

## LM-79-08 Test Report

For

### ATG Electronics

(Brand Name: ATG Electronics)

10588 Monte Vista Ave, Montclair, CA 91763

## Outdoor Full-Cutoff Wall-Mounted Area Luminaires

Model name(s): WPGP-70-XX

Remark: "XX" refer to CCT as below:40=4000,50=5000,57=5700

Representative (Tested) Model: WPGP-70-40

Model Different: All construction and rating are the same, except CCT

Test & Report By:

*Garman Mo*

Engineer: Garman Mo

Date: Jun.26,2019

Review By:

*Johnson Sun*

Manager: Johnson Sun

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:

Organization Name	ATG Electronics	
Brand Name	ATG Electronics	
Model Number	WPGP-70-XX	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Full-Cutoff Wall-Mounted Area Luminaires	
Rated Voltage / Frequency	120-277Vac, 50/60Hz	
Nominal Power	70W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K,5700K	
LED Manufacturer	LUXEON	
LED Model	LUXEON 3030 2D	
Sample Number	JAE190427-QE1(4000K)	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

### Photo



**Laboratory: Standard-Tech Co., Ltd. Testing Center**

Report Format Number STD-QP019-409-B/0

Address: Standard-Tech Building, No.6 Guanhong Road,Guangzhou Science City, Guangzhou 510663, China

Tel: 8620-3229 0320 Fax: 8620-32290422 <http://www.standard-tech.com>

**1.2 Test Specifications:**

Date of Receipt	Apr.24,2019
Date of Test	Apr.28,2019
Test item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Electrical Parameters
Reference Standard	1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems

**1.3 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.

**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**

<b>Test date</b>	2019-04-28	<b>Test Ambient:</b>	25.1 ° C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	60
<b>Model Number</b>	WPGP-70-40	<b>Total Operating Time (min)</b>	90

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
JAE190427-QE1	120.0	60	0.5499	65.49	0.9924	9.36
	277.0	60	0.2533	65.90	0.9394	10.96
<b>DLC Pass Criteria</b>					$\geq 0.9(-3\%)$	$\leq 20(+5)$

**Photometric Measurement – Goniophotometer Method(Test Distance: 26.000m):**

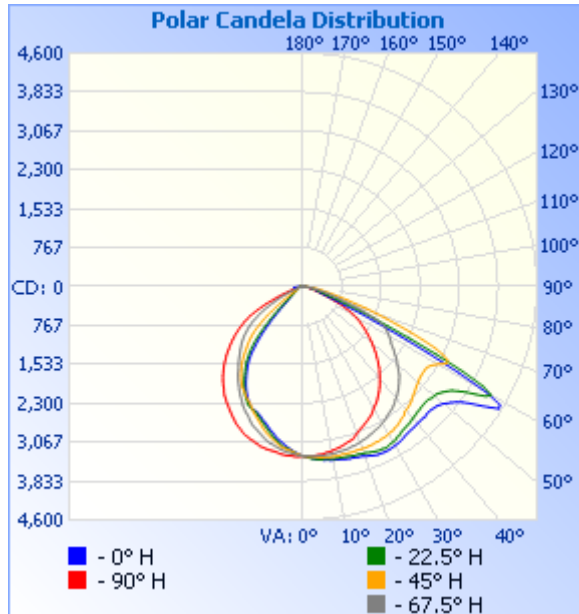
Parameter	Result		DLC V4.4 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	9069.0	9095.7	$\geq 300 (-10\%)$	
Luminous Efficacy (lm/W)	138.48	138.02	Standard: $\geq 95(-3\%)$	Premium: $\geq 115(-3\%)$
Zonal lumens in the 0-90° zone (%)	99.6	--	$\geq 100(-3)$	
Zonal lumens in the 80-90° zone (%)	0.9	--	$\leq 10(+3)$	
Beam Angle (°)	103.2	--	--	
Center Beam Candle Power (cd)	3337	--	--	

## Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,589.7	28.6%
0-40	4,258.1	47%
0-60	7,569.3	83.5%
60-90	1,464.8	16.2%
70-100	383.4	4.2%
90-120	9.3	0.1%
0-90	9,034.1	99.6%
90-180	33.2	0.4%
0-180	9,067.3	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	314.9	3.5%	90-100	2.8	0%
10-20	896.8	9.9%	100-110	2.5	0%
20-30	1,377.9	15.2%	110-120	3.9	0%
30-40	1,668.4	18.4%	120-130	5.0	0.1%
40-50	1,684.5	18.6%	130-140	5.3	0.1%
50-60	1,626.7	17.9%	140-150	5.2	0.1%
60-70	1,084.2	12.0%	150-160	4.4	0%
70-80	295.8	3.3%	160-170	2.9	0%
80-90	84.8	0.9%	170-180	1.2	0%

## Photometric Data



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
17.0ft	11.5 fc	36.0 ft	31.6 ft
34.0ft	2.89 fc	72.1 ft	63.2 ft
51.0ft	1.28 fc	108.1 ft	94.9 ft
68.0ft	0.72 fc	144.1 ft	126.5 ft
85.0ft	0.46 fc	180.2 ft	158.1 ft
102.0ft	0.32 fc	216.2 ft	189.7 ft

■ Vert. Spread: 93.3°  
■ Horiz. Spread: 85.8°

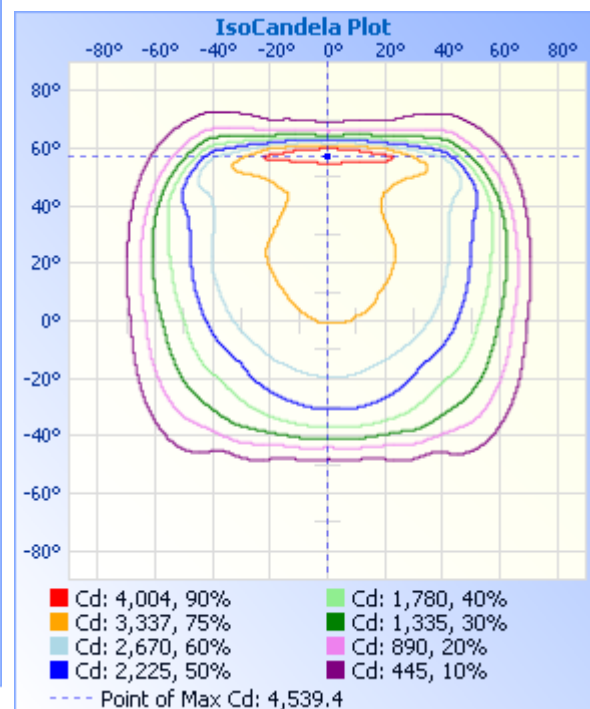
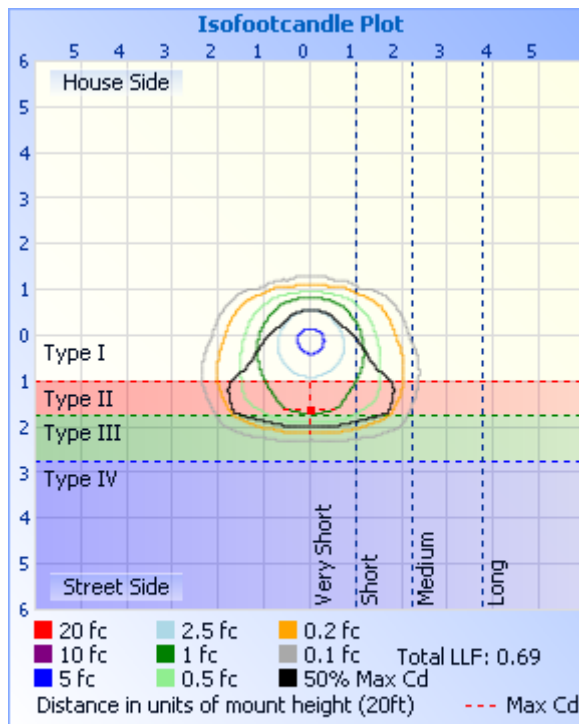


Table--1 UNIT: °C

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	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	3337	
5	3345	3379	3415	3421	3423	3413	3380	3347	3328	3286	3238	3219	3200	3214	3229	3281	
10	3292	3370	3419	3445	3467	3447	3400	3342	3281	3181	3090	3050	3017	3061	3108	3191	
15	3258	3347	3421	3455	3510	3464	3397	3319	3206	3016	2918	2836	2802	2854	2928	3059	
20	3157	3302	3405	3487	3555	3494	3400	3263	3085	2854	2699	2633	2641	2659	2719	2905	
25	3034	3264	3411	3566	3627	3558	3380	3195	2942	2654	2483	2499	2522	2565	2513	2700	
30	2856	3174	3390	3555	3619	3537	3356	3104	2772	2401	2285	2242	2247	2313	2348	2472	
35	2669	3069	3318	3491	3554	3439	3283	2990	2585	2141	2030	1921	1901	1985	2134	2230	
40	2453	2915	3204	3414	3513	3370	3163	2851	2346	1882	1722	1519	1373	1577	1835	1975	
45	2203	2711	3097	3385	3492	3319	3055	2670	2081	1662	1413	900	682	928	1492	1746	
50	1911	2499	3027	3429	3593	3356	2951	2425	1788	1422	984	388	346	388	1025	1514	
55	1613	2263	3005	3650	4011	3570	2902	2178	1495	1124	430	230	237	230	462	1220	
60	1274	2039	3139	4239	4169	4272	3057	1956	1197	772	212	155	168	165	215	823	
65	798	1767	2874	1786	1261	1838	2865	1695	757	443	158	120	132	126	162	449	
70	374	1004	1402	554	404	586	1517	945	372	210	128	102	116	106	132	212	
75	190	469	600	295	272	308	658	457	196	113	102	82.0	101	86.7	102	112	
80	104	223	298	187	161	194	323	222	106	70.7	76.3	62.0	77.7	64.4	77.1	70.8	
85	47.9	100	132	90.2	72.7	90.5	139	100	47.3	46.9	56.5	43.3	97.1	46.0	57.5	46.1	
90	2.58	12.8	17.7	15.0	12.4	13.3	15.1	9.18	1.67	8.47	9.45	26.1	14.2	36.4	13.3	15.1	
95	1.00	1.57	1.94	1.63	1.68	1.53	1.84	1.62	0.84	1.57	1.94	1.20	1.10	1.31	1.99	1.61	
100	1.10	1.10	1.31	1.21	1.10	1.10	1.15	1.25	0.99	2.26	3.10	1.95	1.53	2.11	3.30	2.29	
105	1.93	1.15	0.89	0.84	0.94	0.79	0.84	1.25	1.62	3.14	4.72	3.98	3.47	4.15	4.81	3.33	
110	2.98	1.88	0.84	0.68	0.79	0.68	0.84	1.87	2.41	4.18	5.77	6.08	5.21	6.35	6.12	4.32	
115	4.23	2.71	1.15	0.63	0.63	0.63	1.10	2.65	3.50	5.23	6.87	7.17	6.67	7.40	7.16	5.36	
120	5.49	3.71	2.31	0.89	0.73	0.79	2.14	3.48	4.29	6.22	8.38	8.59	8.09	8.66	8.00	6.24	
125	6.63	4.49	3.24	1.67	1.31	1.68	2.77	4.42	5.12	6.54	8.59	9.32	8.82	9.50	8.42	6.81	
130	7.52	5.43	4.08	2.87	2.20	2.77	3.66	5.04	6.01	7.27	8.75	9.32	9.72	9.44	8.58	7.33	
135	8.31	6.37	4.92	4.08	2.83	3.77	4.55	5.98	7.06	7.89	8.96	9.22	9.60	9.44	8.78	8.06	
140	9.20	7.31	5.92	5.08	4.09	4.93	5.59	6.81	8.00	8.57	9.43	9.32	9.66	9.55	9.20	8.74	
145	9.67	8.10	7.02	6.17	5.30	6.03	6.43	7.49	8.57	9.05	9.70	9.90	10.3	10.1	9.88	9.36	
150	10.7	9.09	8.12	7.48	6.50	7.08	7.37	8.53	9.51	9.88	10.2	10.5	10.8	10.7	10.6	10.1	
155	11.0	9.93	8.96	8.53	7.40	7.87	8.21	9.20	9.46	9.67	10.0	10.3	10.2	10.2	10.3	10.0	
160	11.3	10.5	9.59	9.16	8.03	8.55	8.99	9.51	9.46	9.46	9.85	9.74	9.50	9.92	10.1	9.99	
165	11.7	10.8	10.5	9.79	8.71	9.29	9.52	10.1	9.56	9.52	9.85	9.90	9.50	9.81	10.1	10.0	
170	12.8	12.4	11.9	10.8	9.92	10.9	11.2	11.5	12.7	12.7	12.8	12.8	11.8	11.5	12.3	12.4	
175	13.1	13.6	13.4	11.9	11.1	11.8	12.5	12.8	13.5	13.6	14.2	14.2	12.8	12.3	12.8	13.6	
180	13.1	14.1	13.8	12.5	11.5	12.1	13.2	13.1	13.2	13.2	13.7	13.7	12.2	11.3	12.1	13.0	



**3. Test Equipment**

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-355	Goniophotometer system	Verified by D908S standard lamp	
ST-R-359	Standard Lamp	2018-07-04	2019-07-03
ST-R-358	Power Meter for Goniophotometer	2018-06-28	2019-06-27
Expand Uncertainty: Photometric Measurement(Goniophotometer):2.76%, k=2			

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