

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: P544847

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-93-84-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: P544847
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-93-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

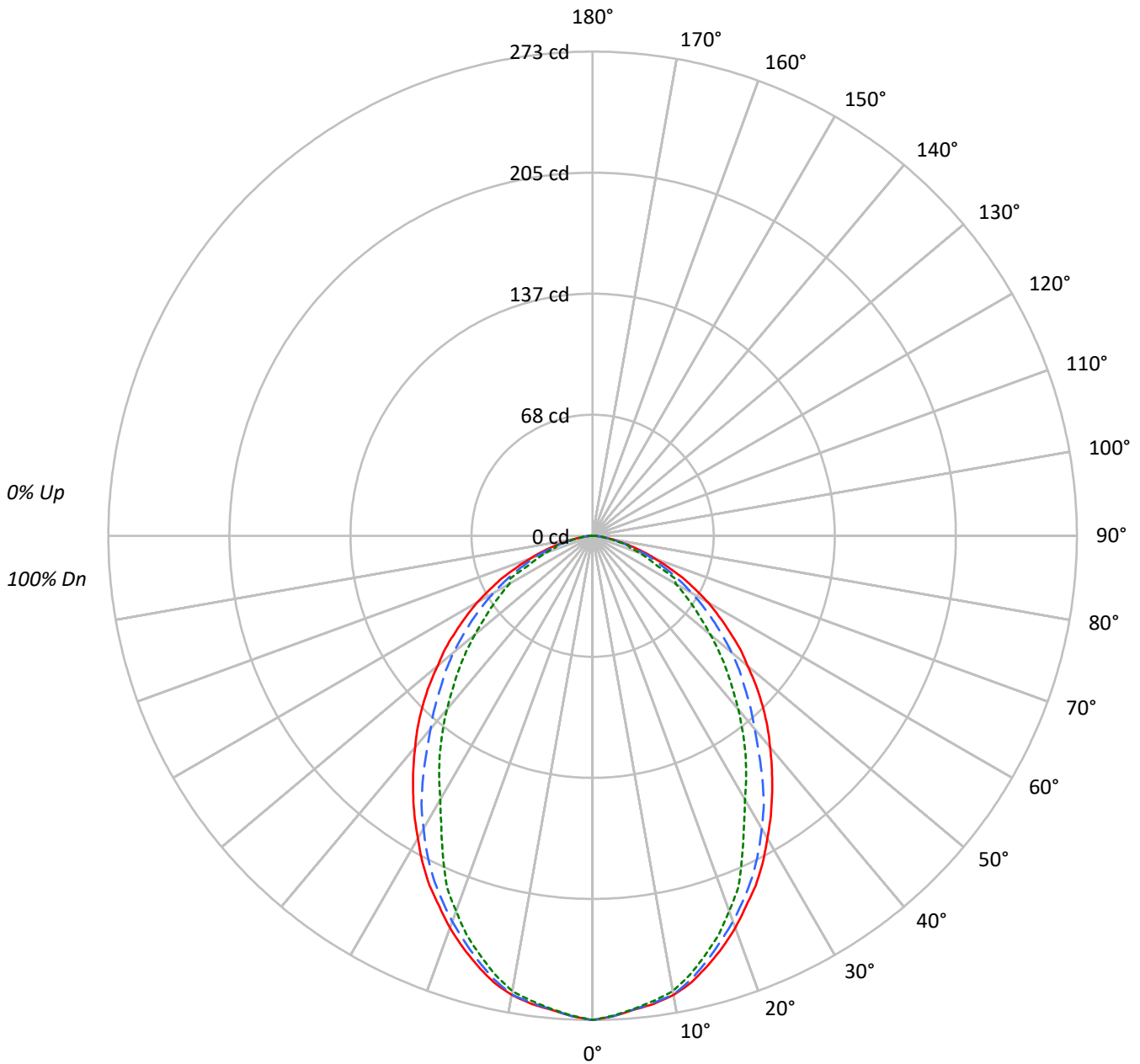
Lumens per Lamp: N/A
Luminaire Lumens: 536.0 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
Input Voltage (V): NR
Input Current (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: P544847

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544847

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-93-84-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°	2939	2939	2939
5°	2899	2896	2893
10°	2873	2870	2849
15°	2796	2768	2729
20°	2694	2651	2578
25°	2583	2526	2369
30°	2449	2369	2134
35°	2318	2190	1974
40°	2186	1995	1796
45°	2061	1845	1624
50°	1907	1713	1449
55°	1766	1552	1297
60°	1617	1386	1163
65°	1424	1215	1029
70°	1171	1064	875
75°	932	815	853
80°	626	589	545
85°	395	469	543



TEST NUMBER: P544847

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.4	4.7
10°-20°	69.8	13.0
20°-30°	96.6	18.0
30°-40°	103.0	19.2
40°-50°	93.9	17.5
50°-60°	73.6	13.7
60°-70°	48.0	9.0
70°-80°	21.2	4.0
80°-90°	4.6	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°	191.7	35.8
0°-40°	294.7	55.0
0°-60°	462.2	86.2
0°-90°	536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	273	273	273	273	273	
5°	268	268	268	268	268	25
15°	251	251	248	246	245	71
25°	218	216	213	205	200	100
35°	176	175	167	154	150	110
45°	135	133	121	111	107	104
55°	94	91	83	73	69	84
65°	56	53	48	49	40	55
75°	22	21	20	19	20	24
85°	3	4	4	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P544847

CATALOG NUMBER: FMR-12-1-LD4-1LO-50-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	273.0	273.0	273.0	273.0	273.0
2.5°	271.1	271.1	271.1	270.8	270.8
5°	268.3	268.0	268.0	267.7	267.7
7.5°	266.1	265.8	265.5	265.1	264.5
10°	262.9	262.9	262.6	261.0	260.7
12.5°	257.9	257.6	256.3	254.1	253.5
15°	250.9	250.9	248.4	245.9	244.9
17.5°	243.4	243.0	239.9	237.4	236.1
20°	235.2	234.5	231.4	227.3	225.1
22.5°	226.0	226.0	222.2	216.8	214.6
25°	217.5	216.2	212.7	205.2	199.5
27.5°	207.7	205.8	202.0	191.3	184.7
30°	197.0	196.0	190.6	176.8	171.7
32.5°	186.9	185.3	179.6	165.1	161.0
35°	176.4	175.2	166.7	154.0	150.2
37.5°	166.0	164.5	153.7	143.6	138.9
40°	155.6	153.7	142.0	132.9	127.8
42.5°	145.8	143.3	131.9	122.2	116.5
45°	135.4	132.6	121.2	111.1	106.7
47.5°	125.0	122.5	112.1	101.6	96.6
50°	113.9	111.7	102.3	91.9	86.5
52.5°	104.8	101.3	92.2	81.8	77.3
55°	94.1	91.2	82.7	72.9	69.1
57.5°	84.3	81.4	73.5	64.4	61.2
60°	75.1	71.0	64.4	56.5	54.0
62.5°	65.0	61.9	56.2	49.6	52.7
65°	55.9	52.7	47.7	48.6	40.4
67.5°	45.8	44.2	39.8	35.4	34.1
70°	37.2	35.4	33.8	29.0	27.8
72.5°	29.7	27.8	25.6	23.0	22.1
75°	22.4	20.8	19.6	18.6	20.5
77.5°	15.5	14.8	13.9	12.9	12.6
80°	10.1	9.8	9.5	9.2	8.8
82.5°	6.0	6.0	6.0	6.0	6.0
85°	3.2	3.5	3.8	4.1	4.4
87.5°	1.9	1.9	2.2	2.5	2.8
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)