

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: P544757

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-93-96-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: P544757
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-12-1-LD4-1HI-50-UNV-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

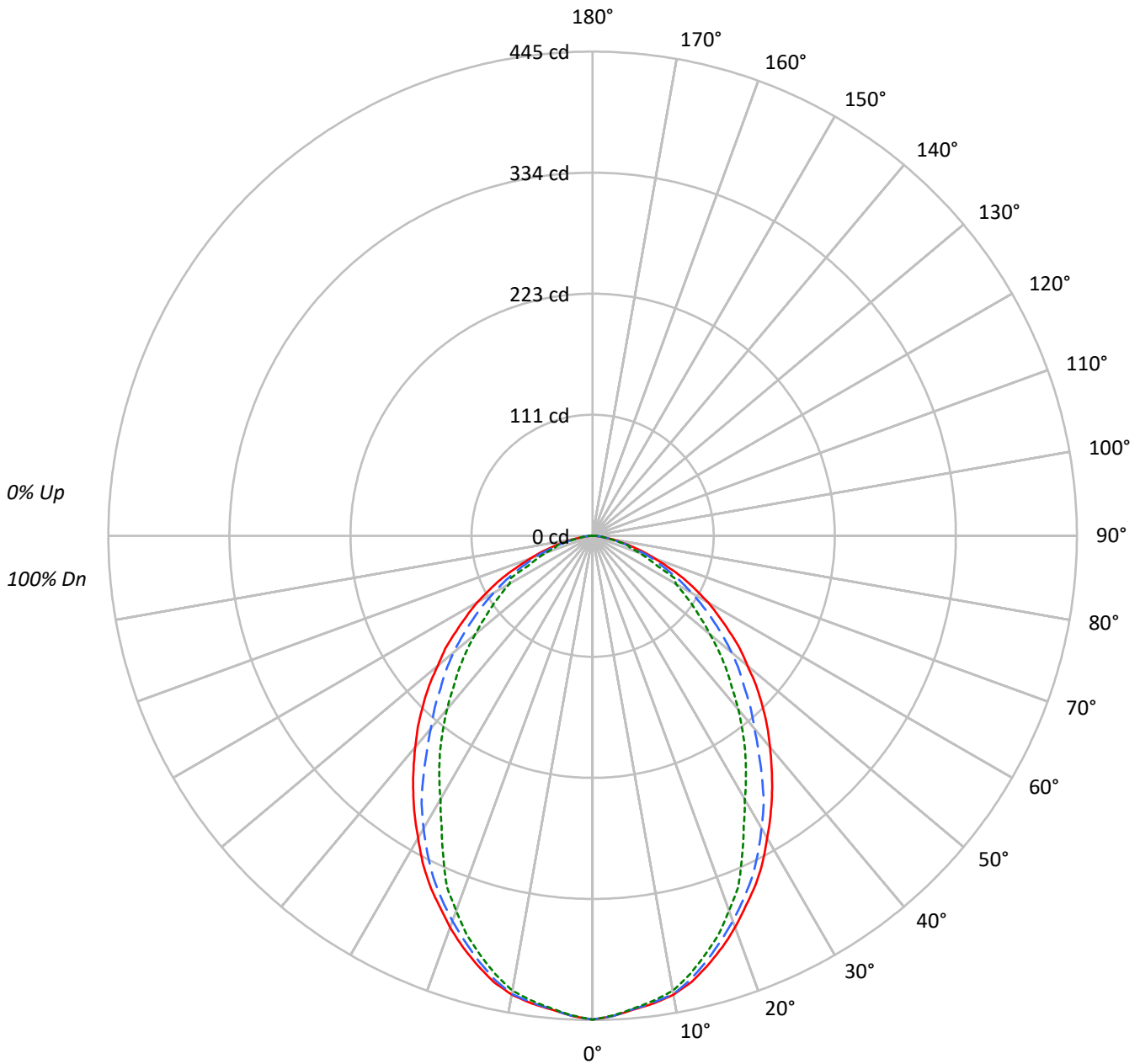
Lumens per Lamp: N/A
Luminaire Lumens: 873.0 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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°	4787	4787	4787
5°	4722	4716	4711
10°	4680	4675	4641
15°	4554	4509	4445
20°	4387	4316	4199
25°	4207	4115	3859
30°	3987	3859	3476
35°	3777	3566	3215
40°	3562	3250	2925
45°	3357	3005	2646
50°	3108	2790	2359
55°	2875	2528	2113
60°	2635	2258	1892
65°	2318	1976	1676
70°	1910	1731	1423
75°	1518	1327	1389
80°	1023	955	893
85°	630	766	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	4.7
10°-20°	113.6	13.0
20°-30°	157.3	18.0
30°-40°	167.7	19.2
40°-50°	153.0	17.5
50°-60°	119.9	13.7
60°-70°	78.1	8.9
70°-80°	34.6	4.0
80°-90°	7.4	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°	312.3	35.8
0°-40°	480.0	55.0
0°-60°	752.9	86.2
0°-90°	873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	445	445	445	445	445	
5°	437	436	436	436	436	41
15°	409	409	405	400	399	115
25°	354	352	346	334	325	163
35°	287	285	271	251	245	180
45°	220	216	197	181	174	170
55°	153	149	135	119	113	137
65°	91	86	78	79	66	90
75°	36	34	32	30	33	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	444.7	444.7	444.7	444.7	444.7
2.5°	441.6	441.6	441.6	441.1	441.1
5°	437.0	436.5	436.5	436.0	436.0
7.5°	433.4	432.9	432.4	431.8	430.8
10°	428.2	428.2	427.7	425.2	424.6
12.5°	420.0	419.5	417.4	413.8	412.8
15°	408.7	408.7	404.6	400.5	398.9
17.5°	396.4	395.9	390.7	386.6	384.5
20°	383.0	382.0	376.8	370.2	366.6
22.5°	368.1	368.1	361.9	353.2	349.6
25°	354.2	352.2	346.5	334.2	324.9
27.5°	338.3	335.2	329.0	311.5	300.7
30°	320.8	319.3	310.5	287.9	279.7
32.5°	304.3	301.8	292.5	268.9	262.2
35°	287.4	285.3	271.4	250.9	244.7
37.5°	270.4	267.8	250.4	233.9	226.2
40°	253.5	250.4	231.3	216.4	208.2
42.5°	237.5	233.4	214.9	199.0	189.7
45°	220.5	215.9	197.4	181.0	173.8
47.5°	203.6	199.5	182.5	165.5	157.3
50°	185.6	182.0	166.6	149.6	140.9
52.5°	170.7	165.0	150.1	133.2	126.0
55°	153.2	148.6	134.7	118.8	112.6
57.5°	137.3	132.6	119.8	104.9	99.7
60°	122.4	115.7	104.9	92.0	87.9
62.5°	105.9	100.8	91.5	80.7	85.9
65°	91.0	85.9	77.6	79.2	65.8
67.5°	74.5	72.0	64.8	57.6	55.5
70°	60.7	57.6	55.0	47.3	45.2
72.5°	48.3	45.2	41.6	37.5	36.0
75°	36.5	33.9	31.9	30.3	33.4
77.5°	25.2	24.2	22.6	21.1	20.6
80°	16.5	15.9	15.4	14.9	14.4
82.5°	9.8	9.8	9.8	9.8	9.8
85°	5.1	5.7	6.2	6.7	7.2
87.5°	3.1	3.1	3.6	4.1	4.6
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)