

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: P545172

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-93-94-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: P545172
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-35-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

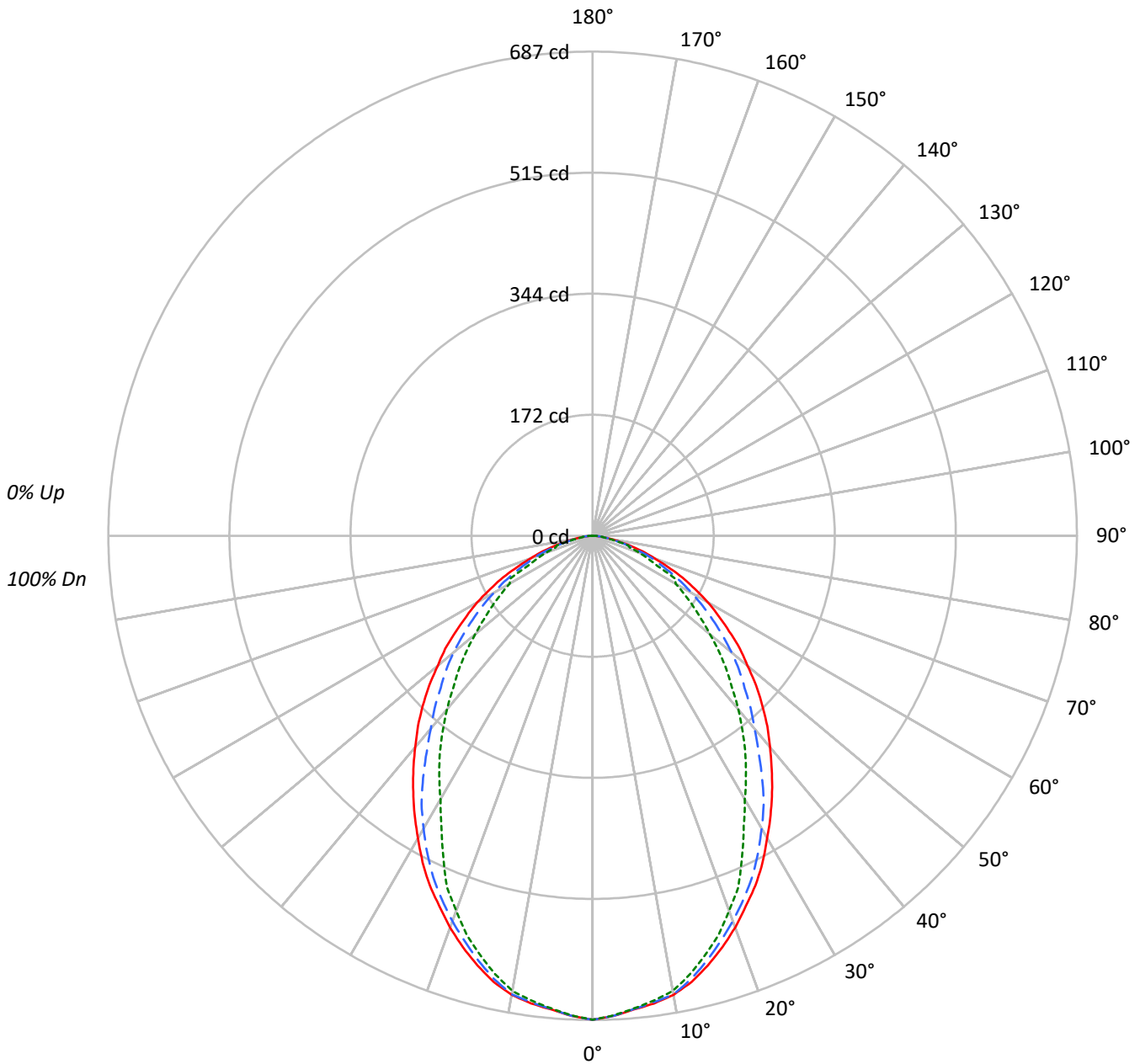
Lumens per Lamp: N/A
Luminaire Lumens: 1348.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	7392	7392	7392
5°	7290	7283	7274
10°	7228	7219	7167
15°	7033	6961	6864
20°	6774	6666	6483
25°	6495	6354	5959
30°	6156	5960	5367
35°	5830	5507	4966
40°	5500	5019	4517
45°	5183	4640	4084
50°	4799	4307	3642
55°	4440	3903	3262
60°	4067	3485	2921
65°	3578	3054	2588
70°	2949	2672	2200
75°	2346	2046	2146
80°	1574	1475	1376
85°	976	1173	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	4.7
10°-20°	175.4	13.0
20°-30°	242.9	18.0
30°-40°	259.0	19.2
40°-50°	236.2	17.5
50°-60°	185.1	13.7
60°-70°	120.6	8.9
70°-80°	53.4	4.0
80°-90°	11.5	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°	482.2	35.8
0°-40°	741.2	55.0
0°-60°	1162.5	86.2
0°-90°	1348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	687	687	687	687	687	
5°	675	674	674	673	673	64
15°	631	631	625	618	616	177
25°	547	544	535	516	502	251
35°	444	441	419	387	378	277
45°	340	333	305	279	268	262
55°	237	229	208	183	174	212
65°	140	133	120	122	102	138
75°	56	52	49	47	52	60
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°	686.7	686.7	686.7	686.7	686.7
2.5°	681.9	681.9	681.9	681.1	681.1
5°	674.7	674.0	674.0	673.2	673.2
7.5°	669.2	668.4	667.6	666.8	665.2
10°	661.3	661.3	660.5	656.5	655.7
12.5°	648.5	647.8	644.6	639.0	637.4
15°	631.1	631.1	624.7	618.4	616.0
17.5°	612.0	611.2	603.3	597.0	593.8
20°	591.4	589.8	581.9	571.5	566.0
22.5°	568.4	568.4	558.8	545.4	539.8
25°	546.9	543.8	535.0	516.0	501.7
27.5°	522.3	517.6	508.0	481.1	464.4
30°	495.3	493.0	479.5	444.5	431.8
32.5°	469.9	466.0	451.7	415.2	404.8
35°	443.7	440.6	419.1	387.4	377.9
37.5°	417.5	413.6	386.6	361.2	349.3
40°	391.4	386.6	357.2	334.2	321.5
42.5°	366.7	360.4	331.8	307.2	292.9
45°	340.5	333.4	304.8	279.4	268.3
47.5°	314.4	308.0	281.8	255.6	242.9
50°	286.6	281.0	257.2	231.0	217.5
52.5°	263.5	254.8	231.8	205.6	194.5
55°	236.6	229.4	208.0	183.4	173.8
57.5°	211.9	204.8	185.0	161.9	154.0
60°	188.9	178.6	161.9	142.1	135.7
62.5°	163.5	155.6	141.3	124.6	132.6
65°	140.5	132.6	119.9	122.2	101.6
67.5°	115.1	111.1	100.0	88.9	85.7
70°	93.7	88.9	84.9	73.0	69.9
72.5°	74.6	69.9	64.3	57.9	55.6
75°	56.4	52.4	49.2	46.8	51.6
77.5°	38.9	37.3	34.9	32.5	31.8
80°	25.4	24.6	23.8	23.0	22.2
82.5°	15.1	15.1	15.1	15.1	15.1
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.8	4.8	5.6	6.4	7.1
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)