

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: P544836

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-81-94-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: P544836
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-LD4-1LO-50-UNV-81-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

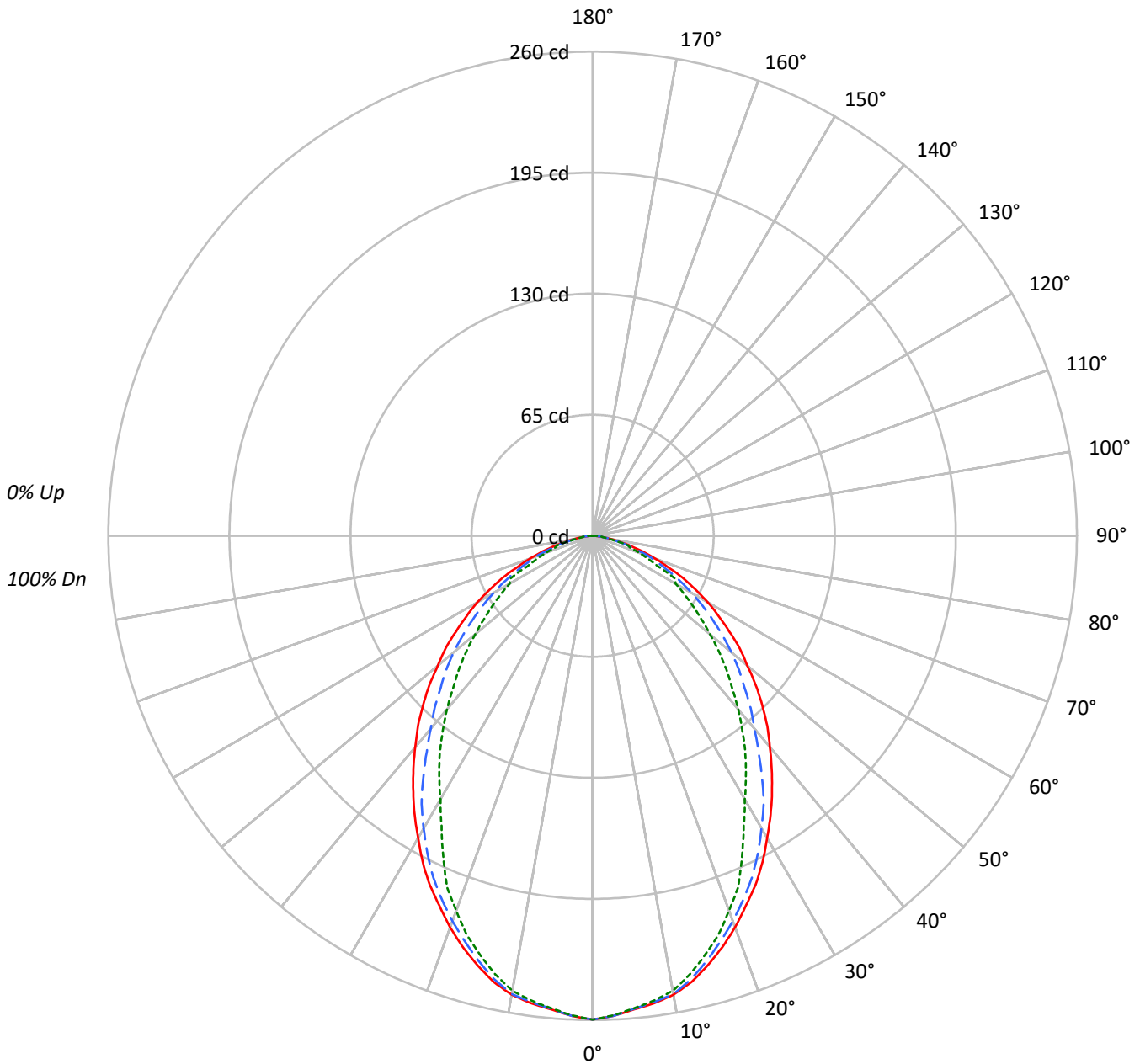
Lumens per Lamp: N/A
Luminaire Lumens: 510.0 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2796	2796	2796
5°	2759	2755	2752
10°	2735	2731	2712
15°	2661	2634	2598
20°	2562	2521	2452
25°	2457	2404	2254
30°	2329	2255	2031
35°	2206	2084	1879
40°	2081	1898	1709
45°	1961	1755	1545
50°	1815	1629	1378
55°	1680	1477	1235
60°	1539	1320	1107
65°	1355	1156	978
70°	1114	1010	831
75°	886	774	811
80°	595	558	521
85°	371	445	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	4.7
10°-20°	66.4	13.0
20°-30°	91.9	18.0
30°-40°	98.0	19.2
40°-50°	89.4	17.5
50°-60°	70.0	13.7
60°-70°	45.6	9.0
70°-80°	20.2	4.0
80°-90°	4.3	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°	182.4	35.8
0°-40°	280.4	55.0
0°-60°	439.8	86.2
0°-90°	510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	260	260	260	260	260	
5°	255	255	255	255	255	24
15°	239	239	236	234	233	67
25°	207	206	202	195	190	95
35°	168	167	159	147	143	105
45°	129	126	115	106	102	99
55°	90	87	79	69	66	80
65°	53	50	45	46	38	52
75°	21	20	19	18	20	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	259.8	259.8	259.8	259.8	259.8
2.5°	258.0	258.0	258.0	257.7	257.7
5°	255.3	255.0	255.0	254.7	254.7
7.5°	253.2	252.9	252.6	252.3	251.7
10°	250.2	250.2	249.9	248.4	248.1
12.5°	245.4	245.1	243.9	241.8	241.2
15°	238.8	238.8	236.4	234.0	233.1
17.5°	231.6	231.3	228.3	225.8	224.6
20°	223.7	223.1	220.1	216.2	214.1
22.5°	215.0	215.0	211.4	206.3	204.2
25°	206.9	205.7	202.4	195.2	189.8
27.5°	197.6	195.8	192.2	182.0	175.7
30°	187.4	186.5	181.4	168.2	163.4
32.5°	177.8	176.3	170.9	157.1	153.2
35°	167.9	166.7	158.6	146.6	143.0
37.5°	158.0	156.5	146.3	136.7	132.1
40°	148.1	146.3	135.1	126.4	121.6
42.5°	138.8	136.4	125.5	116.2	110.8
45°	128.8	126.1	115.3	105.7	101.5
47.5°	118.9	116.5	106.6	96.7	91.9
50°	108.4	106.3	97.3	87.4	82.3
52.5°	99.7	96.4	87.7	77.8	73.6
55°	89.5	86.8	78.7	69.4	65.8
57.5°	80.2	77.5	70.0	61.3	58.3
60°	71.5	67.6	61.3	53.8	51.4
62.5°	61.9	58.9	53.5	47.2	50.2
65°	53.2	50.2	45.4	46.3	38.4
67.5°	43.5	42.0	37.8	33.6	32.4
70°	35.4	33.6	32.1	27.6	26.4
72.5°	28.2	26.4	24.3	21.9	21.0
75°	21.3	19.8	18.6	17.7	19.5
77.5°	14.7	14.1	13.2	12.3	12.0
80°	9.6	9.3	9.0	8.7	8.4
82.5°	5.7	5.7	5.7	5.7	5.7
85°	3.0	3.3	3.6	3.9	4.2
87.5°	1.8	1.8	2.1	2.4	2.7
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)