

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: P545645

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-82-96-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: P545645
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-82-96-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

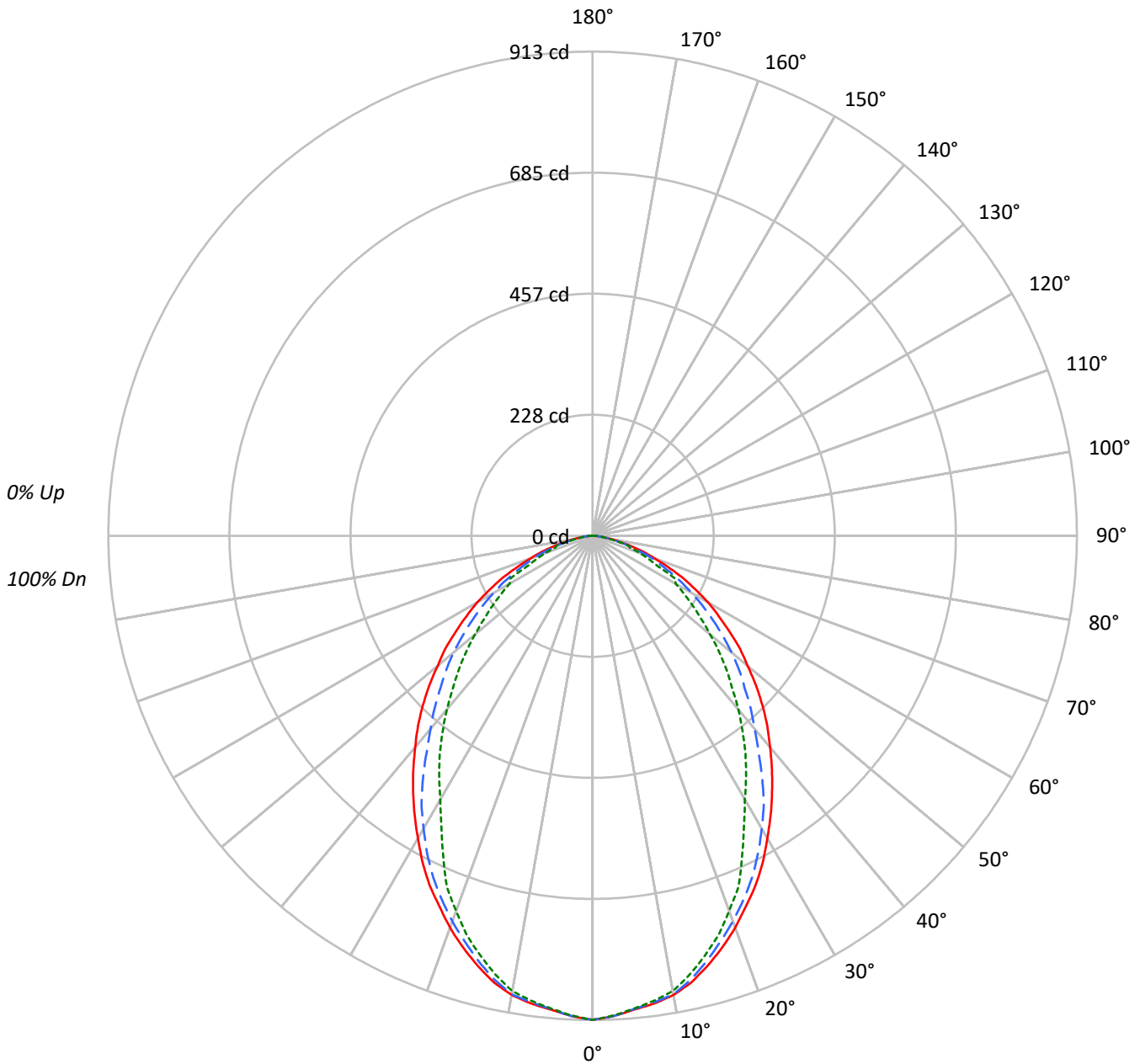
Lumens per Lamp: N/A
Luminaire Lumens: 1792.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	4913	4913	4913
5°	4846	4840	4835
10°	4804	4798	4764
15°	4675	4627	4563
20°	4503	4430	4309
25°	4318	4224	3960
30°	4092	3961	3568
35°	3876	3661	3300
40°	3655	3336	3003
45°	3446	3084	2715
50°	3190	2863	2421
55°	2951	2594	2168
60°	2704	2317	1943
65°	2379	2029	1720
70°	1959	1777	1462
75°	1557	1360	1426
80°	1048	982	914
85°	655	784	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.0	4.7
10°-20°	233.2	13.0
20°-30°	322.8	18.0
30°-40°	344.3	19.2
40°-50°	314.1	17.5
50°-60°	246.0	13.7
60°-70°	160.3	8.9
70°-80°	71.0	4.0
80°-90°	15.3	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°	641.0	35.8
0°-40°	985.3	55.0
0°-60°	1545.4	86.2
0°-90°	1792.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1792.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	897	896	896	895	895	85
15°	839	839	830	822	819	236
25°	727	723	711	686	667	334
35°	590	586	557	515	502	369
45°	453	443	405	372	357	349
55°	314	305	276	244	231	282
65°	187	176	159	162	135	184
75°	75	70	65	62	69	80
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°	912.8	912.8	912.8	912.8	912.8
2.5°	906.5	906.5	906.5	905.4	905.4
5°	897.0	895.9	895.9	894.9	894.9
7.5°	889.6	888.5	887.5	886.4	884.3
10°	879.1	879.1	878.0	872.7	871.7
12.5°	862.2	861.1	856.9	849.5	847.4
15°	839.0	839.0	830.5	822.1	818.9
17.5°	813.6	812.6	802.0	793.6	789.4
20°	786.2	784.1	773.5	759.8	752.4
22.5°	755.6	755.6	742.9	725.0	717.6
25°	727.1	722.9	711.3	685.9	666.9
27.5°	694.4	688.0	675.4	639.5	617.3
30°	658.5	655.3	637.4	591.0	574.1
32.5°	624.7	619.5	600.5	551.9	538.2
35°	589.9	585.7	557.2	515.0	502.3
37.5°	555.1	549.8	513.9	480.2	464.3
40°	520.3	513.9	474.9	444.3	427.4
42.5°	487.5	479.1	441.1	408.4	389.4
45°	452.7	443.2	405.2	371.5	356.7
47.5°	417.9	409.5	374.6	339.8	322.9
50°	381.0	373.6	341.9	307.1	289.1
52.5°	350.4	338.7	308.1	273.3	258.5
55°	314.5	305.0	276.5	243.8	231.1
57.5°	281.8	272.3	245.9	215.3	204.7
60°	251.2	237.4	215.3	188.9	180.5
62.5°	217.4	206.8	187.8	165.7	176.2
65°	186.8	176.2	159.3	162.5	135.1
67.5°	153.0	147.7	133.0	118.2	114.0
70°	124.5	118.2	112.9	97.1	92.9
72.5°	99.2	92.9	85.5	77.0	73.9
75°	74.9	69.6	65.4	62.3	68.6
77.5°	51.7	49.6	46.4	43.3	42.2
80°	33.8	32.7	31.7	30.6	29.5
82.5°	20.1	20.1	20.1	20.1	20.1
85°	10.6	11.6	12.7	13.7	14.8
87.5°	6.3	6.3	7.4	8.4	9.5
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)