

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: P589335

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589335
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-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

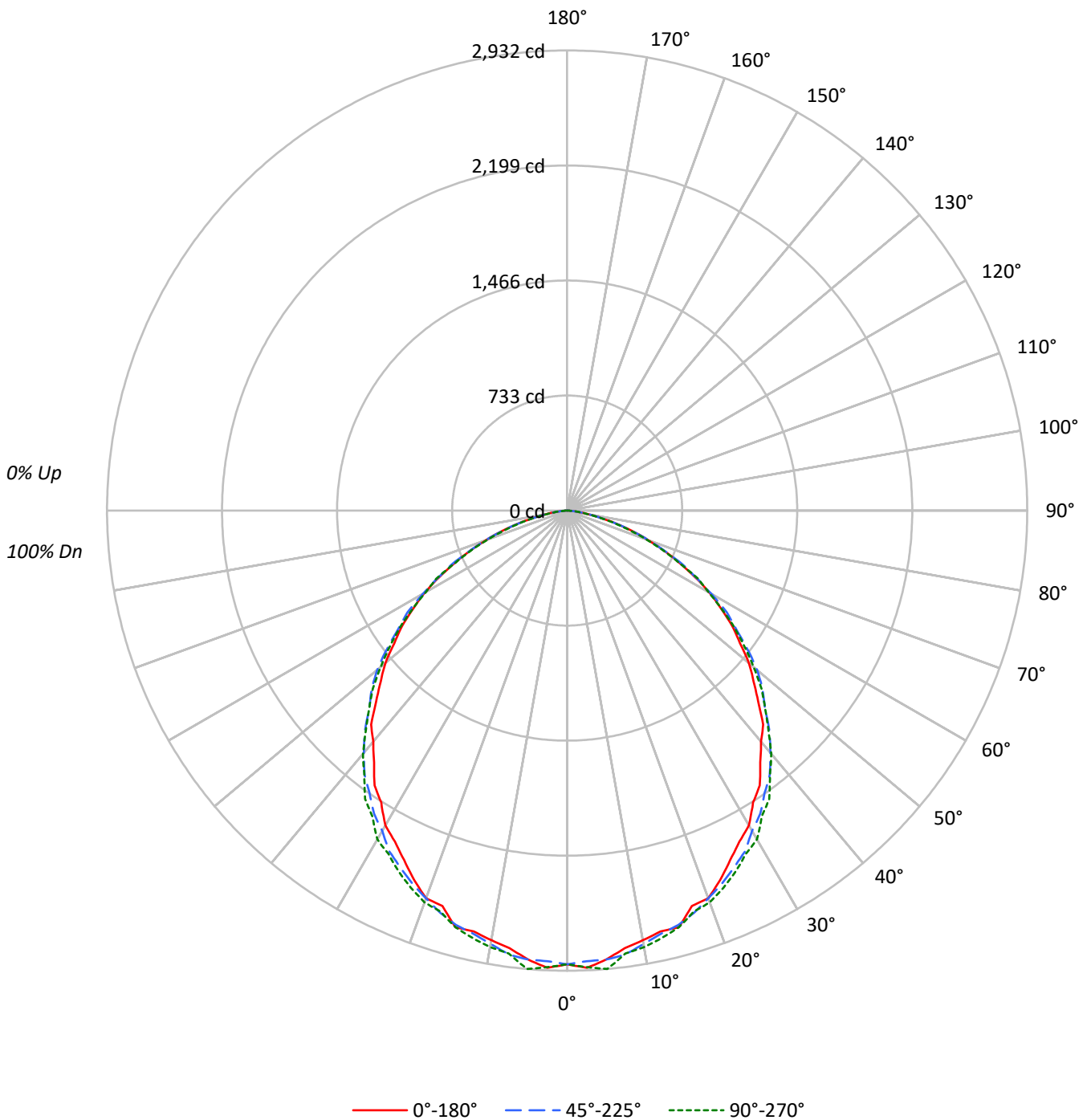
Lumens per Lamp: N/A
Luminaire Lumens: 7286.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589335

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589335

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-80-86-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°	7779	7779	7779
5°	7754	7757	7920
10°	7596	7663	7717
15°	7657	7615	7658
20°	7527	7527	7607
25°	7296	7455	7537
30°	7196	7322	7517
35°	7026	7210	7372
40°	6753	7078	7109
45°	6548	6781	6792
50°	6333	6619	6493
55°	6035	6152	6108
60°	5643	5699	5597
65°	5032	5160	4996
70°	4317	4332	4212
75°	3419	3411	3279
80°	2290	2227	2140
85°	1244	1232	1152



TEST NUMBER: P589335

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.9	3.7
10°-20°	770.7	10.6
20°-30°	1154.7	15.8
30°-40°	1368.5	18.8
40°-50°	1371.0	18.8
50°-60°	1163.8	16.0
60°-70°	784.6	10.8
70°-80°	344.8	4.7
80°-90°	56.0	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°	2197.3	30.2
0°-40°	3565.8	48.9
0°-60°	6100.6	83.7
0°-90°	7286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2891	2891	2891	2891	2891	
5°	2870	2864	2872	2863	2932	271
15°	2748	2717	2733	2748	2749	766
25°	2457	2471	2511	2544	2538	1136
35°	2139	2145	2195	2246	2244	1328
45°	1721	1753	1782	1828	1785	1331
55°	1286	1278	1311	1302	1302	1144
65°	790	780	810	779	785	786
75°	329	322	328	305	315	352
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



TEST NUMBER: P589335

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2890.9	2890.9	2890.9	2890.9	2890.9
2.5°	2915.9	2893.9	2873.4	2897.2	2911.8
5°	2870.4	2863.7	2871.5	2862.9	2932.0
7.5°	2811.4	2837.2	2852.1	2842.8	2846.9
10°	2780.0	2771.1	2804.3	2827.4	2824.1
12.5°	2746.4	2759.9	2761.8	2786.8	2789.0
15°	2748.3	2716.6	2733.4	2747.6	2748.7
17.5°	2641.6	2675.9	2687.5	2719.9	2679.6
20°	2628.5	2603.5	2628.5	2661.7	2656.5
22.5°	2548.2	2520.3	2574.0	2603.5	2601.6
25°	2457.2	2470.6	2510.9	2543.8	2538.5
27.5°	2377.3	2393.0	2450.5	2495.6	2466.5
30°	2315.7	2307.9	2356.4	2396.7	2419.1
32.5°	2205.6	2234.0	2290.7	2330.6	2309.4
35°	2138.8	2145.1	2194.8	2245.5	2244.0
37.5°	2022.0	2051.4	2121.2	2135.4	2122.4
40°	1922.3	1951.8	2014.9	2030.2	2023.8
42.5°	1848.8	1854.0	1908.1	1925.6	1897.7
45°	1720.7	1752.8	1781.9	1827.9	1784.6
47.5°	1611.7	1626.7	1689.4	1701.7	1678.9
50°	1512.8	1518.0	1581.1	1565.8	1550.9
52.5°	1388.5	1410.6	1446.0	1443.0	1425.5
55°	1286.3	1277.7	1311.3	1302.3	1301.9
57.5°	1163.5	1178.4	1206.0	1191.8	1169.1
60°	1048.5	1048.9	1058.9	1042.9	1039.9
62.5°	920.5	924.9	927.2	907.4	939.5
65°	790.2	779.7	810.3	779.4	784.6
67.5°	670.4	675.6	672.6	653.2	660.7
70°	548.7	555.4	550.6	528.5	535.3
72.5°	437.5	429.2	434.5	406.9	419.5
75°	328.8	322.1	328.1	305.0	315.4
77.5°	224.0	229.2	225.4	213.1	220.2
80°	147.8	143.7	143.7	136.6	138.1
82.5°	86.2	82.1	81.0	78.8	82.1
85°	40.3	39.2	39.9	38.8	37.3
87.5°	14.6	14.9	14.9	14.2	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)