

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: P545492

Luminaire Tested: **FMR-12-2-LD4-1STD-40-UNV-93-94-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: P545492
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-LD4-1STD-40-UNV-93-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

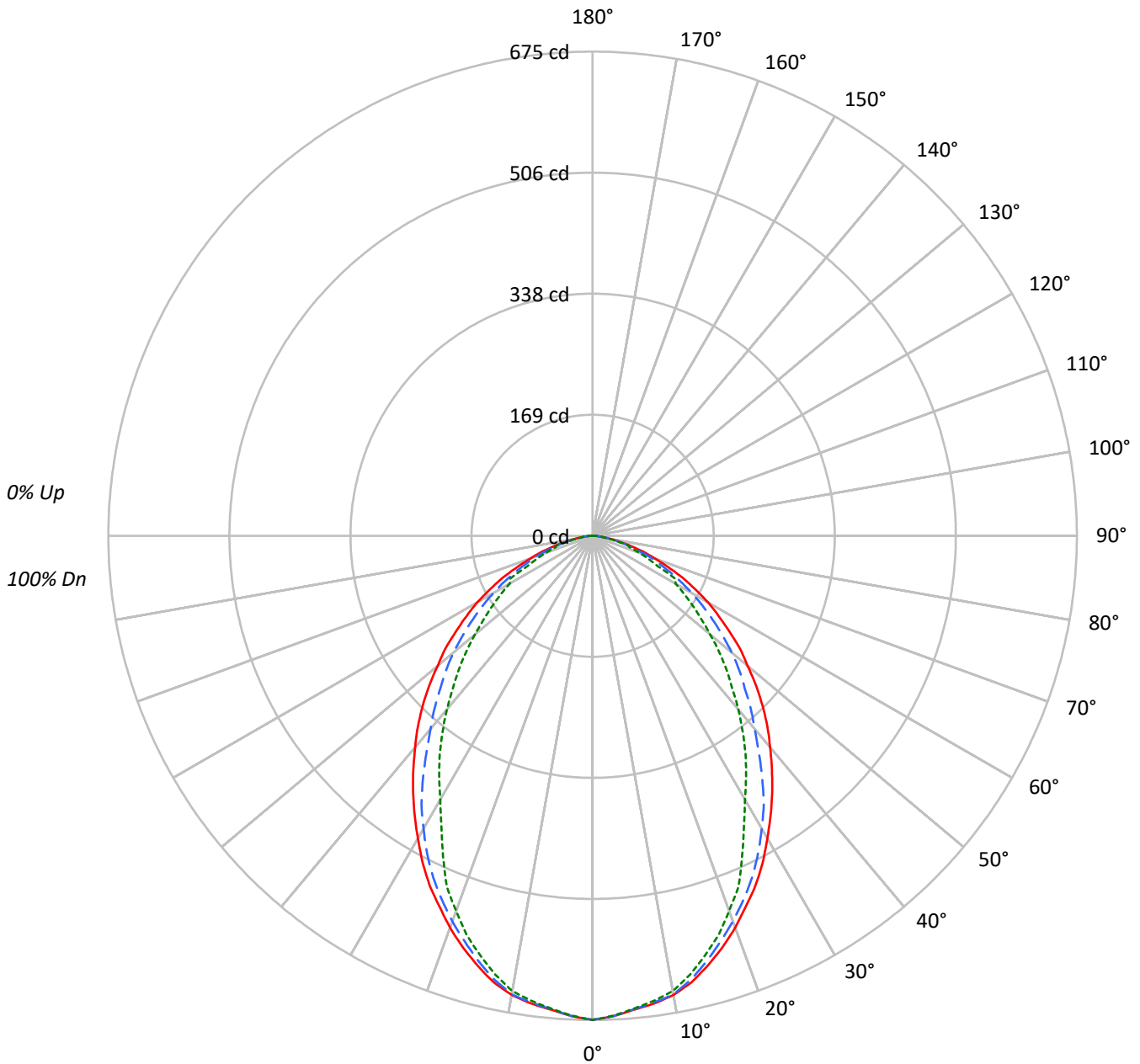
Lumens per Lamp: N/A
Luminaire Lumens: 1325.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	3632	3632	3632
5°	3583	3579	3575
10°	3552	3548	3522
15°	3456	3422	3374
20°	3329	3275	3186
25°	3192	3123	2928
30°	3026	2929	2638
35°	2866	2707	2440
40°	2703	2467	2220
45°	2547	2280	2007
50°	2359	2117	1790
55°	2182	1918	1604
60°	1999	1714	1436
65°	1759	1500	1272
70°	1449	1314	1081
75°	1152	1006	1054
80°	775	725	676
85°	482	580	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.8	4.7
10°-20°	172.4	13.0
20°-30°	238.7	18.0
30°-40°	254.5	19.2
40°-50°	232.2	17.5
50°-60°	181.9	13.7
60°-70°	118.6	8.9
70°-80°	52.5	4.0
80°-90°	11.3	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°	474.0	35.8
0°-40°	728.5	55.0
0°-60°	1142.6	86.2
0°-90°	1325.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1325.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	663	662	662	662	662	63
15°	620	620	614	608	606	174
25°	538	534	526	507	493	247
35°	436	433	412	381	371	273
45°	335	328	300	275	264	258
55°	232	226	204	180	171	209
65°	138	130	118	120	100	136
75°	55	52	48	46	51	59
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.9	674.9	674.9	674.9	674.9
2.5°	670.3	670.3	670.3	669.5	669.5
5°	663.2	662.5	662.5	661.7	661.7
7.5°	657.8	657.0	656.2	655.4	653.9
10°	650.0	650.0	649.2	645.3	644.5
12.5°	637.5	636.7	633.6	628.1	626.6
15°	620.3	620.3	614.1	607.8	605.5
17.5°	601.6	600.8	593.0	586.8	583.6
20°	581.3	579.7	571.9	561.8	556.3
22.5°	558.7	558.7	549.3	536.0	530.6
25°	537.6	534.5	525.9	507.2	493.1
27.5°	513.4	508.7	499.4	472.8	456.5
30°	486.9	484.6	471.3	437.0	424.5
32.5°	461.9	458.0	444.0	408.1	397.9
35°	436.2	433.1	412.0	380.8	371.4
37.5°	410.4	406.5	380.0	355.0	343.3
40°	384.7	380.0	351.1	328.5	316.0
42.5°	360.5	354.2	326.2	302.0	287.9
45°	334.7	327.7	299.6	274.7	263.7
47.5°	309.0	302.7	277.0	251.2	238.8
50°	281.7	276.2	252.8	227.1	213.8
52.5°	259.1	250.5	227.8	202.1	191.2
55°	232.5	225.5	204.4	180.2	170.9
57.5°	208.3	201.3	181.8	159.2	151.4
60°	185.7	175.6	159.2	139.7	133.4
62.5°	160.7	152.9	138.9	122.5	130.3
65°	138.1	130.3	117.8	120.2	99.9
67.5°	113.1	109.2	98.3	87.4	84.3
70°	92.1	87.4	83.5	71.8	68.7
72.5°	73.3	68.7	63.2	57.0	54.6
75°	55.4	51.5	48.4	46.0	50.7
77.5°	38.2	36.7	34.3	32.0	31.2
80°	25.0	24.2	23.4	22.6	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.4	10.1	10.9
87.5°	4.7	4.7	5.5	6.2	7.0
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)