

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: P546939

Luminaire Tested: **FMR-24-4-LD4-2STD-50-UNV-80-88-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: P546939
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-80-88-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

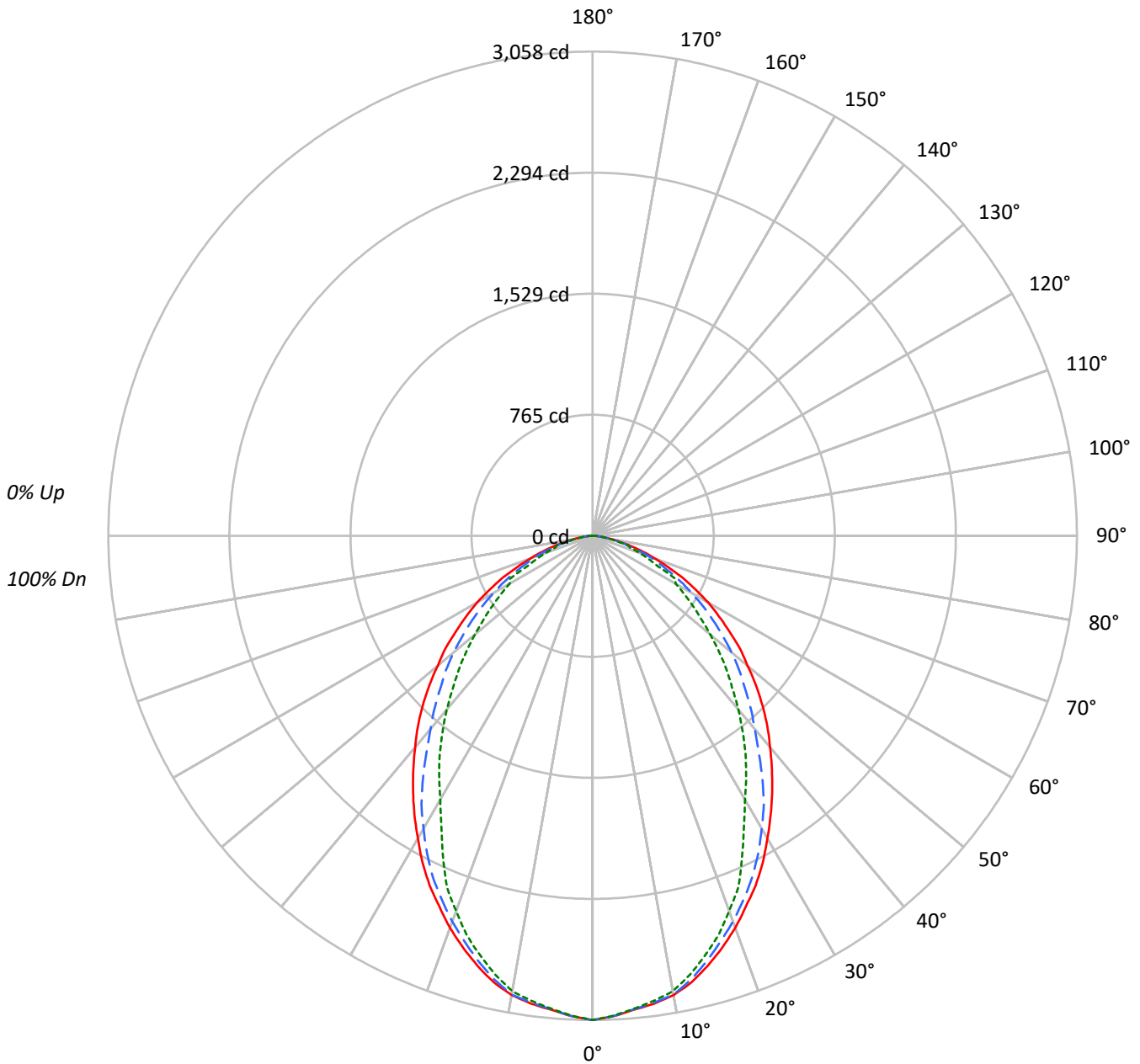
Lumens per Lamp: N/A
Luminaire Lumens: 6004.0 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	4115	4115	4115
5°	4059	4054	4050
10°	4024	4019	3990
15°	3915	3876	3822
20°	3772	3711	3610
25°	3617	3538	3317
30°	3428	3318	2988
35°	3246	3066	2764
40°	3062	2795	2515
45°	2886	2583	2274
50°	2672	2398	2028
55°	2472	2173	1816
60°	2264	1941	1627
65°	1992	1700	1441
70°	1641	1488	1224
75°	1305	1140	1195
80°	876	822	767
85°	546	655	764



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.7	4.7
10°-20°	781.3	13.0
20°-30°	1081.7	18.0
30°-40°	1153.4	19.2
40°-50°	1052.2	17.5
50°-60°	824.3	13.7
60°-70°	537.3	8.9
70°-80°	238.0	4.0
80°-90°	51.1	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°	2147.7	35.8
0°-40°	3301.1	55.0
0°-60°	5177.6	86.2
0°-90°	6004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3058	3058	3058	3058	3058	
5°	3005	3002	3002	2998	2998	285
15°	2811	2811	2783	2754	2744	790
25°	2436	2422	2383	2298	2234	1118
35°	1976	1962	1867	1725	1683	1236
45°	1517	1485	1358	1245	1195	1168
55°	1054	1022	926	817	774	945
65°	626	590	534	544	453	617
75°	251	233	219	209	230	269
85°	35	39	42	46	50	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3058.4	3058.4	3058.4	3058.4	3058.4
2.5°	3037.1	3037.1	3037.1	3033.6	3033.6
5°	3005.3	3001.8	3001.8	2998.3	2998.3
7.5°	2980.6	2977.0	2973.5	2970.0	2962.9
10°	2945.2	2945.2	2941.7	2924.0	2920.5
12.5°	2888.6	2885.1	2871.0	2846.2	2839.1
15°	2810.9	2810.9	2782.6	2754.3	2743.7
17.5°	2726.0	2722.5	2687.1	2658.8	2644.7
20°	2634.1	2627.0	2591.6	2545.7	2520.9
22.5°	2531.5	2531.5	2489.1	2429.0	2404.3
25°	2436.1	2421.9	2383.0	2298.2	2234.5
27.5°	2326.5	2305.3	2262.8	2142.6	2068.4
30°	2206.3	2195.7	2135.5	1980.0	1923.4
32.5°	2093.1	2075.4	2011.8	1849.2	1803.2
35°	1976.4	1962.3	1866.8	1725.4	1683.0
37.5°	1859.8	1842.1	1721.9	1608.7	1555.7
40°	1743.1	1721.9	1591.1	1488.5	1431.9
42.5°	1633.5	1605.2	1477.9	1368.3	1304.7
45°	1516.8	1485.0	1357.7	1244.6	1195.1
47.5°	1400.1	1371.8	1255.2	1138.5	1081.9
50°	1276.4	1251.6	1145.6	1028.9	968.8
52.5°	1173.8	1135.0	1032.4	915.7	866.2
55°	1053.6	1021.8	926.3	816.7	774.3
57.5°	944.0	912.2	823.8	721.3	685.9
60°	841.5	795.5	721.3	632.9	604.6
62.5°	728.3	693.0	629.3	555.1	590.5
65°	625.8	590.5	533.9	544.5	452.6
67.5°	512.7	495.0	445.5	396.0	381.9
70°	417.2	396.0	378.3	325.3	311.1
72.5°	332.4	311.1	286.4	258.1	247.5
75°	251.0	233.4	219.2	208.6	229.8
77.5°	173.2	166.2	155.6	145.0	141.4
80°	113.1	109.6	106.1	102.5	99.0
82.5°	67.2	67.2	67.2	67.2	67.2
85°	35.4	38.9	42.4	46.0	49.5
87.5°	21.2	21.2	24.7	28.3	31.8
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)