

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: P589358

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589358
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

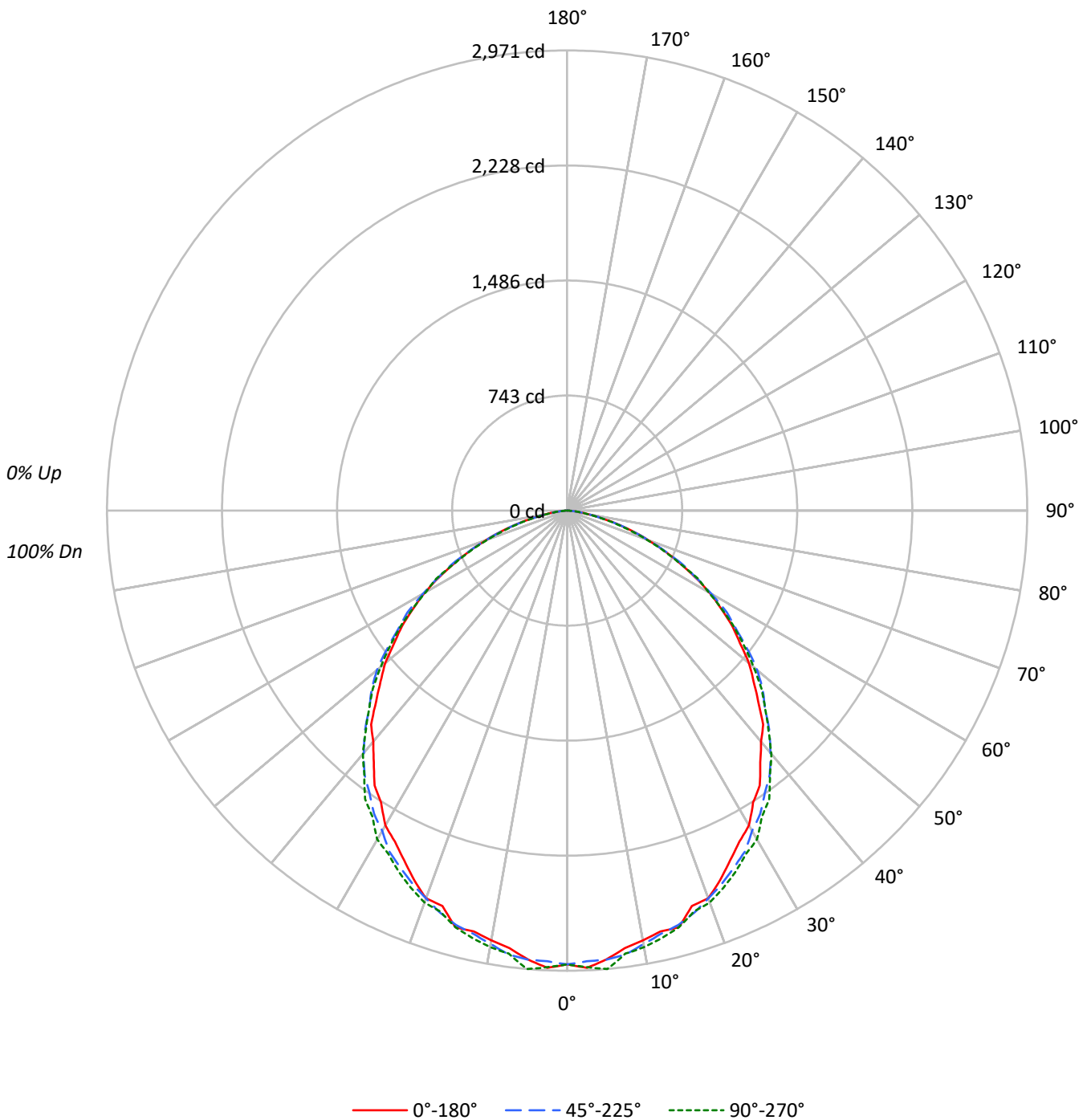
Lumens per Lamp: N/A
Luminaire Lumens: 7384.0 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589358

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-93-85-EDD

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°	7884	7884	7884
5°	7858	7861	8027
10°	7699	7766	7821
15°	7760	7718	7761
20°	7629	7629	7710
25°	7394	7556	7639
30°	7292	7420	7618
35°	7120	7307	7471
40°	6843	7173	7205
45°	6637	6873	6883
50°	6419	6708	6580
55°	6116	6235	6190
60°	5719	5776	5672
65°	5099	5229	5063
70°	4375	4390	4268
75°	3465	3457	3323
80°	2321	2256	2170
85°	1263	1250	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.6	3.7
10°-20°	781.1	10.6
20°-30°	1170.2	15.8
30°-40°	1386.9	18.8
40°-50°	1389.5	18.8
50°-60°	1179.4	16.0
60°-70°	795.2	10.8
70°-80°	349.4	4.7
80°-90°	56.8	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°	2226.8	30.2
0°-40°	3613.7	48.9
0°-60°	6182.6	83.7
0°-90°	7384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7384.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2930	2930	2930	2930	2930	
5°	2909	2902	2910	2901	2971	274
15°	2785	2753	2770	2784	2786	776
25°	2490	2504	2545	2578	2573	1151
35°	2168	2174	2224	2276	2274	1346
45°	1744	1776	1806	1852	1809	1349
55°	1304	1295	1329	1320	1319	1160
65°	801	790	821	790	795	796
75°	333	326	332	309	320	357
85°	41	40	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2929.8	2929.8	2929.8	2929.8	2929.8
2.5°	2955.1	2932.8	2912.0	2936.2	2951.0
5°	2909.0	2902.2	2910.1	2901.4	2971.4
7.5°	2849.2	2875.3	2890.4	2881.0	2885.1
10°	2817.4	2808.4	2842.0	2865.5	2862.1
12.5°	2783.4	2797.0	2798.9	2824.2	2826.5
15°	2785.3	2753.1	2770.2	2784.5	2785.7
17.5°	2677.1	2711.9	2723.6	2756.5	2715.7
20°	2663.9	2638.5	2663.9	2697.5	2692.2
22.5°	2582.5	2554.2	2608.6	2638.5	2636.6
25°	2490.2	2503.8	2544.7	2578.0	2572.7
27.5°	2409.3	2425.2	2483.4	2529.2	2499.7
30°	2346.9	2338.9	2388.1	2428.9	2451.6
32.5°	2235.3	2264.0	2321.5	2362.0	2340.4
35°	2167.5	2174.0	2224.3	2275.7	2274.2
37.5°	2049.1	2079.0	2149.8	2164.1	2150.9
40°	1948.1	1978.0	2042.0	2057.5	2051.0
42.5°	1873.6	1878.9	1933.8	1951.6	1923.2
45°	1743.9	1776.4	1805.9	1852.4	1808.6
47.5°	1633.4	1648.5	1712.1	1724.6	1701.5
50°	1533.2	1538.5	1602.4	1586.9	1571.8
52.5°	1407.2	1429.5	1465.5	1462.4	1444.7
55°	1303.6	1294.9	1328.9	1319.8	1319.4
57.5°	1179.1	1194.2	1222.2	1207.9	1184.8
60°	1062.6	1063.0	1073.2	1056.9	1053.9
62.5°	932.8	937.4	939.6	919.6	952.1
65°	800.8	790.2	821.2	789.9	795.1
67.5°	679.4	684.7	681.7	662.0	669.6
70°	556.1	562.9	558.0	535.6	542.5
72.5°	443.3	435.0	440.3	412.3	425.2
75°	333.3	326.5	332.5	309.1	319.6
77.5°	227.0	232.3	228.5	216.0	223.2
80°	149.8	145.6	145.6	138.5	140.0
82.5°	87.4	83.2	82.1	79.8	83.2
85°	40.9	39.7	40.5	39.3	37.8
87.5°	14.8	15.1	15.1	14.4	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)