

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: P545525

Luminaire Tested: **FMR-12-2-LD4-1STD-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: P545525
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-LD4-1STD-50-UNV-93-96-EDD
Description: 1X2 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

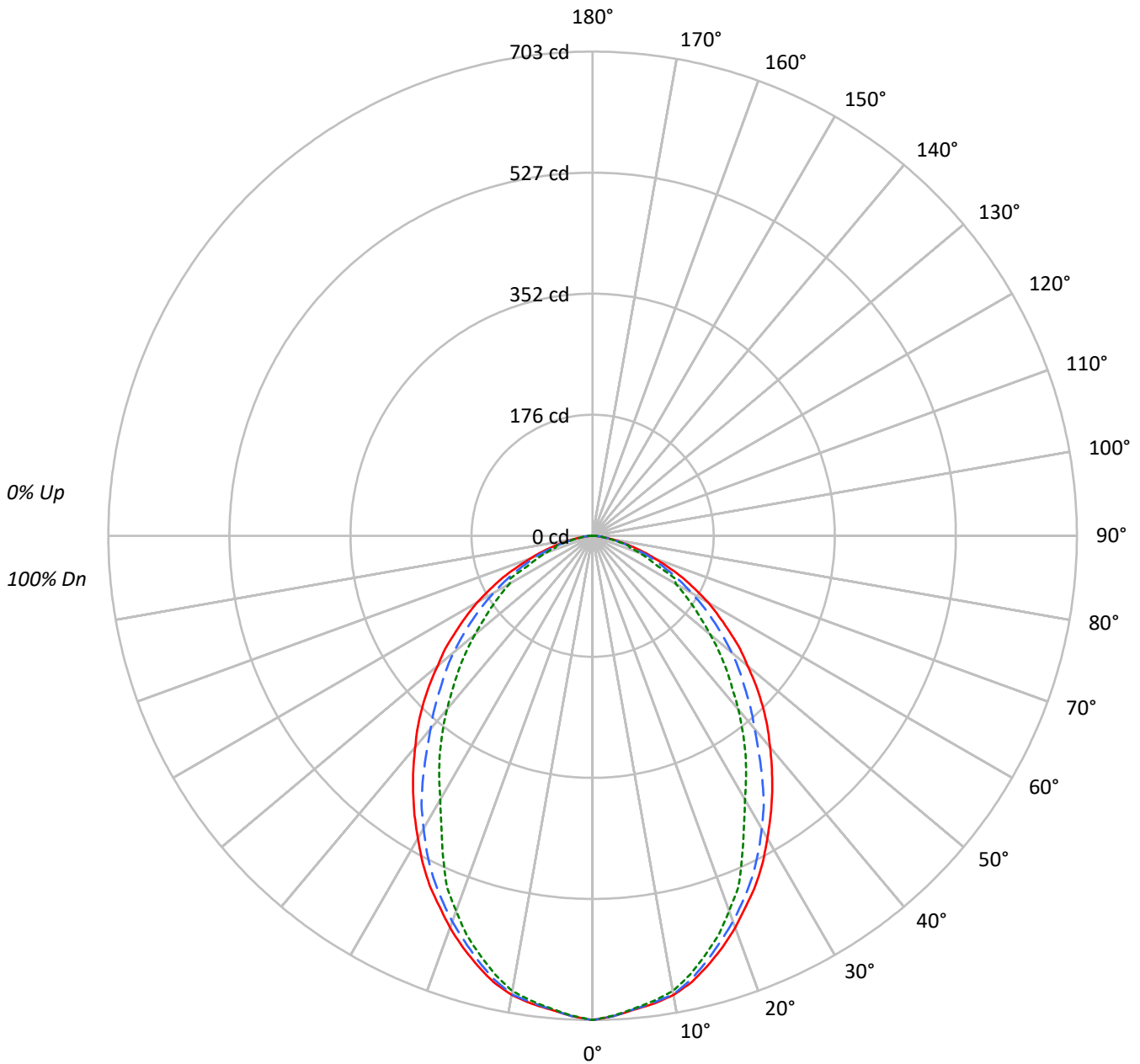
Lumens per Lamp: N/A
Luminaire Lumens: 1380.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3784	3784	3784
5°	3732	3728	3723
10°	3699	3695	3669
15°	3600	3564	3514
20°	3467	3412	3318
25°	3325	3252	3050
30°	3151	3050	2747
35°	2985	2819	2541
40°	2814	2569	2312
45°	2653	2375	2091
50°	2457	2205	1865
55°	2273	1998	1670
60°	2082	1785	1496
65°	1831	1563	1324
70°	1509	1369	1125
75°	1200	1048	1098
80°	806	756	707
85°	500	605	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	4.7
10°-20°	179.6	13.0
20°-30°	248.6	18.0
30°-40°	265.1	19.2
40°-50°	241.9	17.5
50°-60°	189.5	13.7
60°-70°	123.5	8.9
70°-80°	54.7	4.0
80°-90°	11.7	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°	493.6	35.8
0°-40°	758.7	55.0
0°-60°	1190.1	86.2
0°-90°	1380.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1380.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	691	690	690	689	689	66
15°	646	646	640	633	631	182
25°	560	557	548	528	514	257
35°	454	451	429	397	387	284
45°	349	341	312	286	275	269
55°	242	235	213	188	178	217
65°	144	136	123	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	11	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.0	703.0	703.0	703.0	703.0
2.5°	698.1	698.1	698.1	697.3	697.3
5°	690.8	690.0	690.0	689.1	689.1
7.5°	685.1	684.3	683.4	682.6	681.0
10°	676.9	676.9	676.1	672.1	671.3
12.5°	663.9	663.1	659.9	654.2	652.6
15°	646.1	646.1	639.6	633.1	630.6
17.5°	626.6	625.8	617.6	611.1	607.9
20°	605.4	603.8	595.7	585.1	579.4
22.5°	581.9	581.9	572.1	558.3	552.6
25°	559.9	556.7	547.7	528.2	513.6
27.5°	534.7	529.9	520.1	492.5	475.4
30°	507.1	504.7	490.8	455.1	442.1
32.5°	481.1	477.0	462.4	425.0	414.5
35°	454.3	451.0	429.1	396.6	386.8
37.5°	427.5	423.4	395.8	369.8	357.6
40°	400.6	395.8	365.7	342.1	329.1
42.5°	375.5	368.9	339.7	314.5	299.9
45°	348.6	341.3	312.1	286.1	274.7
47.5°	321.8	315.3	288.5	261.7	248.7
50°	293.4	287.7	263.3	236.5	222.7
52.5°	269.8	260.9	237.3	210.5	199.1
55°	242.2	234.9	212.9	187.7	178.0
57.5°	217.0	209.7	189.4	165.8	157.7
60°	193.4	182.8	165.8	145.5	139.0
62.5°	167.4	159.3	144.7	127.6	135.7
65°	143.8	135.7	122.7	125.2	104.0
67.5°	117.8	113.8	102.4	91.0	87.8
70°	95.9	91.0	87.0	74.8	71.5
72.5°	76.4	71.5	65.8	59.3	56.9
75°	57.7	53.6	50.4	47.9	52.8
77.5°	39.8	38.2	35.8	33.3	32.5
80°	26.0	25.2	24.4	23.6	22.8
82.5°	15.4	15.4	15.4	15.4	15.4
85°	8.1	8.9	9.8	10.6	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
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)