

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: P545148

Luminaire Tested: **FMR-12-1-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: P545148
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-80-94-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

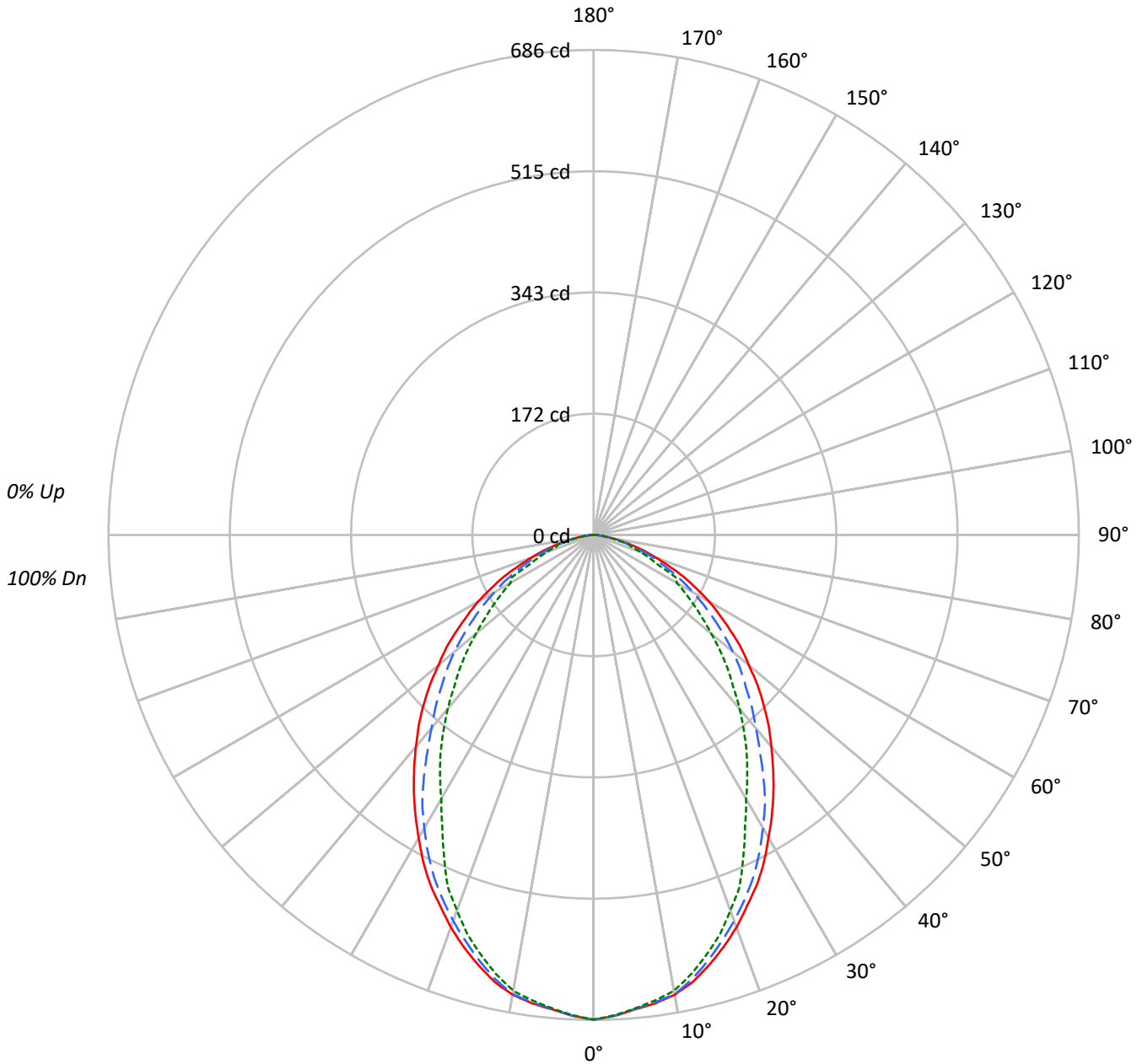
Lumens per Lamp: N/A
Luminaire Lumens: 1346.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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				100				
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7380	7380	7380
5°	7279	7272	7263
10°	7217	7208	7156
15°	7022	6951	6854
20°	6764	6655	6474
25°	6486	6345	5949
30°	6147	5951	5359
35°	5822	5499	4958
40°	5491	5012	4510
45°	5176	4634	4078
50°	4791	4300	3637
55°	4433	3898	3258
60°	4060	3481	2917
65°	3573	3049	2585
70°	2943	2669	2197
75°	2341	2042	2142
80°	1574	1475	1376
85°	976	1173	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	4.7
10°-20°	175.2	13.0
20°-30°	242.5	18.0
30°-40°	258.6	19.2
40°-50°	235.9	17.5
50°-60°	184.8	13.7
60°-70°	120.5	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°	481.5	35.8
0°-40°	740.0	55.0
0°-60°	1160.7	86.2
0°-90°	1346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	674	673	673	672	672	64
15°	630	630	624	618	615	177
25°	546	543	534	515	501	251
35°	443	440	418	387	377	277
45°	340	333	304	279	268	262
55°	236	229	208	183	174	212
65°	140	132	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°	685.6	685.6	685.6	685.6	685.6
2.5°	680.9	680.9	680.9	680.1	680.1
5°	673.7	673.0	673.0	672.2	672.2
7.5°	668.2	667.4	666.6	665.8	664.2
10°	660.3	660.3	659.5	655.5	654.7
12.5°	647.6	646.8	643.6	638.1	636.5
15°	630.1	630.1	623.8	617.5	615.1
17.5°	611.1	610.3	602.4	596.1	592.9
20°	590.5	588.9	581.0	570.7	565.2
22.5°	567.5	567.5	558.0	544.5	539.0
25°	546.1	543.0	534.2	515.2	500.9
27.5°	521.6	516.8	507.3	480.3	463.7
30°	494.6	492.2	478.8	443.9	431.2
32.5°	469.2	465.3	451.0	414.6	404.2
35°	443.1	439.9	418.5	386.8	377.3
37.5°	416.9	413.0	386.0	360.7	348.8
40°	390.8	386.0	356.7	333.7	321.0
42.5°	366.2	359.9	331.3	306.8	292.5
45°	340.0	332.9	304.4	279.0	267.9
47.5°	313.9	307.5	281.4	255.2	242.5
50°	286.1	280.6	256.8	230.7	217.2
52.5°	263.2	254.4	231.5	205.3	194.2
55°	236.2	229.1	207.7	183.1	173.6
57.5°	211.6	204.5	184.7	161.7	153.8
60°	188.6	178.3	161.7	141.9	135.5
62.5°	163.3	155.4	141.1	124.4	132.4
65°	140.3	132.4	119.7	122.1	101.5
67.5°	114.9	111.0	99.9	88.8	85.6
70°	93.5	88.8	84.8	72.9	69.8
72.5°	74.5	69.8	64.2	57.9	55.5
75°	56.3	52.3	49.1	46.8	51.5
77.5°	38.8	37.3	34.9	32.5	31.7
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	5.5	6.3	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)