

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: P546907

Luminaire Tested: **FMR-24-4-LD4-2STD-40-UNV-80-88-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: P546907
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-LD4-2STD-40-UNV-80-88-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

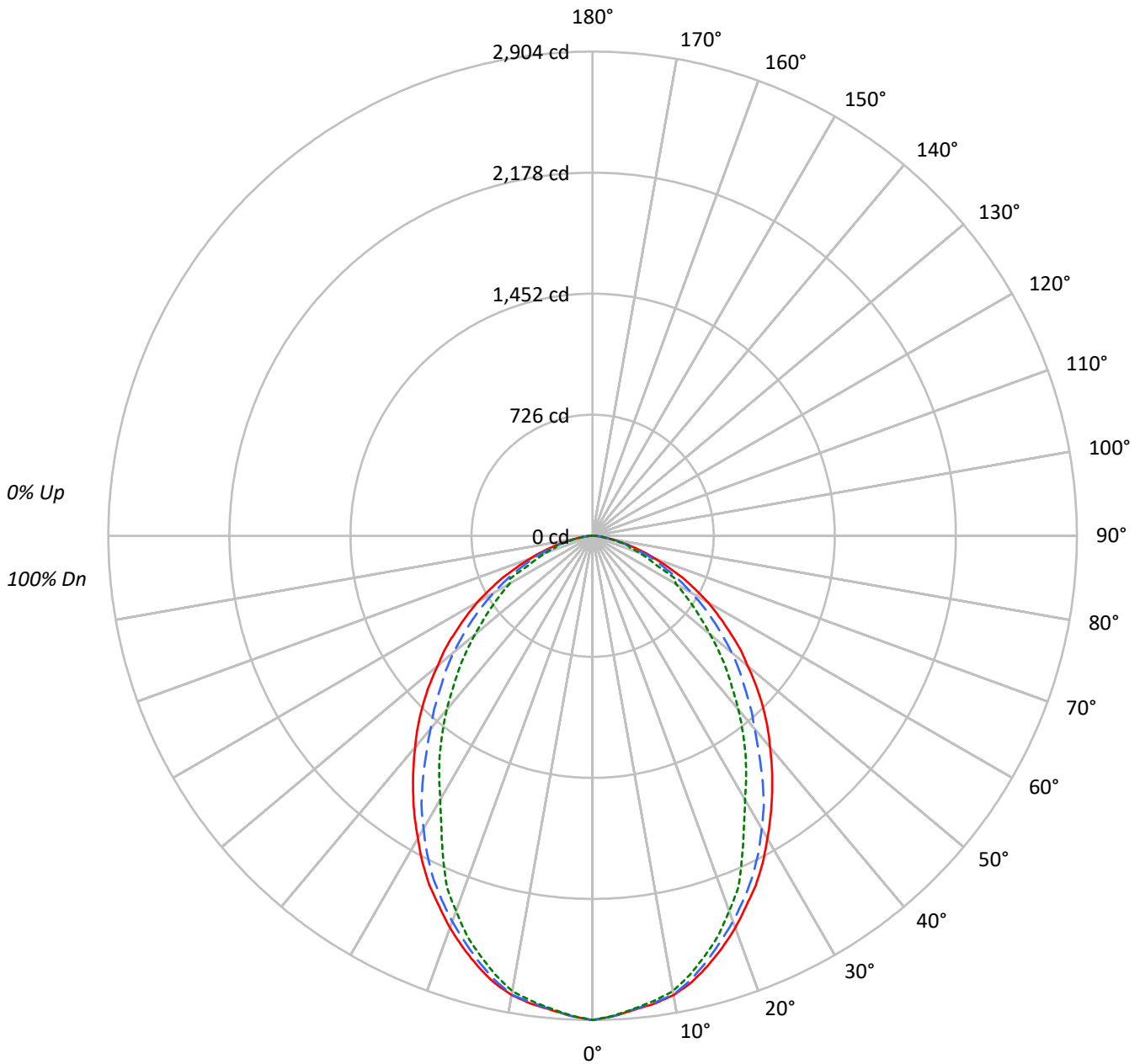
Lumens per Lamp: N/A
Luminaire Lumens: 5702.0 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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									
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°	3908	3908	3908
5°	3855	3850	3846
10°	3822	3817	3789
15°	3718	3681	3630
20°	3582	3524	3428
25°	3435	3360	3150
30°	3255	3151	2838
35°	3083	2912	2625
40°	2908	2654	2389
45°	2741	2453	2159
50°	2537	2277	1926
55°	2347	2064	1725
60°	2151	1843	1545
65°	1892	1614	1368
70°	1559	1413	1162
75°	1239	1082	1135
80°	833	780	728
85°	519	622	726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.4	4.7
10°-20°	742.0	13.0
20°-30°	1027.3	18.0
30°-40°	1095.4	19.2
40°-50°	999.3	17.5
50°-60°	782.9	13.7
60°-70°	510.2	8.9
70°-80°	226.0	4.0
80°-90°	48.5	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°	2039.7	35.8
0°-40°	3135.0	55.0
0°-60°	4917.2	86.2
0°-90°	5702.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5702.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2904	2904	2904	2904	2904	
5°	2854	2851	2851	2847	2847	271
15°	2670	2670	2643	2616	2606	750
25°	2314	2300	2263	2183	2122	1062
35°	1877	1864	1773	1639	1598	1173
45°	1440	1410	1289	1182	1135	1110
55°	1001	970	880	776	735	897
65°	594	561	507	517	430	586
75°	238	222	208	198	218	255
85°	34	37	40	44	47	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2904.5	2904.5	2904.5	2904.5	2904.5
2.5°	2884.4	2884.4	2884.4	2881.0	2881.0
5°	2854.2	2850.8	2850.8	2847.4	2847.4
7.5°	2830.7	2827.3	2823.9	2820.6	2813.9
10°	2797.1	2797.1	2793.7	2776.9	2773.6
12.5°	2743.3	2740.0	2726.6	2703.1	2696.3
15°	2669.5	2669.5	2642.6	2615.7	2605.7
17.5°	2588.9	2585.5	2552.0	2525.1	2511.7
20°	2501.6	2494.9	2461.3	2417.6	2394.1
22.5°	2404.2	2404.2	2363.9	2306.8	2283.3
25°	2313.5	2300.1	2263.2	2182.6	2122.1
27.5°	2209.5	2189.3	2149.0	2034.8	1964.3
30°	2095.3	2085.2	2028.1	1880.4	1826.7
32.5°	1987.8	1971.0	1910.6	1756.1	1712.5
35°	1877.0	1863.6	1772.9	1638.6	1598.3
37.5°	1766.2	1749.4	1635.3	1527.8	1477.4
40°	1655.4	1635.3	1511.0	1413.6	1359.9
42.5°	1551.3	1524.5	1403.6	1299.5	1239.0
45°	1440.5	1410.3	1289.4	1182.0	1134.9
47.5°	1329.7	1302.8	1192.0	1081.2	1027.5
50°	1212.2	1188.7	1087.9	977.1	920.0
52.5°	1114.8	1077.9	980.5	869.7	822.7
55°	1000.6	970.4	879.8	775.7	735.4
57.5°	896.5	866.3	782.4	685.0	651.4
60°	799.2	755.5	685.0	601.1	574.2
62.5°	691.7	658.1	597.7	527.2	560.8
65°	594.3	560.8	507.0	517.1	429.8
67.5°	486.9	470.1	423.1	376.1	362.6
70°	396.2	376.1	359.3	308.9	295.5
72.5°	315.6	295.5	272.0	245.1	235.0
75°	238.4	221.6	208.2	198.1	218.3
77.5°	164.5	157.8	147.7	137.7	134.3
80°	107.5	104.1	100.7	97.4	94.0
82.5°	63.8	63.8	63.8	63.8	63.8
85°	33.6	36.9	40.3	43.7	47.0
87.5°	20.1	20.1	23.5	26.9	30.2
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)