

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: P589286

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-82-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589286  
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-82-85-EDD  
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

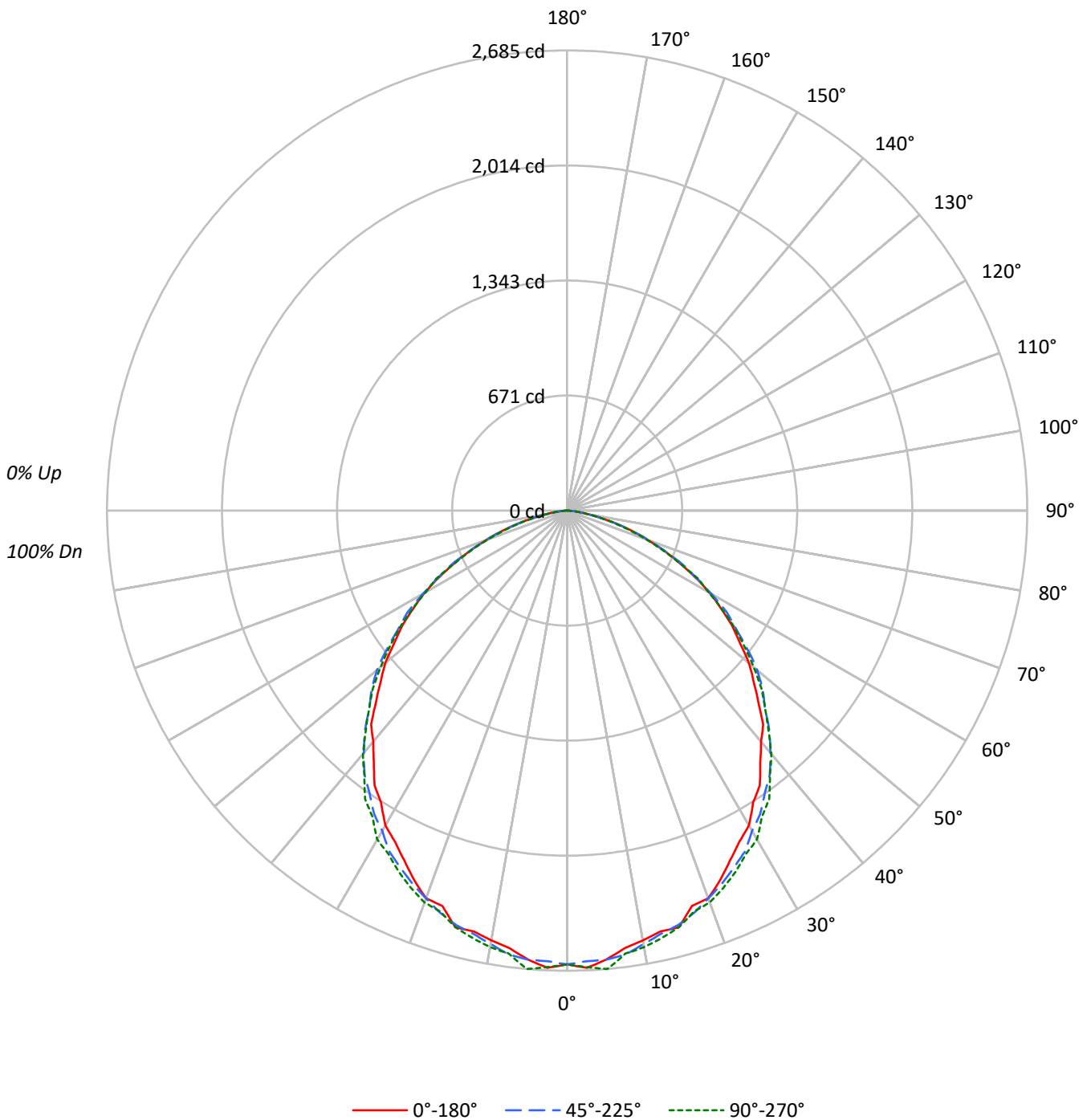
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6673.0 lumens  
Efficiency: N/A  
Efficacy: 103.0 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): 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

TEST NUMBER: P589286

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-82-85-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P589286

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-82-85-EDD

**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°	7125	7125	7125
5°	7101	7104	7254
10°	6957	7018	7068
15°	7012	6974	7013
20°	6894	6894	6967
25°	6682	6828	6903
30°	6590	6706	6884
35°	6435	6603	6751
40°	6185	6482	6511
45°	5998	6211	6220
50°	5800	6062	5946
55°	5527	5634	5594
60°	5168	5219	5126
65°	4608	4726	4576
70°	3954	3967	3857
75°	3132	3124	3004
80°	2098	2039	1960
85°	1139	1130	1056



TEST NUMBER: P589286

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-82-85-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.1	3.7
10°-20°	705.9	10.6
20°-30°	1057.5	15.8
30°-40°	1253.4	18.8
40°-50°	1255.7	18.8
50°-60°	1065.9	16.0
60°-70°	718.6	10.8
70°-80°	315.8	4.7
80°-90°	51.3	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°	2012.4	30.2
0°-40°	3265.8	48.9
0°-60°	5587.3	83.7
0°-90°	6673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6673.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2648	2648	2648	2648	2648	
5°	2629	2623	2630	2622	2685	248
15°	2517	2488	2503	2516	2517	701
25°	2250	2263	2300	2330	2325	1040
35°	1959	1965	2010	2057	2055	1216
45°	1576	1605	1632	1674	1634	1219
55°	1178	1170	1201	1193	1192	1048
65°	724	714	742	714	719	720
75°	301	295	300	279	289	323
85°	37	36	37	36	34	54
90°	0	0	0	0	0	



TEST NUMBER: P589286

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-82-85-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2647.7	2647.7	2647.7	2647.7	2647.7
2.5°	2670.6	2650.4	2631.6	2653.5	2666.8
5°	2628.9	2622.7	2629.9	2622.0	2685.3
7.5°	2574.9	2598.5	2612.1	2603.6	2607.3
10°	2546.1	2537.9	2568.4	2589.6	2586.5
12.5°	2515.4	2527.7	2529.4	2552.3	2554.4
15°	2517.1	2488.0	2503.4	2516.4	2517.4
17.5°	2419.3	2450.8	2461.4	2491.1	2454.2
20°	2407.4	2384.4	2407.4	2437.8	2433.0
22.5°	2333.9	2308.2	2357.4	2384.4	2382.7
25°	2250.4	2262.7	2299.7	2329.8	2325.0
27.5°	2177.3	2191.6	2244.3	2285.7	2259.0
30°	2120.9	2113.7	2158.1	2195.1	2215.6
32.5°	2020.0	2046.0	2098.0	2134.6	2115.1
35°	1958.8	1964.6	2010.1	2056.6	2055.2
37.5°	1851.8	1878.8	1942.8	1955.8	1943.8
40°	1760.6	1787.6	1845.3	1859.4	1853.5
42.5°	1693.2	1698.0	1747.6	1763.6	1738.0
45°	1576.0	1605.4	1632.0	1674.1	1634.4
47.5°	1476.1	1489.8	1547.2	1558.5	1537.7
50°	1385.5	1390.3	1448.1	1434.1	1420.4
52.5°	1271.7	1291.9	1324.4	1321.6	1305.5
55°	1178.0	1170.2	1200.9	1192.7	1192.4
57.5°	1065.6	1079.2	1104.5	1091.5	1070.7
60°	960.3	960.6	969.8	955.1	952.4
62.5°	843.0	847.1	849.2	831.1	860.5
65°	723.7	714.1	742.2	713.8	718.6
67.5°	614.0	618.8	616.0	598.2	605.1
70°	502.5	508.7	504.2	484.1	490.2
72.5°	400.7	393.1	397.9	372.6	384.2
75°	301.2	295.0	300.5	279.3	288.9
77.5°	205.1	209.9	206.5	195.2	201.7
80°	135.4	131.6	131.6	125.1	126.5
82.5°	79.0	75.2	74.2	72.1	75.2
85°	36.9	35.9	36.6	35.6	34.2
87.5°	13.3	13.7	13.7	13.0	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)