

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: P589271

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589271  
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-LD4-3HI-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: -

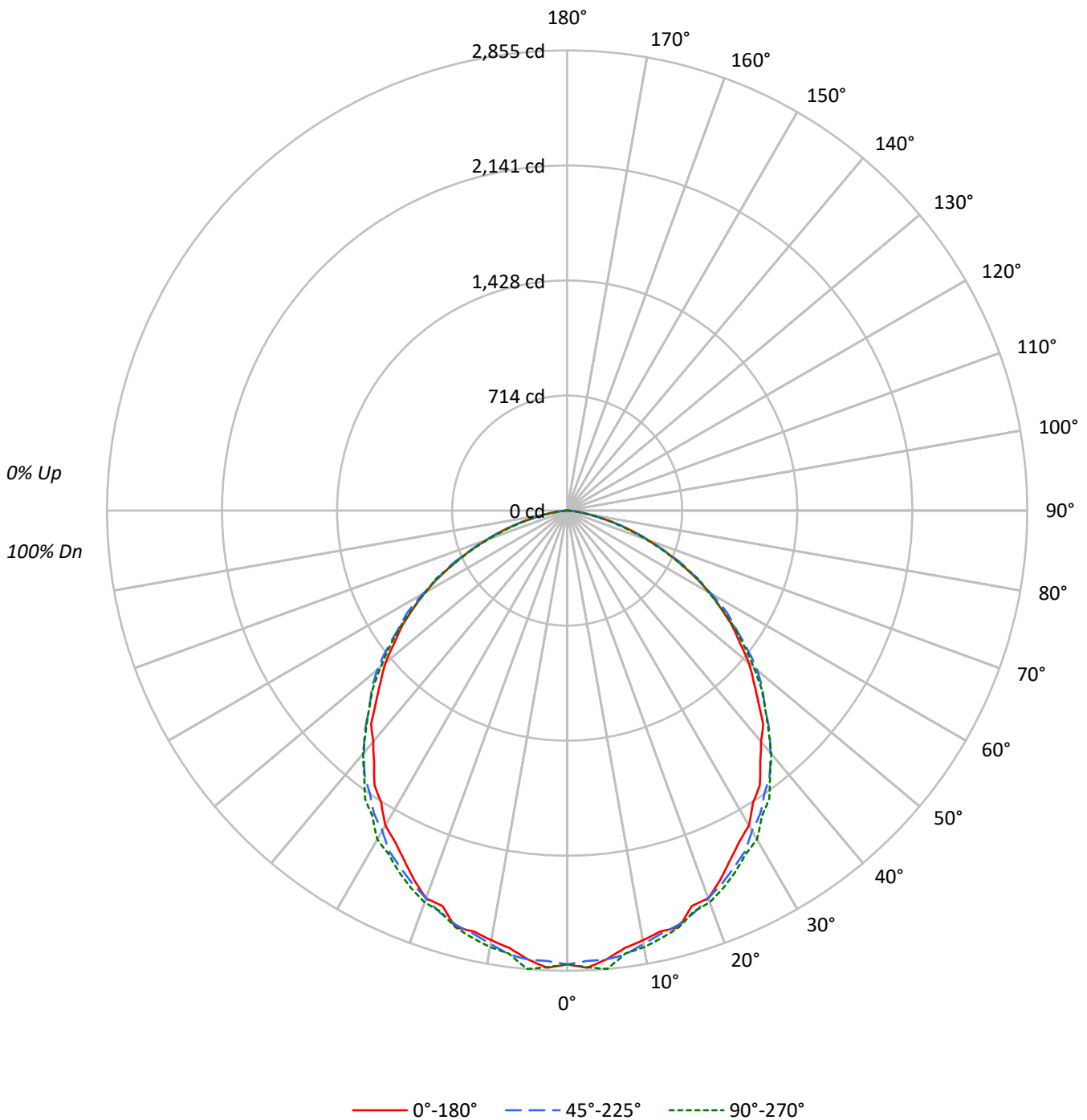
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7094.0 lumens  
Efficiency: N/A  
Efficacy: 109.5 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): 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°	7574	7574	7574
5°	7549	7552	7711
10°	7396	7461	7514
15°	7455	7414	7456
20°	7329	7329	7407
25°	7103	7259	7339
30°	7006	7129	7319
35°	6841	7020	7178
40°	6575	6891	6922
45°	6376	6603	6612
50°	6167	6445	6321
55°	5876	5990	5947
60°	5494	5549	5449
65°	4899	5024	4864
70°	4203	4218	4101
75°	3329	3321	3193
80°	2230	2168	2084
85°	1210	1201	1121



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.8	3.7
10°-20°	750.4	10.6
20°-30°	1124.2	15.8
30°-40°	1332.4	18.8
40°-50°	1334.9	18.8
50°-60°	1133.1	16.0
60°-70°	763.9	10.8
70°-80°	335.7	4.7
80°-90°	54.6	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°	2139.4	30.2
0°-40°	3471.8	48.9
0°-60°	5939.8	83.7
0°-90°	7094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7094.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2815	2815	2815	2815	2815	
5°	2795	2788	2796	2788	2855	263
15°	2676	2645	2661	2675	2676	746
25°	2392	2406	2445	2477	2472	1106
35°	2082	2089	2137	2186	2185	1293
45°	1675	1707	1735	1780	1738	1296
55°	1252	1244	1277	1268	1268	1114
65°	769	759	789	759	764	765
75°	320	314	319	297	307	343
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2814.7	2814.7	2814.7	2814.7	2814.7
2.5°	2839.1	2817.6	2797.6	2820.9	2835.1
5°	2794.7	2788.2	2795.8	2787.5	2854.7
7.5°	2737.3	2762.4	2776.9	2767.8	2771.8
10°	2706.8	2698.1	2730.4	2752.9	2749.7
12.5°	2674.1	2687.2	2689.0	2713.3	2715.5
15°	2675.9	2645.0	2661.4	2675.2	2676.3
17.5°	2572.0	2605.4	2616.7	2648.3	2609.0
20°	2559.2	2534.9	2559.2	2591.6	2586.5
22.5°	2481.1	2453.8	2506.2	2534.9	2533.1
25°	2392.4	2405.5	2444.8	2476.7	2471.6
27.5°	2314.6	2329.9	2385.9	2429.9	2401.5
30°	2254.7	2247.1	2294.3	2333.5	2355.4
32.5°	2147.5	2175.1	2230.3	2269.2	2248.5
35°	2082.4	2088.6	2136.9	2186.4	2184.9
37.5°	1968.7	1997.4	2065.3	2079.1	2066.4
40°	1871.6	1900.3	1961.8	1976.7	1970.5
42.5°	1800.0	1805.1	1857.8	1874.9	1847.6
45°	1675.4	1706.6	1735.0	1779.7	1737.5
47.5°	1569.3	1583.8	1644.9	1656.9	1634.7
50°	1473.0	1478.0	1539.5	1524.6	1510.0
52.5°	1351.9	1373.4	1407.9	1405.0	1387.9
55°	1252.4	1244.0	1276.7	1268.0	1267.6
57.5°	1132.8	1147.3	1174.2	1160.4	1138.2
60°	1020.9	1021.2	1031.0	1015.4	1012.5
62.5°	896.2	900.6	902.7	883.5	914.7
65°	769.4	759.2	789.0	758.8	763.9
67.5°	652.7	657.8	654.9	636.0	643.3
70°	534.2	540.8	536.1	514.6	521.2
72.5°	425.9	417.9	423.0	396.1	408.5
75°	320.2	313.6	319.4	296.9	307.1
77.5°	218.1	223.1	219.5	207.5	214.4
80°	143.9	139.9	139.9	133.0	134.5
82.5°	84.0	80.0	78.9	76.7	80.0
85°	39.2	38.2	38.9	37.8	36.3
87.5°	14.2	14.5	14.5	13.8	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)