

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: P544773

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-81-96-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: P544773
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-81-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

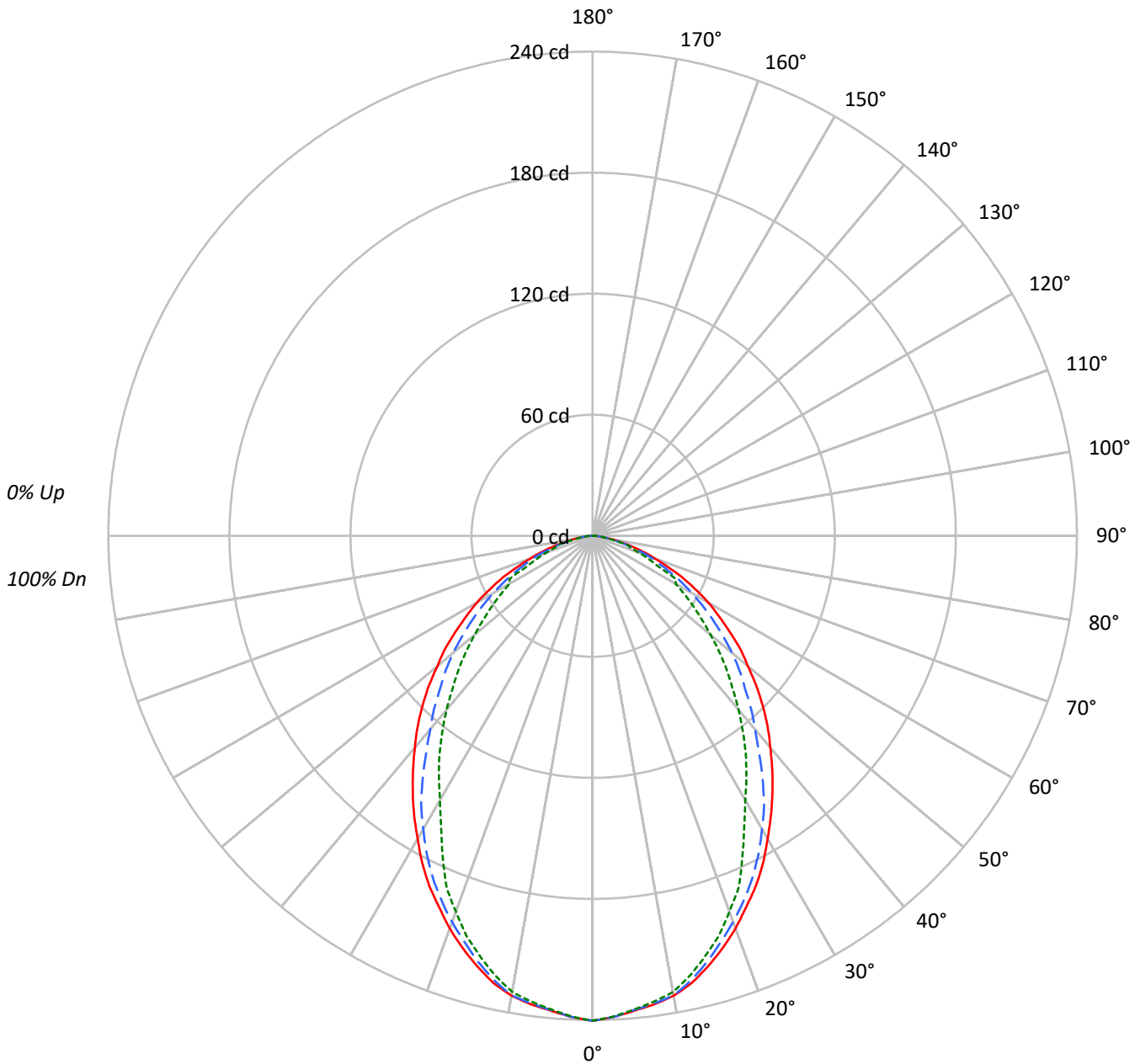
Lumens per Lamp: N/A
Luminaire Lumens: 472.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2588	2588	2588
5°	2553	2550	2547
10°	2530	2528	2510
15°	2463	2438	2404
20°	2372	2333	2270
25°	2274	2224	2087
30°	2155	2087	1879
35°	2042	1929	1738
40°	1925	1758	1582
45°	1815	1624	1429
50°	1680	1509	1276
55°	1554	1366	1143
60°	1425	1221	1023
65°	1253	1070	907
70°	1032	935	771
75°	819	715	753
80°	552	514	483
85°	346	408	482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.4	4.7
10°-20°	61.4	13.0
20°-30°	85.0	18.0
30°-40°	90.7	19.2
40°-50°	82.7	17.5
50°-60°	64.8	13.7
60°-70°	42.2	8.9
70°-80°	18.7	4.0
80°-90°	4.0	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°	168.8	35.8
0°-40°	259.5	55.0
0°-60°	407.0	86.2
0°-90°	472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	240	240	240	240	240	
5°	236	236	236	236	236	22
15°	221	221	219	216	216	62
25°	192	190	187	181	176	88
35°	155	154	147	136	132	97
45°	119	117	107	98	94	92
55°	83	80	73	64	61	74
65°	49	46	42	43	36	49
75°	20	18	17	16	18	21
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°	240.4	240.4	240.4	240.4	240.4
2.5°	238.8	238.8	238.8	238.5	238.5
5°	236.3	236.0	236.0	235.7	235.7
7.5°	234.3	234.0	233.8	233.5	232.9
10°	231.5	231.5	231.3	229.9	229.6
12.5°	227.1	226.8	225.7	223.8	223.2
15°	221.0	221.0	218.8	216.5	215.7
17.5°	214.3	214.0	211.2	209.0	207.9
20°	207.1	206.5	203.7	200.1	198.2
22.5°	199.0	199.0	195.7	191.0	189.0
25°	191.5	190.4	187.3	180.7	175.7
27.5°	182.9	181.2	177.9	168.4	162.6
30°	173.4	172.6	167.9	155.7	151.2
32.5°	164.5	163.2	158.2	145.4	141.8
35°	155.4	154.3	146.8	135.6	132.3
37.5°	146.2	144.8	135.4	126.5	122.3
40°	137.0	135.4	125.1	117.0	112.6
42.5°	128.4	126.2	116.2	107.6	102.6
45°	119.2	116.7	106.7	97.8	93.9
47.5°	110.1	107.8	98.7	89.5	85.1
50°	100.3	98.4	90.1	80.9	76.2
52.5°	92.3	89.2	81.2	72.0	68.1
55°	82.8	80.3	72.8	64.2	60.9
57.5°	74.2	71.7	64.8	56.7	53.9
60°	66.2	62.5	56.7	49.8	47.5
62.5°	57.3	54.5	49.5	43.6	46.4
65°	49.2	46.4	42.0	42.8	35.6
67.5°	40.3	38.9	35.0	31.1	30.0
70°	32.8	31.1	29.7	25.6	24.5
72.5°	26.1	24.5	22.5	20.3	19.5
75°	19.7	18.3	17.2	16.4	18.1
77.5°	13.6	13.1	12.2	11.4	11.1
80°	8.9	8.6	8.3	8.1	7.8
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.3	3.6	3.9
87.5°	1.7	1.7	1.9	2.2	2.5
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)