

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: P544799

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-81-84-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: P544799
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-40-UNV-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

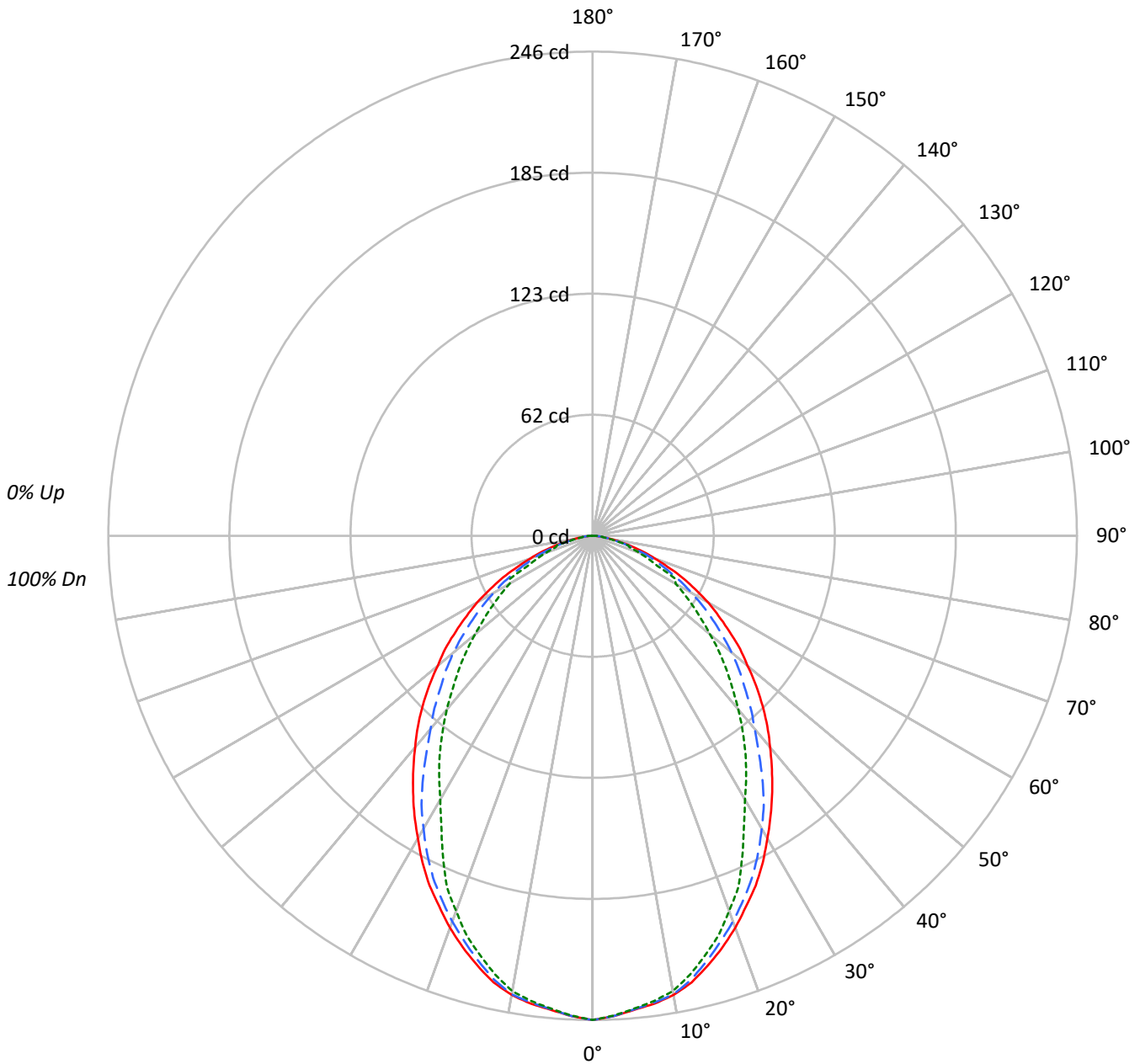
Lumens per Lamp: N/A
Luminaire Lumens: 483.0 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2648	2648	2648
5°	2613	2609	2606
10°	2589	2586	2567
15°	2520	2494	2459
20°	2427	2388	2323
25°	2328	2277	2135
30°	2206	2135	1923
35°	2089	1974	1779
40°	1970	1799	1619
45°	1857	1662	1463
50°	1720	1544	1304
55°	1591	1398	1169
60°	1457	1249	1046
65°	1281	1093	927
70°	1057	957	787
75°	840	732	769
80°	564	527	496
85°	346	420	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.9	4.7
10°-20°	62.9	13.0
20°-30°	87.0	18.0
30°-40°	92.8	19.2
40°-50°	84.6	17.5
50°-60°	66.3	13.7
60°-70°	43.2	8.9
70°-80°	19.1	4.0
80°-90°	4.1	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°	172.8	35.8
0°-40°	265.6	55.0
0°-60°	416.5	86.2
0°-90°	483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	246	246	246	246	246	
5°	242	242	242	241	241	23
15°	226	226	224	222	221	64
25°	196	195	192	185	180	90
35°	159	158	150	139	135	99
45°	122	120	109	100	96	94
55°	85	82	74	66	62	76
65°	50	48	43	44	36	50
75°	20	19	18	17	18	22
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	246.0	246.0	246.0	246.0	246.0
2.5°	244.3	244.3	244.3	244.0	244.0
5°	241.8	241.5	241.5	241.2	241.2
7.5°	239.8	239.5	239.2	238.9	238.4
10°	236.9	236.9	236.6	235.2	234.9
12.5°	232.4	232.1	231.0	229.0	228.4
15°	226.1	226.1	223.8	221.6	220.7
17.5°	219.3	219.0	216.2	213.9	212.8
20°	211.9	211.3	208.5	204.8	202.8
22.5°	203.7	203.7	200.2	195.4	193.4
25°	196.0	194.8	191.7	184.9	179.8
27.5°	187.2	185.4	182.0	172.4	166.4
30°	177.5	176.6	171.8	159.3	154.7
32.5°	168.4	167.0	161.8	148.8	145.1
35°	159.0	157.9	150.2	138.8	135.4
37.5°	149.6	148.2	138.5	129.4	125.2
40°	140.2	138.5	128.0	119.7	115.2
42.5°	131.4	129.1	118.9	110.1	105.0
45°	122.0	119.5	109.2	100.1	96.1
47.5°	112.6	110.4	101.0	91.6	87.0
50°	102.7	100.7	92.2	82.8	77.9
52.5°	94.4	91.3	83.1	73.7	69.7
55°	84.8	82.2	74.5	65.7	62.3
57.5°	75.9	73.4	66.3	58.0	55.2
60°	67.7	64.0	58.0	50.9	48.6
62.5°	58.6	55.7	50.6	44.7	47.5
65°	50.3	47.5	42.9	43.8	36.4
67.5°	41.2	39.8	35.8	31.9	30.7
70°	33.6	31.9	30.4	26.2	25.0
72.5°	26.7	25.0	23.0	20.8	19.9
75°	20.2	18.8	17.6	16.8	18.5
77.5°	13.9	13.4	12.5	11.7	11.4
80°	9.1	8.8	8.5	8.2	8.0
82.5°	5.4	5.4	5.4	5.4	5.4
85°	2.8	3.1	3.4	3.7	4.0
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)