

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: P589267

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589267
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

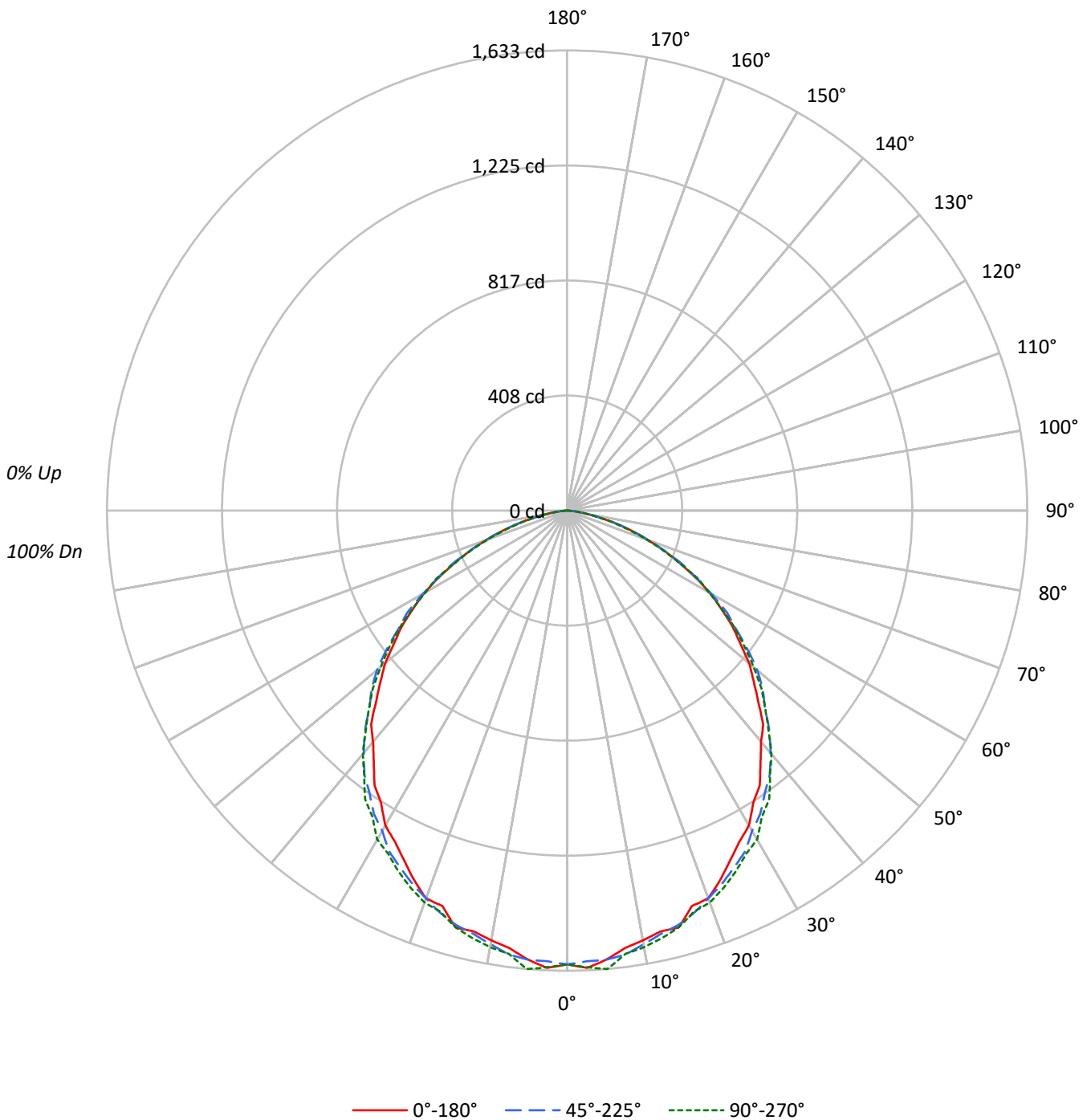
Lumens per Lamp: N/A
Luminaire Lumens: 4059.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					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°	4334	4334	4334
5°	4320	4321	4412
10°	4232	4269	4299
15°	4266	4242	4266
20°	4193	4193	4238
25°	4064	4153	4199
30°	4009	4079	4188
35°	3914	4017	4107
40°	3762	3943	3961
45°	3648	3778	3784
50°	3528	3687	3617
55°	3362	3427	3403
60°	3144	3175	3118
65°	2803	2874	2783
70°	2405	2413	2346
75°	1905	1901	1827
80°	1275	1241	1192
85°	695	685	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.5	3.7
10°-20°	429.4	10.6
20°-30°	643.3	15.8
30°-40°	762.4	18.8
40°-50°	763.8	18.8
50°-60°	648.3	16.0
60°-70°	437.1	10.8
70°-80°	192.1	4.7
80°-90°	31.2	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°	1224.1	30.2
0°-40°	1986.5	48.9
0°-60°	3398.6	83.7
0°-90°	4059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4059.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1599	1595	1600	1595	1633	151
15°	1531	1513	1523	1531	1531	427
25°	1369	1376	1399	1417	1414	633
35°	1192	1195	1223	1251	1250	740
45°	959	976	993	1018	994	742
55°	717	712	730	726	725	637
65°	440	434	451	434	437	438
75°	183	180	183	170	176	196
85°	22	22	22	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1610.5	1610.5	1610.5	1610.5	1610.5
2.5°	1624.4	1612.2	1600.7	1614.0	1622.2
5°	1599.1	1595.3	1599.7	1594.9	1633.4
7.5°	1566.2	1580.6	1588.9	1583.7	1586.0
10°	1548.7	1543.8	1562.3	1575.2	1573.3
12.5°	1530.0	1537.5	1538.6	1552.5	1553.7
15°	1531.1	1513.4	1522.8	1530.7	1531.3
17.5°	1471.6	1490.7	1497.2	1515.3	1492.8
20°	1464.3	1450.4	1464.3	1482.8	1479.9
22.5°	1419.6	1404.0	1434.0	1450.4	1449.4
25°	1368.9	1376.4	1398.8	1417.1	1414.2
27.5°	1324.4	1333.1	1365.1	1390.3	1374.1
30°	1290.1	1285.7	1312.7	1335.2	1347.7
32.5°	1228.7	1244.5	1276.1	1298.4	1286.5
35°	1191.5	1195.0	1222.7	1251.0	1250.1
37.5°	1126.4	1142.8	1181.7	1189.6	1182.4
40°	1070.9	1087.3	1122.5	1131.0	1127.5
42.5°	1029.9	1032.8	1063.0	1072.8	1057.2
45°	958.6	976.5	992.7	1018.3	994.2
47.5°	897.9	906.2	941.1	948.0	935.3
50°	842.8	845.7	880.8	872.3	864.0
52.5°	773.5	785.8	805.6	803.9	794.1
55°	716.6	711.8	730.5	725.5	725.3
57.5°	648.2	656.5	671.9	664.0	651.3
60°	584.1	584.3	589.9	581.0	579.3
62.5°	512.8	515.3	516.5	505.5	523.4
65°	440.2	434.4	451.4	434.2	437.1
67.5°	373.5	376.4	374.7	363.9	368.1
70°	305.7	309.4	306.7	294.4	298.2
72.5°	243.7	239.1	242.0	226.7	233.7
75°	183.2	179.5	182.8	169.9	175.7
77.5°	124.8	127.7	125.6	118.7	122.7
80°	82.3	80.1	80.1	76.1	76.9
82.5°	48.0	45.7	45.1	43.9	45.7
85°	22.5	21.8	22.2	21.6	20.8
87.5°	8.1	8.3	8.3	7.9	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)