

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: P545219

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-81-88-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: P545219
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-LD4-2STD-50-UNV-81-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

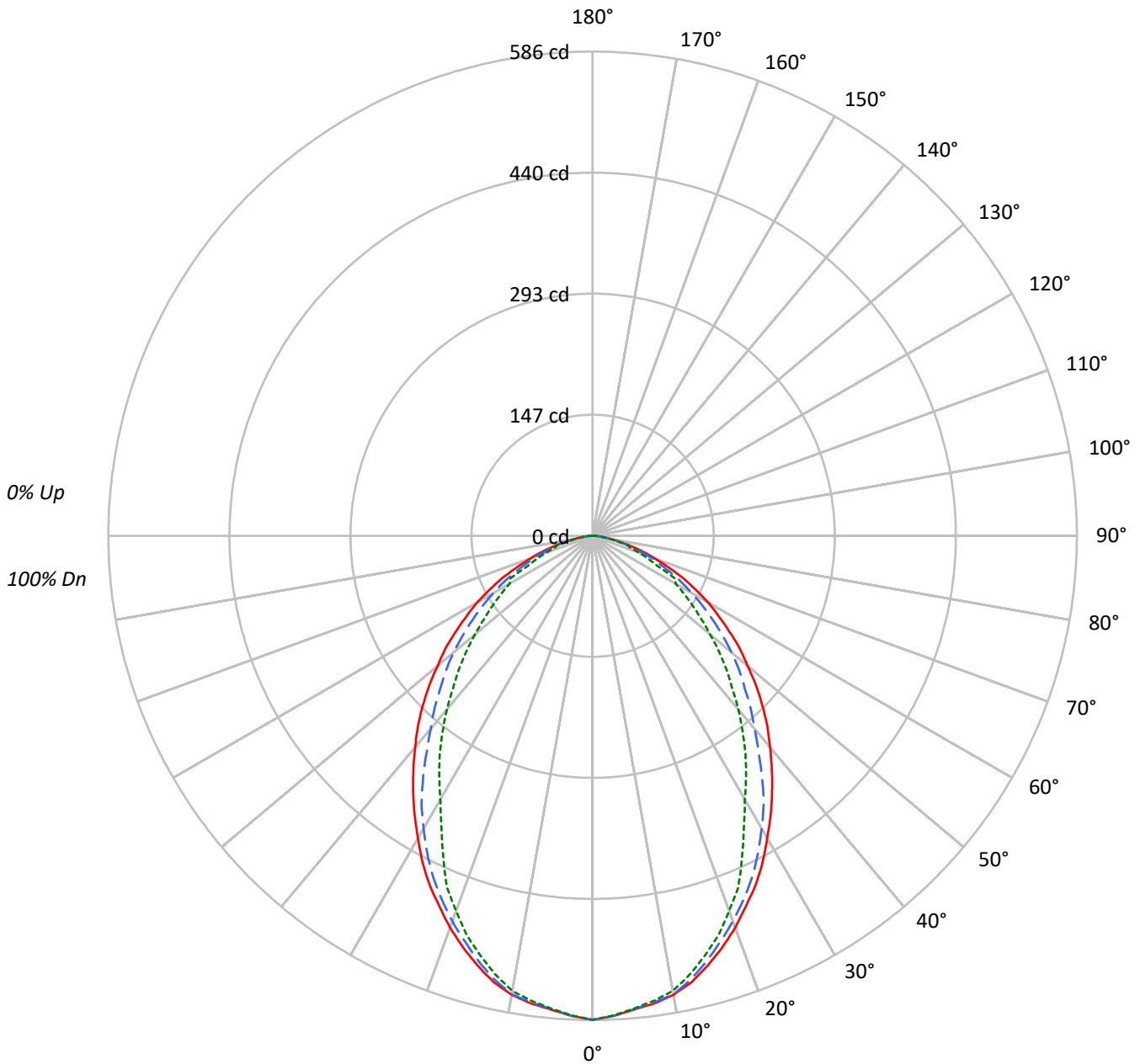
Lumens per Lamp: N/A
Luminaire Lumens: 1150.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P545219

CATALOG NUMBER: FMR-12-1-LD4-2STD-50-UNV-81-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545219

CATALOG NUMBER: FMR-12-1-LD4-2STD-50-UNV-81-88-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°	6306	6306	6306
5°	6219	6213	6205
10°	6166	6158	6114
15°	6000	5940	5856
20°	5779	5686	5531
25°	5542	5421	5083
30°	5253	5084	4579
35°	4975	4699	4236
40°	4692	4281	3854
45°	4422	3959	3484
50°	4094	3674	3108
55°	3787	3329	2783
60°	3470	2975	2493
65°	3054	2606	2208
70°	2515	2282	1876
75°	2000	1747	1830
80°	1345	1258	1178
85°	840	1000	1173



TEST NUMBER: P545219

CATALOG NUMBER: FMR-12-1-LD4-2STD-50-UNV-81-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	4.7
10°-20°	149.7	13.0
20°-30°	207.2	18.0
30°-40°	220.9	19.2
40°-50°	201.5	17.5
50°-60°	157.9	13.7
60°-70°	102.9	8.9
70°-80°	45.6	4.0
80°-90°	9.8	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°	411.4	35.8
0°-40°	632.3	55.0
0°-60°	991.7	86.2
0°-90°	1150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	586	586	586	586	586	
5°	576	575	575	574	574	55
15°	538	538	533	528	526	151
25°	467	464	456	440	428	214
35°	379	376	358	330	322	237
45°	290	284	260	238	229	224
55°	202	196	177	156	148	181
65°	120	113	102	104	87	118
75°	48	45	42	40	44	52
85°	7	7	8	9	10	9
90°	0	0	0	0	0	



TEST NUMBER: P545219

CATALOG NUMBER: FMR-12-1-LD4-2STD-50-UNV-81-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	585.8	585.8	585.8	585.8	585.8
2.5°	581.7	581.7	581.7	581.1	581.1
5°	575.6	575.0	575.0	574.3	574.3
7.5°	570.9	570.2	569.5	568.9	567.5
10°	564.1	564.1	563.4	560.1	559.4
12.5°	553.3	552.6	549.9	545.2	543.8
15°	538.4	538.4	533.0	527.6	525.5
17.5°	522.1	521.5	514.7	509.3	506.6
20°	504.5	503.2	496.4	487.6	482.9
22.5°	484.9	484.9	476.8	465.2	460.5
25°	466.6	463.9	456.4	440.2	428.0
27.5°	445.6	441.5	433.4	410.4	396.2
30°	422.6	420.6	409.0	379.2	368.4
32.5°	400.9	397.5	385.3	354.2	345.4
35°	378.6	375.9	357.6	330.5	322.4
37.5°	356.2	352.8	329.8	308.1	298.0
40°	333.9	329.8	304.7	285.1	274.3
42.5°	312.9	307.5	283.1	262.1	249.9
45°	290.5	284.4	260.1	238.4	228.9
47.5°	268.2	262.8	240.4	218.1	207.2
50°	244.5	239.7	219.4	197.1	185.6
52.5°	224.8	217.4	197.7	175.4	165.9
55°	201.8	195.7	177.4	156.4	148.3
57.5°	180.8	174.7	157.8	138.2	131.4
60°	161.2	152.4	138.2	121.2	115.8
62.5°	139.5	132.7	120.5	106.3	113.1
65°	119.9	113.1	102.3	104.3	86.7
67.5°	98.2	94.8	85.3	75.8	73.1
70°	79.9	75.8	72.5	62.3	59.6
72.5°	63.7	59.6	54.9	49.4	47.4
75°	48.1	44.7	42.0	40.0	44.0
77.5°	33.2	31.8	29.8	27.8	27.1
80°	21.7	21.0	20.3	19.6	19.0
82.5°	12.9	12.9	12.9	12.9	12.9
85°	6.8	7.4	8.1	8.8	9.5
87.5°	4.1	4.1	4.7	5.4	6.1
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)