

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: P544854

Luminaire Tested: **FMR-12-1-LD4-1LO-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: P544854
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-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

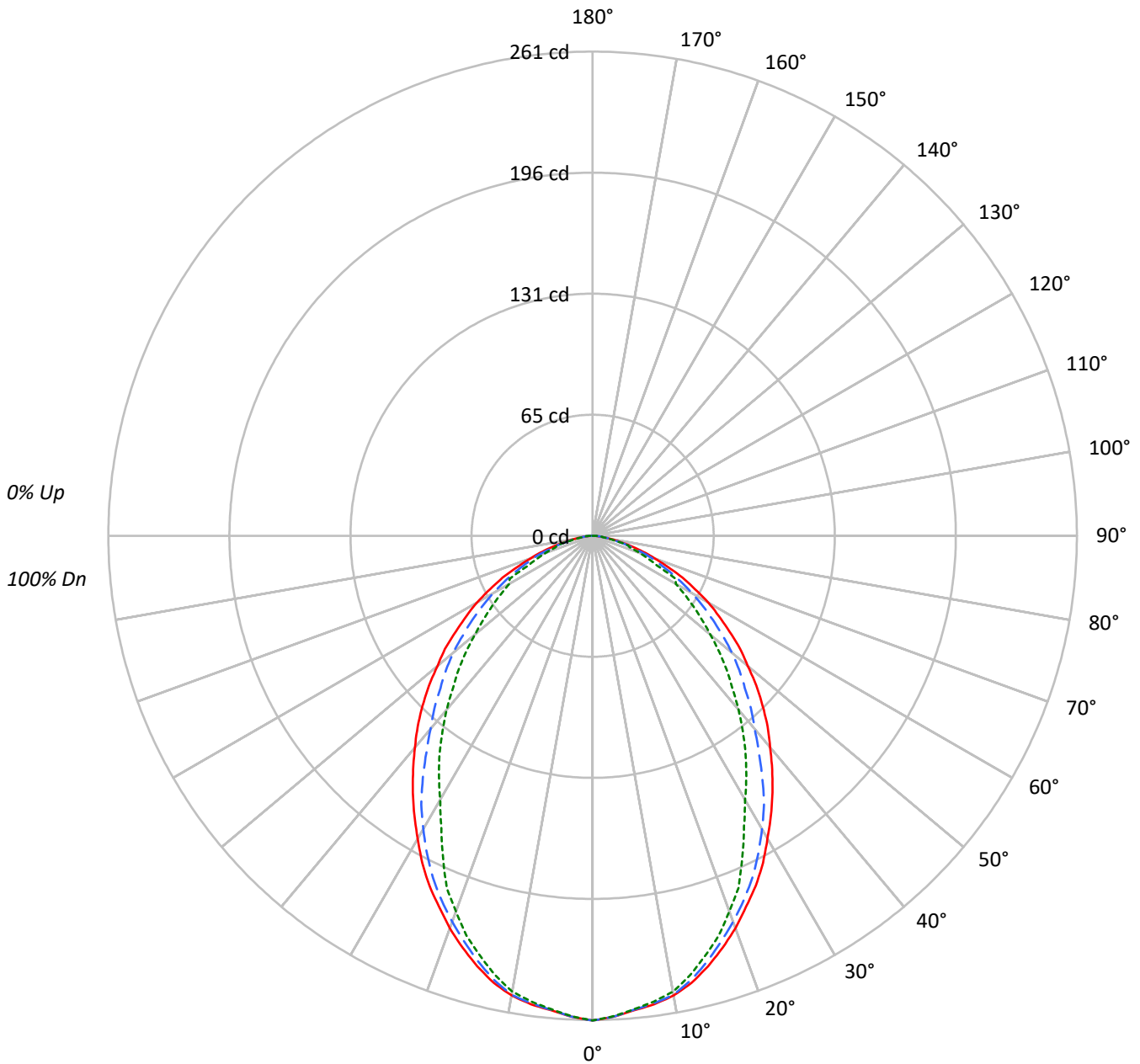
Lumens per Lamp: N/A
Luminaire Lumens: 513.0 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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

TEST NUMBER: P544854

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-93-97-EDD

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	39	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°	2813	2813	2813
5°	2775	2771	2768
10°	2750	2747	2727
15°	2677	2650	2612
20°	2578	2536	2467
25°	2472	2418	2267
30°	2343	2268	2042
35°	2219	2096	1890
40°	2092	1910	1718
45°	1973	1766	1554
50°	1827	1639	1387
55°	1689	1484	1242
60°	1548	1326	1113
65°	1363	1161	986
70°	1120	1017	837
75°	890	778	815
80°	601	564	527
85°	371	445	519



TEST NUMBER: P544854

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	4.7
10°-20°	66.8	13.0
20°-30°	92.4	18.0
30°-40°	98.5	19.2
40°-50°	89.9	17.5
50°-60°	70.4	13.7
60°-70°	45.9	8.9
70°-80°	20.3	4.0
80°-90°	4.3	0.8
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°	183.5	35.8
0°-40°	282.1	55.0
0°-60°	442.4	86.2
0°-90°	513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	261	261	261	261	261	
5°	257	256	256	256	256	24
15°	240	240	238	235	234	68
25°	208	207	204	196	191	96
35°	169	168	160	147	144	106
45°	130	127	116	106	102	100
55°	90	87	79	70	66	81
65°	54	50	46	46	39	53
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°	261.3	261.3	261.3	261.3	261.3
2.5°	259.5	259.5	259.5	259.2	259.2
5°	256.8	256.5	256.5	256.2	256.2
7.5°	254.7	254.4	254.1	253.8	253.2
10°	251.6	251.6	251.3	249.8	249.5
12.5°	246.8	246.5	245.3	243.2	242.6
15°	240.2	240.2	237.8	235.3	234.4
17.5°	232.9	232.6	229.6	227.2	226.0
20°	225.1	224.5	221.4	217.5	215.4
22.5°	216.3	216.3	212.7	207.5	205.4
25°	208.1	206.9	203.6	196.4	190.9
27.5°	198.8	197.0	193.3	183.1	176.7
30°	188.5	187.6	182.5	169.2	164.3
32.5°	178.8	177.3	171.9	158.0	154.1
35°	168.9	167.7	159.5	147.4	143.8
37.5°	158.9	157.4	147.1	137.5	132.9
40°	148.9	147.1	135.9	127.2	122.3
42.5°	139.6	137.2	126.3	116.9	111.5
45°	129.6	126.9	116.0	106.3	102.1
47.5°	119.6	117.2	107.2	97.3	92.4
50°	109.1	106.9	97.9	87.9	82.8
52.5°	100.3	97.0	88.2	78.2	74.0
55°	90.0	87.3	79.1	69.8	66.2
57.5°	80.7	77.9	70.4	61.6	58.6
60°	71.9	68.0	61.6	54.1	51.7
62.5°	62.2	59.2	53.8	47.4	50.5
65°	53.5	50.5	45.6	46.5	38.7
67.5°	43.8	42.3	38.1	33.8	32.6
70°	35.6	33.8	32.3	27.8	26.6
72.5°	28.4	26.6	24.5	22.1	21.1
75°	21.4	19.9	18.7	17.8	19.6
77.5°	14.8	14.2	13.3	12.4	12.1
80°	9.7	9.4	9.1	8.8	8.5
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)