

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: P544879

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-93-84-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: P544879
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-35-UNV-93-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

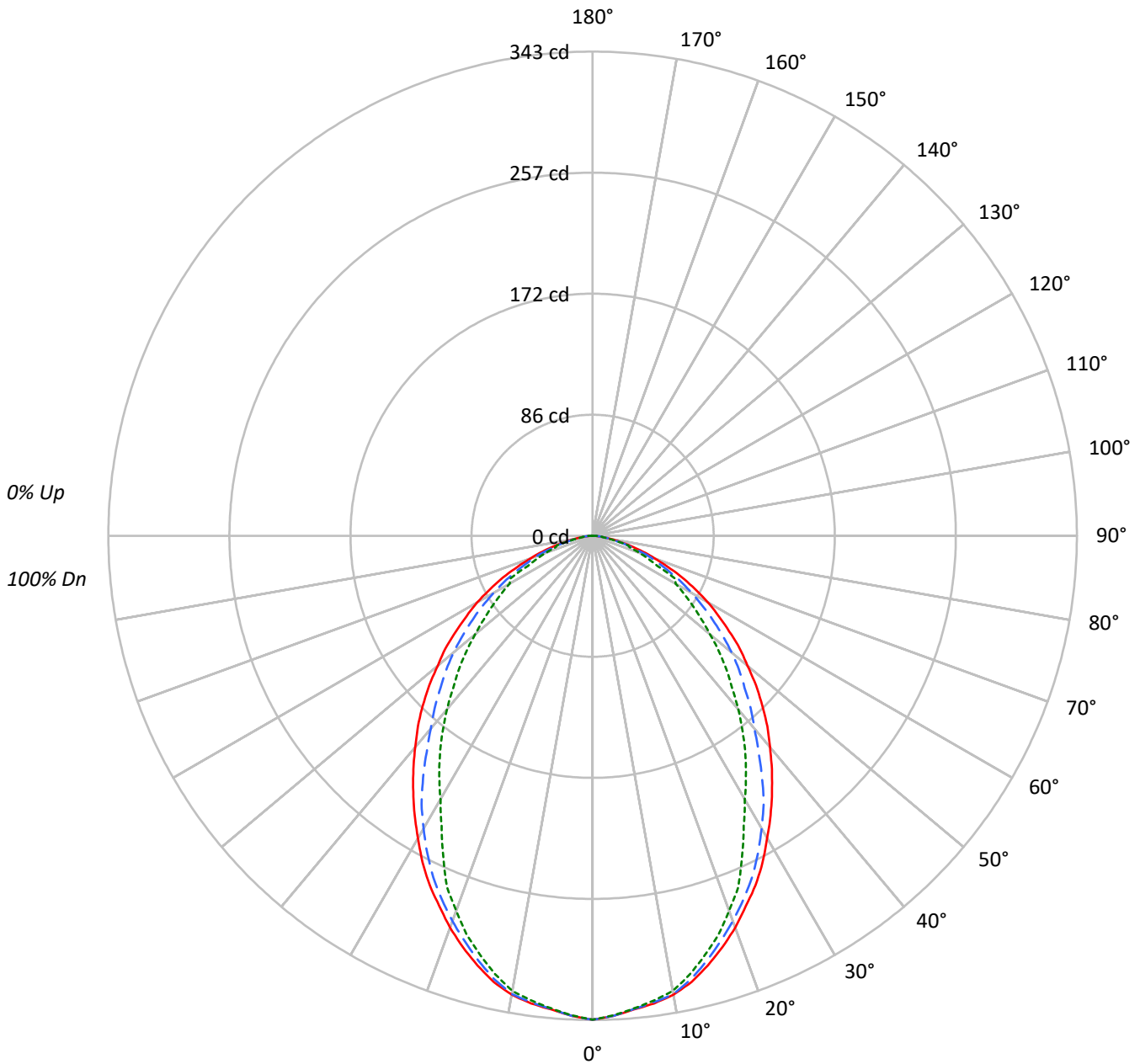
Lumens per Lamp: N/A
Luminaire Lumens: 673.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	3690	3690	3690
5°	3640	3636	3632
10°	3608	3604	3578
15°	3511	3476	3427
20°	3383	3328	3237
25°	3244	3172	2975
30°	3074	2976	2680
35°	2911	2750	2478
40°	2746	2505	2255
45°	2588	2317	2040
50°	2396	2150	1819
55°	2216	1948	1629
60°	2030	1739	1460
65°	1785	1523	1291
70°	1473	1334	1098
75°	1169	1023	1073
80°	787	738	688
85°	494	593	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	4.7
10°-20°	87.6	13.0
20°-30°	121.2	18.0
30°-40°	129.3	19.2
40°-50°	117.9	17.5
50°-60°	92.4	13.7
60°-70°	60.2	8.9
70°-80°	26.7	4.0
80°-90°	5.7	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°	240.7	35.8
0°-40°	370.0	55.0
0°-60°	580.4	86.2
0°-90°	673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	337	336	336	336	336	32
15°	315	315	312	309	308	89
25°	273	272	267	258	250	125
35°	222	220	209	193	189	139
45°	170	166	152	140	134	131
55°	118	114	104	92	87	106
65°	70	66	60	61	51	69
75°	28	26	25	23	26	30
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°	342.8	342.8	342.8	342.8	342.8
2.5°	340.4	340.4	340.4	340.0	340.0
5°	336.9	336.5	336.5	336.1	336.1
7.5°	334.1	333.7	333.3	332.9	332.1
10°	330.1	330.1	329.7	327.8	327.4
12.5°	323.8	323.4	321.8	319.0	318.2
15°	315.1	315.1	311.9	308.7	307.5
17.5°	305.6	305.2	301.2	298.0	296.4
20°	295.3	294.5	290.5	285.4	282.6
22.5°	283.8	283.8	279.0	272.3	269.5
25°	273.1	271.5	267.1	257.6	250.5
27.5°	260.8	258.4	253.6	240.2	231.8
30°	247.3	246.1	239.4	221.9	215.6
32.5°	234.6	232.6	225.5	207.3	202.1
35°	221.5	220.0	209.3	193.4	188.6
37.5°	208.5	206.5	193.0	180.3	174.4
40°	195.4	193.0	178.3	166.9	160.5
42.5°	183.1	179.9	165.7	153.4	146.2
45°	170.0	166.5	152.2	139.5	134.0
47.5°	156.9	153.8	140.7	127.6	121.3
50°	143.1	140.3	128.4	115.3	108.6
52.5°	131.6	127.2	115.7	102.6	97.1
55°	118.1	114.5	103.8	91.6	86.8
57.5°	105.8	102.3	92.3	80.8	76.9
60°	94.3	89.2	80.8	70.9	67.8
62.5°	81.6	77.7	70.5	62.2	66.2
65°	70.1	66.2	59.8	61.0	50.7
67.5°	57.5	55.5	49.9	44.4	42.8
70°	46.8	44.4	42.4	36.5	34.9
72.5°	37.3	34.9	32.1	28.9	27.7
75°	28.1	26.2	24.6	23.4	25.8
77.5°	19.4	18.6	17.4	16.2	15.9
80°	12.7	12.3	11.9	11.5	11.1
82.5°	7.5	7.5	7.5	7.5	7.5
85°	4.0	4.4	4.8	5.2	5.5
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)