

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: P589577

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589577
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-LD4-4HI-35-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

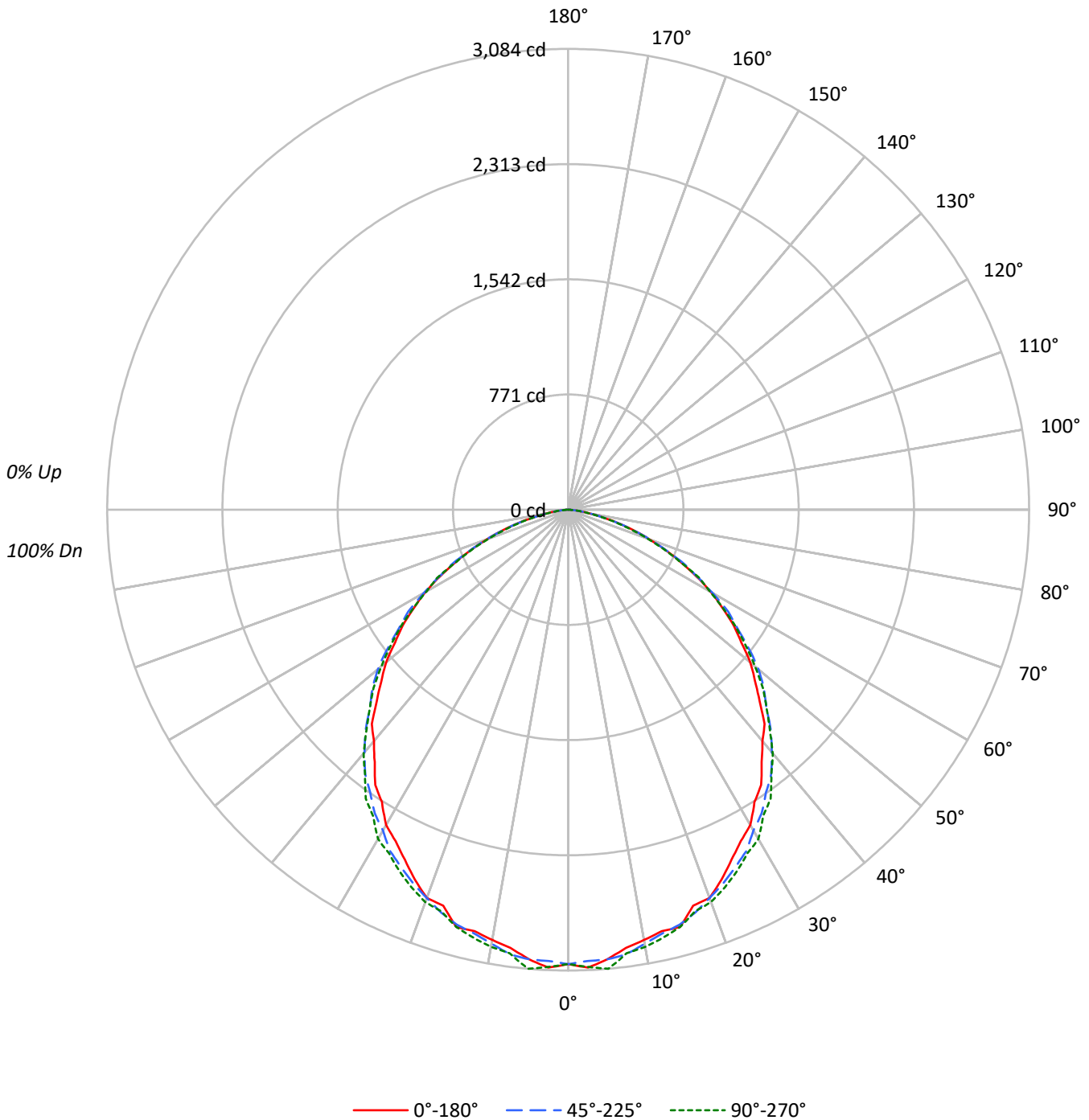
Lumens per Lamp: N/A
Luminaire Lumens: 7664.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8183	8183	8183
5°	8156	8159	8331
10°	7991	8060	8117
15°	8054	8010	8055
20°	7918	7918	8002
25°	7674	7842	7928
30°	7569	7702	7907
35°	7390	7584	7754
40°	7103	7445	7478
45°	6888	7133	7144
50°	6662	6963	6830
55°	6348	6471	6425
60°	5936	5995	5887
65°	5293	5428	5255
70°	4541	4556	4430
75°	3596	3588	3450
80°	2410	2343	2252
85°	1309	1297	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.0	3.7
10°-20°	810.7	10.6
20°-30°	1214.6	15.8
30°-40°	1439.5	18.8
40°-50°	1442.2	18.8
50°-60°	1224.2	16.0
60°-70°	825.3	10.8
70°-80°	362.7	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°	2311.3	30.2
0°-40°	3750.8	48.9
0°-60°	6417.1	83.7
0°-90°	7664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3041	3041	3041	3041	3041	
5°	3019	3012	3020	3011	3084	285
15°	2891	2858	2875	2890	2891	805
25°	2585	2599	2641	2676	2670	1195
35°	2250	2256	2309	2362	2360	1397
45°	1810	1844	1874	1923	1877	1400
55°	1353	1344	1379	1370	1370	1204
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°	3040.9	3040.9	3040.9	3040.9	3040.9
2.5°	3067.2	3044.0	3022.4	3047.6	3062.9
5°	3019.3	3012.2	3020.5	3011.4	3084.1
7.5°	2957.3	2984.3	3000.0	2990.2	2994.6
10°	2924.3	2914.8	2949.8	2974.1	2970.6
12.5°	2888.9	2903.1	2905.0	2931.3	2933.7
15°	2890.9	2857.5	2875.2	2890.1	2891.3
17.5°	2778.6	2814.7	2826.9	2861.1	2818.7
20°	2764.9	2738.6	2764.9	2799.8	2794.3
22.5°	2680.5	2651.0	2707.5	2738.6	2736.6
25°	2584.7	2598.8	2641.2	2675.7	2670.2
27.5°	2500.6	2517.1	2577.6	2625.1	2594.5
30°	2435.8	2427.6	2478.6	2521.0	2544.6
32.5°	2320.0	2349.9	2409.5	2451.6	2429.2
35°	2249.7	2256.4	2308.6	2362.0	2360.5
37.5°	2126.9	2157.9	2231.3	2246.2	2232.5
40°	2022.0	2053.0	2119.4	2135.5	2128.8
42.5°	1944.7	1950.2	2007.1	2025.6	1996.1
45°	1810.0	1843.8	1874.4	1922.7	1877.1
47.5°	1695.4	1711.1	1777.0	1790.0	1766.0
50°	1591.3	1596.8	1663.2	1647.1	1631.4
52.5°	1460.6	1483.7	1521.0	1517.9	1499.4
55°	1353.0	1344.0	1379.3	1369.9	1369.5
57.5°	1223.8	1239.5	1268.6	1253.7	1229.7
60°	1102.9	1103.3	1113.9	1097.0	1093.9
62.5°	968.2	972.9	975.3	954.5	988.2
65°	831.2	820.2	852.4	819.8	825.3
67.5°	705.2	710.7	707.5	687.1	694.9
70°	577.2	584.2	579.1	556.0	563.0
72.5°	460.2	451.5	457.0	428.0	441.3
75°	345.9	338.8	345.1	320.8	331.8
77.5°	235.6	241.1	237.1	224.2	231.6
80°	155.5	151.2	151.2	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)