

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: P589076

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589076
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-50-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

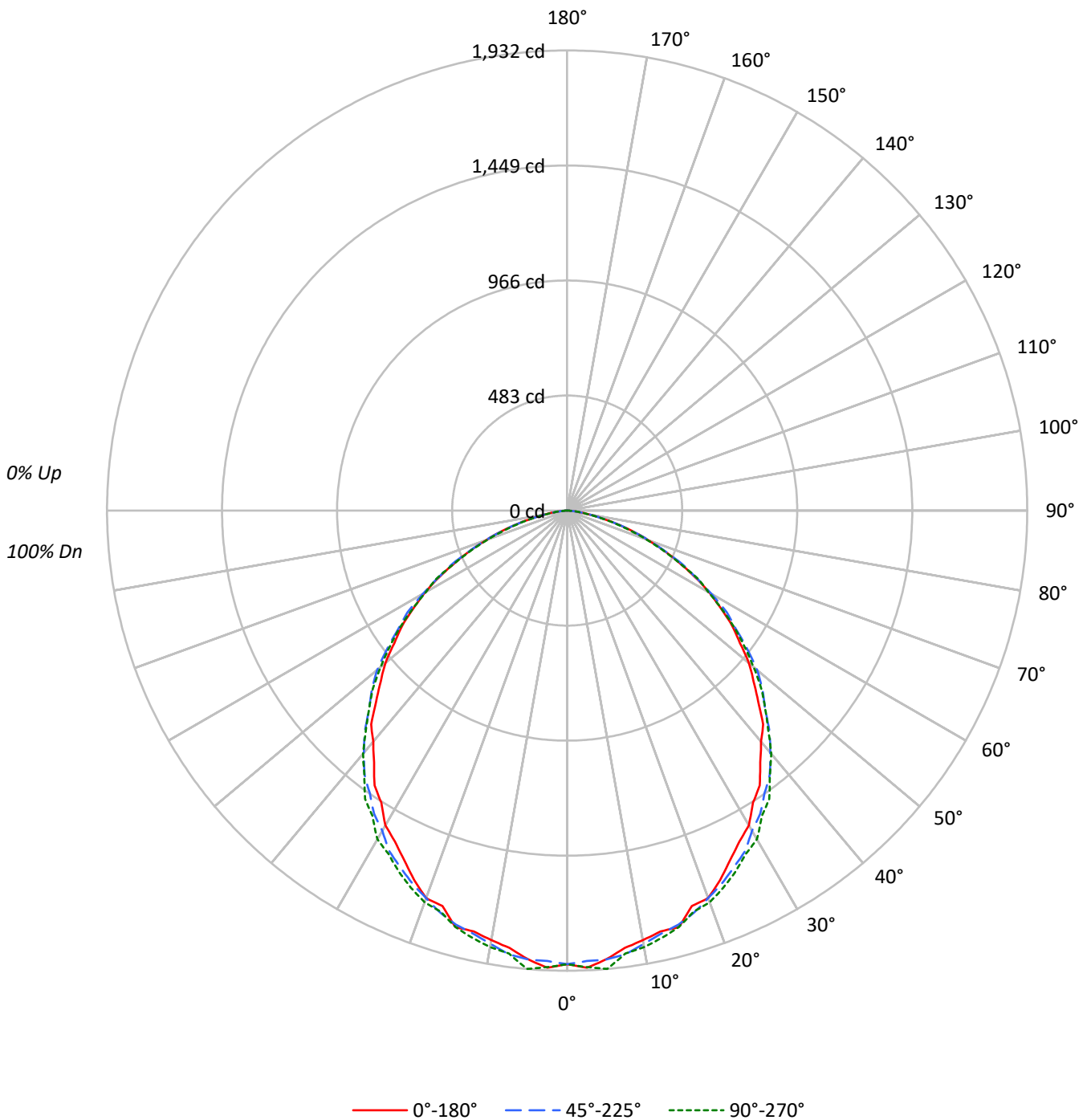
Lumens per Lamp: N/A
Luminaire Lumens: 4800.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (A_{in}): 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: P589076

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-93-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589076

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-93-97-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°	5125	5125	5125
5°	5108	5110	5218
10°	5005	5048	5084
15°	5044	5017	5045
20°	4959	4959	5012
25°	4806	4912	4966
30°	4740	4824	4952
35°	4629	4750	4857
40°	4449	4663	4684
45°	4314	4467	4474
50°	4172	4361	4277
55°	3976	4053	4024
60°	3717	3754	3687
65°	3315	3400	3291
70°	2844	2854	2774
75°	2252	2247	2161
80°	1509	1468	1410
85°	821	812	760



TEST NUMBER: P589076

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-93-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.1	3.7
10°-20°	507.7	10.6
20°-30°	760.7	15.8
30°-40°	901.6	18.8
40°-50°	903.2	18.8
50°-60°	766.7	16.0
60°-70°	516.9	10.8
70°-80°	227.1	4.7
80°-90°	36.9	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°	1447.6	30.2
0°-40°	2349.1	48.9
0°-60°	4019.1	83.7
0°-90°	4800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1904	1904	1904	1904	1904	
5°	1891	1887	1892	1886	1932	178
15°	1811	1790	1801	1810	1811	504
25°	1619	1628	1654	1676	1672	748
35°	1409	1413	1446	1479	1478	875
45°	1134	1155	1174	1204	1176	877
55°	847	842	864	858	858	754
65°	521	514	534	513	517	518
75°	217	212	216	201	208	232
85°	27	26	26	26	25	39
90°	0	0	0	0	0	



TEST NUMBER: P589076

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-93-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1904.5	1904.5	1904.5	1904.5	1904.5
2.5°	1921.0	1906.5	1893.0	1908.7	1918.3
5°	1891.0	1886.6	1891.7	1886.1	1931.6
7.5°	1852.1	1869.1	1878.9	1872.8	1875.5
10°	1831.5	1825.6	1847.5	1862.7	1860.5
12.5°	1809.4	1818.2	1819.4	1835.9	1837.4
15°	1810.6	1789.7	1800.7	1810.1	1810.8
17.5°	1740.3	1762.9	1770.5	1791.9	1765.3
20°	1731.6	1715.2	1731.6	1753.5	1750.1
22.5°	1678.8	1660.3	1695.7	1715.2	1713.9
25°	1618.8	1627.6	1654.2	1675.8	1672.4
27.5°	1566.2	1576.5	1614.4	1644.1	1624.9
30°	1525.6	1520.4	1552.4	1578.9	1593.7
32.5°	1453.0	1471.7	1509.1	1535.4	1521.4
35°	1409.0	1413.2	1445.9	1479.4	1478.4
37.5°	1332.1	1351.5	1397.5	1406.8	1398.2
40°	1266.4	1285.8	1327.4	1337.5	1333.3
42.5°	1218.0	1221.4	1257.1	1268.6	1250.2
45°	1133.6	1154.8	1173.9	1204.2	1175.7
47.5°	1061.8	1071.6	1113.0	1121.1	1106.1
50°	996.6	1000.1	1041.6	1031.6	1021.7
52.5°	914.8	929.3	952.6	950.7	939.1
55°	847.4	841.7	863.9	858.0	857.7
57.5°	766.5	776.3	794.5	785.2	770.2
60°	690.7	691.0	697.6	687.1	685.1
62.5°	606.4	609.3	610.8	597.8	618.9
65°	520.6	513.7	533.9	513.4	516.9
67.5°	441.6	445.1	443.1	430.3	435.2
70°	361.5	365.9	362.7	348.2	352.6
72.5°	288.2	282.8	286.2	268.0	276.4
75°	216.6	212.2	216.1	200.9	207.8
77.5°	147.5	151.0	148.5	140.4	145.1
80°	97.4	94.7	94.7	90.0	91.0
82.5°	56.8	54.1	53.4	51.9	54.1
85°	26.6	25.8	26.3	25.6	24.6
87.5°	9.6	9.8	9.8	9.3	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)