

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: P589816

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589816
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-LD4-4STD-50-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

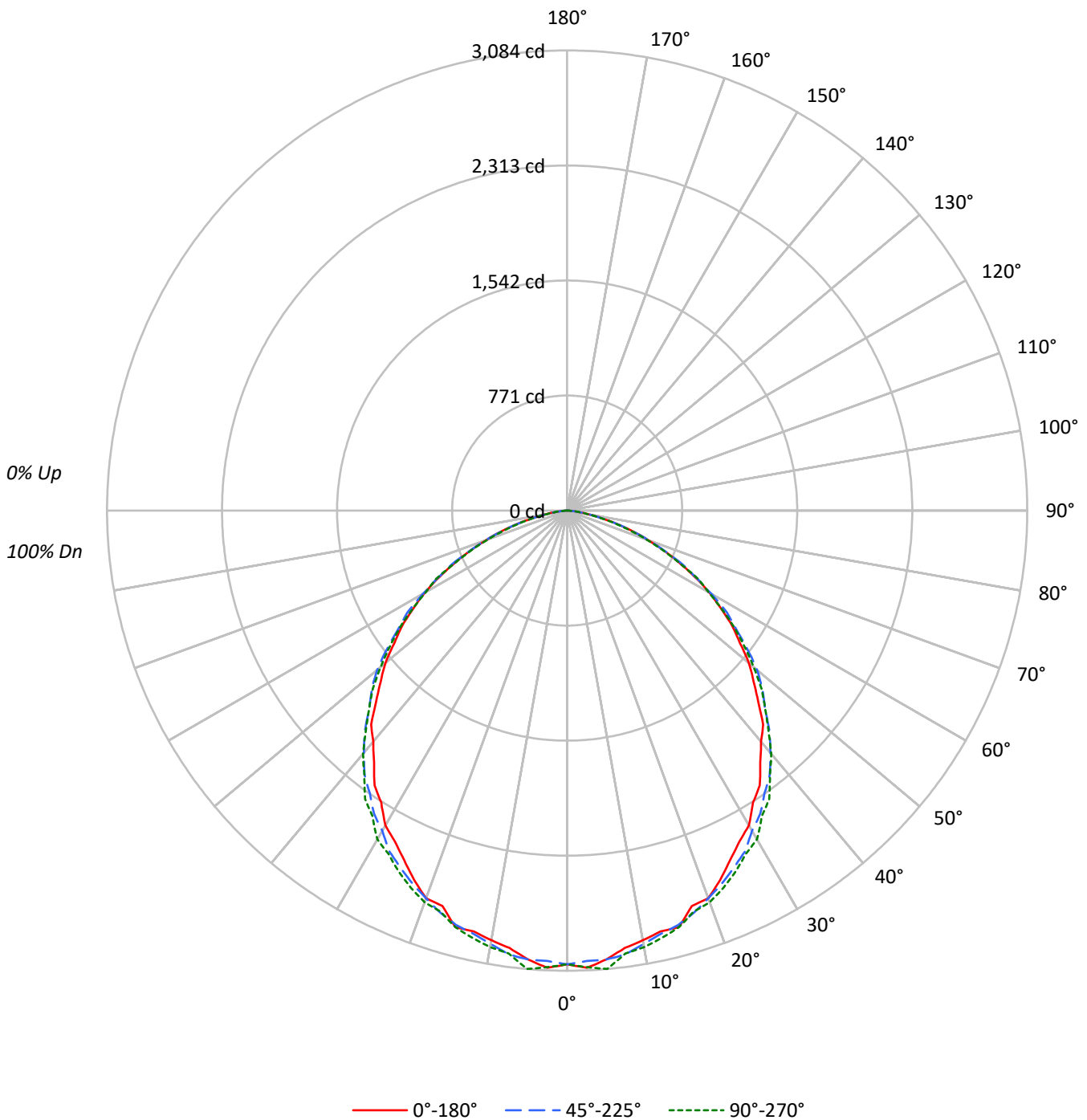
Lumens per Lamp: N/A
Luminaire Lumens: 7663.0 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8182	8182	8182
5°	8155	8158	8330
10°	7990	8059	8116
15°	8053	8009	8054
20°	7917	7917	8001
25°	7673	7841	7927
30°	7568	7701	7906
35°	7389	7583	7753
40°	7102	7444	7477
45°	6887	7132	7143
50°	6661	6962	6828
55°	6347	6470	6424
60°	5935	5994	5886
65°	5292	5427	5254
70°	4541	4556	4430
75°	3596	3588	3449
80°	2410	2342	2252
85°	1309	1297	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.0	3.7
10°-20°	810.6	10.6
20°-30°	1214.4	15.8
30°-40°	1439.3	18.8
40°-50°	1442.0	18.8
50°-60°	1224.0	16.0
60°-70°	825.2	10.8
70°-80°	362.6	4.7
80°-90°	58.9	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°	2311.0	30.2
0°-40°	3750.3	48.9
0°-60°	6416.2	83.7
0°-90°	7663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3040	3040	3040	3040	3040	
5°	3019	3012	3020	3011	3084	285
15°	2890	2857	2875	2890	2891	805
25°	2584	2598	2641	2675	2670	1195
35°	2249	2256	2308	2362	2360	1397
45°	1810	1844	1874	1922	1877	1400
55°	1353	1344	1379	1370	1369	1203
65°	831	820	852	820	825	827
75°	346	339	345	321	332	371
85°	42	41	42	41	39	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3040.5	3040.5	3040.5	3040.5	3040.5
2.5°	3066.8	3043.6	3022.0	3047.2	3062.5
5°	3018.9	3011.8	3020.1	3011.0	3083.7
7.5°	2956.9	2984.0	2999.7	2989.8	2994.2
10°	2923.9	2914.5	2949.4	2973.7	2970.2
12.5°	2888.6	2902.7	2904.7	2931.0	2933.3
15°	2890.5	2857.2	2874.8	2889.7	2890.9
17.5°	2778.2	2814.4	2826.5	2860.7	2818.3
20°	2764.5	2738.2	2764.5	2799.4	2793.9
22.5°	2680.1	2650.7	2707.2	2738.2	2736.2
25°	2584.3	2598.4	2640.8	2675.4	2669.9
27.5°	2500.3	2516.8	2577.2	2624.7	2594.1
30°	2435.5	2427.3	2478.3	2520.7	2544.3
32.5°	2319.7	2349.6	2409.2	2451.2	2428.9
35°	2249.4	2256.1	2308.3	2361.7	2360.2
37.5°	2126.6	2157.6	2231.0	2245.9	2232.2
40°	2021.8	2052.8	2119.1	2135.2	2128.5
42.5°	1944.4	1949.9	2006.8	2025.3	1995.8
45°	1809.8	1843.5	1874.1	1922.4	1876.9
47.5°	1695.1	1710.8	1776.8	1789.7	1765.8
50°	1591.1	1596.6	1662.9	1646.8	1631.1
52.5°	1460.4	1483.5	1520.8	1517.7	1499.2
55°	1352.8	1343.8	1379.1	1369.7	1369.3
57.5°	1223.7	1239.4	1268.4	1253.5	1229.5
60°	1102.7	1103.1	1113.7	1096.9	1093.7
62.5°	968.1	972.8	975.2	954.3	988.1
65°	831.1	820.1	852.3	819.7	825.2
67.5°	705.1	710.6	707.4	687.0	694.9
70°	577.1	584.1	579.0	555.9	563.0
72.5°	460.1	451.5	457.0	427.9	441.3
75°	345.9	338.8	345.1	320.7	331.7
77.5°	235.5	241.0	237.1	224.2	231.6
80°	155.5	151.1	151.1	143.7	145.3
82.5°	90.7	86.4	85.2	82.8	86.4
85°	42.4	41.2	42.0	40.8	39.3
87.5°	15.3	15.7	15.7	14.9	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)