

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: P589821

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589821
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

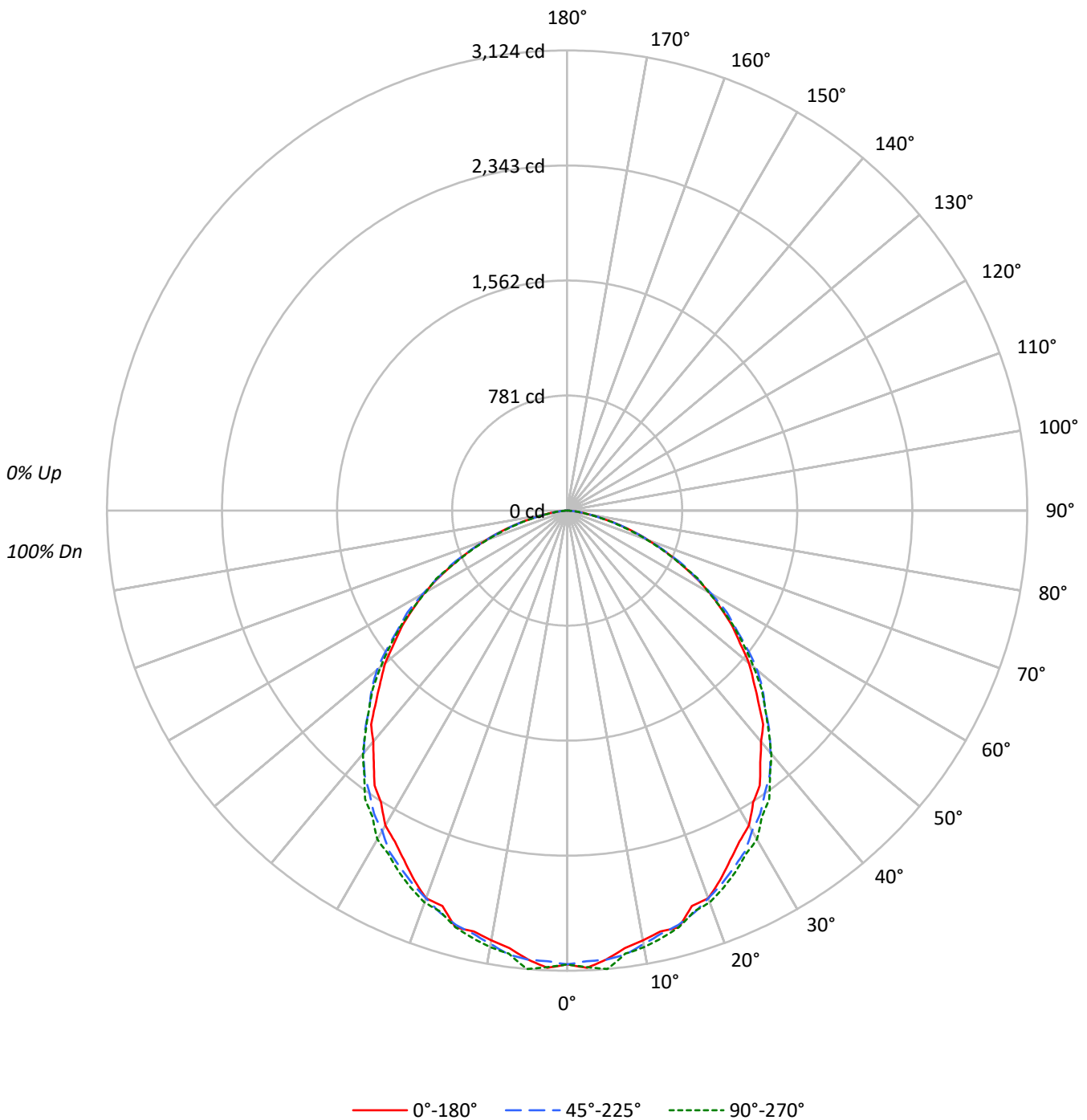
Lumens per Lamp: N/A
Luminaire Lumens: 7764.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8290	8290	8290
5°	8262	8266	8440
10°	8095	8166	8223
15°	8159	8115	8160
20°	8021	8021	8107
25°	7774	7945	8032
30°	7668	7802	8010
35°	7487	7683	7856
40°	7196	7542	7576
45°	6978	7226	7237
50°	6749	7054	6918
55°	6430	6556	6509
60°	6013	6073	5964
65°	5361	5498	5324
70°	4600	4616	4488
75°	3643	3635	3494
80°	2441	2373	2281
85°	1328	1315	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.8	3.7
10°-20°	821.3	10.6
20°-30°	1230.4	15.8
30°-40°	1458.3	18.8
40°-50°	1461.0	18.8
50°-60°	1240.1	16.0
60°-70°	836.1	10.8
70°-80°	367.4	4.7
80°-90°	59.7	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°	2341.4	30.2
0°-40°	3799.7	48.9
0°-60°	6500.8	83.7
0°-90°	7764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3081	3081	3081	3081	3081	
5°	3059	3052	3060	3051	3124	288
15°	2929	2895	2913	2928	2929	816
25°	2618	2633	2676	2711	2705	1210
35°	2279	2286	2339	2393	2391	1415
45°	1834	1868	1899	1948	1902	1418
55°	1371	1362	1397	1388	1387	1219
65°	842	831	864	830	836	837
75°	350	343	350	325	336	376
85°	43	42	43	41	40	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3080.6	3080.6	3080.6	3080.6	3080.6
2.5°	3107.2	3083.7	3061.9	3087.3	3102.8
5°	3058.7	3051.5	3059.9	3050.7	3124.3
7.5°	2995.8	3023.3	3039.2	3029.2	3033.6
10°	2962.4	2952.9	2988.3	3012.9	3009.4
12.5°	2926.6	2940.9	2942.9	2969.6	2972.0
15°	2928.6	2894.8	2912.7	2927.8	2929.0
17.5°	2814.9	2851.5	2863.8	2898.4	2855.4
20°	2800.9	2774.3	2800.9	2836.3	2830.8
22.5°	2715.4	2685.6	2742.9	2774.3	2772.3
25°	2618.4	2632.7	2675.7	2710.7	2705.1
27.5°	2533.3	2550.0	2611.2	2659.3	2628.3
30°	2467.6	2459.3	2511.0	2553.9	2577.8
32.5°	2350.3	2380.5	2441.0	2483.5	2460.9
35°	2279.1	2285.9	2338.8	2392.9	2391.3
37.5°	2154.6	2186.0	2260.4	2275.5	2261.6
40°	2048.4	2079.8	2147.0	2163.4	2156.6
42.5°	1970.0	1975.6	2033.3	2052.0	2022.2
45°	1833.6	1867.8	1898.8	1947.8	1901.6
47.5°	1717.5	1733.4	1800.2	1813.3	1789.1
50°	1612.1	1617.6	1684.9	1668.6	1652.6
52.5°	1479.6	1503.1	1540.9	1537.7	1519.0
55°	1370.6	1361.5	1397.3	1387.7	1387.3
57.5°	1239.8	1255.7	1285.1	1270.0	1245.7
60°	1117.3	1117.7	1128.4	1111.3	1108.1
62.5°	980.8	985.6	988.0	966.9	1001.1
65°	842.0	830.9	863.5	830.5	836.1
67.5°	714.4	719.9	716.7	696.1	704.0
70°	584.7	591.8	586.7	563.2	570.4
72.5°	466.2	457.4	463.0	433.5	447.1
75°	350.4	343.3	349.6	325.0	336.1
77.5°	238.6	244.2	240.2	227.1	234.7
80°	157.5	153.1	153.1	145.6	147.2
82.5°	91.9	87.5	86.3	83.9	87.5
85°	43.0	41.8	42.6	41.4	39.8
87.5°	15.5	15.9	15.9	15.1	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)