

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: P589838

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589838
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-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

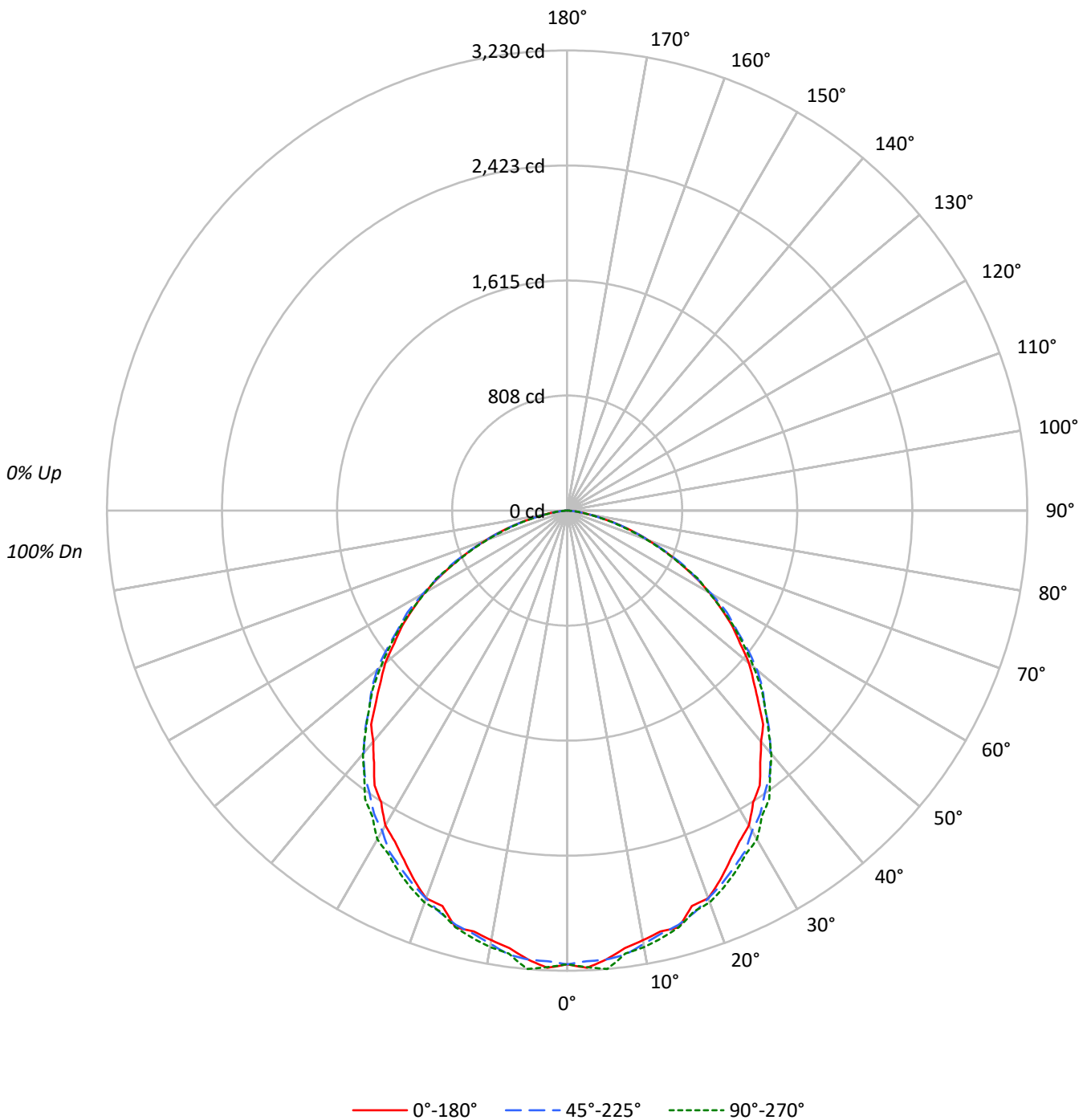
Lumens per Lamp: N/A
Luminaire Lumens: 8027.0 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589838

CATALOG NUMBER: FMR-24-2-LD4-4STD-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°	8570	8570	8570
5°	8542	8545	8725
10°	8369	8442	8502
15°	8435	8389	8436
20°	8293	8293	8381
25°	8038	8214	8304
30°	7927	8066	8281
35°	7741	7943	8122
40°	7439	7798	7832
45°	7214	7471	7482
50°	6978	7292	7153
55°	6648	6777	6729
60°	6217	6279	6166
65°	5543	5685	5504
70°	4756	4773	4640
75°	3767	3759	3613
80°	2523	2453	2359
85°	1371	1359	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.6	3.7
10°-20°	849.1	10.6
20°-30°	1272.1	15.8
30°-40°	1507.7	18.8
40°-50°	1510.5	18.8
50°-60°	1282.1	16.0
60°-70°	864.4	10.8
70°-80°	379.8	4.7
80°-90°	61.7	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°	2420.8	30.2
0°-40°	3928.4	48.9
0°-60°	6721.1	83.7
0°-90°	8027.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8027.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3185	3185	3185	3185	3185	
5°	3162	3155	3164	3154	3230	298
15°	3028	2993	3011	3027	3028	844
25°	2707	2722	2766	2802	2797	1252
35°	2356	2363	2418	2474	2472	1463
45°	1896	1931	1963	2014	1966	1466
55°	1417	1408	1445	1435	1434	1261
65°	871	859	893	859	864	866
75°	362	355	362	336	348	388
85°	44	43	44	43	41	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3184.9	3184.9	3184.9	3184.9	3184.9
2.5°	3212.5	3188.2	3165.6	3191.9	3207.9
5°	3162.3	3154.9	3163.5	3154.1	3230.1
7.5°	3097.3	3125.7	3142.1	3131.9	3136.4
10°	3062.8	3052.9	3089.5	3115.0	3111.3
12.5°	3025.8	3040.6	3042.6	3070.2	3072.6
15°	3027.8	2992.9	3011.4	3027.0	3028.2
17.5°	2910.2	2948.0	2960.8	2996.6	2952.2
20°	2895.8	2868.3	2895.8	2932.4	2926.7
22.5°	2807.4	2776.6	2835.8	2868.3	2866.2
25°	2707.1	2721.9	2766.3	2802.5	2796.7
27.5°	2619.1	2636.3	2699.7	2749.4	2717.4
30°	2551.2	2542.6	2596.0	2640.5	2665.1
32.5°	2429.9	2461.2	2523.7	2567.7	2544.2
35°	2356.3	2363.3	2418.0	2473.9	2472.3
37.5°	2227.6	2260.1	2337.0	2352.6	2338.2
40°	2117.8	2150.3	2219.8	2236.6	2229.6
42.5°	2036.8	2042.5	2102.2	2121.5	2090.7
45°	1895.7	1931.1	1963.2	2013.8	1966.1
47.5°	1775.7	1792.1	1861.2	1874.8	1849.7
50°	1666.7	1672.4	1741.9	1725.1	1708.6
52.5°	1529.7	1554.0	1593.1	1589.8	1570.5
55°	1417.1	1407.6	1444.6	1434.8	1434.3
57.5°	1281.8	1298.2	1328.7	1313.0	1287.9
60°	1155.1	1155.5	1166.6	1149.0	1145.7
62.5°	1014.1	1019.0	1021.5	999.7	1035.0
65°	870.6	859.0	892.8	858.6	864.4
67.5°	738.6	744.3	741.0	719.6	727.9
70°	604.5	611.9	606.6	582.3	589.7
72.5°	482.0	472.9	478.7	448.2	462.2
75°	362.3	354.9	361.5	336.0	347.5
77.5°	246.7	252.5	248.4	234.8	242.6
80°	162.8	158.3	158.3	150.5	152.2
82.5°	95.0	90.5	89.2	86.8	90.5
85°	44.4	43.2	44.0	42.8	41.1
87.5°	16.0	16.4	16.4	15.6	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)