
0°-40°	3609.3	48.9
0°-60°	6175.1	83.7
0°-90°	7375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2926	2926	2926	2926	2926	
5°	2905	2899	2907	2898	2968	274
15°	2782	2750	2767	2781	2782	775
25°	2487	2501	2542	2575	2570	1150
35°	2165	2171	2222	2273	2272	1344
45°	1742	1774	1804	1850	1806	1347
55°	1302	1293	1327	1318	1318	1158
65°	800	789	820	789	794	795
75°	333	326	332	309	319	357
85°	41	40	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2926.2	2926.2	2926.2	2926.2	2926.2
2.5°	2951.5	2929.2	2908.5	2932.6	2947.4
5°	2905.4	2898.6	2906.6	2897.9	2967.8
7.5°	2845.7	2871.8	2886.9	2877.5	2881.6
10°	2814.0	2804.9	2838.6	2862.0	2858.6
12.5°	2780.0	2793.6	2795.5	2820.8	2823.1
15°	2781.9	2749.8	2766.8	2781.1	2782.3
17.5°	2673.8	2708.6	2720.3	2753.2	2712.4
20°	2660.6	2635.3	2660.6	2694.2	2688.9
22.5°	2579.4	2551.0	2605.4	2635.3	2633.4
25°	2487.2	2500.8	2541.6	2574.8	2569.6
27.5°	2406.3	2422.2	2480.4	2526.1	2496.6
30°	2344.0	2336.1	2385.2	2426.0	2448.6
32.5°	2232.5	2261.3	2318.7	2359.1	2337.6
35°	2164.9	2171.3	2221.6	2273.0	2271.5
37.5°	2046.6	2076.5	2147.1	2161.5	2148.3
40°	1945.8	1975.6	2039.5	2055.0	2048.5
42.5°	1871.3	1876.6	1931.4	1949.2	1920.8
45°	1741.7	1774.2	1803.7	1850.2	1806.4
47.5°	1631.4	1646.5	1710.0	1722.5	1699.4
50°	1531.3	1536.6	1600.4	1585.0	1569.8
52.5°	1405.5	1427.8	1463.7	1460.7	1442.9
55°	1302.0	1293.3	1327.3	1318.2	1317.8
57.5°	1177.7	1192.8	1220.7	1206.4	1183.3
60°	1061.3	1061.7	1071.9	1055.6	1052.6
62.5°	931.7	936.2	938.5	918.5	951.0
65°	799.8	789.3	820.2	788.9	794.2
67.5°	678.6	683.9	680.8	661.2	668.7
70°	555.4	562.2	557.3	535.0	541.8
72.5°	442.8	434.5	439.8	411.8	424.7
75°	332.9	326.1	332.1	308.7	319.3
77.5°	226.7	232.0	228.2	215.7	222.9
80°	149.6	145.5	145.5	138.3	139.8
82.5°	87.3	83.1	82.0	79.7	83.1
85°	40.8	39.7	40.4	39.3	37.8
87.5°	14.7	15.1	15.1	14.4	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)