

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: P589361

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589361
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

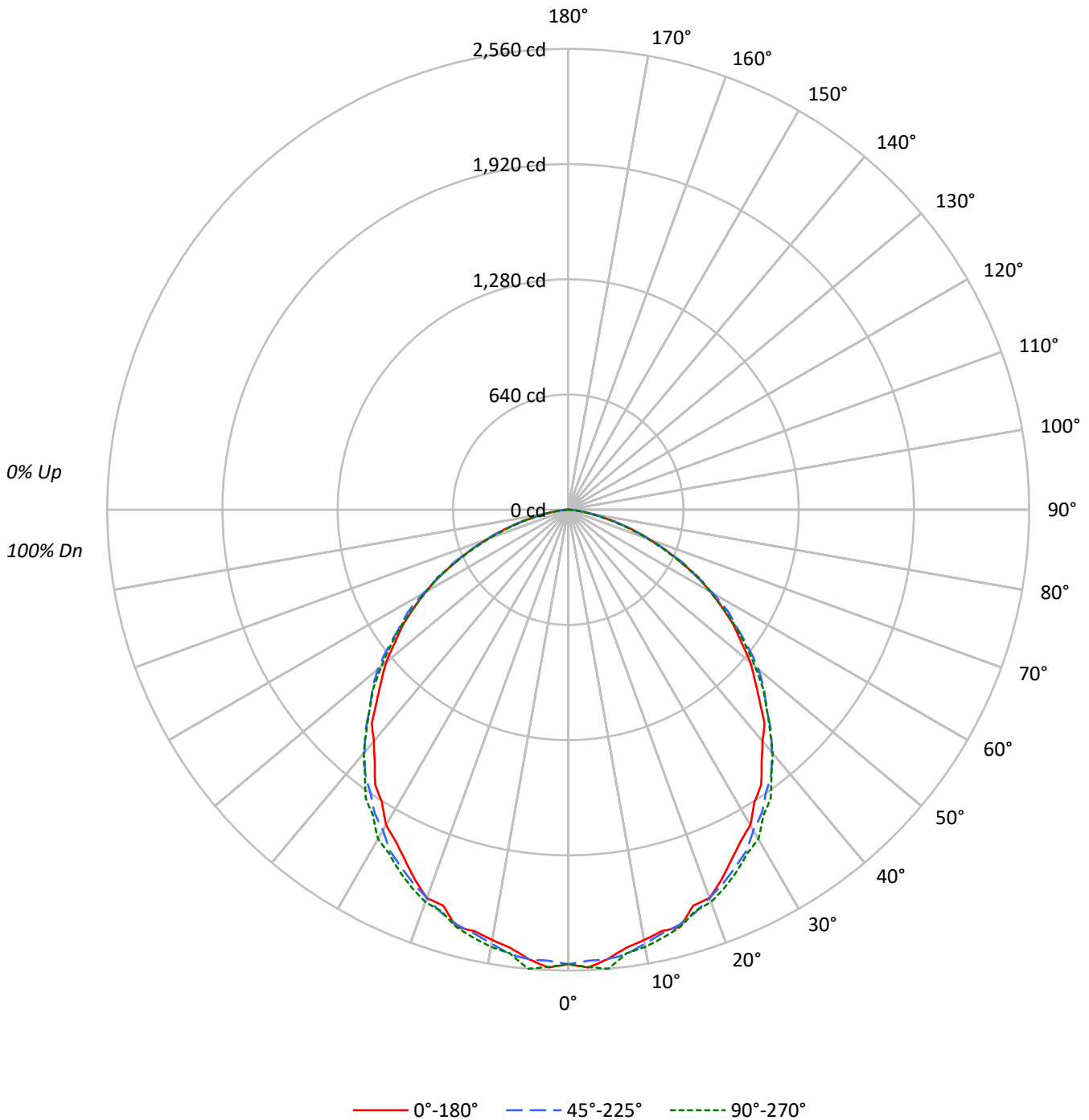
Lumens per Lamp: N/A
Luminaire Lumens: 6361.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6792	6792	6792
5°	6769	6772	6914
10°	6632	6690	6737
15°	6685	6648	6685
20°	6572	6572	6641
25°	6369	6509	6581
30°	6282	6392	6563
35°	6134	6295	6436
40°	5895	6179	6207
45°	5717	5920	5929
50°	5529	5779	5668
55°	5269	5371	5332
60°	4927	4976	4886
65°	4393	4505	4362
70°	3769	3782	3677
75°	2985	2978	2863
80°	1999	1945	1869
85°	1087	1078	1007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.4	3.7
10°-20°	672.8	10.6
20°-30°	1008.1	15.8
30°-40°	1194.8	18.8
40°-50°	1197.0	18.8
50°-60°	1016.0	16.0
60°-70°	685.0	10.8
70°-80°	301.0	4.7
80°-90°	48.9	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°	1918.3	30.2
0°-40°	3113.1	48.9
0°-60°	5326.1	83.7
0°-90°	6361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6361.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2524	2524	2524	2524	2524	
5°	2506	2500	2507	2499	2560	236
15°	2399	2372	2386	2399	2400	669
25°	2145	2157	2192	2221	2216	992
35°	1867	1873	1916	1960	1959	1159
45°	1502	1530	1556	1596	1558	1162
55°	1123	1116	1145	1137	1137	999
65°	690	681	708	680	685	686
75°	287	281	286	266	275	308
85°	35	34	35	34	33	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2523.9	2523.9	2523.9	2523.9	2523.9
2.5°	2545.7	2526.5	2508.6	2529.4	2542.1
5°	2506.0	2500.1	2506.9	2499.4	2559.7
7.5°	2454.5	2477.0	2490.0	2481.8	2485.4
10°	2427.1	2419.3	2448.3	2468.5	2465.6
12.5°	2397.8	2409.5	2411.1	2433.0	2434.9
15°	2399.4	2371.7	2386.4	2398.7	2399.7
17.5°	2306.2	2336.2	2346.3	2374.6	2339.4
20°	2294.8	2273.0	2294.8	2323.8	2319.2
22.5°	2224.7	2200.3	2247.2	2273.0	2271.3
25°	2145.2	2157.0	2192.1	2220.8	2216.3
27.5°	2075.5	2089.2	2139.4	2178.8	2153.4
30°	2021.7	2014.9	2057.2	2092.4	2112.0
32.5°	1925.6	1950.3	1999.9	2034.7	2016.2
35°	1867.3	1872.8	1916.1	1960.5	1959.1
37.5°	1765.3	1791.0	1851.9	1864.3	1852.9
40°	1678.2	1704.0	1759.1	1772.4	1766.9
42.5°	1614.0	1618.6	1665.9	1681.2	1656.7
45°	1502.3	1530.3	1555.7	1595.8	1558.0
47.5°	1407.1	1420.2	1474.9	1485.7	1465.8
50°	1320.8	1325.3	1380.4	1367.0	1354.0
52.5°	1212.2	1231.5	1262.4	1259.8	1244.5
55°	1123.0	1115.5	1144.8	1137.0	1136.6
57.5°	1015.7	1028.8	1052.9	1040.5	1020.6
60°	915.4	915.7	924.5	910.5	907.9
62.5°	803.6	807.5	809.5	792.2	820.2
65°	689.9	680.7	707.5	680.4	685.0
67.5°	585.3	589.8	587.2	570.3	576.8
70°	479.0	484.9	480.7	461.4	467.3
72.5°	381.9	374.8	379.3	355.2	366.3
75°	287.1	281.2	286.4	266.2	275.4
77.5°	195.5	200.1	196.8	186.1	192.3
80°	129.0	125.5	125.5	119.3	120.6
82.5°	75.3	71.7	70.7	68.8	71.7
85°	35.2	34.2	34.9	33.9	32.6
87.5°	12.7	13.0	13.0	12.4	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)