

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: P546844

Luminaire Tested: **FMR-24-4-LD4-2LO-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: P546844
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-LD4-2LO-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

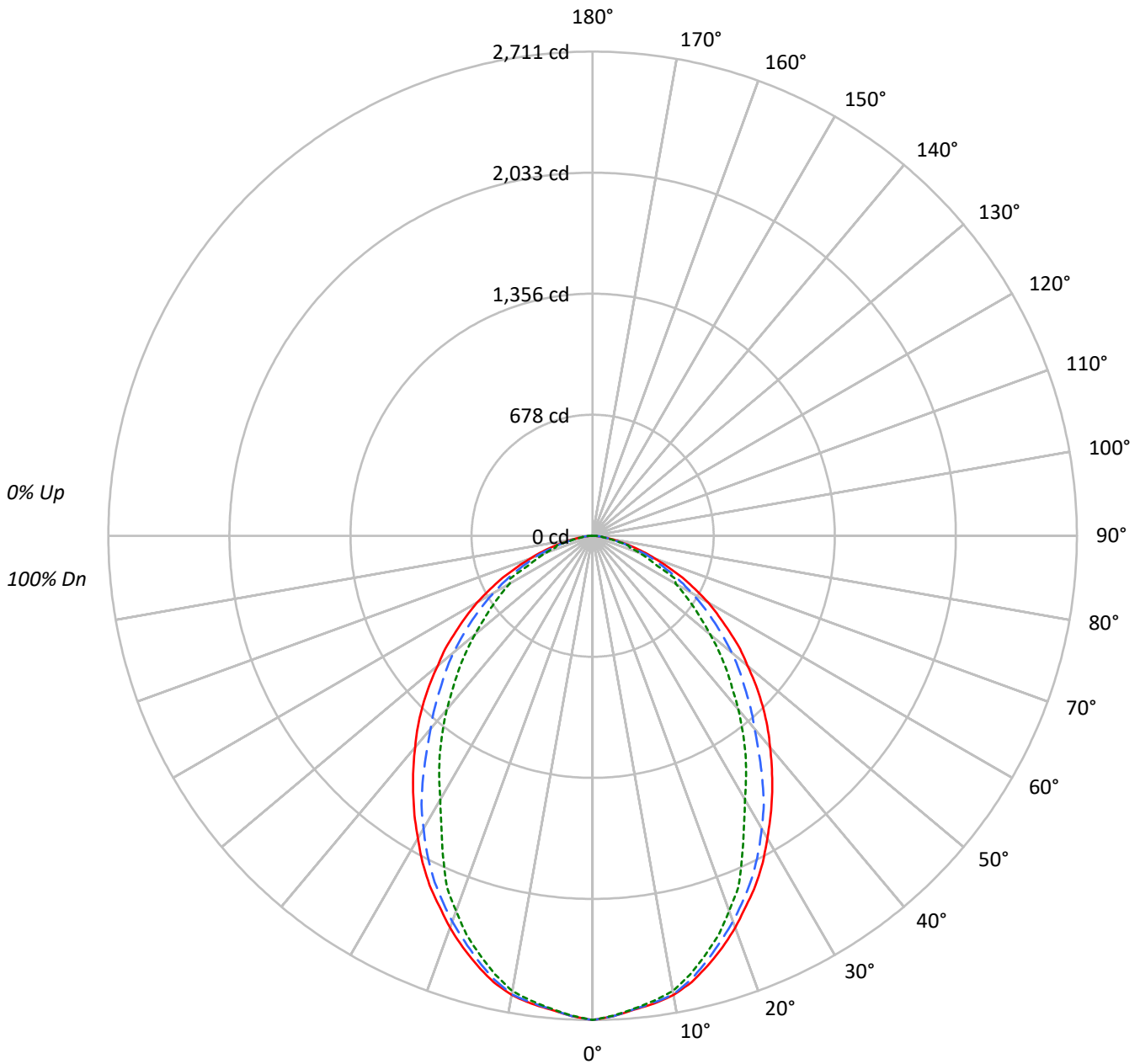
Lumens per Lamp: N/A
Luminaire Lumens: 5322.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3648	3648	3648
5°	3598	3594	3590
10°	3567	3562	3537
15°	3471	3436	3388
20°	3343	3289	3200
25°	3206	3136	2941
30°	3038	2941	2649
35°	2878	2718	2450
40°	2714	2477	2229
45°	2558	2290	2016
50°	2368	2125	1797
55°	2191	1926	1610
60°	2007	1720	1442
65°	1766	1507	1277
70°	1455	1319	1085
75°	1157	1010	1059
80°	777	728	680
85°	483	580	678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	4.7
10°-20°	692.6	13.0
20°-30°	958.8	18.0
30°-40°	1022.4	19.2
40°-50°	932.7	17.5
50°-60°	730.7	13.7
60°-70°	476.2	8.9
70°-80°	211.0	4.0
80°-90°	45.3	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°	1903.7	35.8
0°-40°	2926.1	55.0
0°-60°	4589.5	86.2
0°-90°	5322.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5322.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2711	2711	2711	2711	2711	
5°	2664	2661	2661	2658	2658	253
15°	2492	2492	2466	2441	2432	700
25°	2159	2147	2112	2037	1981	991
35°	1752	1739	1655	1529	1492	1095
45°	1344	1316	1204	1103	1059	1036
55°	934	906	821	724	686	838
65°	555	523	473	483	401	547
75°	222	207	194	185	204	238
85°	31	34	38	41	44	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2711.0	2711.0	2711.0	2711.0	2711.0
2.5°	2692.2	2692.2	2692.2	2689.0	2689.0
5°	2663.9	2660.8	2660.8	2657.7	2657.7
7.5°	2642.0	2638.9	2635.7	2632.6	2626.3
10°	2610.7	2610.7	2607.5	2591.9	2588.7
12.5°	2560.5	2557.4	2544.9	2522.9	2516.6
15°	2491.6	2491.6	2466.5	2441.4	2432.0
17.5°	2416.4	2413.2	2381.9	2356.8	2344.3
20°	2334.9	2328.6	2297.3	2256.5	2234.6
22.5°	2244.0	2244.0	2206.4	2153.1	2131.2
25°	2159.4	2146.8	2112.4	2037.1	1980.7
27.5°	2062.2	2043.4	2005.8	1899.2	1833.4
30°	1955.6	1946.2	1893.0	1755.1	1704.9
32.5°	1855.4	1839.7	1783.3	1639.1	1598.4
35°	1751.9	1739.4	1654.8	1529.4	1491.8
37.5°	1648.5	1632.8	1526.3	1426.0	1379.0
40°	1545.1	1526.3	1410.3	1319.4	1269.3
42.5°	1447.9	1422.9	1310.0	1212.9	1156.5
45°	1344.5	1316.3	1203.5	1103.2	1059.3
47.5°	1241.1	1216.0	1112.6	1009.2	959.0
50°	1131.4	1109.5	1015.4	912.0	858.7
52.5°	1040.5	1006.0	915.1	811.7	767.8
55°	933.9	905.7	821.1	724.0	686.4
57.5°	836.8	808.6	730.2	639.3	608.0
60°	745.9	705.2	639.3	561.0	535.9
62.5°	645.6	614.3	557.9	492.0	523.4
65°	554.7	523.4	473.2	482.6	401.2
67.5°	454.4	438.8	394.9	351.0	338.5
70°	369.8	351.0	335.3	288.3	275.8
72.5°	294.6	275.8	253.9	228.8	219.4
75°	222.5	206.8	194.3	184.9	203.7
77.5°	153.6	147.3	137.9	128.5	125.4
80°	100.3	97.2	94.0	90.9	87.8
82.5°	59.5	59.5	59.5	59.5	59.5
85°	31.3	34.5	37.6	40.7	43.9
87.5°	18.8	18.8	21.9	25.1	28.2
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)