

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: P546903

Luminaire Tested: **FMR-24-4-LD4-2STD-40-UNV-80-84-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: P546903
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-40-UNV-80-84-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

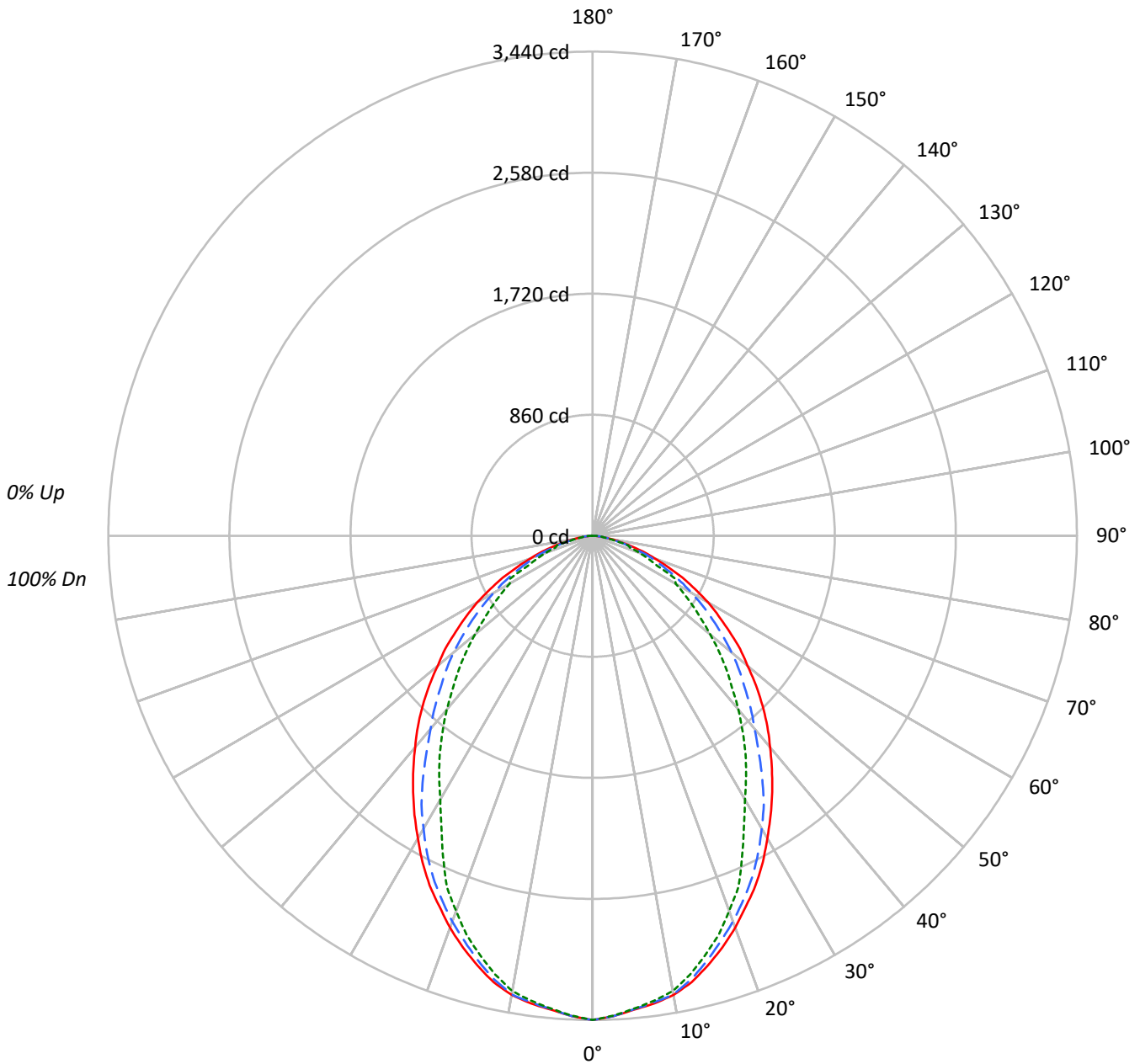
Lumens per Lamp: N/A
Luminaire Lumens: 6753.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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°	4628	4628	4628
5°	4565	4560	4555
10°	4526	4520	4488
15°	4404	4360	4299
20°	4242	4174	4060
25°	4068	3979	3731
30°	3855	3732	3361
35°	3651	3449	3109
40°	3443	3143	2829
45°	3246	2906	2558
50°	3005	2697	2281
55°	2780	2444	2043
60°	2547	2183	1830
65°	2241	1912	1621
70°	1846	1674	1377
75°	1468	1282	1344
80°	986	924	862
85°	614	736	860



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.2	4.7
10°-20°	878.8	13.0
20°-30°	1216.6	18.0
30°-40°	1297.3	19.2
40°-50°	1183.5	17.5
50°-60°	927.2	13.7
60°-70°	604.3	8.9
70°-80°	267.7	4.0
80°-90°	57.5	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°	2415.6	35.8
0°-40°	3712.9	55.0
0°-60°	5823.5	86.2
0°-90°	6753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6753.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3440	3440	3440	3440	3440	
5°	3380	3376	3376	3372	3372	321
15°	3162	3162	3130	3098	3086	889
25°	2740	2724	2680	2585	2513	1258
35°	2223	2207	2100	1941	1893	1390
45°	1706	1670	1527	1400	1344	1314
55°	1185	1149	1042	919	871	1063
65°	704	664	600	612	509	694
75°	282	262	247	235	258	303
85°	40	44	48	52	56	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3439.9	3439.9	3439.9	3439.9	3439.9
2.5°	3416.0	3416.0	3416.0	3412.1	3412.1
5°	3380.2	3376.3	3376.3	3372.3	3372.3
7.5°	3352.4	3348.4	3344.4	3340.5	3332.5
10°	3312.6	3312.6	3308.7	3288.8	3284.8
12.5°	3249.0	3245.0	3229.1	3201.3	3193.3
15°	3161.5	3161.5	3129.7	3097.9	3086.0
17.5°	3066.1	3062.1	3022.3	2990.5	2974.6
20°	2962.7	2954.7	2915.0	2863.3	2835.4
22.5°	2847.4	2847.4	2799.6	2732.0	2704.2
25°	2740.0	2724.1	2680.3	2584.9	2513.3
27.5°	2616.7	2592.8	2545.1	2409.9	2326.4
30°	2481.5	2469.6	2402.0	2227.0	2163.4
32.5°	2354.2	2334.4	2262.8	2079.8	2028.1
35°	2223.0	2207.1	2099.7	1940.7	1892.9
37.5°	2091.8	2071.9	1936.7	1809.4	1749.8
40°	1960.5	1936.7	1789.5	1674.2	1610.6
42.5°	1837.3	1805.4	1662.3	1539.0	1467.4
45°	1706.0	1670.2	1527.1	1399.8	1344.1
47.5°	1574.8	1543.0	1411.7	1280.5	1216.9
50°	1435.6	1407.8	1288.5	1157.2	1089.6
52.5°	1320.3	1276.5	1161.2	1030.0	974.3
55°	1185.1	1149.3	1041.9	918.6	870.9
57.5°	1061.8	1026.0	926.6	811.3	771.5
60°	946.5	894.8	811.3	711.8	680.0
62.5°	819.2	779.4	707.9	624.3	664.1
65°	703.9	664.1	600.5	612.4	509.0
67.5°	576.6	556.7	501.1	445.4	429.5
70°	469.3	445.4	425.5	365.9	350.0
72.5°	373.8	350.0	322.1	290.3	278.4
75°	282.3	262.5	246.6	234.6	258.5
77.5°	194.9	186.9	175.0	163.0	159.1
80°	127.3	123.3	119.3	115.3	111.3
82.5°	75.6	75.6	75.6	75.6	75.6
85°	39.8	43.7	47.7	51.7	55.7
87.5°	23.9	23.9	27.8	31.8	35.8
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)