

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: P589817

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589817
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-LD4-4STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

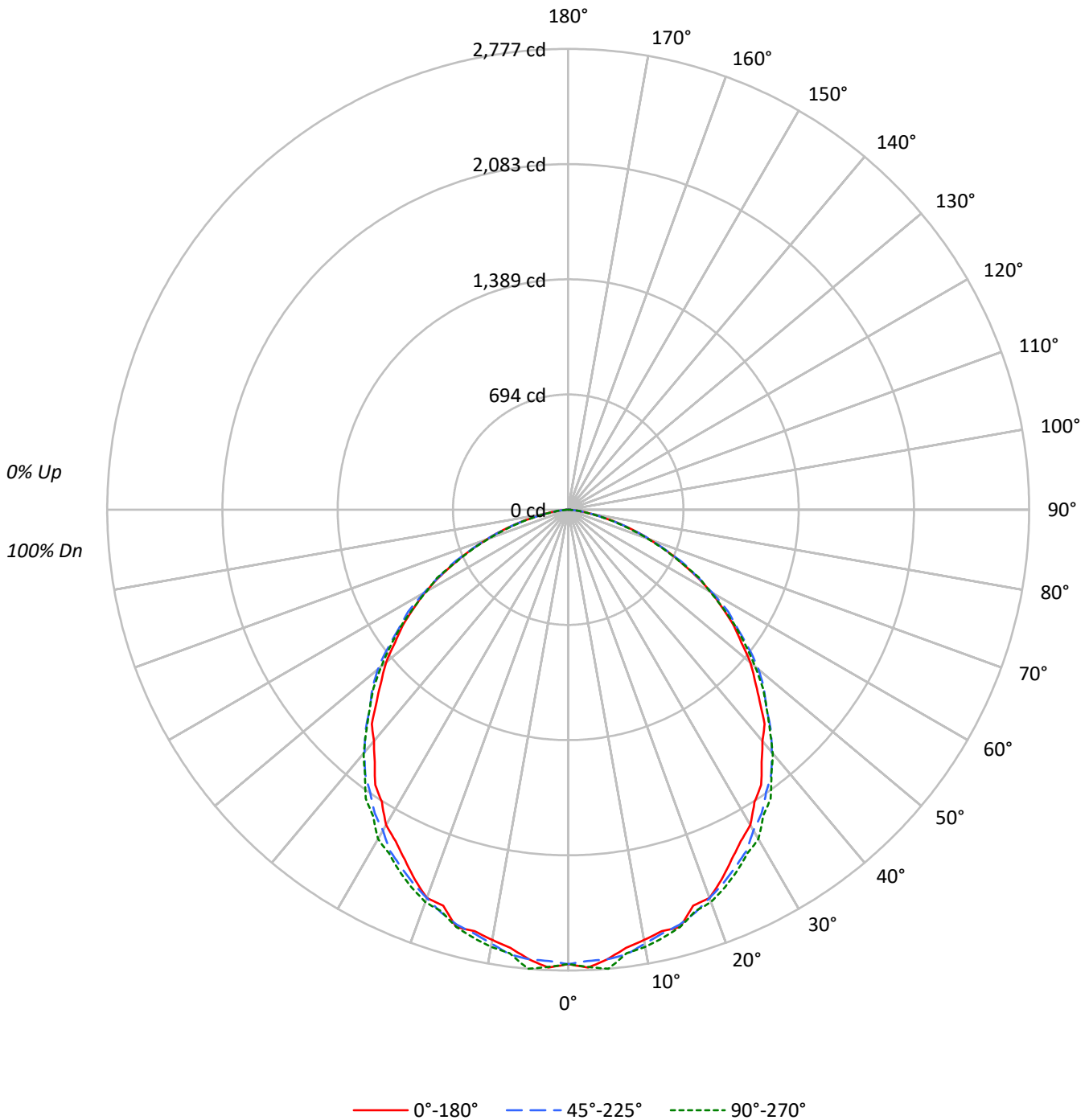
Lumens per Lamp: N/A
Luminaire Lumens: 6901.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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: P589817

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589817

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-88-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°	7368	7368	7368
5°	7344	7347	7501
10°	7195	7258	7309
15°	7252	7212	7253
20°	7129	7129	7205
25°	6910	7061	7139
30°	6815	6935	7120
35°	6655	6829	6982
40°	6396	6704	6734
45°	6202	6423	6433
50°	5999	6270	6149
55°	5716	5827	5785
60°	5345	5398	5301
65°	4765	4887	4732
70°	4089	4103	3989
75°	3239	3231	3106
80°	2170	2109	2027
85°	1179	1167	1093



TEST NUMBER: P589817

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.6	3.7
10°-20°	730.0	10.6
20°-30°	1093.6	15.8
30°-40°	1296.2	18.8
40°-50°	1298.6	18.8
50°-60°	1102.3	16.0
60°-70°	743.2	10.8
70°-80°	326.6	4.7
80°-90°	53.1	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°	2081.2	30.2
0°-40°	3377.4	48.9
0°-60°	5778.2	83.7
0°-90°	6901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2738	2738	2738	2738	2738	
5°	2719	2712	2720	2712	2777	256
15°	2603	2573	2589	2602	2603	725
25°	2327	2340	2378	2409	2404	1076
35°	2026	2032	2079	2127	2126	1258
45°	1630	1660	1688	1731	1690	1261
55°	1218	1210	1242	1234	1233	1084
65°	748	738	768	738	743	744
75°	312	305	311	289	299	334
85°	38	37	38	37	35	55
90°	0	0	0	0	0	



TEST NUMBER: P589817

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2738.1	2738.1	2738.1	2738.1	2738.1
2.5°	2761.8	2741.0	2721.5	2744.2	2757.9
5°	2718.7	2712.3	2719.8	2711.6	2777.0
7.5°	2662.8	2687.2	2701.4	2692.5	2696.4
10°	2633.1	2624.7	2656.1	2678.0	2674.9
12.5°	2601.3	2614.1	2615.8	2639.5	2641.6
15°	2603.1	2573.0	2588.9	2602.4	2603.4
17.5°	2502.0	2534.5	2545.5	2576.2	2538.0
20°	2489.6	2465.9	2489.6	2521.1	2516.1
22.5°	2413.6	2387.1	2438.0	2465.9	2464.2
25°	2327.3	2340.1	2378.2	2409.4	2404.4
27.5°	2251.7	2266.5	2321.0	2363.7	2336.2
30°	2193.3	2185.9	2231.9	2270.1	2291.3
32.5°	2089.0	2115.9	2169.7	2207.5	2187.3
35°	2025.8	2031.8	2078.8	2126.9	2125.5
37.5°	1915.1	1943.0	2009.1	2022.6	2010.2
40°	1820.7	1848.6	1908.4	1922.9	1916.9
42.5°	1751.1	1756.0	1807.3	1823.9	1797.4
45°	1629.8	1660.2	1687.8	1731.3	1690.3
47.5°	1526.6	1540.7	1600.1	1611.8	1590.2
50°	1432.9	1437.8	1497.6	1483.1	1468.9
52.5°	1315.2	1336.0	1369.6	1366.8	1350.2
55°	1218.3	1210.2	1242.0	1233.5	1233.1
57.5°	1102.0	1116.1	1142.3	1128.8	1107.3
60°	993.1	993.4	1003.0	987.8	985.0
62.5°	871.8	876.1	878.2	859.4	889.9
65°	748.4	738.5	767.5	738.2	743.1
67.5°	635.0	639.9	637.1	618.7	625.8
70°	519.7	526.1	521.5	500.6	507.0
72.5°	414.3	406.6	411.5	385.4	397.4
75°	311.5	305.1	310.8	288.8	298.7
77.5°	212.1	217.1	213.5	201.9	208.6
80°	140.0	136.1	136.1	129.4	130.8
82.5°	81.7	77.8	76.7	74.6	77.8
85°	38.2	37.1	37.8	36.8	35.4
87.5°	13.8	14.1	14.1	13.4	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)