

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: P589363

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589363
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-93-96-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

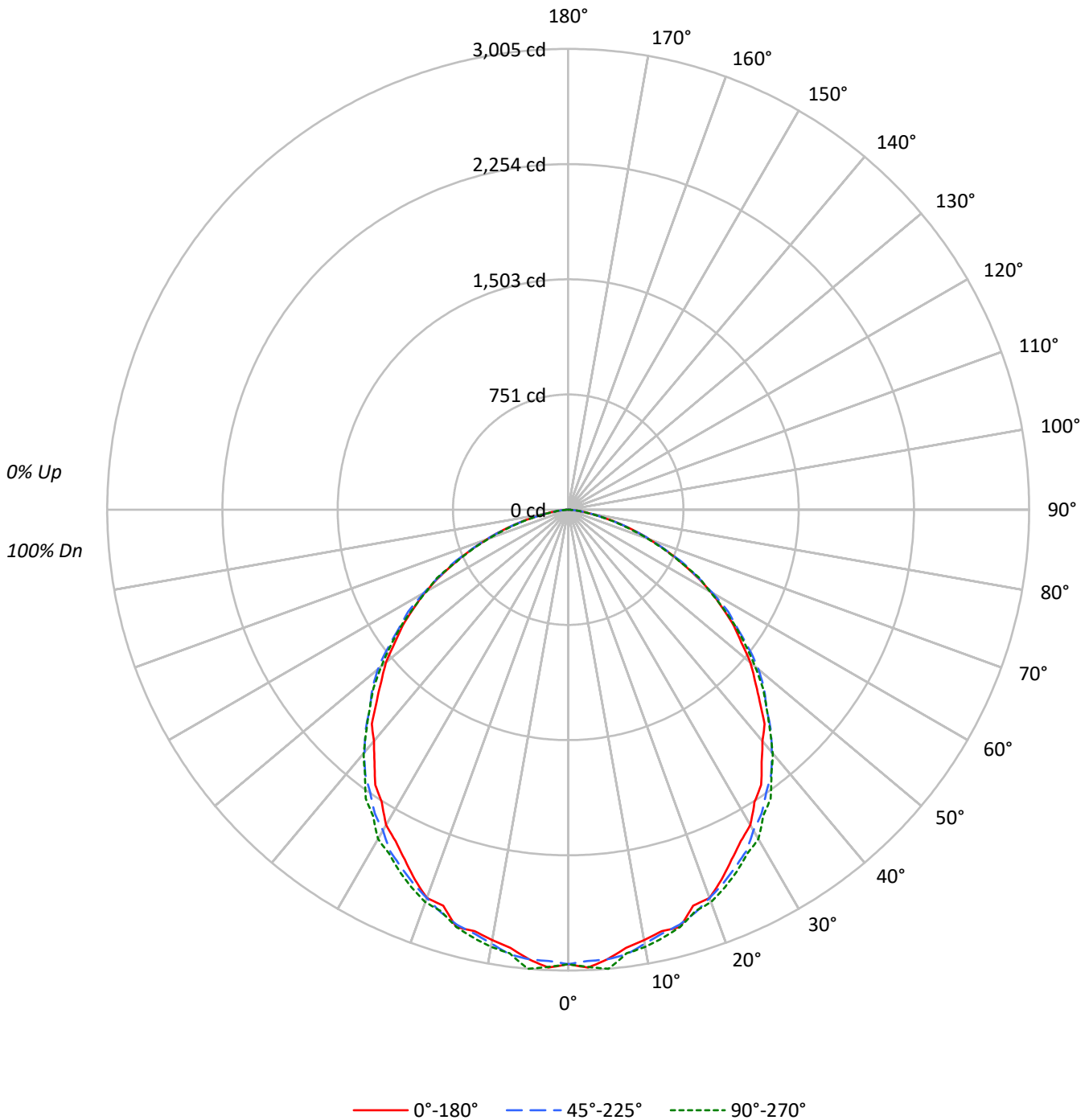
Lumens per Lamp: N/A
Luminaire Lumens: 7468.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	7974	7974	7974
5°	7947	7950	8118
10°	7786	7854	7909
15°	7848	7805	7849
20°	7715	7715	7798
25°	7478	7641	7726
30°	7375	7505	7704
35°	7202	7390	7556
40°	6921	7255	7287
45°	6712	6951	6961
50°	6491	6785	6655
55°	6185	6305	6261
60°	5784	5842	5737
65°	5157	5289	5121
70°	4425	4440	4316
75°	3505	3497	3361
80°	2348	2283	2194
85°	1275	1263	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.7	3.7
10°-20°	789.9	10.6
20°-30°	1183.5	15.8
30°-40°	1402.7	18.8
40°-50°	1405.3	18.8
50°-60°	1192.8	16.0
60°-70°	804.2	10.8
70°-80°	353.4	4.7
80°-90°	57.4	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°	2252.2	30.2
0°-40°	3654.9	48.9
0°-60°	6253.0	83.7
0°-90°	7468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2963	2963	2963	2963	2963	
5°	2942	2935	2943	2934	3005	277
15°	2817	2784	2802	2816	2817	785
25°	2519	2532	2574	2607	2602	1164
35°	2192	2199	2250	2302	2300	1361
45°	1764	1797	1826	1874	1829	1364
55°	1318	1310	1344	1335	1334	1173
65°	810	799	831	799	804	806
75°	337	330	336	313	323	361
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2963.1	2963.1	2963.1	2963.1	2963.1
2.5°	2988.7	2966.2	2945.1	2969.6	2984.5
5°	2942.1	2935.2	2943.2	2934.4	3005.2
7.5°	2881.6	2908.0	2923.3	2913.8	2918.0
10°	2849.5	2840.3	2874.4	2898.1	2894.6
12.5°	2815.1	2828.8	2830.7	2856.4	2858.7
15°	2817.0	2784.4	2801.7	2816.2	2817.3
17.5°	2707.5	2742.7	2754.6	2787.9	2746.6
20°	2694.2	2668.5	2694.2	2728.2	2722.9
22.5°	2611.9	2583.2	2638.3	2668.5	2666.6
25°	2518.6	2532.3	2573.6	2607.3	2602.0
27.5°	2436.7	2452.7	2511.7	2558.0	2528.1
30°	2373.6	2365.5	2415.3	2456.6	2479.5
32.5°	2260.7	2289.8	2347.9	2388.9	2367.0
35°	2192.2	2198.7	2249.6	2301.6	2300.1
37.5°	2072.5	2102.7	2174.2	2188.8	2175.4
40°	1970.3	2000.5	2065.2	2080.9	2074.4
42.5°	1894.9	1900.3	1955.8	1973.8	1945.1
45°	1763.7	1796.6	1826.5	1873.5	1829.1
47.5°	1652.0	1667.3	1731.6	1744.2	1720.9
50°	1550.6	1556.0	1620.6	1604.9	1589.6
52.5°	1423.2	1445.8	1482.1	1479.1	1461.1
55°	1318.4	1309.6	1344.0	1334.8	1334.5
57.5°	1192.5	1207.8	1236.1	1221.6	1198.3
60°	1074.7	1075.1	1085.4	1068.9	1065.9
62.5°	943.5	948.0	950.3	930.1	963.0
65°	809.9	799.2	830.6	798.8	804.2
67.5°	687.1	692.5	689.4	669.5	677.2
70°	562.4	569.3	564.3	541.7	548.6
72.5°	448.4	440.0	445.3	417.0	430.0
75°	337.1	330.2	336.3	312.6	323.3
77.5°	229.6	234.9	231.1	218.5	225.7
80°	151.5	147.3	147.3	140.0	141.6
82.5°	88.4	84.2	83.0	80.7	84.2
85°	41.3	40.2	40.9	39.8	38.3
87.5°	14.9	15.3	15.3	14.5	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)