

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: P545260

Luminaire Tested: **FMR-12-2-LD4-1HI-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: P545260  
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-82-94-EDD  
Description: 1X2 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**

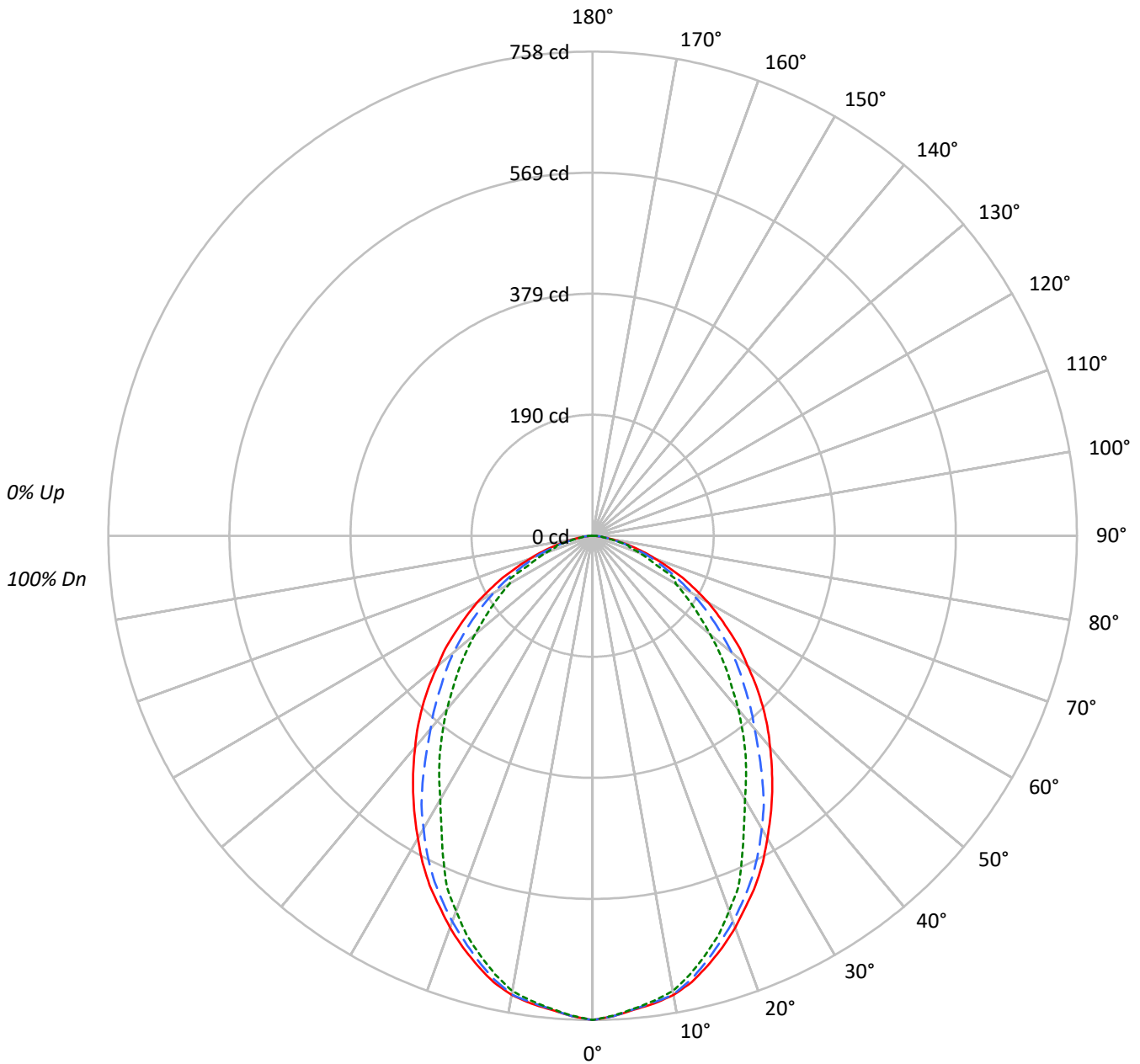
Lumens per Lamp: N/A  
Luminaire Lumens: 1488.0 lumens  
Efficiency: N/A  
Efficacy: 68.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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: P545260

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-82-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P545260

CATALOG NUMBER: FMR-12-2-LD4-1HI-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°	4080	4080	4080
5°	4024	4019	4015
10°	3989	3985	3956
15°	3881	3842	3789
20°	3739	3679	3578
25°	3585	3507	3289
30°	3398	3289	2962
35°	3218	3040	2740
40°	3035	2770	2493
45°	2861	2561	2254
50°	2648	2377	2010
55°	2450	2154	1801
60°	2245	1925	1612
65°	1975	1685	1429
70°	1627	1476	1213
75°	1293	1129	1185
80°	868	815	759
85°	543	648	760



TEST NUMBER: P545260

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-82-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.6	4.7
10°-20°	193.6	13.0
20°-30°	268.1	18.0
30°-40°	285.8	19.2
40°-50°	260.8	17.5
50°-60°	204.3	13.7
60°-70°	133.1	8.9
70°-80°	59.0	4.0
80°-90°	12.7	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°	532.3	35.8
0°-40°	818.1	55.0
0°-60°	1283.2	86.2
0°-90°	1488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1488.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	745	744	744	743	743	71
15°	697	697	690	683	680	196
25°	604	600	591	570	554	277
35°	490	486	463	428	417	306
45°	376	368	336	308	296	290
55°	261	253	230	202	192	234
65°	155	146	132	135	112	153
75°	62	58	54	52	57	67
85°	9	10	10	11	12	12
90°	0	0	0	0	0	



TEST NUMBER: P545260

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-82-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	758.0	758.0	758.0	758.0	758.0
2.5°	752.7	752.7	752.7	751.8	751.8
5°	744.8	743.9	743.9	743.1	743.1
7.5°	738.7	737.8	736.9	736.1	734.3
10°	729.9	729.9	729.1	724.7	723.8
12.5°	715.9	715.0	711.5	705.4	703.6
15°	696.6	696.6	689.6	682.6	680.0
17.5°	675.6	674.7	666.0	658.9	655.4
20°	652.8	651.1	642.3	630.9	624.8
22.5°	627.4	627.4	616.9	602.0	595.9
25°	603.7	600.2	590.6	569.6	553.8
27.5°	576.6	571.3	560.8	531.0	512.6
30°	546.8	544.2	529.3	490.7	476.7
32.5°	518.7	514.4	498.6	458.3	446.9
35°	489.8	486.3	462.7	427.6	417.1
37.5°	460.9	456.5	426.7	398.7	385.6
40°	432.0	426.7	394.3	368.9	354.9
42.5°	404.8	397.8	366.3	339.1	323.3
45°	375.9	368.0	336.5	308.4	296.2
47.5°	347.0	340.0	311.1	282.2	268.1
50°	316.3	310.2	283.9	255.0	240.1
52.5°	290.9	281.3	255.9	227.0	214.7
55°	261.1	253.2	229.6	202.4	191.9
57.5°	234.0	226.1	204.2	178.8	170.0
60°	208.6	197.2	178.8	156.9	149.8
62.5°	180.5	171.7	156.0	137.6	146.3
65°	155.1	146.3	132.3	134.9	112.2
67.5°	127.1	122.7	110.4	98.1	94.6
70°	103.4	98.1	93.8	80.6	77.1
72.5°	82.4	77.1	71.0	64.0	61.3
75°	62.2	57.8	54.3	51.7	57.0
77.5°	42.9	41.2	38.6	35.9	35.1
80°	28.0	27.2	26.3	25.4	24.5
82.5°	16.6	16.6	16.6	16.6	16.6
85°	8.8	9.6	10.5	11.4	12.3
87.5°	5.3	5.3	6.1	7.0	7.9
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)