

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: P589268

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

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589268
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-LD4-2STD-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

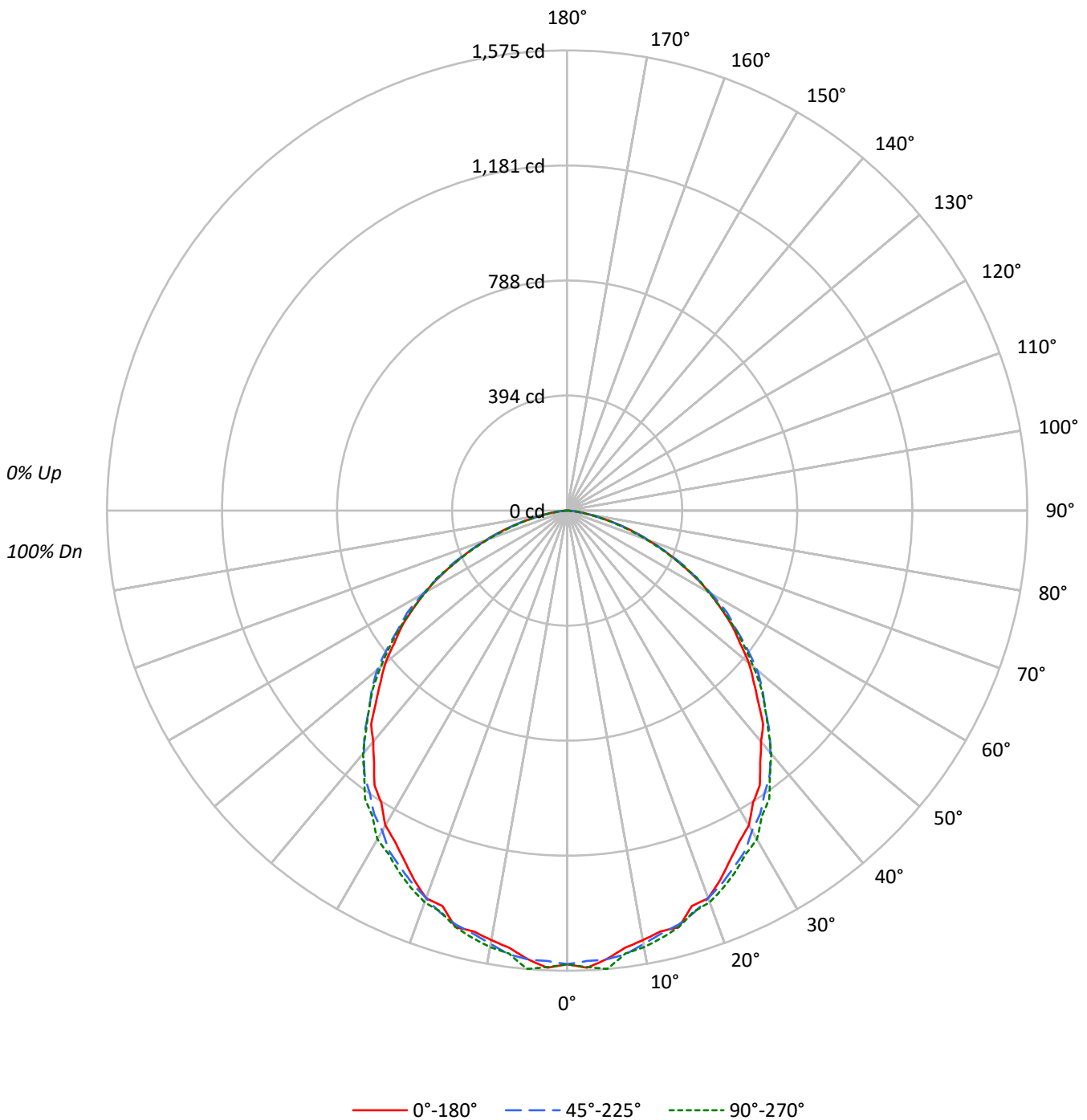
Lumens per Lamp: N/A
Luminaire Lumens: 3913.0 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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

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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°	4178	4178	4178
5°	4164	4166	4253
10°	4080	4115	4144
15°	4112	4090	4113
20°	4043	4043	4086
25°	3918	4004	4048
30°	3865	3932	4037
35°	3773	3872	3959
40°	3627	3801	3818
45°	3517	3642	3647
50°	3401	3555	3487
55°	3241	3304	3280
60°	3031	3061	3006
65°	2702	2771	2683
70°	2319	2327	2262
75°	1836	1832	1761
80°	1230	1196	1150
85°	667	661	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.0	3.7
10°-20°	413.9	10.6
20°-30°	620.1	15.8
30°-40°	735.0	18.8
40°-50°	736.3	18.8
50°-60°	625.0	16.0
60°-70°	421.4	10.8
70°-80°	185.2	4.7
80°-90°	30.1	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°	1180.1	30.2
0°-40°	1915.0	48.9
0°-60°	3276.4	83.7
0°-90°	3913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1542	1538	1542	1538	1575	145
15°	1476	1459	1468	1476	1476	411
25°	1320	1327	1348	1366	1363	610
35°	1149	1152	1179	1206	1205	713
45°	924	941	957	982	958	715
55°	691	686	704	699	699	614
65°	424	419	435	419	421	422
75°	177	173	176	164	169	189
85°	22	21	21	21	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.6	1552.6	1552.6	1552.6	1552.6
2.5°	1566.0	1554.2	1543.2	1556.0	1563.8
5°	1541.6	1537.9	1542.2	1537.5	1574.6
7.5°	1509.9	1523.7	1531.7	1526.7	1528.9
10°	1493.0	1488.2	1506.1	1518.5	1516.7
12.5°	1475.0	1482.2	1483.2	1496.7	1497.9
15°	1476.0	1459.0	1468.0	1475.6	1476.2
17.5°	1418.7	1437.1	1443.3	1460.8	1439.1
20°	1411.7	1398.2	1411.7	1429.5	1426.7
22.5°	1368.6	1353.5	1382.4	1398.2	1397.2
25°	1319.6	1326.9	1348.5	1366.1	1363.3
27.5°	1276.7	1285.2	1316.0	1340.3	1324.7
30°	1243.7	1239.5	1265.5	1287.2	1299.2
32.5°	1184.5	1199.8	1230.2	1251.7	1240.3
35°	1148.6	1152.1	1178.7	1206.0	1205.2
37.5°	1085.9	1101.7	1139.2	1146.8	1139.8
40°	1032.4	1048.2	1082.1	1090.3	1086.9
42.5°	992.9	995.7	1024.8	1034.2	1019.1
45°	924.1	941.4	957.0	981.7	958.4
47.5°	865.6	873.6	907.3	913.9	901.7
50°	812.5	815.3	849.2	840.9	832.9
52.5°	745.7	757.5	776.6	775.0	765.6
55°	690.8	686.2	704.2	699.4	699.2
57.5°	624.8	632.9	647.7	640.1	627.8
60°	563.1	563.3	568.7	560.1	558.5
62.5°	494.3	496.7	497.9	487.3	504.6
65°	424.4	418.8	435.2	418.6	421.4
67.5°	360.0	362.8	361.2	350.8	354.8
70°	294.7	298.3	295.7	283.9	287.5
72.5°	234.9	230.5	233.3	218.5	225.3
75°	176.6	173.0	176.2	163.8	169.4
77.5°	120.3	123.1	121.1	114.5	118.3
80°	79.4	77.2	77.2	73.4	74.2
82.5°	46.3	44.1	43.5	42.3	44.1
85°	21.6	21.0	21.4	20.8	20.0
87.5°	7.8	8.0	8.0	7.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)