

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: P589522

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589522
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-LD4-3STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

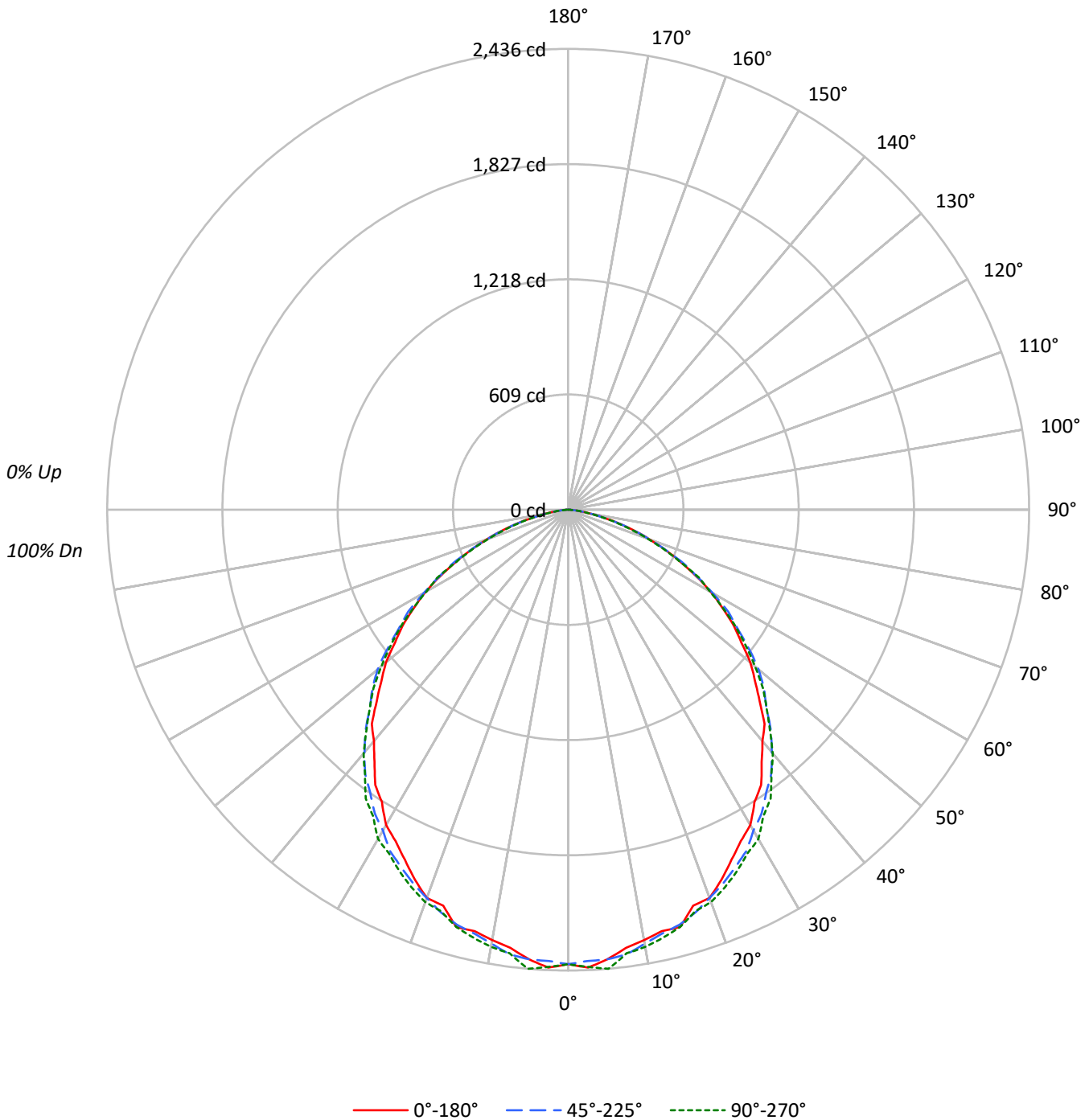
Lumens per Lamp: N/A
Luminaire Lumens: 6054.0 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	6464	6464	6464
5°	6443	6445	6581
10°	6312	6367	6412
15°	6362	6327	6363
20°	6254	6254	6321
25°	6062	6195	6263
30°	5979	6084	6246
35°	5838	5991	6125
40°	5611	5881	5907
45°	5441	5635	5643
50°	5262	5500	5395
55°	5014	5111	5075
60°	4689	4736	4651
65°	4181	4287	4151
70°	3587	3600	3499
75°	2840	2834	2725
80°	1903	1850	1779
85°	1034	1025	957



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.9	3.7
10°-20°	640.4	10.6
20°-30°	959.4	15.8
30°-40°	1137.1	18.8
40°-50°	1139.2	18.8
50°-60°	967.0	16.0
60°-70°	652.0	10.8
70°-80°	286.5	4.7
80°-90°	46.6	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°	1825.7	30.2
0°-40°	2962.8	48.9
0°-60°	5069.0	83.7
0°-90°	6054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2402	2402	2402	2402	2402	
5°	2385	2379	2386	2379	2436	225
15°	2284	2257	2271	2283	2284	636
25°	2042	2053	2086	2114	2109	944
35°	1777	1782	1824	1866	1865	1103
45°	1430	1456	1481	1519	1483	1106
55°	1069	1062	1090	1082	1082	951
65°	657	648	673	648	652	653
75°	273	268	273	253	262	293
85°	34	33	33	32	31	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2402.1	2402.1	2402.1	2402.1	2402.1
2.5°	2422.9	2404.6	2387.5	2407.3	2419.4
5°	2385.0	2379.4	2385.9	2378.8	2436.2
7.5°	2336.0	2357.4	2369.8	2362.1	2365.5
10°	2310.0	2302.5	2330.1	2349.3	2346.6
12.5°	2282.0	2293.2	2294.8	2315.5	2317.4
15°	2283.6	2257.2	2271.2	2283.0	2283.9
17.5°	2194.9	2223.4	2233.0	2260.0	2226.5
20°	2184.0	2163.3	2184.0	2211.6	2207.3
22.5°	2117.4	2094.1	2138.8	2163.3	2161.7
25°	2041.7	2052.9	2086.3	2113.6	2109.3
27.5°	1975.3	1988.3	2036.1	2073.6	2049.4
30°	1924.1	1917.6	1957.9	1991.4	2010.1
32.5°	1832.6	1856.2	1903.4	1936.5	1918.9
35°	1777.1	1782.4	1823.7	1865.8	1864.6
37.5°	1680.1	1704.6	1762.6	1774.3	1763.5
40°	1597.2	1621.7	1674.2	1686.9	1681.6
42.5°	1536.1	1540.5	1585.5	1600.0	1576.8
45°	1429.8	1456.4	1480.6	1518.8	1482.8
47.5°	1339.2	1351.6	1403.7	1414.0	1395.0
50°	1257.0	1261.4	1313.8	1301.1	1288.7
52.5°	1153.7	1172.0	1201.5	1199.0	1184.4
55°	1068.8	1061.6	1089.5	1082.1	1081.8
57.5°	966.7	979.1	1002.1	990.3	971.4
60°	871.2	871.5	879.9	866.5	864.1
62.5°	764.8	768.5	770.4	754.0	780.6
65°	656.6	647.9	673.3	647.6	651.9
67.5°	557.0	561.4	558.9	542.8	549.0
70°	455.9	461.5	457.5	439.2	444.7
72.5°	363.5	356.7	361.0	338.1	348.6
75°	273.2	267.7	272.6	253.4	262.1
77.5°	186.1	190.4	187.3	177.1	183.0
80°	122.8	119.4	119.4	113.5	114.8
82.5°	71.6	68.2	67.3	65.4	68.2
85°	33.5	32.6	33.2	32.3	31.0
87.5°	12.1	12.4	12.4	11.8	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)