

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: P589443

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589443
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-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

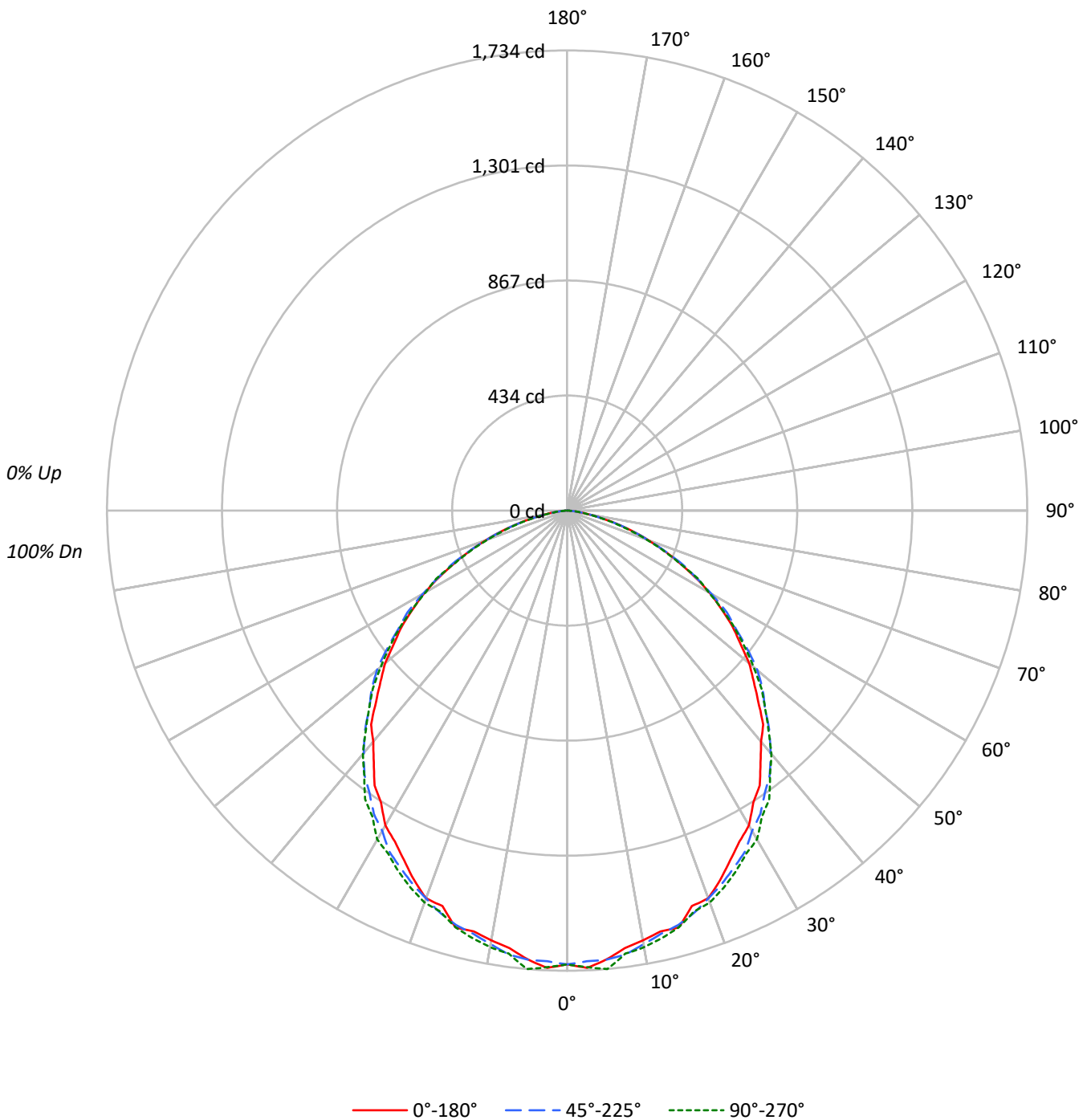
Lumens per Lamp: N/A
Luminaire Lumens: 4310.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589443

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-81-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589443

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-81-96-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°	4602	4602	4602
5°	4587	4588	4685
10°	4494	4533	4565
15°	4529	4505	4530
20°	4453	4453	4500
25°	4316	4410	4459
30°	4256	4331	4447
35°	4156	4265	4361
40°	3994	4187	4206
45°	3874	4012	4017
50°	3746	3916	3841
55°	3570	3639	3613
60°	3338	3371	3310
65°	2976	3053	2955
70°	2554	2563	2491
75°	2022	2018	1940
80°	1354	1317	1266
85°	735	729	682



TEST NUMBER: P589443

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-81-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.9	3.7
10°-20°	455.9	10.6
20°-30°	683.0	15.8
30°-40°	809.5	18.8
40°-50°	811.0	18.8
50°-60°	688.4	16.0
60°-70°	464.1	10.8
70°-80°	204.0	4.7
80°-90°	33.1	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°	1299.8	30.2
0°-40°	2109.3	48.9
0°-60°	3608.8	83.7
0°-90°	4310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1698	1694	1699	1694	1734	160
15°	1626	1607	1617	1625	1626	453
25°	1454	1462	1485	1505	1502	672
35°	1265	1269	1298	1328	1328	786
45°	1018	1037	1054	1081	1056	787
55°	761	756	776	770	770	677
65°	467	461	479	461	464	465
75°	194	191	194	180	187	208
85°	24	23	24	23	22	35
90°	0	0	0	0	0	



TEST NUMBER: P589443

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-81-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1710.1	1710.1	1710.1	1710.1	1710.1
2.5°	1724.9	1711.9	1699.7	1713.9	1722.5
5°	1698.0	1694.0	1698.6	1693.5	1734.4
7.5°	1663.1	1678.3	1687.1	1681.6	1684.0
10°	1644.5	1639.2	1658.9	1672.6	1670.6
12.5°	1624.6	1632.6	1633.7	1648.5	1649.8
15°	1625.8	1607.0	1616.9	1625.3	1626.0
17.5°	1562.6	1582.9	1589.8	1609.0	1585.1
20°	1554.9	1540.1	1554.9	1574.5	1571.4
22.5°	1507.4	1490.8	1522.6	1540.1	1539.0
25°	1453.5	1461.5	1485.3	1504.8	1501.7
27.5°	1406.3	1415.6	1449.6	1476.3	1459.0
30°	1369.8	1365.2	1393.9	1417.8	1431.0
32.5°	1304.7	1321.5	1355.1	1378.7	1366.1
35°	1265.2	1268.9	1298.3	1328.3	1327.5
37.5°	1196.1	1213.5	1254.8	1263.2	1255.5
40°	1137.1	1154.6	1191.9	1200.9	1197.2
42.5°	1093.6	1096.7	1128.7	1139.1	1122.5
45°	1017.9	1036.9	1054.1	1081.3	1055.6
47.5°	953.4	962.2	999.3	1006.6	993.2
50°	894.9	898.0	935.3	926.3	917.4
52.5°	821.4	834.4	855.4	853.6	843.2
55°	760.9	755.8	775.7	770.4	770.2
57.5°	688.2	697.1	713.4	705.0	691.5
60°	620.2	620.4	626.4	616.9	615.1
62.5°	544.5	547.1	548.5	536.8	555.8
65°	467.4	461.3	479.4	461.0	464.1
67.5°	396.6	399.6	397.9	386.4	390.8
70°	324.6	328.6	325.7	312.7	316.6
72.5°	258.8	253.9	257.0	240.7	248.2
75°	194.5	190.6	194.1	180.4	186.6
77.5°	132.5	135.6	133.4	126.1	130.3
80°	87.4	85.0	85.0	80.8	81.7
82.5°	51.0	48.6	47.9	46.6	48.6
85°	23.8	23.2	23.6	23.0	22.1
87.5°	8.6	8.8	8.8	8.4	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)