

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: P545501

Luminaire Tested: **FMR-12-2-LD4-1STD-50-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: P545501
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-12-2-LD4-1STD-50-UNV-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

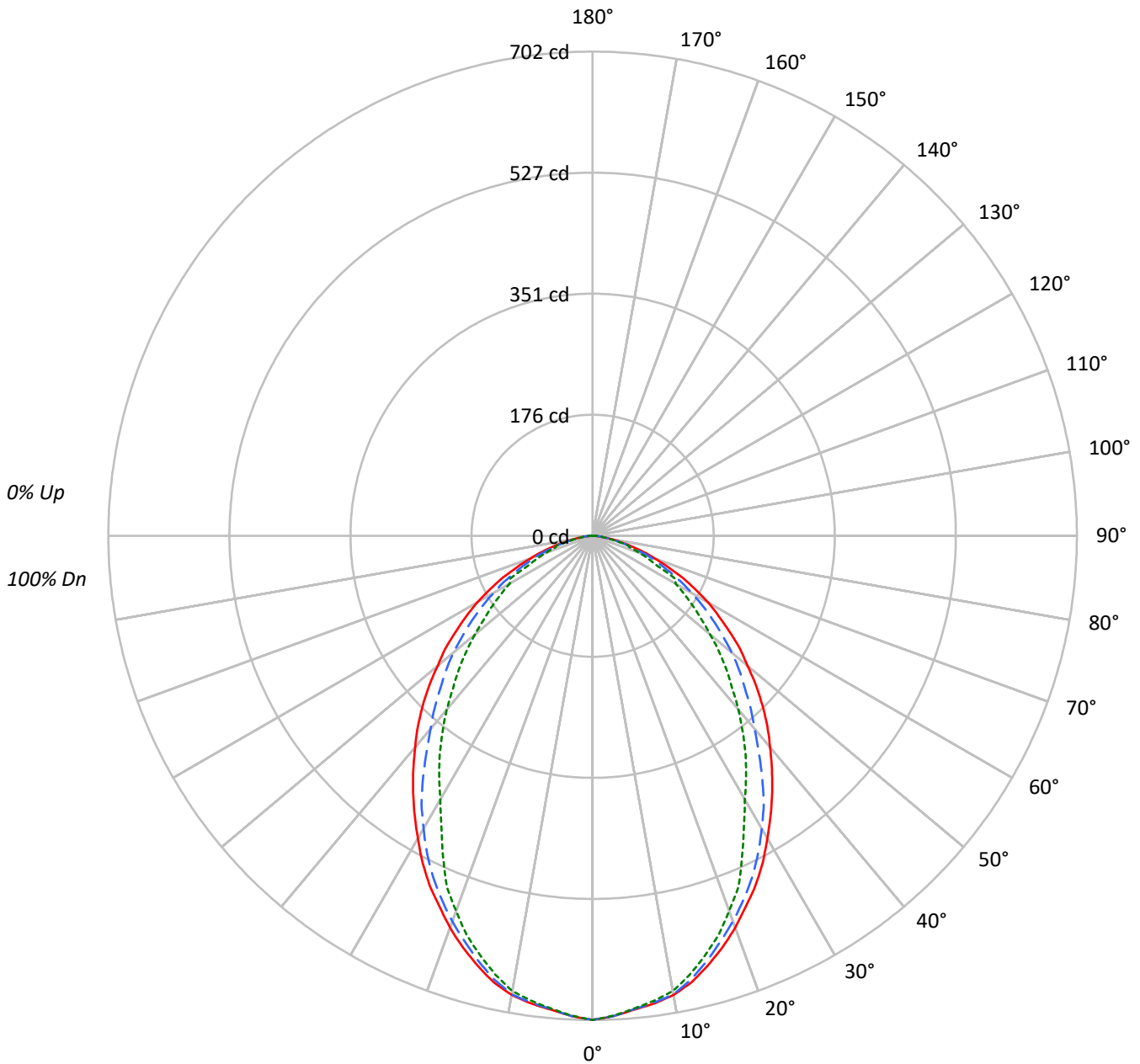
Lumens per Lamp: N/A
Luminaire Lumens: 1378.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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: P545501

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-80-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545501

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-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°	3778	3778	3778
5°	3727	3722	3717
10°	3694	3690	3663
15°	3594	3558	3509
20°	3463	3407	3314
25°	3320	3248	3046
30°	3147	3046	2743
35°	2980	2815	2538
40°	2811	2566	2309
45°	2649	2372	2088
50°	2452	2201	1861
55°	2269	1995	1667
60°	2079	1781	1494
65°	1829	1560	1323
70°	1507	1366	1124
75°	1198	1046	1096
80°	806	753	704
85°	500	599	704



TEST NUMBER: P545501

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-80-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	4.7
10°-20°	179.3	13.0
20°-30°	248.3	18.0
30°-40°	264.7	19.2
40°-50°	241.5	17.5
50°-60°	189.2	13.7
60°-70°	123.3	8.9
70°-80°	54.6	4.0
80°-90°	11.7	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°	492.9	35.8
0°-40°	757.6	55.0
0°-60°	1188.3	86.2
0°-90°	1378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	690	689	689	688	688	65
15°	645	645	639	632	630	181
25°	559	556	547	528	513	257
35°	454	450	428	396	386	284
45°	348	341	312	286	274	268
55°	242	234	213	188	178	217
65°	144	136	122	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



TEST NUMBER: P545501

CATALOG NUMBER: FMR-12-2-LD4-1STD-50-UNV-80-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.9	701.9	701.9	701.9	701.9
2.5°	697.1	697.1	697.1	696.3	696.3
5°	689.8	689.0	689.0	688.1	688.1
7.5°	684.1	683.3	682.5	681.6	680.0
10°	676.0	676.0	675.2	671.1	670.3
12.5°	663.0	662.2	658.9	653.2	651.6
15°	645.1	645.1	638.6	632.1	629.7
17.5°	625.7	624.8	616.7	610.2	607.0
20°	604.6	602.9	594.8	584.3	578.6
22.5°	581.0	581.0	571.3	557.5	551.8
25°	559.1	555.9	546.9	527.5	512.9
27.5°	534.0	529.1	519.4	491.8	474.7
30°	506.4	503.9	490.1	454.4	441.4
32.5°	480.4	476.3	461.7	424.4	413.9
35°	453.6	450.4	428.5	396.0	386.3
37.5°	426.8	422.8	395.2	369.2	357.1
40°	400.1	395.2	365.2	341.6	328.7
42.5°	374.9	368.4	339.2	314.0	299.4
45°	348.1	340.8	311.6	285.6	274.3
47.5°	321.3	314.9	288.1	261.3	248.3
50°	292.9	287.3	262.9	236.1	222.3
52.5°	269.4	260.5	237.0	210.2	198.8
55°	241.8	234.5	212.6	187.5	177.7
57.5°	216.7	209.4	189.1	165.5	157.4
60°	193.1	182.6	165.5	145.3	138.8
62.5°	167.2	159.1	144.4	127.4	135.5
65°	143.6	135.5	122.5	125.0	103.9
67.5°	117.7	113.6	102.2	90.9	87.6
70°	95.8	90.9	86.8	74.7	71.4
72.5°	76.3	71.4	65.7	59.2	56.8
75°	57.6	53.6	50.3	47.9	52.7
77.5°	39.8	38.1	35.7	33.3	32.5
80°	26.0	25.2	24.3	23.5	22.7
82.5°	15.4	15.4	15.4	15.4	15.4
85°	8.1	8.9	9.7	10.5	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
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)