

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: P546845

Luminaire Tested: **FMR-24-4-LD4-2LO-50-UNV-80-96-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: P546845
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-LD4-2LO-50-UNV-80-96-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

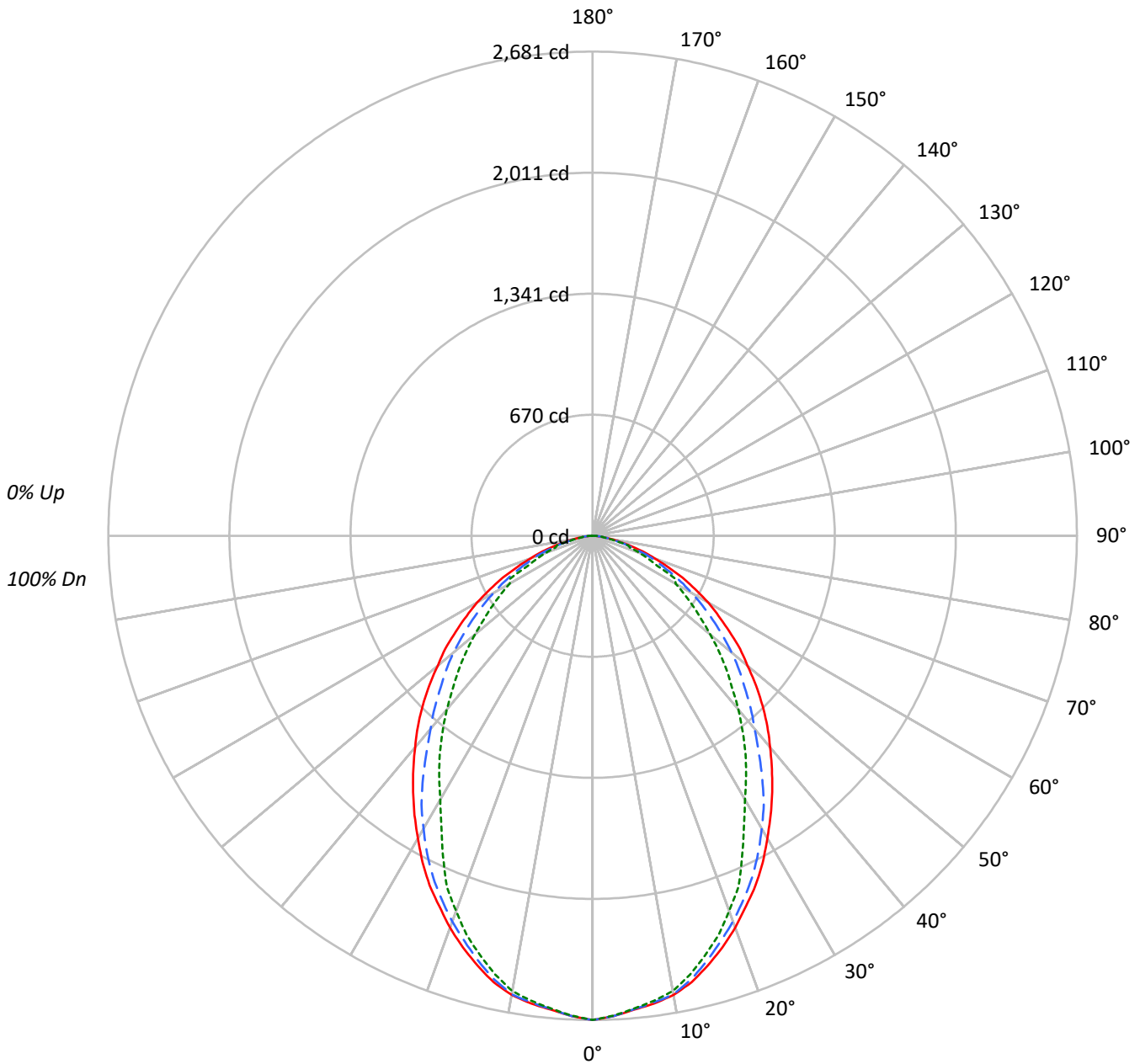
Lumens per Lamp: N/A
Luminaire Lumens: 5263.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3607	3607	3607
5°	3558	3554	3550
10°	3527	3523	3498
15°	3432	3398	3350
20°	3306	3253	3164
25°	3170	3101	2908
30°	3005	2908	2619
35°	2846	2688	2423
40°	2684	2450	2205
45°	2530	2265	1993
50°	2342	2102	1778
55°	2167	1905	1592
60°	1985	1702	1426
65°	1747	1490	1263
70°	1439	1304	1073
75°	1144	999	1048
80°	769	721	673
85°	479	574	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.6	4.7
10°-20°	684.9	13.0
20°-30°	948.2	18.0
30°-40°	1011.0	19.2
40°-50°	922.4	17.5
50°-60°	722.6	13.7
60°-70°	471.0	8.9
70°-80°	208.7	4.0
80°-90°	44.8	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°	1882.6	35.8
0°-40°	2893.7	55.0
0°-60°	4538.6	86.2
0°-90°	5263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2634	2631	2631	2628	2628	250
15°	2464	2464	2439	2414	2405	693
25°	2135	2123	2089	2015	1959	980
35°	1732	1720	1636	1512	1475	1083
45°	1330	1302	1190	1091	1048	1024
55°	924	896	812	716	679	828
65°	549	518	468	477	397	541
75°	220	205	192	183	202	236
85°	31	34	37	40	43	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2680.9	2680.9	2680.9	2680.9	2680.9
2.5°	2662.3	2662.3	2662.3	2659.2	2659.2
5°	2634.4	2631.3	2631.3	2628.2	2628.2
7.5°	2612.7	2609.6	2606.5	2603.4	2597.2
10°	2581.7	2581.7	2578.6	2563.1	2560.0
12.5°	2532.1	2529.0	2516.6	2494.9	2488.7
15°	2464.0	2464.0	2439.2	2414.4	2405.1
17.5°	2389.6	2386.5	2355.5	2330.7	2318.3
20°	2309.0	2302.8	2271.8	2231.5	2209.8
22.5°	2219.1	2219.1	2181.9	2129.2	2107.5
25°	2135.4	2123.0	2088.9	2014.6	1958.8
27.5°	2039.3	2020.7	1983.6	1878.2	1813.1
30°	1934.0	1924.7	1872.0	1735.6	1686.0
32.5°	1834.8	1819.3	1763.5	1620.9	1580.6
35°	1732.5	1720.1	1636.4	1512.5	1475.3
37.5°	1630.2	1614.7	1509.4	1410.2	1363.7
40°	1528.0	1509.4	1394.7	1304.8	1255.2
42.5°	1431.9	1407.1	1295.5	1199.4	1143.6
45°	1329.6	1301.7	1190.1	1091.0	1047.6
47.5°	1227.3	1202.5	1100.3	998.0	948.4
50°	1118.9	1097.2	1004.2	901.9	849.2
52.5°	1029.0	994.9	905.0	802.7	759.3
55°	923.6	895.7	812.0	715.9	678.7
57.5°	827.5	799.6	722.1	632.3	601.3
60°	737.6	697.3	632.3	554.8	530.0
62.5°	638.5	607.5	551.7	486.6	517.6
65°	548.6	517.6	468.0	477.3	396.7
67.5°	449.4	433.9	390.5	347.1	334.7
70°	365.7	347.1	331.6	285.1	272.7
72.5°	291.3	272.7	251.0	226.2	217.0
75°	220.1	204.6	192.2	182.9	201.5
77.5°	151.9	145.7	136.4	127.1	124.0
80°	99.2	96.1	93.0	89.9	86.8
82.5°	58.9	58.9	58.9	58.9	58.9
85°	31.0	34.1	37.2	40.3	43.4
87.5°	18.6	18.6	21.7	24.8	27.9
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)