

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: P545135

Luminaire Tested: **FMR-12-1-LD4-2LO-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: P545135
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-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

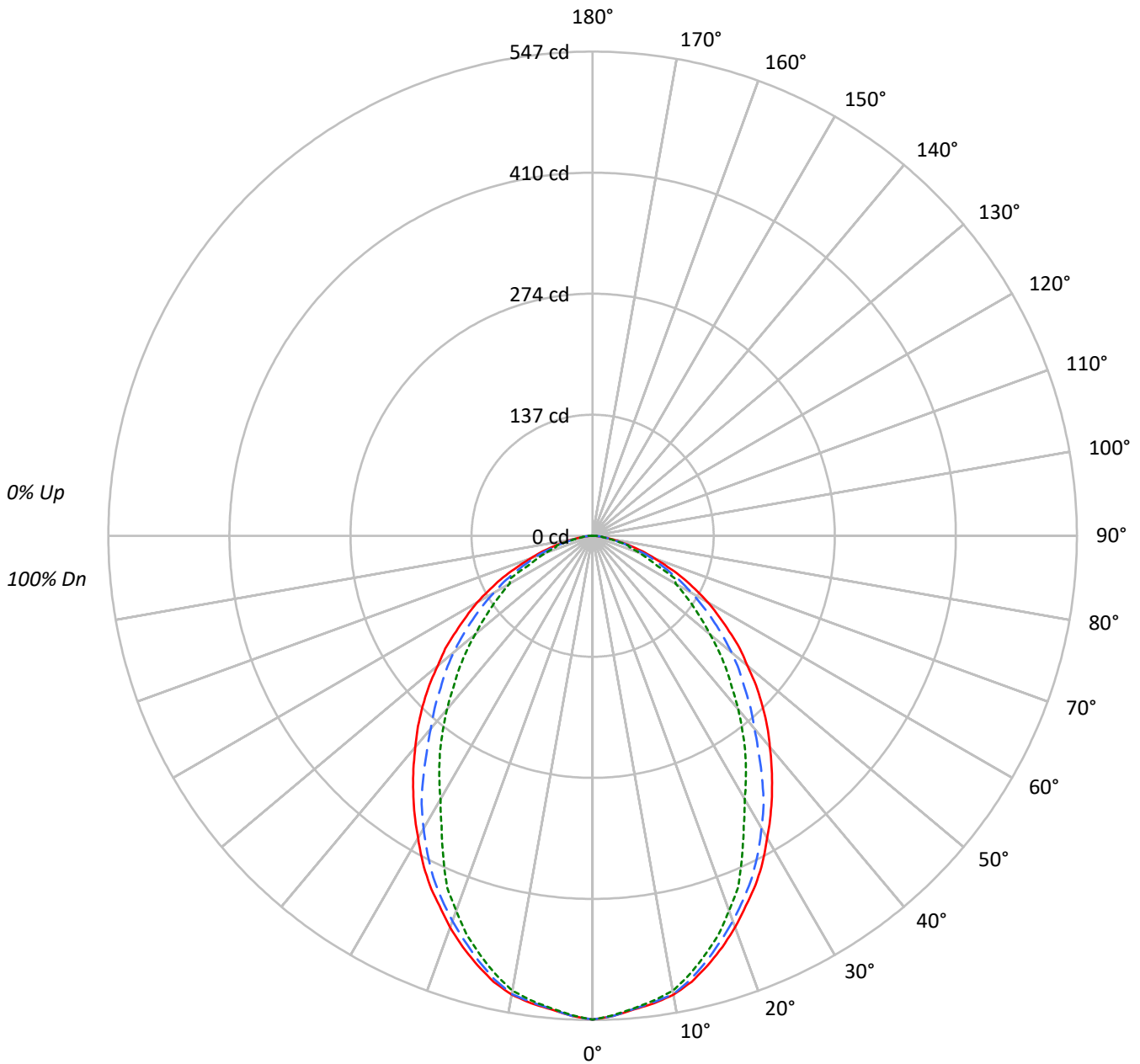
Lumens per Lamp: N/A
Luminaire Lumens: 1073.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P545135

CATALOG NUMBER: FMR-12-1-LD4-2LO-50-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545135

CATALOG NUMBER: FMR-12-1-LD4-2LO-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°	5884	5884	5884
5°	5803	5797	5789
10°	5754	5746	5704
15°	5597	5542	5464
20°	5392	5306	5160
25°	5171	5058	4742
30°	4901	4744	4272
35°	4641	4384	3953
40°	4377	3995	3596
45°	4127	3693	3252
50°	3820	3428	2899
55°	3534	3108	2597
60°	3238	2775	2327
65°	2848	2430	2060
70°	2348	2127	1750
75°	1867	1630	1709
80°	1252	1178	1097
85°	778	939	1087



TEST NUMBER: P545135

CATALOG NUMBER: FMR-12-1-LD4-2LO-50-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	4.7
10°-20°	139.6	13.0
20°-30°	193.3	18.0
30°-40°	206.1	19.2
40°-50°	188.0	17.5
50°-60°	147.3	13.7
60°-70°	96.0	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°	383.8	35.8
0°-40°	589.9	55.0
0°-60°	925.3	86.2
0°-90°	1073.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1073.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	537	536	536	536	536	51
15°	502	502	497	492	490	141
25°	435	433	426	411	399	200
35°	353	351	334	308	301	221
45°	271	265	243	222	214	209
55°	188	183	166	146	138	169
65°	112	106	95	97	81	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



TEST NUMBER: P545135

CATALOG NUMBER: FMR-12-1-LD4-2LO-50-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.6	546.6	546.6	546.6	546.6
2.5°	542.8	542.8	542.8	542.1	542.1
5°	537.1	536.5	536.5	535.8	535.8
7.5°	532.7	532.0	531.4	530.8	529.5
10°	526.4	526.4	525.7	522.6	521.9
12.5°	516.2	515.6	513.1	508.7	507.4
15°	502.3	502.3	497.3	492.2	490.3
17.5°	487.2	486.5	480.2	475.2	472.6
20°	470.7	469.5	463.2	454.9	450.5
22.5°	452.4	452.4	444.8	434.1	429.7
25°	435.4	432.8	425.9	410.7	399.3
27.5°	415.8	412.0	404.4	382.9	369.6
30°	394.3	392.4	381.7	353.8	343.7
32.5°	374.1	370.9	359.5	330.5	322.3
35°	353.2	350.7	333.6	308.4	300.8
37.5°	332.4	329.2	307.7	287.5	278.0
40°	311.5	307.7	284.3	266.0	255.9
42.5°	291.9	286.9	264.1	244.5	233.2
45°	271.1	265.4	242.6	222.4	213.6
47.5°	250.2	245.2	224.3	203.5	193.4
50°	228.1	223.7	204.7	183.9	173.1
52.5°	209.8	202.8	184.5	163.7	154.8
55°	188.3	182.6	165.6	146.0	138.4
57.5°	168.7	163.0	147.2	128.9	122.6
60°	150.4	142.2	128.9	113.1	108.1
62.5°	130.2	123.8	112.5	99.2	105.5
65°	111.8	105.5	95.4	97.3	80.9
67.5°	91.6	88.5	79.6	70.8	68.2
70°	74.6	70.8	67.6	58.1	55.6
72.5°	59.4	55.6	51.2	46.1	44.2
75°	44.9	41.7	39.2	37.3	41.1
77.5°	31.0	29.7	27.8	25.9	25.3
80°	20.2	19.6	19.0	18.3	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	7.0	7.6	8.2	8.8
87.5°	3.8	3.8	4.4	5.1	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)