



LM-79-08 Test Report

For

ARTIKA FOR LIVING INC

(Brand Name: ARTIKA)

1756 50th avenue, Lachine, Québec, Canada H8T 2V5

**Model name(s):
8FM-BP-XXXXXX**

Report Type: Testing and Report According to IES LM-79-2008

**Type of
Luminaire:** LED Luminaire

Report Date: 2021-12-30
Ningbo TengLi Testing Co., Ltd

Prepared By: 2nd floor, Block B, Ningbo Testing and Certification Base,
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Ningbo, Zhejiang

Test & Report By:

Nick Song

Engineer: Nick Song

Review By:

Garman Mo

Manager: Garman Mo

Note: 1. The results contained in this report pertain only to the tested samples

2. This report does not imply product certification, approval, or endorsement by A2LA, or any agency of the Federal Government.



1.1 Product Information:		
Model Number	8FM-BP-XXXXXX	
Remark	"XXXXXX" can be A to Z and/or 0 to 9 and or/blank(commerical code)	
Representative (Tested) Model	8FM-BP-MW	
Model Difference	N/A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	LED Luminaires	
LED Manufacturer	Lextar Electronics Corp	
LED Model	PC35H13	
Dimming	Dimmable	
Integral Controls	N/A	
Sample Number	STD211241NB-C1(3000K)	
Date of Receipt	Dec.20,2021	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

1.2 Rated Values:	
Rated Voltage / Frequency	120Vac, 50/60Hz
Nominal Power	28W
Rated Initial Lamp Lumen	--
Declared CCT	3000K

1.3 Test Specifications:

Test item	<ol style="list-style-type: none"> 1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	<ol style="list-style-type: none"> 1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source

1.4 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals.

2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.



2.1 Electrical, Photometric and Chromaticity Measurements

Test date	2021-12-30	Test Ambient:	25 ± 1 ° C
Test Orientation	As intended	Stabilization Time (min)	45
Model Number	8FM-BP-MW	Total Operating Time(min)	60

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
STD211241 NB-C1	120.0	60.01	0.2290	26.89	0.9783	17.03

Photometric Measurement – Goniophotometer Method(Tset Dstance: 26.00m):

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Total Luminous (lm)	2205.9
Luminous Efficacy (lm/W)	82.04
Beam Angle (°)	103.3
Center Beam Candle Power (cd)	926



Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	703.6	31.9%
0-40	1,138.6	51.6%
0-60	1,941.0	88%
60-90	264.6	12%
70-100	41.6	1.9%
90-120	0.0	0%
0-90	2,205.6	100%
90-180	0.0	0%
0-180	2,205.6	100%

Lumens Per Zone					
Zone	Lumens	%Total	Zone	Lumens	%Total
0-10	87.4	4.0%	90-100	0.0	0%
10-20	247.7	11.2%	100-110	0	0%
20-30	368.4	16.7%	110-120	0	0%
30-40	435.0	19.7%	120-130	0	0%
40-50	435.9	19.8%	130-140	0	0%
50-60	366.5	16.6%	140-150	0.0	0%
60-70	223.1	10.1%	150-160	0.0	0%
70-80	40.0	1.8%	160-170	0.0	0%
80-90	1.6	0.1%	170-180	0.0	0%

Photometric Data

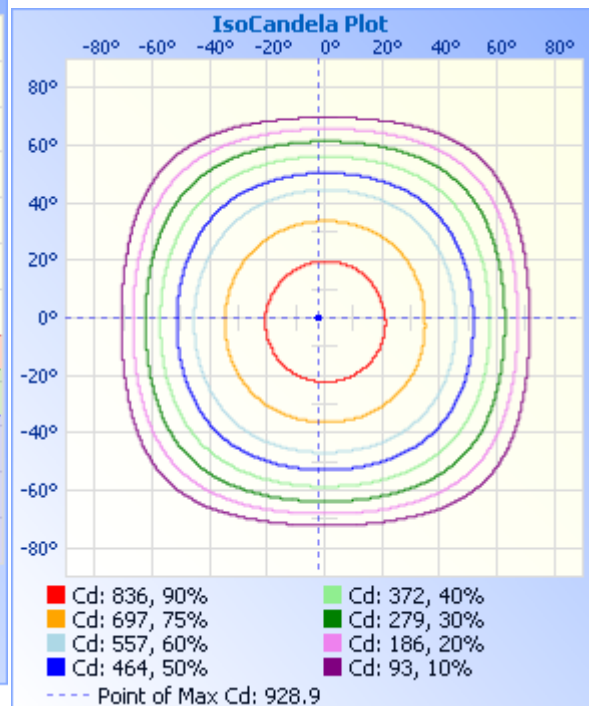
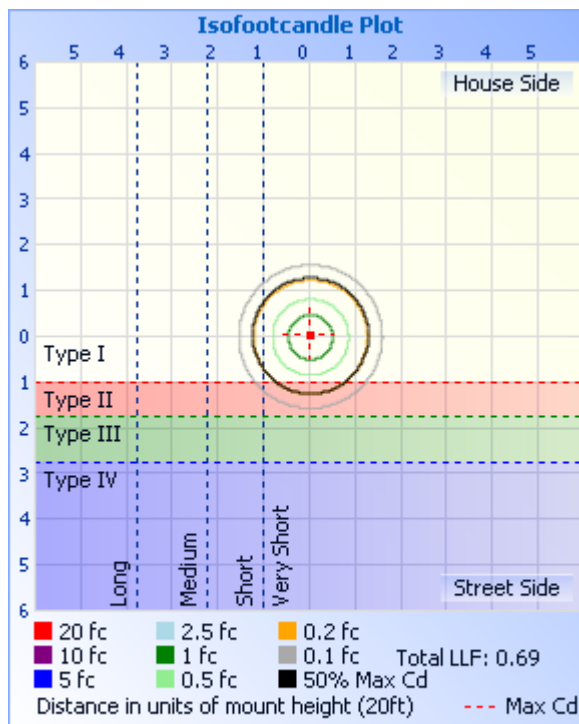
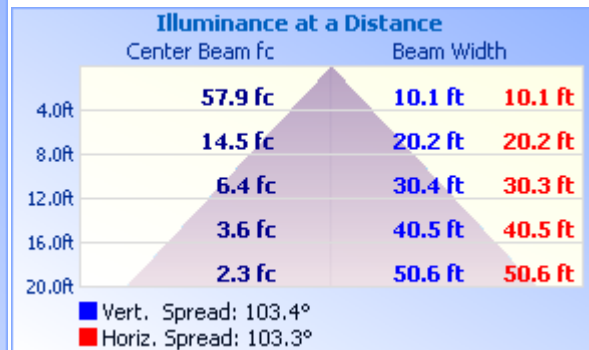
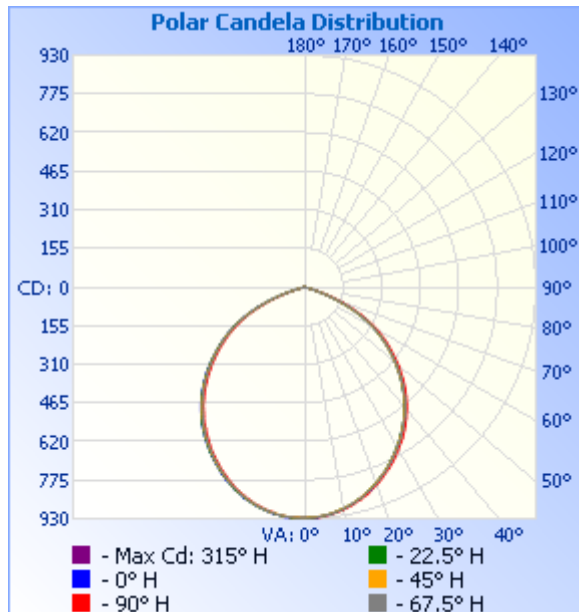




Table--1

UNIT: cd

C (DEG) T (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	926	926	926	926	926	926	926	926	926	926	926	926	926	926	926	926			
5	923	920	920	921	921	919	920	920	922	921	923	922	926	924	922	922			
10	905	901	903	901	902	902	901	904	906	904	908	908	910	908	907	907			
15	879	877	875	873	874	877	874	876	882	880	886	883	885	884	882	882			
20	842	837	840	838	836	836	837	839	845	845	850	849	850	850	848	847			
25	799	793	795	792	792	792	792	795	804	802	808	807	808	808	806	803			
30	749	744	744	742	741	742	742	745	754	755	761	759	760	761	756	754			
35	691	690	689	688	686	686	687	691	700	703	704	706	706	705	703	701			
40	631	626	627	624	624	624	625	628	639	640	647	646	648	646	643	640			
45	562	557	558	555	556	554	555	559	571	572	579	579	580	578	575	571			
50	487	483	482	478	478	478	478	482	496	496	502	504	505	503	499	496			
55	407	403	403	398	398	397	399	402	415	417	423	424	426	424	420	418			
60	324	320	319	314	312	312	314	318	332	335	339	341	343	341	337	334			
65	227	221	217	214	211	209	211	218	233	237	243	246	247	245	242	238			
70	115	109	105	101	97.4	96.6	98.2	103	119	123	129	135	136	133	131	129			
75	24.8	22.5	20.5	14.2	13.0	12.8	13.4	15.1	23.0	25.7	29.2	31.7	33.3	33.5	31.7	29.5			
80	4.41	4.08	3.83	3.69	3.57	3.56	3.64	3.81	5.50	5.81	6.11	6.37	6.48	6.48	6.38	6.20			
85	0.79	0.67	0.55	0.45	0.38	0.35	0.38	0.44	0.94	1.11	1.28	1.40	1.49	1.50	1.48	1.40			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
150	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
155	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
160	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00			
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00			
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00			
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00			
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			



2.3 Electrical, Photometric and Chromaticity Measurements

Test date	2021-12-30	Test Ambient:	25 ± 1 ° C
Test Orientation	As intended	Stabilization Time (min)	45
Model Number	8FM-BP-MW	Total Operating Time(min)	46

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
STD211241 NB-C1	120.0	60	0.2294	27.02	0.9815	16.89

Chromaticity Measurement - Sphere-Spectroradiometer

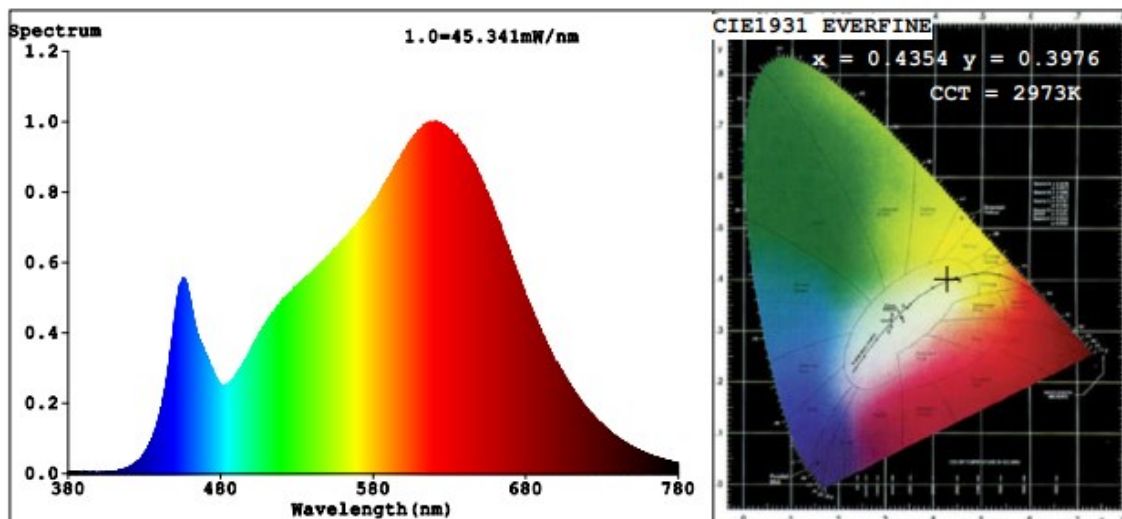
Method(Self-absorption:1.0458)(4 π geometry):

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
CCT (K)	2973
Duv	-0.0024
Chromaticity (x, y)	x=0.4354 y=0.3976
Chromaticity (u', v')	u'=0.2524 v'=0.5186
Color Rendering Index (CRI)	93.9
R9	65
Rg	100
Rf	92
Rcs,h1(%)	-5

Photometric Measurement –Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Total Luminous (lm)	2223
Luminous Efficacy (lm/W)	82.27

Spectral Power Distribution & Chromaticity Diagram

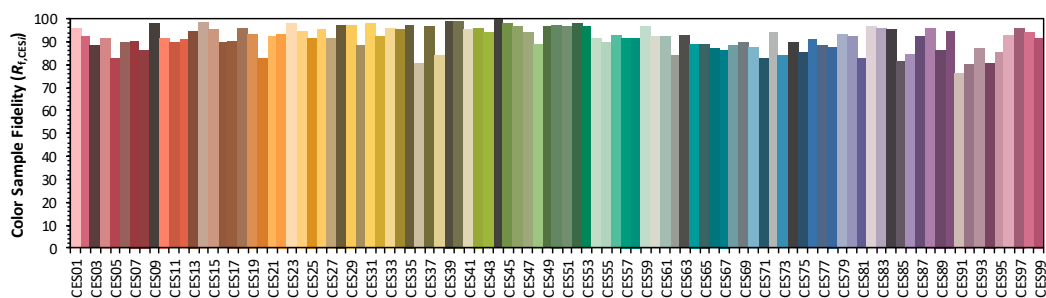
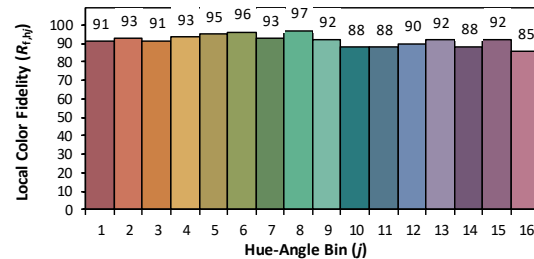
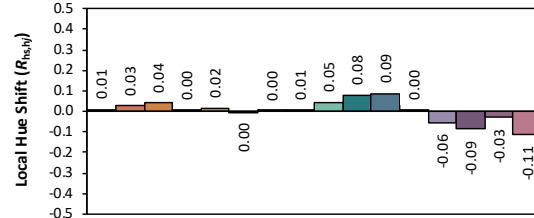
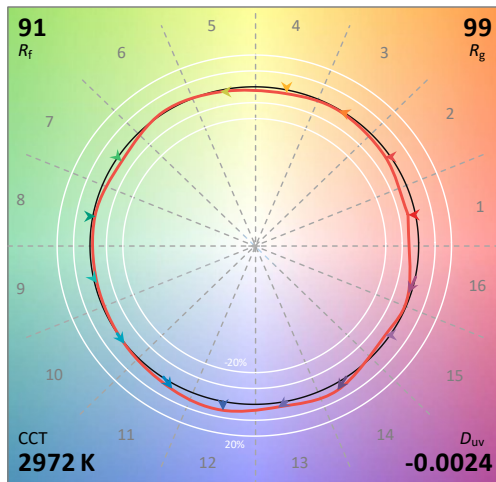
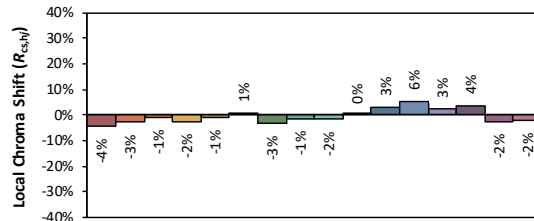
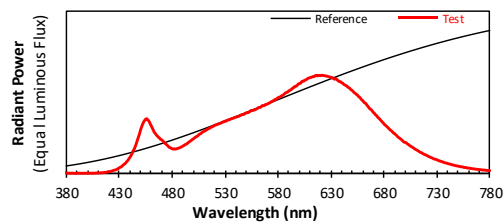


R1 =95	R2 =98	R3 =98	R4 =94	R5 =95	R6 =96	R7 =91
R8 =83	R9 =65	R10=95	R11=95	R12=82	R13=96	R14=99 R15=92

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	PC35H13	Manufacturer:	ARTIKA FOR LIVING INC
Date:	2021-12-30	Model:	8FM-BP-MW



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4354
 y 0.3975
 u' 0.2524
 v' 0.5185

CIE 13.3-1995
(CRI)

R_a 94
 R_g 65

lors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.0



3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-702	2 meter Integrating Sphere	Verified by D204 standard lamp	
ST-R-701	Spectral analysis system HAAS-1200	Verified by D204 standard lamp	
ST-R-703	Standard Lamp D204	2021-02-21	2022-02-20
ST-R-704	Power Meter for Integrating Sphere	2021-01-05	2022-01-04
ST-R-714	Goniophotometer system	Verified by D908S standard lamp	
ST-R-710	Standard Lamp D908S	2021-02-21	2022-02-20
ST-R-711	Power Meter for Goniophotometer	2021-01-05	2022-01-04
Uncertainty(K=2): Photometric Measurement (Sphere):3.94% Chromaticity Measurement(Sphere):48.2K Photometric Measurement(Goniophotometer):3.96%			

4. Product Photo



***** END OF REPORT *****