

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: P589672

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589672
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-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

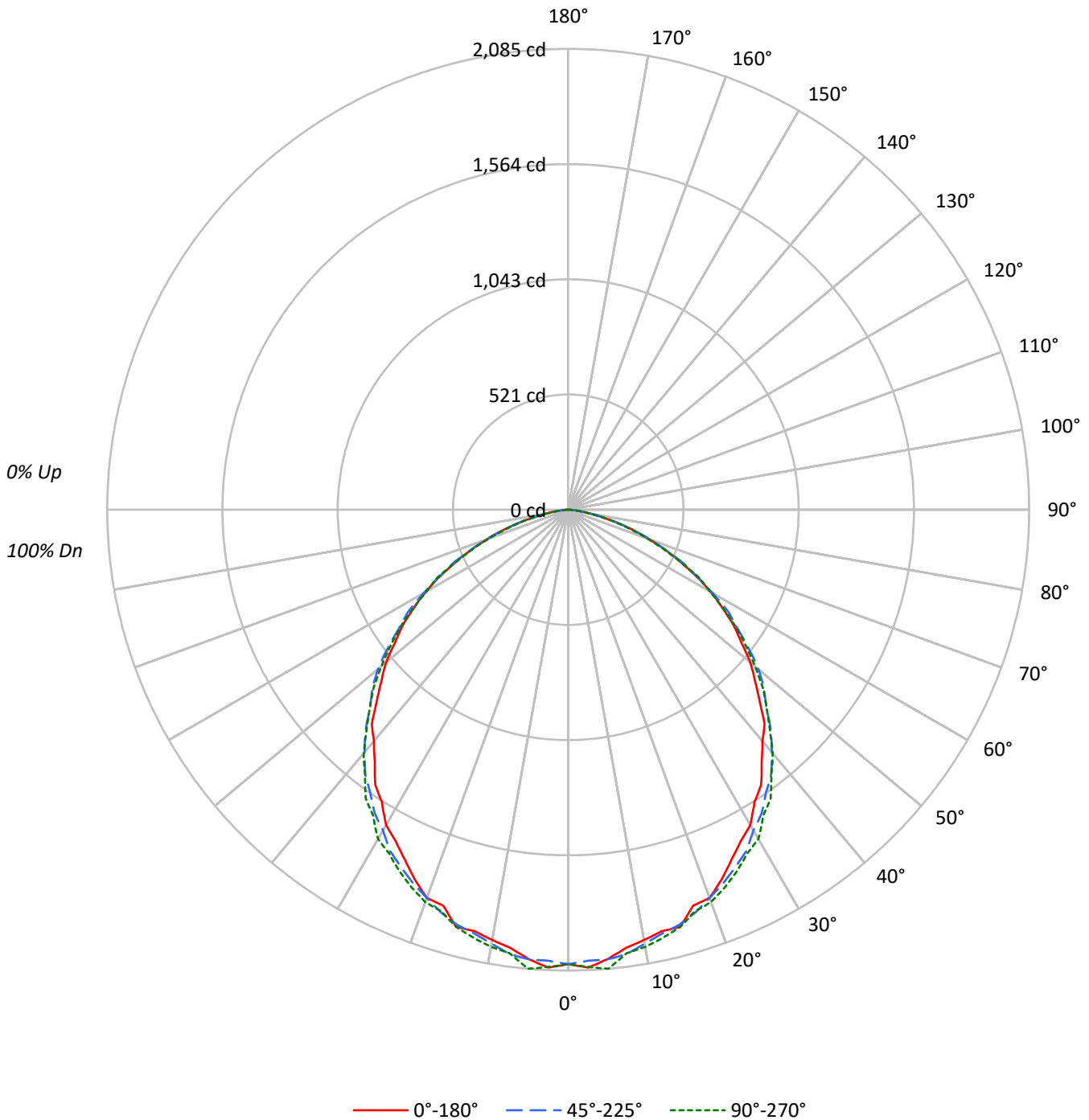
Lumens per Lamp: N/A
Luminaire Lumens: 5181.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589672

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589672

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-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°	5532	5532	5532
5°	5514	5516	5632
10°	5402	5449	5487
15°	5444	5415	5445
20°	5353	5353	5409
25°	5188	5301	5360
30°	5117	5207	5345
35°	4996	5127	5242
40°	4802	5033	5055
45°	4657	4822	4829
50°	4504	4707	4617
55°	4291	4374	4343
60°	4013	4053	3980
65°	3578	3669	3552
70°	3070	3080	2995
75°	2431	2426	2332
80°	1629	1584	1522
85°	886	877	818



TEST NUMBER: P589672

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	3.7
10°-20°	548.0	10.6
20°-30°	821.1	15.8
30°-40°	973.1	18.8
40°-50°	974.9	18.8
50°-60°	827.5	16.0
60°-70°	557.9	10.8
70°-80°	245.2	4.7
80°-90°	39.8	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°	1562.5	30.2
0°-40°	2535.6	48.9
0°-60°	4338.1	83.7
0°-90°	5181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5181.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2056	2056	2056	2056	2056	
5°	2041	2036	2042	2036	2085	192
15°	1954	1932	1944	1954	1955	544
25°	1747	1757	1786	1809	1805	808
35°	1521	1525	1561	1597	1596	944
45°	1224	1246	1267	1300	1269	947
55°	915	908	932	926	926	814
65°	562	554	576	554	558	559
75°	234	229	233	217	224	251
85°	29	28	28	28	26	42
90°	0	0	0	0	0	



TEST NUMBER: P589672

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2055.7	2055.7	2055.7	2055.7	2055.7
2.5°	2073.5	2057.8	2043.2	2060.2	2070.6
5°	2041.1	2036.3	2041.9	2035.8	2084.9
7.5°	1999.2	2017.5	2028.1	2021.5	2024.4
10°	1976.9	1970.5	1994.1	2010.6	2008.2
12.5°	1953.0	1962.5	1963.9	1981.6	1983.2
15°	1954.3	1931.7	1943.7	1953.8	1954.6
17.5°	1878.4	1902.8	1911.0	1934.1	1905.5
20°	1869.1	1851.3	1869.1	1892.7	1889.0
22.5°	1812.0	1792.1	1830.3	1851.3	1850.0
25°	1747.3	1756.8	1785.5	1808.8	1805.1
27.5°	1690.5	1701.6	1742.5	1774.6	1753.9
30°	1646.7	1641.1	1675.6	1704.3	1720.2
32.5°	1568.4	1588.5	1628.9	1657.3	1642.2
35°	1520.9	1525.4	1560.7	1596.8	1595.7
37.5°	1437.8	1458.8	1508.4	1518.5	1509.2
40°	1366.9	1387.9	1432.7	1443.6	1439.1
42.5°	1314.6	1318.3	1356.8	1369.3	1349.4
45°	1223.6	1246.4	1267.1	1299.8	1269.0
47.5°	1146.1	1156.7	1201.3	1210.1	1193.9
50°	1075.8	1079.5	1124.3	1113.4	1102.8
52.5°	987.4	1003.0	1028.2	1026.1	1013.6
55°	914.6	908.5	932.4	926.1	925.8
57.5°	827.3	837.9	857.6	847.5	831.3
60°	745.6	745.8	753.0	741.6	739.5
62.5°	654.5	657.7	659.3	645.2	668.1
65°	561.9	554.5	576.2	554.2	557.9
67.5°	476.7	480.4	478.3	464.5	469.8
70°	390.2	394.9	391.5	375.8	380.6
72.5°	311.1	305.2	309.0	289.3	298.3
75°	233.8	229.1	233.3	216.8	224.3
77.5°	159.3	163.0	160.3	151.6	156.6
80°	105.1	102.2	102.2	97.1	98.2
82.5°	61.3	58.4	57.6	56.0	58.4
85°	28.7	27.9	28.4	27.6	26.5
87.5°	10.4	10.6	10.6	10.1	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)