

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: P589297

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589297
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

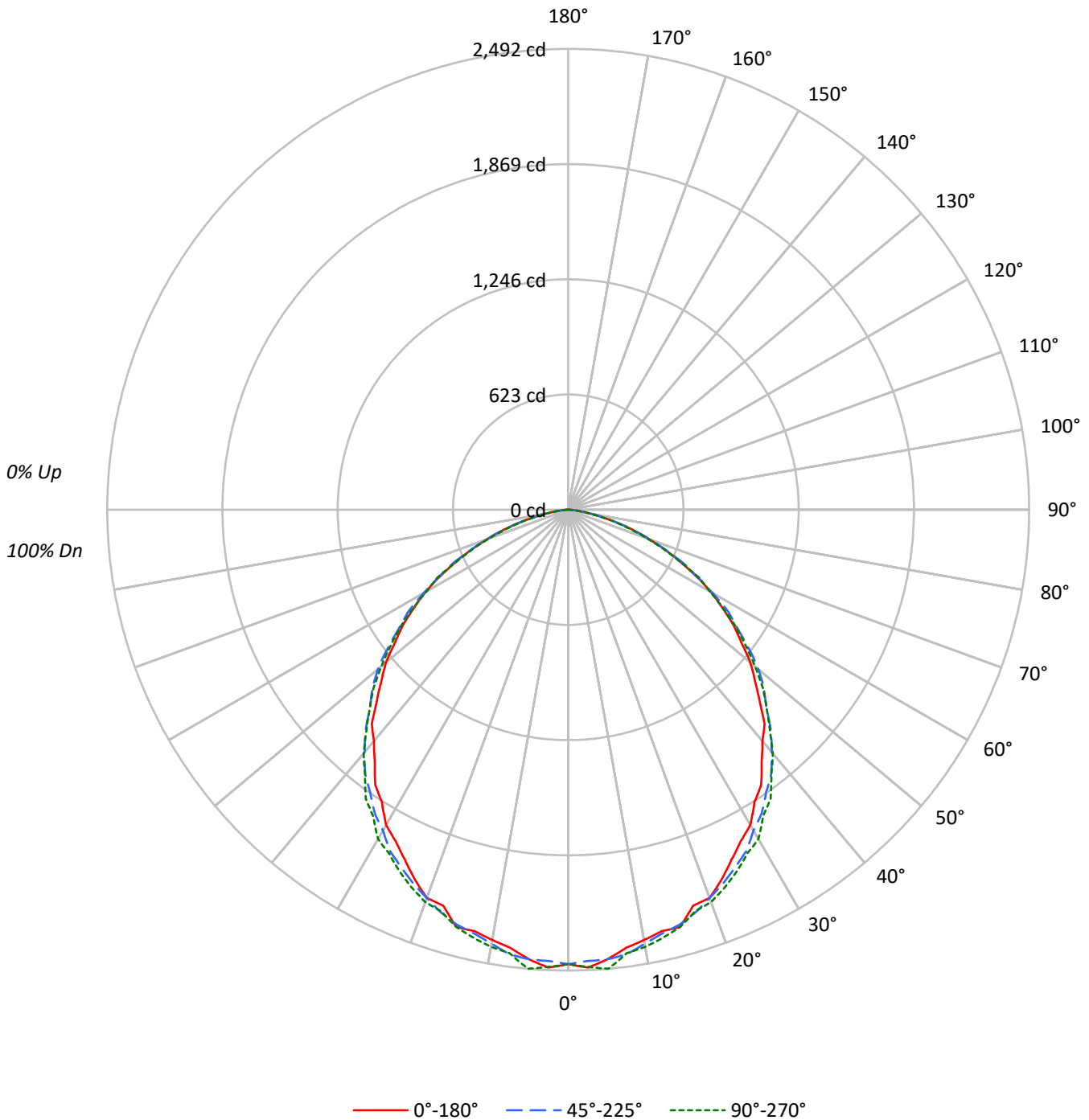
Lumens per Lamp: N/A
Luminaire Lumens: 6193.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6612	6612	6612
5°	6591	6593	6732
10°	6457	6513	6559
15°	6508	6472	6509
20°	6398	6398	6466
25°	6201	6337	6407
30°	6116	6224	6389
35°	5972	6128	6266
40°	5740	6016	6043
45°	5566	5764	5772
50°	5383	5626	5519
55°	5129	5229	5192
60°	4796	4844	4757
65°	4277	4386	4246
70°	3670	3682	3580
75°	2906	2900	2787
80°	1946	1892	1819
85°	1059	1047	979



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.1	3.7
10°-20°	655.1	10.6
20°-30°	981.4	15.8
30°-40°	1163.2	18.8
40°-50°	1165.4	18.8
50°-60°	989.2	16.0
60°-70°	666.9	10.8
70°-80°	293.0	4.7
80°-90°	47.6	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°	1867.7	30.2
0°-40°	3030.9	48.9
0°-60°	5185.4	83.7
0°-90°	6193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6193.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2457	2457	2457	2457	2457	
5°	2440	2434	2441	2433	2492	230
15°	2336	2309	2323	2335	2336	651
25°	2089	2100	2134	2162	2158	966
35°	1818	1823	1866	1909	1907	1129
45°	1463	1490	1515	1554	1517	1131
55°	1093	1086	1115	1107	1107	973
65°	672	663	689	662	667	668
75°	280	274	279	259	268	300
85°	34	33	34	33	32	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2457.2	2457.2	2457.2	2457.2	2457.2
2.5°	2478.5	2459.8	2442.3	2462.6	2475.0
5°	2439.8	2434.1	2440.7	2433.4	2492.1
7.5°	2389.6	2411.5	2424.2	2416.3	2419.8
10°	2363.0	2355.4	2383.6	2403.3	2400.4
12.5°	2334.4	2345.9	2347.5	2368.7	2370.6
15°	2336.0	2309.1	2323.3	2335.4	2336.3
17.5°	2245.3	2274.5	2284.3	2311.9	2277.7
20°	2234.2	2212.9	2234.2	2262.4	2258.0
22.5°	2166.0	2142.2	2187.9	2212.9	2211.3
25°	2088.6	2100.0	2134.2	2162.2	2157.7
27.5°	2020.7	2034.0	2082.9	2121.2	2096.5
30°	1968.3	1961.7	2002.9	2037.2	2056.2
32.5°	1874.7	1898.8	1947.1	1981.0	1962.9
35°	1817.9	1823.3	1865.5	1908.7	1907.4
37.5°	1718.6	1743.7	1803.0	1815.1	1804.0
40°	1633.9	1659.0	1712.6	1725.6	1720.2
42.5°	1571.4	1575.9	1621.9	1636.8	1613.0
45°	1462.6	1489.9	1514.6	1553.7	1516.8
47.5°	1370.0	1382.6	1435.9	1446.4	1427.1
50°	1285.9	1290.3	1343.9	1330.9	1318.2
52.5°	1180.2	1198.9	1229.1	1226.6	1211.6
55°	1093.3	1086.0	1114.6	1106.9	1106.6
57.5°	988.9	1001.6	1025.1	1013.0	993.7
60°	891.2	891.5	900.1	886.4	883.9
62.5°	782.4	786.2	788.1	771.3	798.6
65°	671.7	662.8	688.8	662.5	666.9
67.5°	569.8	574.3	571.7	555.2	561.6
70°	466.4	472.1	468.0	449.2	455.0
72.5°	371.8	364.9	369.3	345.8	356.6
75°	279.5	273.8	278.9	259.2	268.1
77.5°	190.4	194.8	191.6	181.2	187.2
80°	125.6	122.1	122.1	116.1	117.4
82.5°	73.3	69.8	68.8	66.9	69.8
85°	34.3	33.3	33.9	33.0	31.7
87.5°	12.4	12.7	12.7	12.1	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)