

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: P589462

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589462  
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-LD4-3STD-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

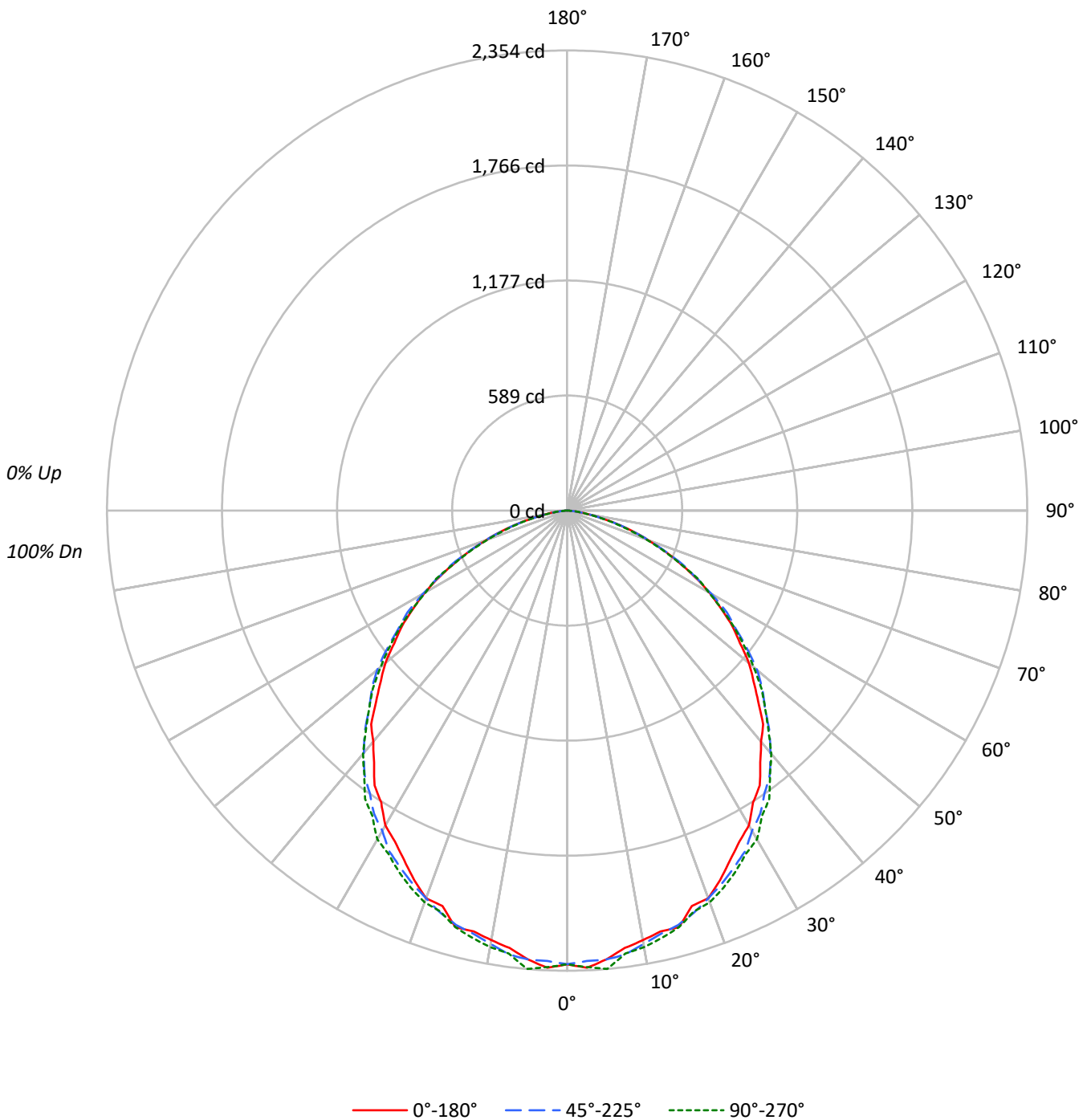
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5849.1 lumens  
Efficiency: N/A  
Efficacy: 117.0 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): 50  
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°	6245	6245	6245
5°	6225	6227	6358
10°	6098	6151	6195
15°	6147	6113	6147
20°	6043	6043	6107
25°	5857	5985	6051
30°	5776	5878	6034
35°	5640	5788	5918
40°	5421	5682	5707
45°	5257	5444	5452
50°	5084	5314	5212
55°	4845	4938	4904
60°	4530	4575	4493
65°	4039	4142	4010
70°	3466	3478	3381
75°	2745	2739	2633
80°	1839	1788	1719
85°	1000	991	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.3	3.7
10°-20°	618.7	10.6
20°-30°	926.9	15.8
30°-40°	1098.6	18.8
40°-50°	1100.6	18.8
50°-60°	934.3	16.0
60°-70°	629.9	10.8
70°-80°	276.8	4.7
80°-90°	45.0	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°	1763.9	30.2
0°-40°	2862.5	48.9
0°-60°	4897.4	83.7
0°-90°	5849.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5849.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2321	2321	2321	2321	2321	
5°	2304	2299	2305	2298	2354	217
15°	2206	2181	2194	2206	2207	615
25°	1973	1983	2016	2042	2038	912
35°	1717	1722	1762	1803	1802	1066
45°	1381	1407	1430	1467	1433	1069
55°	1033	1026	1053	1046	1045	919
65°	634	626	650	626	630	631
75°	264	259	263	245	253	283
85°	32	32	32	31	30	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2320.7	2320.7	2320.7	2320.7	2320.7
2.5°	2340.8	2323.1	2306.7	2325.8	2337.5
5°	2304.3	2298.9	2305.2	2298.3	2353.7
7.5°	2256.9	2277.6	2289.6	2282.1	2285.4
10°	2231.7	2224.6	2251.2	2269.8	2267.1
12.5°	2204.8	2215.6	2217.1	2237.1	2238.9
15°	2206.3	2180.8	2194.3	2205.7	2206.6
17.5°	2120.6	2148.1	2157.4	2183.5	2151.1
20°	2110.1	2090.0	2110.1	2136.8	2132.6
22.5°	2045.7	2023.2	2066.3	2090.0	2088.5
25°	1972.6	1983.3	2015.7	2042.1	2037.9
27.5°	1908.4	1921.0	1967.2	2003.4	1980.0
30°	1859.0	1852.7	1891.6	1924.0	1942.0
32.5°	1770.6	1793.4	1838.9	1871.0	1853.9
35°	1717.0	1722.0	1761.9	1802.7	1801.5
37.5°	1623.2	1646.8	1702.9	1714.3	1703.8
40°	1543.2	1566.8	1617.5	1629.8	1624.7
42.5°	1484.1	1488.3	1531.8	1545.9	1523.4
45°	1381.4	1407.1	1430.5	1467.4	1432.6
47.5°	1293.9	1305.8	1356.2	1366.1	1347.8
50°	1214.5	1218.6	1269.3	1257.0	1245.0
52.5°	1114.7	1132.4	1160.8	1158.4	1144.3
55°	1032.6	1025.7	1052.6	1045.5	1045.2
57.5°	934.0	946.0	968.1	956.8	938.5
60°	841.7	842.0	850.1	837.2	834.8
62.5°	738.9	742.5	744.3	728.4	754.2
65°	634.3	626.0	650.5	625.7	629.8
67.5°	538.2	542.4	540.0	524.4	530.4
70°	440.5	445.9	442.0	424.3	429.7
72.5°	351.2	344.6	348.8	326.6	336.8
75°	264.0	258.6	263.4	244.8	253.2
77.5°	179.8	184.0	181.0	171.1	176.8
80°	118.7	115.4	115.4	109.7	110.9
82.5°	69.2	65.9	65.0	63.2	65.9
85°	32.4	31.5	32.1	31.2	30.0
87.5°	11.7	12.0	12.0	11.4	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)