

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: P545064

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-82-85-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: P545064
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-LD4-2LO-35-UNV-82-85-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

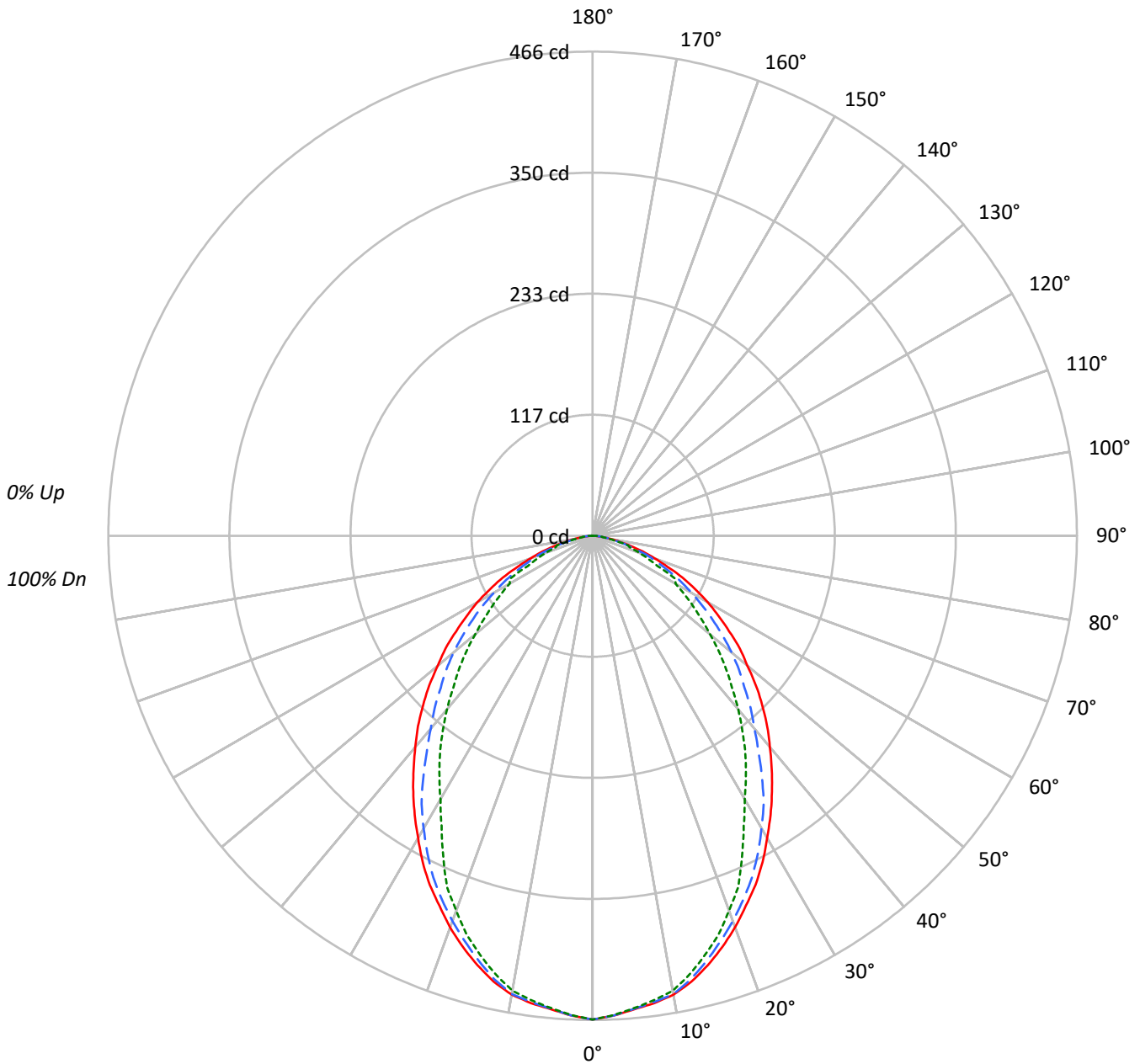
Lumens per Lamp: N/A
Luminaire Lumens: 914.0 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	5012	5012	5012
5°	4943	4938	4931
10°	4901	4894	4859
15°	4768	4720	4655
20°	4593	4519	4396
25°	4404	4309	4040
30°	4175	4041	3639
35°	3954	3734	3367
40°	3729	3403	3063
45°	3515	3146	2769
50°	3254	2920	2470
55°	3010	2646	2213
60°	2758	2364	1981
65°	2427	2071	1755
70°	1998	1813	1492
75°	1589	1389	1456
80°	1066	998	936
85°	667	803	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	4.7
10°-20°	118.9	13.0
20°-30°	164.7	18.0
30°-40°	175.6	19.2
40°-50°	160.2	17.5
50°-60°	125.5	13.7
60°-70°	81.8	8.9
70°-80°	36.2	4.0
80°-90°	7.8	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°	326.9	35.8
0°-40°	502.5	55.0
0°-60°	788.2	86.2
0°-90°	914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	458	457	457	456	456	43
15°	428	428	424	419	418	120
25°	371	369	363	350	340	170
35°	301	299	284	263	256	188
45°	231	226	207	190	182	178
55°	160	156	141	124	118	144
65°	95	90	81	83	69	94
75°	38	36	33	32	35	41
85°	5	6	6	7	8	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	465.6	465.6	465.6	465.6	465.6
2.5°	462.3	462.3	462.3	461.8	461.8
5°	457.5	457.0	457.0	456.4	456.4
7.5°	453.7	453.2	452.7	452.1	451.0
10°	448.4	448.4	447.8	445.1	444.6
12.5°	439.7	439.2	437.1	433.3	432.2
15°	427.9	427.9	423.6	419.3	417.7
17.5°	415.0	414.4	409.1	404.8	402.6
20°	401.0	399.9	394.5	387.5	383.8
22.5°	385.4	385.4	378.9	369.8	366.0
25°	370.8	368.7	362.8	349.9	340.2
27.5°	354.2	350.9	344.5	326.2	314.9
30°	335.9	334.2	325.1	301.4	292.8
32.5°	318.6	315.9	306.3	281.5	274.5
35°	300.9	298.7	284.2	262.7	256.2
37.5°	283.1	280.4	262.1	244.9	236.8
40°	265.4	262.1	242.2	226.6	218.0
42.5°	248.7	244.4	225.0	208.3	198.6
45°	230.9	226.1	206.7	189.5	181.9
47.5°	213.1	208.8	191.1	173.3	164.7
50°	194.3	190.5	174.4	156.6	147.5
52.5°	178.7	172.8	157.2	139.4	131.9
55°	160.4	155.6	141.0	124.3	117.9
57.5°	143.7	138.9	125.4	109.8	104.4
60°	128.1	121.1	109.8	96.3	92.0
62.5°	110.9	105.5	95.8	84.5	89.9
65°	95.3	89.9	81.3	82.9	68.9
67.5°	78.0	75.4	67.8	60.3	58.1
70°	63.5	60.3	57.6	49.5	47.4
72.5°	50.6	47.4	43.6	39.3	37.7
75°	38.2	35.5	33.4	31.8	35.0
77.5°	26.4	25.3	23.7	22.1	21.5
80°	17.2	16.7	16.1	15.6	15.1
82.5°	10.2	10.2	10.2	10.2	10.2
85°	5.4	5.9	6.5	7.0	7.5
87.5°	3.2	3.2	3.8	4.3	4.8
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)