

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: P545164

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-82-94-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: P545164
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-LD4-2STD-35-UNV-82-94-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

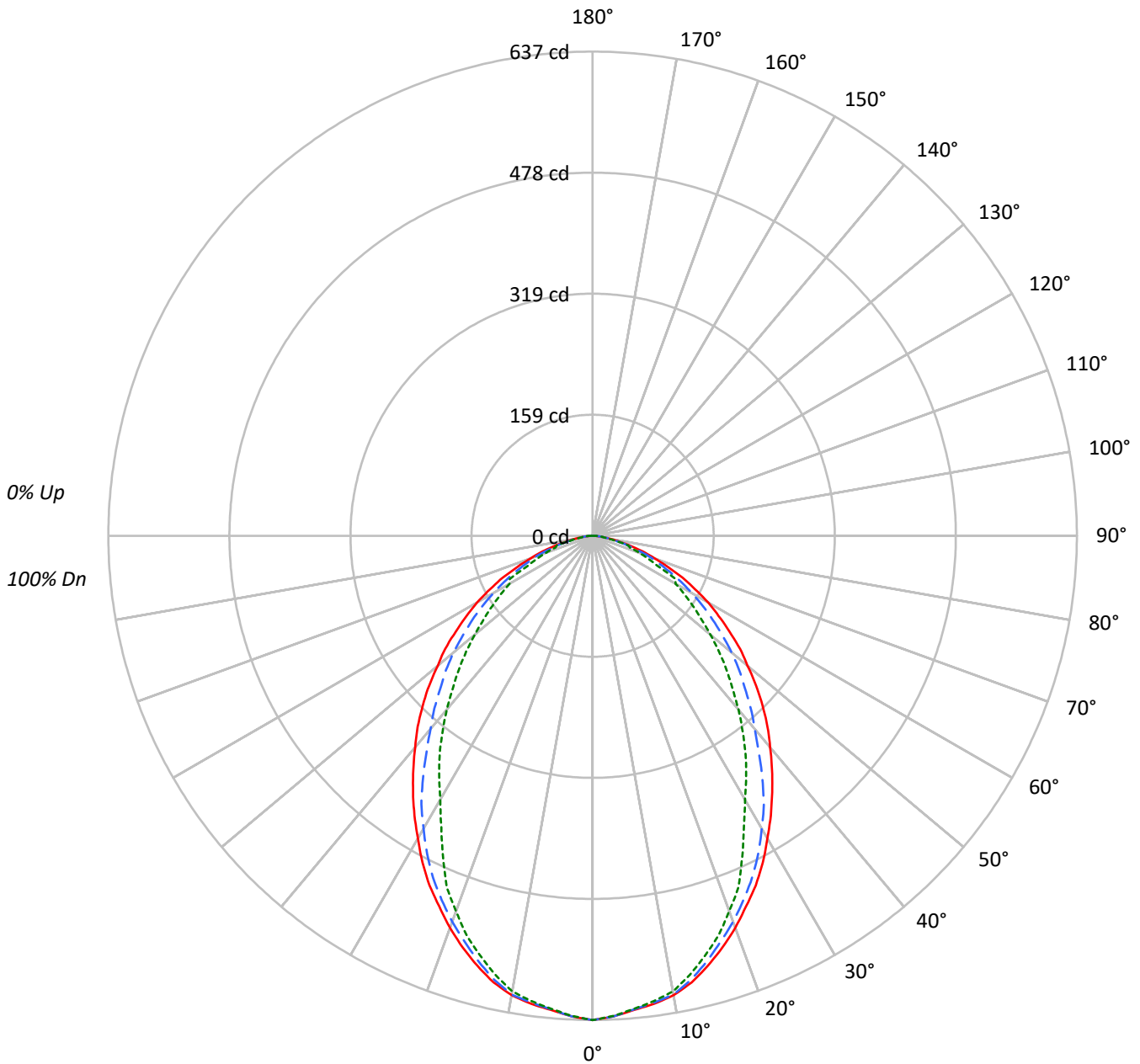
Lumens per Lamp: N/A
Luminaire Lumens: 1251.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	6859	6859	6859
5°	6766	6759	6750
10°	6708	6699	6651
15°	6527	6461	6371
20°	6286	6186	6017
25°	6029	5897	5530
30°	5714	5531	4982
35°	5411	5112	4608
40°	5103	4658	4193
45°	4810	4306	3790
50°	4453	3997	3381
55°	4119	3622	3027
60°	3774	3236	2713
65°	3321	2832	2402
70°	2735	2480	2039
75°	2175	1901	1992
80°	1463	1370	1277
85°	914	1087	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.3	4.7
10°-20°	162.8	13.0
20°-30°	225.4	18.0
30°-40°	240.3	19.2
40°-50°	219.2	17.5
50°-60°	171.8	13.7
60°-70°	111.9	8.9
70°-80°	49.6	4.0
80°-90°	10.6	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°	447.5	35.8
0°-40°	687.8	55.0
0°-60°	1078.8	86.2
0°-90°	1251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1251.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	626	626	626	625	625	59
15°	586	586	580	574	572	165
25°	508	505	496	479	466	233
35°	412	409	389	360	351	257
45°	316	309	283	259	249	243
55°	220	213	193	170	161	197
65°	130	123	111	114	94	129
75°	52	49	46	44	48	56
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.2	637.2	637.2	637.2	637.2
2.5°	632.8	632.8	632.8	632.1	632.1
5°	626.2	625.5	625.5	624.7	624.7
7.5°	621.0	620.3	619.6	618.8	617.4
10°	613.7	613.7	612.9	609.2	608.5
12.5°	601.9	601.1	598.2	593.0	591.6
15°	585.7	585.7	579.8	573.9	571.7
17.5°	568.0	567.3	559.9	554.0	551.0
20°	548.8	547.4	540.0	530.4	525.3
22.5°	527.5	527.5	518.6	506.1	501.0
25°	507.6	504.6	496.5	478.9	465.6
27.5°	484.7	480.3	471.5	446.4	431.0
30°	459.7	457.5	445.0	412.6	400.8
32.5°	436.1	432.4	419.2	385.3	375.7
35°	411.8	408.9	389.0	359.5	350.7
37.5°	387.5	383.8	358.8	335.2	324.1
40°	363.2	358.8	331.5	310.1	298.4
42.5°	340.4	334.5	307.9	285.1	271.8
45°	316.0	309.4	282.9	259.3	249.0
47.5°	291.7	285.8	261.5	237.2	225.4
50°	265.9	260.8	238.7	214.4	201.9
52.5°	244.6	236.5	215.1	190.8	180.5
55°	219.5	212.9	193.0	170.2	161.3
57.5°	196.7	190.1	171.7	150.3	142.9
60°	175.3	165.8	150.3	131.9	126.0
62.5°	151.8	144.4	131.1	115.7	123.0
65°	130.4	123.0	111.2	113.5	94.3
67.5°	106.8	103.1	92.8	82.5	79.6
70°	86.9	82.5	78.8	67.8	64.8
72.5°	69.2	64.8	59.7	53.8	51.6
75°	52.3	48.6	45.7	43.5	47.9
77.5°	36.1	34.6	32.4	30.2	29.5
80°	23.6	22.8	22.1	21.4	20.6
82.5°	14.0	14.0	14.0	14.0	14.0
85°	7.4	8.1	8.8	9.6	10.3
87.5°	4.4	4.4	5.2	5.9	6.6
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)