

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: P544937

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-82-86-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: P544937
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-LD4-1STD-50-UNV-82-86-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

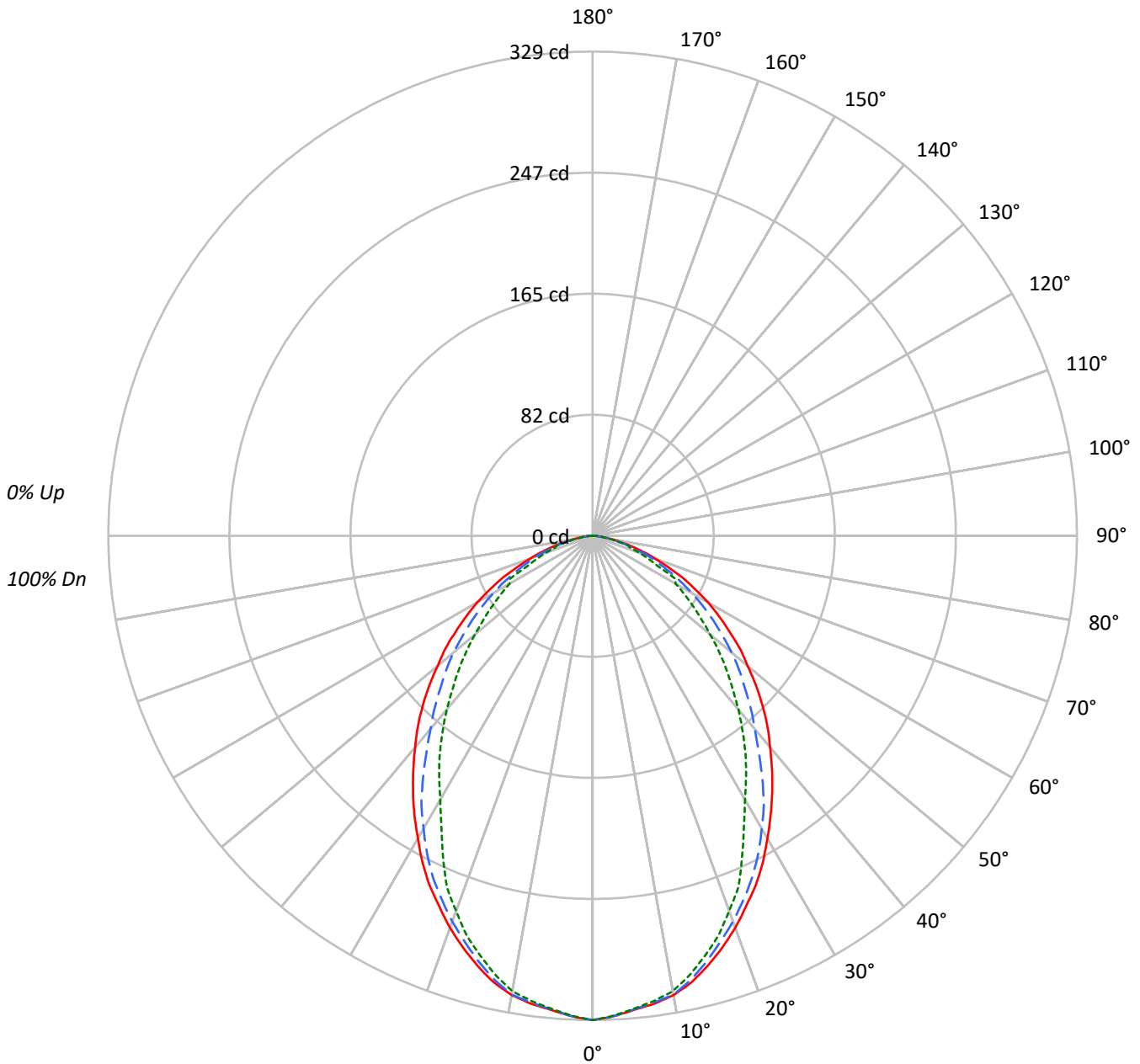
Lumens per Lamp: N/A
Luminaire Lumens: 646.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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°	3542	3542	3542
5°	3494	3490	3486
10°	3464	3459	3434
15°	3370	3336	3290
20°	3246	3194	3107
25°	3113	3045	2855
30°	2951	2856	2572
35°	2795	2640	2380
40°	2635	2406	2165
45°	2484	2224	1958
50°	2299	2065	1745
55°	2128	1871	1563
60°	1948	1671	1401
65°	1714	1462	1240
70°	1413	1281	1054
75°	1123	981	1027
80°	756	707	663
85°	469	568	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.6	4.7
10°-20°	84.1	13.0
20°-30°	116.4	18.0
30°-40°	124.1	19.2
40°-50°	113.2	17.5
50°-60°	88.7	13.7
60°-70°	57.8	8.9
70°-80°	25.6	4.0
80°-90°	5.5	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°	231.1	35.8
0°-40°	355.2	55.0
0°-60°	557.1	86.2
0°-90°	646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	329	329	329	329	329	
5°	323	323	323	323	323	31
15°	302	302	299	296	295	85
25°	262	261	256	247	240	120
35°	213	211	201	186	181	133
45°	163	160	146	134	129	126
55°	113	110	100	88	83	102
65°	67	64	57	59	49	66
75°	27	25	24	22	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	329.1	329.1	329.1	329.1	329.1
2.5°	326.8	326.8	326.8	326.4	326.4
5°	323.4	323.0	323.0	322.6	322.6
7.5°	320.7	320.3	319.9	319.6	318.8
10°	316.9	316.9	316.5	314.6	314.2
12.5°	310.8	310.4	308.9	306.2	305.5
15°	302.4	302.4	299.4	296.3	295.2
17.5°	293.3	292.9	289.1	286.1	284.6
20°	283.4	282.7	278.8	273.9	271.2
22.5°	272.4	272.4	267.8	261.3	258.7
25°	262.1	260.6	256.4	247.3	240.4
27.5°	250.3	248.0	243.5	230.5	222.5
30°	237.4	236.2	229.8	213.0	206.9
32.5°	225.2	223.3	216.5	199.0	194.0
35°	212.7	211.1	200.9	185.6	181.1
37.5°	200.1	198.2	185.3	173.1	167.4
40°	187.5	185.3	171.2	160.2	154.1
42.5°	175.8	172.7	159.0	147.2	140.4
45°	163.2	159.8	146.1	133.9	128.6
47.5°	150.6	147.6	135.0	122.5	116.4
50°	137.3	134.7	123.3	110.7	104.2
52.5°	126.3	122.1	111.1	98.5	93.2
55°	113.4	109.9	99.7	87.9	83.3
57.5°	101.6	98.1	88.6	77.6	73.8
60°	90.5	85.6	77.6	68.1	65.1
62.5°	78.4	74.6	67.7	59.7	63.5
65°	67.3	63.5	57.4	58.6	48.7
67.5°	55.2	53.3	47.9	42.6	41.1
70°	44.9	42.6	40.7	35.0	33.5
72.5°	35.8	33.5	30.8	27.8	26.6
75°	27.0	25.1	23.6	22.4	24.7
77.5°	18.6	17.9	16.7	15.6	15.2
80°	12.2	11.8	11.4	11.0	10.7
82.5°	7.2	7.2	7.2	7.2	7.2
85°	3.8	4.2	4.6	4.9	5.3
87.5°	2.3	2.3	2.7	3.0	3.4
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)