

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: P589677

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589677
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

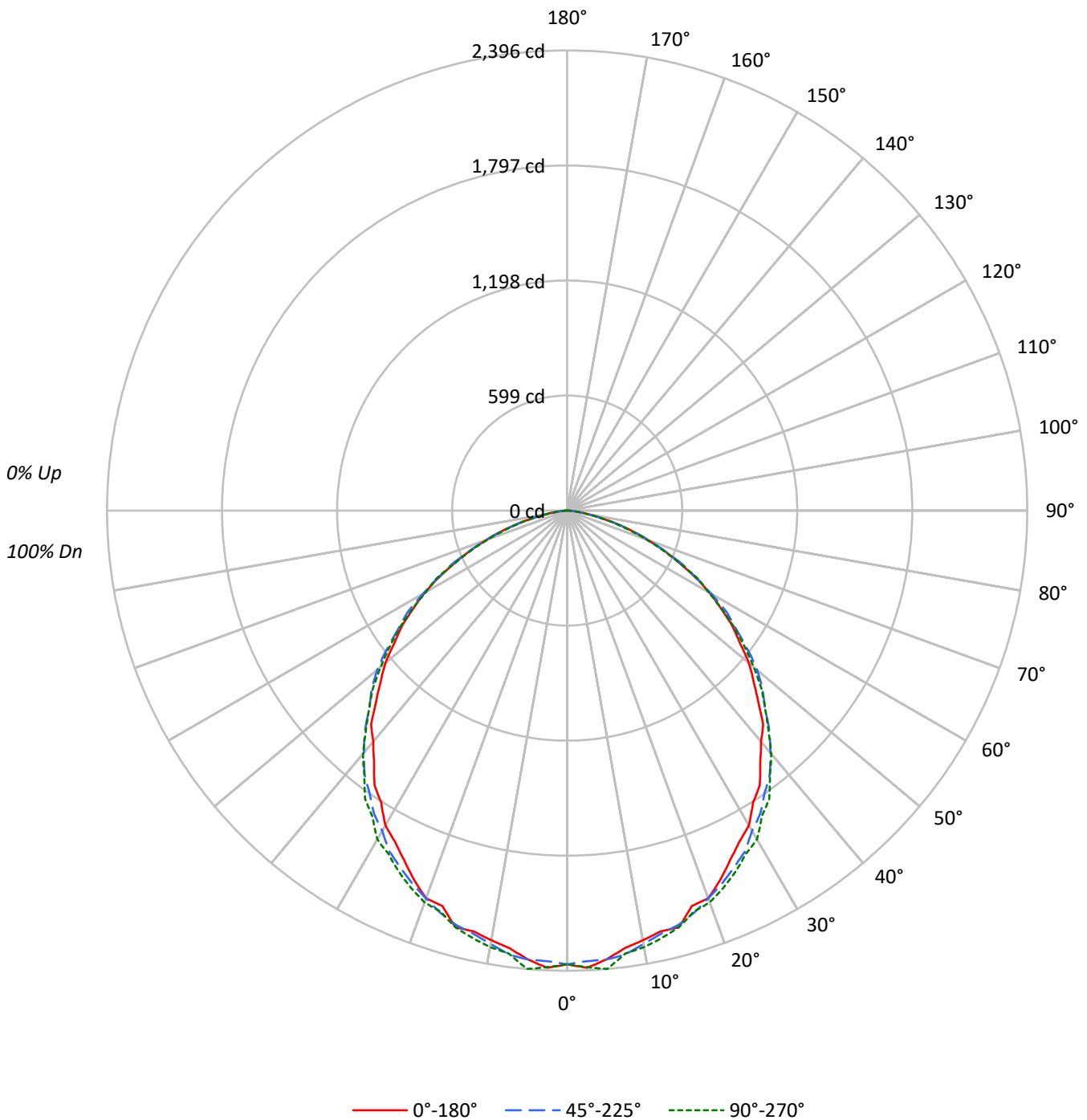
Lumens per Lamp: N/A
Luminaire Lumens: 5954.0 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6357	6357	6357
5°	6336	6339	6472
10°	6208	6262	6306
15°	6257	6223	6258
20°	6151	6151	6216
25°	5962	6092	6160
30°	5880	5983	6142
35°	5742	5892	6024
40°	5518	5784	5810
45°	5351	5542	5550
50°	5176	5409	5306
55°	4931	5027	4991
60°	4611	4657	4574
65°	4111	4216	4083
70°	3528	3540	3441
75°	2794	2787	2679
80°	1872	1819	1750
85°	1016	1007	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.2	3.7
10°-20°	629.8	10.6
20°-30°	943.6	15.8
30°-40°	1118.3	18.8
40°-50°	1120.4	18.8
50°-60°	951.0	16.0
60°-70°	641.2	10.8
70°-80°	281.7	4.7
80°-90°	45.8	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°	1795.6	30.2
0°-40°	2913.9	48.9
0°-60°	4985.3	83.7
0°-90°	5954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2346	2340	2346	2340	2396	221
15°	2246	2220	2234	2245	2246	626
25°	2008	2019	2052	2079	2074	928
35°	1748	1753	1794	1835	1834	1085
45°	1406	1432	1456	1494	1458	1088
55°	1051	1044	1072	1064	1064	935
65°	646	637	662	637	641	642
75°	269	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°	2362.4	2362.4	2362.4	2362.4	2362.4
2.5°	2382.8	2364.8	2348.1	2367.6	2379.5
5°	2345.6	2340.1	2346.5	2339.5	2395.9
7.5°	2297.4	2318.5	2330.7	2323.0	2326.4
10°	2271.8	2264.5	2291.6	2310.5	2307.8
12.5°	2244.4	2255.3	2256.9	2277.3	2279.1
15°	2245.9	2220.0	2233.7	2245.3	2246.2
17.5°	2158.6	2186.7	2196.2	2222.7	2189.8
20°	2148.0	2127.5	2148.0	2175.1	2170.8
22.5°	2082.4	2059.5	2103.4	2127.5	2126.0
25°	2008.0	2018.9	2051.9	2078.7	2074.5
27.5°	1942.7	1955.5	2002.5	2039.4	2015.6
30°	1892.4	1886.0	1925.6	1958.5	1976.8
32.5°	1802.4	1825.6	1871.9	1904.6	1887.2
35°	1747.8	1753.0	1793.5	1835.0	1833.8
37.5°	1652.3	1676.4	1733.4	1745.0	1734.4
40°	1570.9	1595.0	1646.5	1659.0	1653.8
42.5°	1510.8	1515.0	1559.3	1573.6	1550.7
45°	1406.2	1432.4	1456.2	1493.7	1458.3
47.5°	1317.1	1329.3	1380.5	1390.6	1372.0
50°	1236.3	1240.5	1292.1	1279.6	1267.4
52.5°	1134.7	1152.7	1181.7	1179.2	1164.9
55°	1051.1	1044.1	1071.5	1064.2	1063.9
57.5°	950.8	963.0	985.5	973.9	955.3
60°	856.8	857.1	865.3	852.2	849.8
62.5°	752.2	755.8	757.7	741.5	767.7
65°	645.7	637.2	662.2	636.9	641.2
67.5°	547.8	552.1	549.6	533.8	539.9
70°	448.4	453.9	449.9	431.9	437.4
72.5°	357.5	350.8	355.0	332.5	342.8
75°	268.7	263.2	268.1	249.2	257.7
77.5°	183.0	187.3	184.2	174.2	180.0
80°	120.8	117.4	117.4	111.6	112.9
82.5°	70.5	67.1	66.2	64.4	67.1
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)