

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: P544850

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-93-87-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: P544850
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-LD4-1LO-50-UNV-93-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

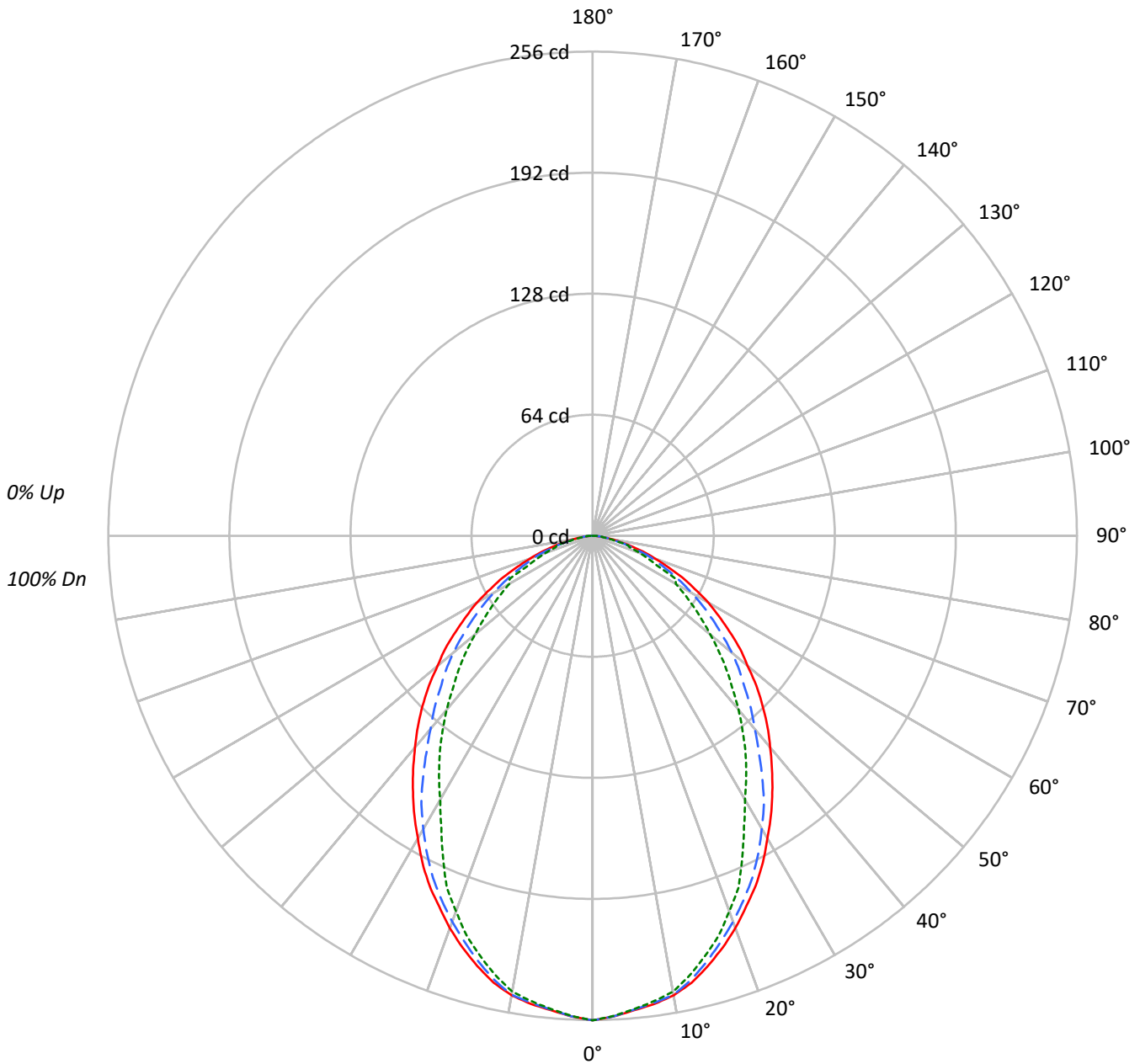
Lumens per Lamp: N/A
Luminaire Lumens: 503.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2758	2758	2758
5°	2721	2717	2714
10°	2696	2693	2675
15°	2624	2598	2562
20°	2528	2487	2419
25°	2424	2371	2223
30°	2297	2224	2002
35°	2176	2055	1853
40°	2051	1873	1686
45°	1935	1731	1524
50°	1790	1608	1360
55°	1657	1456	1218
60°	1518	1300	1091
65°	1335	1138	965
70°	1102	998	821
75°	873	765	803
80°	589	552	514
85°	371	445	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	4.7
10°-20°	65.5	13.0
20°-30°	90.6	18.0
30°-40°	96.6	19.2
40°-50°	88.2	17.5
50°-60°	69.1	13.7
60°-70°	45.0	8.9
70°-80°	19.9	4.0
80°-90°	4.3	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°	179.9	35.8
0°-40°	276.6	55.0
0°-60°	433.8	86.2
0°-90°	503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	503.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	256	256	256	256	256	
5°	252	252	252	251	251	24
15°	236	236	233	231	230	66
25°	204	203	200	192	187	94
35°	166	164	156	145	141	104
45°	127	124	114	104	100	98
55°	88	86	78	68	65	79
65°	52	50	45	46	38	52
75°	21	20	18	18	19	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	256.2	256.2	256.2	256.2	256.2
2.5°	254.4	254.4	254.4	254.1	254.1
5°	251.8	251.5	251.5	251.2	251.2
7.5°	249.7	249.4	249.1	248.8	248.2
10°	246.7	246.7	246.4	245.0	244.7
12.5°	242.0	241.7	240.5	238.4	237.9
15°	235.5	235.5	233.1	230.7	229.9
17.5°	228.4	228.1	225.1	222.7	221.6
20°	220.7	220.1	217.1	213.3	211.2
22.5°	212.1	212.1	208.5	203.5	201.4
25°	204.1	202.9	199.6	192.5	187.2
27.5°	194.9	193.1	189.6	179.5	173.3
30°	184.8	183.9	178.9	165.9	161.1
32.5°	175.4	173.9	168.5	154.9	151.1
35°	165.6	164.4	156.4	144.6	141.0
37.5°	155.8	154.3	144.3	134.8	130.3
40°	146.0	144.3	133.3	124.7	120.0
42.5°	136.8	134.5	123.8	114.6	109.3
45°	127.1	124.4	113.7	104.3	100.1
47.5°	117.3	114.9	105.2	95.4	90.6
50°	106.9	104.9	96.0	86.2	81.2
52.5°	98.3	95.1	86.5	76.7	72.6
55°	88.3	85.6	77.6	68.4	64.9
57.5°	79.1	76.4	69.0	60.4	57.5
60°	70.5	66.6	60.4	53.0	50.7
62.5°	61.0	58.1	52.7	46.5	49.5
65°	52.4	49.5	44.7	45.6	37.9
67.5°	43.0	41.5	37.3	33.2	32.0
70°	35.0	33.2	31.7	27.3	26.1
72.5°	27.8	26.1	24.0	21.6	20.7
75°	21.0	19.5	18.4	17.5	19.3
77.5°	14.5	13.9	13.0	12.1	11.8
80°	9.5	9.2	8.9	8.6	8.3
82.5°	5.6	5.6	5.6	5.6	5.6
85°	3.0	3.3	3.6	3.9	4.1
87.5°	1.8	1.8	2.1	2.4	2.7
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)