

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: P589653

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589653
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-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

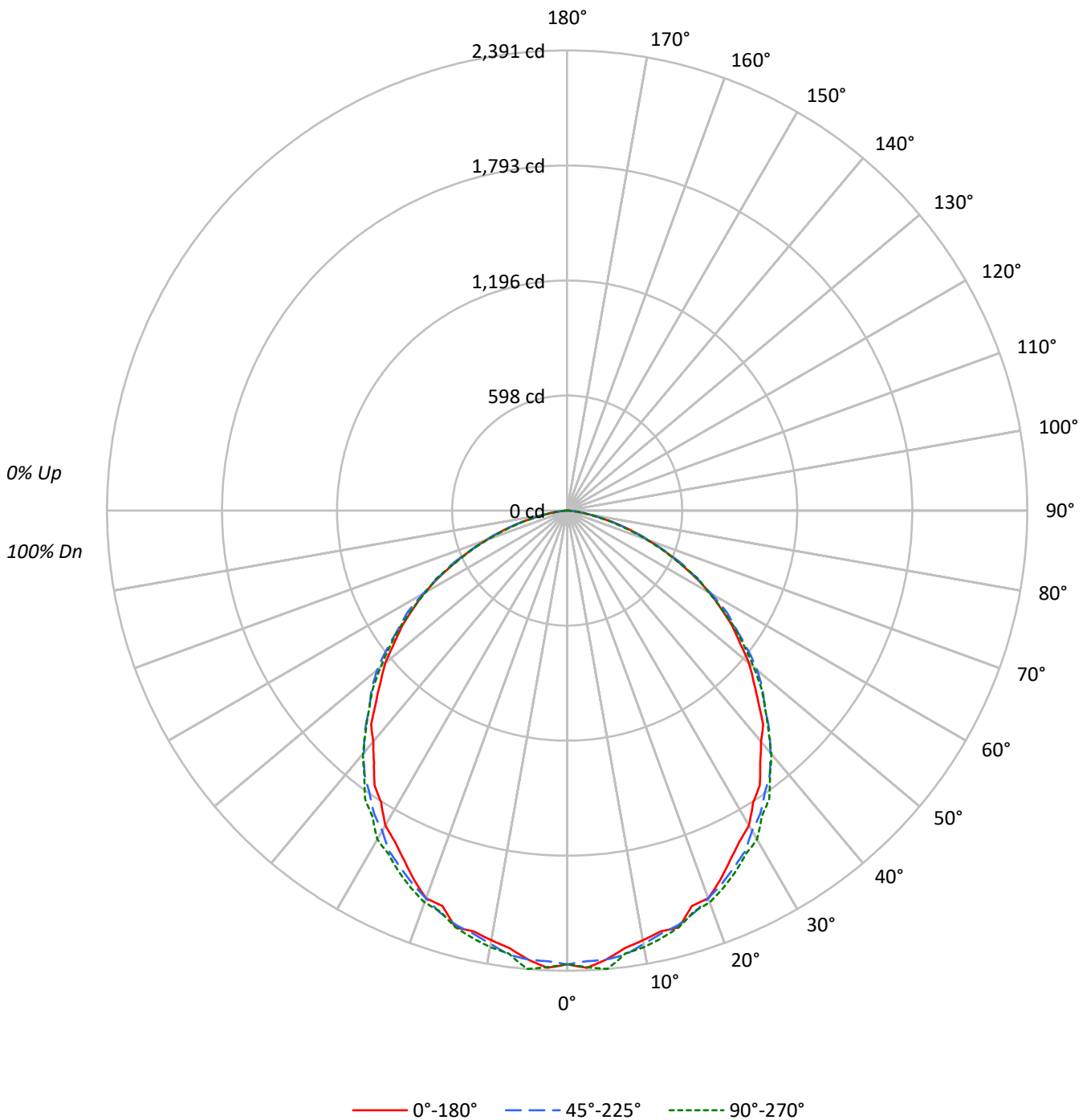
Lumens per Lamp: N/A
Luminaire Lumens: 5942.0 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589653

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589653

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-84-EDD

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°	6344	6344	6344
5°	6323	6326	6459
10°	6195	6249	6293
15°	6244	6210	6245
20°	6139	6139	6204
25°	5950	6080	6147
30°	5868	5971	6130
35°	5730	5880	6012
40°	5507	5772	5798
45°	5340	5530	5539
50°	5165	5398	5295
55°	4921	5017	4982
60°	4602	4648	4564
65°	4103	4208	4074
70°	3521	3533	3434
75°	2789	2782	2674
80°	1867	1816	1745
85°	1016	1007	939



TEST NUMBER: P589653

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.8	3.7
10°-20°	628.5	10.6
20°-30°	941.7	15.8
30°-40°	1116.1	18.8
40°-50°	1118.1	18.8
50°-60°	949.1	16.0
60°-70°	639.9	10.8
70°-80°	281.2	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°	1792.0	30.2
0°-40°	2908.0	48.9
0°-60°	4975.2	83.7
0°-90°	5942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2358	2358	2358	2358	2358	
5°	2341	2335	2342	2335	2391	221
15°	2241	2216	2229	2241	2242	624
25°	2004	2015	2048	2074	2070	926
35°	1744	1749	1790	1831	1830	1083
45°	1403	1430	1453	1491	1455	1086
55°	1049	1042	1069	1062	1062	933
65°	644	636	661	636	640	641
75°	268	263	268	249	257	287
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



TEST NUMBER: P589653

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2357.6	2357.6	2357.6	2357.6	2357.6
2.5°	2378.0	2360.1	2343.3	2362.8	2374.7
5°	2340.9	2335.4	2341.8	2334.8	2391.1
7.5°	2292.8	2313.8	2326.0	2318.4	2321.7
10°	2267.2	2259.9	2287.0	2305.9	2303.1
12.5°	2239.8	2250.8	2252.3	2272.7	2274.5
15°	2241.4	2215.5	2229.2	2240.7	2241.7
17.5°	2154.3	2182.3	2191.7	2218.2	2185.3
20°	2143.6	2123.2	2143.6	2170.7	2166.5
22.5°	2078.2	2055.4	2099.2	2123.2	2121.7
25°	2003.9	2014.9	2047.7	2074.5	2070.3
27.5°	1938.8	1951.6	1998.4	2035.3	2011.5
30°	1888.5	1882.2	1921.7	1954.6	1972.9
32.5°	1798.7	1821.9	1868.1	1900.7	1883.4
35°	1744.3	1749.4	1789.9	1831.3	1830.1
37.5°	1649.0	1673.0	1729.9	1741.5	1730.9
40°	1567.7	1591.7	1643.2	1655.7	1650.5
42.5°	1507.7	1512.0	1556.1	1570.4	1547.6
45°	1403.3	1429.5	1453.2	1490.7	1455.4
47.5°	1314.4	1326.6	1377.7	1387.8	1369.2
50°	1233.8	1238.0	1289.5	1277.0	1264.8
52.5°	1132.4	1150.4	1179.3	1176.8	1162.5
55°	1049.0	1042.0	1069.4	1062.1	1061.8
57.5°	948.8	961.0	983.5	972.0	953.4
60°	855.1	855.4	863.6	850.5	848.1
62.5°	750.7	754.3	756.1	740.0	766.2
65°	644.4	635.9	660.9	635.6	639.9
67.5°	546.7	551.0	548.5	532.7	538.8
70°	447.5	453.0	449.0	431.0	436.5
72.5°	356.8	350.1	354.3	331.8	342.2
75°	268.2	262.7	267.6	248.7	257.2
77.5°	182.6	186.9	183.9	173.8	179.6
80°	120.5	117.2	117.2	111.4	112.6
82.5°	70.3	67.0	66.1	64.2	67.0
85°	32.9	32.0	32.6	31.7	30.4
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)