

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: P544957

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-80-96-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: P544957
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-12-1-LD4-2HI-35-UNV-80-96-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

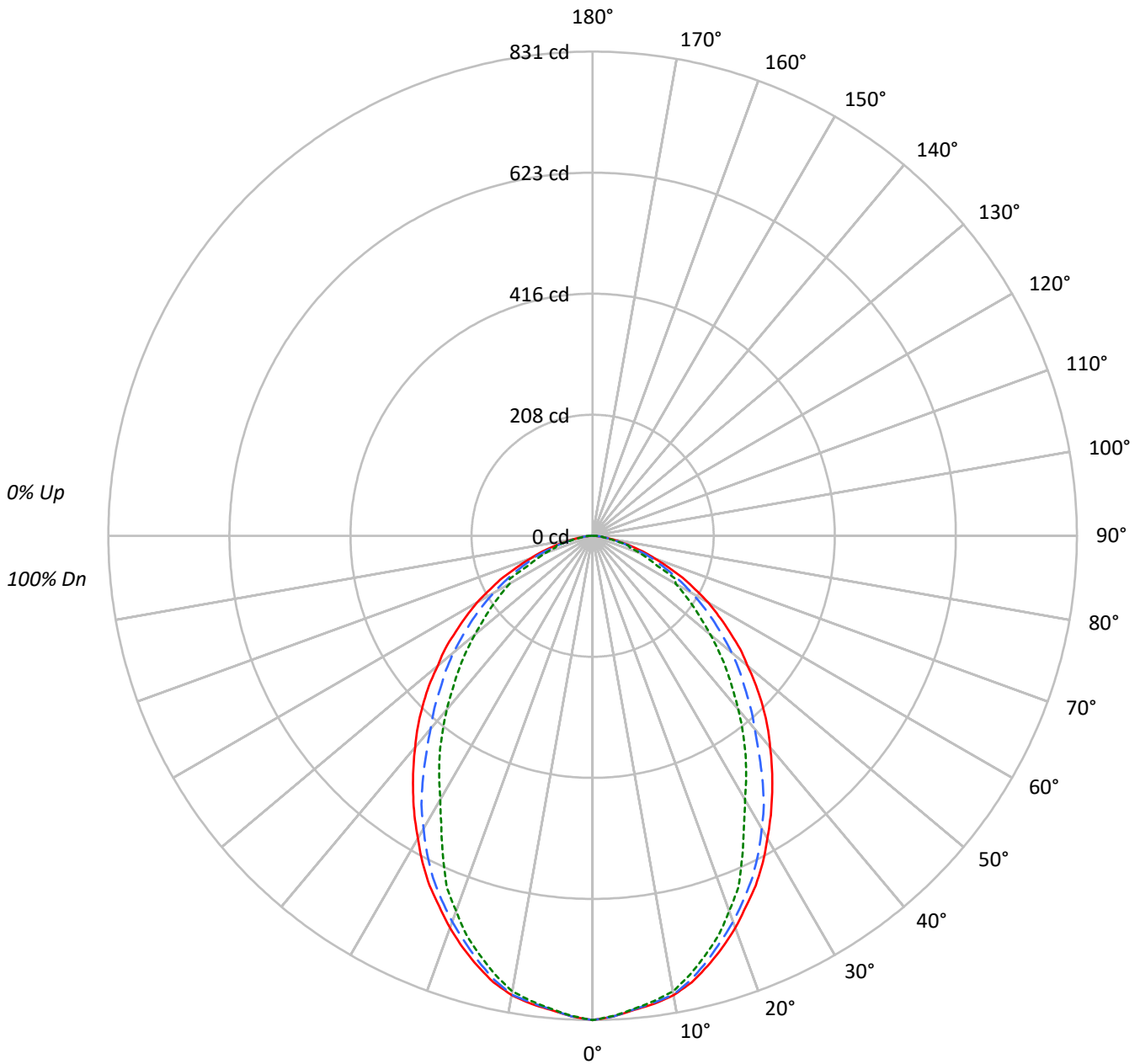
Lumens per Lamp: N/A
Luminaire Lumens: 1632.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	8948	8948	8948
5°	8827	8816	8806
10°	8751	8740	8676
15°	8514	8429	8311
20°	8202	8070	7849
25°	7865	7694	7214
30°	7454	7215	6498
35°	7059	6667	6012
40°	6658	6077	5469
45°	6276	5617	4944
50°	5809	5215	4409
55°	5375	4725	3950
60°	4923	4222	3537
65°	4332	3696	3133
70°	3569	3235	2662
75°	2836	2479	2599
80°	1909	1785	1667
85°	1186	1420	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	4.7
10°-20°	212.4	13.0
20°-30°	294.0	18.0
30°-40°	313.5	19.2
40°-50°	286.0	17.5
50°-60°	224.1	13.7
60°-70°	146.0	8.9
70°-80°	64.7	4.0
80°-90°	13.9	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°	583.8	35.8
0°-40°	897.3	55.0
0°-60°	1407.4	86.2
0°-90°	1632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	817	816	816	815	815	78
15°	764	764	756	749	746	215
25°	662	658	648	625	607	304
35°	537	533	507	469	458	336
45°	412	404	369	338	325	318
55°	286	278	252	222	210	257
65°	170	160	145	148	123	168
75°	68	63	60	57	62	73
85°	10	11	12	12	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.3	831.3	831.3	831.3	831.3
2.5°	825.6	825.6	825.6	824.6	824.6
5°	816.9	815.9	815.9	815.0	815.0
7.5°	810.2	809.2	808.3	807.3	805.4
10°	800.6	800.6	799.6	794.8	793.8
12.5°	785.2	784.2	780.4	773.7	771.7
15°	764.0	764.0	756.4	748.7	745.8
17.5°	741.0	740.0	730.4	722.7	718.9
20°	716.0	714.1	704.5	692.0	685.2
22.5°	688.1	688.1	676.6	660.2	653.5
25°	662.2	658.3	647.8	624.7	607.4
27.5°	632.4	626.6	615.1	582.4	562.2
30°	599.7	596.8	580.5	538.2	522.8
32.5°	568.9	564.1	546.8	502.6	490.1
35°	537.2	533.4	507.4	469.0	457.5
37.5°	505.5	500.7	468.0	437.3	422.9
40°	473.8	468.0	432.5	404.6	389.2
42.5°	444.0	436.3	401.7	371.9	354.6
45°	412.3	403.6	369.0	338.3	324.8
47.5°	380.6	372.9	341.2	309.5	294.1
50°	346.9	340.2	311.4	279.7	263.3
52.5°	319.1	308.5	280.6	248.9	235.5
55°	286.4	277.7	251.8	222.0	210.5
57.5°	256.6	248.0	223.9	196.1	186.4
60°	228.7	216.2	196.1	172.0	164.3
62.5°	198.0	188.4	171.1	150.9	160.5
65°	170.1	160.5	145.1	148.0	123.0
67.5°	139.4	134.5	121.1	107.6	103.8
70°	113.4	107.6	102.8	88.4	84.6
72.5°	90.3	84.6	77.8	70.2	67.3
75°	68.2	63.4	59.6	56.7	62.5
77.5°	47.1	45.2	42.3	39.4	38.4
80°	30.8	29.8	28.8	27.9	26.9
82.5°	18.3	18.3	18.3	18.3	18.3
85°	9.6	10.6	11.5	12.5	13.5
87.5°	5.8	5.8	6.7	7.7	8.6
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)