

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: P547037

Luminaire Tested: **FMR-24-4-LD4-3HI-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: P547037
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-LD4-3HI-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

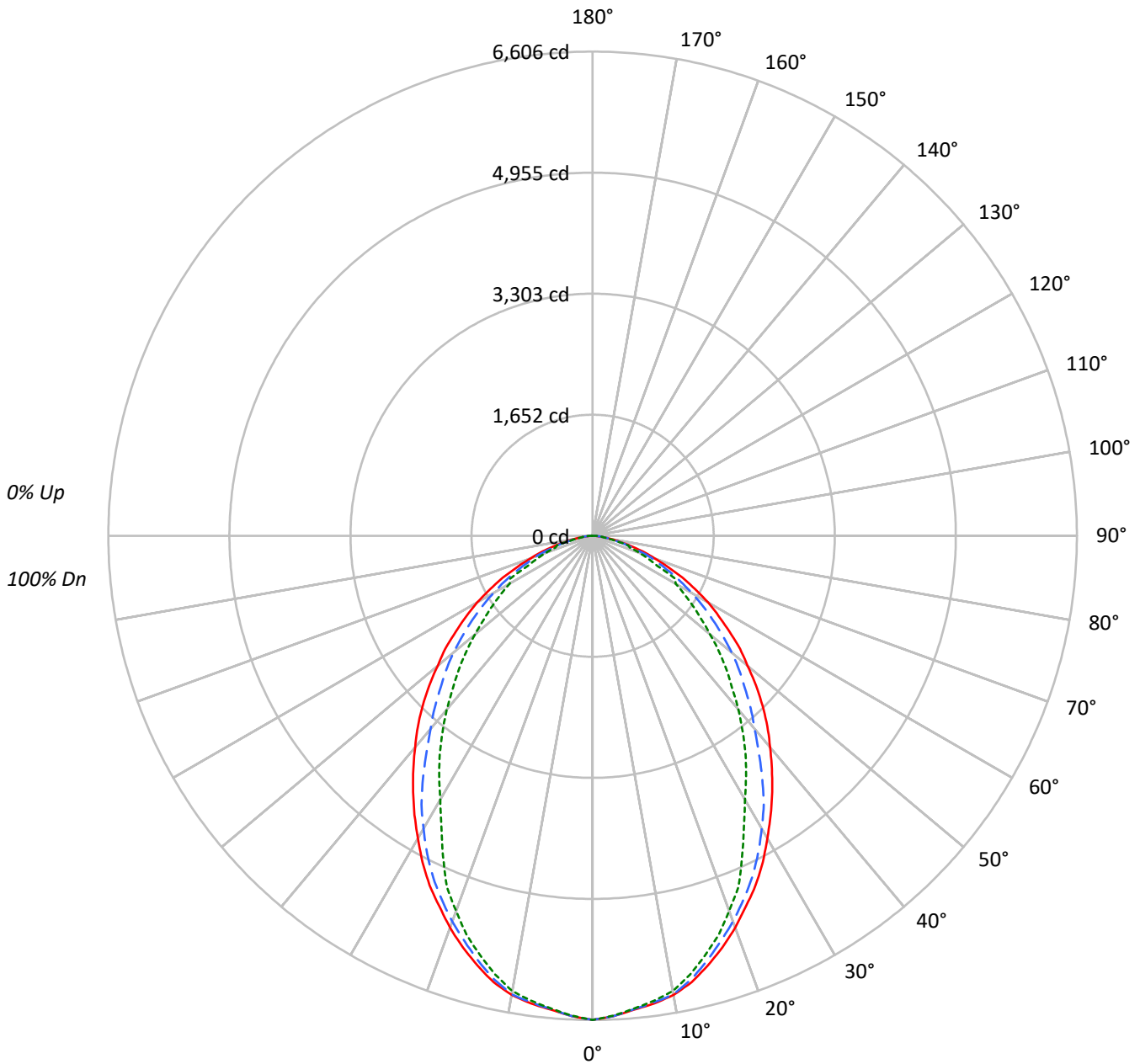
Lumens per Lamp: N/A
Luminaire Lumens: 12968.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	8888	8888	8888
5°	8767	8757	8747
10°	8691	8681	8618
15°	8457	8372	8255
20°	8146	8015	7796
25°	7811	7641	7165
30°	7404	7166	6454
35°	7012	6623	5971
40°	6613	6036	5432
45°	6234	5580	4912
50°	5771	5179	4380
55°	5338	4693	3923
60°	4891	4192	3514
65°	4303	3671	3112
70°	3545	3214	2644
75°	2819	2462	2581
80°	1894	1775	1657
85°	1179	1414	1650



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	614.9	4.7
10°-20°	1687.6	13.0
20°-30°	2336.3	18.0
30°-40°	2491.2	19.2
40°-50°	2272.7	17.5
50°-60°	1780.5	13.7
60°-70°	1160.4	8.9
70°-80°	514.1	4.0
80°-90°	110.4	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°	4638.8	35.8
0°-40°	7129.9	55.0
0°-60°	11183.1	86.2
0°-90°	12968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6606	6606	6606	6606	6606	
5°	6491	6484	6484	6476	6476	616
15°	6071	6071	6010	5949	5926	1707
25°	5262	5231	5147	4964	4826	2416
35°	4269	4238	4032	3727	3635	2669
45°	3276	3207	2932	2688	2581	2524
55°	2276	2207	2001	1764	1672	2041
65°	1352	1275	1153	1176	978	1332
75°	542	504	474	451	496	581
85°	76	84	92	99	107	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6605.7	6605.7	6605.7	6605.7	6605.7
2.5°	6559.9	6559.9	6559.9	6552.3	6552.3
5°	6491.2	6483.5	6483.5	6475.9	6475.9
7.5°	6437.7	6430.1	6422.4	6414.8	6399.5
10°	6361.4	6361.4	6353.7	6315.5	6307.9
12.5°	6239.2	6231.5	6201.0	6147.5	6132.3
15°	6071.2	6071.2	6010.1	5949.0	5926.1
17.5°	5887.9	5880.2	5803.9	5742.8	5712.2
20°	5689.3	5674.1	5597.7	5498.4	5445.0
22.5°	5467.9	5467.9	5376.2	5246.4	5192.9
25°	5261.7	5231.1	5147.1	4963.8	4826.4
27.5°	5024.9	4979.1	4887.5	4627.8	4467.5
30°	4765.3	4742.4	4612.6	4276.5	4154.4
32.5°	4520.9	4482.7	4345.3	3994.0	3894.7
35°	4268.9	4238.4	4032.2	3726.7	3635.1
37.5°	4016.9	3978.7	3719.1	3474.7	3360.1
40°	3764.9	3719.1	3436.5	3215.0	3092.9
42.5°	3528.1	3467.1	3192.1	2955.4	2817.9
45°	3276.1	3207.4	2932.5	2688.1	2581.2
47.5°	3024.1	2963.0	2711.0	2459.0	2336.8
50°	2756.8	2703.4	2474.3	2222.3	2092.4
52.5°	2535.4	2451.4	2229.9	1977.9	1871.0
55°	2275.7	2207.0	2000.8	1764.1	1672.4
57.5°	2039.0	1970.3	1779.3	1557.9	1481.5
60°	1817.5	1718.3	1557.9	1367.0	1305.9
62.5°	1573.2	1496.8	1359.3	1199.0	1275.3
65°	1351.7	1275.3	1153.1	1176.0	977.5
67.5°	1107.3	1069.1	962.2	855.3	824.8
70°	901.1	855.3	817.1	702.6	672.0
72.5°	717.8	672.0	618.6	557.5	534.6
75°	542.2	504.0	473.5	450.6	496.4
77.5°	374.2	358.9	336.0	313.1	305.5
80°	244.4	236.7	229.1	221.5	213.8
82.5°	145.1	145.1	145.1	145.1	145.1
85°	76.4	84.0	91.6	99.3	106.9
87.5°	45.8	45.8	53.5	61.1	68.7
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)