

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: P546942

Luminaire Tested: **FMR-24-4-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: P546942
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-80-97-EDD
Description: 2X4 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

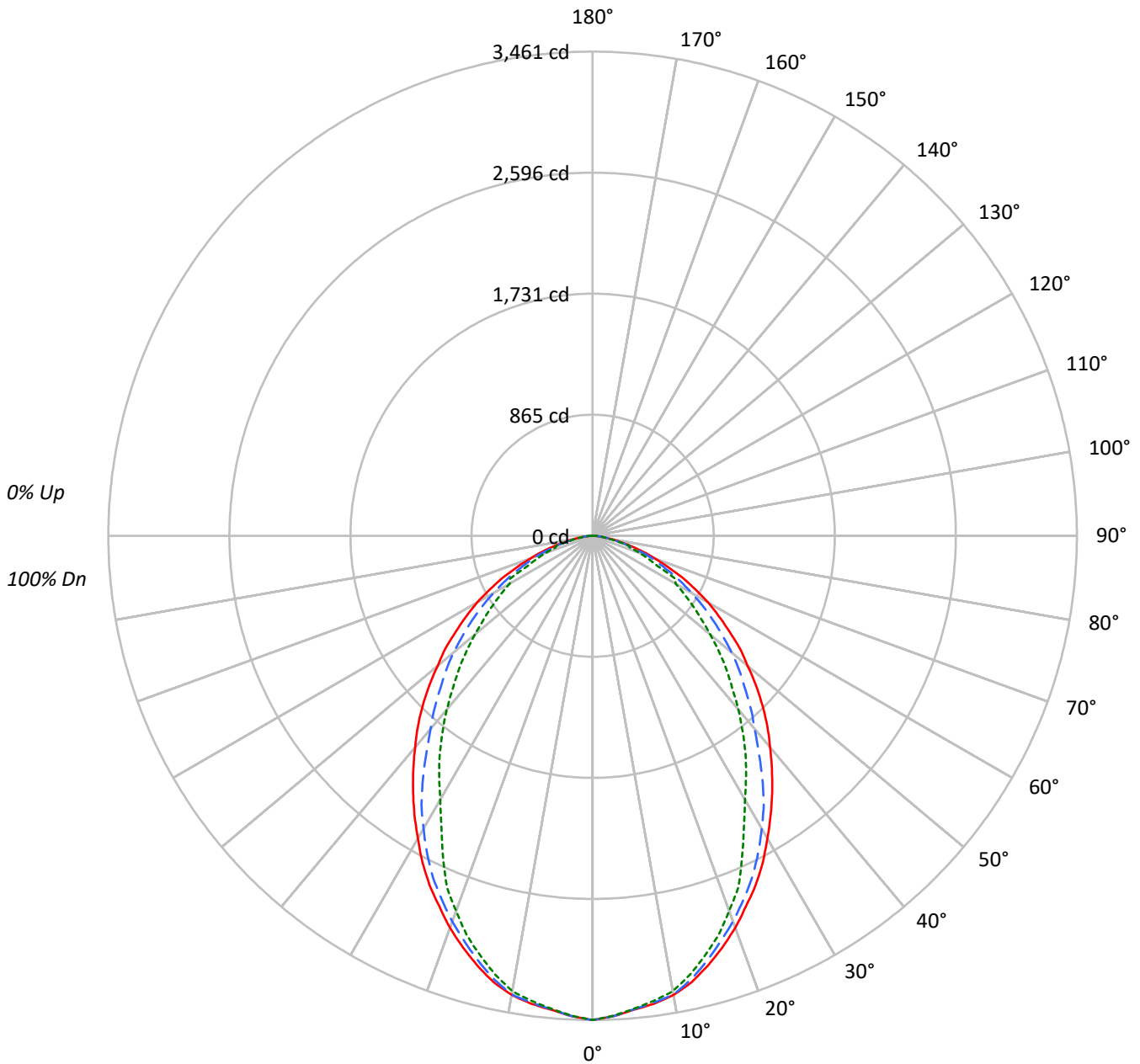
Lumens per Lamp: N/A
Luminaire Lumens: 6795.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P546942

CATALOG NUMBER: FMR-24-4-LD4-2STD-50-UNV-80-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P546942

CATALOG NUMBER: FMR-24-4-LD4-2STD-50-UNV-80-97-EDD

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°	4657	4657	4657
5°	4594	4588	4583
10°	4554	4549	4516
15°	4431	4387	4325
20°	4268	4200	4085
25°	4093	4004	3754
30°	3879	3755	3382
35°	3674	3470	3129
40°	3465	3163	2846
45°	3266	2924	2574
50°	3024	2714	2295
55°	2797	2459	2056
60°	2563	2197	1841
65°	2255	1924	1631
70°	1858	1685	1385
75°	1477	1290	1352
80°	992	930	868
85°	618	741	865



TEST NUMBER: P546942

CATALOG NUMBER: FMR-24-4-LD4-2STD-50-UNV-80-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.2	4.7
10°-20°	884.2	13.0
20°-30°	1224.2	18.0
30°-40°	1305.3	19.2
40°-50°	1190.8	17.5
50°-60°	932.9	13.7
60°-70°	608.0	8.9
70°-80°	269.4	4.0
80°-90°	57.8	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°	2430.6	35.8
0°-40°	3736.0	55.0
0°-60°	5859.7	86.2
0°-90°	6795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3461	3461	3461	3461	3461	
5°	3401	3397	3397	3393	3393	323
15°	3181	3181	3149	3117	3105	894
25°	2757	2741	2697	2601	2529	1266
35°	2237	2221	2113	1953	1905	1398
45°	1717	1681	1537	1408	1352	1322
55°	1192	1156	1048	924	876	1070
65°	708	668	604	616	512	698
75°	284	264	248	236	260	304
85°	40	44	48	52	56	55
90°	0	0	0	0	0	



TEST NUMBER: P546942

CATALOG NUMBER: FMR-24-4-LD4-2STD-50-UNV-80-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3461.3	3461.3	3461.3	3461.3	3461.3
2.5°	3437.3	3437.3	3437.3	3433.3	3433.3
5°	3401.3	3397.3	3397.3	3393.3	3393.3
7.5°	3373.2	3369.2	3365.2	3361.2	3353.2
10°	3333.2	3333.2	3329.2	3309.2	3305.2
12.5°	3269.2	3265.2	3249.2	3221.2	3213.2
15°	3181.2	3181.2	3149.2	3117.2	3105.2
17.5°	3085.1	3081.1	3041.1	3009.1	2993.1
20°	2981.1	2973.1	2933.1	2881.1	2853.1
22.5°	2865.1	2865.1	2817.0	2749.0	2721.0
25°	2757.0	2741.0	2697.0	2601.0	2528.9
27.5°	2633.0	2609.0	2560.9	2424.9	2340.9
30°	2496.9	2484.9	2416.9	2240.8	2176.8
32.5°	2368.9	2348.9	2276.8	2092.8	2040.8
35°	2236.8	2220.8	2112.8	1952.7	1904.7
37.5°	2104.8	2084.8	1948.7	1820.7	1760.7
40°	1972.7	1948.7	1800.7	1684.6	1620.6
42.5°	1848.7	1816.7	1672.6	1548.6	1476.5
45°	1716.6	1680.6	1536.6	1408.5	1352.5
47.5°	1584.6	1552.6	1420.5	1288.5	1224.5
50°	1444.5	1416.5	1296.5	1164.4	1096.4
52.5°	1328.5	1284.5	1168.4	1036.4	980.4
55°	1192.4	1156.4	1048.4	924.3	876.3
57.5°	1068.4	1032.4	932.3	816.3	776.3
60°	952.4	900.3	816.3	716.3	684.3
62.5°	824.3	784.3	712.3	628.2	668.2
65°	708.3	668.2	604.2	616.2	512.2
67.5°	580.2	560.2	504.2	448.2	432.2
70°	472.2	448.2	428.2	368.1	352.1
72.5°	376.1	352.1	324.1	292.1	280.1
75°	284.1	264.1	248.1	236.1	260.1
77.5°	196.1	188.1	176.1	164.1	160.1
80°	128.0	124.0	120.0	116.0	112.0
82.5°	76.0	76.0	76.0	76.0	76.0
85°	40.0	44.0	48.0	52.0	56.0
87.5°	24.0	24.0	28.0	32.0	36.0
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)