

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: P545420

Luminaire Tested: **FMR-12-2-LD4-1LO-50-UNV-82-94-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: P545420
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-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

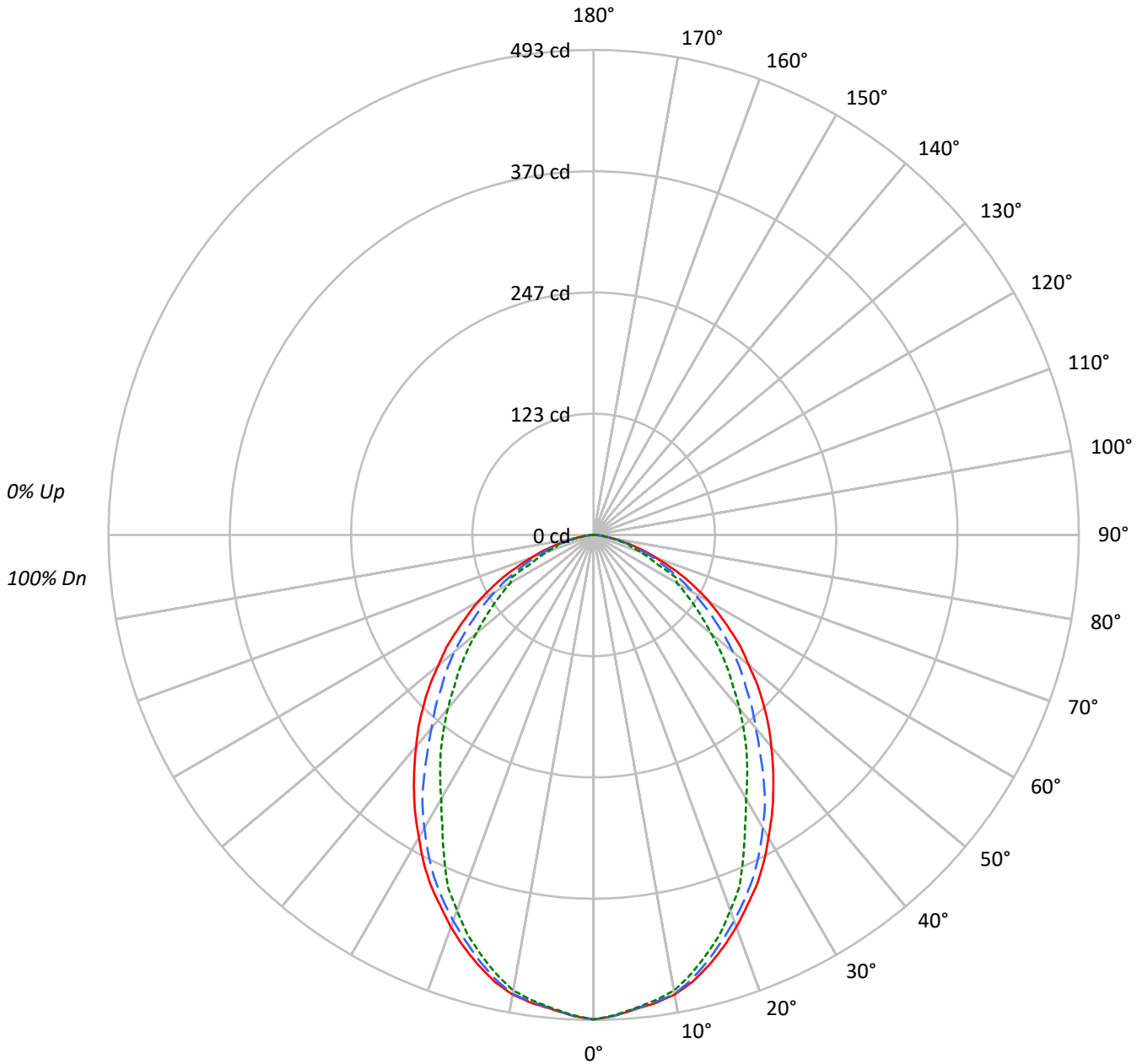
Lumens per Lamp: N/A
Luminaire Lumens: 967.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	2651	2651	2651
5°	2615	2612	2609
10°	2593	2589	2571
15°	2522	2497	2462
20°	2430	2391	2325
25°	2330	2279	2137
30°	2208	2137	1925
35°	2091	1976	1781
40°	1972	1801	1620
45°	1859	1665	1465
50°	1721	1545	1306
55°	1592	1400	1170
60°	1459	1251	1048
65°	1284	1095	928
70°	1057	958	788
75°	840	734	769
80°	564	530	493
85°	352	420	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	4.7
10°-20°	125.8	13.0
20°-30°	174.2	18.0
30°-40°	185.8	19.2
40°-50°	169.5	17.5
50°-60°	132.8	13.7
60°-70°	86.5	8.9
70°-80°	38.3	4.0
80°-90°	8.2	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°	345.9	35.8
0°-40°	531.7	55.0
0°-60°	833.9	86.2
0°-90°	967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	484	484	484	483	483	46
15°	453	453	448	444	442	127
25°	392	390	384	370	360	180
35°	318	316	301	278	271	199
45°	244	239	219	200	192	188
55°	170	165	149	132	125	152
65°	101	95	86	88	73	99
75°	40	38	35	34	37	43
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°	492.6	492.6	492.6	492.6	492.6
2.5°	489.2	489.2	489.2	488.6	488.6
5°	484.0	483.5	483.5	482.9	482.9
7.5°	480.0	479.5	478.9	478.3	477.2
10°	474.4	474.4	473.8	470.9	470.4
12.5°	465.2	464.7	462.4	458.4	457.3
15°	452.7	452.7	448.2	443.6	441.9
17.5°	439.0	438.5	432.8	428.2	426.0
20°	424.2	423.1	417.4	410.0	406.0
22.5°	407.7	407.7	400.9	391.2	387.2
25°	392.4	390.1	383.8	370.1	359.9
27.5°	374.7	371.3	364.4	345.1	333.1
30°	355.3	353.6	343.9	318.9	309.8
32.5°	337.1	334.3	324.0	297.8	290.4
35°	318.3	316.0	300.7	277.9	271.1
37.5°	299.5	296.7	277.3	259.1	250.6
40°	280.7	277.3	256.3	239.7	230.6
42.5°	263.1	258.5	238.0	220.4	210.1
45°	244.3	239.2	218.7	200.4	192.5
47.5°	225.5	220.9	202.2	183.4	174.3
50°	205.6	201.6	184.5	165.7	156.0
52.5°	189.1	182.8	166.3	147.5	139.5
55°	169.7	164.6	149.2	131.5	124.7
57.5°	152.0	146.9	132.7	116.2	110.5
60°	135.5	128.1	116.2	101.9	97.4
62.5°	117.3	111.6	101.4	89.4	95.1
65°	100.8	95.1	86.0	87.7	72.9
67.5°	82.6	79.7	71.8	63.8	61.5
70°	67.2	63.8	60.9	52.4	50.1
72.5°	53.5	50.1	46.1	41.6	39.9
75°	40.4	37.6	35.3	33.6	37.0
77.5°	27.9	26.8	25.1	23.3	22.8
80°	18.2	17.7	17.1	16.5	15.9
82.5°	10.8	10.8	10.8	10.8	10.8
85°	5.7	6.3	6.8	7.4	8.0
87.5°	3.4	3.4	4.0	4.6	5.1
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)