

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: P589486

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-93-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589486  
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-93-85-EDD  
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

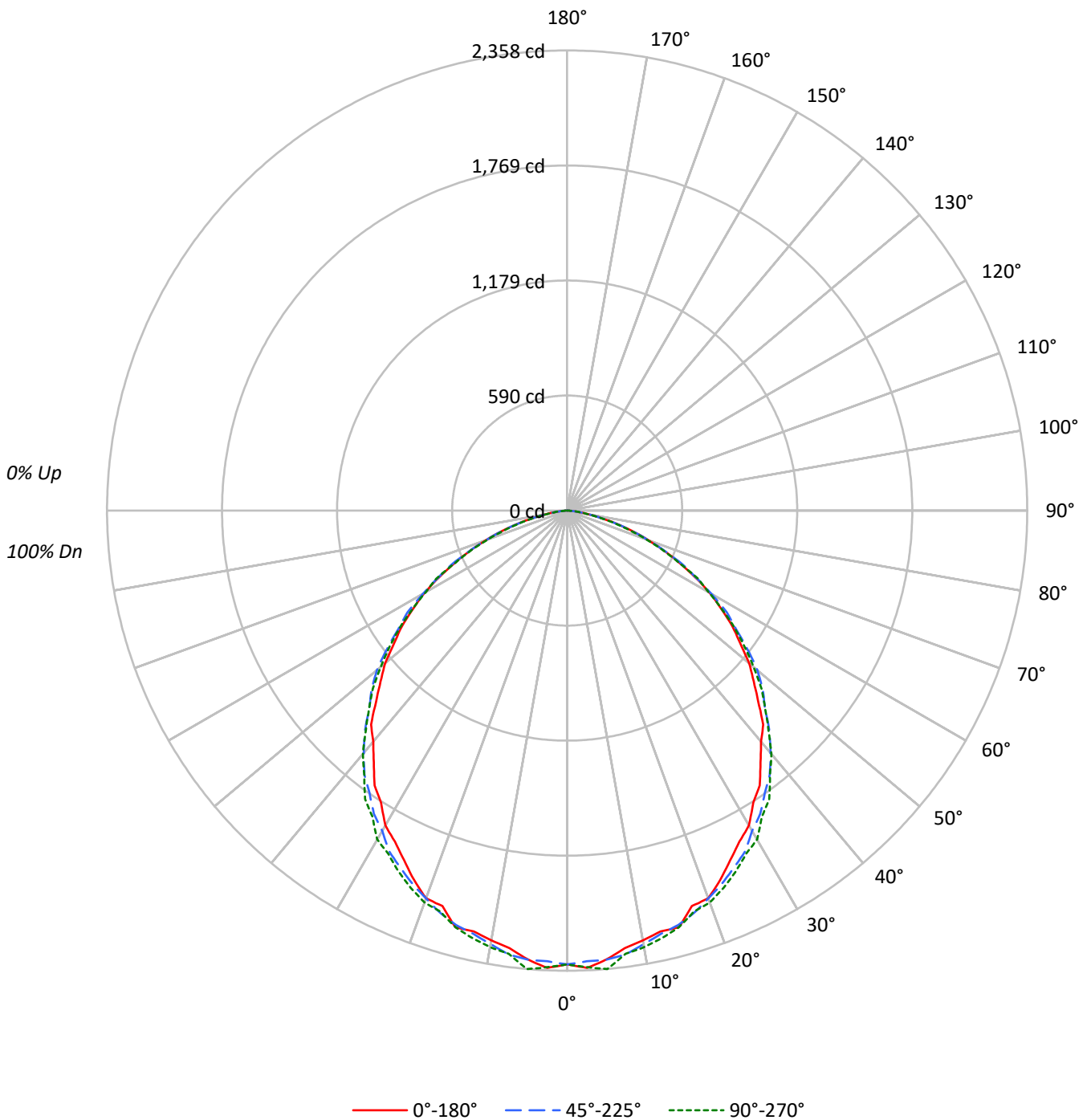
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5861.0 lumens  
Efficiency: N/A  
Efficacy: 117.2 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°	6258	6258	6258
5°	6237	6240	6371
10°	6111	6164	6208
15°	6159	6126	6160
20°	6055	6055	6119
25°	5869	5997	6063
30°	5788	5890	6047
35°	5652	5800	5930
40°	5432	5694	5719
45°	5268	5455	5463
50°	5094	5325	5223
55°	4854	4949	4913
60°	4539	4584	4502
65°	4047	4151	4018
70°	3473	3485	3388
75°	2750	2744	2638
80°	1843	1791	1722
85°	1000	991	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.7	3.7
10°-20°	620.0	10.6
20°-30°	928.8	15.8
30°-40°	1100.8	18.8
40°-50°	1102.9	18.8
50°-60°	936.2	16.0
60°-70°	631.2	10.8
70°-80°	277.3	4.7
80°-90°	45.1	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°	1767.5	30.2
0°-40°	2868.4	48.9
0°-60°	4907.4	83.7
0°-90°	5861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5861.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2326	2326	2326	2326	2326	
5°	2309	2304	2310	2303	2358	218
15°	2211	2185	2199	2210	2211	616
25°	1977	1987	2020	2046	2042	914
35°	1720	1726	1766	1806	1805	1068
45°	1384	1410	1433	1470	1436	1071
55°	1035	1028	1055	1048	1047	920
65°	636	627	652	627	631	632
75°	264	259	264	245	254	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°	2325.5	2325.5	2325.5	2325.5	2325.5
2.5°	2345.6	2327.9	2311.4	2330.6	2342.3
5°	2309.0	2303.6	2309.9	2303.0	2358.5
7.5°	2261.5	2282.3	2294.3	2286.8	2290.1
10°	2236.3	2229.1	2255.8	2274.5	2271.8
12.5°	2209.3	2220.1	2221.6	2241.7	2243.5
15°	2210.8	2185.3	2198.8	2210.2	2211.1
17.5°	2124.9	2152.5	2161.9	2188.0	2155.6
20°	2114.4	2094.3	2114.4	2141.1	2136.9
22.5°	2049.9	2027.3	2070.6	2094.3	2092.8
25°	1976.6	1987.4	2019.8	2046.3	2042.1
27.5°	1912.3	1925.0	1971.2	2007.5	1984.1
30°	1862.8	1856.5	1895.5	1928.0	1946.0
32.5°	1774.2	1797.0	1842.7	1874.8	1857.7
35°	1720.5	1725.6	1765.5	1806.4	1805.1
37.5°	1626.5	1650.2	1706.4	1717.8	1707.3
40°	1546.3	1570.0	1620.8	1633.1	1628.0
42.5°	1487.2	1491.4	1534.9	1549.0	1526.5
45°	1384.2	1410.0	1433.4	1470.4	1435.5
47.5°	1296.5	1308.5	1359.0	1368.9	1350.6
50°	1216.9	1221.1	1271.9	1259.6	1247.6
52.5°	1117.0	1134.7	1163.2	1160.8	1146.7
55°	1034.7	1027.8	1054.8	1047.6	1047.3
57.5°	935.9	947.9	970.1	958.7	940.4
60°	843.4	843.7	851.8	838.9	836.5
62.5°	740.4	744.0	745.8	729.9	755.7
65°	635.6	627.2	651.9	626.9	631.1
67.5°	539.3	543.5	541.1	525.5	531.5
70°	441.4	446.8	442.9	425.2	430.6
72.5°	351.9	345.3	349.5	327.3	337.5
75°	264.5	259.1	263.9	245.3	253.7
77.5°	180.2	184.4	181.4	171.4	177.2
80°	118.9	115.6	115.6	109.9	111.1
82.5°	69.4	66.1	65.2	63.4	66.1
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)