

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: P588758

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588758  
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-LD4-1HI-50-UNV-80-85-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

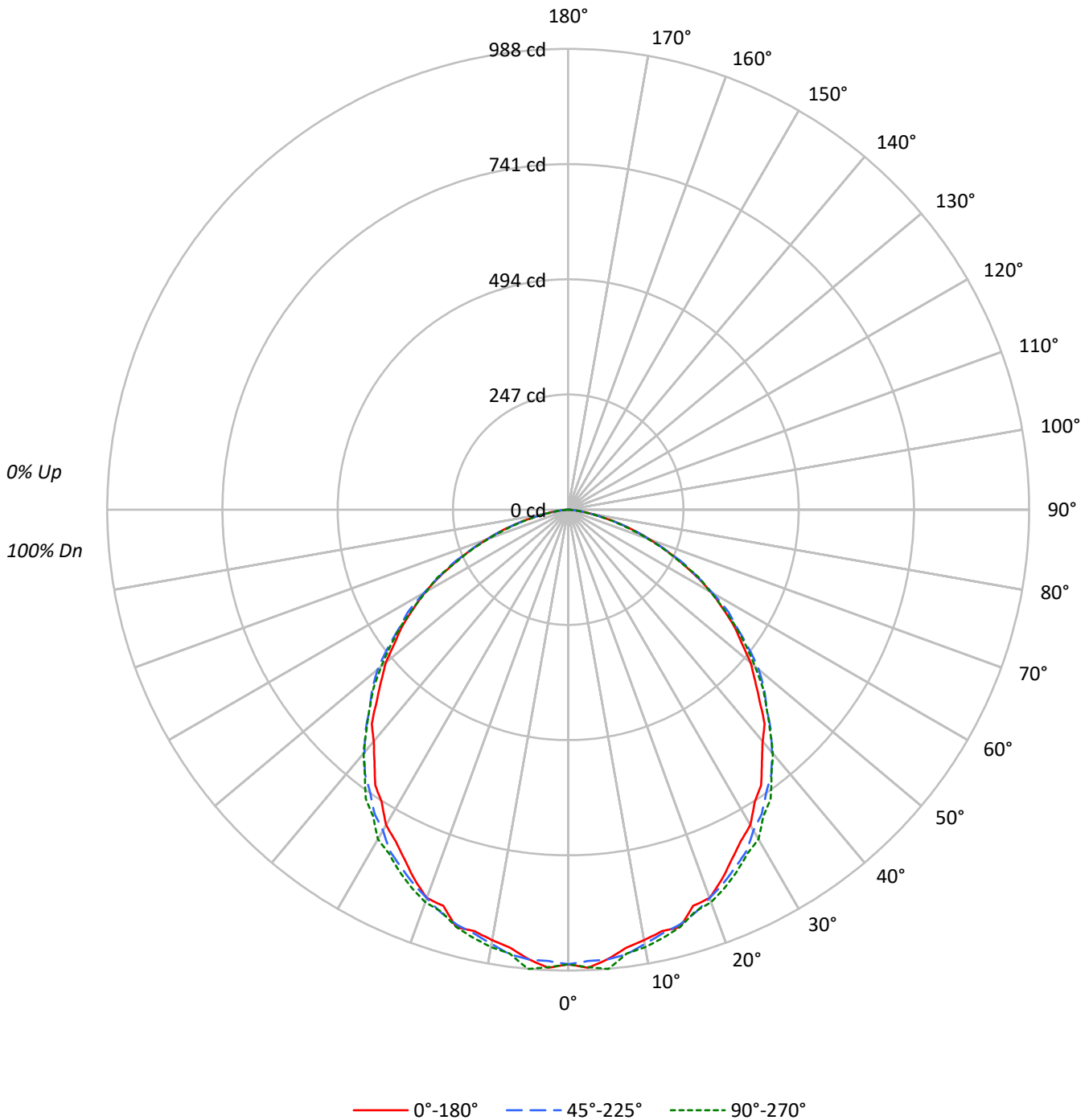
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2456.0 lumens  
Efficiency: N/A  
Efficacy: 113.7 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): 21.6  
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°	2622	2622	2622
5°	2614	2615	2670
10°	2561	2583	2601
15°	2581	2567	2581
20°	2537	2537	2564
25°	2459	2513	2541
30°	2426	2468	2534
35°	2369	2430	2485
40°	2276	2386	2396
45°	2207	2286	2289
50°	2135	2231	2189
55°	2034	2074	2059
60°	1902	1921	1886
65°	1696	1740	1684
70°	1456	1460	1419
75°	1152	1150	1105
80°	772	750	722
85°	420	417	389



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.7	3.7
10°-20°	259.8	10.6
20°-30°	389.2	15.8
30°-40°	461.3	18.8
40°-50°	462.2	18.8
50°-60°	392.3	16.0
60°-70°	264.5	10.8
70°-80°	116.2	4.7
80°-90°	18.9	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°	740.7	30.2
0°-40°	1202.0	48.9
0°-60°	2056.4	83.7
0°-90°	2456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2456.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	968	965	968	965	988	91
15°	926	916	921	926	926	258
25°	828	833	846	858	856	383
35°	721	723	740	757	756	448
45°	580	591	601	616	602	449
55°	434	431	442	439	439	386
65°	266	263	273	263	264	265
75°	111	109	111	103	106	119
85°	14	13	14	13	13	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	974.5	974.5	974.5	974.5	974.5
2.5°	982.9	975.5	968.6	976.6	981.5
5°	967.6	965.3	967.9	965.0	988.3
7.5°	947.7	956.4	961.4	958.2	959.6
10°	937.1	934.1	945.3	953.1	952.0
12.5°	925.8	930.3	930.9	939.4	940.1
15°	926.4	915.7	921.4	926.2	926.5
17.5°	890.4	902.0	905.9	916.9	903.3
20°	886.0	877.6	886.0	897.2	895.5
22.5°	859.0	849.5	867.7	877.6	877.0
25°	828.3	832.8	846.4	857.5	855.7
27.5°	801.3	806.6	826.0	841.2	831.4
30°	780.6	777.9	794.3	807.9	815.4
32.5°	743.5	753.0	772.2	785.6	778.5
35°	721.0	723.1	739.8	756.9	756.4
37.5°	681.6	691.5	715.0	719.8	715.4
40°	648.0	657.9	679.2	684.3	682.2
42.5°	623.2	624.9	643.2	649.1	639.7
45°	580.0	590.9	600.7	616.1	601.5
47.5°	543.3	548.3	569.5	573.6	565.9
50°	509.9	511.7	533.0	527.8	522.8
52.5°	468.1	475.5	487.4	486.4	480.5
55°	433.6	430.7	442.0	439.0	438.9
57.5°	392.2	397.2	406.5	401.7	394.1
60°	353.4	353.6	357.0	351.5	350.5
62.5°	310.3	311.8	312.5	305.9	316.7
65°	266.4	262.8	273.2	262.7	264.5
67.5°	226.0	227.7	226.7	220.2	222.7
70°	185.0	187.2	185.6	178.2	180.4
72.5°	147.5	144.7	146.5	137.1	141.4
75°	110.8	108.6	110.6	102.8	106.3
77.5°	75.5	77.3	76.0	71.8	74.2
80°	49.8	48.4	48.4	46.1	46.6
82.5°	29.1	27.7	27.3	26.5	27.7
85°	13.6	13.2	13.5	13.1	12.6
87.5°	4.9	5.0	5.0	4.8	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)