

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: P545367

Luminaire Tested: **FMR-12-2-LD4-1LO-40-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: P545367
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-LD4-1LO-40-UNV-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

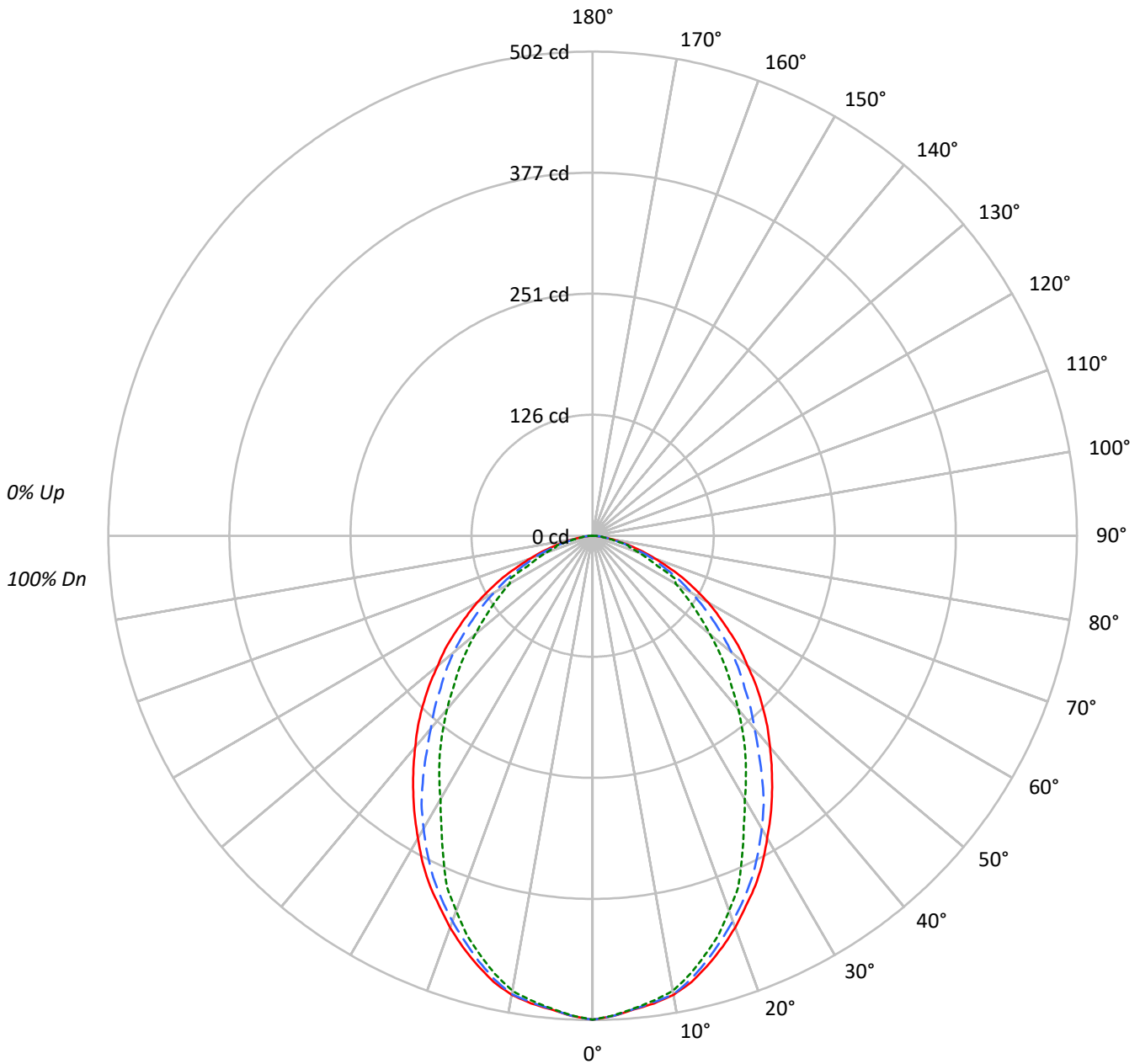
Lumens per Lamp: N/A
Luminaire Lumens: 985.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P545367

CATALOG NUMBER: FMR-12-2-LD4-1LO-40-UNV-80-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545367

CATALOG NUMBER: FMR-12-2-LD4-1LO-40-UNV-80-84-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°	2700	2700	2700
5°	2663	2661	2657
10°	2641	2637	2618
15°	2569	2544	2508
20°	2475	2435	2369
25°	2374	2322	2177
30°	2250	2178	1961
35°	2130	2012	1814
40°	2009	1834	1650
45°	1894	1695	1493
50°	1753	1573	1330
55°	1622	1426	1192
60°	1486	1273	1068
65°	1308	1116	945
70°	1076	977	803
75°	857	749	784
80°	576	539	502
85°	358	432	500



TEST NUMBER: P545367

CATALOG NUMBER: FMR-12-2-LD4-1LO-40-UNV-80-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	4.7
10°-20°	128.2	13.0
20°-30°	177.5	18.0
30°-40°	189.2	19.2
40°-50°	172.6	17.5
50°-60°	135.2	13.7
60°-70°	88.1	8.9
70°-80°	39.0	4.0
80°-90°	8.4	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°	352.3	35.8
0°-40°	541.6	55.0
0°-60°	849.4	86.2
0°-90°	985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	493	492	492	492	492	47
15°	461	461	456	452	450	130
25°	400	397	391	377	367	183
35°	324	322	306	283	276	203
45°	249	244	223	204	196	192
55°	173	168	152	134	127	155
65°	103	97	88	89	74	101
75°	41	38	36	34	38	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



TEST NUMBER: P545367

CATALOG NUMBER: FMR-12-2-LD4-1LO-40-UNV-80-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	501.7	501.7	501.7	501.7	501.7
2.5°	498.3	498.3	498.3	497.7	497.7
5°	493.0	492.5	492.5	491.9	491.9
7.5°	489.0	488.4	487.8	487.2	486.1
10°	483.2	483.2	482.6	479.7	479.1
12.5°	473.9	473.3	471.0	466.9	465.8
15°	461.1	461.1	456.5	451.9	450.1
17.5°	447.2	446.6	440.8	436.2	433.9
20°	432.1	431.0	425.2	417.6	413.6
22.5°	415.3	415.3	408.4	398.5	394.4
25°	399.7	397.3	391.0	377.0	366.6
27.5°	381.7	378.2	371.2	351.5	339.3
30°	362.0	360.2	350.4	324.8	315.5
32.5°	343.4	340.5	330.1	303.4	295.8
35°	324.2	321.9	306.3	283.1	276.1
37.5°	305.1	302.2	282.5	263.9	255.2
40°	286.0	282.5	261.0	244.2	234.9
42.5°	268.0	263.3	242.5	224.5	214.0
45°	248.8	243.6	222.7	204.2	196.1
47.5°	229.7	225.1	205.9	186.8	177.5
50°	209.4	205.3	187.9	168.8	158.9
52.5°	192.6	186.2	169.4	150.2	142.1
55°	172.9	167.6	152.0	134.0	127.0
57.5°	154.9	149.7	135.2	118.3	112.5
60°	138.1	130.5	118.3	103.8	99.2
62.5°	119.5	113.7	103.2	91.1	96.9
65°	102.7	96.9	87.6	89.3	74.2
67.5°	84.1	81.2	73.1	65.0	62.6
70°	68.4	65.0	62.1	53.4	51.0
72.5°	54.5	51.0	47.0	42.3	40.6
75°	41.2	38.3	36.0	34.2	37.7
77.5°	28.4	27.3	25.5	23.8	23.2
80°	18.6	18.0	17.4	16.8	16.2
82.5°	11.0	11.0	11.0	11.0	11.0
85°	5.8	6.4	7.0	7.5	8.1
87.5°	3.5	3.5	4.1	4.6	5.2
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)