

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: P589107

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589107
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-LD4-2LO-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

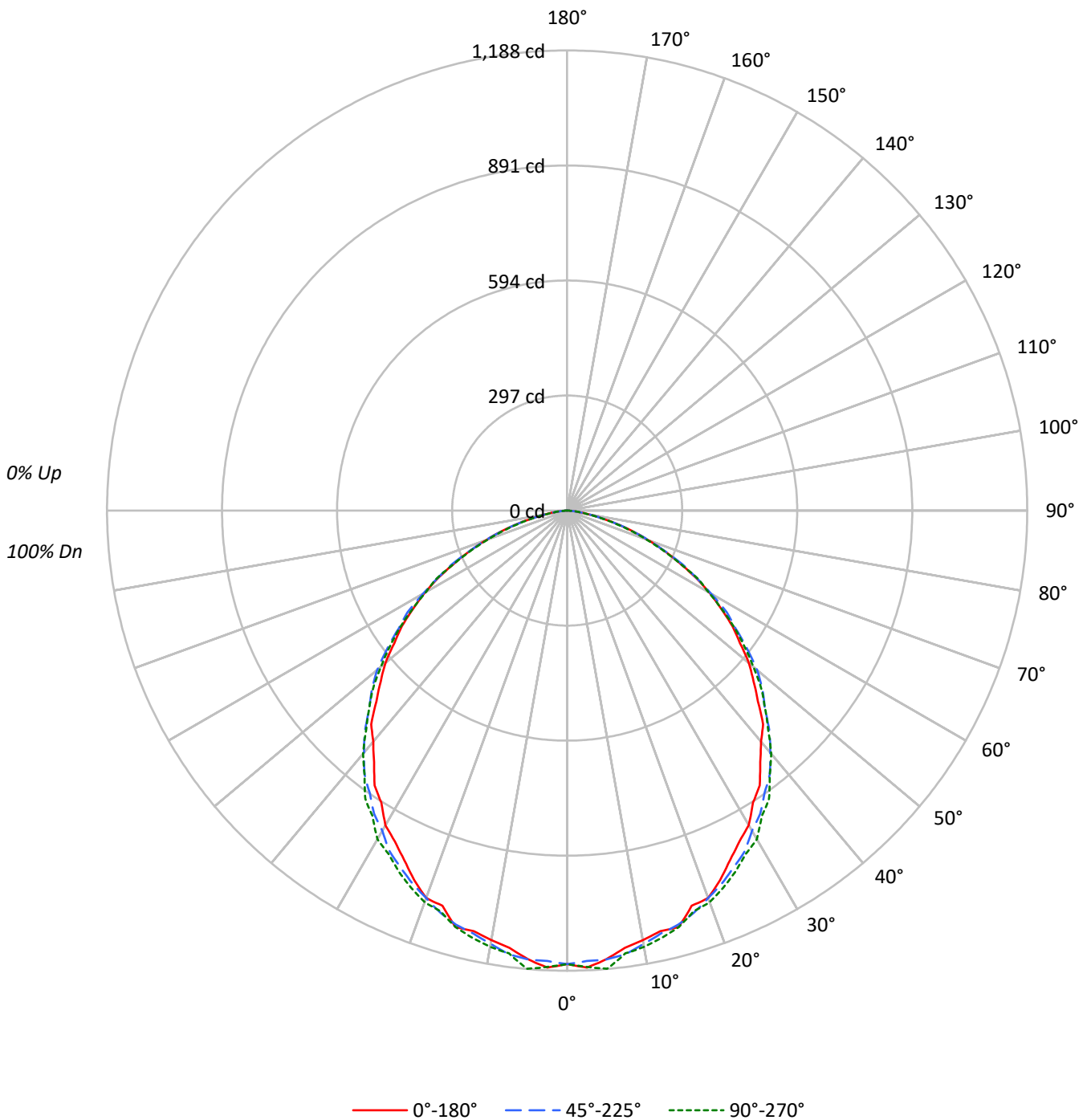
Lumens per Lamp: N/A
Luminaire Lumens: 2951.0 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	3151	3151	3151
5°	3140	3142	3208
10°	3077	3104	3125
15°	3101	3084	3102
20°	3049	3049	3081
25°	2955	3020	3053
30°	2914	2966	3045
35°	2846	2920	2986
40°	2735	2867	2879
45°	2652	2747	2751
50°	2565	2681	2629
55°	2444	2492	2474
60°	2286	2308	2267
65°	2038	2090	2024
70°	1748	1755	1706
75°	1385	1382	1328
80°	928	902	866
85°	503	500	466



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	3.7
10°-20°	312.1	10.6
20°-30°	467.7	15.8
30°-40°	554.3	18.8
40°-50°	555.3	18.8
50°-60°	471.4	16.0
60°-70°	317.8	10.8
70°-80°	139.6	4.7
80°-90°	22.7	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°	890.0	30.2
0°-40°	1444.2	48.9
0°-60°	2470.9	83.7
0°-90°	2951.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2951.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1171	1171	1171	1171	1171	
5°	1163	1160	1163	1160	1188	110
15°	1113	1100	1107	1113	1113	310
25°	995	1001	1017	1030	1028	460
35°	866	869	889	910	909	538
45°	697	710	722	740	723	539
55°	521	518	531	528	527	463
65°	320	316	328	316	318	318
75°	133	130	133	124	128	143
85°	16	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1170.9	1170.9	1170.9	1170.9	1170.9
2.5°	1181.0	1172.1	1163.8	1173.5	1179.3
5°	1162.6	1159.8	1163.0	1159.5	1187.5
7.5°	1138.7	1149.1	1155.2	1151.4	1153.0
10°	1126.0	1122.4	1135.8	1145.2	1143.8
12.5°	1112.4	1117.8	1118.6	1128.7	1129.6
15°	1113.1	1100.3	1107.1	1112.8	1113.3
17.5°	1069.9	1083.8	1088.5	1101.6	1085.3
20°	1064.6	1054.5	1064.6	1078.1	1075.9
22.5°	1032.1	1020.8	1042.5	1054.5	1053.7
25°	995.2	1000.7	1017.0	1030.3	1028.2
27.5°	962.9	969.2	992.5	1010.8	999.0
30°	937.9	934.7	954.4	970.7	979.8
32.5°	893.3	904.8	927.8	944.0	935.3
35°	866.3	868.8	888.9	909.5	908.9
37.5°	818.9	830.9	859.2	864.9	859.6
40°	778.6	790.5	816.1	822.3	819.7
42.5°	748.8	750.9	772.8	779.9	768.6
45°	696.9	709.9	721.7	740.3	722.8
47.5°	652.8	658.8	684.2	689.2	680.0
50°	612.7	614.8	640.4	634.2	628.1
52.5°	562.4	571.3	585.7	584.5	577.4
55°	521.0	517.5	531.1	527.5	527.3
57.5°	471.2	477.3	488.5	482.7	473.5
60°	424.7	424.8	428.9	422.4	421.2
62.5°	372.8	374.6	375.5	367.5	380.5
65°	320.0	315.8	328.2	315.7	317.8
67.5°	271.5	273.6	272.4	264.6	267.6
70°	222.2	225.0	223.0	214.1	216.8
72.5°	177.2	173.9	176.0	164.8	169.9
75°	133.2	130.5	132.9	123.5	127.7
77.5°	90.7	92.8	91.3	86.3	89.2
80°	59.9	58.2	58.2	55.3	55.9
82.5°	34.9	33.3	32.8	31.9	33.3
85°	16.3	15.9	16.2	15.7	15.1
87.5°	5.9	6.0	6.0	5.7	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)