

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: P589364

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589364
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-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

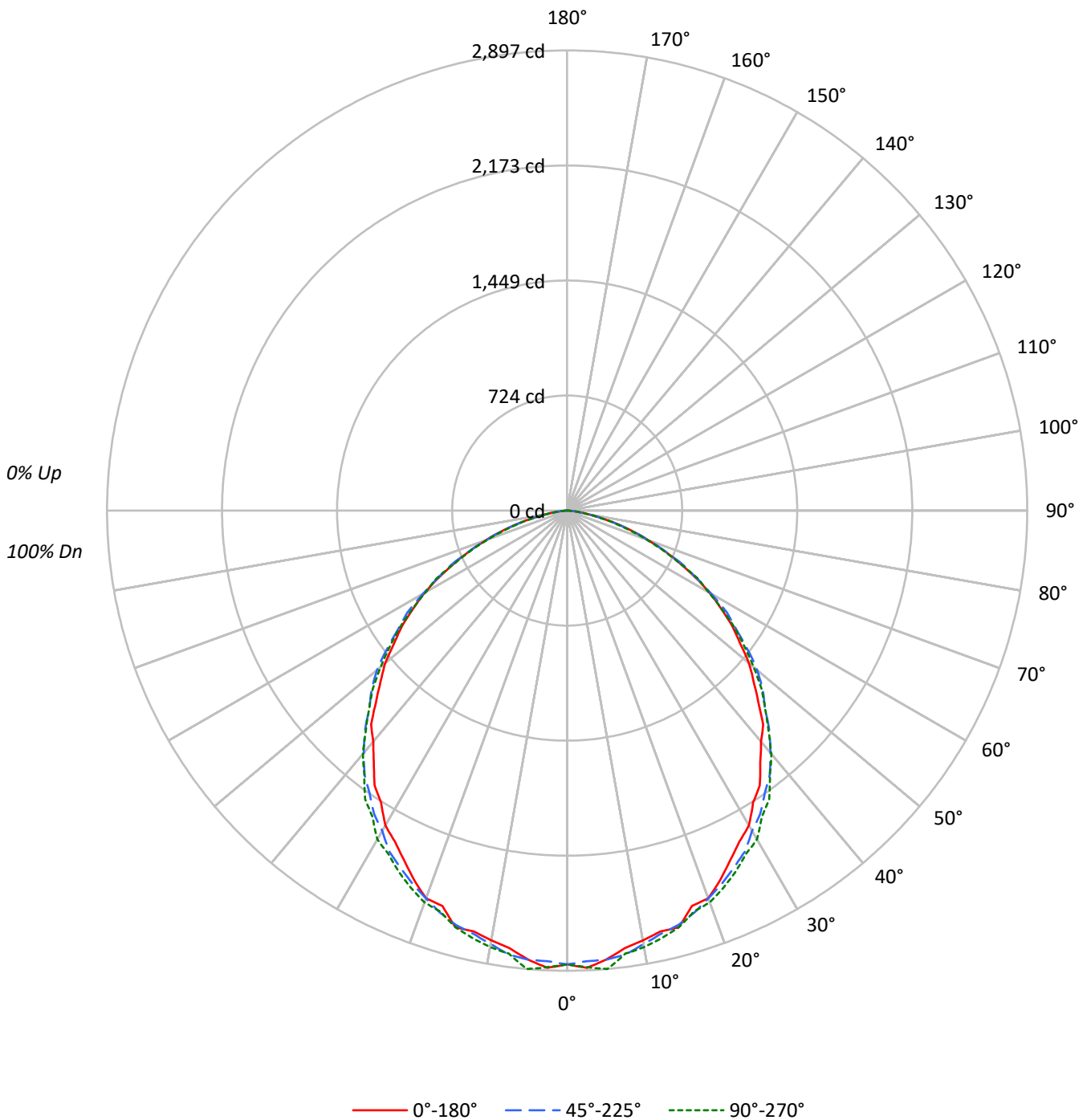
Lumens per Lamp: N/A
Luminaire Lumens: 7200.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7688	7688	7688
5°	7662	7665	7827
10°	7507	7572	7626
15°	7566	7525	7567
20°	7438	7438	7517
25°	7210	7367	7448
30°	7111	7236	7428
35°	6943	7125	7285
40°	6673	6994	7025
45°	6471	6701	6711
50°	6259	6541	6416
55°	5963	6079	6036
60°	5576	5632	5530
65°	4972	5099	4937
70°	4266	4281	4161
75°	3379	3371	3241
80°	2264	2201	2115
85°	1229	1220	1139



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.7	3.7
10°-20°	761.6	10.6
20°-30°	1141.0	15.8
30°-40°	1352.3	18.8
40°-50°	1354.8	18.8
50°-60°	1150.0	16.0
60°-70°	775.4	10.8
70°-80°	340.7	4.7
80°-90°	55.4	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°	2171.3	30.2
0°-40°	3523.7	48.9
0°-60°	6028.6	83.7
0°-90°	7200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7200.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2857	2857	2857	2857	2857	
5°	2836	2830	2838	2829	2897	267
15°	2716	2684	2701	2715	2716	757
25°	2428	2441	2481	2514	2509	1123
35°	2114	2120	2169	2219	2218	1312
45°	1700	1732	1761	1806	1764	1315
55°	1271	1263	1296	1287	1287	1131
65°	781	770	801	770	775	777
75°	325	318	324	301	312	348
85°	40	39	40	38	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2856.8	2856.8	2856.8	2856.8	2856.8
2.5°	2881.5	2859.7	2839.4	2863.0	2877.4
5°	2836.5	2829.9	2837.6	2829.1	2897.4
7.5°	2778.2	2803.7	2818.4	2809.2	2813.3
10°	2747.2	2738.4	2771.2	2794.1	2790.8
12.5°	2714.0	2727.3	2729.2	2753.9	2756.1
15°	2715.9	2684.5	2701.1	2715.1	2716.2
17.5°	2610.4	2644.3	2655.8	2687.8	2648.0
20°	2597.5	2572.8	2597.5	2630.3	2625.1
22.5°	2518.2	2490.5	2543.6	2572.8	2570.9
25°	2428.2	2441.4	2481.3	2513.7	2508.6
27.5°	2349.2	2364.7	2421.5	2466.2	2437.4
30°	2288.4	2280.6	2328.6	2368.4	2390.5
32.5°	2179.6	2207.6	2263.7	2303.1	2282.1
35°	2113.5	2119.8	2168.9	2219.0	2217.6
37.5°	1998.1	2027.2	2096.2	2110.2	2097.3
40°	1899.6	1928.7	1991.1	2006.2	1999.9
42.5°	1826.9	1832.1	1885.6	1902.9	1875.3
45°	1700.4	1732.1	1760.9	1806.3	1763.5
47.5°	1592.7	1607.5	1669.4	1681.6	1659.1
50°	1495.0	1500.1	1562.5	1547.3	1532.6
52.5°	1372.1	1393.9	1428.9	1426.0	1408.7
55°	1271.1	1262.6	1295.8	1286.9	1286.6
57.5°	1149.7	1164.5	1191.8	1177.8	1155.3
60°	1036.1	1036.5	1046.4	1030.6	1027.6
62.5°	909.6	914.0	916.2	896.7	928.4
65°	780.9	770.5	800.8	770.2	775.3
67.5°	662.5	667.6	664.7	645.5	652.9
70°	542.2	548.9	544.1	522.3	528.9
72.5°	432.3	424.2	429.3	402.1	414.6
75°	325.0	318.3	324.2	301.4	311.7
77.5°	221.3	226.5	222.8	210.6	217.6
80°	146.1	142.0	142.0	135.0	136.5
82.5°	85.2	81.1	80.0	77.8	81.1
85°	39.8	38.7	39.5	38.4	36.9
87.5°	14.4	14.8	14.8	14.0	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)