

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: P546964

Luminaire Tested: **FMR-24-4-LD4-2STD-50-UNV-93-94-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: P546964
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-50-UNV-93-94-EDD
Description: 2X4 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

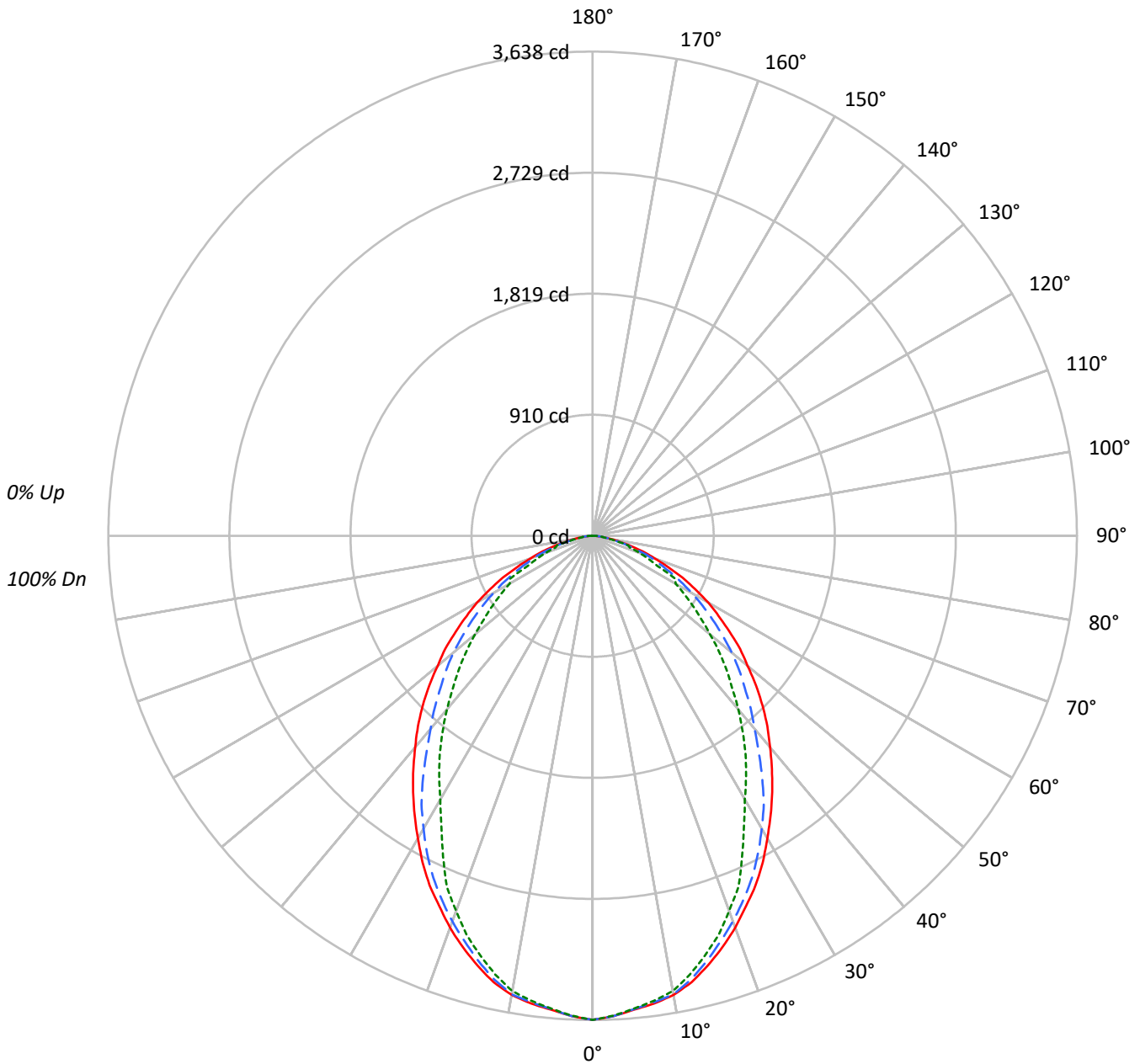
Lumens per Lamp: N/A
Luminaire Lumens: 7141.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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°	4894	4894	4894
5°	4828	4822	4816
10°	4786	4780	4746
15°	4657	4610	4546
20°	4486	4414	4293
25°	4301	4208	3946
30°	4077	3946	3554
35°	3861	3647	3288
40°	3641	3324	2991
45°	3433	3073	2705
50°	3178	2852	2412
55°	2940	2585	2160
60°	2693	2309	1935
65°	2370	2022	1714
70°	1952	1770	1456
75°	1552	1355	1421
80°	1043	978	912
85°	650	780	909



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.6	4.7
10°-20°	929.3	13.0
20°-30°	1286.5	18.0
30°-40°	1371.8	19.2
40°-50°	1251.5	17.5
50°-60°	980.4	13.7
60°-70°	639.0	8.9
70°-80°	283.1	4.0
80°-90°	60.8	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°	2554.4	35.8
0°-40°	3926.2	55.0
0°-60°	6158.1	86.2
0°-90°	7141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3638	3638	3638	3638	3638	
5°	3574	3570	3570	3566	3566	339
15°	3343	3343	3310	3276	3263	940
25°	2897	2881	2834	2733	2658	1330
35°	2351	2334	2220	2052	2002	1470
45°	1804	1766	1615	1480	1421	1390
55°	1253	1215	1102	971	921	1124
65°	744	702	635	648	538	734
75°	299	278	261	248	273	320
85°	42	46	50	55	59	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3637.5	3637.5	3637.5	3637.5	3637.5
2.5°	3612.3	3612.3	3612.3	3608.1	3608.1
5°	3574.5	3570.2	3570.2	3566.0	3566.0
7.5°	3545.0	3540.8	3536.6	3532.4	3524.0
10°	3503.0	3503.0	3498.8	3477.7	3473.5
12.5°	3435.7	3431.5	3414.7	3385.2	3376.8
15°	3343.2	3343.2	3309.5	3275.9	3263.3
17.5°	3242.2	3238.0	3196.0	3162.3	3145.5
20°	3132.9	3124.5	3082.4	3027.8	2998.3
22.5°	3010.9	3010.9	2960.5	2889.0	2859.6
25°	2897.4	2880.6	2834.3	2733.4	2657.7
27.5°	2767.0	2741.8	2691.4	2548.4	2460.1
30°	2624.1	2611.5	2540.0	2354.9	2287.6
32.5°	2489.5	2468.5	2392.8	2199.3	2144.7
35°	2350.7	2333.9	2220.4	2052.2	2001.7
37.5°	2212.0	2190.9	2048.0	1913.4	1850.3
40°	2073.2	2048.0	1892.4	1770.4	1703.1
42.5°	1942.8	1909.2	1757.8	1627.4	1551.7
45°	1804.0	1766.2	1614.8	1480.2	1421.4
47.5°	1665.3	1631.6	1492.9	1354.1	1286.8
50°	1518.1	1488.7	1362.5	1223.7	1152.2
52.5°	1396.1	1349.9	1227.9	1089.2	1030.3
55°	1253.2	1215.3	1101.8	971.4	920.9
57.5°	1122.8	1085.0	979.8	857.9	815.8
60°	1000.8	946.2	857.9	752.7	719.1
62.5°	866.3	824.2	748.5	660.2	702.3
65°	744.3	702.3	635.0	647.6	538.3
67.5°	609.8	588.7	529.9	471.0	454.2
70°	496.2	471.0	450.0	386.9	370.1
72.5°	395.3	370.1	340.6	307.0	294.4
75°	298.6	277.5	260.7	248.1	273.3
77.5°	206.1	197.6	185.0	172.4	168.2
80°	134.6	130.4	126.2	122.0	117.7
82.5°	79.9	79.9	79.9	79.9	79.9
85°	42.1	46.3	50.5	54.7	58.9
87.5°	25.2	25.2	29.4	33.6	37.8
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)