



IES LM-79-08

MEASUREMENT AND TEST REPORT

For

ATG Electronics Corp

10700 7th Street Rancho Cucamonga, CA 91730, USA

Test Model: AA-35-40-T5

Report Type:	Electrical and Photometric tests including: Luminous Flux, Luminous Intensity Distribution
Test Engineer:	George Yang <i>George Yang</i>
Report Number:	RKSB181017003-10-10
Test Date:	2018-08-28
Report Date:	2018-10-18
Reviewed By:	Ray Gao/EE Engineer <i>Ray Gao</i>
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan). No.248 Chenghu Road, Kunshan, Jiangsu province, China. Tel: +86-0512-86175000 Fax: +86-0512-88934268
Accreditation:	The IAS Accreditation Number TL-749.

Note: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

1. Product Description

General Information:

One sample was received on 2018-08-27 and used for testing.

Model Tested: AA-35-40-T5
Manufacturer: ATG Electronics Corp
Brand Name: ATG
Product Designation: Outdoor Pole/Arm-mounted Area and Roadway Luminaires
Aging Time Before Test: 0hour(For New Products)

Rated Values:

Rated Voltage/Frequency: 120-277 VAC 60Hz
Rated Power: 35W
Nominal Lumen Output: 4025lm

Note:

1. The applicant *ATG Electronics Corp* declared that their product with model AA-35-40-T5 is the same to the product in report# RKS180502030-10-10 and is authorized by original applicant to use their test data.
2. All the data in previous report (RKS180502030-10-10) is shared in report.

2. Standards Used

- IES LM-79-08: Approved Method: Electrical & Photometric Measurement of Solid-state Lighting Products

3. Description of Test Equipment

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
AC Power Supply	INVENTFINE	CHP-5KVA	900511765	2018-04-08	2019-04-08
DC Power Supply	INVENTFINE	WL3010	JWDMP030001	2018-04-08	2019-04-08
Power Meter	INVENTFINE	WT500	GSDSQ200007	2018-04-08	2019-04-08
Goniophotometer	INVENTFINE	GPM-1900	YWGCF120001	2018-01-24	2019-01-24
Wireless Weather Station	ZHONGXING	KG218	N/A	2017-11-14	2018-11-14
Standard Light Source	INVENTFINE	N/A	JWBYR040007	2018-01-24	2019-01-24
AC Power Supply	INVENTFINE	CHP-5KVA	900511765	2018-04-08	2019-04-08

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attested that all calibration has been performed using suitable standards traceable to National Primary Standards and International System of Units (SI).

4. Test Method

Product was tested with no seasoning. All stabilization and measurements were made in compliance with IES LM-79-08. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ during measurement. And relative humidity is less than 65%.

Goniophotometer System

The goniophotometer system is calibrated by standard light source before measurement.

Type C goniophotometer was used for measuring total luminous flux, luminous intensity distribution, and color spatial uniformity. The product was operated in its intended orientation in application and was recorded in this report. The vertical angle (γ) test intervals were set no more than 1 degree while data for 5 degree intervals is reported. The horizontal angle (C plane) test intervals were set no more than 22.5 degree.

The uncertainty of the luminous flux is $U=2.6\%$ ($K=2$), at the 95% confidence level.

FINAL

5. Test Result

[Goniophotometer System]

Total operating time for luminous intensity distribution: **1.0 hours**

Test orientation: **Downward**

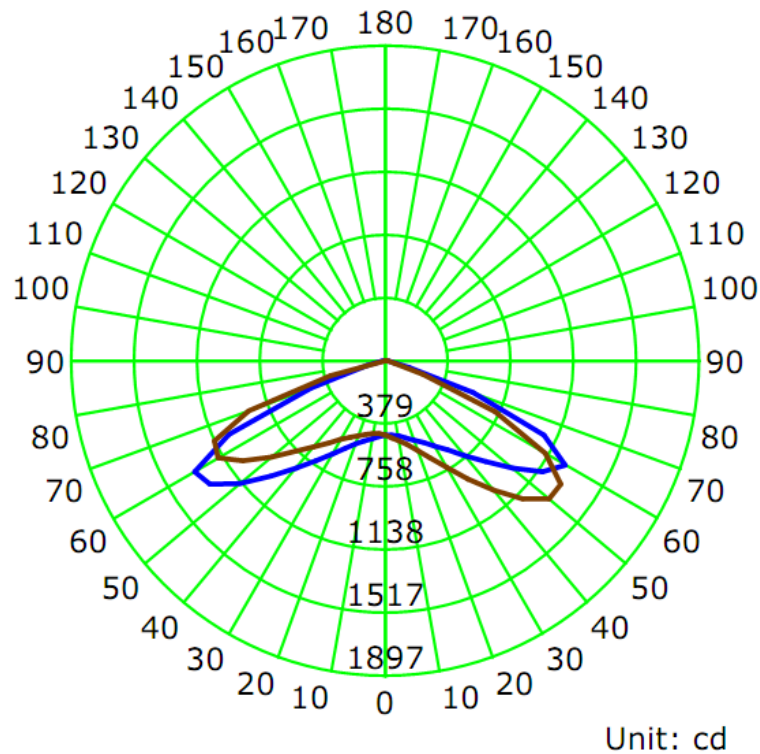
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.0	60	0.2890	34.62	0.9970

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I_{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
4117.5	118.99	1517.8	2.91	2.84

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I_{max}):	137.3	140.3	138.0	139.4	138.8
Field Angle (10% I_{max}):	150.5	153.6	151.3	153.0	152.1

Luminous Intensity (cd) Distribution Data

C Y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0.0°	448	448	448	448	448	448	448	448
5.0°	448	454	461	464	466	466	464	460
10.0°	461	472	481	490	492	492	489	481
15.0°	482	495	510	520	525	525	521	510
20.0°	509	526	546	564	576	574	564	547
25.0°	545	568	597	626	644	642	625	598
30.0°	594	625	671	713	742	736	710	668
35.0°	657	709	778	832	869	873	834	774
40.0°	745	824	931	988	1019	1037	1011	916
45.0°	858	975	1126	1161	1174	1214	1211	1091
50.0°	1003	1161	1328	1321	1292	1359	1398	1281
55.0°	1162	1338	1472	1387	1297	1409	1518	1440
60.0°	1257	1387	1437	1264	1119	1265	1423	1422
65.0°	1060	1102	1086	916	731	898	1025	1055
70.0°	566	512	492	377	242	356	432	466
75.0°	154	124	116	82	58	80	105	115
80.0°	20	23	29	24	19	24	30	26
85.0°	0	0	1	1	0	1	2	1
90.0°	0	0	0	0	0	0	0	0
95.0°	0	0	0	0	0	0	0	0
100.0°	0	0	0	0	0	0	0	0
105.0°	0	0	0	0	0	0	0	0
110.0°	0	0	0	0	0	0	0	0
115.0°	0	0	0	0	0	0	0	0
120.0°	0	0	0	0	0	0	0	0
125.0°	0	0	0	0	0	0	0	0
130.0°	0	0	0	0	0	0	0	0
135.0°	0	0	0	0	0	0	0	0
140.0°	0	0	0	0	0	0	0	0
145.0°	0	0	0	0	0	0	0	0
150.0°	0	0	0	0	0	0	0	0
155.0°	0	0	0	0	0	0	0	0
160.0°	0	0	0	0	0	0	0	0
165.0°	0	0	0	0	0	0	0	0
170.0°	0	0	0	0	0	0	0	0
175.0°	0	0	0	0	0	0	0	0
180.0°	0	0	0	0	0	0	0	0

Luminous Intensity (cd) Distribution Data (cont.)

C Y	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
0.0°	448	448	448	448	448	448	448	448
5.0°	459	452	447	443	442	441	444	445
10.0°	477	465	457	449	447	445	446	454
15.0°	501	488	477	468	459	457	461	469
20.0°	534	516	504	491	481	478	483	495
25.0°	583	558	537	522	511	505	510	525
30.0°	649	614	581	563	549	543	546	566
35.0°	735	688	645	619	604	592	594	625
40.0°	844	786	736	697	676	660	663	701
45.0°	983	914	865	804	773	757	769	803
50.0°	1148	1074	1035	953	901	899	932	945
55.0°	1294	1252	1239	1136	1051	1079	1134	1119
60.0°	1333	1368	1406	1286	1172	1246	1320	1266
65.0°	1046	1249	1407	1284	1140	1262	1351	1218
70.0°	480	719	1030	1005	880	1010	1029	723
75.0°	116	216	416	502	345	504	390	233
80.0°	19	35	78	41	8	35	72	33
85.0°	0	0	3	0	0	0	0	0
90.0°	0	0	0	0	0	0	0	0
95.0°	0	0	0	0	0	0	0	0
100.0°	0	0	0	0	0	0	0	0
105.0°	0	0	0	0	0	0	0	0
110.0°	0	0	0	0	0	0	0	0
115.0°	0	0	0	0	0	0	0	0
120.0°	0	0	0	0	0	0	0	0
125.0°	0	0	0	0	0	0	0	0
130.0°	0	0	0	0	0	0	0	0
135.0°	0	0	0	0	0	0	0	0
140.0°	0	0	0	0	0	0	0	0
145.0°	0	0	0	0	0	0	0	0
150.0°	0	0	0	0	0	0	0	0
155.0°	0	0	0	0	0	0	0	0
160.0°	0	0	0	0	0	0	0	0
165.0°	0	0	0	0	0	0	0	0
170.0°	0	0	0	0	0	0	0	0
175.0°	0	0	0	0	0	0	0	0
180.0°	0	0	0	0	0	0	0	0

Zonal Lumen Density Measurement

Deg	Flux (lm)	%
0-5	10.8	0.26
5-10	33.0	0.80
10-15	57.0	1.38
15-20	83.7	2.03
20-25	114.6	2.78
25-30	151.6	3.68
30-35	197.8	4.80
35-40	257.2	6.25
40-45	332.3	8.07
45-50	423.2	10.28
50-55	521.2	12.66
55-60	596.6	14.49
60-65	589.5	14.32
65-70	445.4	10.82
70-75	226.7	5.51
75-80	68.1	1.65
80-85	8.9	0.22
85-90	0.1	0.00
90-95	0.0	0.00
95-100	0.0	0.00
100-105	0.0	0.00
105-110	0.0	0.00
110-115	0.0	0.00
115-120	0.0	0.00
120-125	0.0	0.00
125-130	0.0	0.00
130-135	0.0	0.00
135-140	0.0	0.00
140-145	0.0	0.00
145-150	0.0	0.00
150-155	0.0	0.00
155-160	0.0	0.00
160-165	0.0	0.00
165-170	0.0	0.00
170-175	0.0	0.00
175-180	0.0	0.00

Deg	Flux (lm)	%
0-5	10.8	0.26
0-10	43.8	1.06
0-15	100.7	2.45
0-20	184.4	4.48
0-25	299.0	7.26
0-30	450.6	10.94
0-35	648.4	15.75
0-40	905.6	21.99
0-45	1237.9	30.06
0-50	1661.0	40.34
0-55	2182.2	53.00
0-60	2778.8	67.49
0-65	3368.3	81.80
0-70	3813.7	92.62
0-75	4040.4	98.13
0-80	4108.5	99.78
0-85	4117.4	100.00
0-90	4117.5	100.00
0-95	4117.5	100.00
0-100	4117.5	100.00
0-105	4117.5	100.00
0-110	4117.5	100.00
0-115	4117.5	100.00
0-120	4117.5	100.00
0-125	4117.5	100.00
0-130	4117.5	100.00
0-135	4117.5	100.00
0-140	4117.5	100.00
0-145	4117.5	100.00
0-150	4117.5	100.00
0-155	4117.5	100.00
0-160	4117.5	100.00
0-165	4117.5	100.00
0-170	4117.5	100.00
0-175	4117.5	100.00
0-180	4117.5	100.00

6. Product Photo



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