

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: P545342

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-80-97-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: P545342
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-LD4-1LO-35-UNV-80-97-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

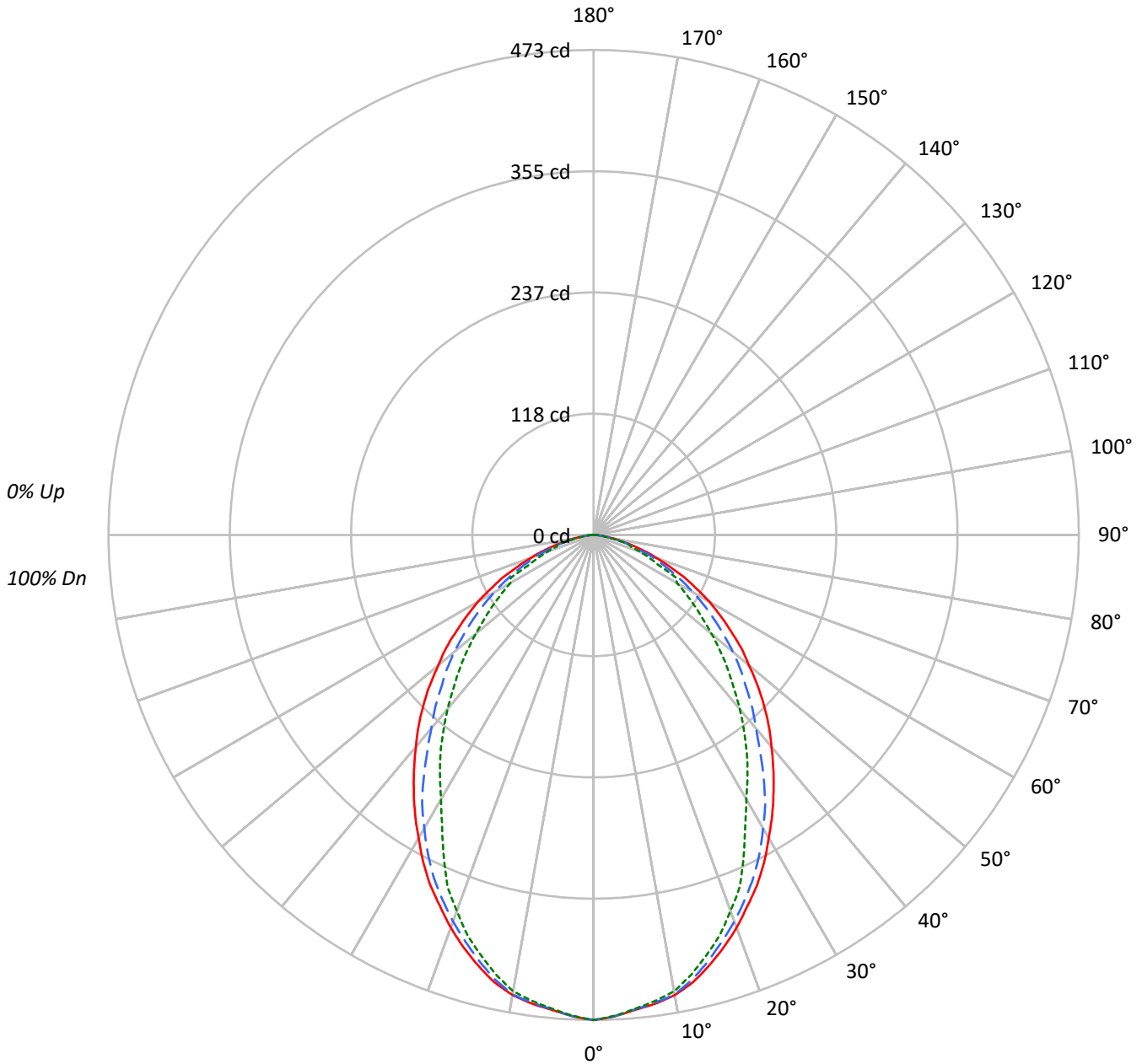
Lumens per Lamp: N/A
Luminaire Lumens: 929.0 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	2547	2547	2547
5°	2512	2509	2506
10°	2490	2488	2470
15°	2423	2399	2365
20°	2334	2297	2234
25°	2238	2189	2053
30°	2122	2053	1849
35°	2009	1898	1711
40°	1895	1730	1557
45°	1786	1599	1407
50°	1654	1485	1255
55°	1529	1345	1124
60°	1401	1201	1006
65°	1233	1052	891
70°	1017	921	757
75°	807	705	740
80°	542	508	474
85°	340	408	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	4.7
10°-20°	120.9	13.0
20°-30°	167.4	18.0
30°-40°	178.5	19.2
40°-50°	162.8	17.5
50°-60°	127.5	13.7
60°-70°	83.1	8.9
70°-80°	36.8	4.0
80°-90°	7.9	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°	332.3	35.8
0°-40°	510.8	55.0
0°-60°	801.1	86.2
0°-90°	929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	465	464	464	464	464	44
15°	435	435	430	426	424	122
25°	377	375	369	356	346	173
35°	306	304	289	267	260	191
45°	235	230	210	193	185	181
55°	163	158	143	126	120	146
65°	97	91	83	84	70	95
75°	39	36	34	32	36	42
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	473.2	473.2	473.2	473.2	473.2
2.5°	469.9	469.9	469.9	469.4	469.4
5°	465.0	464.5	464.5	463.9	463.9
7.5°	461.2	460.6	460.1	459.5	458.4
10°	455.7	455.7	455.2	452.4	451.9
12.5°	447.0	446.4	444.2	440.4	439.3
15°	434.9	434.9	430.5	426.2	424.5
17.5°	421.8	421.2	415.8	411.4	409.2
20°	407.6	406.5	401.0	393.9	390.1
22.5°	391.7	391.7	385.1	375.8	372.0
25°	376.9	374.7	368.7	355.6	345.8
27.5°	360.0	356.7	350.1	331.5	320.0
30°	341.4	339.7	330.4	306.4	297.6
32.5°	323.9	321.1	311.3	286.1	279.0
35°	305.8	303.6	288.9	267.0	260.4
37.5°	287.8	285.0	266.4	248.9	240.7
40°	269.7	266.4	246.2	230.3	221.6
42.5°	252.7	248.4	228.7	211.7	201.9
45°	234.7	229.8	210.1	192.6	184.9
47.5°	216.6	212.3	194.2	176.2	167.4
50°	197.5	193.7	177.3	159.2	149.9
52.5°	181.6	175.6	159.7	141.7	134.0
55°	163.0	158.1	143.3	126.4	119.8
57.5°	146.1	141.1	127.5	111.6	106.1
60°	130.2	123.1	111.6	97.9	93.5
62.5°	112.7	107.2	97.4	85.9	91.4
65°	96.8	91.4	82.6	84.2	70.0
67.5°	79.3	76.6	68.9	61.3	59.1
70°	64.6	61.3	58.5	50.3	48.1
72.5°	51.4	48.1	44.3	39.9	38.3
75°	38.8	36.1	33.9	32.3	35.6
77.5°	26.8	25.7	24.1	22.4	21.9
80°	17.5	17.0	16.4	15.9	15.3
82.5°	10.4	10.4	10.4	10.4	10.4
85°	5.5	6.0	6.6	7.1	7.7
87.5°	3.3	3.3	3.8	4.4	4.9
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)