

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: P589468

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589468  
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-80-97-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**

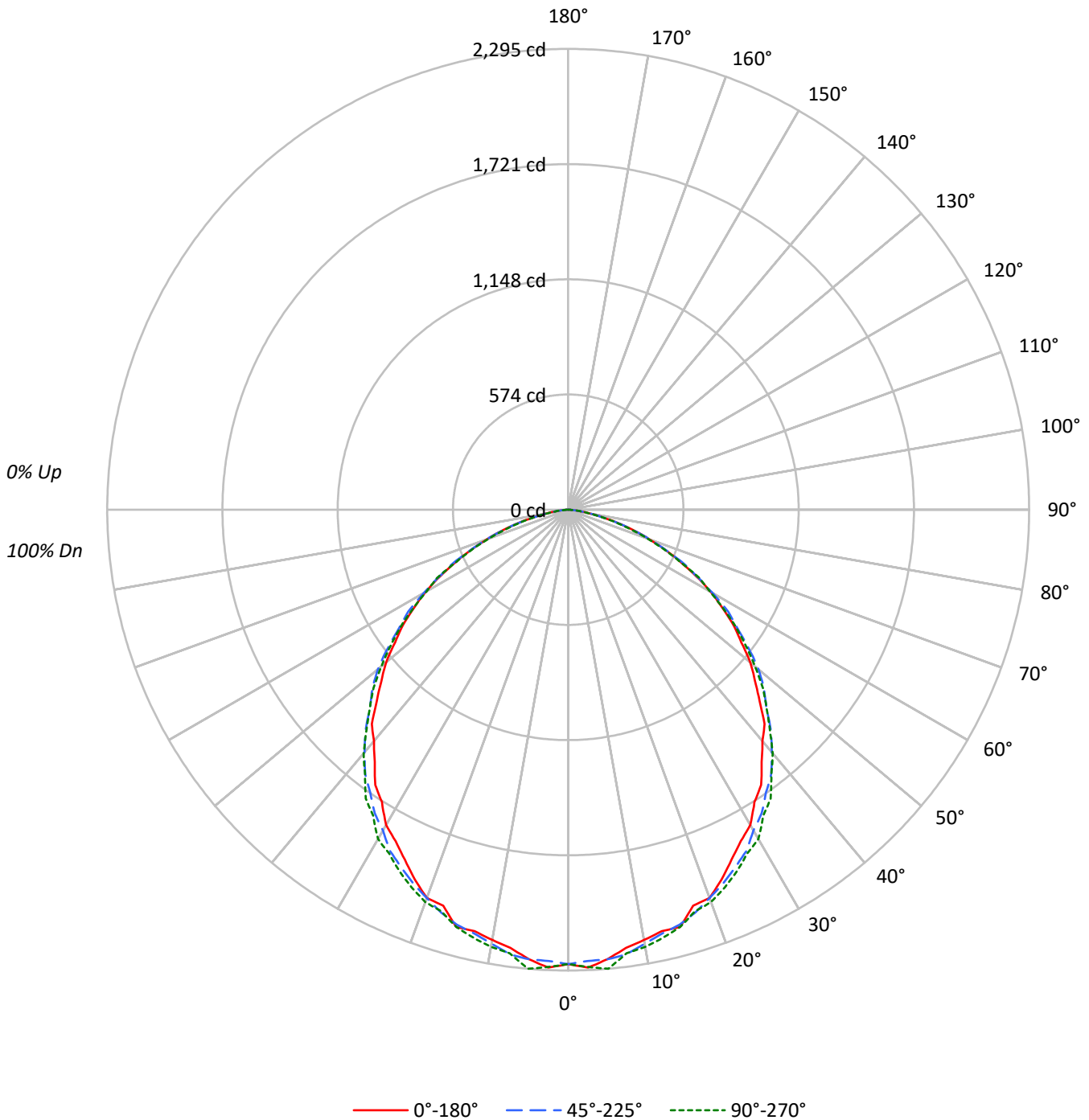
Lumens per Lamp: N/A  
Luminaire Lumens: 5703.0 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6089	6089	6089
5°	6069	6071	6199
10°	5946	5998	6040
15°	5993	5960	5994
20°	5892	5892	5954
25°	5711	5836	5900
30°	5632	5731	5884
35°	5500	5643	5770
40°	5285	5540	5565
45°	5126	5308	5316
50°	4957	5181	5082
55°	4723	4815	4781
60°	4417	4461	4381
65°	3938	4039	3910
70°	3379	3390	3297
75°	2676	2670	2567
80°	1793	1743	1675
85°	976	966	902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.8	3.7
10°-20°	603.2	10.6
20°-30°	903.8	15.8
30°-40°	1071.2	18.8
40°-50°	1073.2	18.8
50°-60°	910.9	16.0
60°-70°	614.1	10.8
70°-80°	269.9	4.7
80°-90°	43.9	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°	1719.9	30.2
0°-40°	2791.1	48.9
0°-60°	4775.1	83.7
0°-90°	5703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5703.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2263	2263	2263	2263	2263	
5°	2247	2242	2248	2241	2295	212
15°	2151	2126	2140	2151	2152	599
25°	1923	1934	1965	1991	1987	889
35°	1674	1679	1718	1758	1756	1039
45°	1347	1372	1395	1431	1397	1042
55°	1007	1000	1026	1019	1019	896
65°	618	610	634	610	614	615
75°	257	252	257	239	247	276
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2262.8	2262.8	2262.8	2262.8	2262.8
2.5°	2282.4	2265.1	2249.1	2267.8	2279.2
5°	2246.7	2241.5	2247.6	2240.9	2294.9
7.5°	2200.6	2220.7	2232.4	2225.1	2228.3
10°	2176.0	2169.0	2195.0	2213.1	2210.5
12.5°	2149.7	2160.3	2161.7	2181.3	2183.0
15°	2151.2	2126.4	2139.5	2150.6	2151.5
17.5°	2067.6	2094.5	2103.6	2129.0	2097.4
20°	2057.4	2037.8	2057.4	2083.4	2079.3
22.5°	1994.6	1972.7	2014.8	2037.8	2036.4
25°	1923.3	1933.8	1965.4	1991.1	1987.0
27.5°	1860.8	1873.1	1918.1	1953.4	1930.6
30°	1812.6	1806.4	1844.4	1876.0	1893.5
32.5°	1726.4	1748.6	1793.0	1824.3	1807.6
35°	1674.1	1679.1	1717.9	1757.7	1756.5
37.5°	1582.6	1605.7	1660.4	1671.5	1661.2
40°	1504.6	1527.7	1577.1	1589.1	1584.1
42.5°	1447.1	1451.2	1493.5	1507.3	1485.4
45°	1346.9	1372.0	1394.8	1430.7	1396.8
47.5°	1261.6	1273.2	1322.3	1332.0	1314.2
50°	1184.1	1188.2	1237.6	1225.6	1213.9
52.5°	1086.8	1104.1	1131.8	1129.5	1115.8
55°	1006.8	1000.1	1026.4	1019.4	1019.1
57.5°	910.7	922.4	944.0	932.9	915.1
60°	820.7	821.0	828.9	816.3	814.0
62.5°	720.5	724.0	725.7	710.2	735.4
65°	618.5	610.3	634.3	610.0	614.1
67.5°	524.7	528.8	526.5	511.3	517.1
70°	429.5	434.7	430.9	413.7	419.0
72.5°	342.4	336.0	340.1	318.5	328.4
75°	257.4	252.1	256.8	238.7	246.9
77.5°	175.3	179.4	176.5	166.8	172.4
80°	115.7	112.5	112.5	106.9	108.1
82.5°	67.5	64.3	63.4	61.6	64.3
85°	31.6	30.7	31.3	30.4	29.2
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)