

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: P589691

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-80-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589691
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-40-UNV-80-96-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

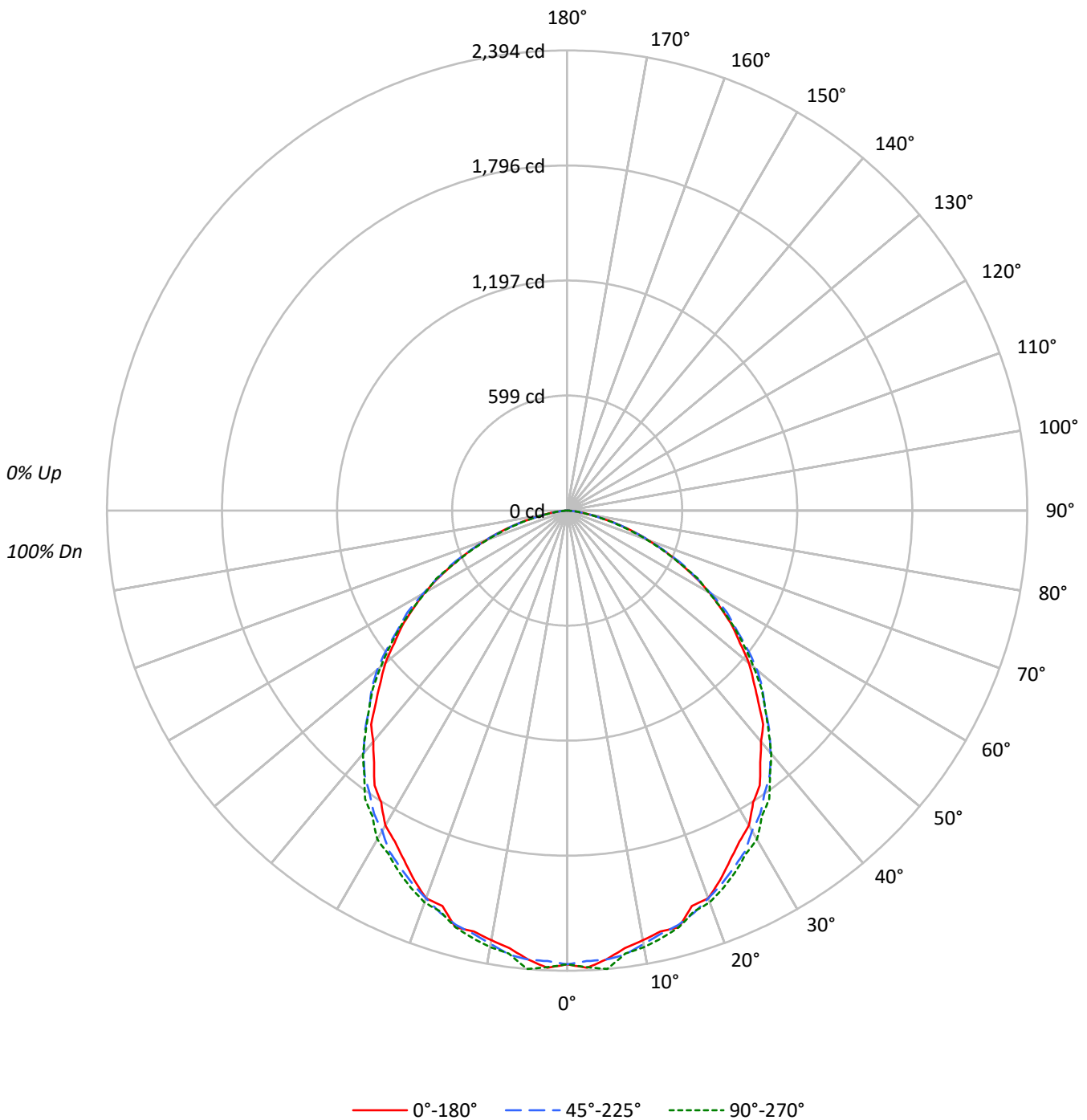
Lumens per Lamp: N/A
Luminaire Lumens: 5949.0 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6352	6352	6352
5°	6331	6333	6467
10°	6202	6257	6301
15°	6252	6218	6252
20°	6146	6146	6211
25°	5957	6087	6154
30°	5875	5978	6137
35°	5737	5887	6019
40°	5513	5779	5805
45°	5347	5537	5545
50°	5171	5405	5301
55°	4927	5023	4987
60°	4607	4653	4570
65°	4108	4213	4079
70°	3525	3537	3438
75°	2792	2785	2677
80°	1870	1818	1748
85°	1016	1007	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.0	3.7
10°-20°	629.3	10.6
20°-30°	942.8	15.8
30°-40°	1117.4	18.8
40°-50°	1119.4	18.8
50°-60°	950.2	16.0
60°-70°	640.6	10.8
70°-80°	281.5	4.7
80°-90°	45.7	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°	1794.1	30.2
0°-40°	2911.5	48.9
0°-60°	4981.1	83.7
0°-90°	5949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5949.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2360	2360	2360	2360	2360	
5°	2344	2338	2345	2338	2394	221
15°	2244	2218	2232	2243	2244	625
25°	2006	2017	2050	2077	2073	928
35°	1746	1752	1792	1834	1832	1084
45°	1405	1431	1455	1492	1457	1087
55°	1050	1043	1071	1063	1063	934
65°	645	637	662	636	641	642
75°	268	263	268	249	258	288
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2360.4	2360.4	2360.4	2360.4	2360.4
2.5°	2380.8	2362.9	2346.1	2365.6	2377.5
5°	2343.7	2338.2	2344.6	2337.6	2393.9
7.5°	2295.5	2316.5	2328.7	2321.1	2324.5
10°	2269.9	2262.6	2289.7	2308.6	2305.9
12.5°	2242.5	2253.4	2255.0	2275.4	2277.2
15°	2244.0	2218.1	2231.8	2243.4	2244.3
17.5°	2156.8	2184.9	2194.3	2220.8	2187.9
20°	2146.2	2125.7	2146.2	2173.3	2169.0
22.5°	2080.6	2057.8	2101.7	2125.7	2124.2
25°	2006.3	2017.2	2050.2	2077.0	2072.7
27.5°	1941.1	1953.9	2000.8	2037.7	2013.9
30°	1890.8	1884.4	1924.0	1956.9	1975.2
32.5°	1800.9	1824.0	1870.3	1903.0	1885.6
35°	1746.3	1751.5	1792.0	1833.5	1832.3
37.5°	1650.9	1675.0	1732.0	1743.6	1732.9
40°	1569.5	1593.6	1645.1	1657.6	1652.4
42.5°	1509.5	1513.8	1558.0	1572.3	1549.4
45°	1405.0	1431.2	1455.0	1492.4	1457.1
47.5°	1316.0	1328.2	1379.4	1389.4	1370.8
50°	1235.2	1239.5	1291.0	1278.5	1266.3
52.5°	1133.7	1151.7	1180.7	1178.2	1163.9
55°	1050.2	1043.2	1070.6	1063.3	1063.0
57.5°	950.0	962.1	984.7	973.1	954.5
60°	856.1	856.4	864.6	851.5	849.1
62.5°	751.6	755.2	757.0	740.9	767.1
65°	645.2	636.7	661.6	636.4	640.6
67.5°	547.4	551.6	549.2	533.3	539.4
70°	448.0	453.5	449.5	431.5	437.0
72.5°	357.2	350.5	354.7	332.2	342.6
75°	268.5	263.0	267.9	249.0	257.5
77.5°	182.9	187.1	184.1	174.0	179.8
80°	120.7	117.3	117.3	111.5	112.8
82.5°	70.4	67.0	66.1	64.3	67.0
85°	32.9	32.0	32.6	31.7	30.5
87.5°	11.9	12.2	12.2	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)