

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: P545244

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-80-94-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: P545244  
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-LD4-1HI-35-UNV-80-94-EDD  
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

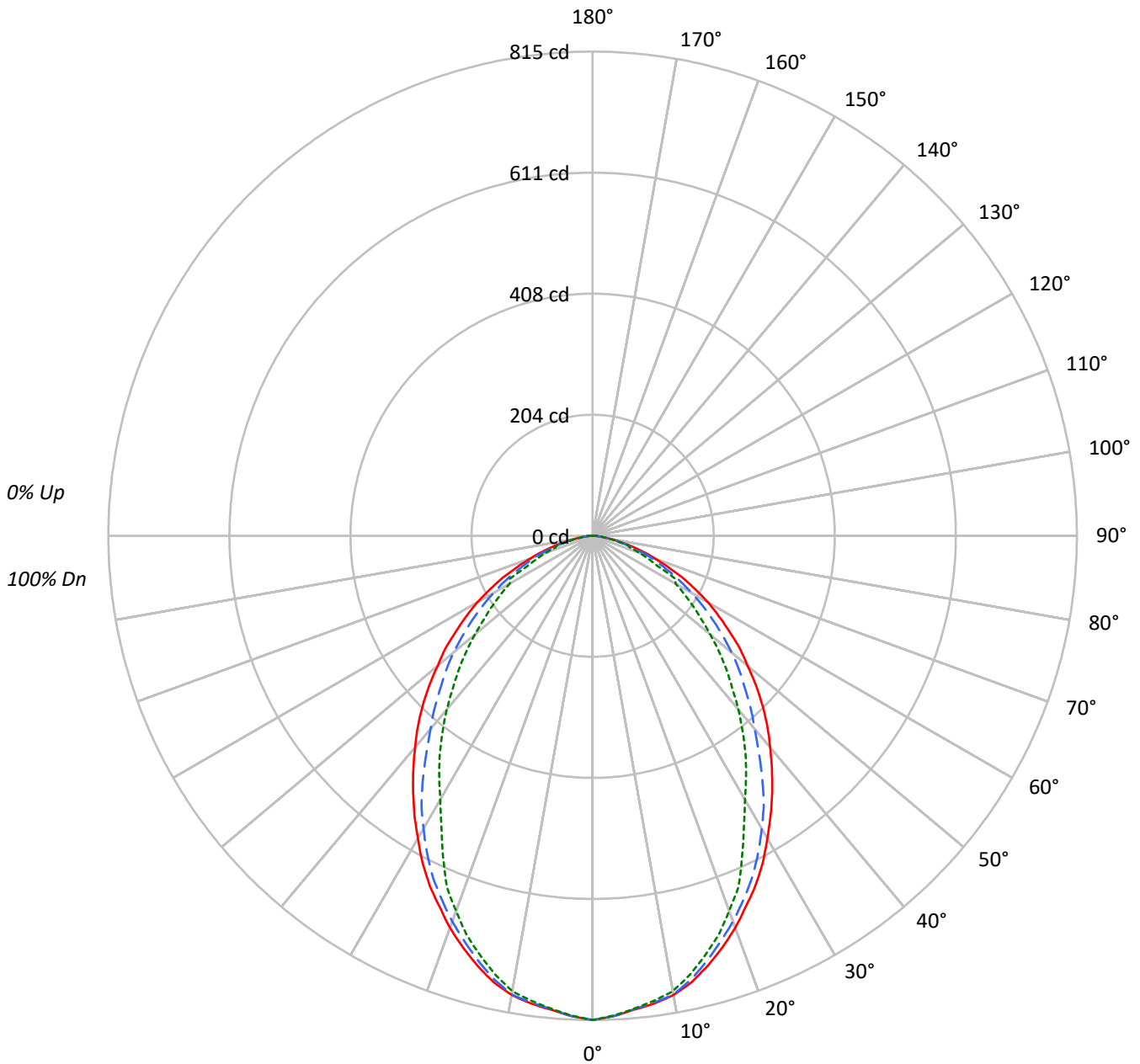
Lumens per Lamp: N/A  
Luminaire Lumens: 1600.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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: P545244

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P545244

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-94-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°	4386	4386	4386
5°	4327	4321	4317
10°	4289	4284	4253
15°	4174	4131	4074
20°	4021	3955	3848
25°	3855	3771	3536
30°	3654	3537	3186
35°	3461	3269	2947
40°	3263	2979	2681
45°	3076	2754	2424
50°	2848	2556	2162
55°	2635	2317	1936
60°	2413	2069	1734
65°	2124	1812	1536
70°	1750	1586	1304
75°	1391	1214	1273
80°	936	877	818
85°	580	698	815



TEST NUMBER: P545244

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.9	4.7
10°-20°	208.2	13.0
20°-30°	288.3	18.0
30°-40°	307.4	19.2
40°-50°	280.4	17.5
50°-60°	219.7	13.7
60°-70°	143.2	8.9
70°-80°	63.4	4.0
80°-90°	13.6	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°	572.3	35.8
0°-40°	879.7	55.0
0°-60°	1379.8	86.2
0°-90°	1600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1600.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	801	800	800	799	799	76
15°	749	749	742	734	731	211
25°	649	645	635	612	596	298
35°	527	523	498	460	448	329
45°	404	396	362	332	318	311
55°	281	272	247	218	206	252
65°	167	157	142	145	121	164
75°	67	62	58	56	61	72
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



TEST NUMBER: P545244

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	815.0	815.0	815.0	815.0	815.0
2.5°	809.4	809.4	809.4	808.4	808.4
5°	800.9	799.9	799.9	799.0	799.0
7.5°	794.3	793.3	792.4	791.5	789.6
10°	784.9	784.9	783.9	779.2	778.3
12.5°	769.8	768.8	765.1	758.5	756.6
15°	749.1	749.1	741.5	734.0	731.2
17.5°	726.5	725.5	716.1	708.5	704.8
20°	702.0	700.1	690.6	678.4	671.8
22.5°	674.6	674.6	663.3	647.3	640.7
25°	649.2	645.4	635.1	612.4	595.5
27.5°	620.0	614.3	603.0	571.0	551.2
30°	587.9	585.1	569.1	527.6	512.6
32.5°	557.8	553.1	536.1	492.8	480.5
35°	526.7	522.9	497.5	459.8	448.5
37.5°	495.6	490.9	458.9	428.7	414.6
40°	464.5	458.9	424.0	396.7	381.6
42.5°	435.3	427.8	393.8	364.6	347.7
45°	404.2	395.7	361.8	331.7	318.5
47.5°	373.1	365.6	334.5	303.4	288.3
50°	340.1	333.5	305.3	274.2	258.2
52.5°	312.8	302.5	275.1	244.0	230.8
55°	280.8	272.3	246.9	217.7	206.3
57.5°	251.6	243.1	219.5	192.2	182.8
60°	224.2	212.0	192.2	168.7	161.1
62.5°	194.1	184.7	167.7	147.9	157.4
65°	166.8	157.4	142.3	145.1	120.6
67.5°	136.6	131.9	118.7	105.5	101.8
70°	111.2	105.5	100.8	86.7	82.9
72.5°	88.6	82.9	76.3	68.8	66.0
75°	66.9	62.2	58.4	55.6	61.2
77.5°	46.2	44.3	41.5	38.6	37.7
80°	30.2	29.2	28.3	27.3	26.4
82.5°	17.9	17.9	17.9	17.9	17.9
85°	9.4	10.4	11.3	12.2	13.2
87.5°	5.7	5.7	6.6	7.5	8.5
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)