

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: P544932

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-81-94-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: P544932
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-LD4-1STD-50-UNV-81-94-EDD
Description: 1X1 FMR TROFFER WITH .156 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

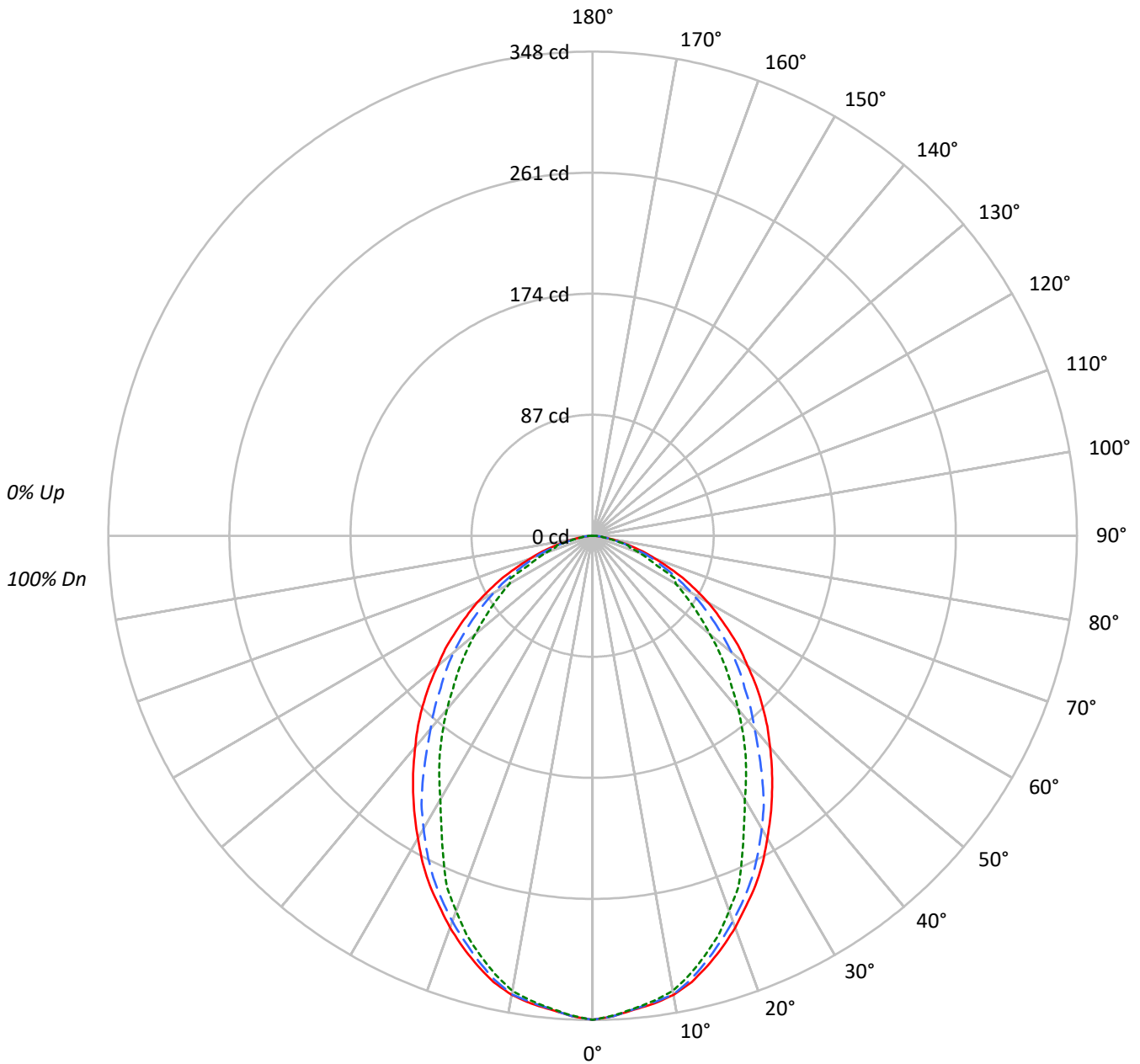
Lumens per Lamp: N/A
Luminaire Lumens: 683.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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	39	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°	3745	3745	3745
5°	3694	3690	3686
10°	3662	3657	3631
15°	3564	3527	3478
20°	3432	3377	3285
25°	3291	3220	3019
30°	3120	3019	2719
35°	2954	2791	2516
40°	2786	2543	2289
45°	2626	2350	2069
50°	2431	2182	1845
55°	2250	1978	1653
60°	2060	1767	1481
65°	1813	1546	1312
70°	1495	1353	1114
75°	1189	1036	1085
80°	800	750	700
85°	494	593	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	4.7
10°-20°	88.9	13.0
20°-30°	123.0	18.0
30°-40°	131.2	19.2
40°-50°	119.7	17.5
50°-60°	93.8	13.7
60°-70°	61.1	8.9
70°-80°	27.1	4.0
80°-90°	5.8	0.8
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°	244.3	35.8
0°-40°	375.5	55.0
0°-60°	589.0	86.2
0°-90°	683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	342	342	342	341	341	32
15°	320	320	316	313	312	90
25°	277	276	271	261	254	127
35°	225	223	212	196	192	141
45°	172	169	154	142	136	133
55°	120	116	105	93	88	108
65°	71	67	61	62	52	70
75°	29	26	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	347.9	347.9	347.9	347.9	347.9
2.5°	345.5	345.5	345.5	345.1	345.1
5°	341.9	341.5	341.5	341.1	341.1
7.5°	339.1	338.7	338.3	337.9	337.1
10°	335.0	335.0	334.6	332.6	332.2
12.5°	328.6	328.2	326.6	323.8	323.0
15°	319.8	319.8	316.5	313.3	312.1
17.5°	310.1	309.7	305.7	302.5	300.9
20°	299.6	298.8	294.8	289.6	286.8
22.5°	288.0	288.0	283.2	276.3	273.5
25°	277.1	275.5	271.1	261.4	254.2
27.5°	264.7	262.2	257.4	243.7	235.3
30°	251.0	249.8	242.9	225.2	218.8
32.5°	238.1	236.1	228.9	210.4	205.1
35°	224.8	223.2	212.4	196.3	191.5
37.5°	211.6	209.6	195.9	183.0	177.0
40°	198.3	195.9	181.0	169.3	162.9
42.5°	185.8	182.6	168.1	155.7	148.4
45°	172.5	168.9	154.4	141.6	135.9
47.5°	159.3	156.1	142.8	129.5	123.1
50°	145.2	142.4	130.3	117.0	110.2
52.5°	133.5	129.1	117.4	104.2	98.5
55°	119.9	116.2	105.4	92.9	88.1
57.5°	107.4	103.8	93.7	82.1	78.0
60°	95.7	90.5	82.1	72.0	68.8
62.5°	82.9	78.8	71.6	63.1	67.2
65°	71.2	67.2	60.7	61.9	51.5
67.5°	58.3	56.3	50.7	45.0	43.4
70°	47.5	45.0	43.0	37.0	35.4
72.5°	37.8	35.4	32.6	29.4	28.2
75°	28.6	26.5	24.9	23.7	26.1
77.5°	19.7	18.9	17.7	16.5	16.1
80°	12.9	12.5	12.1	11.7	11.3
82.5°	7.6	7.6	7.6	7.6	7.6
85°	4.0	4.4	4.8	5.2	5.6
87.5°	2.4	2.4	2.8	3.2	3.6
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)