

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: P589671

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589671
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-82-86-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

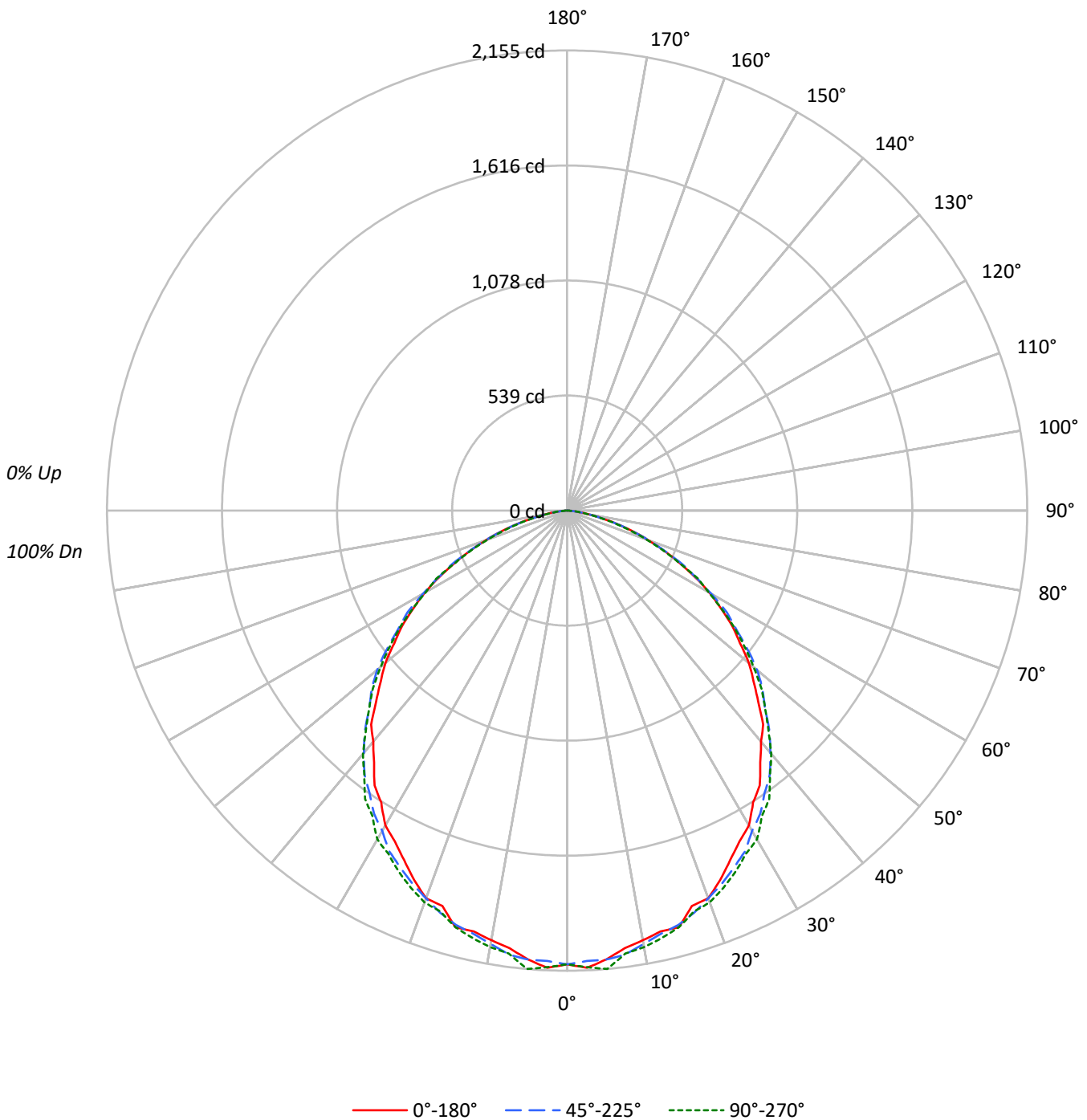
Lumens per Lamp: N/A
Luminaire Lumens: 5355.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589671

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589671

CATALOG NUMBER: FMR-24-2-LD4-4LO-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	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°	5718	5718	5718
5°	5699	5701	5821
10°	5583	5632	5672
15°	5627	5597	5628
20°	5532	5532	5591
25°	5362	5480	5540
30°	5289	5381	5525
35°	5164	5299	5418
40°	4963	5202	5225
45°	4813	4984	4991
50°	4655	4865	4772
55°	4435	4521	4489
60°	4147	4189	4113
65°	3698	3792	3672
70°	3173	3183	3095
75°	2513	2507	2410
80°	1683	1636	1573
85°	914	908	846



TEST NUMBER: P589671

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.9	3.7
10°-20°	566.4	10.6
20°-30°	848.6	15.8
30°-40°	1005.8	18.8
40°-50°	1007.7	18.8
50°-60°	855.4	16.0
60°-70°	576.7	10.8
70°-80°	253.4	4.7
80°-90°	41.2	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°	1614.9	30.2
0°-40°	2620.7	48.9
0°-60°	4483.8	83.7
0°-90°	5355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2125	2125	2125	2125	2125	
5°	2110	2105	2110	2104	2155	199
15°	2020	1997	2009	2019	2020	563
25°	1806	1816	1846	1870	1866	835
35°	1572	1577	1613	1650	1649	976
45°	1265	1288	1310	1343	1312	978
55°	945	939	964	957	957	841
65°	581	573	596	573	577	578
75°	242	237	241	224	232	259
85°	30	29	29	28	27	43
90°	0	0	0	0	0	



TEST NUMBER: P589671

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2124.7	2124.7	2124.7	2124.7	2124.7
2.5°	2143.1	2126.9	2111.8	2129.4	2140.1
5°	2109.6	2104.7	2110.5	2104.2	2154.9
7.5°	2066.3	2085.2	2096.2	2089.3	2092.4
10°	2043.3	2036.7	2061.1	2078.1	2075.6
12.5°	2018.6	2028.4	2029.8	2048.2	2049.8
15°	2019.9	1996.6	2009.0	2019.4	2020.2
17.5°	1941.5	1966.7	1975.2	1999.1	1969.5
20°	1931.9	1913.5	1931.9	1956.3	1952.4
22.5°	1872.9	1852.3	1891.8	1913.5	1912.1
25°	1806.0	1815.8	1845.5	1869.6	1865.8
27.5°	1747.2	1758.8	1801.0	1834.2	1812.8
30°	1702.0	1696.2	1731.9	1761.5	1778.0
32.5°	1621.0	1641.9	1683.6	1713.0	1697.3
35°	1571.9	1576.6	1613.1	1650.4	1649.3
37.5°	1486.1	1507.7	1559.0	1569.5	1559.9
40°	1412.8	1434.5	1480.9	1492.1	1487.4
42.5°	1358.8	1362.6	1402.4	1415.3	1394.7
45°	1264.7	1288.3	1309.7	1343.4	1311.6
47.5°	1184.6	1195.6	1241.6	1250.7	1234.0
50°	1111.9	1115.7	1162.1	1150.8	1139.9
52.5°	1020.5	1036.7	1062.8	1060.6	1047.7
55°	945.4	939.1	963.7	957.2	956.9
57.5°	855.1	866.1	886.4	876.0	859.2
60°	770.6	770.9	778.3	766.5	764.3
62.5°	676.5	679.8	681.4	666.9	690.5
65°	580.8	573.1	595.6	572.8	576.7
67.5°	492.7	496.5	494.4	480.1	485.6
70°	403.3	408.2	404.6	388.5	393.4
72.5°	321.5	315.5	319.3	299.0	308.4
75°	241.7	236.8	241.1	224.1	231.8
77.5°	164.6	168.4	165.7	156.6	161.9
80°	108.6	105.6	105.6	100.4	101.5
82.5°	63.4	60.4	59.5	57.9	60.4
85°	29.6	28.8	29.4	28.5	27.4
87.5°	10.7	11.0	11.0	10.4	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)