

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: P589453

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589453
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-LD4-3LO-50-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

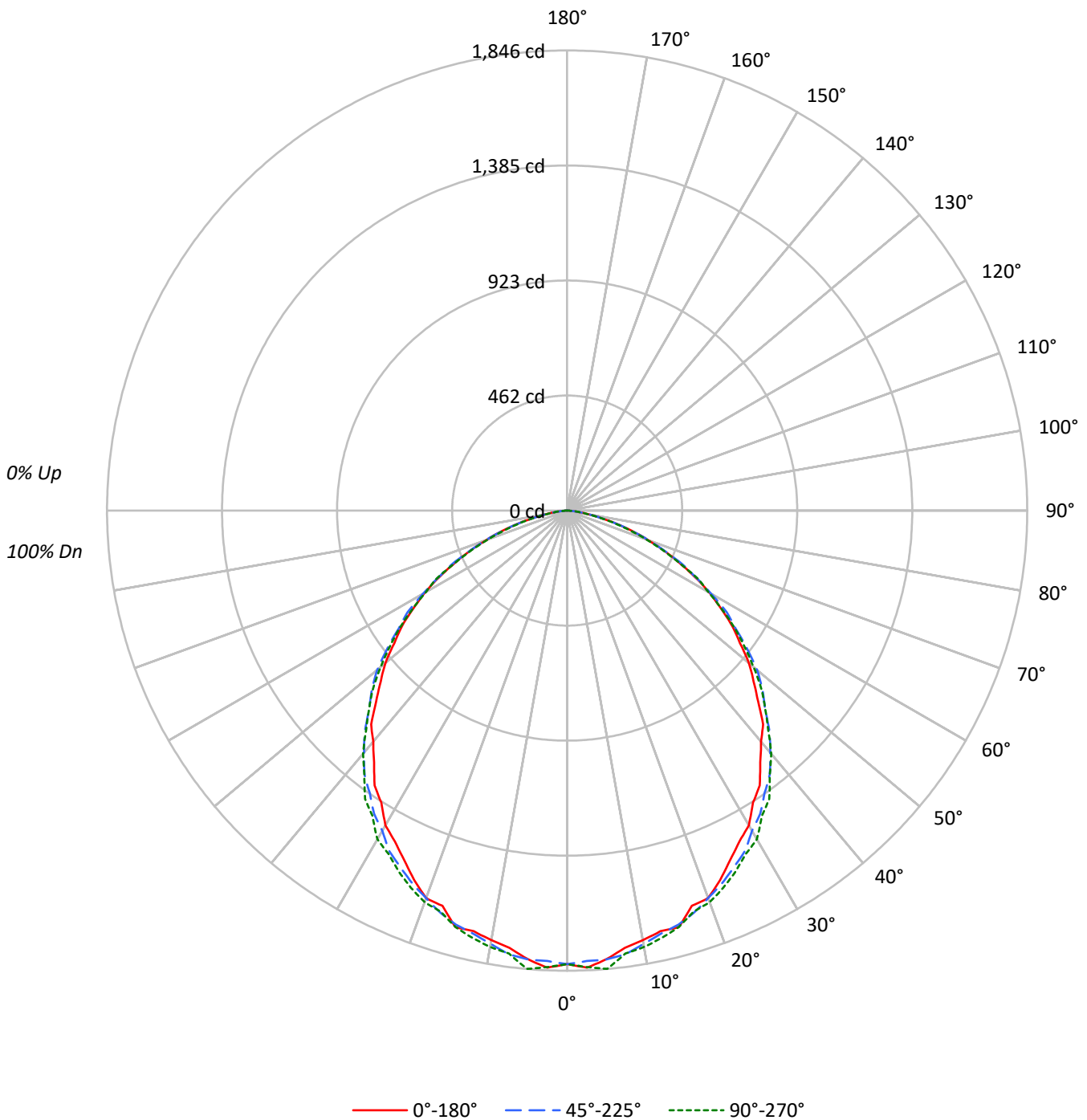
Lumens per Lamp: N/A
Luminaire Lumens: 4586.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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: P589453

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589453

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-93-84-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°	4897	4897	4897
5°	4880	4882	4985
10°	4781	4823	4857
15°	4819	4793	4820
20°	4738	4738	4788
25°	4592	4692	4744
30°	4529	4609	4731
35°	4422	4538	4640
40°	4250	4455	4475
45°	4122	4268	4274
50°	3986	4166	4087
55°	3798	3872	3845
60°	3552	3587	3522
65°	3167	3248	3144
70°	2718	2726	2651
75°	2152	2147	2064
80°	1441	1402	1347
85°	784	775	726



TEST NUMBER: P589453

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.2	3.7
10°-20°	485.1	10.6
20°-30°	726.8	15.8
30°-40°	861.4	18.8
40°-50°	863.0	18.8
50°-60°	732.5	16.0
60°-70°	493.9	10.8
70°-80°	217.0	4.7
80°-90°	35.3	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°	1383.0	30.2
0°-40°	2244.4	48.9
0°-60°	3839.9	83.7
0°-90°	4586.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4586.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1807	1802	1807	1802	1846	170
15°	1730	1710	1720	1729	1730	482
25°	1547	1555	1580	1601	1598	715
35°	1346	1350	1381	1413	1412	836
45°	1083	1103	1122	1150	1123	838
55°	810	804	825	820	820	720
65°	497	491	510	491	494	495
75°	207	203	206	192	198	222
85°	25	25	25	24	24	37
90°	0	0	0	0	0	



TEST NUMBER: P589453

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1819.6	1819.6	1819.6	1819.6	1819.6
2.5°	1835.3	1821.5	1808.6	1823.6	1832.8
5°	1806.7	1802.5	1807.4	1802.0	1845.5
7.5°	1769.6	1785.8	1795.2	1789.3	1791.9
10°	1749.8	1744.2	1765.1	1779.7	1777.6
12.5°	1728.7	1737.1	1738.3	1754.1	1755.5
15°	1729.9	1709.9	1720.5	1729.4	1730.1
17.5°	1662.7	1684.3	1691.6	1712.0	1686.6
20°	1654.4	1638.7	1654.4	1675.4	1672.1
22.5°	1603.9	1586.3	1620.1	1638.7	1637.5
25°	1546.6	1555.1	1580.4	1601.1	1597.8
27.5°	1496.3	1506.2	1542.4	1570.8	1552.5
30°	1457.6	1452.6	1483.2	1508.5	1522.6
32.5°	1388.3	1406.1	1441.8	1467.0	1453.6
35°	1346.2	1350.2	1381.4	1413.4	1412.5
37.5°	1272.7	1291.2	1335.2	1344.1	1335.9
40°	1209.9	1228.5	1268.2	1277.8	1273.8
42.5°	1163.7	1166.9	1201.0	1212.1	1194.4
45°	1083.1	1103.3	1121.6	1150.5	1123.2
47.5°	1014.5	1023.9	1063.3	1071.1	1056.8
50°	952.2	955.5	995.2	985.6	976.2
52.5°	874.0	887.8	910.2	908.3	897.2
55°	809.6	804.2	825.3	819.7	819.5
57.5°	732.3	741.7	759.1	750.2	735.8
60°	659.9	660.2	666.5	656.4	654.5
62.5°	579.4	582.2	583.6	571.1	591.3
65°	497.4	490.8	510.1	490.6	493.8
67.5°	422.0	425.2	423.4	411.1	415.8
70°	345.4	349.6	346.5	332.7	336.9
72.5°	275.3	270.2	273.5	256.1	264.1
75°	207.0	202.8	206.5	191.9	198.5
77.5°	141.0	144.3	141.9	134.2	138.6
80°	93.0	90.5	90.5	86.0	86.9
82.5°	54.3	51.7	51.0	49.6	51.7
85°	25.4	24.7	25.1	24.4	23.5
87.5°	9.2	9.4	9.4	8.9	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)