

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: P544808

Luminaire Tested: **FMR-12-1-LD4-1LO-40-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: P544808
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-82-85-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

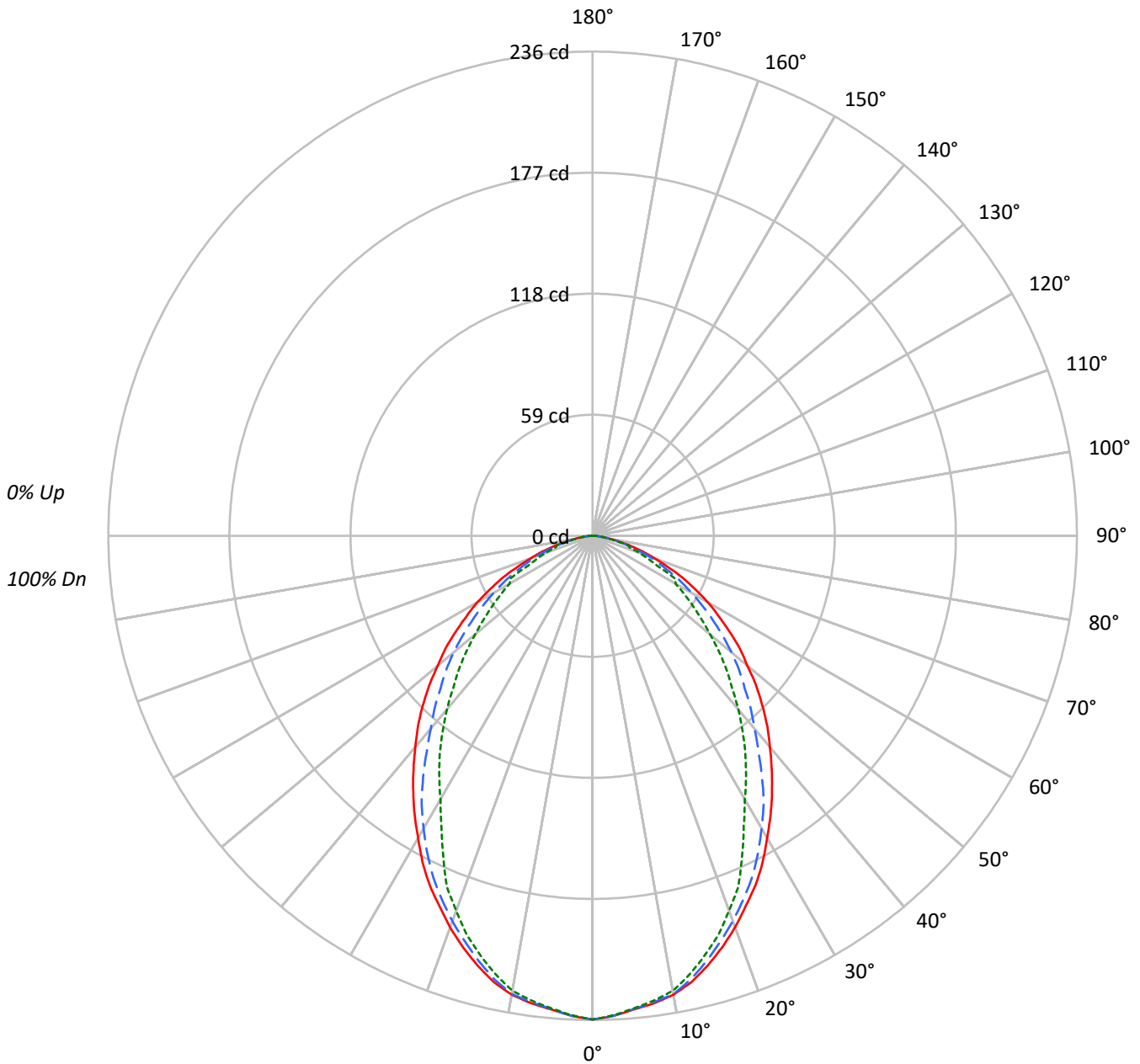
Lumens per Lamp: N/A
Luminaire Lumens: 463.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2538	2538	2538
5°	2505	2501	2498
10°	2482	2479	2461
15°	2416	2391	2358
20°	2326	2290	2227
25°	2232	2183	2046
30°	2114	2047	1843
35°	2003	1892	1706
40°	1888	1724	1551
45°	1781	1594	1404
50°	1648	1479	1251
55°	1526	1340	1120
60°	1397	1197	1003
65°	1230	1049	889
70°	1013	919	755
75°	807	703	736
80°	539	508	471
85°	333	408	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	4.7
10°-20°	60.3	13.0
20°-30°	83.4	18.0
30°-40°	88.9	19.2
40°-50°	81.1	17.5
50°-60°	63.6	13.7
60°-70°	41.4	8.9
70°-80°	18.4	4.0
80°-90°	3.9	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°	165.6	35.8
0°-40°	254.6	55.0
0°-60°	399.3	86.2
0°-90°	463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	236	236	236	236	236	
5°	232	232	232	231	231	22
15°	217	217	215	212	212	61
25°	188	187	184	177	172	86
35°	152	151	144	133	130	95
45°	117	114	105	96	92	90
55°	81	79	71	63	60	73
65°	48	46	41	42	35	48
75°	19	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°	235.8	235.8	235.8	235.8	235.8
2.5°	234.2	234.2	234.2	233.9	233.9
5°	231.8	231.5	231.5	231.2	231.2
7.5°	229.8	229.6	229.3	229.0	228.5
10°	227.1	227.1	226.8	225.5	225.2
12.5°	222.8	222.5	221.4	219.5	218.9
15°	216.8	216.8	214.6	212.4	211.6
17.5°	210.2	209.9	207.2	205.0	203.9
20°	203.1	202.6	199.9	196.3	194.4
22.5°	195.2	195.2	191.9	187.3	185.4
25°	187.9	186.8	183.8	177.2	172.3
27.5°	179.4	177.8	174.5	165.2	159.5
30°	170.1	169.3	164.7	152.7	148.3
32.5°	161.4	160.0	155.1	142.6	139.1
35°	152.4	151.3	144.0	133.1	129.8
37.5°	143.4	142.1	132.8	124.1	120.0
40°	134.4	132.8	122.7	114.8	110.4
42.5°	126.0	123.8	114.0	105.5	100.6
45°	117.0	114.5	104.7	96.0	92.2
47.5°	108.0	105.8	96.8	87.8	83.4
50°	98.4	96.5	88.3	79.3	74.7
52.5°	90.5	87.5	79.6	70.6	66.8
55°	81.3	78.8	71.4	63.0	59.7
57.5°	72.8	70.3	63.5	55.6	52.9
60°	64.9	61.3	55.6	48.8	46.6
62.5°	56.2	53.4	48.5	42.8	45.5
65°	48.3	45.5	41.2	42.0	34.9
67.5°	39.5	38.2	34.4	30.5	29.4
70°	32.2	30.5	29.2	25.1	24.0
72.5°	25.6	24.0	22.1	19.9	19.1
75°	19.4	18.0	16.9	16.1	17.7
77.5°	13.4	12.8	12.0	11.2	10.9
80°	8.7	8.5	8.2	7.9	7.6
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.7	3.0	3.3	3.5	3.8
87.5°	1.6	1.6	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)