

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: P546938

Luminaire Tested: **FMR-24-4-LD4-2STD-50-UNV-80-87-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: P546938
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-80-87-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

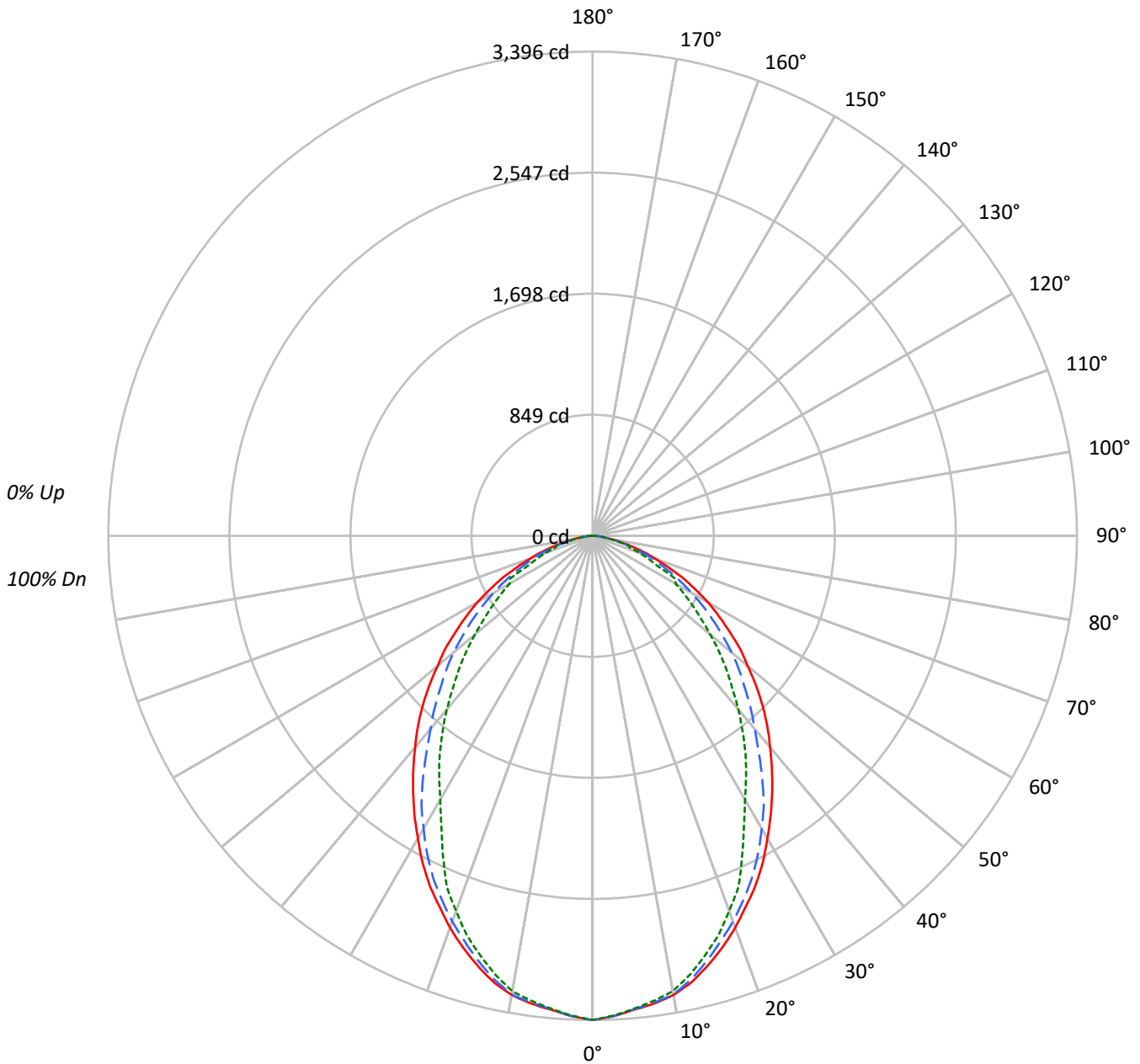
Lumens per Lamp: N/A
Luminaire Lumens: 6667.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4569	4569	4569
5°	4507	4502	4497
10°	4468	4463	4431
15°	4348	4304	4244
20°	4188	4121	4008
25°	4016	3929	3684
30°	3806	3684	3318
35°	3605	3405	3070
40°	3400	3103	2793
45°	3205	2869	2525
50°	2967	2663	2252
55°	2745	2413	2017
60°	2514	2155	1807
65°	2212	1887	1600
70°	1823	1653	1359
75°	1449	1265	1327
80°	973	913	852
85°	607	727	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.1	4.7
10°-20°	867.6	13.0
20°-30°	1201.1	18.0
30°-40°	1280.7	19.2
40°-50°	1168.4	17.5
50°-60°	915.4	13.7
60°-70°	596.6	8.9
70°-80°	264.3	4.0
80°-90°	56.8	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°	2384.8	35.8
0°-40°	3665.6	55.0
0°-60°	5749.4	86.2
0°-90°	6667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6667.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3396	3396	3396	3396	3396	
5°	3337	3333	3333	3329	3329	317
15°	3121	3121	3090	3058	3047	877
25°	2705	2689	2646	2552	2481	1242
35°	2195	2179	2073	1916	1869	1372
45°	1684	1649	1508	1382	1327	1297
55°	1170	1135	1029	907	860	1049
65°	695	656	593	605	502	685
75°	279	259	243	232	255	299
85°	39	43	47	51	55	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3396.1	3396.1	3396.1	3396.1	3396.1
2.5°	3372.5	3372.5	3372.5	3368.6	3368.6
5°	3337.2	3333.3	3333.3	3329.3	3329.3
7.5°	3309.7	3305.8	3301.9	3297.9	3290.1
10°	3270.4	3270.4	3266.5	3246.9	3243.0
12.5°	3207.6	3203.7	3188.0	3160.5	3152.7
15°	3121.3	3121.3	3089.8	3058.4	3046.7
17.5°	3027.0	3023.1	2983.8	2952.4	2936.7
20°	2924.9	2917.1	2877.8	2826.8	2799.3
22.5°	2811.1	2811.1	2764.0	2697.2	2669.8
25°	2705.1	2689.4	2646.2	2552.0	2481.3
27.5°	2583.4	2559.8	2512.7	2379.2	2296.8
30°	2449.9	2438.1	2371.4	2198.6	2135.8
32.5°	2324.3	2304.6	2234.0	2053.4	2002.3
35°	2194.7	2179.0	2073.0	1915.9	1868.8
37.5°	2065.1	2045.5	1912.0	1786.4	1727.5
40°	1935.6	1912.0	1766.7	1652.9	1590.1
42.5°	1813.9	1782.5	1641.1	1519.4	1448.7
45°	1684.3	1649.0	1507.6	1382.0	1327.0
47.5°	1554.7	1523.3	1393.8	1264.2	1201.4
50°	1417.3	1389.8	1272.1	1142.5	1075.8
52.5°	1303.5	1260.3	1146.4	1016.9	961.9
55°	1170.0	1134.6	1028.6	906.9	859.8
57.5°	1048.3	1012.9	914.8	800.9	761.7
60°	934.4	883.4	800.9	702.8	671.4
62.5°	808.8	769.5	698.8	616.4	655.7
65°	694.9	655.7	592.8	604.6	502.5
67.5°	569.3	549.7	494.7	439.7	424.0
70°	463.3	439.7	420.1	361.2	345.5
72.5°	369.1	345.5	318.0	286.6	274.8
75°	278.8	259.1	243.4	231.6	255.2
77.5°	192.4	184.5	172.7	161.0	157.0
80°	125.6	121.7	117.8	113.9	109.9
82.5°	74.6	74.6	74.6	74.6	74.6
85°	39.3	43.2	47.1	51.0	55.0
87.5°	23.6	23.6	27.5	31.4	35.3
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)