

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: P545050

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-80-87-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: P545050
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-35-UNV-80-87-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

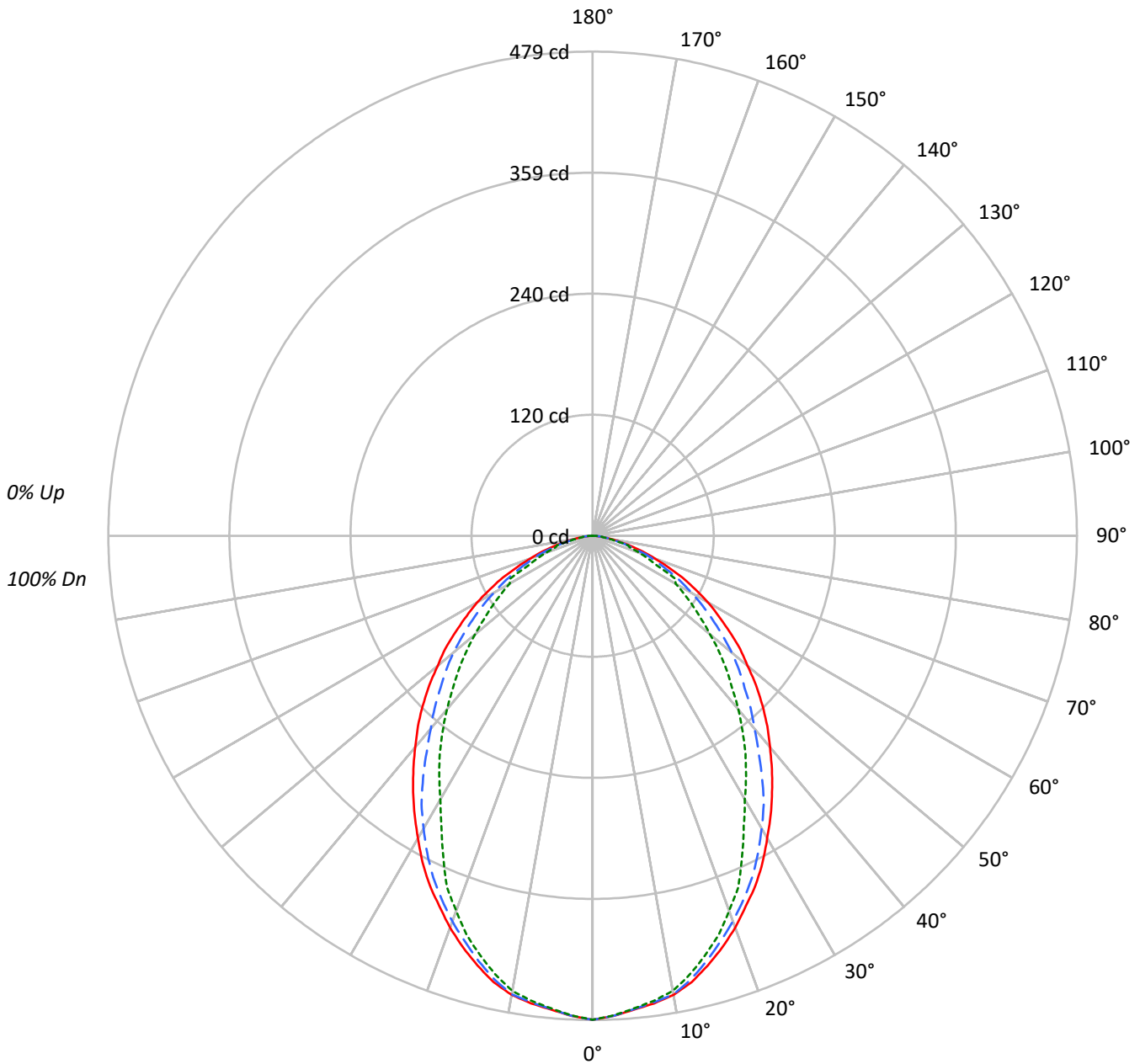
Lumens per Lamp: N/A
Luminaire Lumens: 940.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P545050

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-80-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545050

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-80-87-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°	5154	5154	5154
5°	5084	5078	5072
10°	5040	5034	4997
15°	4904	4854	4787
20°	4724	4648	4521
25°	4530	4431	4154
30°	4293	4155	3742
35°	4066	3841	3462
40°	3835	3500	3150
45°	3615	3236	2848
50°	3346	3004	2540
55°	3096	2721	2274
60°	2835	2430	2039
65°	2496	2129	1806
70°	2055	1863	1533
75°	1634	1426	1497
80°	1097	1029	961
85°	679	815	951



TEST NUMBER: P545050

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-80-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.6	4.7
10°-20°	122.3	13.0
20°-30°	169.3	18.0
30°-40°	180.6	19.2
40°-50°	164.7	17.5
50°-60°	129.1	13.7
60°-70°	84.1	8.9
70°-80°	37.3	4.0
80°-90°	8.0	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°	336.2	35.8
0°-40°	516.8	55.0
0°-60°	810.6	86.2
0°-90°	940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	479	479	479	479	479	
5°	470	470	470	469	469	45
15°	440	440	436	431	430	124
25°	381	379	373	360	350	175
35°	309	307	292	270	264	193
45°	238	232	213	195	187	183
55°	165	160	145	128	121	148
65°	98	92	84	85	71	97
75°	39	36	34	33	36	42
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



TEST NUMBER: P545050

CATALOG NUMBER: FMR-12-1-LD4-2LO-35-UNV-80-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	478.8	478.8	478.8	478.8	478.8
2.5°	475.5	475.5	475.5	474.9	474.9
5°	470.5	470.0	470.0	469.4	469.4
7.5°	466.6	466.1	465.5	465.0	463.9
10°	461.1	461.1	460.6	457.8	457.2
12.5°	452.3	451.7	449.5	445.6	444.5
15°	440.1	440.1	435.6	431.2	429.6
17.5°	426.8	426.2	420.7	416.3	414.1
20°	412.4	411.3	405.8	398.6	394.7
22.5°	396.3	396.3	389.7	380.3	376.4
25°	381.4	379.2	373.1	359.8	349.8
27.5°	364.2	360.9	354.3	335.5	323.8
30°	345.4	343.8	334.3	310.0	301.1
32.5°	327.7	324.9	315.0	289.5	282.3
35°	309.4	307.2	292.3	270.1	263.5
37.5°	291.2	288.4	269.6	251.9	243.6
40°	272.9	269.6	249.1	233.0	224.2
42.5°	255.7	251.3	231.4	214.2	204.3
45°	237.5	232.5	212.6	194.9	187.1
47.5°	219.2	214.8	196.5	178.2	169.4
50°	199.8	196.0	179.4	161.1	151.7
52.5°	183.8	177.7	161.6	143.4	135.6
55°	165.0	160.0	145.0	127.9	121.2
57.5°	147.8	142.8	129.0	112.9	107.4
60°	131.7	124.5	112.9	99.1	94.7
62.5°	114.0	108.5	98.5	86.9	92.4
65°	98.0	92.4	83.6	85.2	70.9
67.5°	80.3	77.5	69.7	62.0	59.8
70°	65.3	62.0	59.2	50.9	48.7
72.5°	52.0	48.7	44.8	40.4	38.7
75°	39.3	36.5	34.3	32.7	36.0
77.5°	27.1	26.0	24.4	22.7	22.1
80°	17.7	17.2	16.6	16.1	15.5
82.5°	10.5	10.5	10.5	10.5	10.5
85°	5.5	6.1	6.6	7.2	7.7
87.5°	3.3	3.3	3.9	4.4	5.0
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)