

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: P545673

Luminaire Tested: **FMR-12-2-LD4-2LO-40-UNV-82-86-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: P545673
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-LD4-2LO-40-UNV-82-86-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

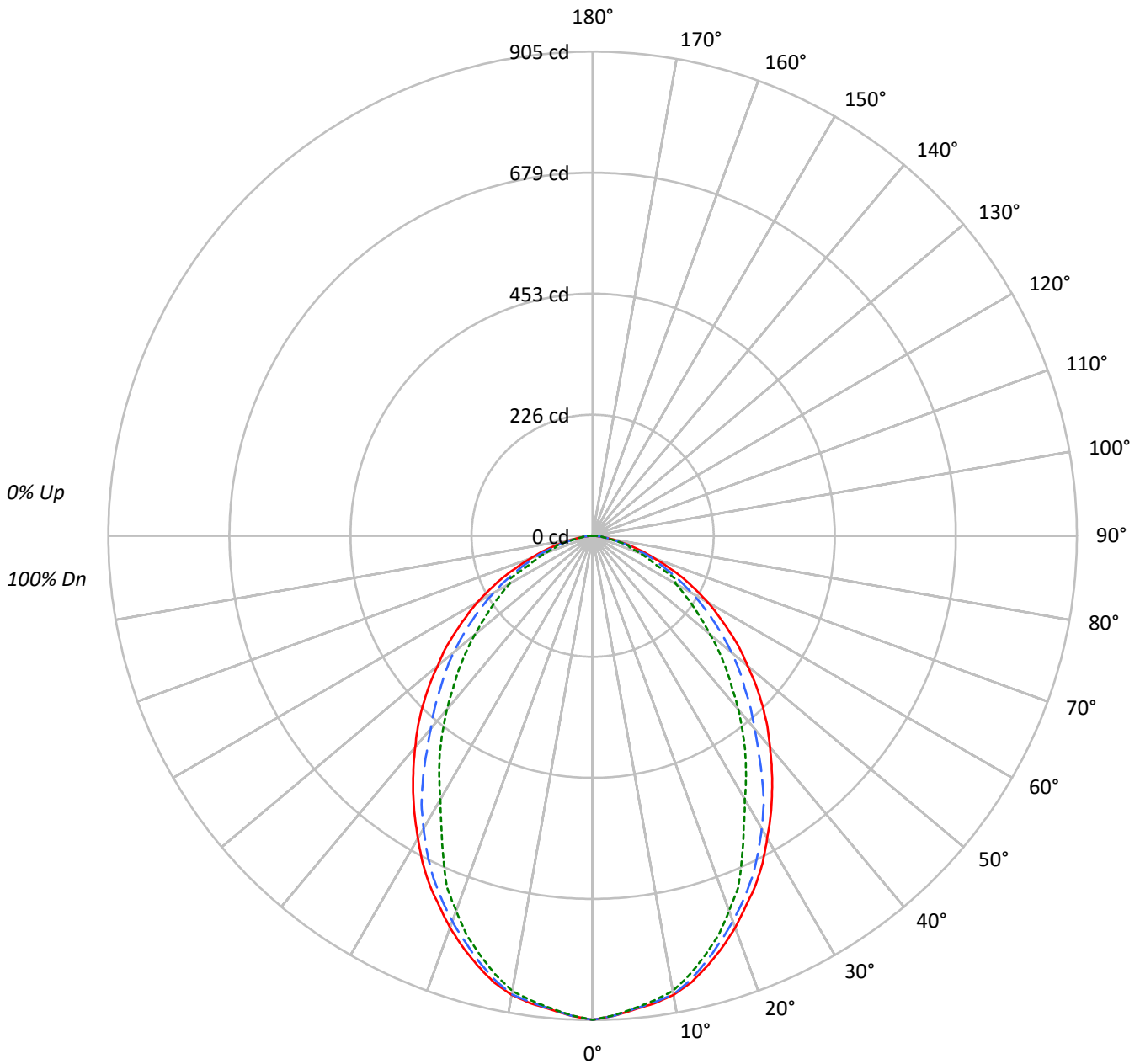
Lumens per Lamp: N/A
Luminaire Lumens: 1776.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P545673

CATALOG NUMBER: FMR-12-2-LD4-2LO-40-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545673

CATALOG NUMBER: FMR-12-2-LD4-2LO-40-UNV-82-86-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4869	4869	4869
5°	4803	4797	4791
10°	4761	4756	4721
15°	4633	4586	4522
20°	4463	4391	4271
25°	4279	4186	3925
30°	4056	3926	3535
35°	3841	3628	3271
40°	3622	3306	2976
45°	3415	3057	2691
50°	3162	2838	2400
55°	2925	2571	2149
60°	2679	2297	1925
65°	2357	2011	1705
70°	1942	1761	1448
75°	1545	1347	1414
80°	1038	973	908
85°	648	778	902



TEST NUMBER: P545673

CATALOG NUMBER: FMR-12-2-LD4-2LO-40-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	4.7
10°-20°	231.1	13.0
20°-30°	320.0	18.0
30°-40°	341.2	19.2
40°-50°	311.2	17.5
50°-60°	243.8	13.7
60°-70°	158.9	8.9
70°-80°	70.4	4.0
80°-90°	15.1	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°	635.3	35.8
0°-40°	976.5	55.0
0°-60°	1531.6	86.2
0°-90°	1776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	889	888	888	887	887	84
15°	832	832	823	815	812	234
25°	721	716	705	680	661	331
35°	585	580	552	510	498	365
45°	449	439	402	368	354	346
55°	312	302	274	242	229	280
65°	185	175	158	161	134	182
75°	74	69	65	62	68	80
85°	10	12	13	14	15	15
90°	0	0	0	0	0	



TEST NUMBER: P545673

CATALOG NUMBER: FMR-12-2-LD4-2LO-40-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.7	904.7	904.7	904.7	904.7
2.5°	898.4	898.4	898.4	897.3	897.3
5°	889.0	887.9	887.9	886.9	886.9
7.5°	881.7	880.6	879.6	878.5	876.4
10°	871.2	871.2	870.2	864.9	863.9
12.5°	854.5	853.4	849.2	841.9	839.8
15°	831.5	831.5	823.1	814.7	811.6
17.5°	806.4	805.3	794.9	786.5	782.3
20°	779.2	777.1	766.6	753.0	745.7
22.5°	748.8	748.8	736.3	718.5	711.2
25°	720.6	716.4	704.9	679.8	661.0
27.5°	688.2	681.9	669.4	633.8	611.8
30°	652.6	649.5	631.7	585.7	568.9
32.5°	619.2	613.9	595.1	547.0	533.4
35°	584.6	580.5	552.2	510.4	497.8
37.5°	550.1	544.9	509.3	475.9	460.2
40°	515.6	509.3	470.6	440.3	423.6
42.5°	483.2	474.8	437.2	404.7	385.9
45°	448.7	439.3	401.6	368.1	353.5
47.5°	414.2	405.8	371.3	336.8	320.0
50°	377.6	370.2	338.9	304.3	286.6
52.5°	347.2	335.7	305.4	270.9	256.2
55°	311.7	302.3	274.0	241.6	229.0
57.5°	279.2	269.8	243.7	213.4	202.9
60°	248.9	235.3	213.4	187.2	178.8
62.5°	215.4	205.0	186.2	164.2	174.7
65°	185.1	174.7	157.9	161.1	133.9
67.5°	151.6	146.4	131.8	117.1	113.0
70°	123.4	117.1	111.9	96.2	92.0
72.5°	98.3	92.0	84.7	76.3	73.2
75°	74.3	69.0	64.8	61.7	68.0
77.5°	51.2	49.2	46.0	42.9	41.8
80°	33.5	32.4	31.4	30.3	29.3
82.5°	19.9	19.9	19.9	19.9	19.9
85°	10.5	11.5	12.6	13.6	14.6
87.5°	6.3	6.3	7.3	8.4	9.4
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)