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-T3

Report Type:	Electrical and Photometric tests including: Luminous Flux, Luminous Intensity Distribution
Test Engineer:	George Yang
Report Number:	RKSB181017003-10-9
Test Date:	2018-08-27
Report Date:	2018-10-18
Reviewed By:	Ray Gao/EE Engineer
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.

1. Product Description

General Information:

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

Model Tested:	AA-35-40-T3
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:	4025Im

Note:

1. The applicant *ATG Electronics Corp* declared that their product with model AA-35-40-T3 is the same to the product in report# RKS180502030-10-9 and is authorized by original applicant to use their test data.
2. All the data in previous report (RKS180502030-10-9) 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°C±1°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.

5. Test Result

[Goniophotometer System]

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

Test orientation: **Downward**

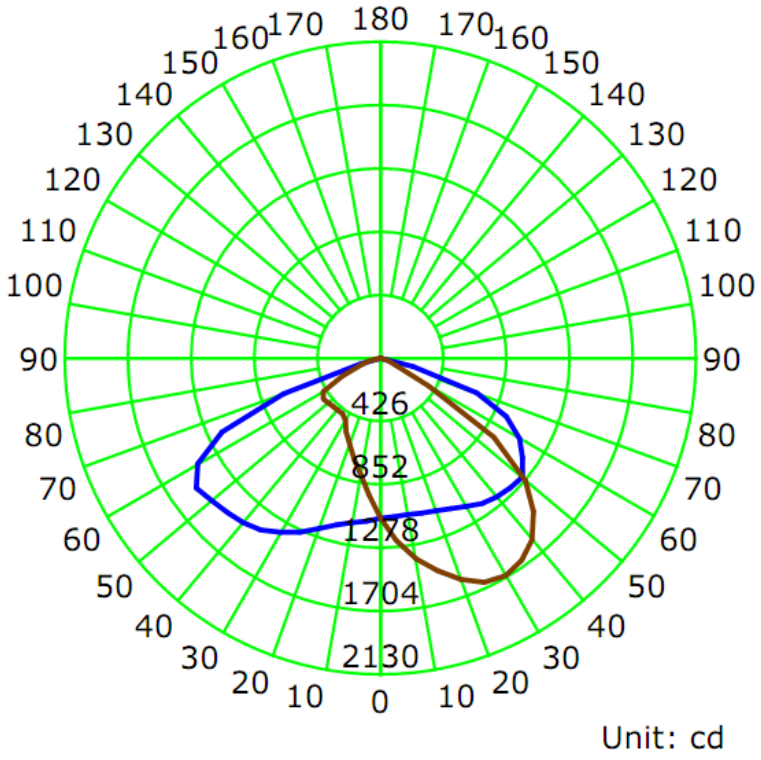
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.0	60	0.2900	34.65	0.9970

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I_{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
4099.6	118.36	1704.4	1.83	1.49

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I_{max}):	137.9	90.0	63.9	83.8	93.9
Field Angle (10% I_{max}):	151.7	142.8	133.0	141.5	142.3

Luminous Intensity (cd) Distribution Data

C / γ	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0.0°	1080	1080	1080	1080	1080	1080	1080	1080
5.0°	1070	1129	1178	1214	1231	1224	1200	1151
10.0°	1068	1178	1272	1338	1371	1352	1308	1222
15.0°	1079	1223	1348	1439	1480	1448	1390	1294
20.0°	1093	1267	1402	1525	1586	1530	1442	1355
25.0°	1118	1305	1434	1590	1663	1581	1481	1414
30.0°	1151	1336	1453	1614	1691	1607	1499	1460
35.0°	1193	1358	1454	1606	1661	1610	1495	1491
40.0°	1218	1370	1441	1548	1592	1570	1489	1499
45.0°	1235	1362	1431	1461	1461	1507	1481	1498
50.0°	1248	1362	1414	1384	1280	1441	1470	1543
55.0°	1169	1357	1397	1235	933	1258	1470	1623
60.0°	1086	1322	1401	737	379	694	1421	1704
65.0°	936	1238	1089	138	110	129	1027	1563
70.0°	692	1021	229	65	55	67	168	1055
75.0°	226	365	39	30	25	31	44	269
80.0°	6	23	10	7	6	8	12	16
85.0°	0	0	0	0	0	0	0	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°	1	0	0	0	0	0	0	0
140.0°	1	0	0	0	0	0	0	0
145.0°	1	1	0	0	0	0	0	1
150.0°	1	1	0	0	0	0	0	1
155.0°	2	1	1	0	1	0	1	2
160.0°	2	1	1	1	1	1	2	2
165.0°	2	2	2	1	2	2	2	3
170.0°	2	2	3	2	2	2	3	3
175.0°	3	3	3	3	3	3	3	3
180.0°	0	0	0	0	0	0	0	0

Luminous Intensity (cd) Distribution Data (cont.)

C / γ	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
0.0°	1080	1080	1080	1080	1080	1080	1080	1080
5.0°	1100	1033	973	935	922	932	966	1015
10.0°	1123	987	877	821	798	811	858	952
15.0°	1160	960	804	724	704	715	778	900
20.0°	1219	960	748	652	618	636	713	870
25.0°	1290	979	711	593	551	579	669	854
30.0°	1355	1008	690	519	482	508	634	855
35.0°	1411	1036	661	448	456	448	586	862
40.0°	1445	1065	600	430	457	432	517	878
45.0°	1467	1095	517	433	462	434	431	898
50.0°	1492	1105	450	438	467	434	392	905
55.0°	1523	1085	417	439	476	435	383	840
60.0°	1427	981	374	409	449	415	363	716
65.0°	1183	718	290	289	284	306	279	541
70.0°	698	327	156	135	144	145	166	283
75.0°	154	55	67	75	89	78	67	56
80.0°	6	7	28	38	40	38	27	6
85.0°	0	0	5	2	0	2	6	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	1	1	1	0	1
140.0°	0	0	1	2	2	2	2	1
145.0°	0	1	2	2	3	2	2	2
150.0°	0	1	2	3	3	3	3	2
155.0°	0	2	3	3	3	3	3	3
160.0°	1	2	3	4	3	3	4	3
165.0°	2	3	3	3	4	3	3	4
170.0°	2	2	3	3	4	4	3	4
175.0°	2	3	4	4	3	4	3	4
180.0°	0	0	0	0	0	0	0	0

Zonal Lumen Density Measurement

Deg	Flux (lm)	%
0-5	25.8	0.63
5-10	77.4	1.89
10-15	128.9	3.15
15-20	180.6	4.41
20-25	232.2	5.67
25-30	282.2	6.88
30-35	328.0	8.00
35-40	368.4	8.99
40-45	401.8	9.80
45-50	429.3	10.47
50-55	446.6	10.89
55-60	432.2	10.54
60-65	364.6	8.89
65-70	245.6	5.99
70-75	115.5	2.82
75-80	32.6	0.79
80-85	5.0	0.12
85-90	0.3	0.01
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	0.1	0.00
135-140	0.2	0.00
140-145	0.3	0.01
145-150	0.3	0.01
150-155	0.4	0.01
155-160	0.4	0.01
160-165	0.4	0.01
165-170	0.3	0.01
170-175	0.2	0.01
175-180	0.0	0.00

Deg	Flux (lm)	%
0-5	25.8	0.63
0-10	103.2	2.52
0-15	232.1	5.66
0-20	412.7	10.07
0-25	645.0	15.73
0-30	927.1	22.62
0-35	1255.1	30.62
0-40	1623.5	39.60
0-45	2025.3	49.40
0-50	2454.6	59.88
0-55	2901.2	70.77
0-60	3333.4	81.31
0-65	3698.0	90.20
0-70	3943.6	96.20
0-75	4059.2	99.01
0-80	4091.7	99.81
0-85	4096.7	99.93
0-90	4097.0	99.94
0-95	4097.0	99.94
0-100	4097.0	99.94
0-105	4097.0	99.94
0-110	4097.0	99.94
0-115	4097.0	99.94
0-120	4097.0	99.94
0-125	4097.0	99.94
0-130	4097.0	99.94
0-135	4097.1	99.94
0-140	4097.2	99.94
0-145	4097.5	99.95
0-150	4097.8	99.96
0-155	4098.2	99.97
0-160	4098.6	99.98
0-165	4099.0	99.99
0-170	4099.3	99.99
0-175	4099.5	100.00
0-180	4099.5	100.00

6. Product Photo

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