

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: P545652

Luminaire Tested: **FMR-12-2-LD4-2LO-35-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: P545652
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-LD4-2LO-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

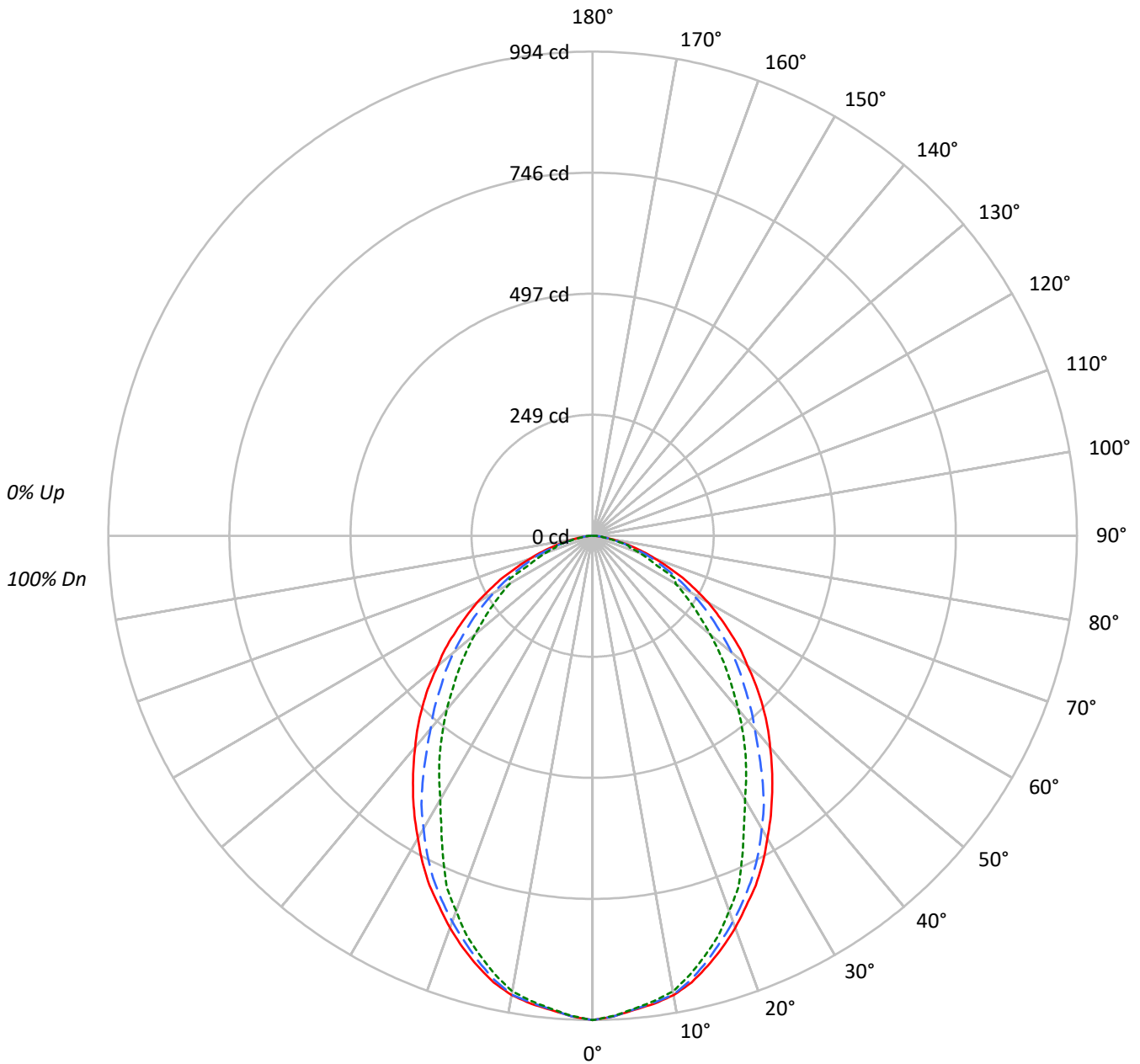
Lumens per Lamp: N/A
Luminaire Lumens: 1952.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

TEST NUMBER: P545652

CATALOG NUMBER: FMR-12-2-LD4-2LO-35-UNV-93-94-EDD

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°	5351	5351	5351
5°	5279	5272	5266
10°	5233	5227	5189
15°	5092	5041	4970
20°	4905	4826	4694
25°	4703	4601	4314
30°	4458	4315	3886
35°	4222	3987	3595
40°	3981	3634	3270
45°	3753	3360	2957
50°	3475	3118	2637
55°	3215	2826	2362
60°	2945	2524	2116
65°	2592	2211	1873
70°	2134	1936	1592
75°	1697	1483	1553
80°	1141	1069	998
85°	710	852	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	4.7
10°-20°	254.0	13.0
20°-30°	351.7	18.0
30°-40°	375.0	19.2
40°-50°	342.1	17.5
50°-60°	268.0	13.7
60°-70°	174.7	8.9
70°-80°	77.4	4.0
80°-90°	16.6	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°	698.2	35.8
0°-40°	1073.2	55.0
0°-60°	1683.3	86.2
0°-90°	1952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	977	976	976	975	975	93
15°	914	914	905	896	892	257
25°	792	787	775	747	726	364
35°	643	638	607	561	547	402
45°	493	483	441	405	388	380
55°	343	332	301	266	252	307
65°	204	192	174	177	147	201
75°	82	76	71	68	75	87
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	994.3	994.3	994.3	994.3	994.3
2.5°	987.4	987.4	987.4	986.3	986.3
5°	977.1	975.9	975.9	974.8	974.8
7.5°	969.0	967.9	966.7	965.6	963.3
10°	957.5	957.5	956.4	950.6	949.5
12.5°	939.1	938.0	933.4	925.4	923.1
15°	913.9	913.9	904.7	895.5	892.0
17.5°	886.3	885.1	873.6	864.4	859.8
20°	856.4	854.1	842.6	827.6	819.6
22.5°	823.0	823.0	809.3	789.7	781.7
25°	792.0	787.4	774.8	747.2	726.5
27.5°	756.4	749.5	735.7	696.6	672.5
30°	717.3	713.8	694.3	643.7	625.3
32.5°	680.5	674.8	654.1	601.2	586.2
35°	642.6	638.0	606.9	561.0	547.2
37.5°	604.6	598.9	559.8	523.0	505.8
40°	566.7	559.8	517.3	483.9	465.5
42.5°	531.1	521.9	480.5	444.9	424.2
45°	493.1	482.8	441.4	404.6	388.5
47.5°	455.2	446.0	408.1	370.1	351.7
50°	415.0	406.9	372.4	334.5	315.0
52.5°	381.6	369.0	335.7	297.7	281.6
55°	342.6	332.2	301.2	265.5	251.7
57.5°	306.9	296.6	267.8	234.5	223.0
60°	273.6	258.6	234.5	205.8	196.6
62.5°	236.8	225.3	204.6	180.5	192.0
65°	203.5	192.0	173.6	177.0	147.1
67.5°	166.7	160.9	144.8	128.7	124.1
70°	135.6	128.7	123.0	105.8	101.2
72.5°	108.1	101.2	93.1	83.9	80.5
75°	81.6	75.9	71.3	67.8	74.7
77.5°	56.3	54.0	50.6	47.1	46.0
80°	36.8	35.6	34.5	33.3	32.2
82.5°	21.8	21.8	21.8	21.8	21.8
85°	11.5	12.6	13.8	14.9	16.1
87.5°	6.9	6.9	8.0	9.2	10.3
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)