

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-40-XX

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

Representative (Tested) Model: WPGP-40-40

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-40-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	40W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K,5700K	
LED Manufacturer	LUXEON	
LED Model	LUXEON 3030 2D	
Sample Number	JAE190427-QB1(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

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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	<ol style="list-style-type: none"> 1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. 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. 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° vertical intervals and 22.5° 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

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

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
JAE190427-QB1	120.0	60	0.3113	37.16	0.9946	8.68
	277.0	60	0.1355	36.44	0.9710	10.22
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

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)	5184.0	5120.5	$\geq 300 (-10\%)$	
Luminous Efficacy (lm/W)	139.50	140.52	Standard: $\geq 95(-3\%)$	Premium: $\geq 115(-3\%)$
Zonal lumens in the 0-90° zone (%)	99.7	--	$\geq 100(-3)$	
Zonal lumens in the 80-90° zone (%)	1.0	--	$\leq 10(+3)$	
Beam Angle (°)	96.7	--	--	
Center Beam Candle Power (cd)	1911	--	--	

Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,455.5	28.1%
0-40	2,389.9	46.1%
0-60	4,325.0	83.4%
60-90	843.9	16.3%
70-100	232.3	4.5%
90-120	3.9	0.1%
0-90	5,168.9	99.7%
90-180	14.6	0.3%
0-180	5,183.5	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	179.6	3.5%	90-100	0.9	0%
10-20	506.4	9.8%	100-110	1.2	0%
20-30	769.5	14.8%	110-120	1.8	0%
30-40	934.4	18.0%	120-130	2.4	0%
40-50	956.0	18.4%	130-140	2.5	0%
50-60	979.1	18.9%	140-150	2.2	0%
60-70	612.5	11.8%	150-160	1.8	0%
70-80	177.7	3.4%	160-170	1.2	0%
80-90	53.7	1.0%	170-180	0.5	0%

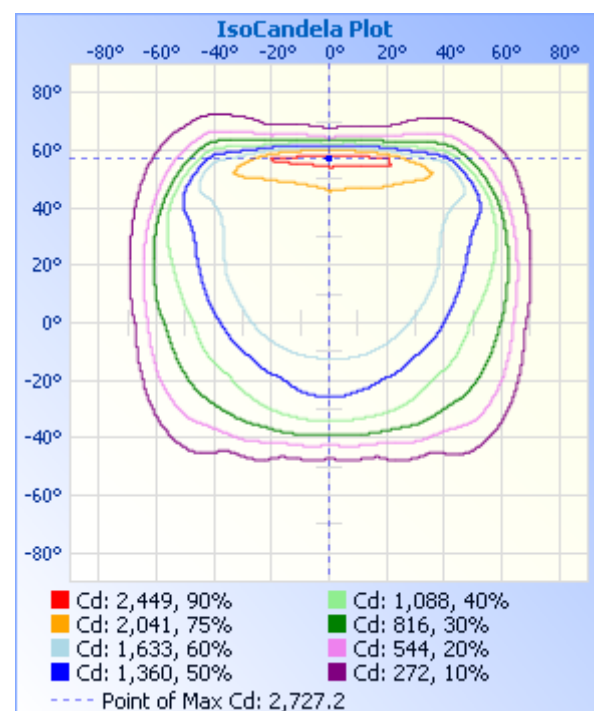
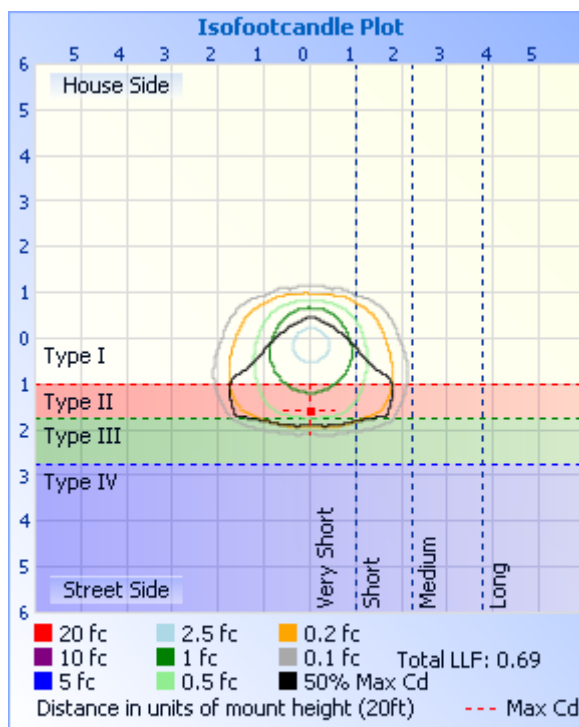
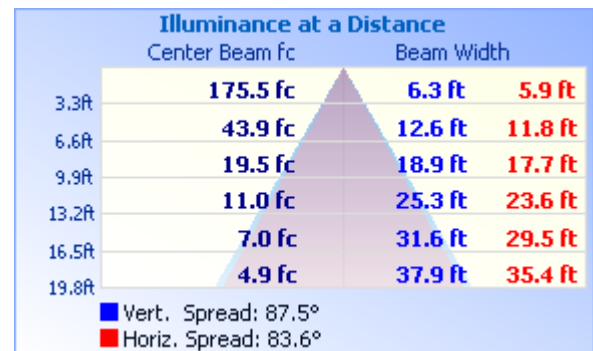
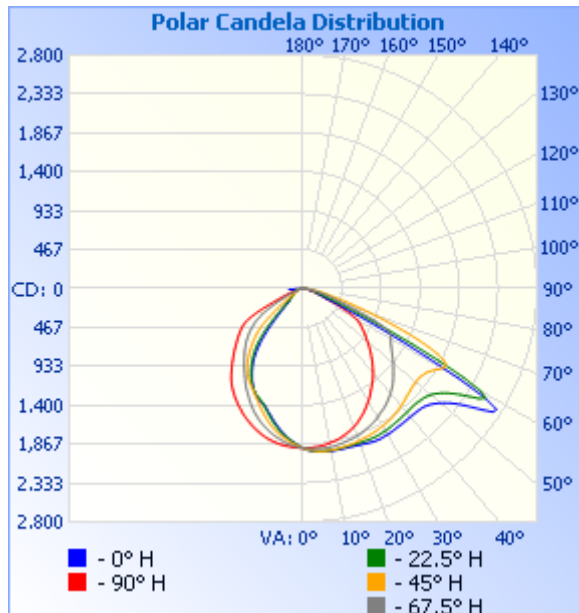
Photometric Data


Table--1 UNIT: cd

C (DEG) γ (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	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911		
5	1901	1929	1944	1959	1963	1957	1955	1928	1903	1871	1842	1826	1815	1821	1841	1874		
10	1876	1930	1948	1971	1976	1967	1967	1928	1877	1806	1746	1707	1693	1709	1754	1810		
15	1829	1908	1944	1974	1979	1964	1957	1907	1834	1726	1630	1566	1554	1570	1639	1729		
20	1759	1880	1932	1989	1992	1968	1944	1881	1766	1613	1489	1439	1452	1442	1505	1625		
25	1674	1841	1927	2010	2021	1976	1926	1837	1673	1484	1356	1370	1374	1368	1381	1500		
30	1577	1793	1914	2005	2021	1969	1903	1781	1559	1338	1261	1243	1226	1244	1286	1366		
35	1470	1729	1893	1984	2010	1950	1874	1715	1430	1197	1133	1064	1029	1067	1168	1225		
40	1337	1653	1864	1973	2005	1934	1828	1631	1301	1067	956	821	707	828	998	1096		
45	1189	1556	1810	1986	2019	1933	1782	1526	1158	952	768	446	340	453	806	978		
50	1053	1446	1800	2050	2134	1985	1753	1410	1012	819	500	221	213	220	533	853		
55	930	1345	1837	2271	2483	2192	1778	1293	883	654	226	170	172	166	240	699		
60	788	1268	1987	2439	2143	2455	1914	1212	743	435	137	143	151	139	137	473		
65	424	1076	1622	831	525	901	1663	1039	409	237	107	125	131	121	106	242		
70	208	538	753	279	211	298	867	509	207	117	85.1	102	118	98.5	83.0	124		
75	110	284	337	168	153	173	391	272	114	67.4	66.9	88.0	107	83.7	64.1	67.0		
80	60.8	136	167	110	91.8	114	191	134	63.9	43.1	51.8	64.6	77.7	61.0	48.9	42.6		
85	26.8	61.3	71.5	53.7	42.6	57.0	80.9	61.9	28.8	31.1	42.6	47.4	134	43.2	38.5	30.9		
90	0.87	2.14	2.49	1.69	1.48	1.87	3.83	2.82	0.47	0.73	0.89	0.79	0.99	0.73	0.84	0.84		
95	0.42	0.58	0.89	0.69	0.63	0.57	0.74	0.79	0.36	0.83	1.10	0.63	0.63	0.62	1.05	0.84		
100	0.47	0.42	0.47	0.42	0.32	0.31	0.47	0.58	0.47	1.25	1.62	0.90	0.68	0.88	1.58	1.26		
105	0.83	0.42	0.31	0.37	0.37	0.21	0.26	0.52	0.94	1.87	2.46	1.96	1.53	1.92	2.47	1.84		
110	1.61	0.83	0.31	0.16	0.26	0.21	0.21	0.79	1.40	2.34	2.92	2.85	2.67	2.65	2.73	2.31		
115	2.02	1.19	0.31	0.11	0.26	0.21	0.26	1.21	1.82	2.86	3.18	3.22	3.46	3.06	3.21	2.78		
120	2.49	1.51	0.73	0.11	0.26	0.16	0.79	1.57	2.08	3.27	4.12	3.86	4.09	3.79	3.84	2.99		
125	2.80	2.03	1.04	0.74	0.63	0.67	1.16	1.94	2.39	3.43	4.07	4.91	5.35	4.83	3.89	3.30		
130	3.27	2.44	1.35	1.81	1.15	1.19	1.52	2.46	2.91	3.48	4.12	5.49	5.77	5.45	3.89	3.20		
135	3.48	2.55	1.72	1.79	1.68	1.81	1.89	2.62	3.22	3.59	3.96	5.22	5.72	5.08	3.68	3.41		
140	3.53	2.91	2.03	2.43	1.94	2.23	2.15	2.94	3.38	3.85	3.60	5.06	5.09	4.83	3.52	3.78		
145	3.69	2.91	2.71	2.74	2.41	2.75	2.51	3.35	3.58	4.00	3.71	4.64	4.98	4.77	3.95	3.88		
150	3.95	2.96	3.33	3.27	3.25	3.21	2.94	3.51	3.58	4.11	4.07	4.54	5.03	4.72	4.78	4.14		
155	3.85	3.33	4.12	3.85	3.62	3.37	3.62	4.04	3.43	4.15	4.22	4.54	4.56	4.41	4.31	4.14		
160	3.69	3.74	4.33	4.12	4.14	3.94	4.10	4.19	3.54	4.00	4.22	4.54	4.56	4.41	4.31	4.25		
165	4.05	4.11	4.74	4.33	4.14	4.20	4.20	4.19	4.05	3.96	4.28	4.64	4.56	4.41	4.36	4.25		
170	4.21	4.73	5.32	4.96	4.67	4.88	5.15	4.25	4.52	4.47	5.22	5.91	6.14	5.92	5.57	5.61		
175	4.31	4.94	5.68	5.28	5.87	5.19	5.68	4.67	4.47	4.47	5.27	5.96	6.08	6.12	5.57	5.82		
180	4.36	5.04	5.69	5.54	5.93	5.24	5.58	4.72	4.26	4.37	5.11	5.59	5.50	5.91	5.31	5.66		

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 *******