

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: P544821

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-93-96-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: P544821
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-40-UNV-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

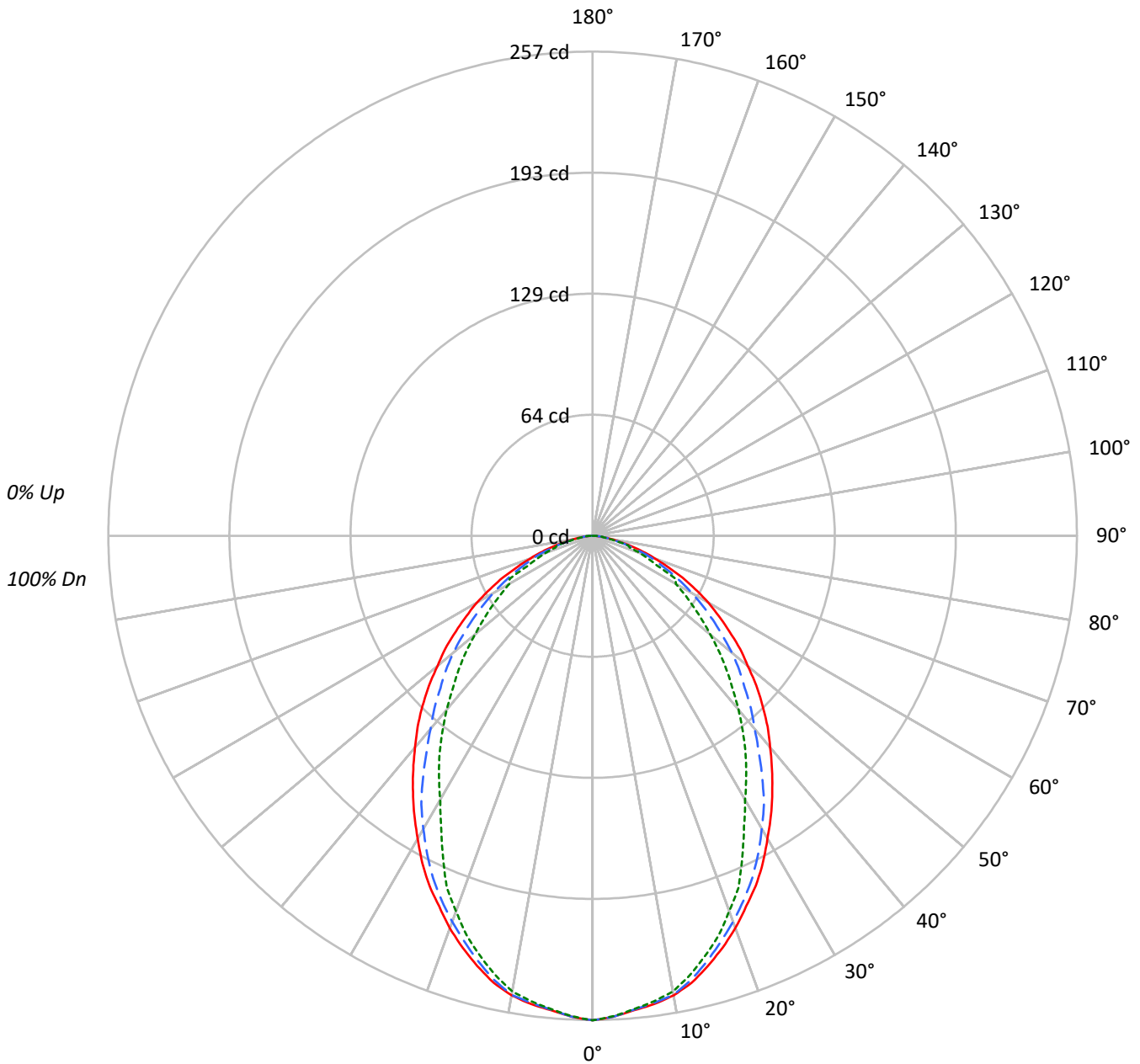
Lumens per Lamp: N/A
Luminaire Lumens: 505.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544821

CATALOG NUMBER: FMR-12-1-LD4-1LO-40-UNV-93-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544821

CATALOG NUMBER: FMR-12-1-LD4-1LO-40-UNV-93-96-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	47	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°	2768	2768	2768
5°	2732	2728	2725
10°	2707	2704	2684
15°	2634	2608	2572
20°	2538	2497	2428
25°	2434	2380	2232
30°	2307	2232	2011
35°	2184	2063	1861
40°	2060	1880	1692
45°	1942	1738	1530
50°	1798	1614	1365
55°	1663	1462	1222
60°	1524	1307	1096
65°	1340	1144	970
70°	1105	1001	825
75°	878	765	803
80°	589	552	514
85°	371	445	519



TEST NUMBER: P544821

CATALOG NUMBER: FMR-12-1-LD4-1LO-40-UNV-93-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	4.7
10°-20°	65.7	13.0
20°-30°	91.0	18.0
30°-40°	97.0	19.2
40°-50°	88.5	17.5
50°-60°	69.3	13.7
60°-70°	45.2	8.9
70°-80°	20.0	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°	180.6	35.8
0°-40°	277.6	55.0
0°-60°	435.5	86.2
0°-90°	505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	257	257	257	257	257	
5°	253	252	252	252	252	24
15°	236	236	234	232	231	66
25°	205	204	200	193	188	94
35°	166	165	157	145	142	104
45°	128	125	114	105	100	98
55°	89	86	78	69	65	79
65°	53	50	45	46	38	52
75°	21	20	18	18	19	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P544821

CATALOG NUMBER: FMR-12-1-LD4-1LO-40-UNV-93-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	257.2	257.2	257.2	257.2	257.2
2.5°	255.5	255.5	255.5	255.2	255.2
5°	252.8	252.5	252.5	252.2	252.2
7.5°	250.7	250.4	250.1	249.8	249.2
10°	247.7	247.7	247.4	245.9	245.6
12.5°	243.0	242.7	241.5	239.4	238.8
15°	236.4	236.4	234.0	231.7	230.8
17.5°	229.3	229.0	226.0	223.6	222.4
20°	221.6	221.0	218.0	214.1	212.0
22.5°	212.9	212.9	209.4	204.3	202.2
25°	204.9	203.7	200.4	193.3	187.9
27.5°	195.7	193.9	190.3	180.2	174.0
30°	185.6	184.7	179.6	166.5	161.8
32.5°	176.1	174.6	169.2	155.5	151.7
35°	166.2	165.1	157.0	145.1	141.6
37.5°	156.4	154.9	144.8	135.3	130.9
40°	146.6	144.8	133.8	125.2	120.4
42.5°	137.4	135.0	124.3	115.1	109.7
45°	127.6	124.9	114.2	104.7	100.5
47.5°	117.8	115.4	105.6	95.8	91.0
50°	107.4	105.3	96.4	86.5	81.5
52.5°	98.7	95.5	86.8	77.0	72.9
55°	88.6	85.9	77.9	68.7	65.1
57.5°	79.4	76.7	69.3	60.7	57.7
60°	70.8	66.9	60.7	53.2	50.9
62.5°	61.3	58.3	52.9	46.7	49.7
65°	52.6	49.7	44.9	45.8	38.1
67.5°	43.1	41.6	37.5	33.3	32.1
70°	35.1	33.3	31.8	27.4	26.2
72.5°	28.0	26.2	24.1	21.7	20.8
75°	21.1	19.6	18.4	17.5	19.3
77.5°	14.6	14.0	13.1	12.2	11.9
80°	9.5	9.2	8.9	8.6	8.3
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)