

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: P545654

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-93-97-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: P545654
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-93-97-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

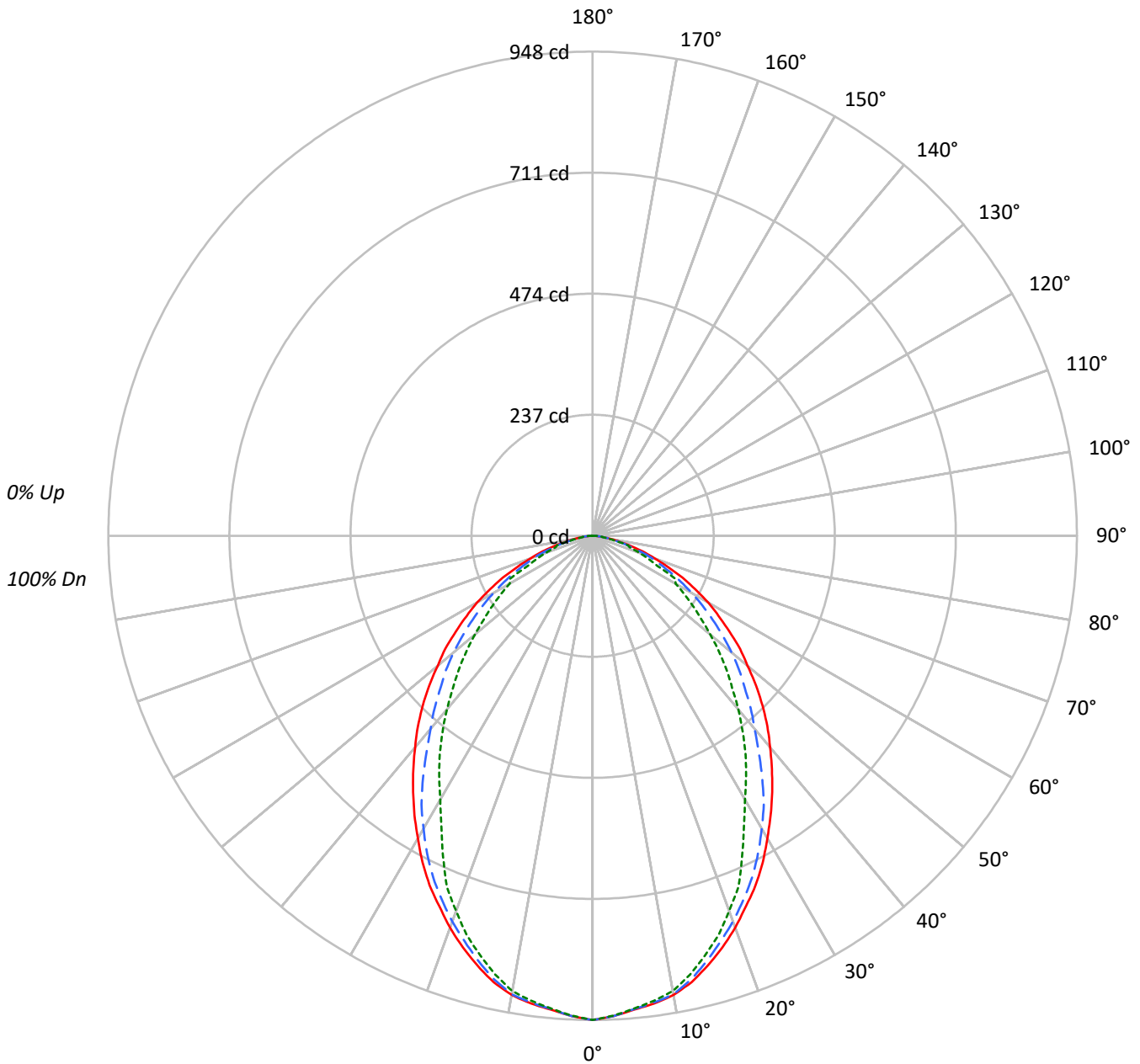
Lumens per Lamp: N/A
Luminaire Lumens: 1861.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	5102	5102	5102
5°	5032	5027	5021
10°	4989	4983	4947
15°	4855	4806	4738
20°	4676	4601	4475
25°	4484	4386	4113
30°	4250	4113	3705
35°	4025	3801	3428
40°	3796	3465	3118
45°	3578	3203	2819
50°	3312	2973	2514
55°	3065	2694	2252
60°	2807	2407	2017
65°	2471	2108	1787
70°	2035	1846	1517
75°	1618	1412	1481
80°	1088	1020	951
85°	679	815	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	4.7
10°-20°	242.2	13.0
20°-30°	335.3	18.0
30°-40°	357.5	19.2
40°-50°	326.1	17.5
50°-60°	255.5	13.7
60°-70°	166.5	8.9
70°-80°	73.8	4.0
80°-90°	15.8	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°	665.7	35.8
0°-40°	1023.2	55.0
0°-60°	1604.8	86.2
0°-90°	1861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1861.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	932	930	930	929	929	88
15°	871	871	862	854	850	245
25°	755	751	739	712	693	347
35°	613	608	579	535	522	383
45°	470	460	421	386	370	362
55°	327	317	287	253	240	293
65°	194	183	166	169	140	191
75°	78	72	68	65	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	948.0	948.0	948.0	948.0	948.0
2.5°	941.4	941.4	941.4	940.3	940.3
5°	931.5	930.4	930.4	929.3	929.3
7.5°	923.9	922.8	921.7	920.6	918.4
10°	912.9	912.9	911.8	906.3	905.2
12.5°	895.4	894.3	889.9	882.2	880.0
15°	871.3	871.3	862.5	853.7	850.4
17.5°	845.0	843.9	832.9	824.1	819.7
20°	816.5	814.3	803.3	789.1	781.4
22.5°	784.7	784.7	771.5	752.9	745.2
25°	755.1	750.7	738.6	712.3	692.6
27.5°	721.1	714.5	701.4	664.1	641.1
30°	683.9	680.6	661.9	613.7	596.2
32.5°	648.8	643.3	623.6	573.2	558.9
35°	612.6	608.2	578.6	534.8	521.7
37.5°	576.5	571.0	533.7	498.6	482.2
40°	540.3	533.7	493.2	461.4	443.8
42.5°	506.3	497.5	458.1	424.1	404.4
45°	470.1	460.3	420.8	385.8	370.4
47.5°	434.0	425.2	389.1	352.9	335.4
50°	395.6	388.0	355.1	318.9	300.3
52.5°	363.8	351.8	320.0	283.8	268.5
55°	326.6	316.7	287.1	253.2	240.0
57.5°	292.6	282.7	255.3	223.6	212.6
60°	260.8	246.6	223.6	196.2	187.4
62.5°	225.8	214.8	195.1	172.1	183.0
65°	194.0	183.0	165.5	168.8	140.3
67.5°	158.9	153.4	138.1	122.7	118.4
70°	129.3	122.7	117.3	100.8	96.4
72.5°	103.0	96.4	88.8	80.0	76.7
75°	77.8	72.3	67.9	64.7	71.2
77.5°	53.7	51.5	48.2	44.9	43.8
80°	35.1	34.0	32.9	31.8	30.7
82.5°	20.8	20.8	20.8	20.8	20.8
85°	11.0	12.1	13.2	14.2	15.3
87.5°	6.6	6.6	7.7	8.8	9.9
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)