

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: P544876

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-82-94-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: P544876  
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-12-1-LD4-1STD-35-UNV-82-94-EDD  
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC 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**

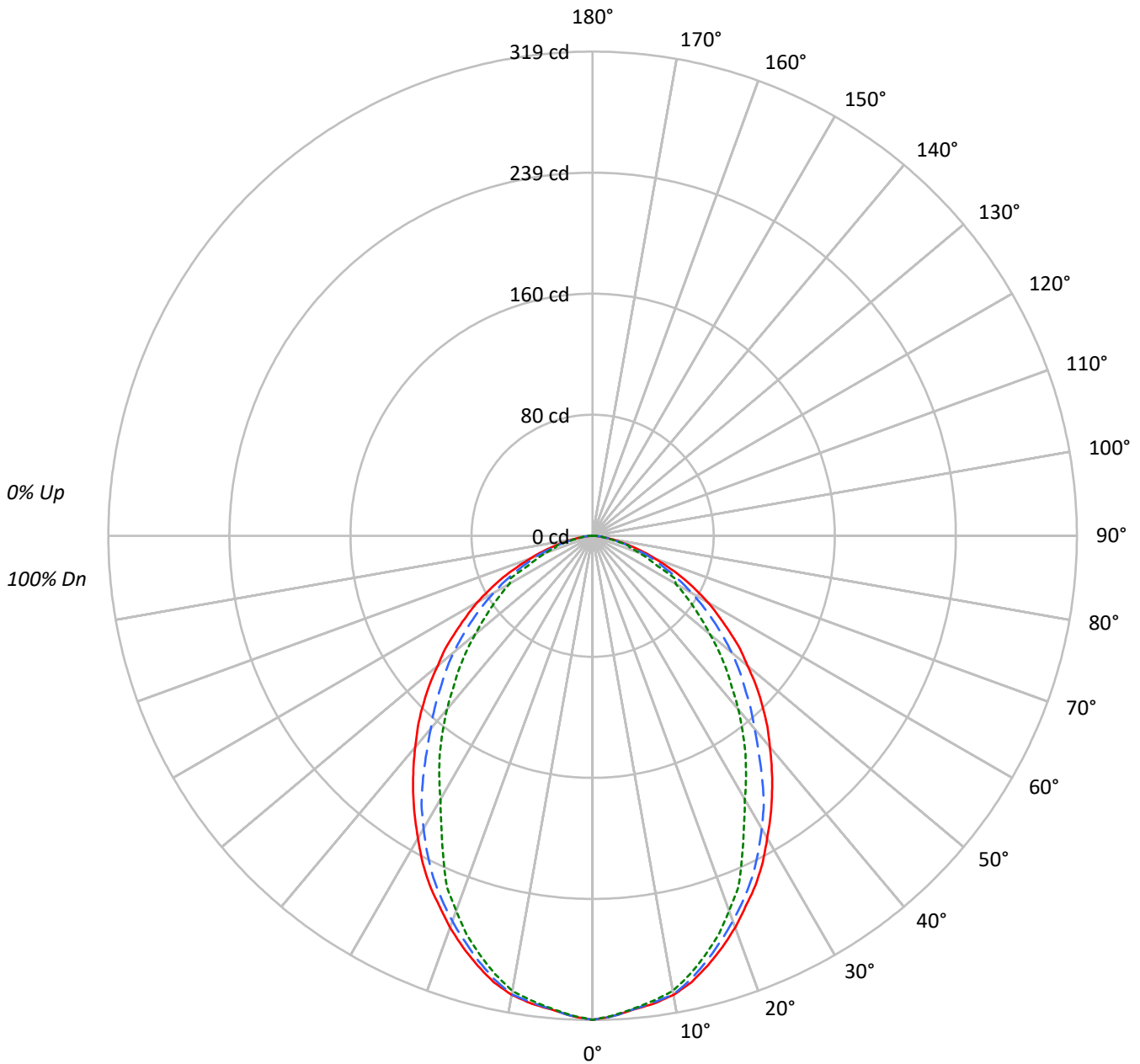
Lumens per Lamp: N/A  
Luminaire Lumens: 626.0 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 8.3  
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: P544876

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P544876

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-94-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°	3433	3433	3433
5°	3385	3382	3378
10°	3357	3352	3328
15°	3266	3233	3188
20°	3145	3095	3010
25°	3017	2951	2767
30°	2859	2768	2492
35°	2708	2557	2306
40°	2553	2331	2098
45°	2407	2156	1897
50°	2229	1999	1691
55°	2062	1813	1514
60°	1888	1619	1356
65°	1661	1419	1202
70°	1369	1240	1020
75°	1090	952	998
80°	731	688	638
85°	457	543	642



TEST NUMBER: P544876

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.7	4.7
10°-20°	81.5	13.0
20°-30°	112.8	18.0
30°-40°	120.3	19.2
40°-50°	109.7	17.5
50°-60°	85.9	13.7
60°-70°	56.0	8.9
70°-80°	24.8	4.0
80°-90°	5.3	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°	223.9	35.8
0°-40°	344.2	55.0
0°-60°	539.8	86.2
0°-90°	626.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	626.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	319	319	319	319	319	
5°	313	313	313	313	313	30
15°	293	293	290	287	286	82
25°	254	252	248	240	233	117
35°	206	205	195	180	176	129
45°	158	155	142	130	125	122
55°	110	106	97	85	81	99
65°	65	62	56	57	47	64
75°	26	24	23	22	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



TEST NUMBER: P544876

CATALOG NUMBER: FMR-12-1-LD4-1STD-35-UNV-82-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	318.9	318.9	318.9	318.9	318.9
2.5°	316.7	316.7	316.7	316.3	316.3
5°	313.3	313.0	313.0	312.6	312.6
7.5°	310.8	310.4	310.0	309.7	308.9
10°	307.1	307.1	306.7	304.9	304.5
12.5°	301.2	300.8	299.3	296.8	296.0
15°	293.1	293.1	290.1	287.2	286.1
17.5°	284.2	283.9	280.2	277.2	275.7
20°	274.6	273.9	270.2	265.4	262.8
22.5°	263.9	263.9	259.5	253.3	250.7
25°	254.0	252.5	248.5	239.6	233.0
27.5°	242.6	240.4	235.9	223.4	215.7
30°	230.0	228.9	222.7	206.4	200.5
32.5°	218.2	216.4	209.8	192.8	188.0
35°	206.1	204.6	194.6	179.9	175.5
37.5°	193.9	192.1	179.5	167.7	162.2
40°	181.7	179.5	165.9	155.2	149.3
42.5°	170.3	167.4	154.1	142.7	136.0
45°	158.1	154.8	141.6	129.8	124.6
47.5°	146.0	143.0	130.9	118.7	112.8
50°	133.1	130.5	119.4	107.3	101.0
52.5°	122.4	118.3	107.6	95.5	90.3
55°	109.9	106.5	96.6	85.2	80.7
57.5°	98.4	95.1	85.9	75.2	71.5
60°	87.7	82.9	75.2	66.0	63.0
62.5°	75.9	72.3	65.6	57.9	61.6
65°	65.2	61.6	55.7	56.8	47.2
67.5°	53.5	51.6	46.4	41.3	39.8
70°	43.5	41.3	39.4	33.9	32.4
72.5°	34.7	32.4	29.9	26.9	25.8
75°	26.2	24.3	22.9	21.7	24.0
77.5°	18.1	17.3	16.2	15.1	14.7
80°	11.8	11.4	11.1	10.7	10.3
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.1	4.4	4.8	5.2
87.5°	2.2	2.2	2.6	2.9	3.3
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)