

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: P544862

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-80-97-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: P544862
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-80-97-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

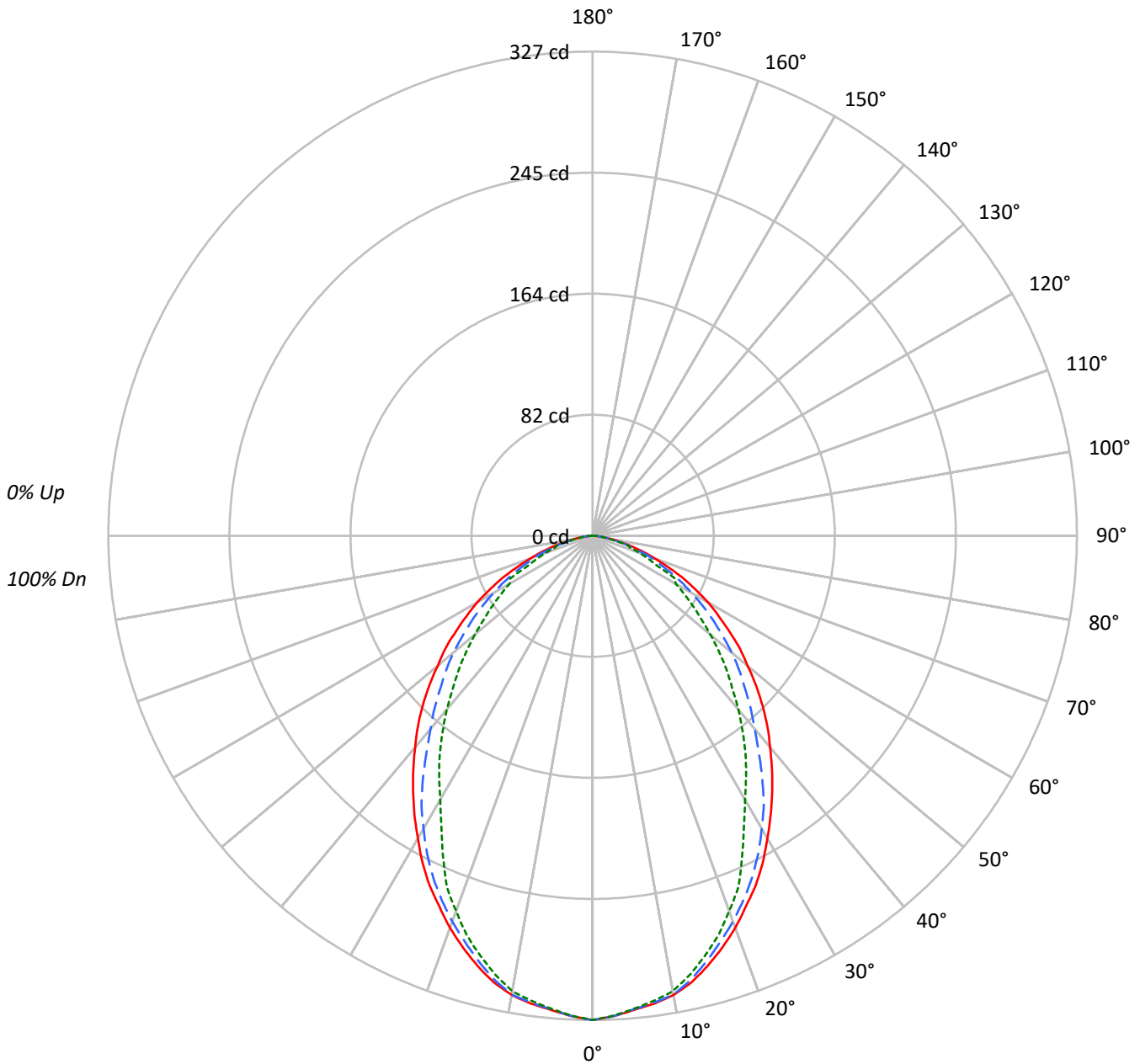
Lumens per Lamp: N/A
Luminaire Lumens: 642.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
Input Voltage (V): NR
Input Current (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°	3520	3520	3520
5°	3473	3468	3464
10°	3442	3439	3413
15°	3350	3315	3270
20°	3227	3174	3088
25°	3094	3026	2837
30°	2932	2839	2557
35°	2777	2623	2365
40°	2619	2390	2151
45°	2469	2210	1945
50°	2286	2051	1735
55°	2115	1860	1554
60°	1938	1660	1391
65°	1704	1454	1233
70°	1404	1275	1048
75°	1115	973	1023
80°	750	700	657
85°	469	556	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.4	4.7
10°-20°	83.5	13.0
20°-30°	115.7	18.0
30°-40°	123.3	19.2
40°-50°	112.5	17.5
50°-60°	88.1	13.7
60°-70°	57.4	8.9
70°-80°	25.5	4.0
80°-90°	5.5	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°	229.7	35.8
0°-40°	353.0	55.0
0°-60°	553.6	86.2
0°-90°	642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	327	327	327	327	327	
5°	321	321	321	321	321	31
15°	301	301	298	294	293	85
25°	260	259	255	246	239	120
35°	211	210	200	184	180	132
45°	162	159	145	133	128	125
55°	113	109	99	87	83	101
65°	67	63	57	58	48	66
75°	27	25	23	22	25	29
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	327.0	327.0	327.0	327.0	327.0
2.5°	324.8	324.8	324.8	324.4	324.4
5°	321.4	321.0	321.0	320.6	320.6
7.5°	318.7	318.3	318.0	317.6	316.8
10°	314.9	314.9	314.6	312.7	312.3
12.5°	308.9	308.5	307.0	304.3	303.6
15°	300.6	300.6	297.5	294.5	293.4
17.5°	291.5	291.1	287.3	284.3	282.8
20°	281.7	280.9	277.1	272.2	269.6
22.5°	270.7	270.7	266.2	259.7	257.1
25°	260.5	259.0	254.8	245.7	238.9
27.5°	248.8	246.5	242.0	229.1	221.2
30°	235.9	234.8	228.4	211.7	205.7
32.5°	223.8	221.9	215.1	197.7	192.8
35°	211.3	209.8	199.6	184.5	180.0
37.5°	198.9	197.0	184.1	172.0	166.3
40°	186.4	184.1	170.1	159.2	153.1
42.5°	174.7	171.6	158.0	146.3	139.5
45°	162.2	158.8	145.2	133.1	127.8
47.5°	149.7	146.7	134.2	121.7	115.7
50°	136.5	133.8	122.5	110.0	103.6
52.5°	125.5	121.4	110.4	97.9	92.6
55°	112.7	109.3	99.1	87.3	82.8
57.5°	100.9	97.5	88.1	77.1	73.3
60°	90.0	85.1	77.1	67.7	64.6
62.5°	77.9	74.1	67.3	59.4	63.1
65°	66.9	63.1	57.1	58.2	48.4
67.5°	54.8	52.9	47.6	42.3	40.8
70°	44.6	42.3	40.5	34.8	33.3
72.5°	35.5	33.3	30.6	27.6	26.5
75°	26.8	25.0	23.4	22.3	24.6
77.5°	18.5	17.8	16.6	15.5	15.1
80°	12.1	11.7	11.3	11.0	10.6
82.5°	7.2	7.2	7.2	7.2	7.2
85°	3.8	4.2	4.5	4.9	5.3
87.5°	2.3	2.3	2.6	3.0	3.4
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)