

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: P547062

Luminaire Tested: **FMR-24-4-LD4-3HI-50-UNV-93-97-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: P547062
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-93-97-EDD
Description: 2X4 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

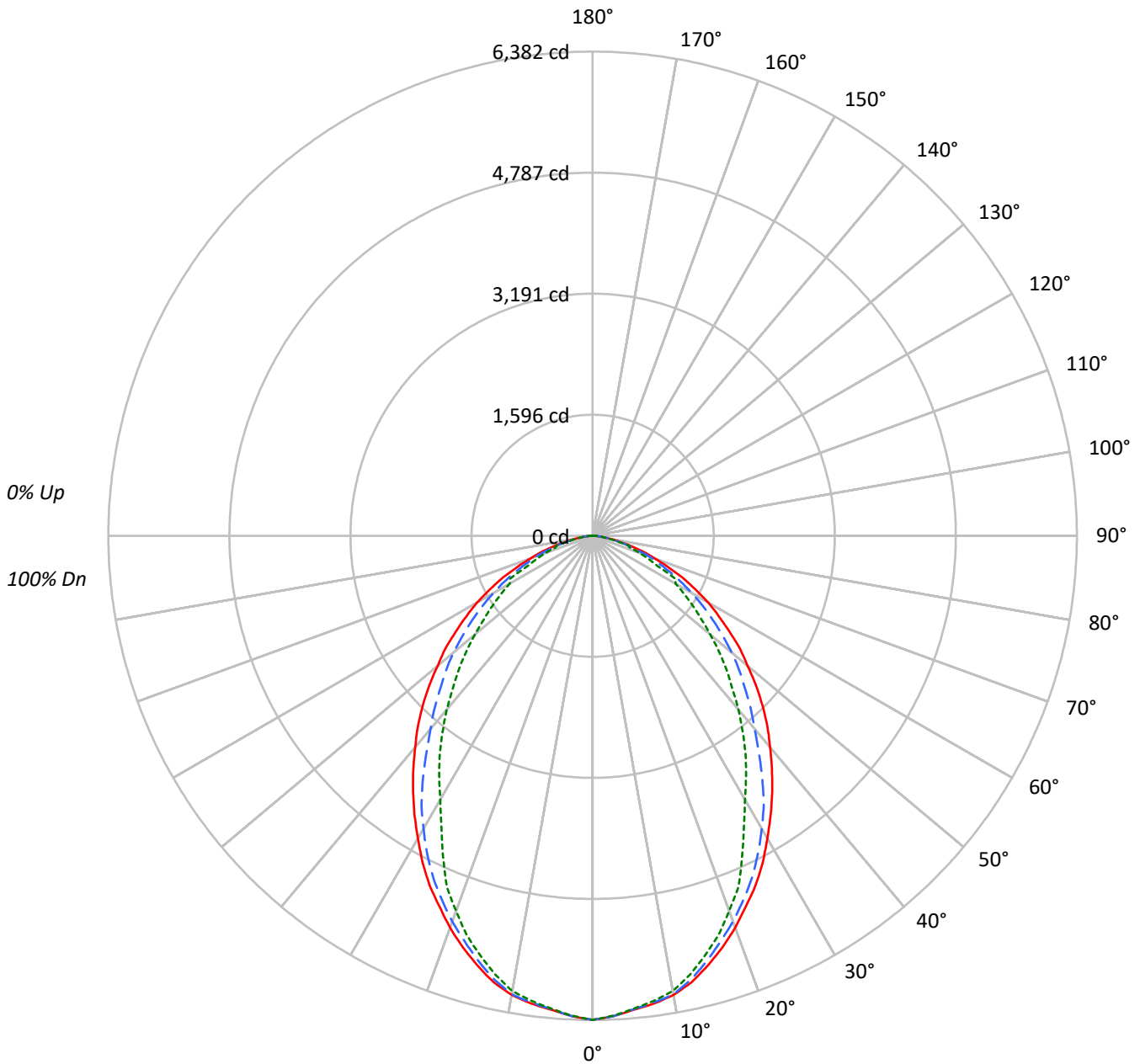
Lumens per Lamp: N/A
Luminaire Lumens: 12528.0 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P547062

CATALOG NUMBER: FMR-24-4-LD4-3HI-50-UNV-93-97-EDD

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°	8586	8586	8586
5°	8470	8460	8450
10°	8396	8386	8326
15°	8170	8088	7975
20°	7870	7743	7532
25°	7546	7382	6922
30°	7152	6923	6235
35°	6774	6398	5768
40°	6388	5831	5248
45°	6022	5391	4745
50°	5575	5003	4231
55°	5157	4534	3790
60°	4725	4050	3395
65°	4157	3547	3006
70°	3425	3105	2554
75°	2723	2378	2493
80°	1829	1715	1601
85°	1139	1366	1595



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	594.0	4.7
10°-20°	1630.3	13.0
20°-30°	2257.0	18.0
30°-40°	2406.7	19.2
40°-50°	2195.6	17.5
50°-60°	1720.1	13.7
60°-70°	1121.1	8.9
70°-80°	496.7	4.0
80°-90°	106.6	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°	4481.4	35.8
0°-40°	6888.0	55.0
0°-60°	10803.6	86.2
0°-90°	12528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12528.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6382	6382	6382	6382	6382	
5°	6271	6264	6264	6256	6256	595
15°	5865	5865	5806	5747	5725	1649
25°	5083	5054	4972	4795	4663	2334
35°	4124	4094	3895	3600	3512	2578
45°	3165	3099	2833	2597	2494	2438
55°	2198	2132	1933	1704	1616	1972
65°	1306	1232	1114	1136	944	1287
75°	524	487	457	435	480	561
85°	74	81	88	96	103	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6381.6	6381.6	6381.6	6381.6	6381.6
2.5°	6337.3	6337.3	6337.3	6330.0	6330.0
5°	6270.9	6263.6	6263.6	6256.2	6256.2
7.5°	6219.3	6211.9	6204.5	6197.2	6182.4
10°	6145.5	6145.5	6138.1	6101.2	6093.9
12.5°	6027.5	6020.1	5990.6	5938.9	5924.2
15°	5865.2	5865.2	5806.1	5747.1	5725.0
17.5°	5688.1	5680.7	5607.0	5547.9	5518.4
20°	5496.3	5481.5	5407.8	5311.8	5260.2
22.5°	5282.3	5282.3	5193.8	5068.4	5016.7
25°	5083.1	5053.6	4972.5	4795.4	4662.6
27.5°	4854.4	4810.2	4721.6	4470.8	4315.9
30°	4603.6	4581.5	4456.1	4131.4	4013.4
32.5°	4367.5	4330.6	4197.8	3858.5	3762.6
35°	4124.1	4094.5	3895.4	3600.3	3511.7
37.5°	3880.6	3843.7	3592.9	3356.8	3246.1
40°	3637.1	3592.9	3319.9	3106.0	2987.9
42.5°	3408.4	3349.4	3083.8	2855.1	2722.3
45°	3165.0	3098.6	2833.0	2596.9	2493.6
47.5°	2921.5	2862.5	2619.0	2375.6	2257.5
50°	2663.3	2611.7	2390.3	2146.9	2021.5
52.5°	2449.4	2368.2	2154.2	1910.8	1807.5
55°	2198.5	2132.1	1932.9	1704.2	1615.7
57.5°	1969.8	1903.4	1719.0	1505.0	1431.2
60°	1755.9	1660.0	1505.0	1320.6	1261.6
62.5°	1519.8	1446.0	1313.2	1158.3	1232.1
65°	1305.8	1232.1	1114.0	1136.1	944.3
67.5°	1069.7	1032.9	929.6	826.3	796.8
70°	870.6	826.3	789.4	678.7	649.2
72.5°	693.5	649.2	597.6	538.6	516.4
75°	523.8	486.9	457.4	435.3	479.5
77.5°	361.5	346.7	324.6	302.5	295.1
80°	236.1	228.7	221.3	213.9	206.6
82.5°	140.2	140.2	140.2	140.2	140.2
85°	73.8	81.2	88.5	95.9	103.3
87.5°	44.3	44.3	51.6	59.0	66.4
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)