

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: P544950

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-93-97-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: P544950
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-LD4-1STD-50-UNV-93-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

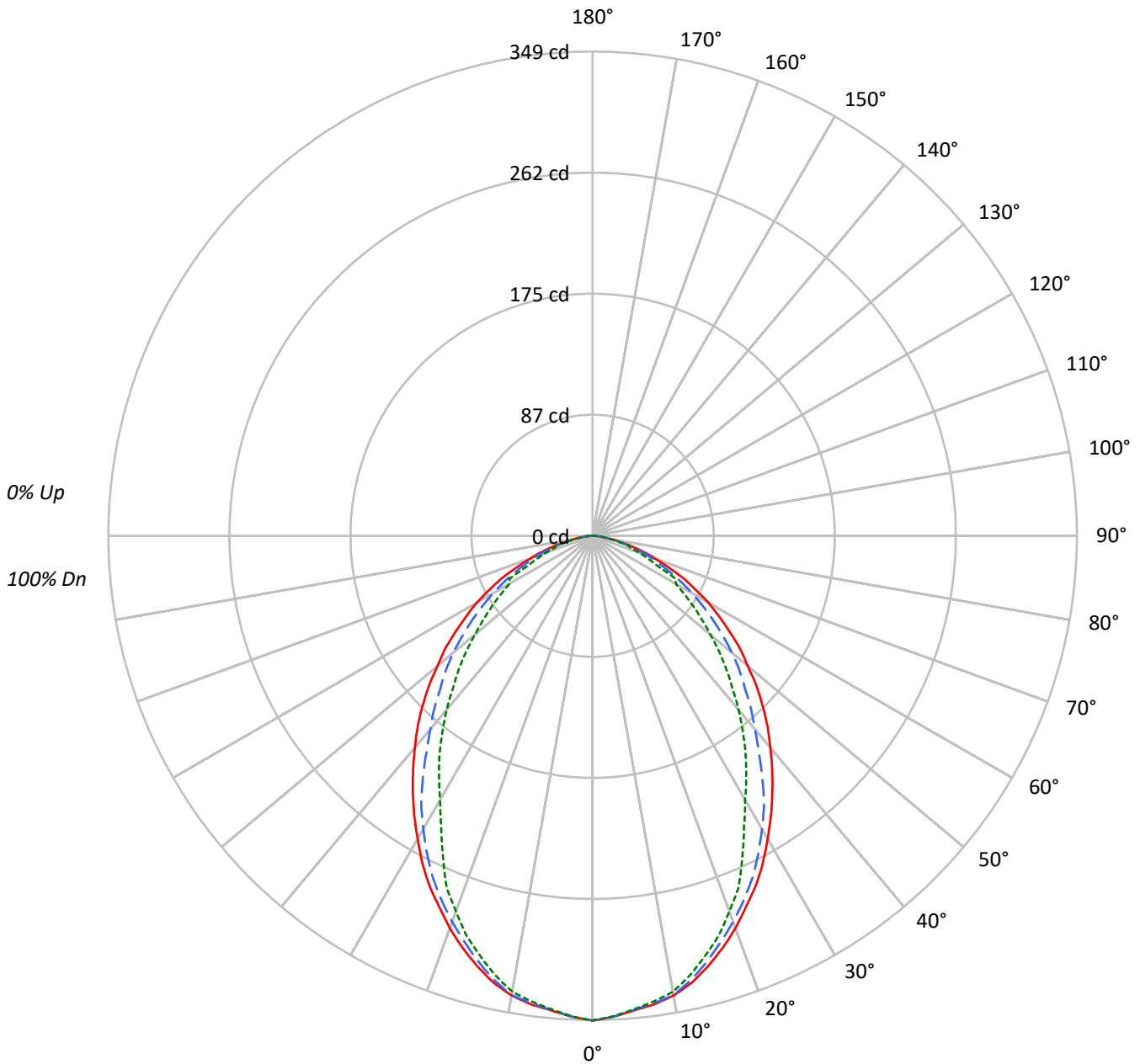
Lumens per Lamp: N/A
Luminaire Lumens: 686.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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°	3761	3761	3761
5°	3710	3706	3702
10°	3678	3674	3647
15°	3579	3543	3494
20°	3448	3392	3299
25°	3305	3234	3032
30°	3133	3033	2732
35°	2967	2803	2527
40°	2799	2555	2299
45°	2638	2361	2078
50°	2442	2192	1854
55°	2259	1985	1661
60°	2069	1774	1488
65°	1821	1554	1317
70°	1501	1360	1117
75°	1194	1040	1094
80°	800	750	700
85°	494	593	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.5	4.7
10°-20°	89.3	13.0
20°-30°	123.6	18.0
30°-40°	131.8	19.2
40°-50°	120.2	17.5
50°-60°	94.2	13.7
60°-70°	61.4	8.9
70°-80°	27.2	4.0
80°-90°	5.8	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°	245.4	35.8
0°-40°	377.2	55.0
0°-60°	591.6	86.2
0°-90°	686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	343	343	343	343	343	33
15°	321	321	318	315	314	90
25°	278	277	272	263	255	128
35°	226	224	213	197	192	141
45°	173	170	155	142	136	133
55°	120	117	106	93	88	108
65°	72	68	61	62	52	70
75°	29	27	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	349.4	349.4	349.4	349.4	349.4
2.5°	347.0	347.0	347.0	346.6	346.6
5°	343.4	343.0	343.0	342.6	342.6
7.5°	340.6	340.1	339.7	339.3	338.5
10°	336.5	336.5	336.1	334.1	333.7
12.5°	330.0	329.6	328.0	325.2	324.4
15°	321.2	321.2	317.9	314.7	313.5
17.5°	311.5	311.1	307.0	303.8	302.2
20°	301.0	300.2	296.1	290.9	288.0
22.5°	289.2	289.2	284.4	277.5	274.7
25°	278.3	276.7	272.3	262.6	255.3
27.5°	265.8	263.4	258.5	244.8	236.3
30°	252.1	250.9	244.0	226.2	219.8
32.5°	239.2	237.1	229.9	211.3	206.0
35°	225.8	224.2	213.3	197.1	192.3
37.5°	212.5	210.5	196.7	183.8	177.7
40°	199.2	196.7	181.8	170.1	163.6
42.5°	186.6	183.4	168.9	156.3	149.1
45°	173.3	169.7	155.1	142.2	136.5
47.5°	160.0	156.7	143.4	130.1	123.6
50°	145.8	143.0	130.9	117.6	110.7
52.5°	134.1	129.7	118.0	104.6	99.0
55°	120.4	116.7	105.8	93.3	88.5
57.5°	107.9	104.2	94.1	82.4	78.4
60°	96.1	90.9	82.4	72.3	69.1
62.5°	83.2	79.2	71.9	63.4	67.5
65°	71.5	67.5	61.0	62.2	51.7
67.5°	58.6	56.6	50.9	45.2	43.6
70°	47.7	45.2	43.2	37.2	35.5
72.5°	38.0	35.5	32.7	29.5	28.3
75°	28.7	26.7	25.0	23.8	26.3
77.5°	19.8	19.0	17.8	16.6	16.2
80°	12.9	12.5	12.1	11.7	11.3
82.5°	7.7	7.7	7.7	7.7	7.7
85°	4.0	4.4	4.8	5.3	5.7
87.5°	2.4	2.4	2.8	3.2	3.6
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)