

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: P544840

Luminaire Tested: **FMR-12-1-LD4-1LO-50-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: P544840
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

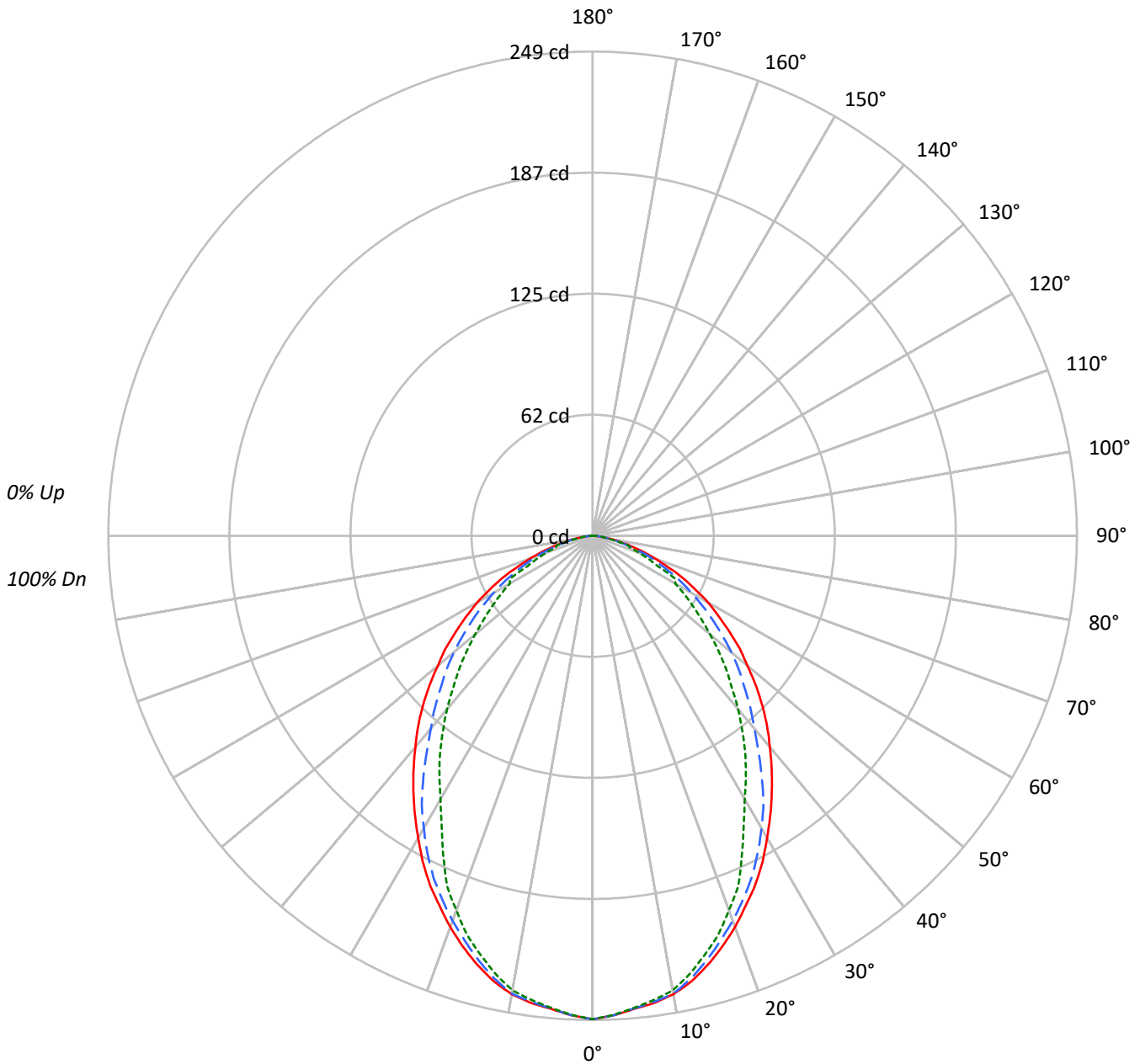
Lumens per Lamp: N/A
Luminaire Lumens: 488.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2676	2676	2676
5°	2640	2636	2633
10°	2617	2613	2595
15°	2546	2521	2485
20°	2452	2412	2347
25°	2352	2301	2157
30°	2229	2158	1943
35°	2110	1993	1798
40°	1991	1817	1636
45°	1877	1681	1478
50°	1737	1559	1318
55°	1606	1413	1180
60°	1473	1262	1057
65°	1296	1105	937
70°	1067	966	796
75°	848	740	778
80°	570	533	496
85°	358	420	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.1	4.7
10°-20°	63.5	13.0
20°-30°	87.9	18.0
30°-40°	93.7	19.2
40°-50°	85.5	17.5
50°-60°	67.0	13.7
60°-70°	43.7	8.9
70°-80°	19.3	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°	174.6	35.8
0°-40°	268.3	55.0
0°-60°	420.8	86.2
0°-90°	488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	249	249	249	249	249	
5°	244	244	244	244	244	23
15°	228	228	226	224	223	64
25°	198	197	194	187	182	91
35°	161	160	152	140	137	100
45°	123	121	110	101	97	95
55°	86	83	75	66	63	77
65°	51	48	43	44	37	50
75°	20	19	18	17	19	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°	248.6	248.6	248.6	248.6	248.6
2.5°	246.9	246.9	246.9	246.6	246.6
5°	244.3	244.0	244.0	243.7	243.7
7.5°	242.3	242.0	241.7	241.4	240.8
10°	239.4	239.4	239.1	237.7	237.4
12.5°	234.8	234.5	233.3	231.3	230.8
15°	228.5	228.5	226.2	223.9	223.0
17.5°	221.6	221.3	218.4	216.1	215.0
20°	214.1	213.5	210.6	206.9	204.9
22.5°	205.8	205.8	202.3	197.4	195.4
25°	198.0	196.9	193.7	186.8	181.6
27.5°	189.1	187.4	183.9	174.2	168.1
30°	179.3	178.5	173.6	160.9	156.3
32.5°	170.1	168.7	163.5	150.3	146.6
35°	160.6	159.5	151.7	140.2	136.8
37.5°	151.2	149.7	140.0	130.8	126.4
40°	141.7	140.0	129.3	121.0	116.4
42.5°	132.8	130.5	120.1	111.2	106.0
45°	123.3	120.7	110.4	101.2	97.1
47.5°	113.8	111.5	102.0	92.5	87.9
50°	103.7	101.7	93.1	83.6	78.7
52.5°	95.4	92.2	83.9	74.4	70.4
55°	85.6	83.1	75.3	66.4	62.9
57.5°	76.7	74.1	67.0	58.6	55.8
60°	68.4	64.7	58.6	51.4	49.1
62.5°	59.2	56.3	51.2	45.1	48.0
65°	50.9	48.0	43.4	44.3	36.8
67.5°	41.7	40.2	36.2	32.2	31.0
70°	33.9	32.2	30.7	26.4	25.3
72.5°	27.0	25.3	23.3	21.0	20.1
75°	20.4	19.0	17.8	17.0	18.7
77.5°	14.1	13.5	12.6	11.8	11.5
80°	9.2	8.9	8.6	8.3	8.0
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	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)