

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: P547420

Luminaire Tested: **FMR-24-4-LD4-4LO-50-UNV-80-94-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: P547420
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-LD4-4LO-50-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

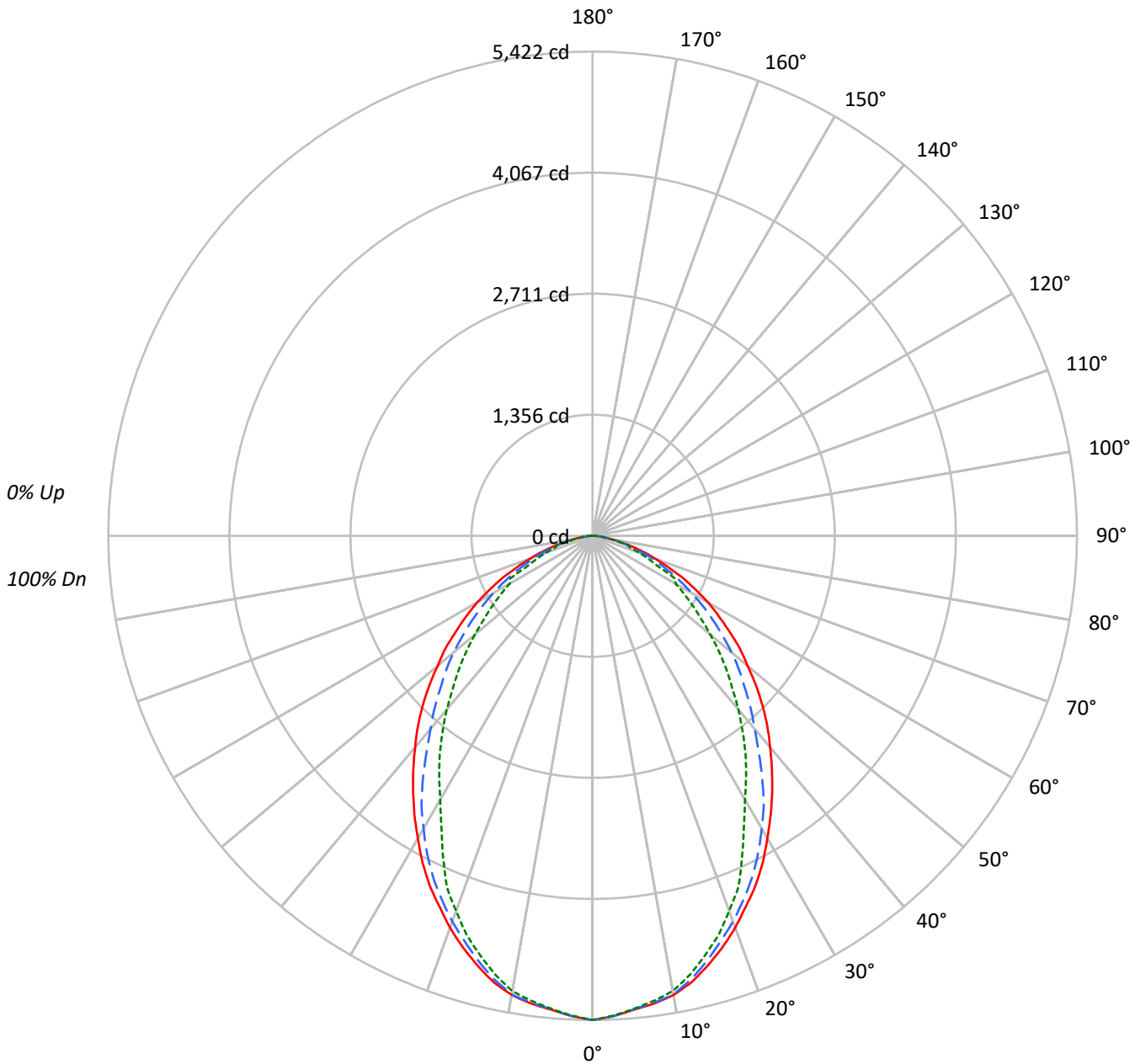
Lumens per Lamp: N/A
Luminaire Lumens: 10644.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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				20				
RC	80				70				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°	7295	7295	7295
5°	7196	7188	7179
10°	7134	7125	7074
15°	6941	6871	6775
20°	6686	6579	6399
25°	6411	6272	5881
30°	6077	5882	5298
35°	5755	5436	4901
40°	5428	4954	4459
45°	5117	4580	4031
50°	4737	4251	3595
55°	4382	3852	3220
60°	4014	3441	2884
65°	3532	3013	2554
70°	2910	2638	2170
75°	2313	2020	2118
80°	1554	1457	1360
85°	968	1161	1355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.7	4.7
10°-20°	1385.1	13.0
20°-30°	1917.6	18.0
30°-40°	2044.7	19.2
40°-50°	1865.4	17.5
50°-60°	1461.4	13.7
60°-70°	952.5	8.9
70°-80°	422.0	4.0
80°-90°	90.6	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°	3807.4	35.8
0°-40°	5852.2	55.0
0°-60°	9179.0	86.2
0°-90°	10644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5422	5422	5422	5422	5422	
5°	5328	5322	5322	5315	5315	506
15°	4983	4983	4933	4883	4864	1401
25°	4319	4294	4225	4074	3961	1983
35°	3504	3479	3310	3059	2984	2191
45°	2689	2633	2407	2206	2119	2071
55°	1868	1812	1642	1448	1373	1675
65°	1110	1047	946	965	802	1093
75°	445	414	389	370	407	477
85°	63	69	75	82	88	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5421.9	5421.9	5421.9	5421.9	5421.9
2.5°	5384.3	5384.3	5384.3	5378.0	5378.0
5°	5327.9	5321.6	5321.6	5315.4	5315.4
7.5°	5284.0	5277.7	5271.5	5265.2	5252.7
10°	5221.3	5221.3	5215.1	5183.7	5177.5
12.5°	5121.0	5114.8	5089.7	5045.8	5033.3
15°	4983.1	4983.1	4933.0	4882.9	4864.0
17.5°	4832.7	4826.4	4763.8	4713.6	4688.5
20°	4669.7	4657.2	4594.5	4513.0	4469.2
22.5°	4488.0	4488.0	4412.7	4306.2	4262.3
25°	4318.7	4293.7	4224.7	4074.3	3961.4
27.5°	4124.4	4086.8	4011.6	3798.5	3666.8
30°	3911.3	3892.5	3785.9	3510.1	3409.8
32.5°	3710.7	3679.4	3566.6	3278.2	3196.7
35°	3503.9	3478.8	3309.6	3058.8	2983.6
37.5°	3297.0	3265.7	3052.6	2852.0	2758.0
40°	3090.2	3052.6	2820.6	2638.9	2538.6
42.5°	2895.9	2845.7	2620.1	2425.8	2312.9
45°	2689.0	2632.6	2407.0	2206.4	2118.6
47.5°	2482.2	2432.0	2225.2	2018.3	1918.0
50°	2262.8	2218.9	2030.9	1824.0	1717.5
52.5°	2081.0	2012.1	1830.3	1623.4	1535.7
55°	1867.9	1811.5	1642.2	1447.9	1372.7
57.5°	1673.6	1617.2	1460.5	1278.7	1216.0
60°	1491.8	1410.3	1278.7	1122.0	1071.8
62.5°	1291.2	1228.5	1115.7	984.1	1046.8
65°	1109.5	1046.8	946.5	965.3	802.3
67.5°	908.9	877.5	789.8	702.0	677.0
70°	739.6	702.0	670.7	576.7	551.6
72.5°	589.2	551.6	507.7	457.6	438.8
75°	445.0	413.7	388.6	369.8	407.4
77.5°	307.1	294.6	275.8	257.0	250.7
80°	200.6	194.3	188.0	181.8	175.5
82.5°	119.1	119.1	119.1	119.1	119.1
85°	62.7	68.9	75.2	81.5	87.8
87.5°	37.6	37.6	43.9	50.1	56.4
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)