

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: P545308

Luminaire Tested: **FMR-12-2-LD4-1HI-50-UNV-80-94-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: P545308
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-LD4-1HI-50-UNV-80-94-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

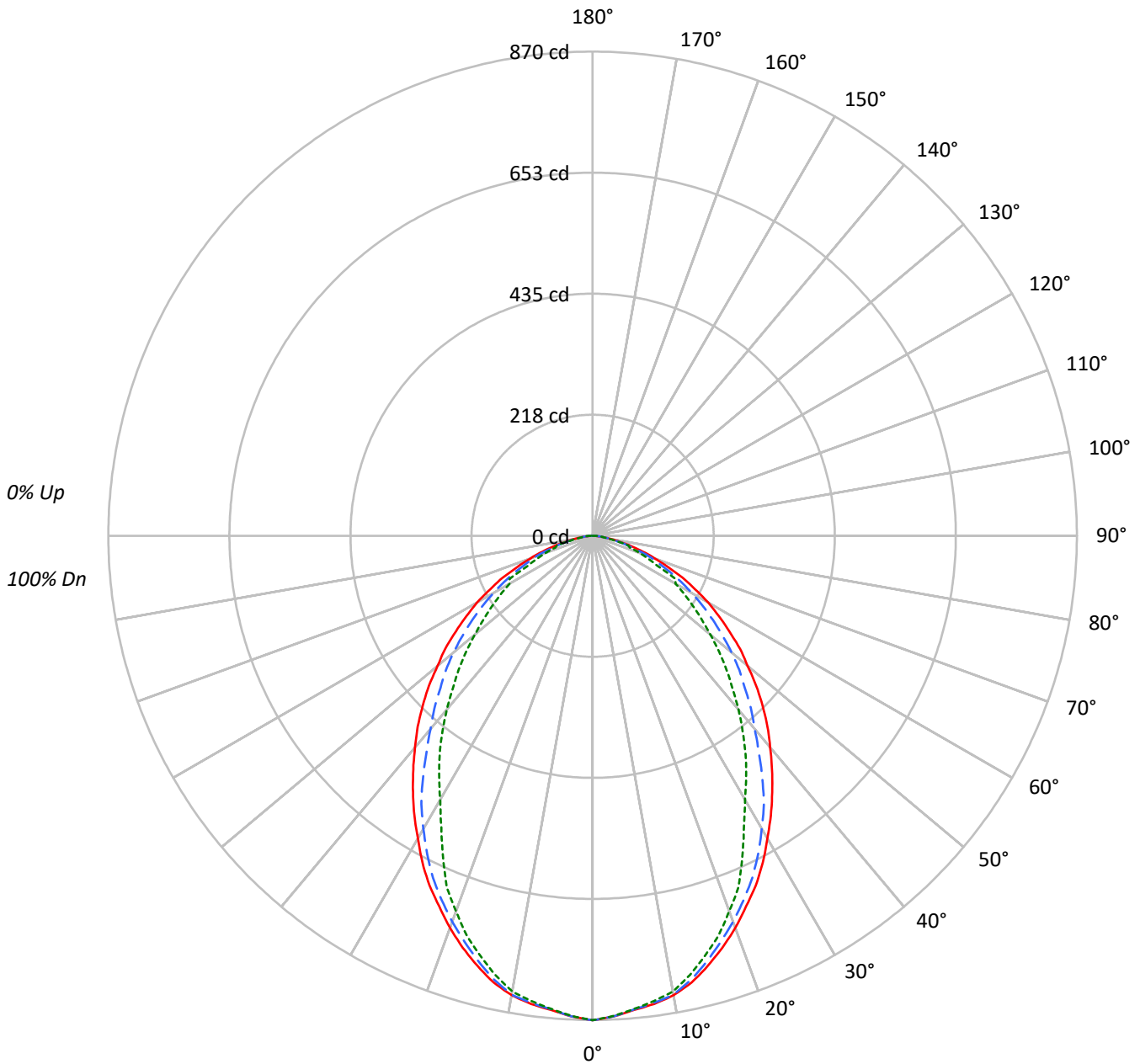
Lumens per Lamp: N/A
Luminaire Lumens: 1709.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	4685	4685	4685
5°	4621	4616	4611
10°	4581	4576	4543
15°	4458	4413	4352
20°	4294	4225	4110
25°	4118	4028	3777
30°	3903	3778	3402
35°	3696	3491	3147
40°	3486	3182	2864
45°	3286	2942	2589
50°	3042	2730	2309
55°	2814	2474	2068
60°	2578	2210	1852
65°	2268	1936	1640
70°	1869	1695	1394
75°	1487	1298	1360
80°	998	936	874
85°	624	747	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	4.7
10°-20°	222.4	13.0
20°-30°	307.9	18.0
30°-40°	328.3	19.2
40°-50°	299.5	17.5
50°-60°	234.7	13.7
60°-70°	152.9	8.9
70°-80°	67.8	4.0
80°-90°	14.5	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°	611.3	35.8
0°-40°	939.6	55.0
0°-60°	1473.8	86.2
0°-90°	1709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	855	854	854	853	853	81
15°	800	800	792	784	781	225
25°	693	689	678	654	636	318
35°	563	559	531	491	479	352
45°	432	423	386	354	340	333
55°	300	291	264	232	220	269
65°	178	168	152	155	129	176
75°	72	66	62	59	65	77
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870.5	870.5	870.5	870.5	870.5
2.5°	864.5	864.5	864.5	863.5	863.5
5°	855.4	854.4	854.4	853.4	853.4
7.5°	848.4	847.4	846.4	845.4	843.4
10°	838.3	838.3	837.3	832.3	831.3
12.5°	822.2	821.2	817.2	810.2	808.1
15°	800.1	800.1	792.0	784.0	781.0
17.5°	775.9	774.9	764.9	756.8	752.8
20°	749.8	747.8	737.7	724.6	717.6
22.5°	720.6	720.6	708.5	691.4	684.4
25°	693.4	689.4	678.3	654.2	636.0
27.5°	662.2	656.2	644.1	609.9	588.7
30°	628.0	625.0	607.9	563.6	547.5
32.5°	595.8	590.8	572.6	526.4	513.3
35°	562.6	558.6	531.4	491.1	479.0
37.5°	529.4	524.3	490.1	457.9	442.8
40°	496.2	490.1	452.9	423.7	407.6
42.5°	465.0	456.9	420.7	389.5	371.4
45°	431.7	422.7	386.5	354.3	340.2
47.5°	398.5	390.5	357.3	324.1	308.0
50°	363.3	356.3	326.1	292.9	275.8
52.5°	334.1	323.1	293.9	260.7	246.6
55°	299.9	290.9	263.7	232.5	220.4
57.5°	268.7	259.7	234.5	205.3	195.2
60°	239.5	226.4	205.3	180.1	172.1
62.5°	207.3	197.3	179.1	158.0	168.1
65°	178.1	168.1	152.0	155.0	128.8
67.5°	145.9	140.9	126.8	112.7	108.7
70°	118.8	112.7	107.7	92.6	88.6
72.5°	94.6	88.6	81.5	73.5	70.4
75°	71.5	66.4	62.4	59.4	65.4
77.5°	49.3	47.3	44.3	41.3	40.3
80°	32.2	31.2	30.2	29.2	28.2
82.5°	19.1	19.1	19.1	19.1	19.1
85°	10.1	11.1	12.1	13.1	14.1
87.5°	6.0	6.0	7.0	8.1	9.1
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)