

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: P544784

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-93-85-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: P544784
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-LD4-1LO-35-UNV-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

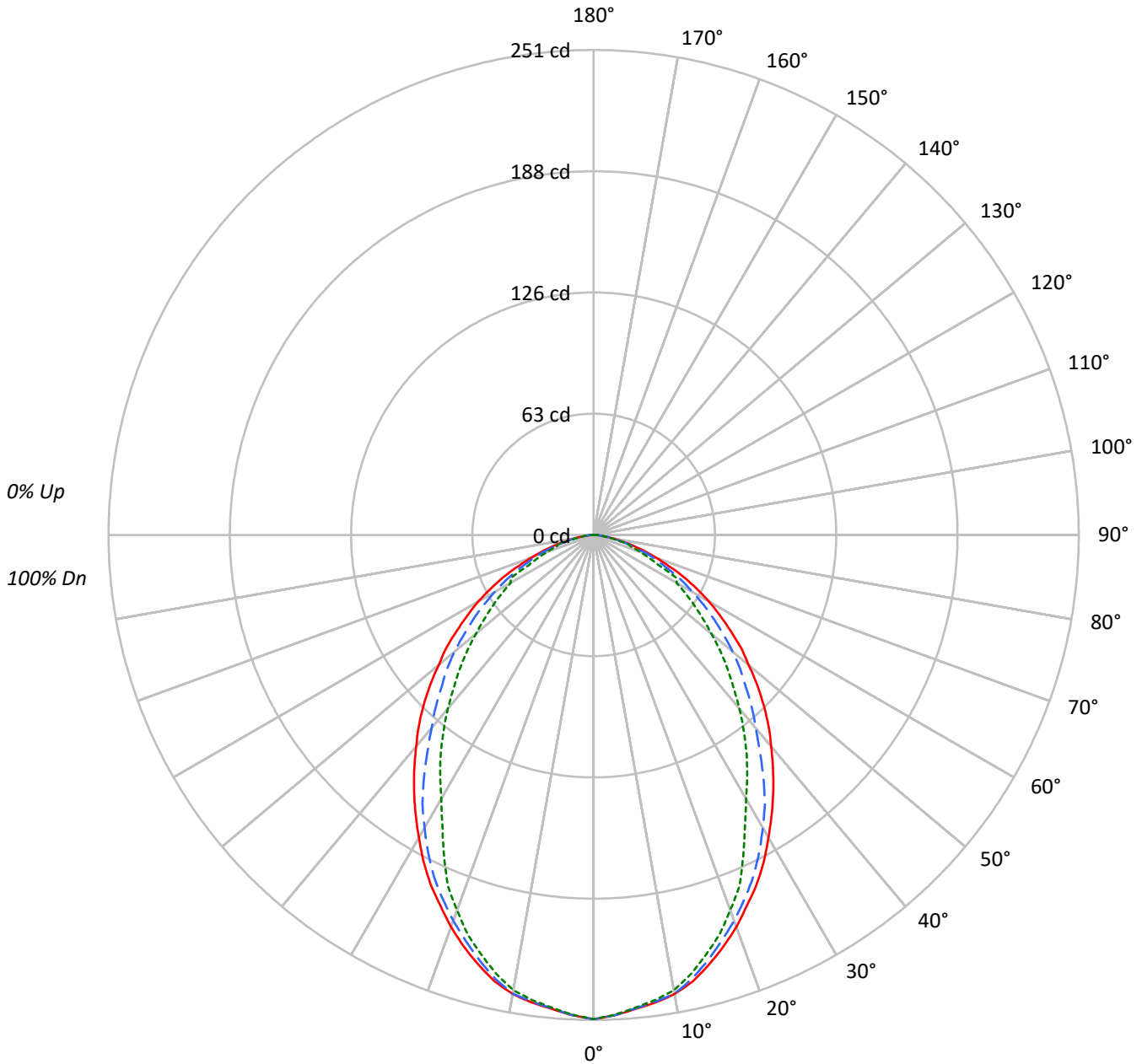
Lumens per Lamp: N/A
Luminaire Lumens: 492.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2697	2697	2697
5°	2661	2658	2655
10°	2637	2635	2616
15°	2566	2541	2505
20°	2473	2433	2367
25°	2371	2320	2175
30°	2247	2175	1959
35°	2129	2010	1812
40°	2007	1832	1648
45°	1892	1694	1490
50°	1752	1572	1330
55°	1620	1424	1192
60°	1485	1272	1066
65°	1307	1113	945
70°	1076	976	803
75°	857	749	782
80°	576	539	502
85°	358	432	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	4.7
10°-20°	64.0	13.0
20°-30°	88.6	18.0
30°-40°	94.5	19.2
40°-50°	86.2	17.5
50°-60°	67.6	13.7
60°-70°	44.0	8.9
70°-80°	19.5	4.0
80°-90°	4.2	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°	176.0	35.8
0°-40°	270.5	55.0
0°-60°	424.3	86.2
0°-90°	492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	251	251	251	251	251	
5°	246	246	246	246	246	23
15°	230	230	228	226	225	65
25°	200	198	195	188	183	92
35°	162	161	153	141	138	101
45°	124	122	111	102	98	96
55°	86	84	76	67	64	77
65°	51	48	44	45	37	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	250.6	250.6	250.6	250.6	250.6
2.5°	248.9	248.9	248.9	248.6	248.6
5°	246.3	246.0	246.0	245.7	245.7
7.5°	244.2	244.0	243.7	243.4	242.8
10°	241.3	241.3	241.1	239.6	239.3
12.5°	236.7	236.4	235.3	233.2	232.7
15°	230.3	230.3	228.0	225.7	224.8
17.5°	223.4	223.1	220.2	217.9	216.7
20°	215.9	215.3	212.4	208.6	206.6
22.5°	207.4	207.4	204.0	199.0	197.0
25°	199.6	198.5	195.3	188.3	183.1
27.5°	190.6	188.9	185.4	175.6	169.5
30°	180.8	179.9	175.0	162.2	157.6
32.5°	171.5	170.1	164.9	151.5	147.8
35°	162.0	160.8	153.0	141.4	137.9
37.5°	152.4	151.0	141.1	131.8	127.5
40°	142.8	141.1	130.4	122.0	117.3
42.5°	133.9	131.5	121.1	112.1	106.9
45°	124.3	121.7	111.3	102.0	97.9
47.5°	114.7	112.4	102.9	93.3	88.7
50°	104.6	102.6	93.9	84.3	79.4
52.5°	96.2	93.0	84.6	75.0	71.0
55°	86.3	83.7	75.9	66.9	63.5
57.5°	77.4	74.8	67.5	59.1	56.2
60°	69.0	65.2	59.1	51.9	49.5
62.5°	59.7	56.8	51.6	45.5	48.4
65°	51.3	48.4	43.7	44.6	37.1
67.5°	42.0	40.6	36.5	32.4	31.3
70°	34.2	32.4	31.0	26.7	25.5
72.5°	27.2	25.5	23.5	21.2	20.3
75°	20.6	19.1	18.0	17.1	18.8
77.5°	14.2	13.6	12.7	11.9	11.6
80°	9.3	9.0	8.7	8.4	8.1
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.7	1.7	2.0	2.3	2.6
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)