

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: P547038

Luminaire Tested: **FMR-24-4-LD4-3HI-50-UNV-80-97-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: P547038
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-80-97-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

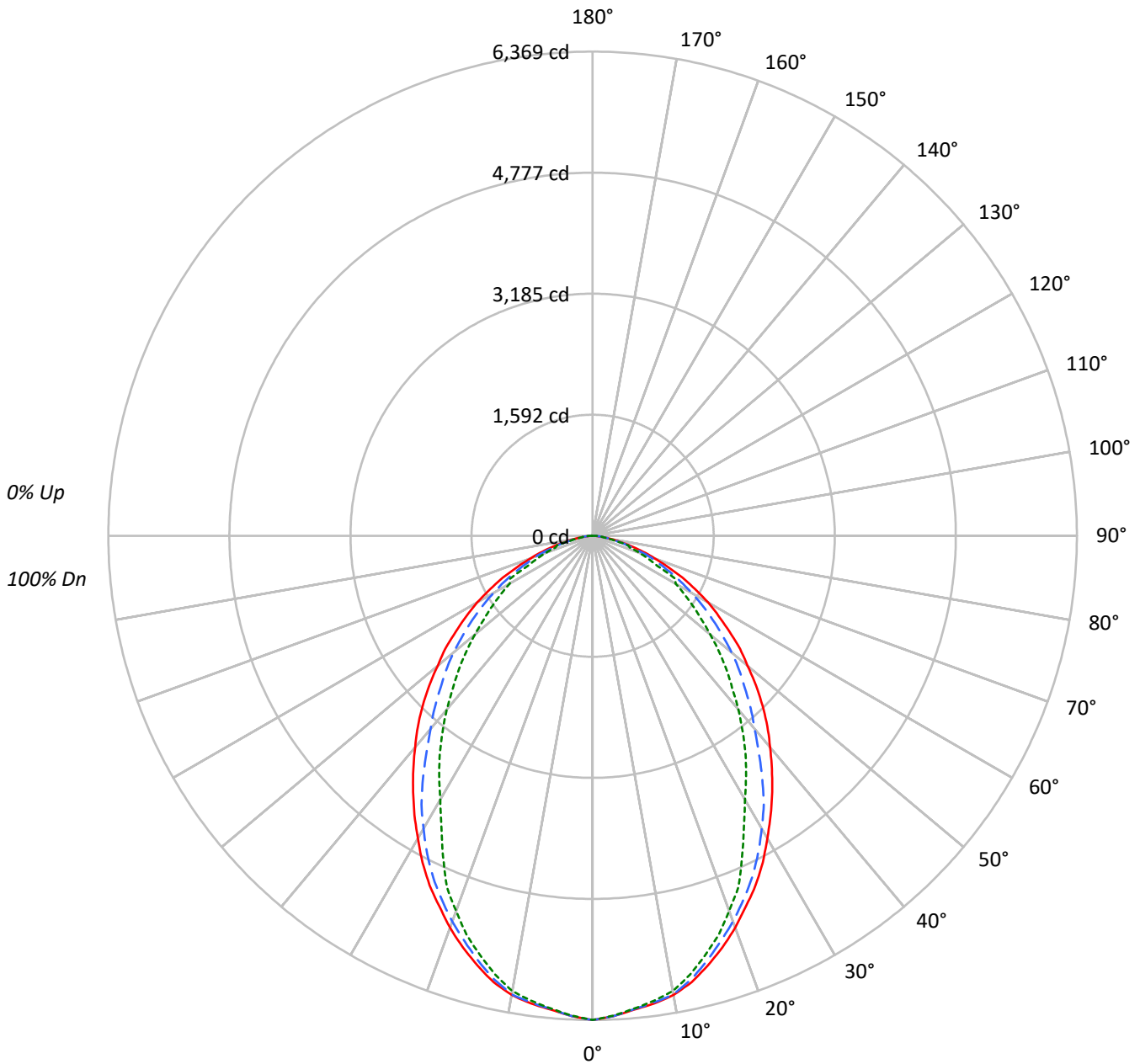
Lumens per Lamp: N/A
Luminaire Lumens: 12503.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	8569	8569	8569
5°	8453	8443	8433
10°	8380	8369	8309
15°	8154	8072	7959
20°	7854	7728	7517
25°	7531	7367	6908
30°	7138	6909	6223
35°	6760	6386	5757
40°	6376	5820	5238
45°	6010	5380	4735
50°	5564	4994	4223
55°	5147	4525	3783
60°	4716	4042	3388
65°	4149	3540	3000
70°	3418	3099	2549
75°	2718	2373	2488
80°	1826	1712	1598
85°	1136	1365	1592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	592.9	4.7
10°-20°	1627.0	13.0
20°-30°	2252.5	18.0
30°-40°	2401.9	19.2
40°-50°	2191.2	17.5
50°-60°	1716.6	13.7
60°-70°	1118.8	8.9
70°-80°	495.7	4.0
80°-90°	106.4	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°	4472.4	35.8
0°-40°	6874.3	55.0
0°-60°	10782.1	86.2
0°-90°	12503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12503.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6369	6369	6369	6369	6369	
5°	6258	6251	6251	6244	6244	594
15°	5854	5854	5795	5736	5714	1646
25°	5073	5044	4963	4786	4653	2329
35°	4116	4086	3888	3593	3505	2573
45°	3159	3092	2827	2592	2489	2433
55°	2194	2128	1929	1701	1612	1968
65°	1303	1230	1112	1134	942	1284
75°	523	486	456	434	479	560
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°	6368.9	6368.9	6368.9	6368.9	6368.9
2.5°	6324.7	6324.7	6324.7	6317.3	6317.3
5°	6258.4	6251.1	6251.1	6243.7	6243.7
7.5°	6206.9	6199.5	6192.2	6184.8	6170.1
10°	6133.3	6133.3	6125.9	6089.1	6081.7
12.5°	6015.4	6008.1	5978.6	5927.1	5912.4
15°	5853.5	5853.5	5794.6	5735.7	5713.6
17.5°	5676.8	5669.4	5595.8	5536.9	5507.4
20°	5485.3	5470.6	5397.0	5301.2	5249.7
22.5°	5271.8	5271.8	5183.4	5058.3	5006.7
25°	5073.0	5043.5	4962.6	4785.8	4653.3
27.5°	4844.8	4800.6	4712.2	4461.9	4307.3
30°	4594.4	4572.3	4447.2	4123.2	4005.4
32.5°	4358.8	4322.0	4189.5	3850.8	3755.1
35°	4115.8	4086.4	3887.6	3593.1	3504.7
37.5°	3872.9	3836.0	3585.7	3350.1	3239.7
40°	3629.9	3585.7	3313.3	3099.8	2982.0
42.5°	3401.6	3342.7	3077.7	2849.4	2716.9
45°	3158.7	3092.4	2827.3	2591.7	2488.6
47.5°	2915.7	2856.8	2613.8	2370.8	2253.0
50°	2658.0	2606.4	2385.6	2142.6	2017.4
52.5°	2444.5	2363.5	2150.0	1907.0	1803.9
55°	2194.1	2127.9	1929.1	1700.8	1612.5
57.5°	1965.9	1899.6	1715.5	1502.0	1428.4
60°	1752.4	1656.6	1502.0	1317.9	1259.0
62.5°	1516.7	1443.1	1310.6	1156.0	1229.6
65°	1303.2	1229.6	1111.8	1133.9	942.4
67.5°	1067.6	1030.8	927.7	824.6	795.2
70°	868.8	824.6	787.8	677.4	647.9
72.5°	692.1	647.9	596.4	537.5	515.4
75°	522.8	485.9	456.5	434.4	478.6
77.5°	360.8	346.1	324.0	301.9	294.5
80°	235.6	228.2	220.9	213.5	206.2
82.5°	139.9	139.9	139.9	139.9	139.9
85°	73.6	81.0	88.4	95.7	103.1
87.5°	44.2	44.2	51.5	58.9	66.3
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)