

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: P545214

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-80-97-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: P545214  
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-LD4-2STD-50-UNV-80-97-EDD  
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

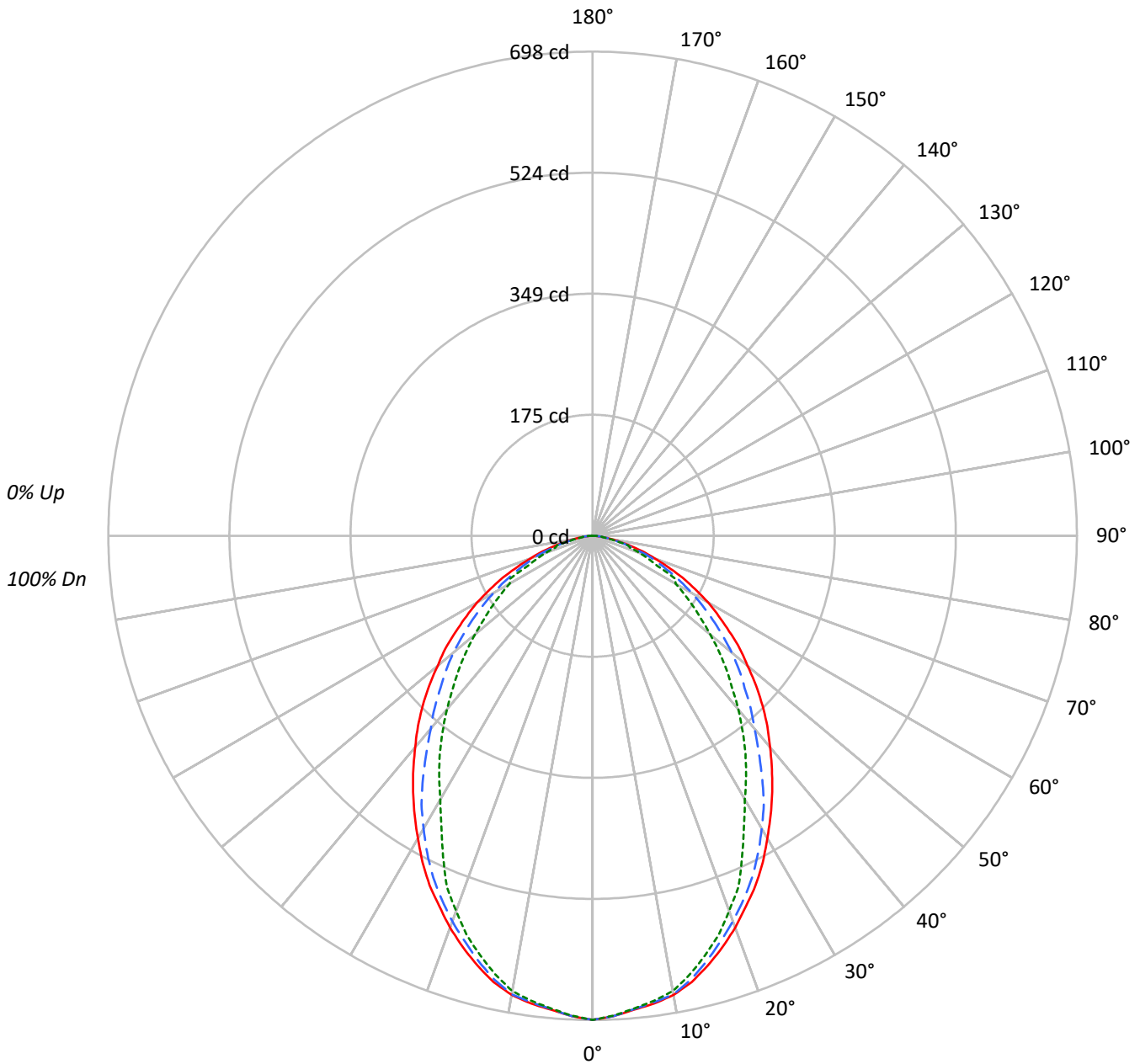
Lumens per Lamp: N/A  
Luminaire Lumens: 1370.0 lumens  
Efficiency: N/A  
Efficacy: 82.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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

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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°	7512	7512	7512
5°	7410	7401	7392
10°	7345	7336	7284
15°	7148	7075	6977
20°	6884	6774	6589
25°	6602	6459	6056
30°	6257	6057	5455
35°	5926	5598	5046
40°	5588	5101	4591
45°	5268	4716	4151
50°	4876	4377	3702
55°	4511	3967	3316
60°	4133	3543	2971
65°	3637	3102	2631
70°	2996	2716	2234
75°	2383	2079	2179
80°	1599	1500	1401
85°	1000	1198	1396



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	4.7
10°-20°	178.3	13.0
20°-30°	246.8	18.0
30°-40°	263.2	19.2
40°-50°	240.1	17.5
50°-60°	188.1	13.7
60°-70°	122.6	8.9
70°-80°	54.3	4.0
80°-90°	11.7	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°	490.1	35.8
0°-40°	753.2	55.0
0°-60°	1181.4	86.2
0°-90°	1370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1370.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	698	698	698	698	698	
5°	686	685	685	684	684	65
15°	641	641	635	628	626	180
25°	556	553	544	524	510	255
35°	451	448	426	394	384	282
45°	346	339	310	284	273	267
55°	240	233	211	186	177	216
65°	143	135	122	124	103	141
75°	57	53	50	48	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	697.9	697.9	697.9	697.9	697.9
2.5°	693.0	693.0	693.0	692.2	692.2
5°	685.8	685.0	685.0	684.1	684.1
7.5°	680.1	679.3	678.5	677.7	676.1
10°	672.0	672.0	671.2	667.2	666.4
12.5°	659.1	658.3	655.1	649.5	647.8
15°	641.4	641.4	634.9	628.5	626.1
17.5°	622.0	621.2	613.1	606.7	603.5
20°	601.0	599.4	591.4	580.9	575.2
22.5°	577.7	577.7	568.0	554.3	548.6
25°	555.9	552.6	543.8	524.4	509.9
27.5°	530.9	526.0	516.3	488.9	472.0
30°	503.4	501.0	487.3	451.8	438.9
32.5°	477.6	473.6	459.1	421.9	411.5
35°	451.0	447.8	426.0	393.7	384.0
37.5°	424.4	420.3	392.9	367.1	355.0
40°	397.7	392.9	363.0	339.7	326.7
42.5°	372.7	366.3	337.2	312.2	297.7
45°	346.1	338.8	309.8	284.0	272.7
47.5°	319.5	313.0	286.4	259.8	246.9
50°	291.2	285.6	261.4	234.8	221.1
52.5°	267.8	259.0	235.6	209.0	197.7
55°	240.4	233.2	211.4	186.4	176.7
57.5°	215.4	208.1	188.0	164.6	156.5
60°	192.0	181.5	164.6	144.4	138.0
62.5°	166.2	158.1	143.6	126.7	134.7
65°	142.8	134.7	121.8	124.2	103.3
67.5°	117.0	112.9	101.7	90.4	87.1
70°	95.2	90.4	86.3	74.2	71.0
72.5°	75.8	71.0	65.3	58.9	56.5
75°	57.3	53.2	50.0	47.6	52.4
77.5°	39.5	37.9	35.5	33.1	32.3
80°	25.8	25.0	24.2	23.4	22.6
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.1	8.9	9.7	10.5	11.3
87.5°	4.8	4.8	5.6	6.5	7.3
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)