

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: P589736

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589736
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-50-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

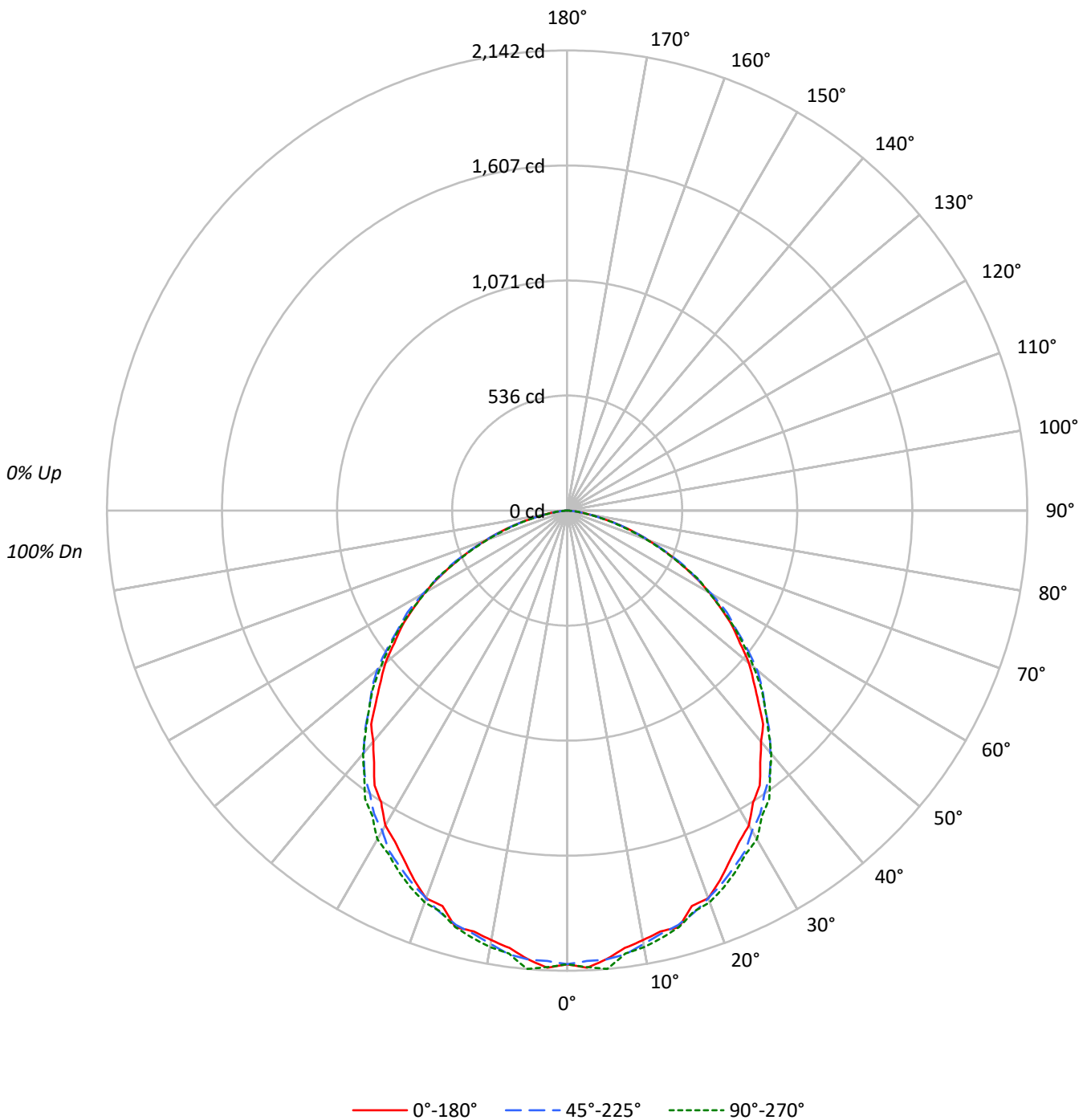
Lumens per Lamp: N/A
Luminaire Lumens: 5322.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589736

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589736

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-82-87-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°	5682	5682	5682
5°	5663	5666	5785
10°	5549	5597	5637
15°	5593	5562	5594
20°	5498	5498	5557
25°	5329	5446	5506
30°	5256	5348	5491
35°	5132	5267	5385
40°	4932	5170	5193
45°	4783	4953	4961
50°	4626	4835	4742
55°	4408	4494	4462
60°	4122	4163	4088
65°	3675	3769	3649
70°	3153	3164	3076
75°	2497	2492	2396
80°	1674	1627	1564
85°	908	902	843



TEST NUMBER: P589736

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.6	3.7
10°-20°	562.9	10.6
20°-30°	843.4	15.8
30°-40°	999.6	18.8
40°-50°	1001.5	18.8
50°-60°	850.1	16.0
60°-70°	573.1	10.8
70°-80°	251.9	4.7
80°-90°	40.9	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°	1605.0	30.2
0°-40°	2604.6	48.9
0°-60°	4456.1	83.7
0°-90°	5322.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5322.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2112	2112	2112	2112	2112	
5°	2097	2092	2098	2091	2142	198
15°	2008	1984	1997	2007	2008	559
25°	1795	1805	1834	1858	1854	830
35°	1562	1567	1603	1640	1639	970
45°	1257	1280	1302	1335	1304	972
55°	940	933	958	951	951	836
65°	577	570	592	569	573	574
75°	240	235	240	223	230	257
85°	29	29	29	28	27	43
90°	0	0	0	0	0	



TEST NUMBER: P589736

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2111.6	2111.6	2111.6	2111.6	2111.6
2.5°	2129.9	2113.8	2098.8	2116.3	2126.9
5°	2096.6	2091.7	2097.5	2091.2	2141.6
7.5°	2053.6	2072.4	2083.3	2076.5	2079.5
10°	2030.7	2024.1	2048.4	2065.3	2062.8
12.5°	2006.1	2015.9	2017.3	2035.6	2037.2
15°	2007.5	1984.3	1996.6	2006.9	2007.8
17.5°	1929.5	1954.6	1963.0	1986.8	1957.3
20°	1920.0	1901.7	1920.0	1944.2	1940.4
22.5°	1861.3	1840.9	1880.2	1901.7	1900.3
25°	1794.8	1804.6	1834.1	1858.1	1854.3
27.5°	1736.5	1747.9	1789.9	1822.9	1801.6
30°	1691.5	1685.8	1721.2	1750.7	1767.0
32.5°	1611.1	1631.8	1673.2	1702.4	1686.9
35°	1562.3	1566.9	1603.2	1640.2	1639.1
37.5°	1476.9	1498.5	1549.4	1559.8	1550.3
40°	1404.1	1425.7	1471.7	1482.9	1478.3
42.5°	1350.4	1354.2	1393.8	1406.6	1386.1
45°	1256.9	1280.3	1301.6	1335.1	1303.5
47.5°	1177.3	1188.2	1234.0	1243.0	1226.4
50°	1105.0	1108.8	1154.9	1143.7	1132.8
52.5°	1014.2	1030.3	1056.2	1054.0	1041.2
55°	939.5	933.3	957.8	951.3	951.0
57.5°	849.8	860.7	880.9	870.6	853.9
60°	765.9	766.1	773.5	761.8	759.6
62.5°	672.3	675.6	677.3	662.8	686.2
65°	577.2	569.6	591.9	569.3	573.1
67.5°	489.7	493.5	491.3	477.1	482.6
70°	400.8	405.7	402.2	386.1	391.0
72.5°	319.5	313.5	317.4	297.2	306.5
75°	240.2	235.3	239.7	222.8	230.4
77.5°	163.6	167.4	164.7	155.7	160.9
80°	108.0	105.0	105.0	99.8	100.9
82.5°	63.0	60.0	59.2	57.5	60.0
85°	29.4	28.6	29.2	28.4	27.3
87.5°	10.6	10.9	10.9	10.4	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)