

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: P589794

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589794
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-40-UNV-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

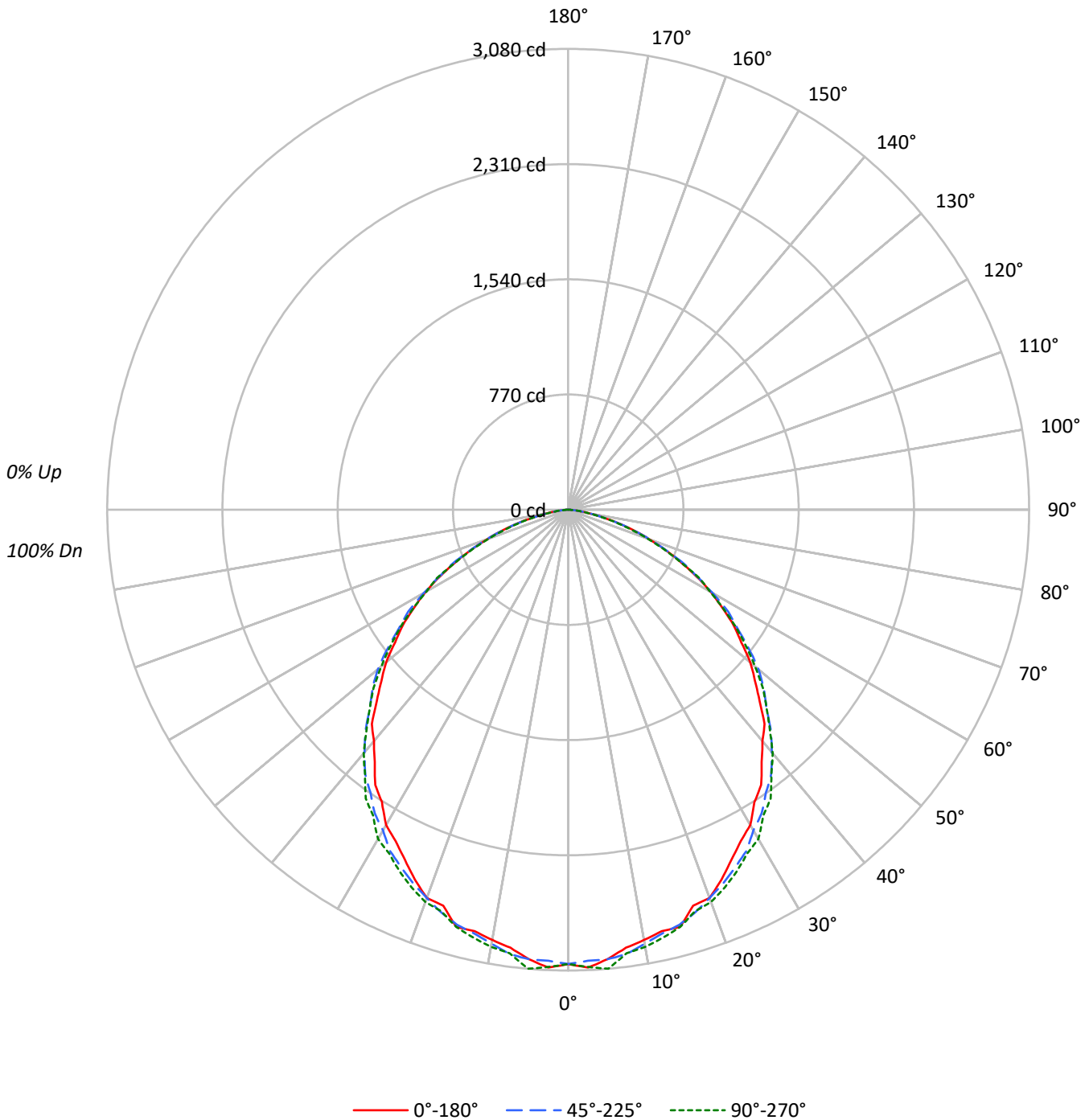
Lumens per Lamp: N/A
Luminaire Lumens: 7653.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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	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					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°	8171	8171	8171
5°	8144	8147	8319
10°	7979	8049	8105
15°	8042	7999	8043
20°	7906	7906	7991
25°	7663	7831	7917
30°	7558	7691	7896
35°	7380	7573	7743
40°	7093	7434	7468
45°	6878	7123	7133
50°	6652	6953	6820
55°	6338	6462	6416
60°	5927	5986	5879
65°	5285	5420	5247
70°	4534	4550	4423
75°	3591	3583	3445
80°	2407	2338	2249
85°	1306	1297	1210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.6	3.7
10°-20°	809.5	10.6
20°-30°	1212.8	15.8
30°-40°	1437.4	18.8
40°-50°	1440.1	18.8
50°-60°	1222.4	16.0
60°-70°	824.1	10.8
70°-80°	362.1	4.7
80°-90°	58.9	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°	2308.0	30.2
0°-40°	3745.4	48.9
0°-60°	6407.9	83.7
0°-90°	7653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7653.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3036	3036	3036	3036	3036	
5°	3015	3008	3016	3007	3080	284
15°	2887	2853	2871	2886	2887	804
25°	2581	2595	2637	2672	2666	1193
35°	2246	2253	2305	2359	2357	1395
45°	1807	1841	1872	1920	1874	1398
55°	1351	1342	1377	1368	1368	1202
65°	830	819	851	819	824	825
75°	345	338	345	320	331	370
85°	42	41	42	41	39	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3036.5	3036.5	3036.5	3036.5	3036.5
2.5°	3062.8	3039.7	3018.1	3043.2	3058.5
5°	3015.0	3007.9	3016.1	3007.1	3079.6
7.5°	2953.0	2980.1	2995.7	2985.9	2990.3
10°	2920.1	2910.7	2945.6	2969.9	2966.3
12.5°	2884.8	2898.9	2900.9	2927.1	2929.5
15°	2886.7	2853.4	2871.1	2886.0	2887.1
17.5°	2774.6	2810.7	2822.8	2857.0	2814.6
20°	2760.9	2734.6	2760.9	2795.8	2790.3
22.5°	2676.6	2647.2	2703.7	2734.6	2732.7
25°	2580.9	2595.1	2637.4	2671.9	2666.4
27.5°	2497.0	2513.5	2573.9	2621.3	2590.7
30°	2432.4	2424.1	2475.1	2517.4	2541.0
32.5°	2316.7	2346.5	2406.1	2448.0	2425.7
35°	2246.5	2253.2	2305.3	2358.6	2357.1
37.5°	2123.8	2154.8	2228.1	2243.0	2229.3
40°	2019.1	2050.1	2116.3	2132.4	2125.8
42.5°	1941.9	1947.4	2004.2	2022.6	1993.2
45°	1807.4	1841.1	1871.7	1919.9	1874.4
47.5°	1692.9	1708.6	1774.5	1787.4	1763.5
50°	1589.0	1594.5	1660.8	1644.7	1629.0
52.5°	1458.5	1481.6	1518.8	1515.7	1497.3
55°	1351.0	1342.0	1377.3	1367.9	1367.5
57.5°	1222.1	1237.7	1266.8	1251.9	1227.9
60°	1101.3	1101.7	1112.3	1095.4	1092.3
62.5°	966.8	971.5	973.9	953.1	986.8
65°	830.0	819.0	851.2	818.6	824.1
67.5°	704.1	709.6	706.5	686.1	693.9
70°	576.3	583.4	578.3	555.2	562.2
72.5°	459.5	450.9	456.4	427.3	440.7
75°	345.4	338.3	344.6	320.3	331.3
77.5°	235.2	240.7	236.8	223.9	231.3
80°	155.3	150.9	150.9	143.5	145.1
82.5°	90.6	86.3	85.1	82.7	86.3
85°	42.3	41.2	42.0	40.8	39.2
87.5°	15.3	15.7	15.7	14.9	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)