

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: P588999

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588999
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-LD4-2HI-35-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

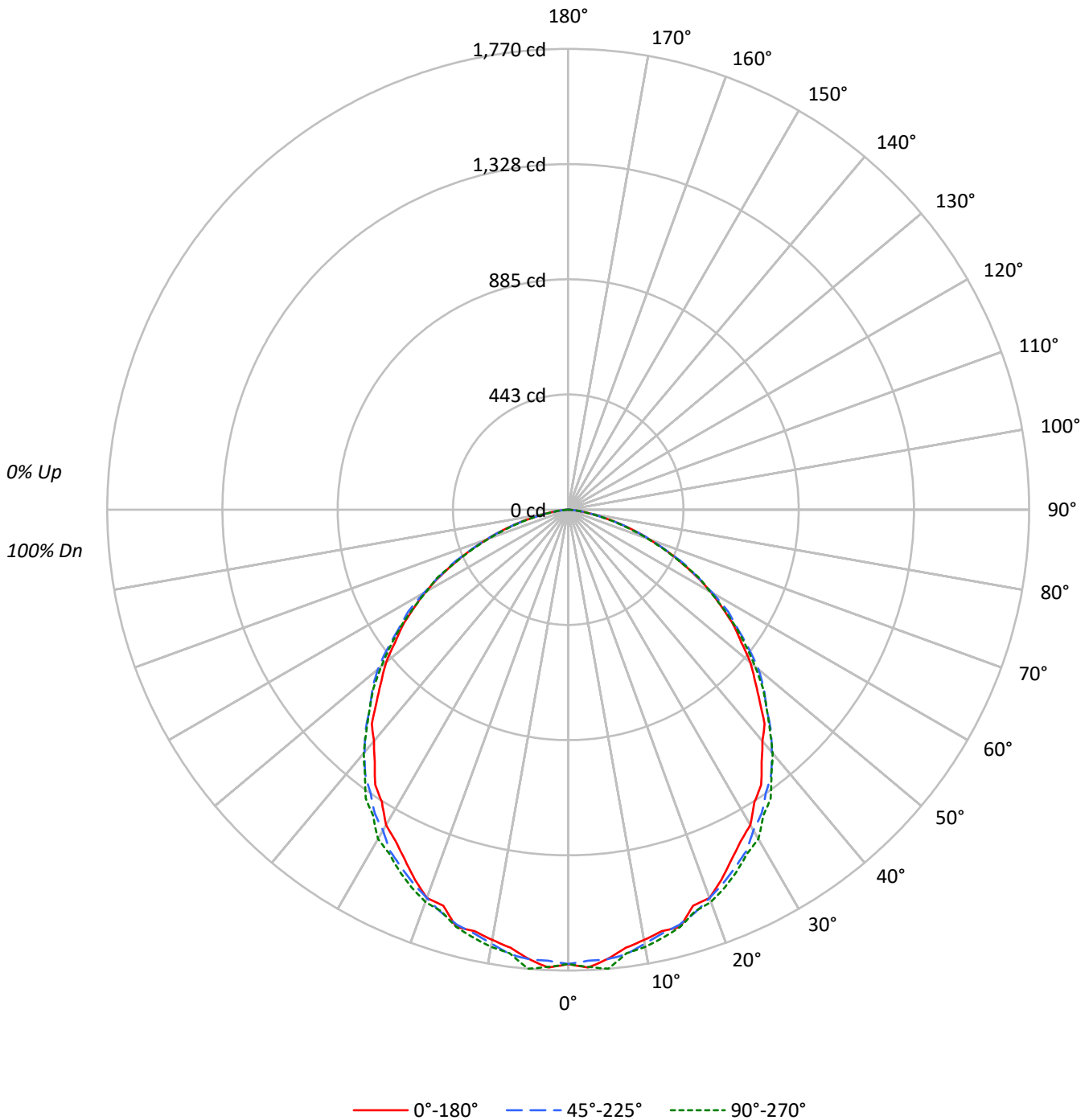
Lumens per Lamp: N/A
Luminaire Lumens: 4398.0 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P588999

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588999

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-82-86-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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4696	4696	4696
5°	4680	4682	4781
10°	4585	4625	4658
15°	4622	4596	4622
20°	4544	4544	4592
25°	4404	4500	4550
30°	4343	4420	4537
35°	4241	4352	4450
40°	4076	4272	4291
45°	3953	4093	4099
50°	3823	3996	3919
55°	3643	3713	3687
60°	3406	3440	3378
65°	3037	3114	3016
70°	2606	2615	2542
75°	2064	2059	1980
80°	1382	1344	1292
85°	750	744	695



TEST NUMBER: P588999

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	3.7
10°-20°	465.2	10.6
20°-30°	697.0	15.8
30°-40°	826.1	18.8
40°-50°	827.6	18.8
50°-60°	702.5	16.0
60°-70°	473.6	10.8
70°-80°	208.1	4.7
80°-90°	33.8	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°	1326.3	30.2
0°-40°	2152.4	48.9
0°-60°	3682.4	83.7
0°-90°	4398.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4398.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1745	1745	1745	1745	1745	
5°	1733	1729	1733	1728	1770	163
15°	1659	1640	1650	1658	1659	462
25°	1483	1491	1516	1536	1532	686
35°	1291	1295	1325	1356	1355	802
45°	1039	1058	1076	1103	1077	803
55°	776	771	792	786	786	691
65°	477	471	489	470	474	474
75°	198	194	198	184	190	213
85°	24	24	24	23	22	35
90°	0	0	0	0	0	



TEST NUMBER: P588999

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1745.0	1745.0	1745.0	1745.0	1745.0
2.5°	1760.1	1746.8	1734.4	1748.8	1757.6
5°	1732.6	1728.6	1733.3	1728.1	1769.8
7.5°	1697.0	1712.6	1721.6	1716.0	1718.4
10°	1678.1	1672.7	1692.7	1706.7	1704.7
12.5°	1657.8	1665.9	1667.1	1682.2	1683.5
15°	1658.9	1639.8	1649.9	1658.5	1659.2
17.5°	1594.5	1615.2	1622.2	1641.8	1617.5
20°	1586.6	1571.5	1586.6	1606.7	1603.5
22.5°	1538.2	1521.3	1553.7	1571.5	1570.4
25°	1483.2	1491.3	1515.7	1535.5	1532.3
27.5°	1435.0	1444.5	1479.2	1506.4	1488.8
30°	1397.8	1393.1	1422.4	1446.7	1460.2
32.5°	1331.3	1348.5	1382.7	1406.8	1394.0
35°	1291.0	1294.8	1324.8	1355.5	1354.6
37.5°	1220.5	1238.3	1280.4	1289.0	1281.1
40°	1160.3	1178.1	1216.2	1225.5	1221.6
42.5°	1116.0	1119.1	1151.8	1162.4	1145.5
45°	1038.7	1058.0	1075.6	1103.3	1077.2
47.5°	972.9	981.9	1019.7	1027.2	1013.4
50°	913.2	916.3	954.4	945.2	936.2
52.5°	838.1	851.4	872.8	871.0	860.5
55°	776.4	771.2	791.5	786.1	785.9
57.5°	702.3	711.3	728.0	719.4	705.7
60°	632.9	633.1	639.2	629.5	627.7
62.5°	555.6	558.3	559.7	547.7	567.1
65°	477.0	470.7	489.1	470.4	473.6
67.5°	404.7	407.8	406.0	394.3	398.8
70°	331.2	335.3	332.3	319.0	323.1
72.5°	264.1	259.1	262.3	245.6	253.2
75°	198.5	194.4	198.0	184.1	190.4
77.5°	135.2	138.3	136.1	128.7	132.9
80°	89.2	86.7	86.7	82.5	83.4
82.5°	52.0	49.6	48.9	47.5	49.6
85°	24.3	23.7	24.1	23.4	22.5
87.5°	8.8	9.0	9.0	8.6	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)