

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: P545424

Luminaire Tested: **FMR-12-2-LD4-1LO-50-UNV-93-85-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: P545424
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-12-2-LD4-1LO-50-UNV-93-85-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

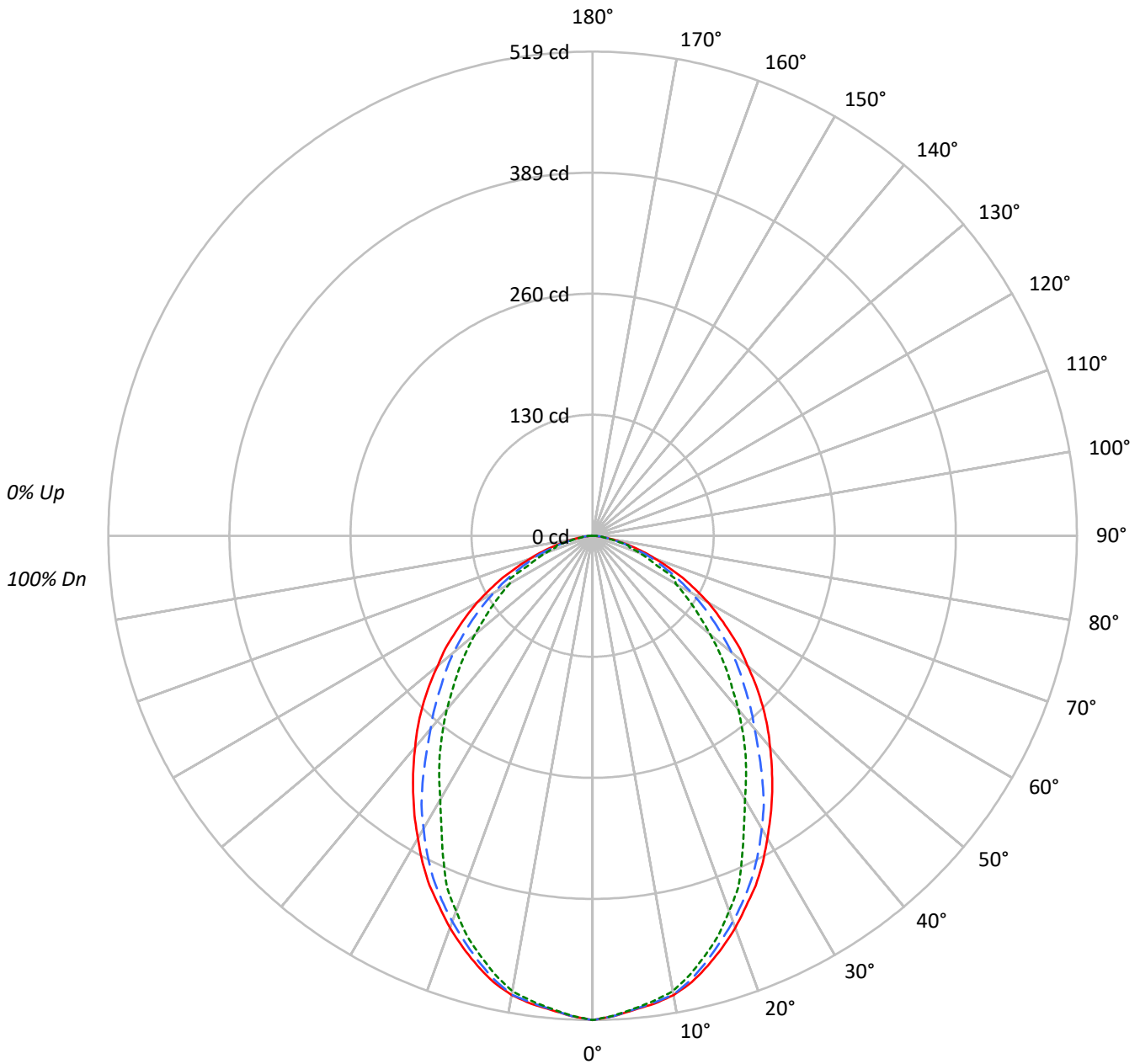
Lumens per Lamp: N/A
Luminaire Lumens: 1018.9 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	2794	2794	2794
5°	2756	2753	2749
10°	2732	2729	2709
15°	2658	2632	2595
20°	2561	2519	2451
25°	2456	2402	2252
30°	2327	2252	2028
35°	2204	2081	1876
40°	2078	1897	1707
45°	1959	1754	1544
50°	1814	1628	1376
55°	1678	1475	1233
60°	1537	1318	1104
65°	1352	1154	978
70°	1114	1010	831
75°	886	774	811
80°	595	558	521
85°	371	445	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	4.7
10°-20°	132.6	13.0
20°-30°	183.6	18.0
30°-40°	195.7	19.2
40°-50°	178.6	17.5
50°-60°	139.9	13.7
60°-70°	91.2	8.9
70°-80°	40.4	4.0
80°-90°	8.7	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°	364.5	35.8
0°-40°	560.2	55.0
0°-60°	878.7	86.2
0°-90°	1018.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1018.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	510	510	510	509	509	48
15°	477	477	472	468	466	134
25°	414	411	404	390	379	190
35°	335	333	317	293	286	210
45°	257	252	230	211	203	198
55°	179	173	157	139	131	160
65°	106	100	91	92	77	105
75°	43	40	37	35	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	519.1	519.1	519.1	519.1	519.1
2.5°	515.5	515.5	515.5	514.9	514.9
5°	510.1	509.5	509.5	508.9	508.9
7.5°	505.9	505.3	504.7	504.1	502.9
10°	499.9	499.9	499.3	496.3	495.7
12.5°	490.3	489.7	487.3	483.1	481.9
15°	477.1	477.1	472.3	467.5	465.7
17.5°	462.7	462.1	456.1	451.3	448.9
20°	447.1	445.9	439.9	432.1	427.9
22.5°	429.7	429.7	422.5	412.3	408.1
25°	413.5	411.1	404.5	390.0	379.2
27.5°	394.8	391.2	384.0	363.6	351.0
30°	374.4	372.6	362.4	336.0	326.4
32.5°	355.2	352.2	341.4	313.8	306.0
35°	335.4	333.0	316.8	292.8	285.6
37.5°	315.6	312.6	292.2	273.0	264.0
40°	295.8	292.2	270.0	252.6	243.0
42.5°	277.2	272.4	250.8	232.2	221.4
45°	257.4	252.0	230.4	211.2	202.8
47.5°	237.6	232.8	213.0	193.2	183.6
50°	216.6	212.4	194.4	174.6	164.4
52.5°	199.2	192.6	175.2	155.4	147.0
55°	178.8	173.4	157.2	138.6	131.4
57.5°	160.2	154.8	139.8	122.4	116.4
60°	142.8	135.0	122.4	107.4	102.6
62.5°	123.6	117.6	106.8	94.2	100.2
65°	106.2	100.2	90.6	92.4	76.8
67.5°	87.0	84.0	75.6	67.2	64.8
70°	70.8	67.2	64.2	55.2	52.8
72.5°	56.4	52.8	48.6	43.8	42.0
75°	42.6	39.6	37.2	35.4	39.0
77.5°	29.4	28.2	26.4	24.6	24.0
80°	19.2	18.6	18.0	17.4	16.8
82.5°	11.4	11.4	11.4	11.4	11.4
85°	6.0	6.6	7.2	7.8	8.4
87.5°	3.6	3.6	4.2	4.8	5.4
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)