

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: P545355

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-82-88-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: P545355  
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-LD4-1LO-35-UNV-82-88-EDD  
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

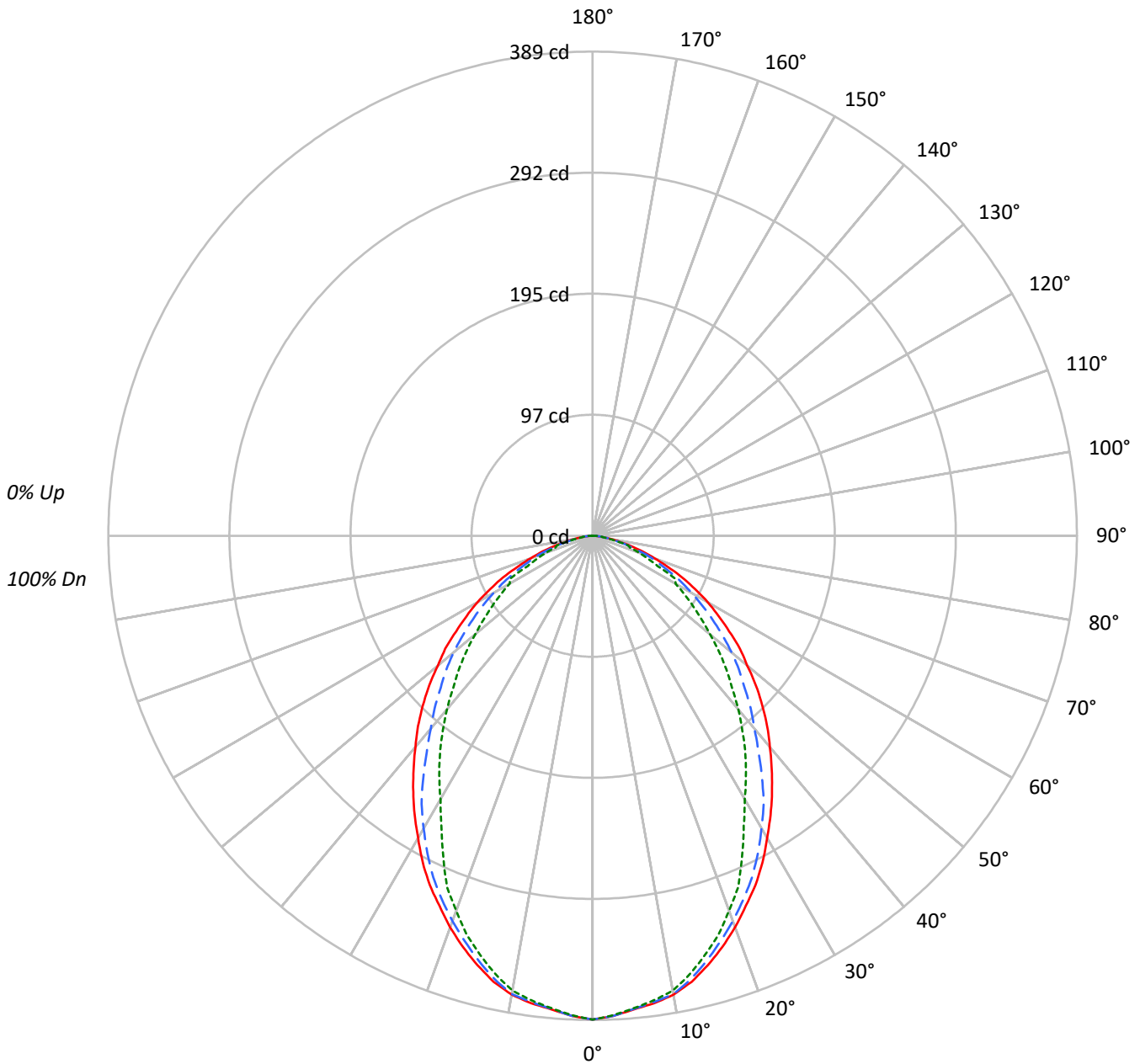
Lumens per Lamp: N/A  
Luminaire Lumens: 763.0 lumens  
Efficiency: N/A  
Efficacy: 65.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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

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### Luminous Intensity Polar Plot





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**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°	2092	2092	2092
5°	2063	2061	2058
10°	2046	2043	2028
15°	1990	1970	1943
20°	1917	1887	1835
25°	1839	1798	1686
30°	1743	1687	1519
35°	1650	1558	1405
40°	1556	1421	1279
45°	1467	1313	1156
50°	1358	1219	1031
55°	1256	1104	923
60°	1151	987	827
65°	1012	863	732
70°	834	757	622
75°	663	580	607
80°	446	418	391
85°	278	333	389



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.2	4.7
10°-20°	99.3	13.0
20°-30°	137.5	18.0
30°-40°	146.6	19.2
40°-50°	133.7	17.5
50°-60°	104.8	13.7
60°-70°	68.3	8.9
70°-80°	30.2	4.0
80°-90°	6.5	0.8
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°	272.9	35.8
0°-40°	419.5	55.0
0°-60°	658.0	86.2
0°-90°	763.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	763.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	389	389	389	389	389	
5°	382	382	382	381	381	36
15°	357	357	354	350	349	100
25°	310	308	303	292	284	142
35°	251	249	237	219	214	157
45°	193	189	172	158	152	148
55°	134	130	118	104	98	120
65°	80	75	68	69	58	78
75°	32	30	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	388.7	388.7	388.7	388.7	388.7
2.5°	386.0	386.0	386.0	385.5	385.5
5°	381.9	381.5	381.5	381.0	381.0
7.5°	378.8	378.3	377.9	377.4	376.5
10°	374.3	374.3	373.8	371.6	371.1
12.5°	367.1	366.6	364.8	361.7	360.8
15°	357.2	357.2	353.6	350.0	348.7
17.5°	346.4	346.0	341.5	337.9	336.1
20°	334.7	333.8	329.4	323.5	320.4
22.5°	321.7	321.7	316.3	308.7	305.5
25°	309.6	307.8	302.8	292.1	284.0
27.5°	295.7	293.0	287.6	272.3	262.9
30°	280.4	279.0	271.4	251.6	244.4
32.5°	266.0	263.8	255.7	235.0	229.2
35°	251.2	249.4	237.2	219.3	213.9
37.5°	236.3	234.1	218.8	204.4	197.7
40°	221.5	218.8	202.2	189.2	182.0
42.5°	207.6	204.0	187.8	173.9	165.8
45°	192.8	188.7	172.5	158.2	151.9
47.5°	177.9	174.3	159.5	144.7	137.5
50°	162.2	159.1	145.6	130.8	123.1
52.5°	149.2	144.2	131.2	116.4	110.1
55°	133.9	129.9	117.7	103.8	98.4
57.5°	120.0	115.9	104.7	91.7	87.2
60°	106.9	101.1	91.7	80.4	76.8
62.5°	92.6	88.1	80.0	70.5	75.0
65°	79.5	75.0	67.8	69.2	57.5
67.5°	65.2	62.9	56.6	50.3	48.5
70°	53.0	50.3	48.1	41.3	39.5
72.5°	42.2	39.5	36.4	32.8	31.5
75°	31.9	29.7	27.9	26.5	29.2
77.5°	22.0	21.1	19.8	18.4	18.0
80°	14.4	13.9	13.5	13.0	12.6
82.5°	8.5	8.5	8.5	8.5	8.5
85°	4.5	4.9	5.4	5.8	6.3
87.5°	2.7	2.7	3.1	3.6	4.0
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)