

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: P589437

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589437
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

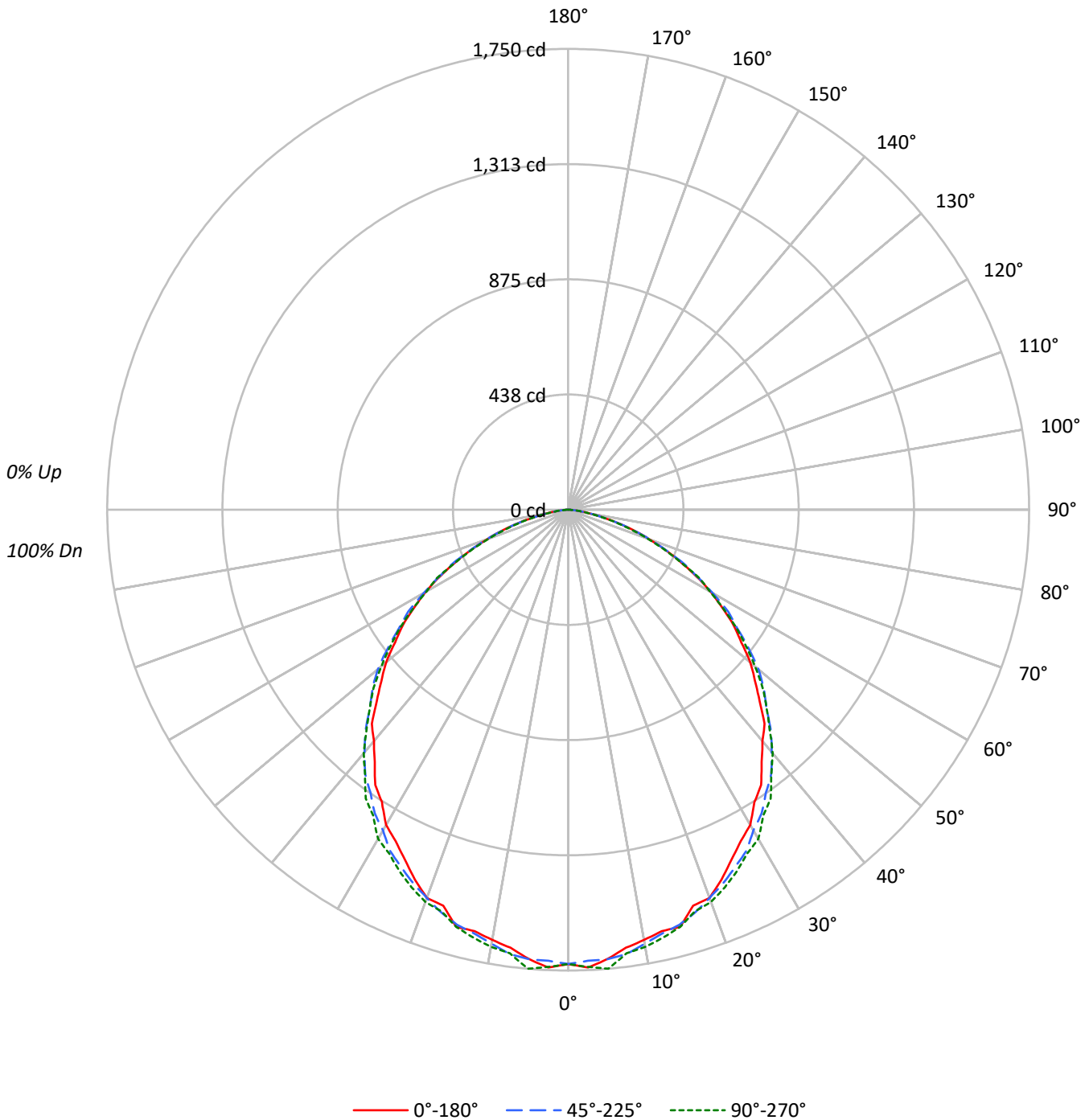
Lumens per Lamp: N/A
Luminaire Lumens: 4348.0 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589437

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-UNV-81-84-EDD

Luminous Intensity Polar Plot





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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°	4642	4642	4642
5°	4627	4629	4726
10°	4533	4573	4605
15°	4569	4544	4570
20°	4492	4492	4540
25°	4354	4449	4498
30°	4294	4369	4486
35°	4193	4303	4399
40°	4030	4224	4242
45°	3908	4047	4053
50°	3779	3950	3875
55°	3601	3671	3645
60°	3367	3401	3340
65°	3003	3079	2981
70°	2576	2585	2513
75°	2040	2036	1957
80°	1367	1330	1277
85°	744	735	689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	3.7
10°-20°	459.9	10.6
20°-30°	689.1	15.8
30°-40°	816.7	18.8
40°-50°	818.2	18.8
50°-60°	694.5	16.0
60°-70°	468.2	10.8
70°-80°	205.7	4.7
80°-90°	33.4	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°	1311.3	30.2
0°-40°	2127.9	48.9
0°-60°	3640.6	83.7
0°-90°	4348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1725	1725	1725	1725	1725	
5°	1713	1709	1714	1708	1750	161
15°	1640	1621	1631	1640	1640	457
25°	1466	1474	1498	1518	1515	678
35°	1276	1280	1310	1340	1339	792
45°	1027	1046	1063	1091	1065	794
55°	768	762	782	777	777	683
65°	472	465	484	465	468	469
75°	196	192	196	182	188	210
85°	24	23	24	23	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1725.2	1725.2	1725.2	1725.2	1725.2
2.5°	1740.1	1727.0	1714.7	1729.0	1737.7
5°	1712.9	1708.9	1713.6	1708.5	1749.7
7.5°	1677.7	1693.1	1702.0	1696.4	1698.9
10°	1659.0	1653.7	1673.5	1687.3	1685.3
12.5°	1639.0	1647.0	1648.1	1663.0	1664.4
15°	1640.1	1621.2	1631.2	1639.6	1640.3
17.5°	1576.4	1596.9	1603.8	1623.2	1599.1
20°	1568.6	1553.7	1568.6	1588.4	1585.3
22.5°	1520.7	1504.0	1536.1	1553.7	1552.5
25°	1466.3	1474.4	1498.4	1518.0	1514.9
27.5°	1418.7	1428.0	1462.3	1489.3	1471.9
30°	1381.9	1377.2	1406.2	1430.3	1443.6
32.5°	1316.2	1333.1	1367.0	1390.8	1378.1
35°	1276.3	1280.1	1309.8	1340.0	1339.2
37.5°	1206.6	1224.2	1265.9	1274.3	1266.5
40°	1147.1	1164.7	1202.4	1211.5	1207.7
42.5°	1103.3	1106.4	1138.7	1149.2	1132.4
45°	1026.9	1046.0	1063.4	1090.8	1065.0
47.5°	961.8	970.7	1008.2	1015.5	1001.9
50°	902.8	905.9	943.6	934.4	925.5
52.5°	828.6	841.8	862.9	861.1	850.7
55°	767.6	762.5	782.5	777.2	776.9
57.5°	694.3	703.2	719.7	711.2	697.6
60°	625.7	625.9	631.9	622.4	620.6
62.5°	549.3	552.0	553.3	541.5	560.7
65°	471.6	465.3	483.6	465.1	468.2
67.5°	400.1	403.2	401.4	389.8	394.3
70°	327.4	331.4	328.6	315.4	319.4
72.5°	261.1	256.2	259.3	242.8	250.4
75°	196.2	192.2	195.8	182.0	188.2
77.5°	133.6	136.8	134.5	127.2	131.4
80°	88.2	85.8	85.8	81.5	82.4
82.5°	51.5	49.0	48.3	47.0	49.0
85°	24.1	23.4	23.8	23.2	22.3
87.5°	8.7	8.9	8.9	8.5	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)