

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: P589277

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589277
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

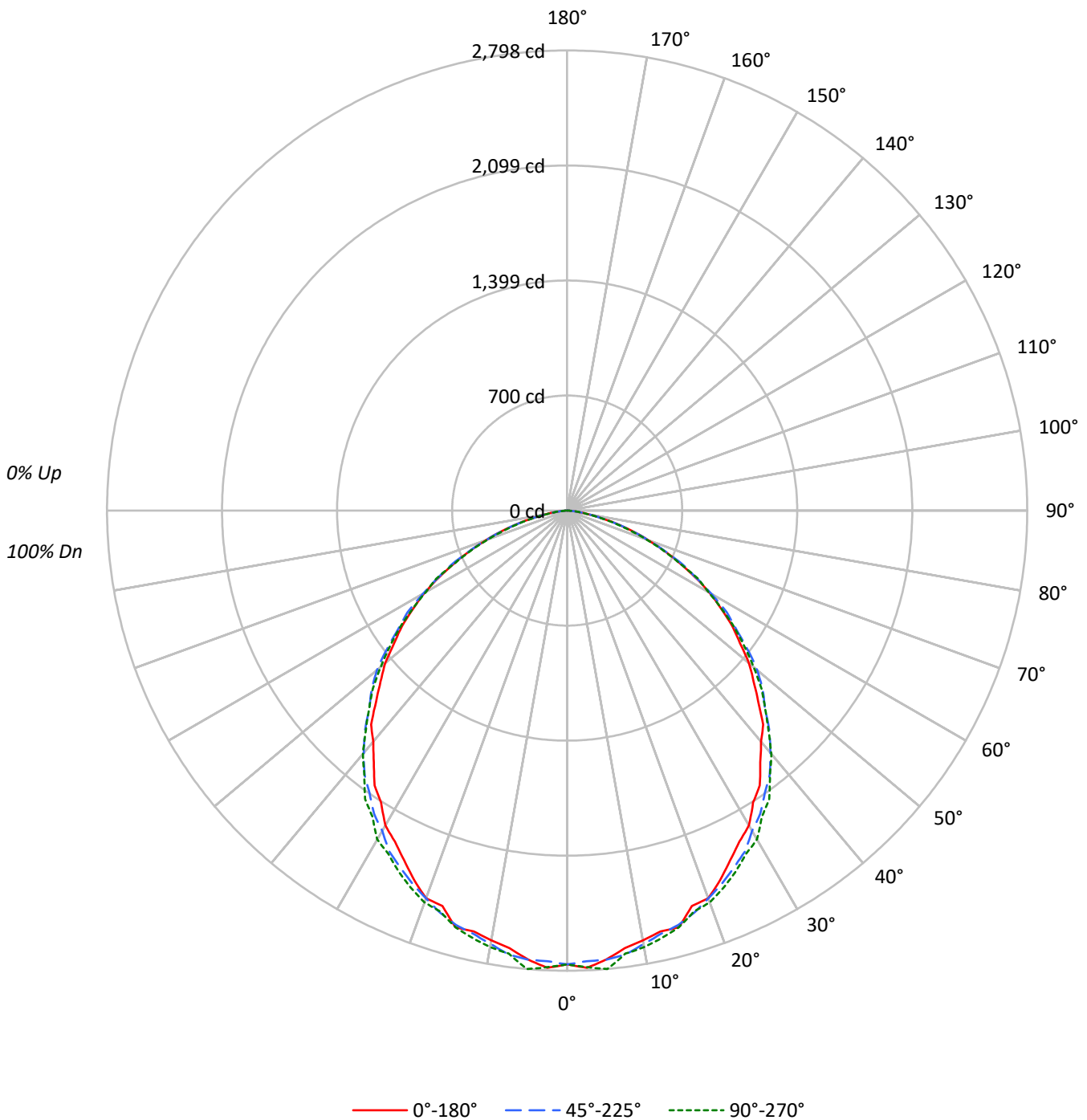
Lumens per Lamp: N/A
Luminaire Lumens: 6954.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589277

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589277

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-81-84-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°	7425	7425	7425
5°	7400	7403	7559
10°	7250	7314	7365
15°	7308	7268	7309
20°	7184	7184	7261
25°	6963	7116	7194
30°	6868	6988	7174
35°	6706	6882	7036
40°	6445	6755	6785
45°	6250	6472	6482
50°	6045	6318	6197
55°	5759	5872	5830
60°	5386	5440	5342
65°	4802	4925	4768
70°	4120	4135	4020
75°	3264	3255	3130
80°	2187	2126	2042
85°	1189	1176	1099



TEST NUMBER: P589277

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.5	3.7
10°-20°	735.6	10.6
20°-30°	1102.0	15.8
30°-40°	1306.1	18.8
40°-50°	1308.6	18.8
50°-60°	1110.8	16.0
60°-70°	748.9	10.8
70°-80°	329.1	4.7
80°-90°	53.5	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°	2097.2	30.2
0°-40°	3403.3	48.9
0°-60°	5822.6	83.7
0°-90°	6954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2759	2759	2759	2759	2759	
5°	2740	2733	2741	2732	2798	258
15°	2623	2593	2609	2622	2623	731
25°	2345	2358	2396	2428	2423	1084
35°	2041	2047	2095	2143	2142	1267
45°	1642	1673	1701	1745	1703	1270
55°	1228	1220	1252	1243	1243	1092
65°	754	744	773	744	749	750
75°	314	307	313	291	301	336
85°	38	37	38	37	36	56
90°	0	0	0	0	0	



TEST NUMBER: P589277

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2759.2	2759.2	2759.2	2759.2	2759.2
2.5°	2783.0	2762.0	2742.4	2765.2	2779.1
5°	2739.6	2733.2	2740.6	2732.5	2798.4
7.5°	2683.3	2707.9	2722.1	2713.2	2717.1
10°	2653.4	2644.8	2676.5	2698.6	2695.4
12.5°	2621.3	2634.1	2635.9	2659.8	2661.9
15°	2623.1	2592.8	2608.8	2622.4	2623.4
17.5°	2521.2	2554.0	2565.0	2596.0	2557.5
20°	2508.7	2484.9	2508.7	2540.4	2535.4
22.5°	2432.1	2405.4	2456.7	2484.9	2483.1
25°	2345.2	2358.0	2396.5	2427.9	2422.9
27.5°	2269.0	2283.9	2338.8	2381.9	2354.1
30°	2210.2	2202.7	2249.0	2287.5	2308.9
32.5°	2105.1	2132.2	2186.3	2224.4	2204.1
35°	2041.3	2047.4	2094.8	2143.2	2141.8
37.5°	1929.8	1958.0	2024.6	2038.1	2025.6
40°	1834.7	1862.8	1923.0	1937.7	1931.6
42.5°	1764.5	1769.5	1821.2	1837.9	1811.2
45°	1642.3	1673.0	1700.7	1744.6	1703.2
47.5°	1538.3	1552.5	1612.4	1624.2	1602.4
50°	1443.9	1448.9	1509.1	1494.5	1480.2
52.5°	1325.3	1346.3	1380.1	1377.3	1360.5
55°	1227.6	1219.5	1251.5	1243.0	1242.6
57.5°	1110.4	1124.7	1151.1	1137.5	1115.8
60°	1000.7	1001.1	1010.7	995.4	992.5
62.5°	878.5	882.8	884.9	866.0	896.7
65°	754.2	744.2	773.4	743.9	748.8
67.5°	639.8	644.8	642.0	623.4	630.6
70°	523.7	530.1	525.5	504.5	510.9
72.5°	417.5	409.7	414.7	388.3	400.4
75°	313.9	307.4	313.1	291.1	301.0
77.5°	213.8	218.7	215.2	203.4	210.2
80°	141.1	137.2	137.2	130.4	131.8
82.5°	82.3	78.4	77.3	75.2	78.4
85°	38.5	37.4	38.1	37.1	35.6
87.5°	13.9	14.3	14.3	13.5	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)