

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: P589814

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589814
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-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

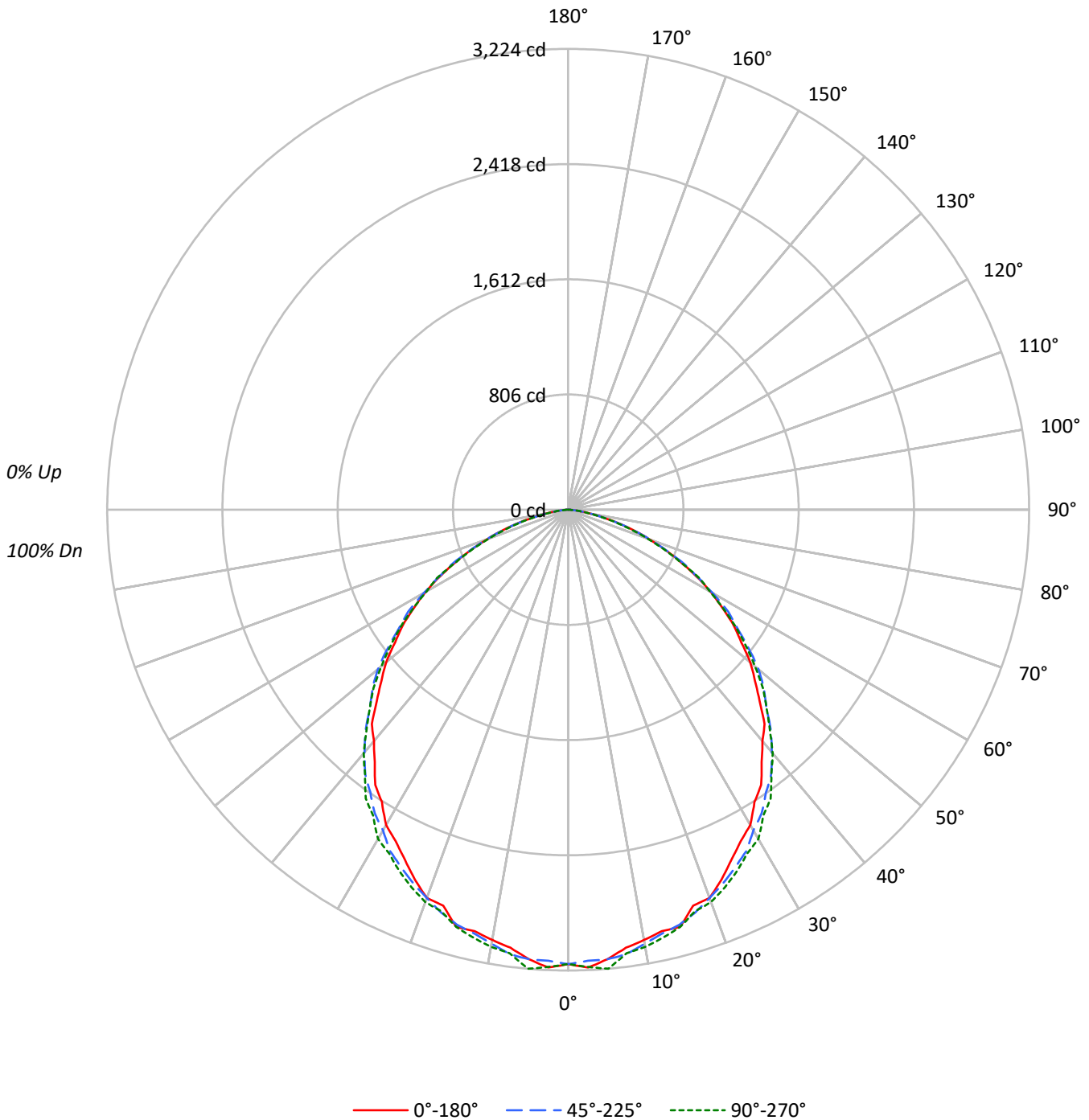
Lumens per Lamp: N/A
Luminaire Lumens: 8011.0 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	8554	8554	8554
5°	8525	8528	8708
10°	8352	8425	8485
15°	8418	8373	8420
20°	8276	8276	8364
25°	8022	8197	8287
30°	7911	8051	8265
35°	7725	7928	8105
40°	7425	7782	7817
45°	7200	7456	7467
50°	6964	7278	7139
55°	6635	6764	6716
60°	6204	6266	6154
65°	5532	5673	5493
70°	4747	4762	4630
75°	3760	3750	3606
80°	2518	2448	2352
85°	1368	1355	1266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.0	3.7
10°-20°	847.4	10.6
20°-30°	1269.5	15.8
30°-40°	1504.7	18.8
40°-50°	1507.5	18.8
50°-60°	1279.6	16.0
60°-70°	862.7	10.8
70°-80°	379.1	4.7
80°-90°	61.6	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°	2415.9	30.2
0°-40°	3920.6	48.9
0°-60°	6707.6	83.7
0°-90°	8011.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8011.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3179	3179	3179	3179	3179	
5°	3156	3149	3157	3148	3224	298
15°	3022	2987	3005	3021	3022	842
25°	2702	2716	2761	2797	2791	1249
35°	2352	2359	2413	2469	2467	1460
45°	1892	1927	1959	2010	1962	1464
55°	1414	1405	1442	1432	1432	1258
65°	869	857	891	857	863	864
75°	362	354	361	335	347	387
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°	3178.6	3178.6	3178.6	3178.6	3178.6
2.5°	3206.1	3181.8	3159.3	3185.5	3201.5
5°	3156.0	3148.6	3157.2	3147.8	3223.7
7.5°	3091.1	3119.5	3135.9	3125.6	3130.1
10°	3056.7	3046.8	3083.3	3108.8	3105.1
12.5°	3019.7	3034.5	3036.6	3064.1	3066.5
15°	3021.8	2986.9	3005.4	3021.0	3022.2
17.5°	2904.4	2942.2	2954.9	2990.6	2946.3
20°	2890.0	2862.6	2890.0	2926.6	2920.8
22.5°	2801.8	2771.0	2830.1	2862.6	2860.5
25°	2701.7	2716.4	2760.8	2796.9	2791.1
27.5°	2613.8	2631.1	2694.3	2743.9	2711.9
30°	2546.1	2537.5	2590.9	2635.2	2659.8
32.5°	2425.1	2456.3	2518.6	2562.5	2539.2
35°	2351.6	2358.6	2413.2	2469.0	2467.3
37.5°	2223.1	2255.6	2332.3	2347.9	2333.5
40°	2113.6	2146.0	2215.3	2232.2	2225.2
42.5°	2032.7	2038.5	2098.0	2117.3	2086.5
45°	1892.0	1927.2	1959.3	2009.7	1962.1
47.5°	1772.1	1788.5	1857.5	1871.0	1846.0
50°	1663.4	1669.1	1738.5	1721.6	1705.2
52.5°	1526.7	1550.9	1589.9	1586.6	1567.3
55°	1414.2	1404.8	1441.7	1431.9	1431.5
57.5°	1279.2	1295.6	1326.0	1310.4	1285.4
60°	1152.8	1153.2	1164.3	1146.7	1143.4
62.5°	1012.1	1017.0	1019.4	997.7	1033.0
65°	868.8	857.3	891.0	856.9	862.7
67.5°	737.1	742.8	739.5	718.2	726.4
70°	603.3	610.7	605.3	581.1	588.5
72.5°	481.0	472.0	477.7	447.3	461.3
75°	361.6	354.2	360.7	335.3	346.8
77.5°	246.2	252.0	247.9	234.3	242.1
80°	162.5	158.0	158.0	150.2	151.8
82.5°	94.8	90.3	89.1	86.6	90.3
85°	44.3	43.1	43.9	42.7	41.0
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)