

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: P546937

Luminaire Tested: **FMR-24-4-LD4-2STD-50-UNV-80-86-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: P546937
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-50-UNV-80-86-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

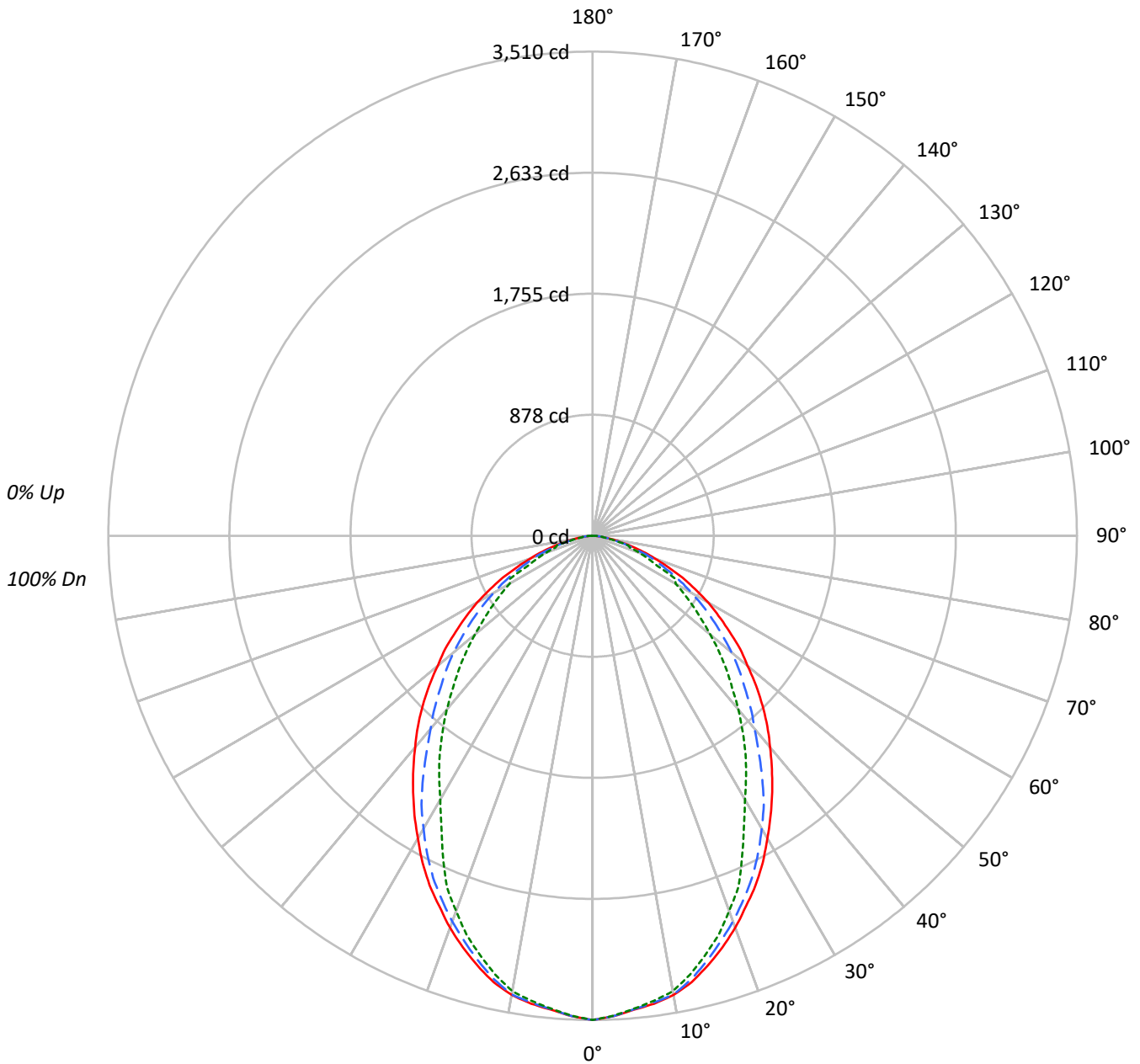
Lumens per Lamp: N/A
Luminaire Lumens: 6891.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	4723	4723	4723
5°	4659	4653	4648
10°	4618	4613	4580
15°	4494	4449	4386
20°	4329	4259	4143
25°	4151	4060	3808
30°	3934	3808	3430
35°	3726	3519	3173
40°	3514	3207	2887
45°	3313	2965	2610
50°	3066	2752	2327
55°	2837	2494	2085
60°	2599	2228	1867
65°	2287	1951	1654
70°	1884	1708	1405
75°	1498	1308	1371
80°	1007	943	880
85°	627	752	877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.8	4.7
10°-20°	896.7	13.0
20°-30°	1241.5	18.0
30°-40°	1323.8	19.2
40°-50°	1207.7	17.5
50°-60°	946.1	13.7
60°-70°	616.6	8.9
70°-80°	273.2	4.0
80°-90°	58.7	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°	2465.0	35.8
0°-40°	3788.7	55.0
0°-60°	5942.5	86.2
0°-90°	6891.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6891.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3510	3510	3510	3510	3510	
5°	3449	3445	3445	3441	3441	327
15°	3226	3226	3194	3161	3149	907
25°	2796	2780	2735	2638	2565	1284
35°	2268	2252	2143	1980	1932	1418
45°	1741	1704	1558	1428	1372	1341
55°	1209	1173	1063	937	889	1085
65°	718	678	613	625	519	708
75°	288	268	252	239	264	309
85°	41	45	49	53	57	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3510.2	3510.2	3510.2	3510.2	3510.2
2.5°	3485.8	3485.8	3485.8	3481.8	3481.8
5°	3449.3	3445.3	3445.3	3441.2	3441.2
7.5°	3420.9	3416.8	3412.8	3408.7	3400.6
10°	3380.3	3380.3	3376.3	3356.0	3351.9
12.5°	3315.4	3311.3	3295.1	3266.7	3258.6
15°	3226.1	3226.1	3193.7	3161.2	3149.0
17.5°	3128.7	3124.7	3084.1	3051.6	3035.4
20°	3023.2	3015.1	2974.5	2921.8	2893.4
22.5°	2905.5	2905.5	2856.8	2787.9	2759.5
25°	2796.0	2779.7	2735.1	2637.7	2564.7
27.5°	2670.2	2645.8	2597.1	2459.2	2373.9
30°	2532.2	2520.0	2451.0	2272.5	2207.6
32.5°	2402.3	2382.1	2309.0	2122.3	2069.6
35°	2268.4	2252.2	2142.6	1980.3	1931.6
37.5°	2134.5	2114.2	1976.3	1846.4	1785.5
40°	2000.6	1976.3	1826.1	1708.4	1643.5
42.5°	1874.8	1842.3	1696.3	1570.5	1497.4
45°	1740.9	1704.4	1558.3	1428.4	1371.6
47.5°	1607.0	1574.5	1440.6	1306.7	1241.8
50°	1464.9	1436.5	1314.8	1180.9	1111.9
52.5°	1347.3	1302.6	1184.9	1051.0	994.2
55°	1209.3	1172.8	1063.2	937.4	888.7
57.5°	1083.5	1047.0	945.5	827.8	787.3
60°	965.8	913.1	827.8	726.4	693.9
62.5°	836.0	795.4	722.3	637.1	677.7
65°	718.3	677.7	612.8	624.9	519.4
67.5°	588.4	568.1	511.3	454.5	438.3
70°	478.8	454.5	434.2	373.3	357.1
72.5°	381.5	357.1	328.7	296.2	284.1
75°	288.1	267.8	251.6	239.4	263.8
77.5°	198.8	190.7	178.6	166.4	162.3
80°	129.9	125.8	121.7	117.7	113.6
82.5°	77.1	77.1	77.1	77.1	77.1
85°	40.6	44.6	48.7	52.8	56.8
87.5°	24.3	24.3	28.4	32.5	36.5
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)