

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: P589741

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589741
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-LD4-4LO-50-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

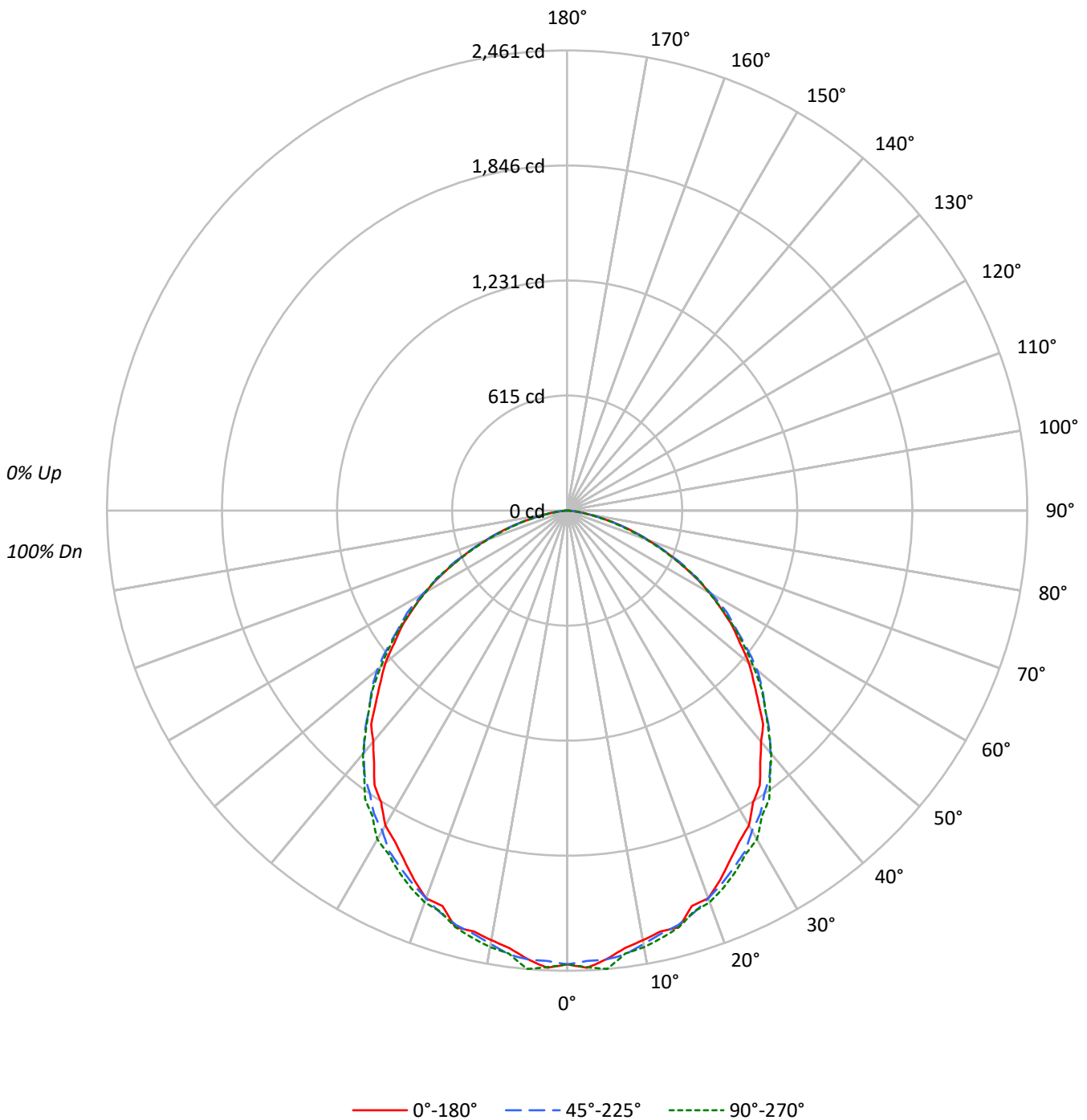
Lumens per Lamp: N/A
Luminaire Lumens: 6115.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6529	6529	6529
5°	6507	6510	6647
10°	6375	6431	6477
15°	6426	6391	6427
20°	6317	6317	6385
25°	6123	6257	6326
30°	6039	6145	6309
35°	5897	6051	6187
40°	5667	5940	5967
45°	5496	5692	5700
50°	5315	5555	5449
55°	5065	5163	5126
60°	4736	4783	4697
65°	4223	4330	4193
70°	3623	3636	3534
75°	2870	2863	2752
80°	1923	1869	1796
85°	1044	1034	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.2	3.7
10°-20°	646.8	10.6
20°-30°	969.1	15.8
30°-40°	1148.6	18.8
40°-50°	1150.7	18.8
50°-60°	976.7	16.0
60°-70°	658.5	10.8
70°-80°	289.4	4.7
80°-90°	47.0	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°	1844.1	30.2
0°-40°	2992.7	48.9
0°-60°	5120.1	83.7
0°-90°	6115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2426	2426	2426	2426	2426	
5°	2409	2403	2410	2403	2461	227
15°	2307	2280	2294	2306	2307	643
25°	2062	2074	2107	2135	2131	953
35°	1795	1800	1842	1885	1883	1114
45°	1444	1471	1496	1534	1498	1117
55°	1080	1072	1100	1093	1093	960
65°	663	654	680	654	658	660
75°	276	270	275	256	265	296
85°	34	33	34	33	31	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2426.3	2426.3	2426.3	2426.3	2426.3
2.5°	2447.3	2428.8	2411.6	2431.6	2443.8
5°	2409.0	2403.4	2410.0	2402.8	2460.7
7.5°	2359.6	2381.2	2393.7	2385.9	2389.3
10°	2333.2	2325.7	2353.6	2373.0	2370.2
12.5°	2305.0	2316.3	2317.9	2338.9	2340.8
15°	2306.6	2280.0	2294.1	2306.0	2306.9
17.5°	2217.0	2245.8	2255.5	2282.8	2249.0
20°	2206.0	2185.1	2206.0	2233.9	2229.5
22.5°	2138.7	2115.2	2160.3	2185.1	2183.5
25°	2062.3	2073.5	2107.4	2134.9	2130.6
27.5°	1995.2	2008.4	2056.6	2094.5	2070.1
30°	1943.5	1936.9	1977.7	2011.5	2030.3
32.5°	1851.1	1874.9	1922.5	1956.1	1938.2
35°	1795.0	1800.4	1842.0	1884.6	1883.4
37.5°	1697.0	1721.7	1780.3	1792.2	1781.3
40°	1613.3	1638.1	1691.0	1703.9	1698.6
42.5°	1551.6	1556.0	1601.4	1616.2	1592.7
45°	1444.2	1471.1	1495.6	1534.1	1497.7
47.5°	1352.7	1365.2	1417.9	1428.2	1409.1
50°	1269.7	1274.1	1327.0	1314.2	1301.6
52.5°	1165.4	1183.8	1213.6	1211.1	1196.4
55°	1079.5	1072.3	1100.5	1093.0	1092.7
57.5°	976.5	989.0	1012.2	1000.3	981.2
60°	880.0	880.3	888.7	875.3	872.8
62.5°	772.5	776.3	778.2	761.6	788.5
65°	663.2	654.4	680.1	654.1	658.5
67.5°	562.6	567.0	564.5	548.2	554.5
70°	460.5	466.1	462.1	443.6	449.2
72.5°	367.2	360.3	364.6	341.5	352.1
75°	276.0	270.4	275.4	255.9	264.7
77.5°	188.0	192.3	189.2	178.9	184.8
80°	124.1	120.6	120.6	114.7	115.9
82.5°	72.4	68.9	68.0	66.1	68.9
85°	33.8	32.9	33.5	32.6	31.3
87.5°	12.2	12.5	12.5	11.9	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)