

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: P545171

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-93-88-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: P545171
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-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

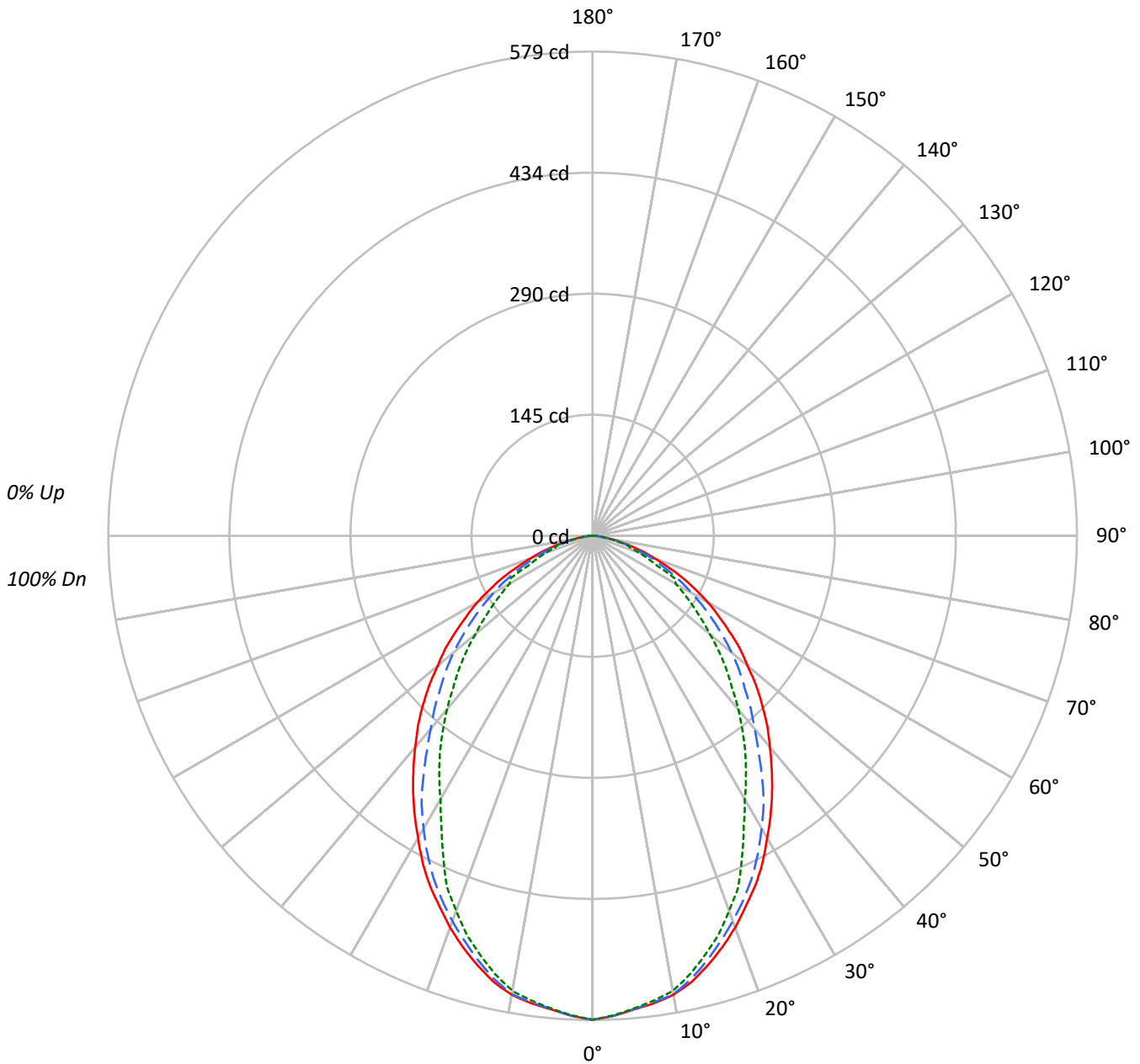
Lumens per Lamp: N/A
Luminaire Lumens: 1136.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	6229	6229	6229
5°	6144	6137	6130
10°	6091	6084	6040
15°	5926	5867	5785
20°	5709	5617	5464
25°	5474	5355	5021
30°	5188	5023	4523
35°	4914	4641	4184
40°	4634	4229	3806
45°	4369	3911	3442
50°	4044	3629	3069
55°	3742	3290	2749
60°	3427	2939	2463
65°	3016	2572	2180
70°	2483	2253	1854
75°	1975	1726	1809
80°	1327	1246	1159
85°	827	988	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	4.7
10°-20°	147.8	13.0
20°-30°	204.7	18.0
30°-40°	218.2	19.2
40°-50°	199.1	17.5
50°-60°	156.0	13.7
60°-70°	101.6	8.9
70°-80°	45.0	4.0
80°-90°	9.7	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°	406.4	35.8
0°-40°	624.6	55.0
0°-60°	979.6	86.2
0°-90°	1136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1136.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	569	568	568	567	567	54
15°	532	532	526	521	519	150
25°	461	458	451	435	423	212
35°	374	371	353	326	318	234
45°	287	281	257	236	226	221
55°	199	193	175	154	146	179
65°	118	112	101	103	86	117
75°	48	44	42	40	44	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	578.7	578.7	578.7	578.7	578.7
2.5°	574.6	574.6	574.6	574.0	574.0
5°	568.6	568.0	568.0	567.3	567.3
7.5°	563.9	563.3	562.6	561.9	560.6
10°	557.3	557.3	556.6	553.2	552.6
12.5°	546.6	545.9	543.2	538.5	537.2
15°	531.8	531.8	526.5	521.1	519.1
17.5°	515.8	515.1	508.4	503.1	500.4
20°	498.4	497.0	490.4	481.7	477.0
22.5°	479.0	479.0	471.0	459.6	454.9
25°	460.9	458.2	450.9	434.8	422.8
27.5°	440.2	436.2	428.1	405.4	391.4
30°	417.4	415.4	404.1	374.6	363.9
32.5°	396.0	392.7	380.6	349.9	341.2
35°	374.0	371.3	353.2	326.5	318.4
37.5°	351.9	348.5	325.8	304.4	294.3
40°	329.8	325.8	301.0	281.6	270.9
42.5°	309.1	303.7	279.6	258.9	246.9
45°	287.0	281.0	256.9	235.5	226.1
47.5°	264.9	259.6	237.5	215.4	204.7
50°	241.5	236.8	216.7	194.7	183.3
52.5°	222.1	214.7	195.3	173.3	163.9
55°	199.4	193.3	175.3	154.5	146.5
57.5°	178.6	172.6	155.9	136.5	129.8
60°	159.2	150.5	136.5	119.7	114.4
62.5°	137.8	131.1	119.1	105.0	111.7
65°	118.4	111.7	101.0	103.0	85.6
67.5°	97.0	93.7	84.3	74.9	72.2
70°	78.9	74.9	71.6	61.5	58.9
72.5°	62.9	58.9	54.2	48.8	46.8
75°	47.5	44.2	41.5	39.5	43.5
77.5°	32.8	31.4	29.4	27.4	26.8
80°	21.4	20.7	20.1	19.4	18.7
82.5°	12.7	12.7	12.7	12.7	12.7
85°	6.7	7.4	8.0	8.7	9.4
87.5°	4.0	4.0	4.7	5.4	6.0
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)