

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: P544775

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-82-84-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: P544775
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-82-84-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

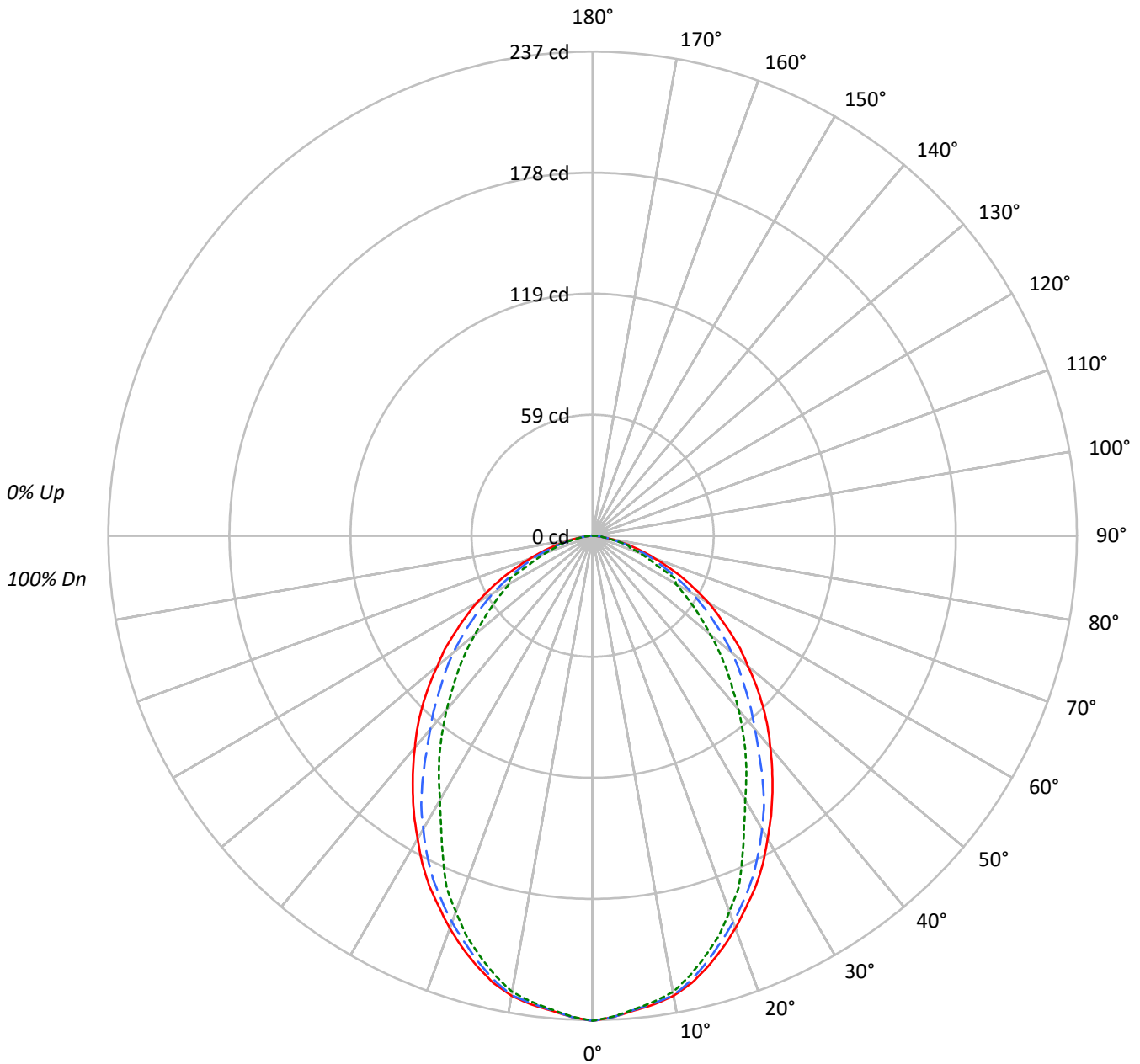
Lumens per Lamp: N/A
Luminaire Lumens: 466.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	35	44	39	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°	2555	2555	2555
5°	2521	2518	2514
10°	2499	2495	2478
15°	2432	2407	2374
20°	2341	2305	2242
25°	2246	2197	2059
30°	2128	2061	1856
35°	2016	1904	1716
40°	1901	1735	1561
45°	1792	1604	1413
50°	1659	1489	1259
55°	1535	1349	1128
60°	1406	1206	1010
65°	1238	1054	894
70°	1020	925	758
75°	811	707	740
80°	545	508	477
85°	333	408	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	4.7
10°-20°	60.6	13.0
20°-30°	84.0	18.0
30°-40°	89.5	19.2
40°-50°	81.7	17.5
50°-60°	64.0	13.7
60°-70°	41.7	8.9
70°-80°	18.5	4.0
80°-90°	4.0	0.8
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°	166.7	35.8
0°-40°	256.2	55.0
0°-60°	401.9	86.2
0°-90°	466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	466.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	237	237	237	237	237	
5°	233	233	233	233	233	22
15°	218	218	216	214	213	61
25°	189	188	185	178	173	87
35°	153	152	145	134	131	96
45°	118	115	105	97	93	91
55°	82	79	72	63	60	73
65°	49	46	41	42	35	48
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°	237.4	237.4	237.4	237.4	237.4
2.5°	235.7	235.7	235.7	235.5	235.5
5°	233.3	233.0	233.0	232.7	232.7
7.5°	231.3	231.1	230.8	230.5	230.0
10°	228.6	228.6	228.3	226.9	226.7
12.5°	224.2	223.9	222.8	220.9	220.4
15°	218.2	218.2	216.0	213.8	213.0
17.5°	211.6	211.3	208.6	206.4	205.3
20°	204.4	203.9	201.2	197.6	195.7
22.5°	196.5	196.5	193.2	188.5	186.6
25°	189.1	188.0	185.0	178.4	173.4
27.5°	180.6	178.9	175.6	166.3	160.5
30°	171.2	170.4	165.8	153.7	149.3
32.5°	162.5	161.1	156.1	143.5	140.0
35°	153.4	152.3	144.9	133.9	130.6
37.5°	144.3	143.0	133.6	124.9	120.7
40°	135.3	133.6	123.5	115.5	111.1
42.5°	126.8	124.6	114.7	106.2	101.3
45°	117.7	115.3	105.4	96.6	92.8
47.5°	108.7	106.5	97.4	88.4	84.0
50°	99.1	97.1	88.9	79.9	75.2
52.5°	91.1	88.1	80.1	71.1	67.2
55°	81.8	79.3	71.9	63.4	60.1
57.5°	73.3	70.8	63.9	56.0	53.2
60°	65.3	61.7	56.0	49.1	46.9
62.5°	56.5	53.8	48.8	43.1	45.8
65°	48.6	45.8	41.4	42.3	35.1
67.5°	39.8	38.4	34.6	30.7	29.6
70°	32.4	30.7	29.4	25.2	24.1
72.5°	25.8	24.1	22.2	20.0	19.2
75°	19.5	18.1	17.0	16.2	17.8
77.5°	13.4	12.9	12.1	11.3	11.0
80°	8.8	8.5	8.2	8.0	7.7
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.7	3.0	3.3	3.6	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)