

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: P589273

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589273  
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-80-88-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

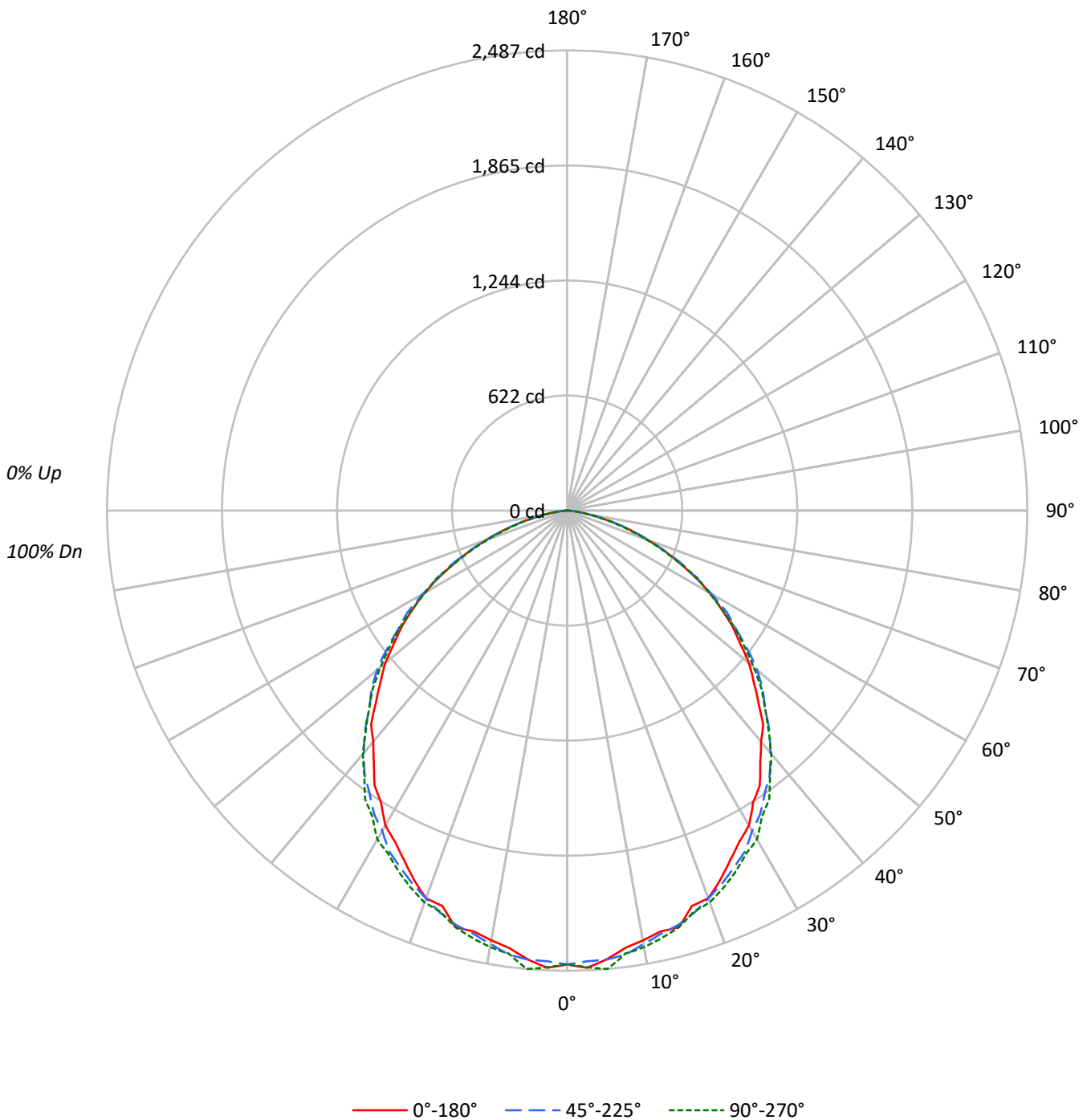
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6181.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 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°	6600	6600	6600
5°	6578	6580	6719
10°	6444	6501	6547
15°	6495	6460	6496
20°	6386	6386	6454
25°	6189	6325	6394
30°	6104	6211	6377
35°	5960	6116	6254
40°	5729	6004	6031
45°	5555	5753	5761
50°	5373	5615	5508
55°	5119	5219	5182
60°	4787	4835	4748
65°	4269	4378	4238
70°	3663	3675	3573
75°	2901	2894	2782
80°	1943	1889	1816
85°	1056	1047	979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.7	3.7
10°-20°	653.8	10.6
20°-30°	979.5	15.8
30°-40°	1161.0	18.8
40°-50°	1163.1	18.8
50°-60°	987.3	16.0
60°-70°	665.6	10.8
70°-80°	292.5	4.7
80°-90°	47.5	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°	1864.0	30.2
0°-40°	3025.0	48.9
0°-60°	5175.4	83.7
0°-90°	6181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6181.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2452	2452	2452	2452	2452	
5°	2435	2429	2436	2429	2487	230
15°	2332	2305	2319	2331	2332	650
25°	2084	2096	2130	2158	2154	964
35°	1814	1820	1862	1905	1904	1127
45°	1460	1487	1512	1551	1514	1129
55°	1091	1084	1112	1105	1104	971
65°	670	662	688	661	666	667
75°	279	273	278	259	268	299
85°	34	33	34	33	32	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2452.5	2452.5	2452.5	2452.5	2452.5
2.5°	2473.7	2455.0	2437.6	2457.8	2470.2
5°	2435.0	2429.3	2436.0	2428.7	2487.3
7.5°	2385.0	2406.9	2419.5	2411.6	2415.1
10°	2358.4	2350.8	2379.0	2398.6	2395.8
12.5°	2329.9	2341.3	2342.9	2364.1	2366.0
15°	2331.5	2304.6	2318.8	2330.9	2331.8
17.5°	2240.9	2270.1	2279.9	2307.4	2273.2
20°	2229.9	2208.6	2229.9	2258.0	2253.6
22.5°	2161.8	2138.0	2183.6	2208.6	2207.1
25°	2084.5	2095.9	2130.1	2158.0	2153.5
27.5°	2016.8	2030.1	2078.8	2117.1	2092.4
30°	1964.5	1957.9	1999.0	2033.2	2052.2
32.5°	1871.1	1895.2	1943.3	1977.2	1959.1
35°	1814.4	1819.8	1861.9	1905.0	1903.7
37.5°	1715.3	1740.3	1799.5	1811.6	1800.5
40°	1630.8	1655.8	1709.3	1722.3	1716.9
42.5°	1568.4	1572.8	1618.7	1633.6	1609.9
45°	1459.8	1487.0	1511.7	1550.6	1513.9
47.5°	1367.3	1380.0	1433.2	1443.6	1424.3
50°	1283.4	1287.8	1341.3	1328.4	1315.7
52.5°	1177.9	1196.6	1226.7	1224.2	1209.3
55°	1091.2	1083.9	1112.4	1104.8	1104.5
57.5°	987.0	999.7	1023.1	1011.1	991.8
60°	889.5	889.8	898.3	884.7	882.2
62.5°	780.9	784.7	786.6	769.8	797.0
65°	670.4	661.5	687.5	661.2	665.6
67.5°	568.7	573.1	570.6	554.1	560.5
70°	465.5	471.2	467.1	448.4	454.1
72.5°	371.1	364.1	368.6	345.1	355.9
75°	279.0	273.3	278.3	258.7	267.6
77.5°	190.0	194.4	191.3	180.8	186.8
80°	125.4	121.9	121.9	115.9	117.2
82.5°	73.1	69.7	68.7	66.8	69.7
85°	34.2	33.2	33.9	32.9	31.7
87.5°	12.3	12.7	12.7	12.0	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)