

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: P589362

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589362
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-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

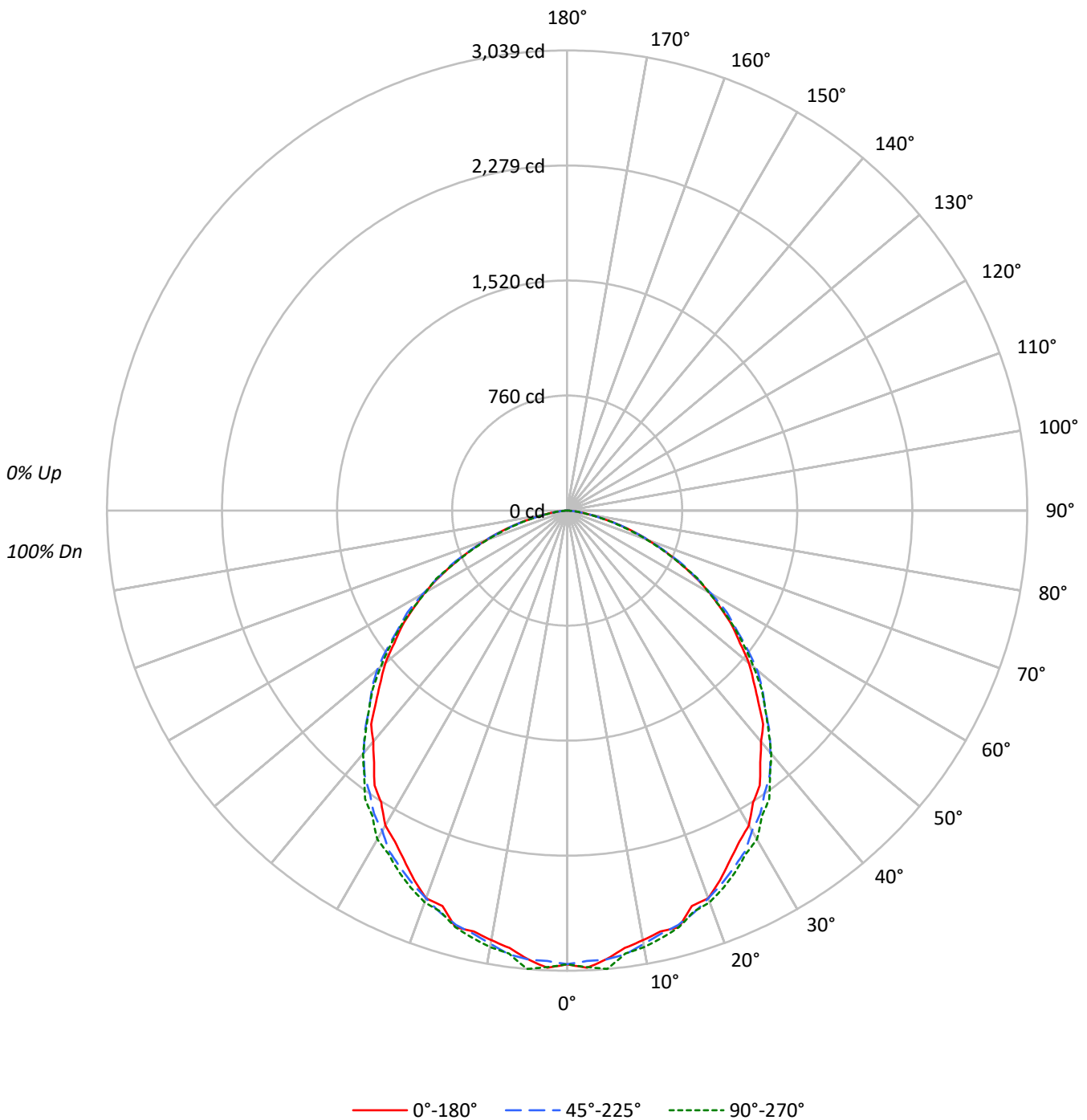
Lumens per Lamp: N/A
Luminaire Lumens: 7551.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	8062	8062	8062
5°	8036	8039	8208
10°	7873	7941	7997
15°	7935	7892	7936
20°	7801	7801	7884
25°	7561	7726	7812
30°	7457	7588	7790
35°	7282	7472	7640
40°	6998	7335	7368
45°	6787	7028	7038
50°	6563	6860	6729
55°	6254	6376	6330
60°	5848	5907	5800
65°	5214	5347	5177
70°	4474	4489	4364
75°	3543	3535	3399
80°	2374	2307	2218
85°	1291	1278	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.8	3.7
10°-20°	798.7	10.6
20°-30°	1196.7	15.8
30°-40°	1418.3	18.8
40°-50°	1420.9	18.8
50°-60°	1206.1	16.0
60°-70°	813.2	10.8
70°-80°	357.3	4.7
80°-90°	58.1	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°	2277.2	30.2
0°-40°	3695.5	48.9
0°-60°	6322.5	83.7
0°-90°	7551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2996	2996	2996	2996	2996	
5°	2975	2968	2976	2967	3039	280
15°	2848	2815	2833	2848	2849	794
25°	2546	2560	2602	2636	2631	1177
35°	2217	2223	2275	2327	2326	1376
45°	1783	1817	1847	1894	1850	1379
55°	1333	1324	1359	1350	1349	1186
65°	819	808	840	808	813	814
75°	341	334	340	316	327	365
85°	42	41	41	40	39	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2996.0	2996.0	2996.0	2996.0	2996.0
2.5°	3022.0	2999.1	2977.9	3002.6	3017.7
5°	2974.8	2967.8	2975.9	2967.0	3038.6
7.5°	2913.6	2940.3	2955.8	2946.1	2950.4
10°	2881.2	2871.9	2906.3	2930.3	2926.8
12.5°	2846.3	2860.3	2862.2	2888.1	2890.4
15°	2848.3	2815.4	2832.8	2847.5	2848.7
17.5°	2737.6	2773.2	2785.2	2818.9	2777.1
20°	2724.1	2698.2	2724.1	2758.5	2753.1
22.5°	2640.9	2611.9	2667.6	2698.2	2696.2
25°	2546.5	2560.5	2602.2	2636.3	2630.9
27.5°	2463.8	2480.0	2539.6	2586.4	2556.2
30°	2399.9	2391.8	2442.1	2483.9	2507.1
32.5°	2285.8	2315.2	2374.0	2415.4	2393.4
35°	2216.6	2223.1	2274.6	2327.2	2325.7
37.5°	2095.5	2126.1	2198.4	2213.1	2199.6
40°	1992.2	2022.8	2088.1	2104.0	2097.4
42.5°	1916.0	1921.4	1977.5	1995.7	1966.7
45°	1783.3	1816.6	1846.8	1894.3	1849.5
47.5°	1670.4	1685.8	1750.8	1763.6	1740.0
50°	1567.8	1573.3	1638.6	1622.8	1607.3
52.5°	1439.0	1461.9	1498.6	1495.5	1477.3
55°	1333.0	1324.1	1359.0	1349.7	1349.3
57.5°	1205.8	1221.2	1249.9	1235.2	1211.6
60°	1086.6	1087.0	1097.5	1080.8	1077.7
62.5°	953.9	958.6	960.9	940.4	973.7
65°	818.9	808.1	839.8	807.7	813.1
67.5°	694.8	700.2	697.1	677.0	684.7
70°	568.6	575.6	570.6	547.8	554.7
72.5°	453.4	444.9	450.3	421.7	434.8
75°	340.8	333.8	340.0	316.0	326.9
77.5°	232.1	237.5	233.6	220.9	228.2
80°	153.2	148.9	148.9	141.6	143.1
82.5°	89.4	85.1	83.9	81.6	85.1
85°	41.8	40.6	41.4	40.2	38.7
87.5°	15.1	15.5	15.5	14.7	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)