

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-80-XX

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

Representative (Tested) Model: WPGP-80-40

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-80-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	80W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K,5700K	
LED Manufacturer	LUXEON	
LED Model	LUXEON 3030 2D	
Sample Number	JAE190427-QF1(4000K)	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s
Photo		
		
		

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° 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-80-40	Total Operating Time (min)	90

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
JAE190427-QF1	120.0	60	0.6364	75.84	0.9931	9.36
	277.0	60	0.2838	75.12	0.9557	10.62
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)	10301	10189	$\geq 300 (-10\%)$	
Luminous Efficacy (lm/W)	135.83	135.64	Standard: $\geq 100(-3\%)$	Premium: $\geq 120(-3\%)$
Zonal lumens in the 0-90° zone (%)	99.7	--	$\geq 100(-3)$	
Zonal lumens in the 80-90° zone (%)	0.9	--	$\leq 10(+3)$	
Beam Angle (°)	98.4	--	--	
Center Beam Candle Power (cd)	3841	--	--	

Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,976.7	28.9%
0-40	4,900.6	47.6%
0-60	8,814.4	85.6%
60-90	1,453.9	14.1%
70-100	407.8	4%
90-120	8.1	0.1%
0-90	10,268.3	99.7%
90-180	31.1	0.3%
0-180	10,299.5	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	362.3	3.5%	90-100	1.9	0%
10-20	1,032.7	10.0%	100-110	2.4	0%
20-30	1,581.7	15.4%	110-120	3.8	0%
30-40	1,924.0	18.7%	120-130	5.1	0%
40-50	1,971.3	19.1%	130-140	5.4	0.1%
50-60	1,942.5	18.9%	140-150	4.9	0%
60-70	1,048.0	10.2%	150-160	4.0	0%
70-80	309.5	3.0%	160-170	2.6	0%
80-90	96.5	0.9%	170-180	1.1	0%

Photometric Data

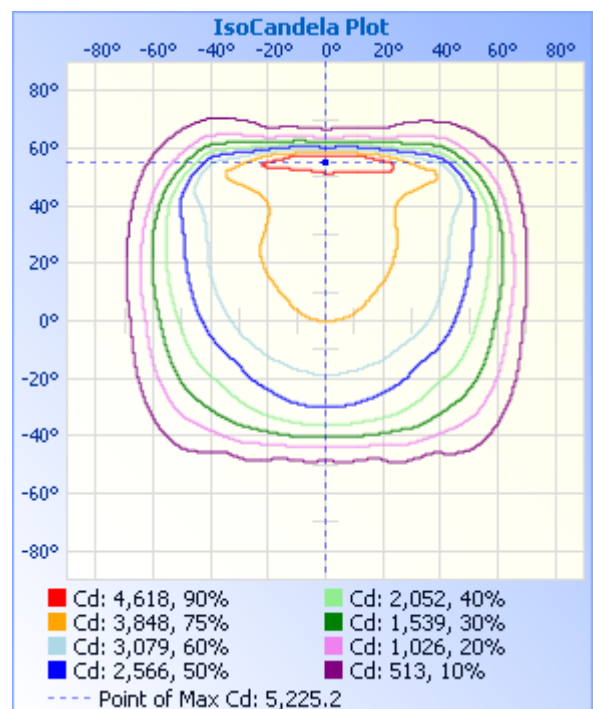
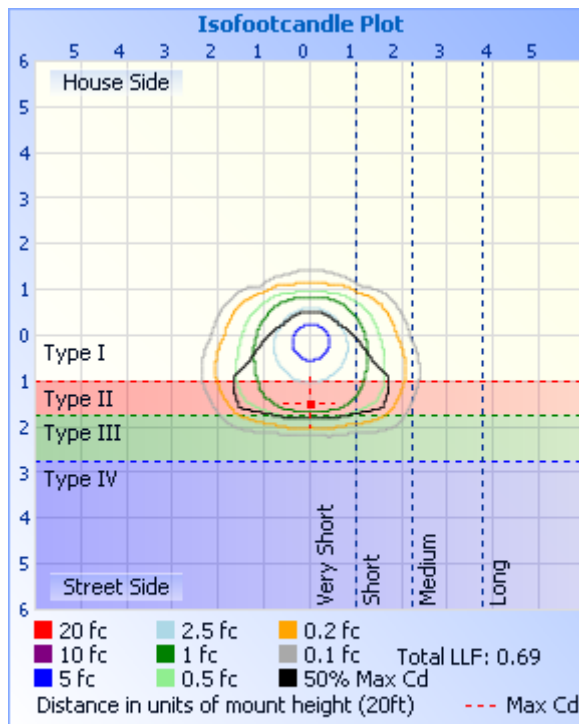
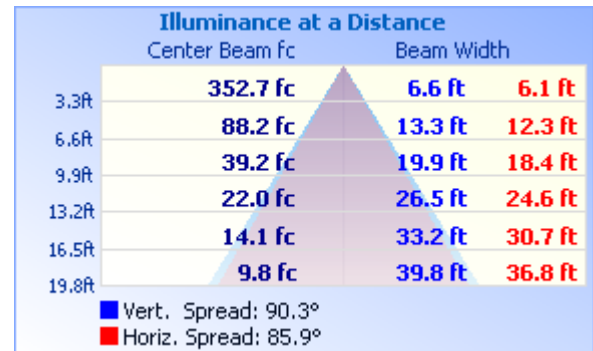
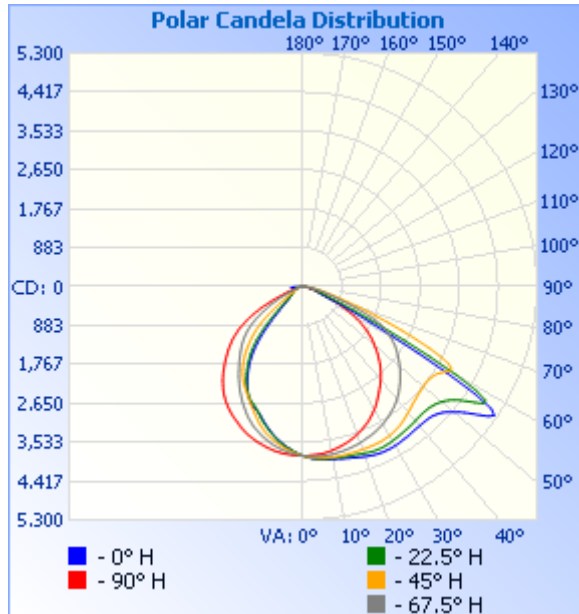


Table--1

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	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841	3841		
5	3824	3873	3901	3928	3935	3923	3910	3867	3823	3773	3726	3697	3687	3692	3728	3775		
10	3780	3871	3921	3967	3978	3955	3932	3863	3773	3664	3573	3508	3491	3503	3584	3675		
15	3700	3838	3929	4003	4028	3984	3934	3824	3690	3518	3370	3267	3250	3270	3389	3525		
20	3592	3795	3936	4068	4105	4030	3936	3773	3574	3317	3098	3003	3015	3003	3130	3342		
25	3450	3731	3953	4126	4164	4068	3937	3702	3421	3069	2827	2843	2855	2828	2866	3098		
30	3288	3647	3925	4121	4171	4045	3908	3608	3222	2785	2603	2574	2535	2565	2638	2830		
35	3091	3530	3864	4091	4141	4004	3833	3476	2981	2489	2344	2192	2113	2193	2392	2538		
40	2831	3373	3787	4054	4115	3966	3713	3313	2737	2204	1988	1716	1509	1725	2063	2252		
45	2524	3155	3667	4068	4153	3959	3604	3103	2458	1951	1589	1007	769	1026	1660	1988		
50	2210	2927	3612	4208	4419	4074	3546	2862	2134	1667	1086	471	428	475	1146	1713		
55	1852	2682	3674	4739	5131	4531	3567	2602	1783	1289	502	329	339	324	544	1344		
60	1397	2400	3976	3927	3004	4002	3831	2290	1330	840	270	277	294	270	276	887		
65	842	1929	2712	1237	696	1267	2821	1814	798	481	208	245	260	237	207	496		
70	402	1029	1148	435	371	445	1314	965	397	235	166	201	223	194	163	252		
75	210	525	516	294	264	296	577	486	216	132	130	169	203	162	126	133		
80	116	261	269	179	151	183	297	242	121	85.2	100	129	155	122	97.4	84.0		
85	52.2	116	119	78.9	65.5	82.3	131	112	55.0	58.9	79.3	94.2	122	86.4	75.9	58.7		
90	2.02	4.94	5.73	4.64	5.11	7.31	9.71	7.60	1.86	2.18	1.93	1.89	2.72	2.07	1.89	1.88		
95	1.24	1.67	1.83	1.48	1.31	1.30	1.79	1.74	0.93	1.72	1.88	1.32	1.31	1.19	1.79	1.63		
100	1.25	1.30	1.15	1.11	1.00	0.93	1.00	1.36	1.19	2.39	2.71	1.42	1.31	1.50	2.89	2.31		
105	2.17	1.40	0.89	1.00	0.84	0.73	0.89	1.47	1.87	3.64	4.60	3.11	2.16	2.86	4.47	3.41		
110	3.16	2.08	0.89	0.84	0.84	0.73	0.89	2.30	2.91	4.63	5.58	5.01	4.41	4.83	5.41	4.56		
115	4.41	2.86	1.51	0.79	0.84	0.78	1.36	3.14	3.74	5.62	6.26	6.06	6.51	5.81	5.99	5.35		
120	5.65	3.79	2.29	1.05	0.84	0.83	2.42	3.98	4.46	6.50	7.72	7.64	7.57	7.27	7.36	5.87		
125	6.59	4.67	2.87	2.31	1.73	2.23	3.25	5.02	5.04	7.28	8.29	9.48	10.2	8.99	7.94	6.61		
130	7.42	5.41	3.29	3.42	2.94	3.32	3.94	5.50	6.28	7.38	8.45	11.2	11.8	11.1	8.41	6.81		
135	7.83	5.87	4.32	4.42	4.14	4.35	4.46	6.02	6.80	7.59	8.45	11.1	11.9	10.8	7.98	7.08		
140	8.14	6.65	4.95	5.62	4.93	5.23	4.94	6.81	7.11	8.06	7.66	10.6	11.0	9.96	7.41	7.81		
145	8.30	6.66	6.25	6.52	5.71	6.37	5.20	7.07	7.68	8.32	7.83	11.1	10.4	9.86	8.36	8.13		
150	8.55	6.76	7.76	7.10	7.39	7.00	6.78	7.70	7.73	8.58	8.51	9.95	10.7	9.91	10.1	8.65		
155	8.30	7.54	9.02	8.37	8.08	7.57	8.19	8.59	7.52	8.74	8.97	9.53	9.85	9.54	9.66	8.75		
160	7.78	8.27	9.33	9.16	8.55	8.30	9.04	9.07	7.53	8.47	8.97	9.32	9.60	9.03	9.20	8.75		
165	8.46	8.63	9.65	9.42	8.87	8.71	9.30	8.86	8.20	8.27	9.02	9.37	9.50	9.03	9.09	8.86		
170	9.08	9.67	11.3	10.6	10.1	10.5	11.2	9.22	9.39	9.52	10.8	12.1	12.5	12.0	11.4	11.5		
175	9.29	10.7	11.9	11.4	12.2	11.1	11.8	9.91	9.70	9.93	11.4	12.6	12.8	13.1	11.8	12.4		
180	9.04	11.1	11.4	11.8	12.6	11.4	11.8	9.75	8.97	9.15	10.9	11.5	11.8	12.3	11.5	11.8		

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 *******