

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: P544948

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-93-94-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: P544948
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-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

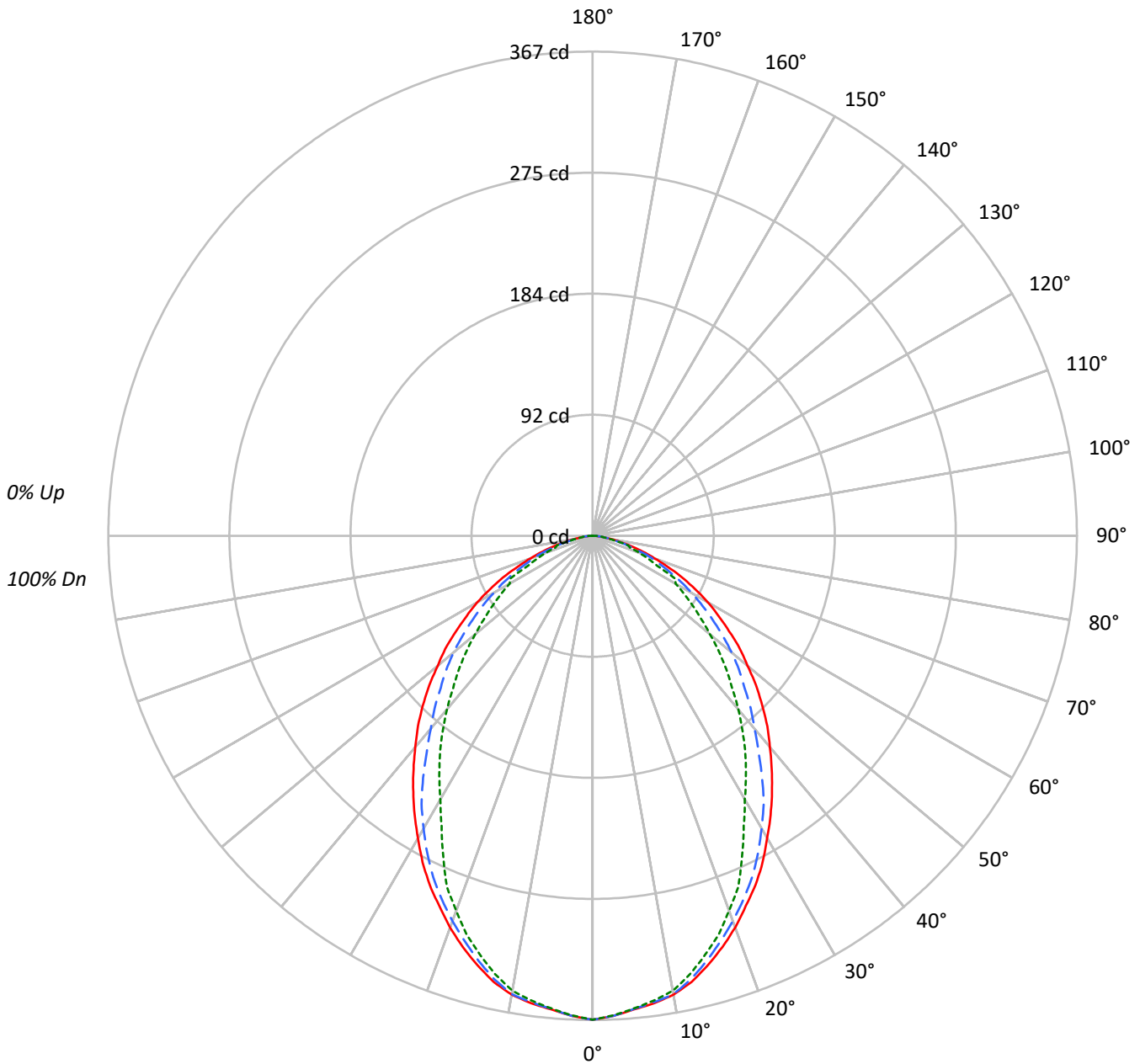
Lumens per Lamp: N/A
Luminaire Lumens: 720.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3948	3948	3948
5°	3894	3890	3885
10°	3860	3856	3828
15°	3757	3719	3666
20°	3619	3560	3463
25°	3469	3394	3183
30°	3289	3183	2867
35°	3114	2942	2652
40°	2937	2681	2413
45°	2769	2478	2181
50°	2564	2301	1946
55°	2372	2085	1743
60°	2172	1862	1561
65°	1910	1630	1383
70°	1574	1429	1174
75°	1252	1094	1148
80°	843	787	738
85°	519	630	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	4.7
10°-20°	93.7	13.0
20°-30°	129.7	18.0
30°-40°	138.3	19.2
40°-50°	126.2	17.5
50°-60°	98.9	13.7
60°-70°	64.4	8.9
70°-80°	28.6	4.0
80°-90°	6.1	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°	257.5	35.8
0°-40°	395.9	55.0
0°-60°	620.9	86.2
0°-90°	720.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	720.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	360	360	360	360	360	34
15°	337	337	334	330	329	95
25°	292	290	286	276	268	134
35°	237	235	224	207	202	148
45°	182	178	163	149	143	140
55°	126	122	111	98	93	113
65°	75	71	64	65	54	74
75°	30	28	26	25	28	32
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	366.8	366.8	366.8	366.8	366.8
2.5°	364.2	364.2	364.2	363.8	363.8
5°	360.4	360.0	360.0	359.6	359.6
7.5°	357.4	357.0	356.6	356.2	355.3
10°	353.2	353.2	352.8	350.6	350.2
12.5°	346.4	346.0	344.3	341.3	340.5
15°	337.1	337.1	333.7	330.3	329.0
17.5°	326.9	326.5	322.2	318.8	317.2
20°	315.9	315.0	310.8	305.3	302.3
22.5°	303.6	303.6	298.5	291.3	288.3
25°	292.1	290.4	285.8	275.6	268.0
27.5°	279.0	276.4	271.4	256.9	248.0
30°	264.6	263.3	256.1	237.4	230.7
32.5°	251.0	248.9	241.3	221.8	216.2
35°	237.0	235.3	223.9	206.9	201.8
37.5°	223.0	220.9	206.5	192.9	186.6
40°	209.0	206.5	190.8	178.5	171.7
42.5°	195.9	192.5	177.2	164.1	156.5
45°	181.9	178.1	162.8	149.2	143.3
47.5°	167.9	164.5	150.5	136.5	129.7
50°	153.1	150.1	137.4	123.4	116.2
52.5°	140.8	136.1	123.8	109.8	103.9
55°	126.4	122.5	111.1	97.9	92.9
57.5°	113.2	109.4	98.8	86.5	82.3
60°	100.9	95.4	86.5	75.9	72.5
62.5°	87.3	83.1	75.5	66.6	70.8
65°	75.0	70.8	64.0	65.3	54.3
67.5°	61.5	59.4	53.4	47.5	45.8
70°	50.0	47.5	45.4	39.0	37.3
72.5°	39.9	37.3	34.3	31.0	29.7
75°	30.1	28.0	26.3	25.0	27.6
77.5°	20.8	19.9	18.7	17.4	17.0
80°	13.6	13.1	12.7	12.3	11.9
82.5°	8.1	8.1	8.1	8.1	8.1
85°	4.2	4.7	5.1	5.5	5.9
87.5°	2.5	2.5	3.0	3.4	3.8
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)