

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: P546900

Luminaire Tested: **FMR-24-4-LD4-2STD-35-UNV-93-94-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P546900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-4-LD4-2STD-35-UNV-93-94-EDD
Description: 2X4 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

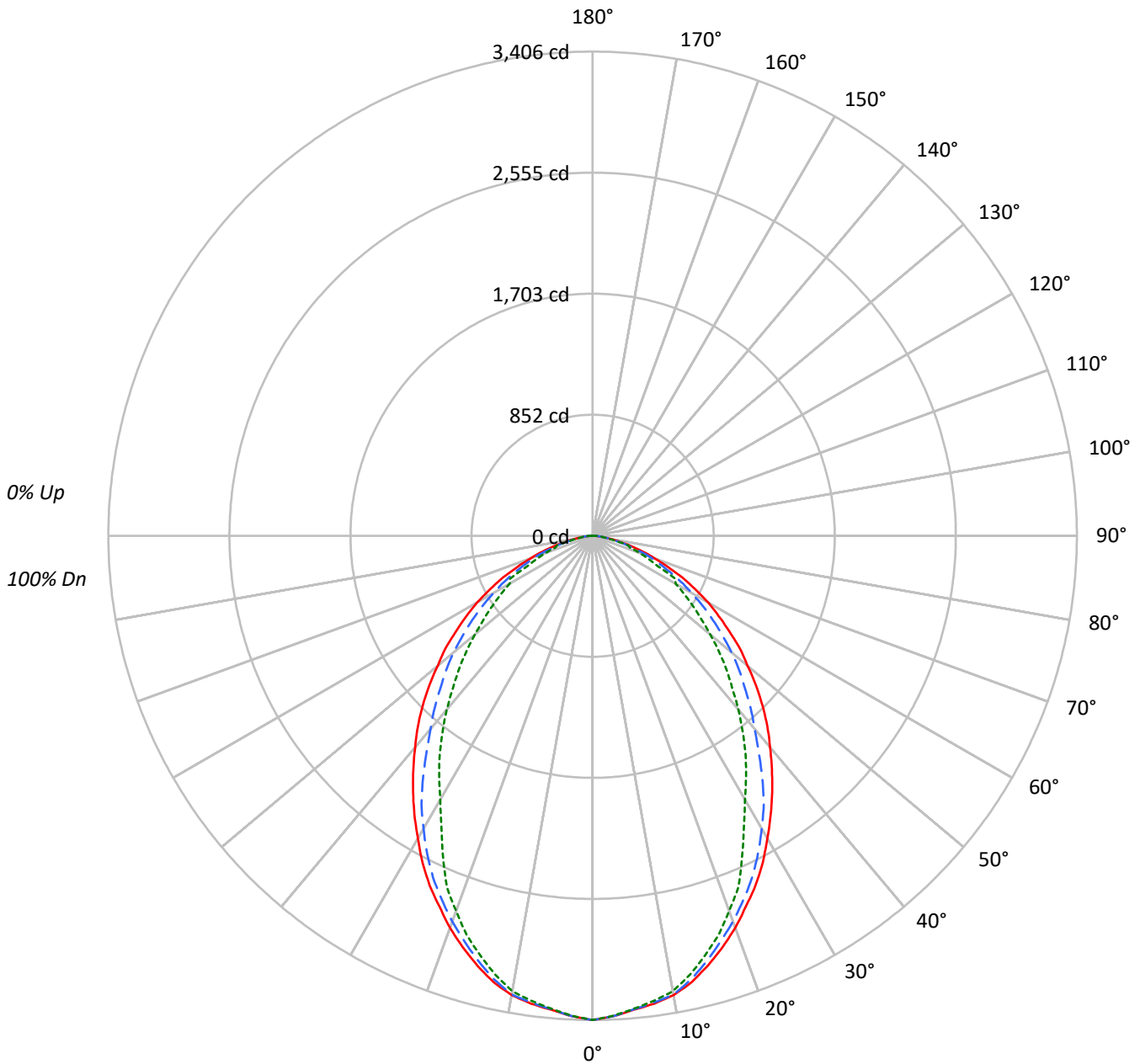
Lumens per Lamp: N/A
Luminaire Lumens: 6687.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4583	4583	4583
5°	4521	4516	4510
10°	4482	4476	4444
15°	4361	4317	4257
20°	4201	4133	4020
25°	4028	3940	3695
30°	3818	3695	3328
35°	3616	3415	3079
40°	3410	3112	2801
45°	3215	2877	2533
50°	2976	2671	2259
55°	2753	2420	2023
60°	2522	2162	1812
65°	2219	1893	1605
70°	1828	1658	1363
75°	1454	1269	1331
80°	976	915	855
85°	608	730	851



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.1	4.7
10°-20°	870.2	13.0
20°-30°	1204.7	18.0
30°-40°	1284.6	19.2
40°-50°	1171.9	17.5
50°-60°	918.1	13.7
60°-70°	598.4	8.9
70°-80°	265.1	4.0
80°-90°	56.9	0.9
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°	2392.0	35.8
0°-40°	3676.6	55.0
0°-60°	5766.6	86.2
0°-90°	6687.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6687.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3406	3406	3406	3406	3406	
5°	3347	3343	3343	3339	3339	318
15°	3131	3131	3099	3068	3056	880
25°	2713	2697	2654	2560	2489	1246
35°	2201	2186	2079	1922	1874	1376
45°	1689	1654	1512	1386	1331	1301
55°	1174	1138	1032	910	862	1053
65°	697	658	595	606	504	687
75°	280	260	244	232	256	300
85°	39	43	47	51	55	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3406.3	3406.3	3406.3	3406.3	3406.3
2.5°	3382.6	3382.6	3382.6	3378.7	3378.7
5°	3347.2	3343.3	3343.3	3339.3	3339.3
7.5°	3319.6	3315.7	3311.8	3307.8	3299.9
10°	3280.3	3280.3	3276.3	3256.6	3252.7
12.5°	3217.3	3213.3	3197.6	3170.0	3162.1
15°	3130.6	3130.6	3099.1	3067.6	3055.8
17.5°	3036.1	3032.2	2992.8	2961.3	2945.5
20°	2933.7	2925.8	2886.5	2835.3	2807.7
22.5°	2819.5	2819.5	2772.3	2705.3	2677.8
25°	2713.2	2697.4	2654.1	2559.6	2488.7
27.5°	2591.1	2567.5	2520.2	2386.4	2303.7
30°	2457.2	2445.4	2378.5	2205.2	2142.2
32.5°	2331.2	2311.5	2240.7	2059.5	2008.3
35°	2201.3	2185.5	2079.2	1921.7	1874.4
37.5°	2071.3	2051.6	1917.7	1791.7	1732.7
40°	1941.4	1917.7	1772.0	1657.8	1594.8
42.5°	1819.3	1787.8	1646.0	1524.0	1453.1
45°	1689.4	1653.9	1512.1	1386.1	1331.0
47.5°	1559.4	1527.9	1397.9	1268.0	1205.0
50°	1421.6	1394.0	1275.9	1145.9	1079.0
52.5°	1307.4	1264.1	1149.9	1019.9	964.8
55°	1173.5	1138.0	1031.7	909.7	862.4
57.5°	1051.4	1016.0	917.5	803.3	763.9
60°	937.2	886.0	803.3	704.9	673.4
62.5°	811.2	771.8	700.9	618.2	657.6
65°	697.0	657.6	594.6	606.4	504.0
67.5°	571.0	551.3	496.2	441.0	425.3
70°	464.7	441.0	421.4	362.3	346.5
72.5°	370.2	346.5	319.0	287.5	275.7
75°	279.6	259.9	244.1	232.3	256.0
77.5°	193.0	185.1	173.3	161.5	157.5
80°	126.0	122.1	118.1	114.2	110.3
82.5°	74.8	74.8	74.8	74.8	74.8
85°	39.4	43.3	47.3	51.2	55.1
87.5°	23.6	23.6	27.6	31.5	35.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)