

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589756

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589756  
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 (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FMR-24-2-LD4-4STD-35-UNV-80-97-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

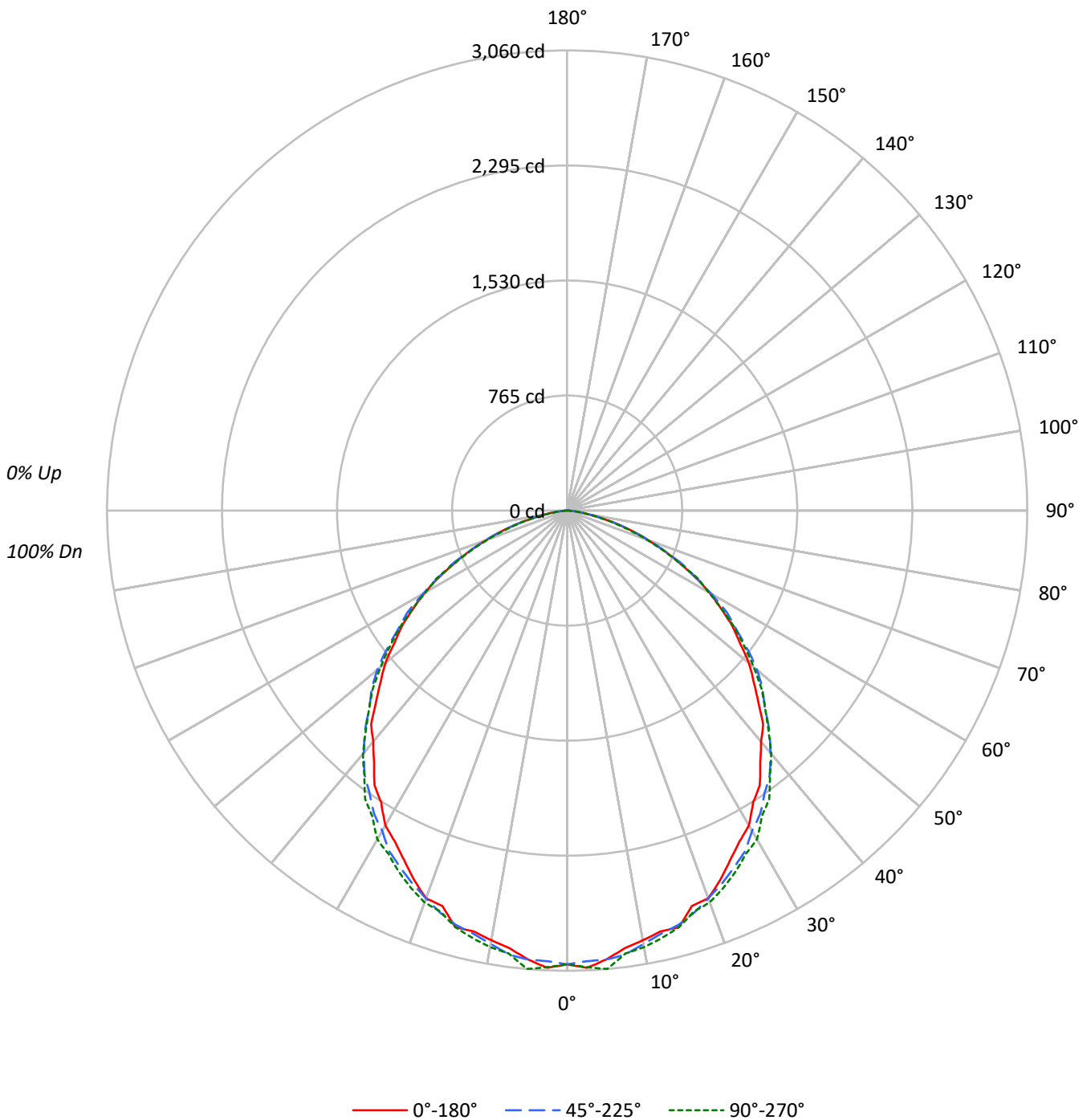
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7604.0 lumens  
Efficiency: N/A  
Efficacy: 114.2 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): NR  
Input Current (A<sub>in</sub>): 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: 25 FT

TEST NUMBER: P589756

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-80-97-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P589756

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-80-97-EDD

**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°	8119	8119	8119
5°	8092	8095	8266
10°	7928	7997	8053
15°	7991	7947	7992
20°	7856	7856	7939
25°	7614	7781	7866
30°	7510	7641	7845
35°	7333	7525	7694
40°	7047	7387	7419
45°	6834	7077	7088
50°	6610	6908	6776
55°	6298	6420	6375
60°	5889	5948	5841
65°	5251	5385	5214
70°	4505	4521	4395
75°	3568	3560	3423
80°	2391	2325	2233
85°	1300	1288	1204



TEST NUMBER: P589756

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-80-97-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.8	3.7
10°-20°	804.3	10.6
20°-30°	1205.0	15.8
30°-40°	1428.2	18.8
40°-50°	1430.9	18.8
50°-60°	1214.6	16.0
60°-70°	818.9	10.8
70°-80°	359.8	4.7
80°-90°	58.5	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°	2293.2	30.2
0°-40°	3721.4	48.9
0°-60°	6366.8	83.7
0°-90°	7604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7604.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3017	3017	3017	3017	3017	
5°	2996	2989	2997	2988	3060	282
15°	2868	2835	2853	2868	2869	799
25°	2564	2578	2620	2655	2649	1186
35°	2232	2239	2291	2344	2342	1386
45°	1796	1829	1860	1908	1862	1389
55°	1342	1333	1368	1359	1359	1194
65°	825	814	846	813	819	820
75°	343	336	342	318	329	368
85°	42	41	42	40	39	61
90°	0	0	0	0	0	



TEST NUMBER: P589756

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-80-97-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3017.1	3017.1	3017.1	3017.1	3017.1
2.5°	3043.2	3020.2	2998.8	3023.7	3038.9
5°	2995.6	2988.6	2996.8	2987.9	3059.9
7.5°	2934.1	2961.0	2976.6	2966.8	2971.1
10°	2901.4	2892.0	2926.7	2950.9	2947.3
12.5°	2866.3	2880.3	2882.3	2908.4	2910.7
15°	2868.3	2835.2	2852.7	2867.5	2868.7
17.5°	2756.9	2792.7	2804.8	2838.7	2796.6
20°	2743.2	2717.1	2743.2	2777.9	2772.4
22.5°	2659.5	2630.3	2686.3	2717.1	2715.2
25°	2564.4	2578.4	2620.5	2654.8	2649.3
27.5°	2481.1	2497.4	2557.4	2604.5	2574.2
30°	2416.8	2408.6	2459.2	2501.3	2524.7
32.5°	2301.9	2331.5	2390.7	2432.4	2410.2
35°	2232.1	2238.8	2290.6	2343.5	2342.0
37.5°	2110.2	2141.0	2213.8	2228.6	2215.0
40°	2006.2	2037.0	2102.8	2118.8	2112.1
42.5°	1929.4	1934.9	1991.4	2009.7	1980.5
45°	1795.8	1829.3	1859.7	1907.6	1862.4
47.5°	1682.1	1697.7	1763.1	1776.0	1752.2
50°	1578.9	1584.3	1650.1	1634.2	1618.6
52.5°	1449.1	1472.1	1509.1	1506.0	1487.7
55°	1342.4	1333.4	1368.5	1359.1	1358.8
57.5°	1214.2	1229.8	1258.6	1243.8	1220.1
60°	1094.2	1094.6	1105.2	1088.4	1085.3
62.5°	960.6	965.3	967.6	947.0	980.5
65°	824.7	813.8	845.7	813.4	818.8
67.5°	699.6	705.1	702.0	681.7	689.5
70°	572.6	579.7	574.6	551.6	558.6
72.5°	456.6	448.0	453.4	424.6	437.9
75°	343.2	336.2	342.4	318.3	329.2
77.5°	233.7	239.2	235.3	222.4	229.8
80°	154.3	150.0	150.0	142.6	144.1
82.5°	90.0	85.7	84.5	82.2	85.7
85°	42.1	40.9	41.7	40.5	39.0
87.5°	15.2	15.6	15.6	14.8	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)