

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: P545724

Luminaire Tested: **FMR-12-2-LD4-2STD-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: P545724  
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-LD4-2STD-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 LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

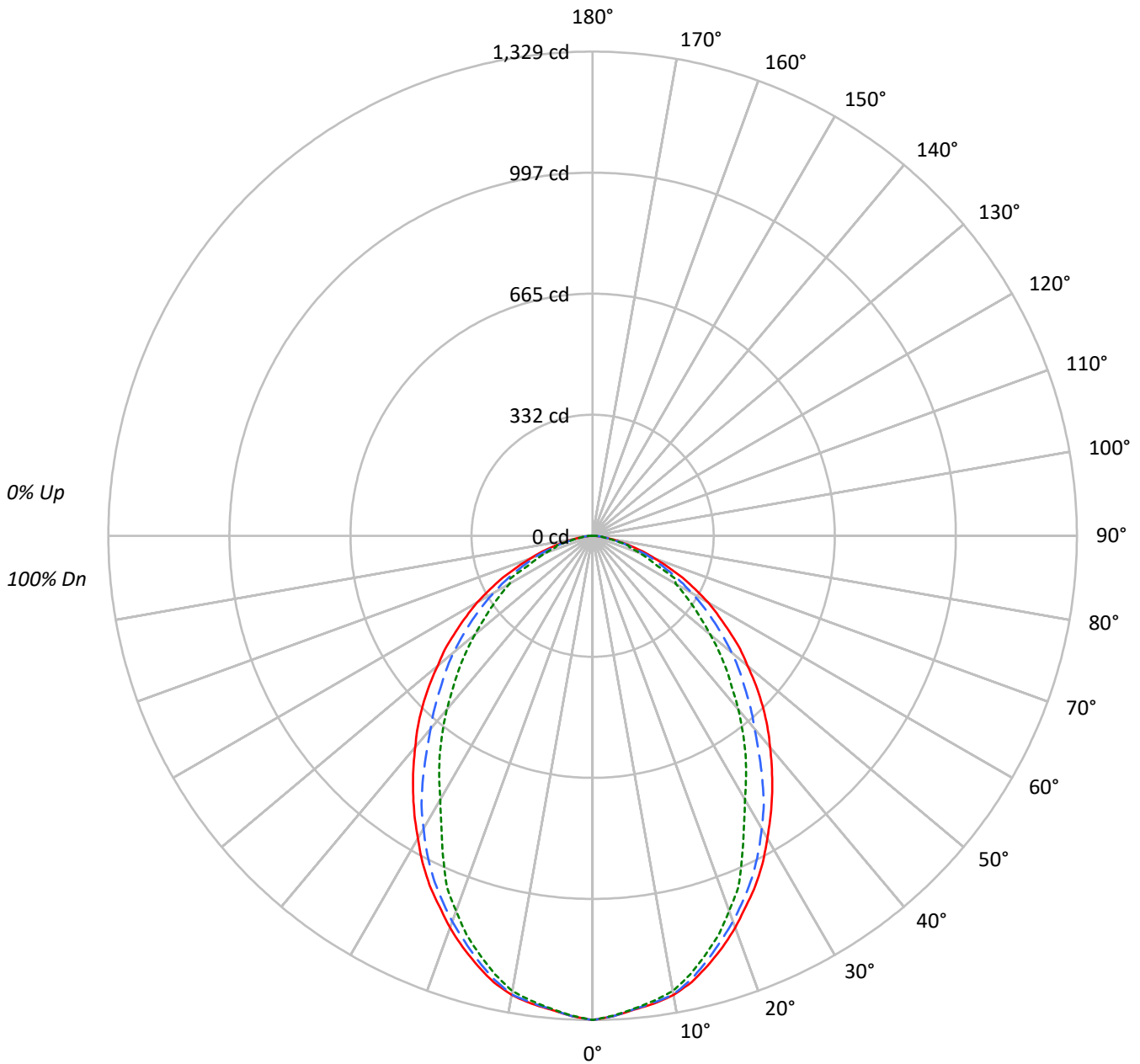
Lumens per Lamp: N/A  
Luminaire Lumens: 2609.0 lumens  
Efficiency: N/A  
Efficacy: 78.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	7153	7153	7153
5°	7055	7047	7039
10°	6994	6986	6936
15°	6805	6737	6643
20°	6556	6450	6274
25°	6286	6149	5766
30°	5958	5767	5194
35°	5643	5330	4805
40°	5321	4858	4371
45°	5017	4491	3953
50°	4644	4168	3525
55°	4296	3777	3157
60°	3936	3373	2828
65°	3463	2954	2505
70°	2853	2587	2127
75°	2269	1982	2077
80°	1525	1429	1333
85°	951	1136	1328



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.7	4.7
10°-20°	339.5	13.0
20°-30°	470.0	18.0
30°-40°	501.2	19.2
40°-50°	457.2	17.5
50°-60°	358.2	13.7
60°-70°	233.5	8.9
70°-80°	103.4	4.0
80°-90°	22.2	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°	933.3	35.8
0°-40°	1434.5	55.0
0°-60°	2249.9	86.2
0°-90°	2609.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2609.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1306	1304	1304	1303	1303	124
15°	1221	1221	1209	1197	1192	343
25°	1059	1052	1036	999	971	486
35°	859	853	811	750	731	537
45°	659	645	590	541	519	508
55°	458	444	402	355	336	411
65°	272	257	232	237	197	268
75°	109	101	95	91	100	117
85°	15	17	18	20	22	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1329.0	1329.0	1329.0	1329.0	1329.0
2.5°	1319.8	1319.8	1319.8	1318.2	1318.2
5°	1305.9	1304.4	1304.4	1302.9	1302.9
7.5°	1295.2	1293.7	1292.1	1290.6	1287.5
10°	1279.8	1279.8	1278.3	1270.6	1269.1
12.5°	1255.2	1253.7	1247.6	1236.8	1233.7
15°	1221.4	1221.4	1209.2	1196.9	1192.2
17.5°	1184.6	1183.0	1167.7	1155.4	1149.2
20°	1144.6	1141.5	1126.2	1106.2	1095.5
22.5°	1100.1	1100.1	1081.6	1055.5	1044.8
25°	1058.6	1052.4	1035.5	998.7	971.0
27.5°	1011.0	1001.7	983.3	931.1	898.8
30°	958.7	954.1	928.0	860.4	835.8
32.5°	909.6	901.9	874.2	803.5	783.6
35°	858.9	852.7	811.2	749.8	731.3
37.5°	808.1	800.5	748.2	699.1	676.0
40°	757.4	748.2	691.4	646.8	622.2
42.5°	709.8	697.5	642.2	594.6	566.9
45°	659.1	645.3	590.0	540.8	519.3
47.5°	608.4	596.1	545.4	494.7	470.1
50°	554.6	543.9	497.8	447.1	421.0
52.5°	510.1	493.2	448.6	397.9	376.4
55°	457.8	444.0	402.5	354.9	336.5
57.5°	410.2	396.4	358.0	313.4	298.1
60°	365.7	345.7	313.4	275.0	262.7
62.5°	316.5	301.1	273.5	241.2	256.6
65°	271.9	256.6	232.0	236.6	196.7
67.5°	222.8	215.1	193.6	172.1	165.9
70°	181.3	172.1	164.4	141.3	135.2
72.5°	144.4	135.2	124.4	112.2	107.5
75°	109.1	101.4	95.3	90.6	99.9
77.5°	75.3	72.2	67.6	63.0	61.5
80°	49.2	47.6	46.1	44.6	43.0
82.5°	29.2	29.2	29.2	29.2	29.2
85°	15.4	16.9	18.4	20.0	21.5
87.5°	9.2	9.2	10.8	12.3	13.8
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)