

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: P545500

Luminaire Tested: **FMR-12-2-LD4-1STD-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: P545500
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-LD4-1STD-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

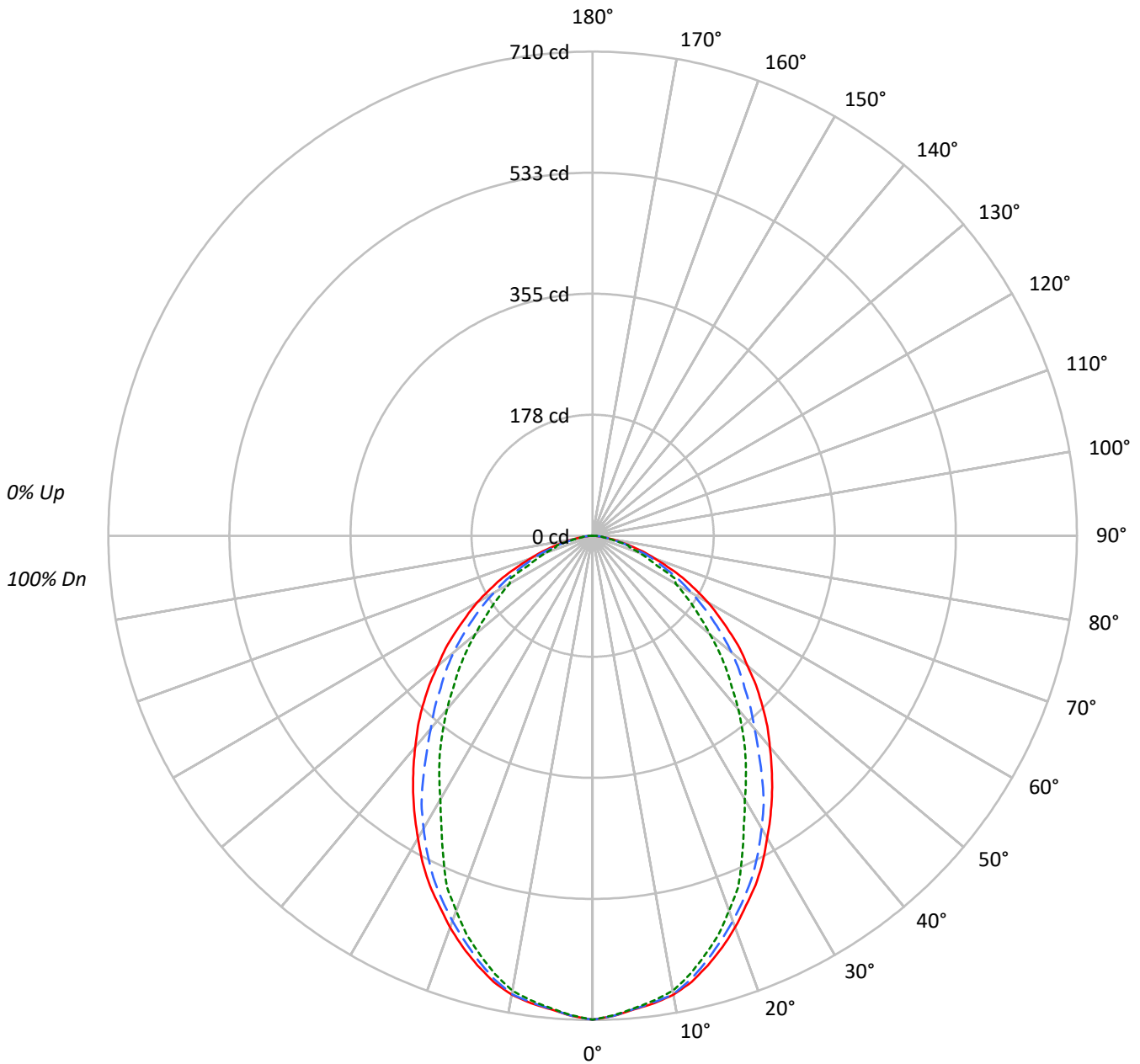
Lumens per Lamp: N/A
Luminaire Lumens: 1393.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3819	3819	3819
5°	3767	3763	3758
10°	3734	3730	3703
15°	3634	3597	3547
20°	3500	3444	3350
25°	3356	3283	3078
30°	3181	3079	2774
35°	3013	2846	2566
40°	2841	2593	2334
45°	2678	2398	2111
50°	2479	2226	1882
55°	2294	2016	1685
60°	2101	1801	1510
65°	1849	1578	1337
70°	1523	1382	1136
75°	1210	1058	1108
80°	815	762	713
85°	506	605	710



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	4.7
10°-20°	181.3	13.0
20°-30°	251.0	18.0
30°-40°	267.6	19.2
40°-50°	244.1	17.5
50°-60°	191.2	13.7
60°-70°	124.7	8.9
70°-80°	55.2	4.0
80°-90°	11.9	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°	498.3	35.8
0°-40°	765.9	55.0
0°-60°	1201.3	86.2
0°-90°	1393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1393.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	697	696	696	696	696	66
15°	652	652	646	639	637	183
25°	565	562	553	533	518	259
35°	459	455	433	400	390	287
45°	352	344	315	289	277	271
55°	244	237	215	190	180	219
65°	145	137	124	126	105	143
75°	58	54	51	48	53	62
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.6	709.6	709.6	709.6	709.6
2.5°	704.7	704.7	704.7	703.8	703.8
5°	697.3	696.5	696.5	695.6	695.6
7.5°	691.5	690.7	689.9	689.1	687.4
10°	683.3	683.3	682.5	678.4	677.6
12.5°	670.2	669.4	666.1	660.4	658.7
15°	652.2	652.2	645.6	639.0	636.6
17.5°	632.5	631.6	623.4	616.9	613.6
20°	611.1	609.5	601.3	590.6	584.9
22.5°	587.3	587.3	577.5	563.6	557.8
25°	565.2	561.9	552.9	533.2	518.4
27.5°	539.8	534.8	525.0	497.1	479.9
30°	511.9	509.4	495.5	459.4	446.3
32.5°	485.6	481.5	466.8	429.0	418.4
35°	458.6	455.3	433.1	400.3	390.5
37.5°	431.5	427.4	399.5	373.2	360.9
40°	404.4	399.5	369.1	345.4	332.2
42.5°	379.0	372.4	342.9	317.5	302.7
45°	351.9	344.5	315.0	288.8	277.3
47.5°	324.8	318.3	291.2	264.1	251.0
50°	296.1	290.4	265.8	238.7	224.8
52.5°	272.3	263.3	239.5	212.5	201.0
55°	244.5	237.1	214.9	189.5	179.6
57.5°	219.0	211.6	191.1	167.3	159.1
60°	195.2	184.6	167.3	146.8	140.3
62.5°	169.0	160.8	146.0	128.8	137.0
65°	145.2	137.0	123.9	126.3	105.0
67.5°	118.9	114.8	103.4	91.9	88.6
70°	96.8	91.9	87.8	75.5	72.2
72.5°	77.1	72.2	66.4	59.9	57.4
75°	58.2	54.1	50.9	48.4	53.3
77.5°	40.2	38.6	36.1	33.6	32.8
80°	26.3	25.4	24.6	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.8	10.7	11.5
87.5°	4.9	4.9	5.7	6.6	7.4
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)