

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: P545149

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-80-96-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: P545149
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-35-UNV-80-96-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

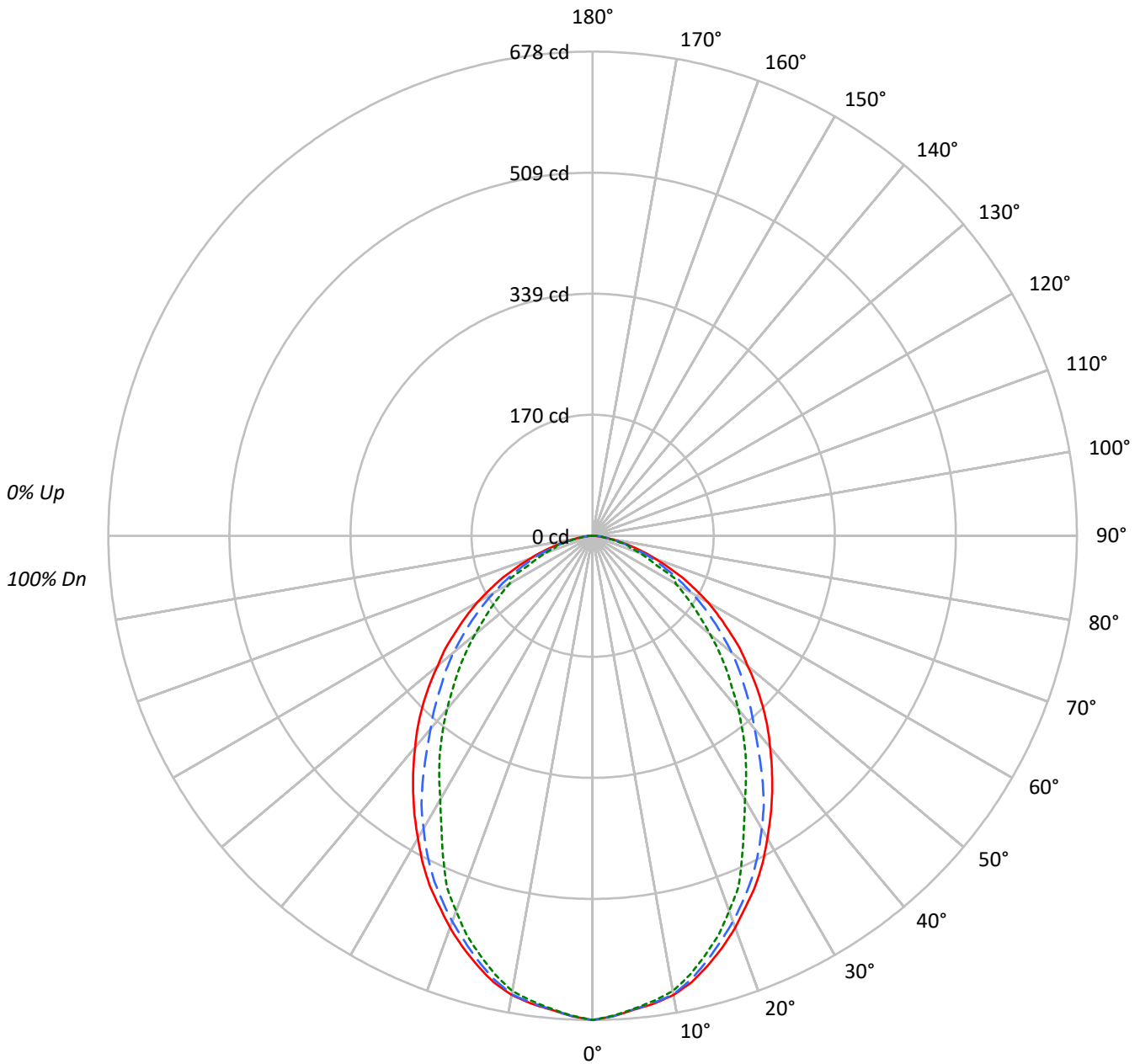
Lumens per Lamp: N/A
Luminaire Lumens: 1331.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P545149

CATALOG NUMBER: FMR-12-1-LD4-2STD-35-UNV-80-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545149

CATALOG NUMBER: FMR-12-1-LD4-2STD-35-UNV-80-96-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	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°	7298	7298	7298
5°	7198	7191	7182
10°	7136	7127	7076
15°	6944	6875	6778
20°	6688	6581	6402
25°	6413	6274	5884
30°	6079	5884	5300
35°	5757	5439	4903
40°	5429	4956	4460
45°	5119	4582	4032
50°	4739	4253	3597
55°	4384	3855	3222
60°	4015	3442	2885
65°	3533	3016	2555
70°	2911	2640	2172
75°	2316	2021	2117
80°	1556	1457	1358
85°	963	1161	1359



TEST NUMBER: P545149

CATALOG NUMBER: FMR-12-1-LD4-2STD-35-UNV-80-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	4.7
10°-20°	173.2	13.0
20°-30°	239.8	18.0
30°-40°	255.7	19.2
40°-50°	233.3	17.5
50°-60°	182.7	13.7
60°-70°	119.1	8.9
70°-80°	52.8	4.0
80°-90°	11.3	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°	476.1	35.8
0°-40°	731.8	55.0
0°-60°	1147.8	86.2
0°-90°	1331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	666	666	666	665	665	63
15°	623	623	617	611	608	175
25°	540	537	528	510	495	248
35°	438	435	414	382	373	274
45°	336	329	301	276	265	259
55°	234	226	205	181	172	210
65°	139	131	118	121	100	137
75°	56	52	49	46	51	60
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



TEST NUMBER: P545149

CATALOG NUMBER: FMR-12-1-LD4-2STD-35-UNV-80-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	678.0	678.0	678.0	678.0	678.0
2.5°	673.3	673.3	673.3	672.5	672.5
5°	666.2	665.5	665.5	664.7	664.7
7.5°	660.7	660.0	659.2	658.4	656.8
10°	652.9	652.9	652.1	648.2	647.4
12.5°	640.4	639.6	636.5	631.0	629.4
15°	623.1	623.1	616.9	610.6	608.2
17.5°	604.3	603.5	595.7	589.4	586.3
20°	583.9	582.4	574.5	564.3	558.9
22.5°	561.2	561.2	551.8	538.5	533.0
25°	540.0	536.9	528.3	509.5	495.4
27.5°	515.7	511.0	501.6	475.0	458.5
30°	489.1	486.7	473.4	438.9	426.4
32.5°	464.0	460.1	446.0	409.9	399.7
35°	438.1	435.0	413.9	382.5	373.1
37.5°	412.3	408.4	381.7	356.6	344.9
40°	386.4	381.7	352.7	330.0	317.4
42.5°	362.1	355.8	327.6	303.3	289.2
45°	336.3	329.2	301.0	275.9	264.9
47.5°	310.4	304.1	278.3	252.4	239.8
50°	283.0	277.5	254.0	228.1	214.8
52.5°	260.2	251.6	228.9	203.0	192.0
55°	233.6	226.5	205.4	181.1	171.7
57.5°	209.3	202.2	182.6	159.9	152.1
60°	186.5	176.4	159.9	140.3	134.0
62.5°	161.5	153.6	139.5	123.1	130.9
65°	138.7	130.9	118.4	120.7	100.3
67.5°	113.7	109.7	98.8	87.8	84.7
70°	92.5	87.8	83.9	72.1	69.0
72.5°	73.7	69.0	63.5	57.2	54.9
75°	55.7	51.7	48.6	46.2	50.9
77.5°	38.4	36.8	34.5	32.1	31.4
80°	25.1	24.3	23.5	22.7	21.9
82.5°	14.9	14.9	14.9	14.9	14.9
85°	7.8	8.6	9.4	10.2	11.0
87.5°	4.7	4.7	5.5	6.3	7.1
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)