

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: P546366

Luminaire Tested: **FMR-12-4-LD4-2STD-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: P546366
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-12-4-LD4-2STD-50-UNV-80-97-EDD
Description: 1X4 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

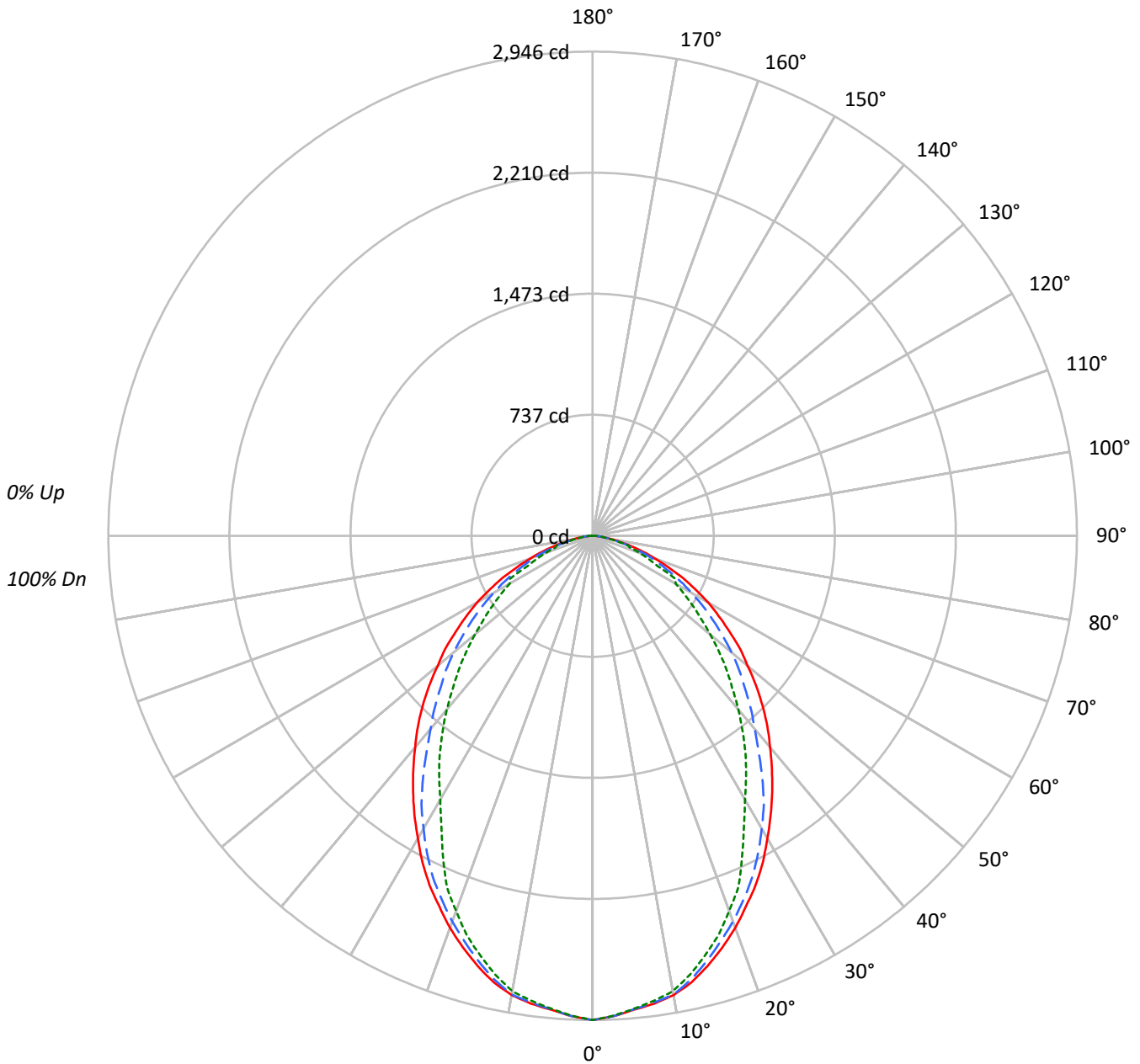
Lumens per Lamp: N/A
Luminaire Lumens: 5784.0 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7928	7928	7928
5°	7821	7811	7802
10°	7753	7744	7688
15°	7544	7468	7363
20°	7267	7150	6955
25°	6968	6816	6392
30°	6604	6393	5757
35°	6255	5908	5326
40°	5899	5384	4846
45°	5561	4977	4381
50°	5148	4620	3907
55°	4762	4187	3499
60°	4363	3739	3134
65°	3839	3275	2776
70°	3162	2868	2358
75°	2514	2196	2302
80°	1689	1584	1478
85°	1053	1263	1473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.3	4.7
10°-20°	752.7	13.0
20°-30°	1042.0	18.0
30°-40°	1111.1	19.2
40°-50°	1013.7	17.5
50°-60°	794.1	13.7
60°-70°	517.6	8.9
70°-80°	229.3	4.0
80°-90°	49.2	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°	2069.0	35.8
0°-40°	3180.1	55.0
0°-60°	4987.9	86.2
0°-90°	5784.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5784.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2946	2946	2946	2946	2946	
5°	2895	2892	2892	2888	2888	275
15°	2708	2708	2681	2653	2643	761
25°	2347	2333	2296	2214	2153	1077
35°	1904	1890	1798	1662	1621	1190
45°	1461	1431	1308	1199	1151	1126
55°	1015	984	892	787	746	910
65°	603	569	514	524	436	594
75°	242	225	211	201	221	259
85°	34	38	41	44	48	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2946.3	2946.3	2946.3	2946.3	2946.3
2.5°	2925.9	2925.9	2925.9	2922.4	2922.4
5°	2895.2	2891.8	2891.8	2888.4	2888.4
7.5°	2871.4	2868.0	2864.5	2861.1	2854.3
10°	2837.3	2837.3	2833.9	2816.9	2813.5
12.5°	2782.8	2779.4	2765.8	2741.9	2735.1
15°	2707.9	2707.9	2680.6	2653.4	2643.1
17.5°	2626.1	2622.7	2588.6	2561.4	2547.8
20°	2537.6	2530.7	2496.7	2452.4	2428.6
22.5°	2438.8	2438.8	2397.9	2340.0	2316.2
25°	2346.8	2333.2	2295.7	2214.0	2152.7
27.5°	2241.2	2220.8	2179.9	2064.1	1992.6
30°	2125.4	2115.2	2057.3	1907.4	1852.9
32.5°	2016.4	1999.4	1938.1	1781.4	1737.1
35°	1904.0	1890.4	1798.4	1662.2	1621.3
37.5°	1791.6	1774.6	1658.8	1549.8	1498.7
40°	1679.2	1658.8	1532.8	1434.0	1379.5
42.5°	1573.6	1546.4	1423.8	1318.2	1256.9
45°	1461.2	1430.6	1307.9	1199.0	1151.3
47.5°	1348.8	1321.6	1209.2	1096.8	1042.3
50°	1229.6	1205.8	1103.6	991.2	933.3
52.5°	1130.8	1093.4	994.6	882.2	834.5
55°	1015.0	984.4	892.4	786.8	745.9
57.5°	909.4	878.8	793.6	694.8	660.8
60°	810.7	766.4	694.8	609.7	582.4
62.5°	701.7	667.6	606.3	534.8	568.8
65°	602.9	568.8	514.3	524.5	436.0
67.5°	493.9	476.9	429.2	381.5	367.9
70°	401.9	381.5	364.5	313.4	299.7
72.5°	320.2	299.7	275.9	248.6	238.4
75°	241.8	224.8	211.2	201.0	221.4
77.5°	166.9	160.1	149.9	139.7	136.2
80°	109.0	105.6	102.2	98.8	95.4
82.5°	64.7	64.7	64.7	64.7	64.7
85°	34.1	37.5	40.9	44.3	47.7
87.5°	20.4	20.4	23.8	27.2	30.7
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)