

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: P544951

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-80-84-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: P544951
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-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

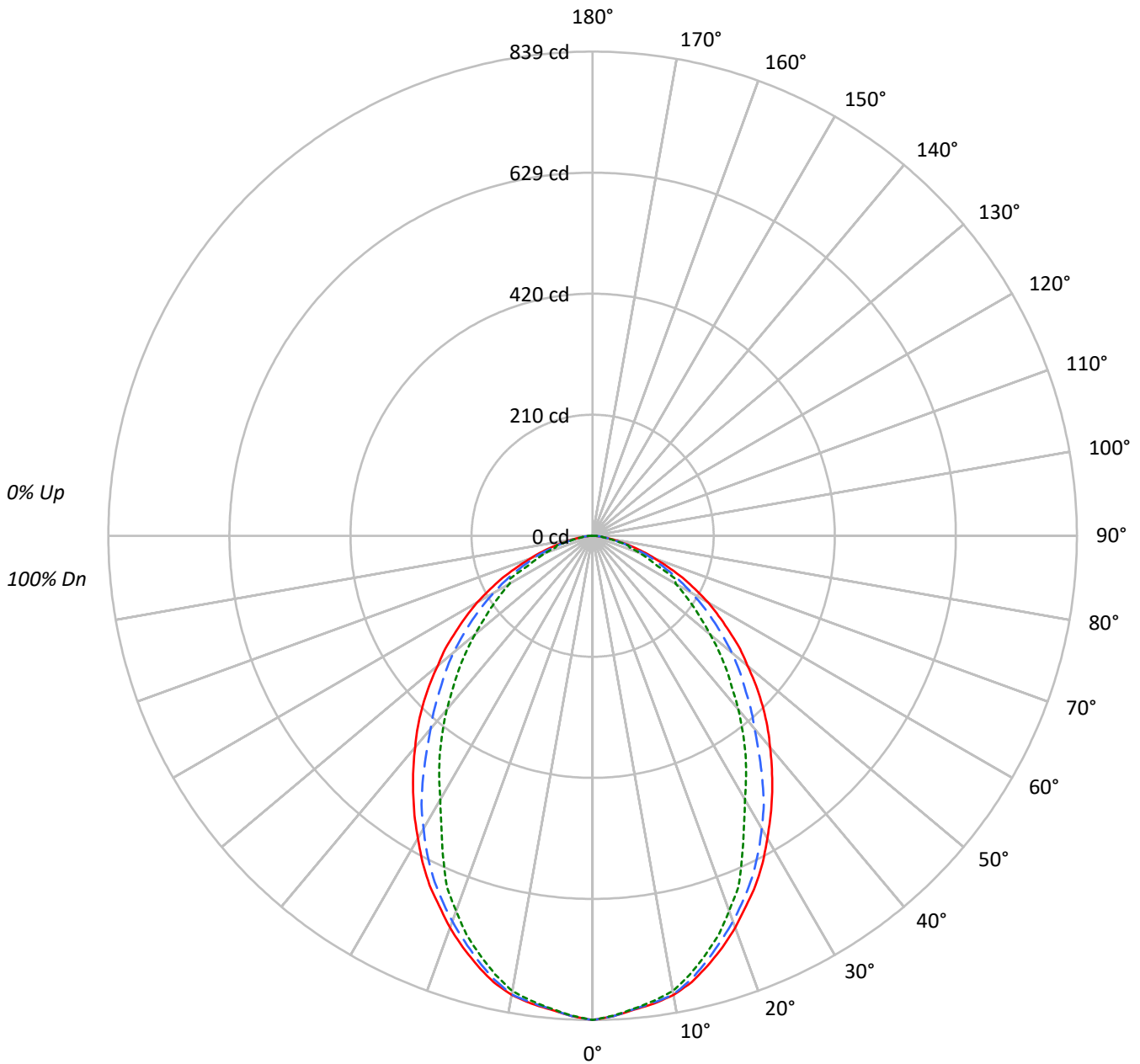
Lumens per Lamp: N/A
Luminaire Lumens: 1647.0 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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°	9031	9031	9031
5°	8908	8897	8887
10°	8830	8820	8756
15°	8593	8506	8387
20°	8277	8143	7921
25°	7937	7764	7280
30°	7522	7281	6558
35°	7125	6729	6067
40°	6719	6133	5519
45°	6334	5669	4990
50°	5863	5261	4451
55°	5423	4769	3986
60°	4969	4260	3571
65°	4373	3731	3161
70°	3600	3267	2688
75°	2865	2499	2620
80°	1922	1804	1686
85°	1198	1433	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	4.7
10°-20°	214.3	13.0
20°-30°	296.7	18.0
30°-40°	316.4	19.2
40°-50°	288.6	17.5
50°-60°	226.1	13.7
60°-70°	147.4	8.9
70°-80°	65.3	4.0
80°-90°	14.0	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°	589.1	35.8
0°-40°	905.5	55.0
0°-60°	1420.3	86.2
0°-90°	1647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	824	823	823	822	822	78
15°	771	771	763	756	753	217
25°	668	664	654	630	613	307
35°	542	538	512	473	462	339
45°	416	407	372	341	328	321
55°	289	280	254	224	212	259
65°	172	162	146	149	124	169
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	839.0	839.0	839.0	839.0	839.0
2.5°	833.1	833.1	833.1	832.2	832.2
5°	824.4	823.4	823.4	822.5	822.5
7.5°	817.6	816.7	815.7	814.7	812.8
10°	807.9	807.9	807.0	802.1	801.1
12.5°	792.4	791.4	787.6	780.8	778.8
15°	771.1	771.1	763.3	755.5	752.6
17.5°	747.8	746.8	737.1	729.4	725.5
20°	722.6	720.6	710.9	698.3	691.5
22.5°	694.4	694.4	682.8	666.3	659.5
25°	668.3	664.4	653.7	630.4	613.0
27.5°	638.2	632.4	620.7	587.8	567.4
30°	605.2	602.3	585.8	543.1	527.6
32.5°	574.2	569.3	551.9	507.3	494.6
35°	542.2	538.3	512.1	473.3	461.7
37.5°	510.2	505.3	472.3	441.3	426.8
40°	478.2	472.3	436.5	408.3	392.8
42.5°	448.1	440.3	405.4	375.3	357.9
45°	416.1	407.4	372.4	341.4	327.8
47.5°	384.1	376.3	344.3	312.3	296.8
50°	350.1	343.3	314.2	282.2	265.8
52.5°	322.0	311.3	283.2	251.2	237.6
55°	289.0	280.3	254.1	224.0	212.4
57.5°	259.0	250.2	226.0	197.9	188.2
60°	230.8	218.2	197.9	173.6	165.9
62.5°	199.8	190.1	172.6	152.3	162.0
65°	171.7	162.0	146.5	149.4	124.1
67.5°	140.6	135.8	122.2	108.6	104.7
70°	114.4	108.6	103.8	89.2	85.4
72.5°	91.2	85.4	78.6	70.8	67.9
75°	68.9	64.0	60.1	57.2	63.0
77.5°	47.5	45.6	42.7	39.8	38.8
80°	31.0	30.1	29.1	28.1	27.2
82.5°	18.4	18.4	18.4	18.4	18.4
85°	9.7	10.7	11.6	12.6	13.6
87.5°	5.8	5.8	6.8	7.8	8.7
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)