

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: P544845

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-82-96-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: P544845
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-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

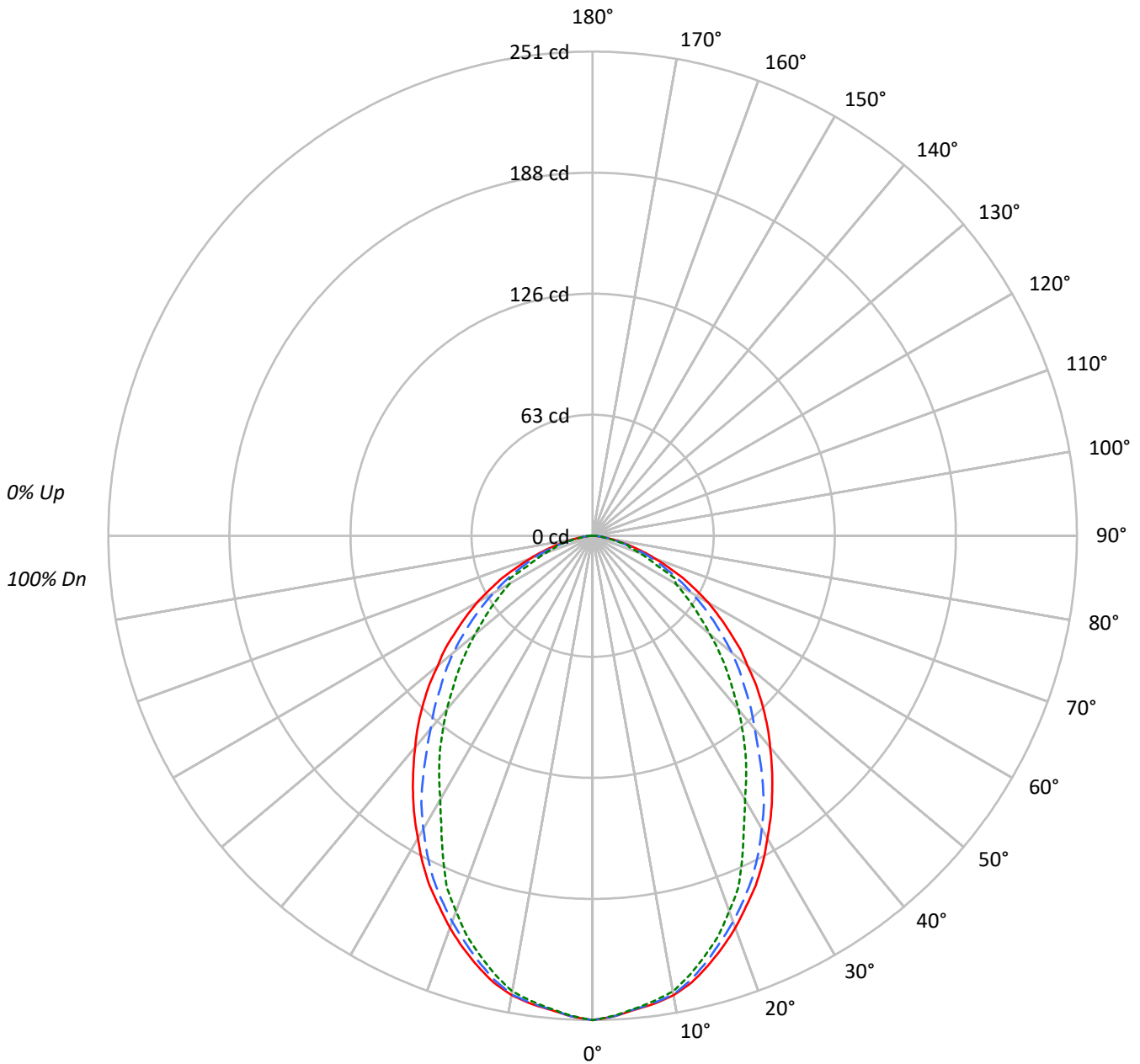
Lumens per Lamp: N/A
Luminaire Lumens: 493.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P544845

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544845

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-82-96-EDD

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°	2703	2703	2703
5°	2667	2663	2660
10°	2643	2640	2621
15°	2572	2546	2511
20°	2478	2438	2371
25°	2375	2324	2179
30°	2252	2180	1963
35°	2133	2014	1816
40°	2011	1835	1652
45°	1895	1697	1493
50°	1755	1576	1331
55°	1623	1428	1194
60°	1488	1274	1068
65°	1309	1116	947
70°	1079	979	803
75°	857	749	786
80°	576	539	502
85°	358	432	506



TEST NUMBER: P544845

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-82-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	4.7
10°-20°	64.2	13.0
20°-30°	88.8	18.0
30°-40°	94.7	19.2
40°-50°	86.4	17.5
50°-60°	67.7	13.7
60°-70°	44.1	8.9
70°-80°	19.5	4.0
80°-90°	4.2	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°	176.4	35.8
0°-40°	271.1	55.0
0°-60°	425.1	86.2
0°-90°	493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	251	251	251	251	251	
5°	247	246	246	246	246	23
15°	231	231	228	226	225	65
25°	200	199	196	189	184	92
35°	162	161	153	142	138	101
45°	124	122	112	102	98	96
55°	86	84	76	67	64	78
65°	51	48	44	45	37	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P544845

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-82-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	251.1	251.1	251.1	251.1	251.1
2.5°	249.4	249.4	249.4	249.1	249.1
5°	246.8	246.5	246.5	246.2	246.2
7.5°	244.7	244.5	244.2	243.9	243.3
10°	241.8	241.8	241.5	240.1	239.8
12.5°	237.2	236.9	235.7	233.7	233.1
15°	230.8	230.8	228.5	226.2	225.3
17.5°	223.8	223.5	220.6	218.3	217.2
20°	216.3	215.7	212.8	209.0	207.0
22.5°	207.9	207.9	204.4	199.5	197.4
25°	200.0	198.9	195.7	188.7	183.5
27.5°	191.0	189.3	185.8	175.9	169.8
30°	181.2	180.3	175.4	162.6	157.9
32.5°	171.9	170.4	165.2	151.8	148.1
35°	162.3	161.1	153.3	141.7	138.2
37.5°	152.7	151.3	141.4	132.1	127.7
40°	143.1	141.4	130.6	122.2	117.6
42.5°	134.1	131.8	121.4	112.4	107.1
45°	124.5	121.9	111.5	102.2	98.1
47.5°	115.0	112.6	103.1	93.5	88.8
50°	104.8	102.8	94.1	84.5	79.5
52.5°	96.4	93.2	84.8	75.2	71.1
55°	86.5	83.9	76.1	67.1	63.6
57.5°	77.5	74.9	67.6	59.2	56.3
60°	69.1	65.3	59.2	52.0	49.6
62.5°	59.8	56.9	51.7	45.6	48.5
65°	51.4	48.5	43.8	44.7	37.2
67.5°	42.1	40.6	36.6	32.5	31.4
70°	34.3	32.5	31.1	26.7	25.5
72.5°	27.3	25.5	23.5	21.2	20.3
75°	20.6	19.2	18.0	17.1	18.9
77.5°	14.2	13.6	12.8	11.9	11.6
80°	9.3	9.0	8.7	8.4	8.1
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.7	1.7	2.0	2.3	2.6
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)