

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: P545524

Luminaire Tested: **FMR-12-2-LD4-1STD-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: P545524
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-12-2-LD4-1STD-50-UNV-93-94-EDD
Description: 1X2 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

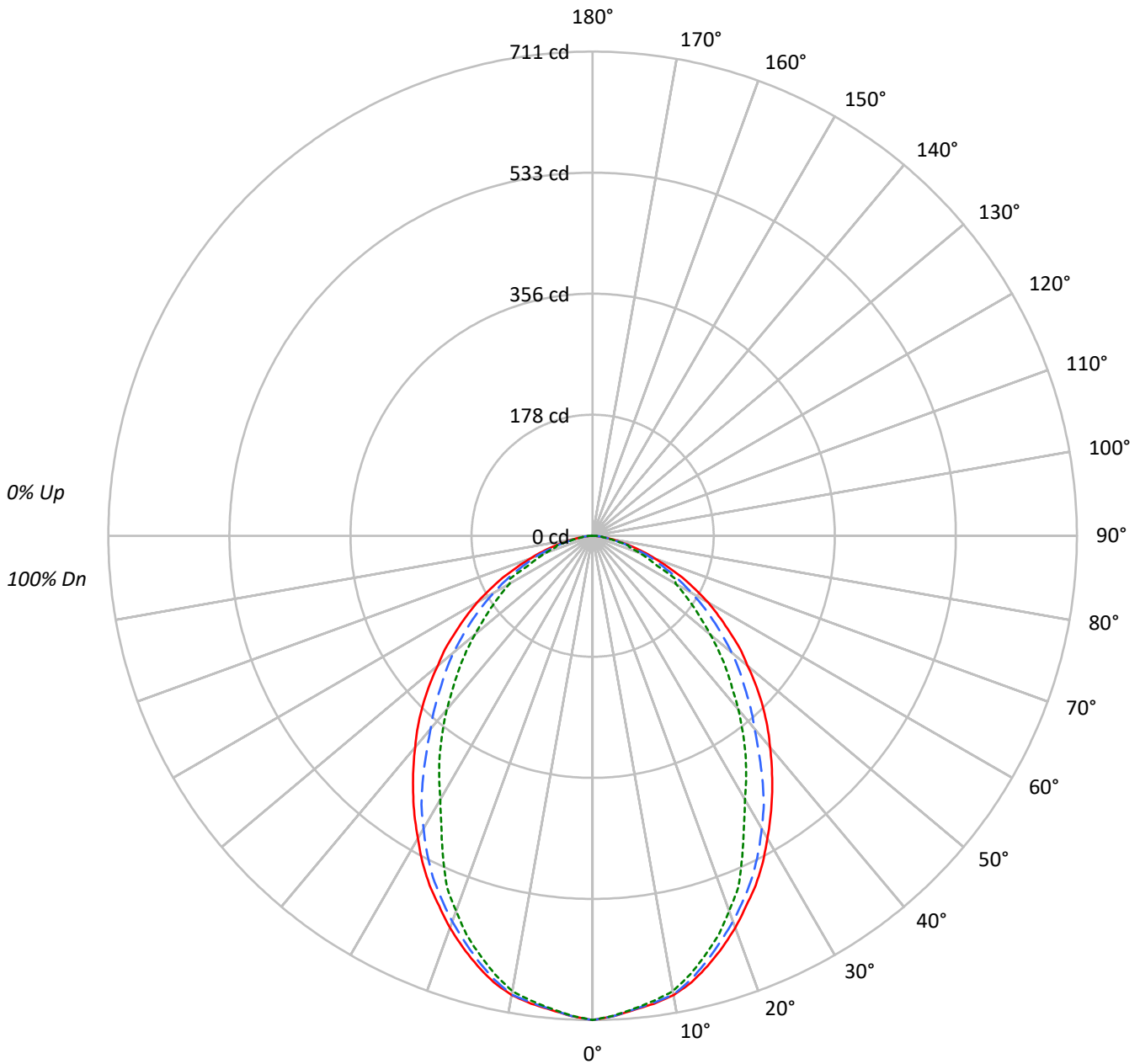
Lumens per Lamp: N/A
Luminaire Lumens: 1396.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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

TEST NUMBER: P545524

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-93-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545524

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-93-94-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°	3827	3827	3827
5°	3775	3771	3766
10°	3742	3738	3711
15°	3642	3605	3554
20°	3508	3451	3357
25°	3363	3290	3086
30°	3188	3086	2779
35°	3019	2852	2571
40°	2847	2599	2339
45°	2684	2403	2115
50°	2485	2231	1886
55°	2299	2021	1689
60°	2106	1805	1513
65°	1853	1580	1340
70°	1526	1385	1138
75°	1214	1061	1110
80°	815	766	713
85°	506	611	710



TEST NUMBER: P545524

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-93-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	4.7
10°-20°	181.7	13.0
20°-30°	251.5	18.0
30°-40°	268.2	19.2
40°-50°	244.7	17.5
50°-60°	191.7	13.7
60°-70°	124.9	8.9
70°-80°	55.3	4.0
80°-90°	11.9	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°	499.4	35.8
0°-40°	767.5	55.0
0°-60°	1203.9	86.2
0°-90°	1396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	699	698	698	697	697	66
15°	654	654	647	640	638	184
25°	566	563	554	534	520	260
35°	460	456	434	401	391	287
45°	353	345	316	289	278	272
55°	245	238	215	190	180	220
65°	146	137	124	127	105	143
75°	58	54	51	48	53	63
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



TEST NUMBER: P545524

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-93-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.1	711.1	711.1	711.1	711.1
2.5°	706.2	706.2	706.2	705.3	705.3
5°	698.8	698.0	698.0	697.1	697.1
7.5°	693.0	692.2	691.4	690.6	688.9
10°	684.8	684.8	684.0	679.9	679.0
12.5°	671.6	670.8	667.5	661.8	660.1
15°	653.6	653.6	647.0	640.4	637.9
17.5°	633.8	633.0	624.8	618.2	614.9
20°	612.5	610.8	602.6	591.9	586.1
22.5°	588.6	588.6	578.7	564.8	559.0
25°	566.4	563.1	554.1	534.4	519.6
27.5°	540.9	536.0	526.1	498.2	480.9
30°	513.0	510.5	496.5	460.4	447.2
32.5°	486.7	482.6	467.8	430.0	419.3
35°	459.5	456.3	434.1	401.2	391.3
37.5°	432.4	428.3	400.4	374.0	361.7
40°	405.3	400.4	369.9	346.1	332.9
42.5°	379.8	373.2	343.6	318.1	303.3
45°	352.7	345.3	315.7	289.4	277.9
47.5°	325.5	319.0	291.8	264.7	251.6
50°	296.8	291.0	266.4	239.2	225.3
52.5°	272.9	263.9	240.0	212.9	201.4
55°	245.0	237.6	215.4	189.9	180.0
57.5°	219.5	212.1	191.5	167.7	159.5
60°	195.7	185.0	167.7	147.2	140.6
62.5°	169.3	161.1	146.3	129.1	137.3
65°	145.5	137.3	124.1	126.6	105.2
67.5°	119.2	115.1	103.6	92.1	88.8
70°	97.0	92.1	88.0	75.6	72.3
72.5°	77.3	72.3	66.6	60.0	57.5
75°	58.4	54.3	51.0	48.5	53.4
77.5°	40.3	38.6	36.2	33.7	32.9
80°	26.3	25.5	24.7	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.9	10.7	11.5
87.5°	4.9	4.9	5.8	6.6	7.4
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)