

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: P544849

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-93-86-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: P544849
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-93-86-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

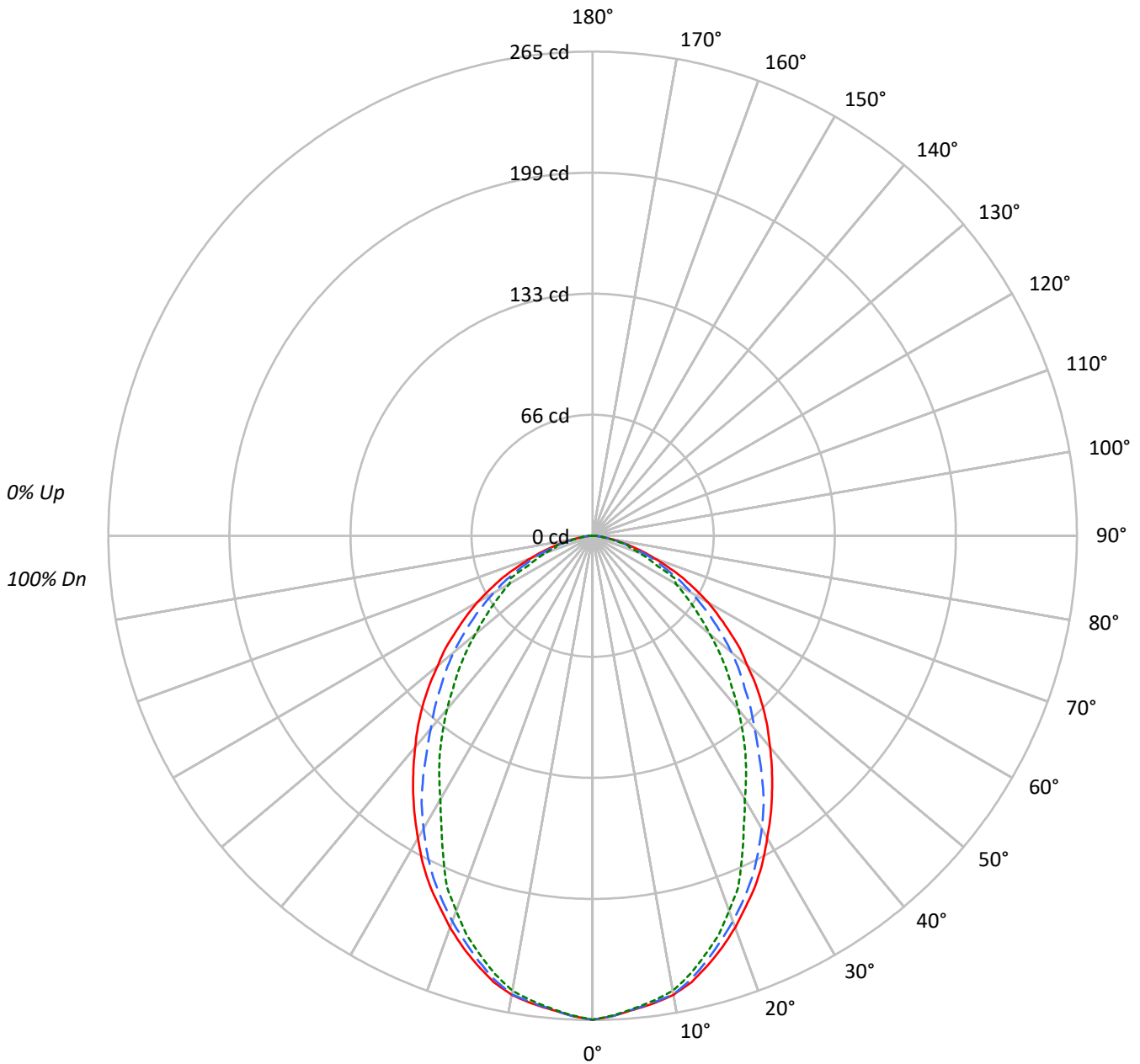
Lumens per Lamp: N/A
Luminaire Lumens: 520.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2851	2851	2851
5°	2813	2809	2806
10°	2788	2785	2764
15°	2712	2686	2648
20°	2613	2572	2501
25°	2506	2451	2298
30°	2375	2299	2071
35°	2250	2125	1916
40°	2122	1936	1742
45°	2000	1790	1576
50°	1850	1661	1405
55°	1713	1505	1259
60°	1569	1345	1128
65°	1380	1177	998
70°	1136	1032	847
75°	902	790	828
80°	607	570	533
85°	383	457	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.7	4.7
10°-20°	67.7	13.0
20°-30°	93.7	18.0
30°-40°	99.9	19.2
40°-50°	91.1	17.5
50°-60°	71.4	13.7
60°-70°	46.5	8.9
70°-80°	20.6	4.0
80°-90°	4.4	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°	186.0	35.8
0°-40°	285.9	55.0
0°-60°	448.4	86.2
0°-90°	520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	265	265	265	265	265	
5°	260	260	260	260	260	25
15°	243	243	241	238	238	68
25°	211	210	206	199	194	97
35°	171	170	162	149	146	107
45°	131	129	118	108	104	101
55°	91	88	80	71	67	82
65°	54	51	46	47	39	53
75°	22	20	19	18	20	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	264.9	264.9	264.9	264.9	264.9
2.5°	263.0	263.0	263.0	262.7	262.7
5°	260.3	260.0	260.0	259.7	259.7
7.5°	258.1	257.8	257.5	257.2	256.6
10°	255.1	255.1	254.8	253.2	252.9
12.5°	250.2	249.9	248.7	246.5	245.9
15°	243.4	243.4	241.0	238.5	237.6
17.5°	236.1	235.8	232.7	230.3	229.1
20°	228.1	227.5	224.5	220.5	218.3
22.5°	219.3	219.3	215.6	210.4	208.2
25°	211.0	209.8	206.4	199.0	193.5
27.5°	201.5	199.7	196.0	185.6	179.1
30°	191.1	190.2	185.0	171.5	166.6
32.5°	181.3	179.8	174.2	160.2	156.2
35°	171.2	170.0	161.7	149.4	145.8
37.5°	161.1	159.5	149.1	139.3	134.7
40°	151.0	149.1	137.8	128.9	124.0
42.5°	141.5	139.0	128.0	118.5	113.0
45°	131.4	128.6	117.6	107.8	103.5
47.5°	121.3	118.8	108.7	98.6	93.7
50°	110.5	108.4	99.2	89.1	83.9
52.5°	101.7	98.3	89.4	79.3	75.0
55°	91.3	88.5	80.2	70.7	67.1
57.5°	81.8	79.0	71.3	62.5	59.4
60°	72.9	68.9	62.5	54.8	52.4
62.5°	63.1	60.0	54.5	48.1	51.1
65°	54.2	51.1	46.2	47.2	39.2
67.5°	44.4	42.9	38.6	34.3	33.1
70°	36.1	34.3	32.8	28.2	26.9
72.5°	28.8	26.9	24.8	22.4	21.4
75°	21.7	20.2	19.0	18.1	19.9
77.5°	15.0	14.4	13.5	12.6	12.2
80°	9.8	9.5	9.2	8.9	8.6
82.5°	5.8	5.8	5.8	5.8	5.8
85°	3.1	3.4	3.7	4.0	4.3
87.5°	1.8	1.8	2.1	2.4	2.8
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)