

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: P545402

Luminaire Tested: **FMR-12-2-LD4-1LO-50-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: P545402
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-50-UNV-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

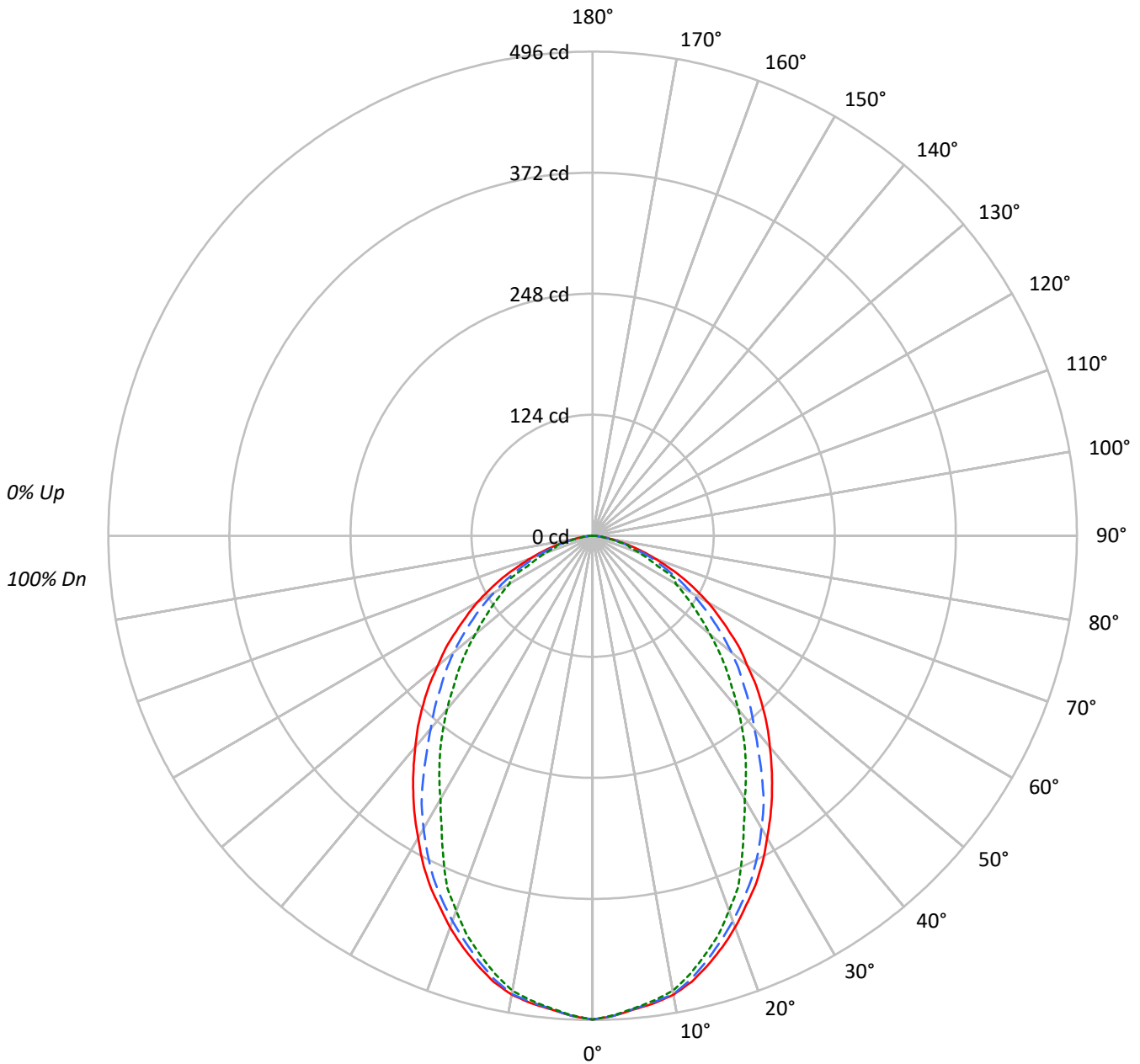
Lumens per Lamp: N/A
Luminaire Lumens: 973.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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°	2667	2667	2667
5°	2631	2628	2625
10°	2608	2605	2587
15°	2538	2512	2477
20°	2445	2405	2340
25°	2344	2293	2150
30°	2222	2151	1937
35°	2104	1987	1792
40°	1985	1811	1631
45°	1871	1674	1474
50°	1732	1554	1315
55°	1602	1408	1178
60°	1468	1258	1055
65°	1291	1102	933
70°	1064	965	793
75°	846	738	774
80°	567	533	496
85°	352	426	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	4.7
10°-20°	126.6	13.0
20°-30°	175.3	18.0
30°-40°	186.9	19.2
40°-50°	170.5	17.5
50°-60°	133.6	13.7
60°-70°	87.1	8.9
70°-80°	38.6	4.0
80°-90°	8.3	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°	348.1	35.8
0°-40°	535.0	55.0
0°-60°	839.1	86.2
0°-90°	973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	487	486	486	486	486	46
15°	456	456	451	446	445	128
25°	395	392	386	372	362	181
35°	320	318	302	280	273	200
45°	246	241	220	202	194	189
55°	171	166	150	132	126	153
65°	101	96	86	88	73	100
75°	41	38	36	34	37	44
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.6	495.6	495.6	495.6	495.6
2.5°	492.2	492.2	492.2	491.6	491.6
5°	487.0	486.5	486.5	485.9	485.9
7.5°	483.0	482.5	481.9	481.3	480.2
10°	477.3	477.3	476.7	473.9	473.3
12.5°	468.1	467.6	465.3	461.3	460.1
15°	455.5	455.5	450.9	446.4	444.6
17.5°	441.8	441.2	435.5	430.9	428.6
20°	426.9	425.7	420.0	412.6	408.5
22.5°	410.3	410.3	403.4	393.6	389.6
25°	394.8	392.5	386.2	372.4	362.1
27.5°	377.0	373.6	366.7	347.2	335.2
30°	357.5	355.8	346.1	320.9	311.7
32.5°	339.2	336.3	326.0	299.7	292.2
35°	320.3	318.0	302.5	279.6	272.7
37.5°	301.4	298.5	279.0	260.7	252.1
40°	282.5	279.0	257.8	241.2	232.1
42.5°	264.7	260.1	239.5	221.7	211.4
45°	245.8	240.7	220.0	201.7	193.7
47.5°	226.9	222.3	203.4	184.5	175.3
50°	206.8	202.8	185.6	166.7	157.0
52.5°	190.2	183.9	167.3	148.4	140.4
55°	170.7	165.6	150.1	132.4	125.5
57.5°	153.0	147.8	133.5	116.9	111.2
60°	136.4	128.9	116.9	102.6	98.0
62.5°	118.0	112.3	102.0	90.0	95.7
65°	101.4	95.7	86.5	88.2	73.3
67.5°	83.1	80.2	72.2	64.2	61.9
70°	67.6	64.2	61.3	52.7	50.4
72.5°	53.9	50.4	46.4	41.8	40.1
75°	40.7	37.8	35.5	33.8	37.2
77.5°	28.1	26.9	25.2	23.5	22.9
80°	18.3	17.8	17.2	16.6	16.0
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.4	8.0
87.5°	3.4	3.4	4.0	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)