

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: P545111

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-80-84-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: P545111
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-LD4-2LO-50-UNV-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

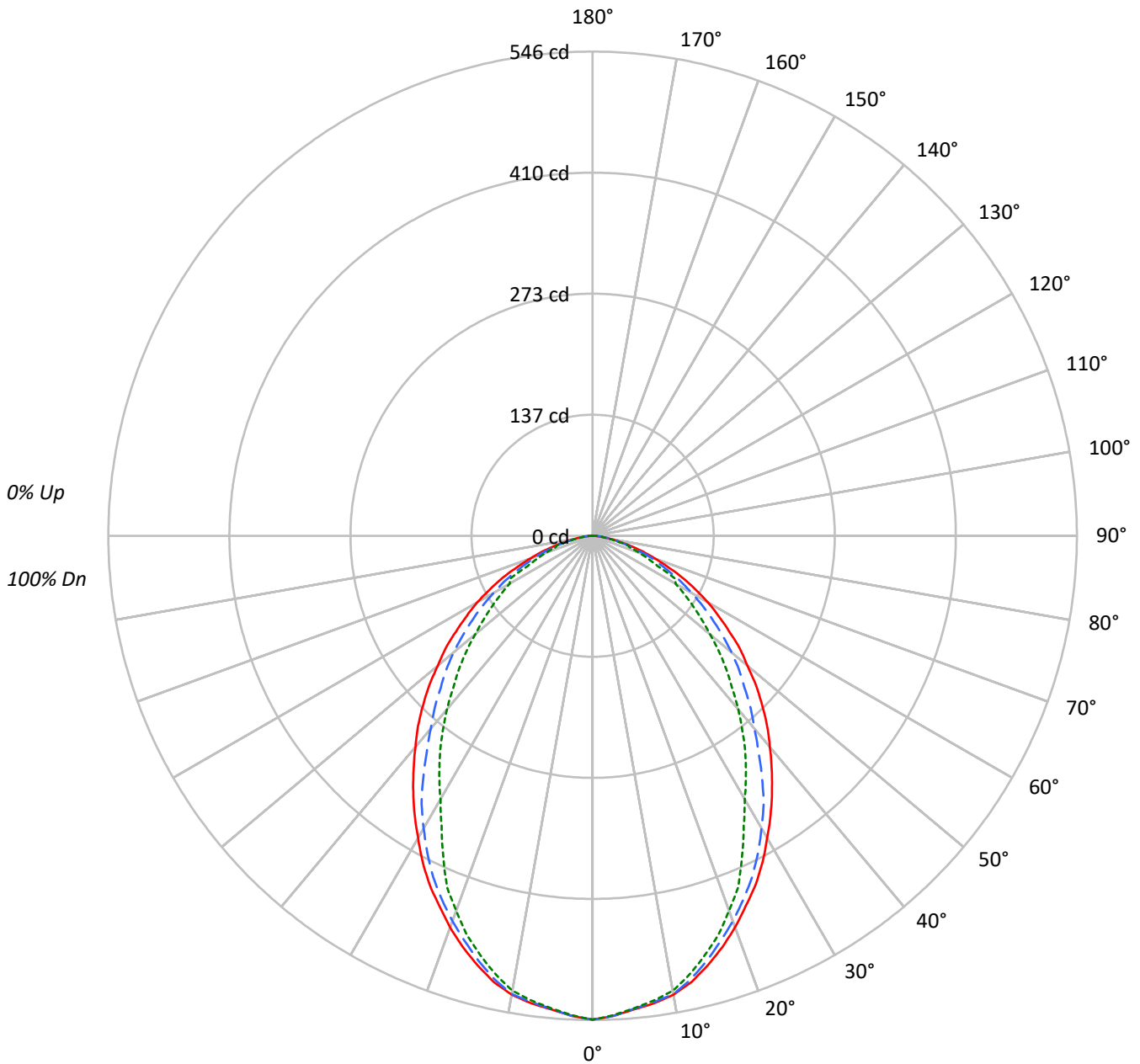
Lumens per Lamp: N/A
Luminaire Lumens: 1071.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P545111

CATALOG NUMBER: FMR-12-1-LD4-2LO-50-UNV-80-84-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	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°	5873	5873	5873
5°	5793	5786	5779
10°	5743	5735	5695
15°	5587	5532	5454
20°	5383	5296	5151
25°	5162	5049	4734
30°	4892	4734	4264
35°	4633	4376	3945
40°	4369	3988	3589
45°	4119	3687	3245
50°	3813	3421	2894
55°	3526	3100	2592
60°	3231	2771	2321
65°	2842	2425	2055
70°	2341	2124	1747
75°	1863	1626	1705
80°	1252	1172	1097
85°	778	939	1087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	4.7
10°-20°	139.4	13.0
20°-30°	193.0	18.0
30°-40°	205.7	19.2
40°-50°	187.7	17.5
50°-60°	147.1	13.7
60°-70°	95.8	8.9
70°-80°	42.5	4.0
80°-90°	9.1	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°	383.1	35.8
0°-40°	588.8	55.0
0°-60°	923.6	86.2
0°-90°	1071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	536	536	536	535	535	51
15°	501	501	496	491	489	141
25°	435	432	425	410	399	200
35°	353	350	333	308	300	220
45°	271	265	242	222	213	208
55°	188	182	165	146	138	169
65°	112	105	95	97	81	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	545.6	545.6	545.6	545.6	545.6
2.5°	541.8	541.8	541.8	541.1	541.1
5°	536.1	535.5	535.5	534.8	534.8
7.5°	531.7	531.0	530.4	529.8	528.5
10°	525.4	525.4	524.7	521.6	521.0
12.5°	515.3	514.6	512.1	507.7	506.4
15°	501.4	501.4	496.4	491.3	489.4
17.5°	486.3	485.6	479.3	474.3	471.8
20°	469.9	468.6	462.3	454.1	449.7
22.5°	451.6	451.6	444.0	433.3	428.9
25°	434.6	432.0	425.1	410.0	398.6
27.5°	415.0	411.2	403.6	382.2	369.0
30°	393.6	391.7	380.9	353.2	343.1
32.5°	373.4	370.2	358.9	329.9	321.7
35°	352.6	350.0	333.0	307.8	300.2
37.5°	331.7	328.6	307.1	287.0	277.5
40°	310.9	307.1	283.8	265.5	255.4
42.5°	291.4	286.3	263.6	244.1	232.7
45°	270.6	264.9	242.2	222.0	213.2
47.5°	249.8	244.7	223.9	203.1	193.0
50°	227.7	223.3	204.3	183.5	172.8
52.5°	209.4	202.5	184.2	163.4	154.5
55°	187.9	182.3	165.2	145.7	138.1
57.5°	168.4	162.7	147.0	128.7	122.4
60°	150.1	141.9	128.7	112.9	107.8
62.5°	129.9	123.6	112.3	99.0	105.3
65°	111.6	105.3	95.2	97.1	80.7
67.5°	91.5	88.3	79.5	70.6	68.1
70°	74.4	70.6	67.5	58.0	55.5
72.5°	59.3	55.5	51.1	46.0	44.1
75°	44.8	41.6	39.1	37.2	41.0
77.5°	30.9	29.6	27.8	25.9	25.2
80°	20.2	19.6	18.9	18.3	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	6.9	7.6	8.2	8.8
87.5°	3.8	3.8	4.4	5.0	5.7
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)