

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: P589751

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589751  
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-80-86-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

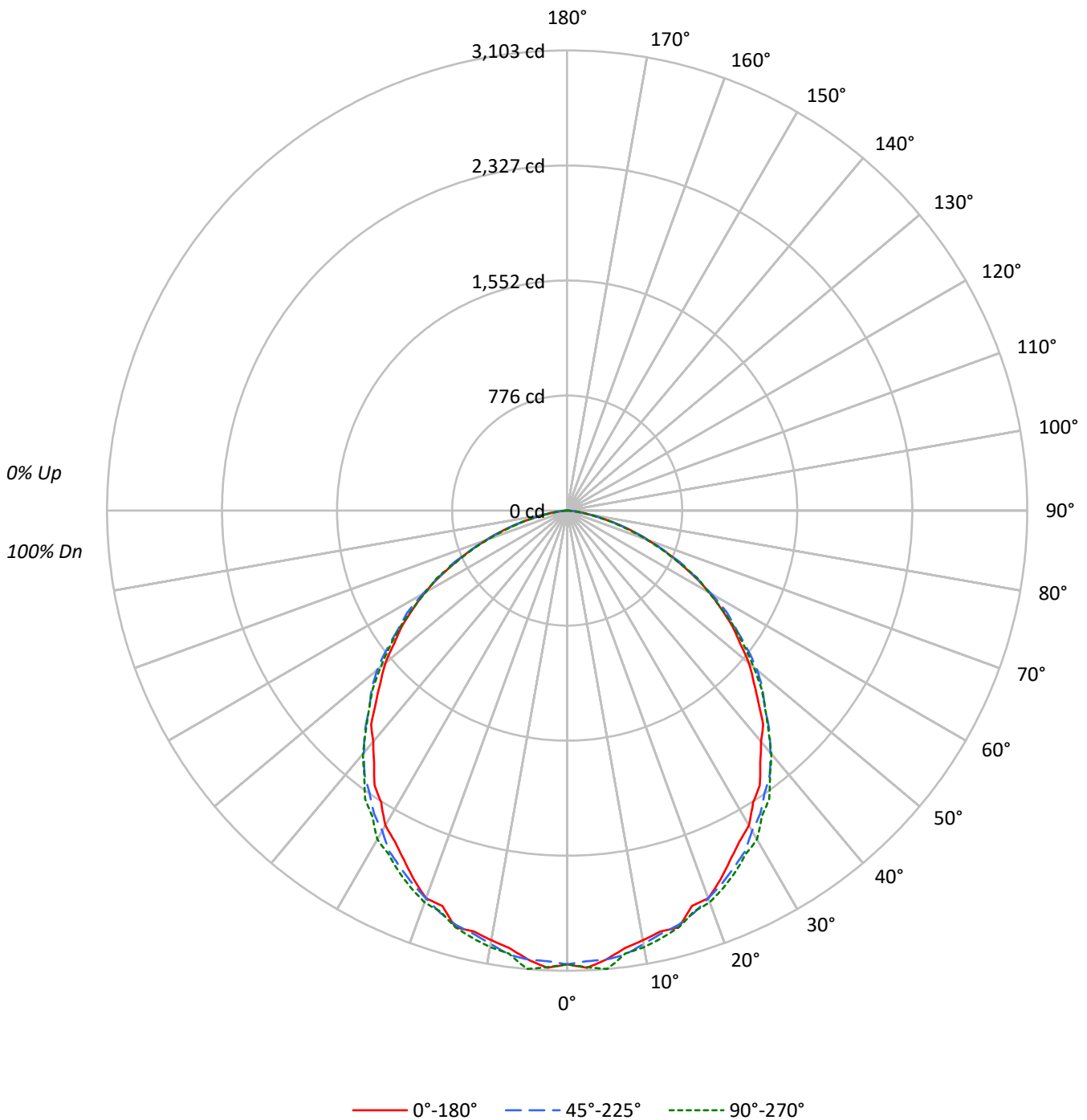
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7711.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 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): 66.6  
Input Voltage (V): NR  
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: 25 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°	8233	8233	8233
5°	8206	8209	8382
10°	8040	8110	8167
15°	8103	8059	8104
20°	7966	7966	8051
25°	7721	7890	7977
30°	7615	7749	7955
35°	7436	7631	7802
40°	7146	7491	7524
45°	6930	7177	7188
50°	6703	7006	6872
55°	6387	6511	6465
60°	5972	6032	5923
65°	5325	5461	5287
70°	4569	4585	4457
75°	3618	3610	3471
80°	2424	2357	2266
85°	1318	1306	1220



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.8	3.7
10°-20°	815.6	10.6
20°-30°	1222.0	15.8
30°-40°	1448.3	18.8
40°-50°	1451.0	18.8
50°-60°	1231.7	16.0
60°-70°	830.4	10.8
70°-80°	364.9	4.7
80°-90°	59.3	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°	2325.4	30.2
0°-40°	3773.8	48.9
0°-60°	6456.5	83.7
0°-90°	7711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7711.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3060	3060	3060	3060	3060	
5°	3038	3031	3039	3030	3103	286
15°	2909	2875	2893	2908	2909	810
25°	2600	2615	2657	2692	2687	1202
35°	2264	2270	2323	2376	2375	1405
45°	1821	1855	1886	1934	1889	1409
55°	1361	1352	1388	1378	1378	1211
65°	836	825	858	825	830	832
75°	348	341	347	323	334	373
85°	43	42	42	41	40	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3059.5	3059.5	3059.5	3059.5	3059.5
2.5°	3086.0	3062.7	3041.0	3066.2	3081.7
5°	3037.8	3030.7	3039.0	3029.9	3103.0
7.5°	2975.4	3002.6	3018.4	3008.6	3012.9
10°	2942.2	2932.7	2967.9	2992.4	2988.8
12.5°	2906.7	2920.9	2922.8	2949.3	2951.7
15°	2908.6	2875.0	2892.8	2907.8	2909.0
17.5°	2795.6	2832.0	2844.2	2878.6	2835.9
20°	2781.8	2755.4	2781.8	2817.0	2811.4
22.5°	2696.9	2667.3	2724.1	2755.4	2753.4
25°	2600.5	2614.7	2657.4	2692.1	2686.6
27.5°	2516.0	2532.6	2593.4	2641.2	2610.4
30°	2450.8	2442.5	2493.8	2536.5	2560.2
32.5°	2334.2	2364.3	2424.3	2466.6	2444.1
35°	2263.5	2270.3	2322.8	2376.5	2374.9
37.5°	2139.9	2171.1	2245.0	2260.0	2246.2
40°	2034.4	2065.6	2132.4	2148.6	2141.9
42.5°	1956.6	1962.1	2019.4	2038.0	2008.3
45°	1821.1	1855.1	1885.9	1934.5	1888.7
47.5°	1705.8	1721.6	1787.9	1801.0	1776.9
50°	1601.1	1606.6	1673.4	1657.2	1641.4
52.5°	1469.5	1492.8	1530.4	1527.2	1508.6
55°	1361.3	1352.2	1387.8	1378.3	1377.9
57.5°	1231.3	1247.1	1276.4	1261.3	1237.2
60°	1109.6	1110.0	1120.7	1103.7	1100.6
62.5°	974.2	978.9	981.3	960.3	994.3
65°	836.3	825.2	857.6	824.8	830.4
67.5°	709.5	715.0	711.8	691.3	699.2
70°	580.7	587.8	582.7	559.4	566.5
72.5°	463.0	454.3	459.8	430.6	444.0
75°	348.0	340.9	347.2	322.7	333.8
77.5°	237.0	242.6	238.6	225.6	233.1
80°	156.4	152.1	152.1	144.6	146.2
82.5°	91.3	86.9	85.7	83.4	86.9
85°	42.7	41.5	42.3	41.1	39.5
87.5°	15.4	15.8	15.8	15.0	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)