

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: P544824

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-80-85-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: P544824
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-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

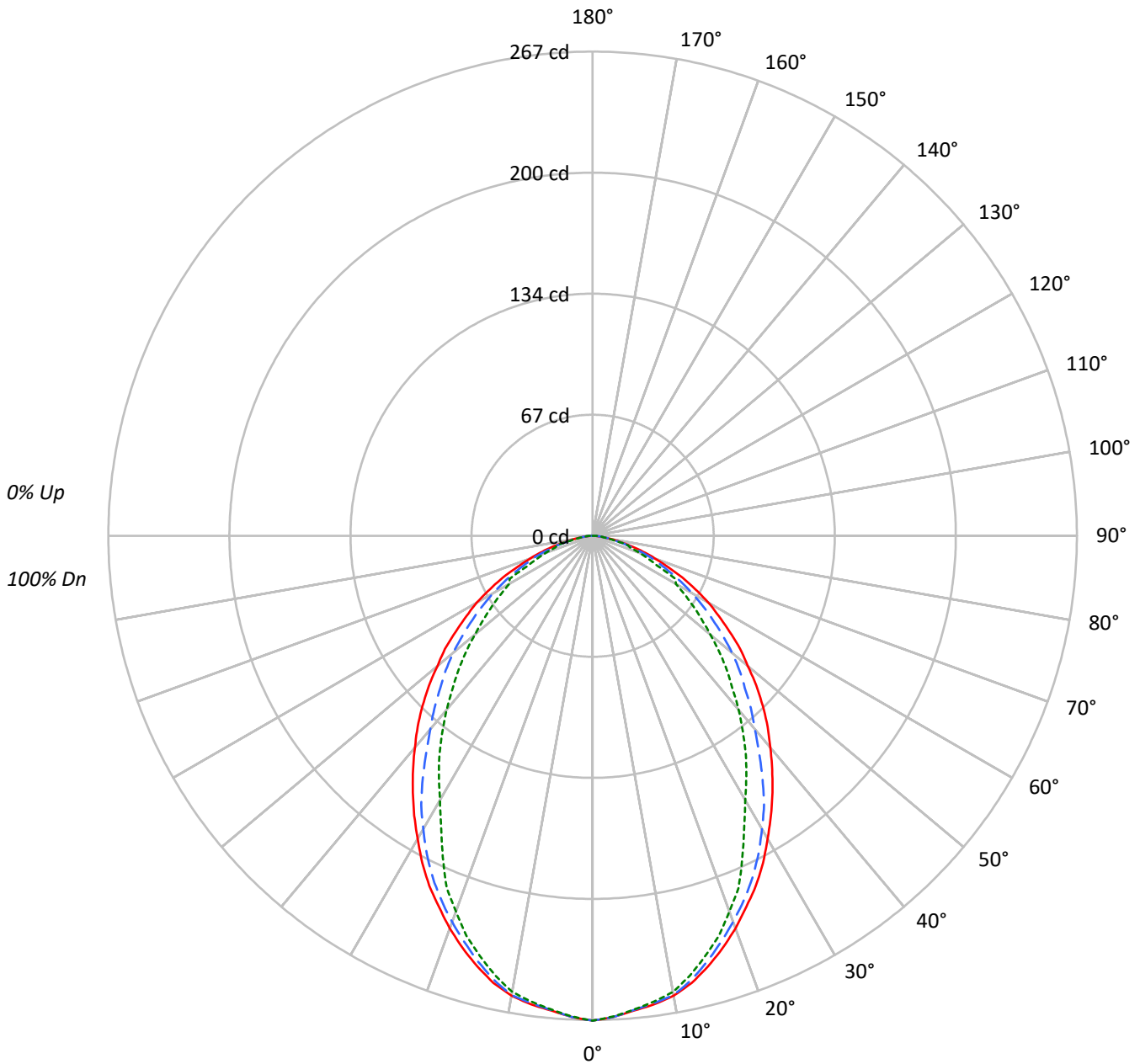
Lumens per Lamp: N/A
Luminaire Lumens: 525.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2878	2878	2878
5°	2840	2836	2833
10°	2814	2811	2792
15°	2739	2711	2673
20°	2638	2596	2525
25°	2530	2475	2321
30°	2398	2321	2091
35°	2271	2144	1934
40°	2141	1955	1759
45°	2019	1807	1591
50°	1869	1678	1418
55°	1728	1520	1270
60°	1584	1358	1139
65°	1393	1189	1009
70°	1149	1042	856
75°	915	799	836
80°	614	576	539
85°	383	457	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	4.7
10°-20°	68.3	13.0
20°-30°	94.6	18.0
30°-40°	100.9	19.2
40°-50°	92.0	17.5
50°-60°	72.1	13.7
60°-70°	47.0	8.9
70°-80°	20.8	4.0
80°-90°	4.5	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°	187.8	35.8
0°-40°	288.7	55.0
0°-60°	452.7	86.2
0°-90°	525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	525.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	267	267	267	267	267	
5°	263	262	262	262	262	25
15°	246	246	243	241	240	69
25°	213	212	208	201	195	98
35°	173	172	163	151	147	108
45°	133	130	119	109	104	102
55°	92	89	81	71	68	83
65°	55	52	47	48	40	54
75°	22	20	19	18	20	24
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°	267.4	267.4	267.4	267.4	267.4
2.5°	265.6	265.6	265.6	265.3	265.3
5°	262.8	262.5	262.5	262.2	262.2
7.5°	260.6	260.3	260.0	259.7	259.1
10°	257.5	257.5	257.2	255.7	255.4
12.5°	252.6	252.3	251.0	248.9	248.3
15°	245.8	245.8	243.3	240.8	239.9
17.5°	238.4	238.1	235.0	232.5	231.3
20°	230.3	229.7	226.6	222.6	220.4
22.5°	221.4	221.4	217.7	212.4	210.2
25°	213.0	211.8	208.4	201.0	195.4
27.5°	203.4	201.6	197.9	187.4	180.9
30°	192.9	192.0	186.7	173.1	168.2
32.5°	183.0	181.5	175.9	161.7	157.7
35°	172.8	171.6	163.2	150.9	147.2
37.5°	162.6	161.1	150.6	140.7	136.0
40°	152.4	150.6	139.1	130.2	125.2
42.5°	142.8	140.4	129.2	119.6	114.1
45°	132.6	129.8	118.7	108.8	104.5
47.5°	122.4	120.0	109.8	99.6	94.6
50°	111.6	109.4	100.2	90.0	84.7
52.5°	102.6	99.2	90.3	80.1	75.7
55°	92.1	89.3	81.0	71.4	67.7
57.5°	82.5	79.8	72.0	63.1	60.0
60°	73.6	69.6	63.1	55.3	52.9
62.5°	63.7	60.6	55.0	48.5	51.6
65°	54.7	51.6	46.7	47.6	39.6
67.5°	44.8	43.3	39.0	34.6	33.4
70°	36.5	34.6	33.1	28.4	27.2
72.5°	29.1	27.2	25.0	22.6	21.6
75°	22.0	20.4	19.2	18.2	20.1
77.5°	15.1	14.5	13.6	12.7	12.4
80°	9.9	9.6	9.3	9.0	8.7
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.1	3.4	3.7	4.0	4.3
87.5°	1.9	1.9	2.2	2.5	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)