

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: P589654

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589654
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-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

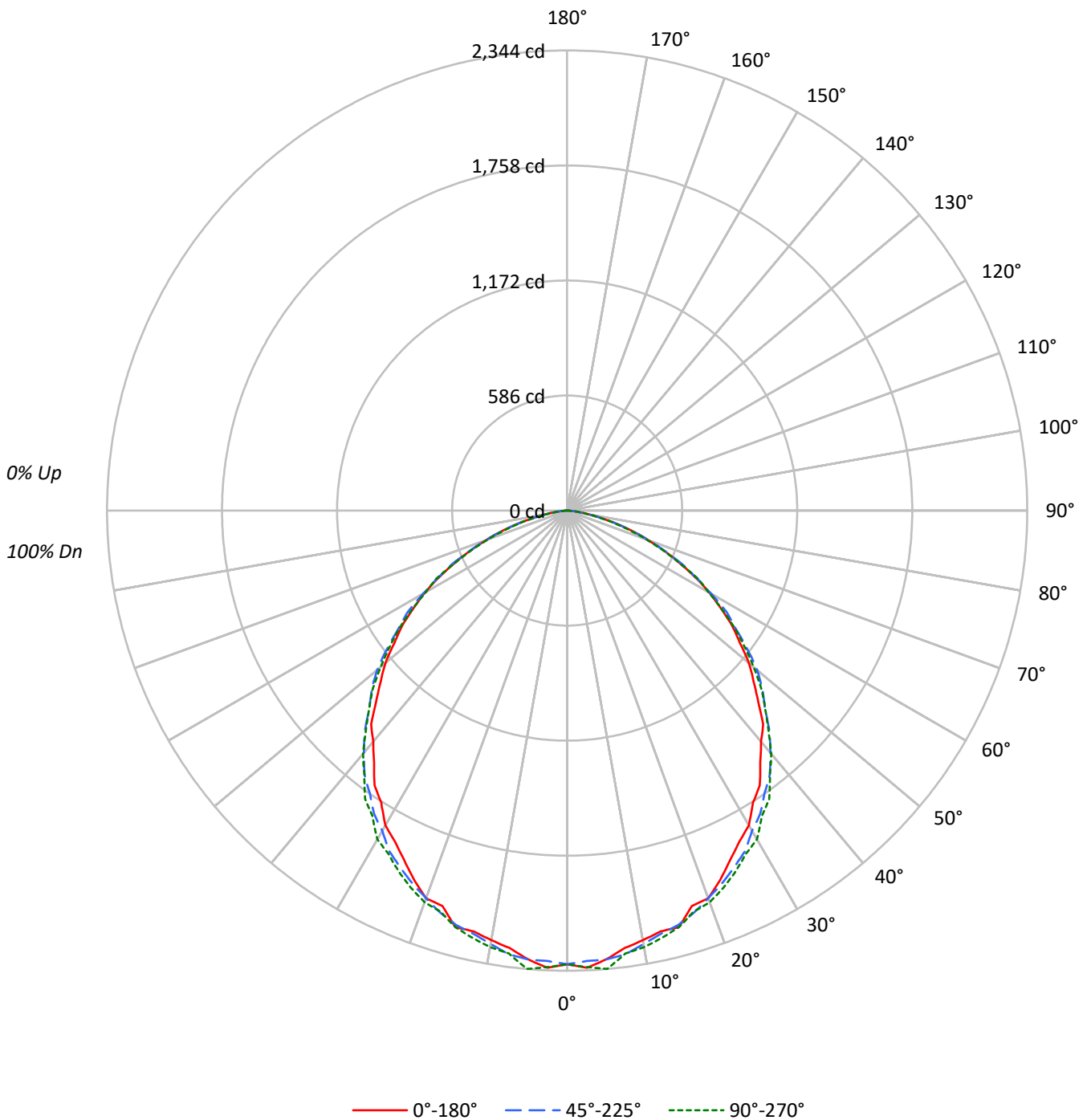
Lumens per Lamp: N/A
Luminaire Lumens: 5824.0 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589654

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589654

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-85-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°	6218	6218	6218
5°	6198	6200	6331
10°	6072	6125	6168
15°	6120	6087	6121
20°	6017	6017	6081
25°	5832	5959	6025
30°	5752	5853	6009
35°	5616	5763	5893
40°	5398	5658	5683
45°	5235	5421	5429
50°	5063	5291	5190
55°	4824	4917	4883
60°	4511	4556	4473
65°	4022	4124	3994
70°	3451	3463	3367
75°	2733	2727	2621
80°	1832	1781	1711
85°	994	985	920



TEST NUMBER: P589654

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.4	3.7
10°-20°	616.0	10.6
20°-30°	923.0	15.8
30°-40°	1093.9	18.8
40°-50°	1095.9	18.8
50°-60°	930.3	16.0
60°-70°	627.2	10.8
70°-80°	275.6	4.7
80°-90°	44.8	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°	1756.4	30.2
0°-40°	2850.3	48.9
0°-60°	4876.5	83.7
0°-90°	5824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5824.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2311	2311	2311	2311	2311	
5°	2294	2289	2295	2288	2344	216
15°	2197	2172	2185	2196	2197	612
25°	1964	1975	2007	2033	2029	908
35°	1710	1715	1754	1795	1794	1061
45°	1376	1401	1424	1461	1426	1064
55°	1028	1021	1048	1041	1041	915
65°	632	623	648	623	627	628
75°	263	258	262	244	252	282
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



TEST NUMBER: P589654

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-80-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2310.8	2310.8	2310.8	2310.8	2310.8
2.5°	2330.8	2313.2	2296.8	2315.9	2327.5
5°	2294.4	2289.0	2295.3	2288.4	2343.6
7.5°	2247.3	2267.9	2279.8	2272.3	2275.6
10°	2222.2	2215.0	2241.6	2260.1	2257.4
12.5°	2195.3	2206.1	2207.6	2227.6	2229.4
15°	2196.8	2171.5	2184.9	2196.2	2197.1
17.5°	2111.5	2139.0	2148.2	2174.2	2141.9
20°	2101.1	2081.1	2101.1	2127.6	2123.4
22.5°	2036.9	2014.5	2057.5	2081.1	2079.6
25°	1964.1	1974.9	2007.1	2033.3	2029.2
27.5°	1900.3	1912.8	1958.7	1994.9	1971.6
30°	1851.0	1844.8	1883.6	1915.8	1933.7
32.5°	1763.0	1785.7	1831.0	1863.0	1846.0
35°	1709.6	1714.7	1754.4	1794.9	1793.8
37.5°	1616.2	1639.8	1695.6	1706.9	1696.5
40°	1536.6	1560.1	1610.6	1622.8	1617.7
42.5°	1477.8	1482.0	1525.2	1539.3	1516.9
45°	1375.5	1401.1	1424.4	1461.1	1426.5
47.5°	1288.3	1300.3	1350.4	1360.2	1342.0
50°	1209.3	1213.4	1263.9	1251.6	1239.7
52.5°	1109.9	1127.5	1155.9	1153.5	1139.4
55°	1028.2	1021.3	1048.1	1041.0	1040.7
57.5°	930.0	941.9	964.0	952.7	934.5
60°	838.1	838.4	846.5	833.6	831.2
62.5°	735.8	739.3	741.1	725.3	751.0
65°	631.6	623.3	647.7	623.0	627.2
67.5°	535.9	540.0	537.6	522.1	528.1
70°	438.6	444.0	440.1	422.5	427.9
72.5°	349.7	343.1	347.3	325.2	335.4
75°	262.9	257.5	262.3	243.8	252.1
77.5°	179.0	183.2	180.2	170.4	176.0
80°	118.2	114.9	114.9	109.2	110.4
82.5°	68.9	65.6	64.7	63.0	65.6
85°	32.2	31.3	31.9	31.0	29.8
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)