

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: P589168

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589168
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-50-UNV-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

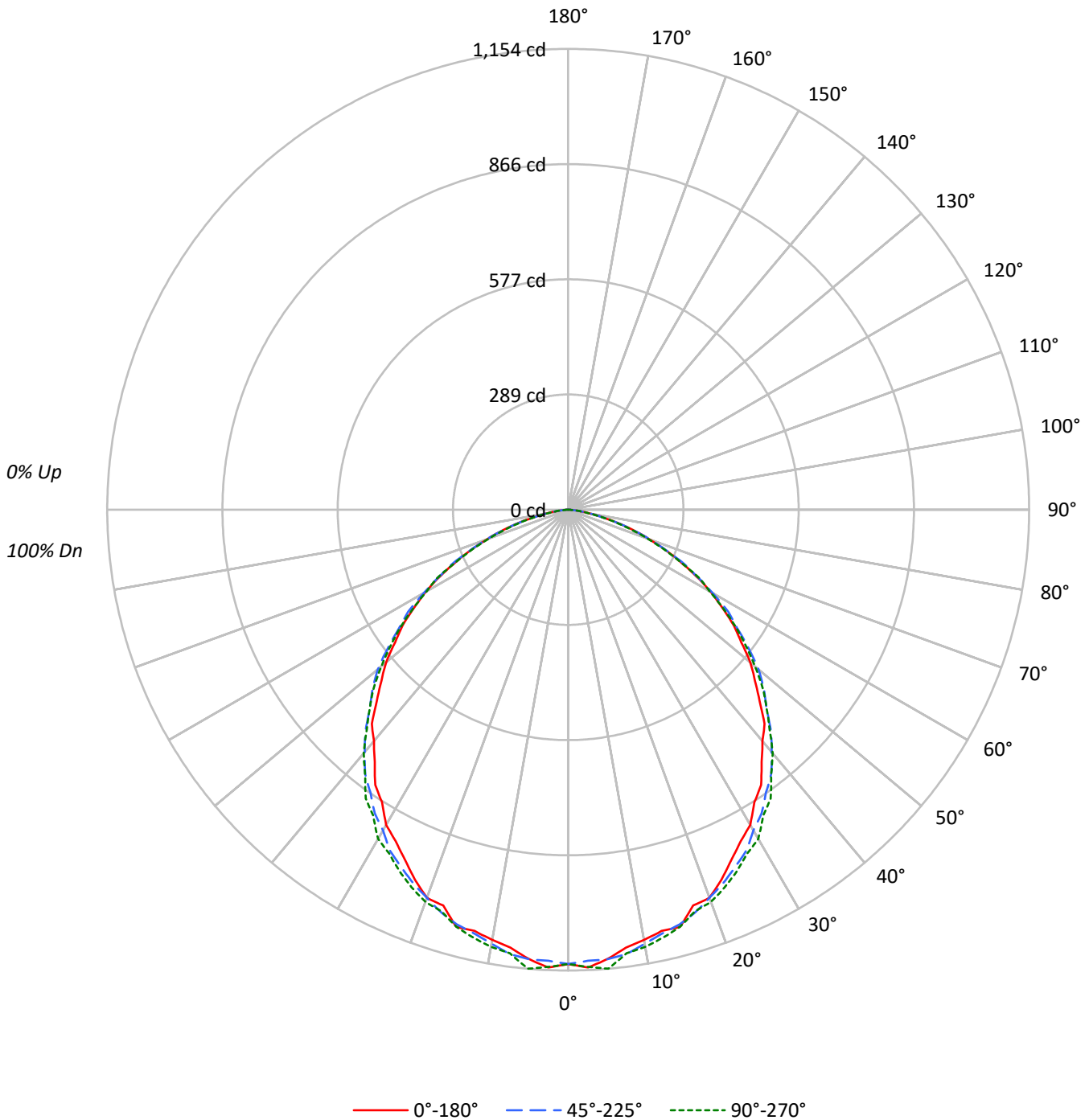
Lumens per Lamp: N/A
Luminaire Lumens: 2867.0 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

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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°	3061	3061	3061
5°	3051	3052	3116
10°	2989	3015	3037
15°	3013	2997	3013
20°	2962	2962	2993
25°	2871	2934	2966
30°	2831	2881	2958
35°	2765	2837	2901
40°	2657	2785	2798
45°	2577	2668	2672
50°	2492	2605	2555
55°	2374	2421	2403
60°	2221	2243	2202
65°	1980	2031	1966
70°	1699	1704	1657
75°	1345	1342	1290
80°	902	876	841
85°	491	485	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.7
10°-20°	303.3	10.6
20°-30°	454.4	15.8
30°-40°	538.5	18.8
40°-50°	539.5	18.8
50°-60°	457.9	16.0
60°-70°	308.7	10.8
70°-80°	135.7	4.7
80°-90°	22.0	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°	864.6	30.2
0°-40°	1403.1	48.9
0°-60°	2400.6	83.7
0°-90°	2867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1130	1127	1130	1126	1154	106
15°	1081	1069	1076	1081	1082	301
25°	967	972	988	1001	999	447
35°	842	844	864	884	883	523
45°	677	690	701	719	702	524
55°	506	503	516	512	512	450
65°	311	307	319	307	309	309
75°	129	127	129	120	124	139
85°	16	15	16	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1137.6	1137.6	1137.6	1137.6	1137.6
2.5°	1147.4	1138.7	1130.7	1140.1	1145.8
5°	1129.5	1126.8	1129.9	1126.5	1153.7
7.5°	1106.3	1116.4	1122.3	1118.6	1120.2
10°	1093.9	1090.4	1103.5	1112.6	1111.3
12.5°	1080.7	1086.0	1086.7	1096.6	1097.5
15°	1081.4	1069.0	1075.6	1081.2	1081.6
17.5°	1039.4	1053.0	1057.5	1070.3	1054.4
20°	1034.3	1024.5	1034.3	1047.4	1045.3
22.5°	1002.7	991.7	1012.9	1024.5	1023.7
25°	966.9	972.2	988.0	1001.0	998.9
27.5°	935.5	941.6	964.2	982.0	970.6
30°	911.2	908.1	927.2	943.1	951.9
32.5°	867.9	879.1	901.4	917.1	908.7
35°	841.6	844.1	863.6	883.6	883.0
37.5°	795.6	807.2	834.7	840.3	835.1
40°	756.4	768.0	792.8	798.9	796.4
42.5°	727.5	729.5	750.8	757.7	746.7
45°	677.1	689.7	701.2	719.3	702.2
47.5°	634.2	640.1	664.8	669.6	660.6
50°	595.3	597.3	622.2	616.1	610.3
52.5°	546.4	555.0	569.0	567.8	560.9
55°	506.1	502.8	516.0	512.4	512.3
57.5°	457.8	463.7	474.6	469.0	460.0
60°	412.6	412.7	416.7	410.4	409.2
62.5°	362.2	364.0	364.8	357.1	369.7
65°	310.9	306.8	318.9	306.7	308.7
67.5°	263.8	265.8	264.7	257.0	260.0
70°	215.9	218.6	216.6	208.0	210.6
72.5°	172.1	168.9	171.0	160.1	165.1
75°	129.4	126.8	129.1	120.0	124.1
77.5°	88.1	90.2	88.7	83.9	86.7
80°	58.2	56.5	56.5	53.8	54.3
82.5°	33.9	32.3	31.9	31.0	32.3
85°	15.9	15.4	15.7	15.3	14.7
87.5°	5.7	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)