



## LM-79-08 Test Report

For

**ARTIKA FOR LIVING INC**

**(Brand Name: ARTIKA)**

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

**Model name(s):  
6FM-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,  
No. 66 Qingyi Road, Ningbo National Hi-Tech Zone,  
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	6FM-BP-XXXXXX	
Remark	"XXXXXX" can be A to Z and/or 0 to 9 and or/blank(commerical code)	
Representative (Tested) Model	6FM-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-B1(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	26W
Rated Initial Lamp Lumen	--
Declared CCT	3000K

### 1.3 Test Specifications:

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

### 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  $1^{\circ}$  vertical intervals and  $22.5^{\circ}$  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	6FM-BP-MW	Total Operating Time(min)	60

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz )	Current (A)	Power (W)	Power Factor	THD %
STD211241 NB-B1	120.1	60.01	0.2190	25.77	0.9797	17.44

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

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Total Luminous (lm)	2120.2
Luminous Efficacy (lm/W)	82.27
Beam Angle (°)	107.0
Center Beam Candle Power (cd)	865



## Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	673.6	31.8%
0-40	1,102.5	52%
0-60	1,894.3	89.4%
60-90	225.6	10.6%
70-100	39.6	1.9%
90-120	0.0	0%
0-90	2,119.9	100%
90-180	0.0	0%
0-180	2,119.9	100%

Lumens Per Zone					
Zone	Lumens	%Total	Zone	Lumens	%Total
0-10	81.9	3.9%	90-100	0	0%
10-20	234.9	11.1%	100-110	0	0%
20-30	356.8	16.8%	110-120	0.0	0%
30-40	428.9	20.2%	120-130	0.0	0%
40-50	432.9	20.4%	130-140	0.0	0%
50-60	358.8	16.9%	140-150	0.0	0%
60-70	186.0	8.8%	150-160	0.0	0%
70-80	35.1	1.7%	160-170	0.0	0%
80-90	4.5	0.2%	170-180	0.0	0%

## Photometric Data

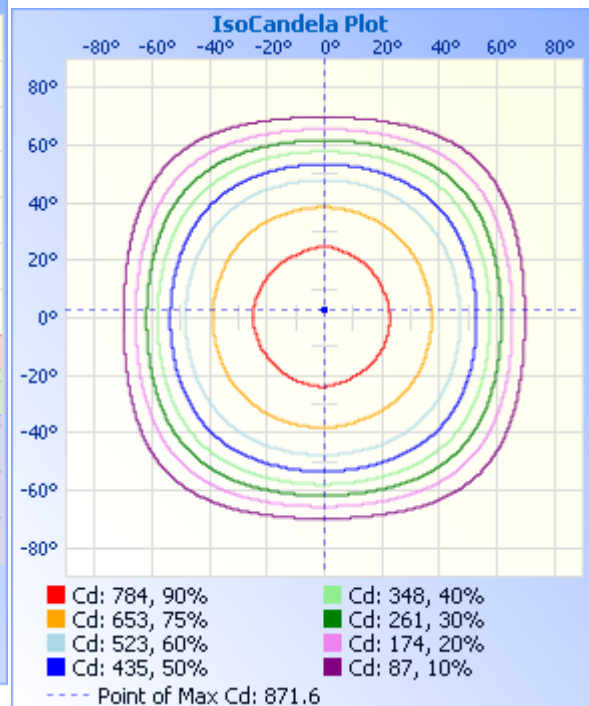
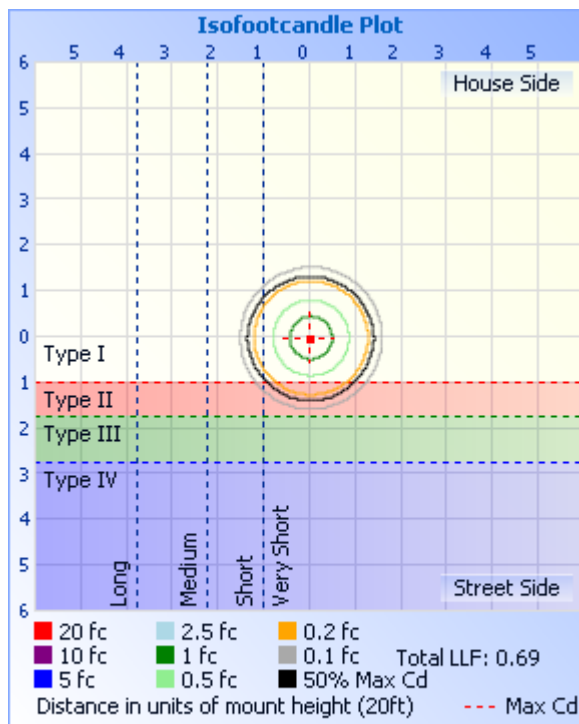
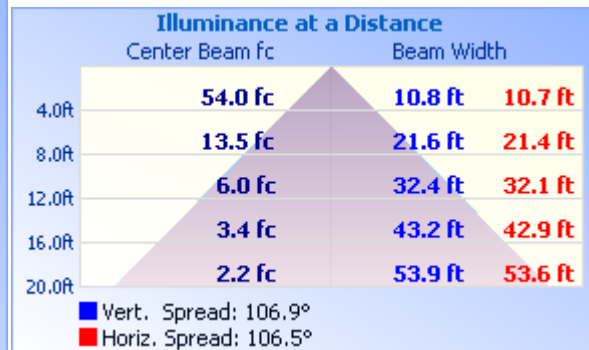
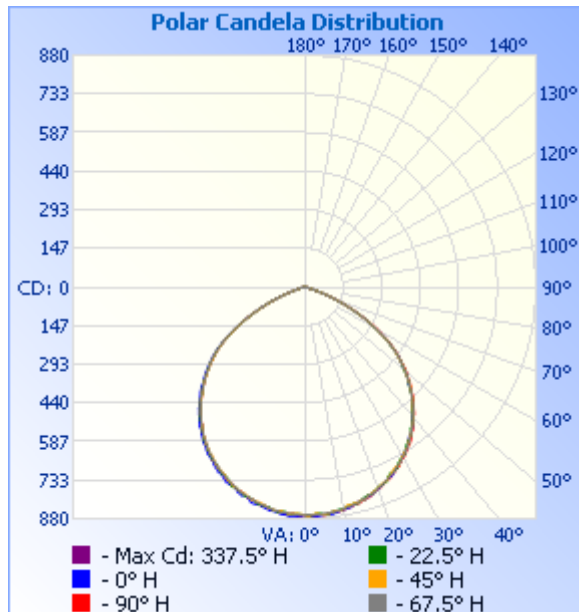




Table--1

UNIT: cd

C (DEG) Y (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	865	865	865	865	865	865	865	865	865	865	865	865	865	865	865	865			
5	865	856	856	872	867	867	866	863	869	860	859	866	867	856	859	859			
10	845	843	846	852	858	854	856	855	858	853	847	855	852	845	845	845			
15	829	826	829	837	838	836	837	836	841	836	833	832	828	825	825	826			
20	796	796	798	811	815	811	811	814	816	807	808	805	802	806	801	798			
25	769	763	770	774	789	777	780	783	787	781	773	775	774	767	762	764			
30	725	726	731	734	742	741	741	746	748	740	734	736	734	725	725	723			
35	677	674	679	694	694	698	696	698	705	696	689	683	683	674	674	674			
40	615	617	622	631	638	641	643	641	645	636	632	621	625	615	615	615			
45	549	552	555	563	575	575	575	575	580	572	564	560	559	548	548	549			
50	476	479	485	492	502	498	501	501	505	496	491	487	484	477	473	476			
55	393	397	401	410	417	415	416	415	422	416	410	404	402	396	394	395			
60	289	293	300	308	312	309	312	310	317	309	306	298	292	288	288	291			
65	174	179	186	194	196	196	199	196	201	194	188	181	177	174	173	177			
70	76.0	80.6	84.5	89.4	93.6	93.9	93.7	91.2	95.7	89.4	83.4	79.8	77.6	75.3	74.8	76.9			
75	21.7	22.7	24.0	25.1	30.3	30.7	30.3	29.6	26.2	24.4	23.1	22.4	21.9	21.4	21.4	21.9			
80	10.4	10.8	11.4	12.1	12.5	12.8	12.7	12.4	12.5	12.1	11.5	11.0	10.7	10.4	10.3	10.6			
85	2.93	3.21	3.48	3.83	4.17	4.28	4.28	4.14	4.13	3.72	3.35	3.01	2.77	2.63	2.67	2.85			
90	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			
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	0.01	0.01	0.01	0.01	0.00			
120	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00			
125	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
130	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
135	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01			
140	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
145	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01			
150	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
155	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00			
160	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01			
165	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01			
170	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01			
175	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00			
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	6FM-BP-MW	Total Operating Time(min)	46

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
STD211241 NB-B1	120.0	60	0.2195	25.81	0.9798	17.43

### Chromaticity Measurement - Sphere-Spectroradiometer

Method(Self-absorption:1.0277)(4 $\pi$  geometry):

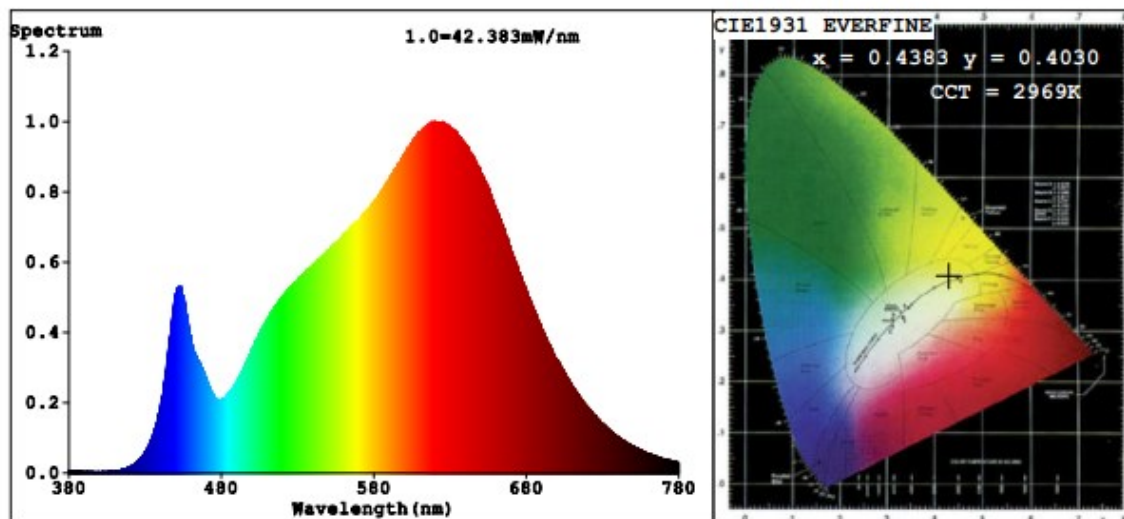
Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
CCT (K)	2969
Duv	-0.0006
Chromaticity (x, y)	x=0.4383 y=0.4030
Chromaticity (u', v')	u'=0.2519 v'=0.5212
Color Rendering Index (CRI)	93.4
R9	64
Rg	100
Rf	92
Rcs,h1(%)	-5

### Photometric Measurement –Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Total Luminous (lm)	2126
Luminous Efficacy (lm/W)	82.37



Spectral Power Distribution & Chromaticity Diagram

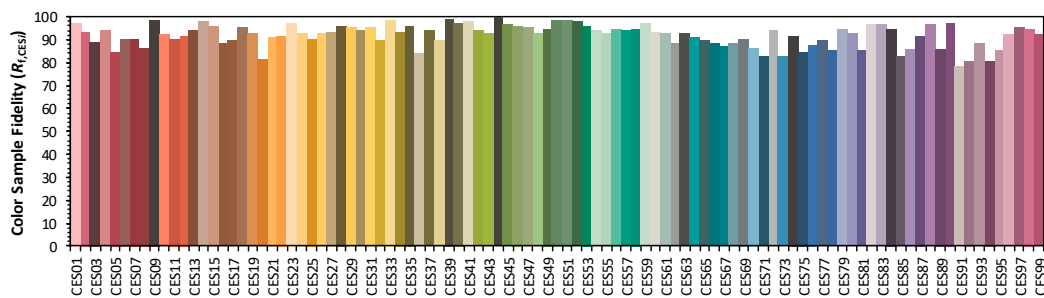
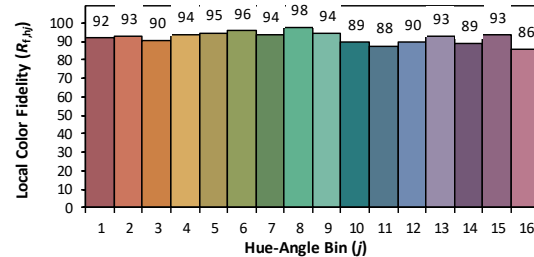
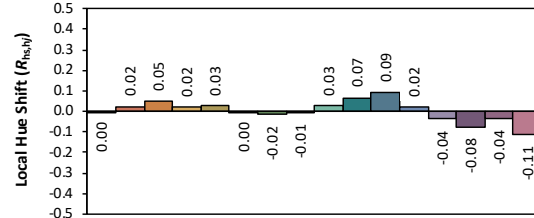
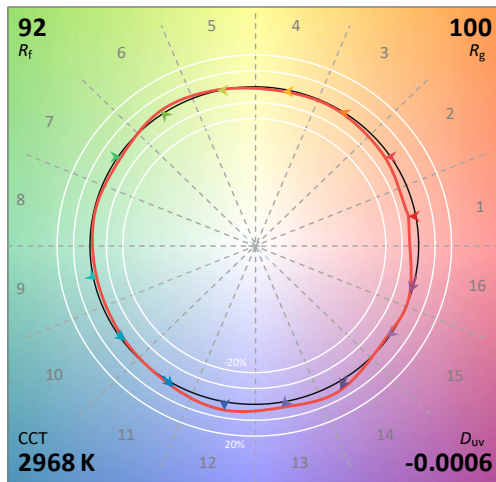
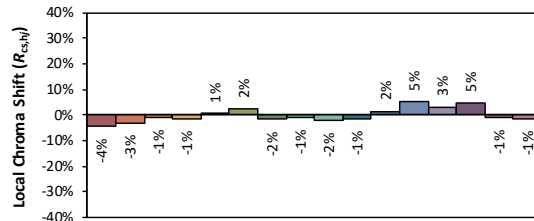
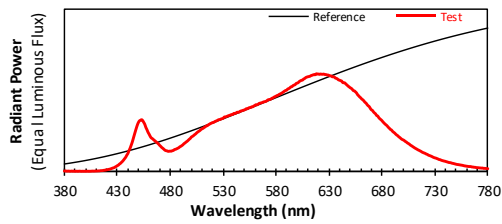


R1 =94	R2 =96	R3 =97	R4 =94	R5 =93	R6 =95	R7 =93	
R8 =84	R9 =64	R10=90	R11=94	R12=80	R13=95	R14=98	R15=91

## TM30

### ANSI/IES TM-30-18 Color Rendition Report

Source:	PC35H13	Manufacturer:	ARTIKA FOR LIVING INC
Date:	2021-12-30	Model:	6FM-BP-MW



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

$x$  0.4383  
 $y$  0.4030  
 $u'$  0.2519  
 $v'$  0.5211

CIE 13.3-1995  
(CRI)  
 $R_a$  93  
 $R_g$  64

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 \*\*\*\*\*