

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: P589843

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589843
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

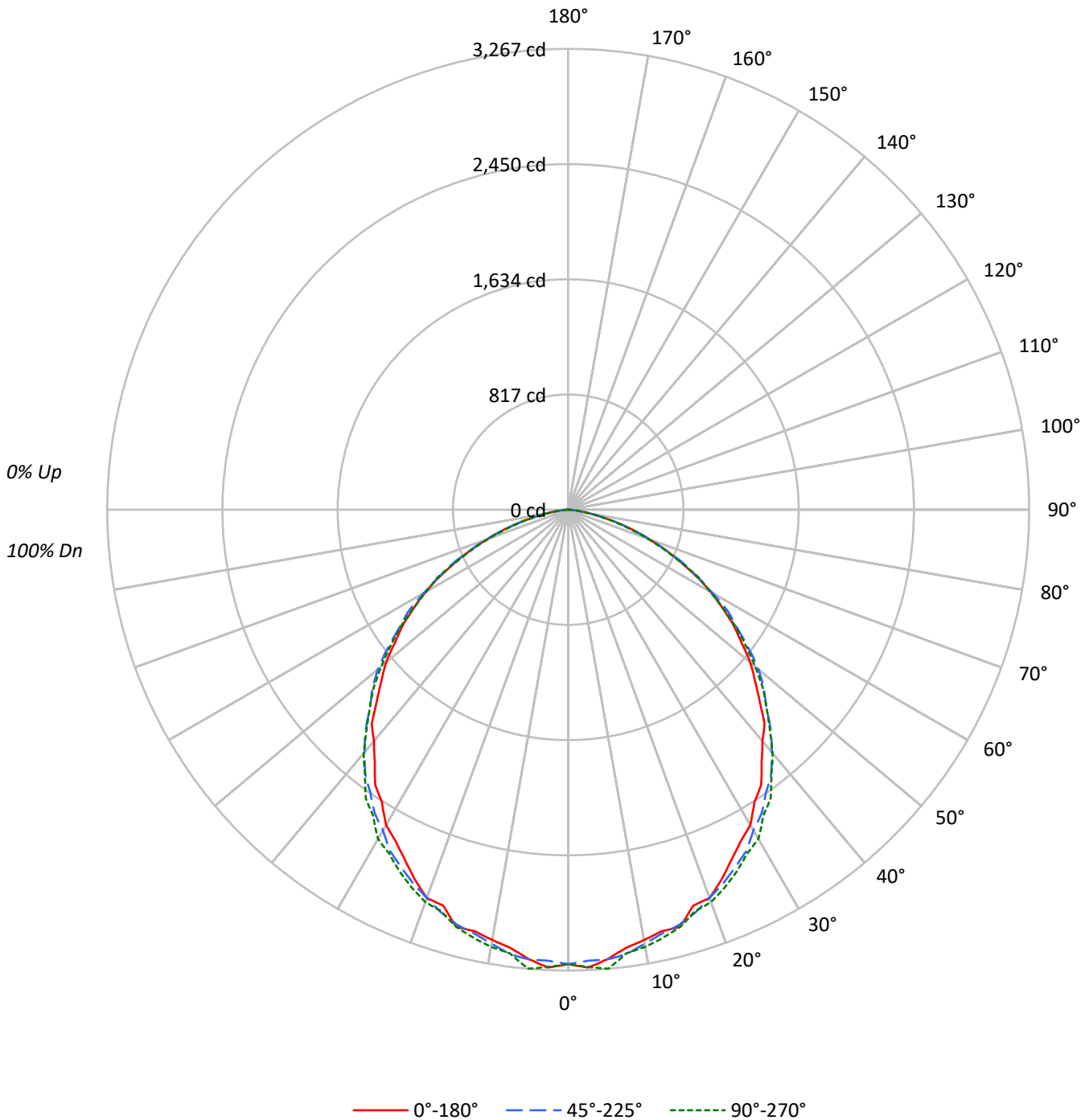
Lumens per Lamp: N/A
Luminaire Lumens: 8118.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (A_{in}): 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

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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°	8668	8668	8668
5°	8639	8642	8824
10°	8464	8538	8598
15°	8531	8484	8532
20°	8387	8387	8476
25°	8129	8307	8398
30°	8017	8158	8375
35°	7828	8033	8214
40°	7524	7886	7921
45°	7296	7556	7567
50°	7057	7375	7234
55°	6724	6854	6806
60°	6287	6350	6236
65°	5606	5749	5566
70°	4810	4826	4692
75°	3810	3801	3654
80°	2552	2481	2385
85°	1386	1374	1284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.0	3.7
10°-20°	858.7	10.6
20°-30°	1286.5	15.8
30°-40°	1524.8	18.8
40°-50°	1527.6	18.8
50°-60°	1296.7	16.0
60°-70°	874.2	10.8
70°-80°	384.1	4.7
80°-90°	62.4	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°	2448.2	30.2
0°-40°	3973.0	48.9
0°-60°	6797.2	83.7
0°-90°	8118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8118.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3221	3221	3221	3221	3221	
5°	3198	3191	3199	3190	3267	302
15°	3062	3027	3046	3061	3063	853
25°	2738	2753	2798	2834	2828	1266
35°	2383	2390	2445	2502	2500	1480
45°	1917	1953	1985	2037	1988	1483
55°	1433	1424	1461	1451	1451	1275
65°	880	869	903	868	874	876
75°	366	359	366	340	351	393
85°	45	44	44	43	42	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3221.0	3221.0	3221.0	3221.0	3221.0
2.5°	3248.9	3224.3	3201.5	3228.1	3244.3
5°	3198.1	3190.7	3199.4	3189.8	3266.8
7.5°	3132.4	3161.1	3177.8	3167.4	3171.9
10°	3097.5	3087.5	3124.5	3150.3	3146.6
12.5°	3060.1	3075.0	3077.1	3105.0	3107.5
15°	3062.1	3026.8	3045.5	3061.3	3062.6
17.5°	2943.2	2981.5	2994.4	3030.5	2985.6
20°	2928.7	2900.8	2928.7	2965.7	2959.8
22.5°	2839.2	2808.0	2867.9	2900.8	2898.7
25°	2737.8	2752.7	2797.6	2834.2	2828.4
27.5°	2648.8	2666.2	2730.3	2780.6	2748.2
30°	2580.1	2571.4	2625.5	2670.4	2695.3
32.5°	2457.5	2489.1	2552.3	2596.8	2573.1
35°	2383.0	2390.1	2445.4	2502.0	2500.3
37.5°	2252.8	2285.7	2363.5	2379.3	2364.7
40°	2141.8	2174.7	2244.9	2262.0	2254.9
42.5°	2059.9	2065.7	2126.0	2145.5	2114.4
45°	1917.2	1953.0	1985.4	2036.6	1988.3
47.5°	1795.8	1812.4	1882.3	1896.0	1870.6
50°	1685.6	1691.4	1761.7	1744.6	1728.0
52.5°	1547.1	1571.6	1611.1	1607.8	1588.3
55°	1433.1	1423.6	1461.0	1451.0	1450.6
57.5°	1296.3	1312.9	1343.7	1327.9	1302.5
60°	1168.2	1168.6	1179.9	1162.0	1158.7
62.5°	1025.6	1030.6	1033.1	1011.0	1046.8
65°	880.4	868.8	902.9	868.4	874.2
67.5°	746.9	752.7	749.4	727.8	736.1
70°	611.3	618.8	613.4	588.9	596.4
72.5°	487.4	478.3	484.1	453.3	467.5
75°	366.4	358.9	365.6	339.8	351.4
77.5°	249.5	255.4	251.2	237.5	245.4
80°	164.7	160.1	160.1	152.2	153.9
82.5°	96.1	91.5	90.2	87.8	91.5
85°	44.9	43.7	44.5	43.3	41.6
87.5°	16.2	16.6	16.6	15.8	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)