Ningbo TengLi Testing Co., Ltd

2nd floor, Block B, Ningbo Testing and Certification Base, No. 66
Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang
Tel: 86574-8783 6802
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LM-79-08 Test Report

For

Antec Lighting Inc

(Brand Name: AOK)

Uniy C, 3979 E Guasti Road, Ontario, CA 91761

Model name(s):
AOK-200WiE-NV-LV2-XX-XX70-T302-P

Report Type:	Testing and Report According to IES LM-79-2008
Type of Luminaire:	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires
Report Date:	2019-03-20
Prepared By:	Ningbo TengLi Testing Co., Ltd 2nd floor, Block B, Ningbo Testing and Certification Base, No. 66 Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang

Test & Report By:

Xeon Ren

Engineer: Xeon Ren

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:		
Model Number	AOK-200WiE-NV-LV2-XX-XX70-T302-P	
Remark	The first “XX” can be “00” =no photocontrol or “PH”=photocontrol provided. The second “XX” could be 27/30/35/40/45/50/57 refers to CCT. This is multiple listed report, the Project Number of the original report is JAE190121-J-R1.	
Representative (Tested) Model	AOK-200WiE-NV-LV2-00-2770-T302-P	
Model Difference	All construction and rating are the same, except CCT	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	
LED Manufacturer	Lumileds	
LED Model	LUXEON V Family	
Dimming	Dimmable	
Sample Number	JAE190121-J1	
Date of Receipt	Feb.23, 2019	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

1.2 Rated Values:	
Rated Voltage / Frequency	100-277Vac, 50/60Hz
Nominal Power	200W
Rated Initial Lamp Lumen	--
Declared CCT	2700K,3000K,3500K,4000K,4500K,5000K, 5700K

1.3 Test Specifications:

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
Reference Work Instruction	QD25

1.4 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 ℃ ± 1 ℃, 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.
2) 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 ºC ± 1 ºC. 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 Summary of Test Result

Criteria Item	Measured Value			Compliance	Requirement (DLC V4.4)	
Power (W)	2700K	120V	205.3	**N/A**	**N/A**	
		277V	203.8			
Power Factor	2700K	120V	0.9931	Pass	>= 0.9(-3%)	
		277V	0.9071			
THD %	2700K	120V	5.32	Pass	<= 20(+5)	
		277V	11.36			
Luminous Intensity Distribution	Zonal lumens in the 0-90°:		100	Pass	>=100(-1)	
	Zonal lumens in the 80-90°:		0.5	Pass	<=10(+3)	
Total Luminous	2700K	120V	24942	Pass	>=1000(-10%)	
		277V	25105			
Luminous Efficacy	2700K	120V	121.49	Pass	Standard: >= 100(-3%)	Premium: >= 120(-3%)
		277V	123.18			

2.2 Electrical, Photometric and Chromaticity Measurements

Test date	2019-02-25	**Test Ambient:**	25.2 ℃
Test Orientation	As intended	**Stabilization Time (min)**	90
Model Number	AOK-200WiE-NV-LV2-00-2770-T302-P		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
JAE190121-J1	120.0	60	1.723	205.3	0.9931	5.32
	277.0	60	0.8111	203.8	0.9071	11.36

Photometric Measurement – Goniophotometer Method:

Parameter	Result	
Test Voltage (V)	120.0	277.0
Frequency (Hz)	60	60
Total Luminous (lm)	24942	25105
Luminous Efficacy (lm/W)	121.49	123.18
Zonal lumens in the 0-90 °	100	--
Zonal lumens in the 80-90 °	0.5	--
Beam Angle (°)	106.7	--
Center Beam Candle Power (cd)	6044	--

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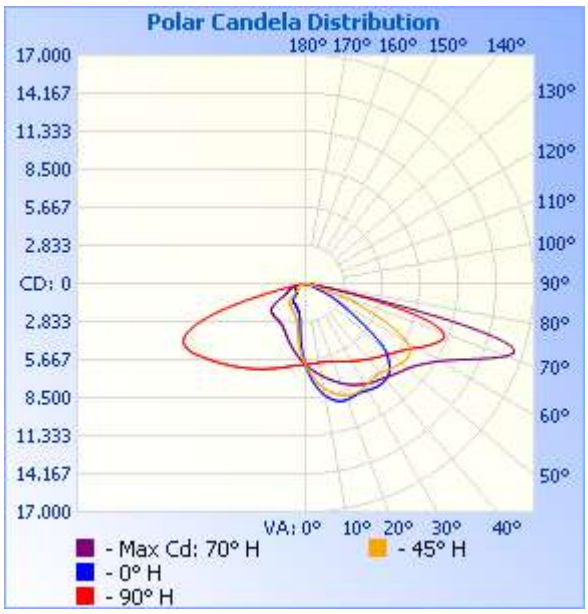
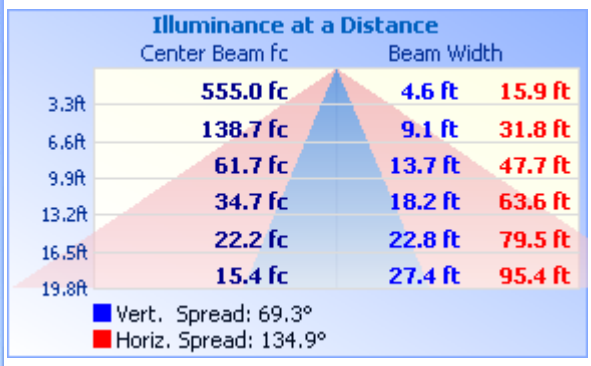
Zonal Lumen Tabulation

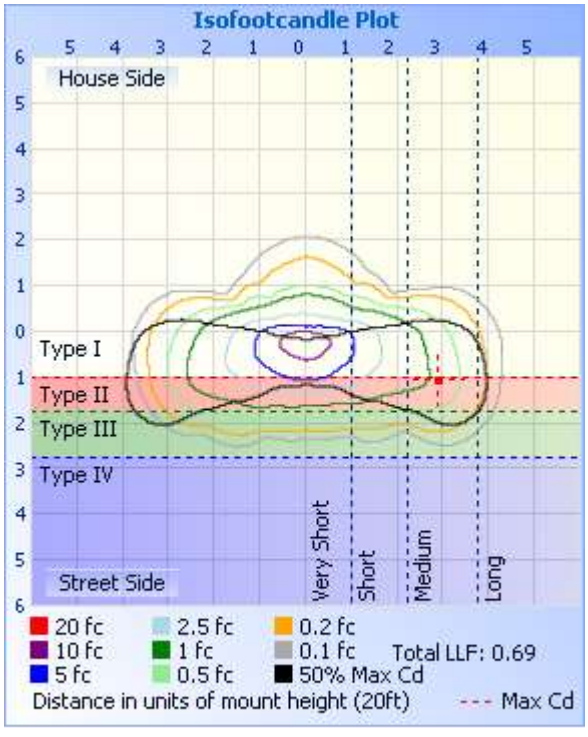
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	4,879.1	19.6%
0-40	8,551.3	34.3%
0-60	17,969.7	72%
60-90	6,972.1	28%
70-100	2,381.5	9.5%
90-120	0	0%
0-90	24,941.8	100%
90-180	0	0%
0-180	24,941.8	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	559.0	2.2%	90-100	0	0%
10-20	1,633.0	6.5%	100-110	0	0%
20-30	2,687.1	10.8%	110-120	0	0%
30-40	3,672.2	14.7%	120-130	0	0%
40-50	4,517.9	18.1%	130-140	0	0%
50-60	4,900.6	19.6%	140-150	0	0%
60-70	4,590.6	18.4%	150-160	0	0%
70-80	2,264.7	9.1%	160-170	0	0%
80-90	116.9	0.5%	170-180	0	0%

Photometric Data







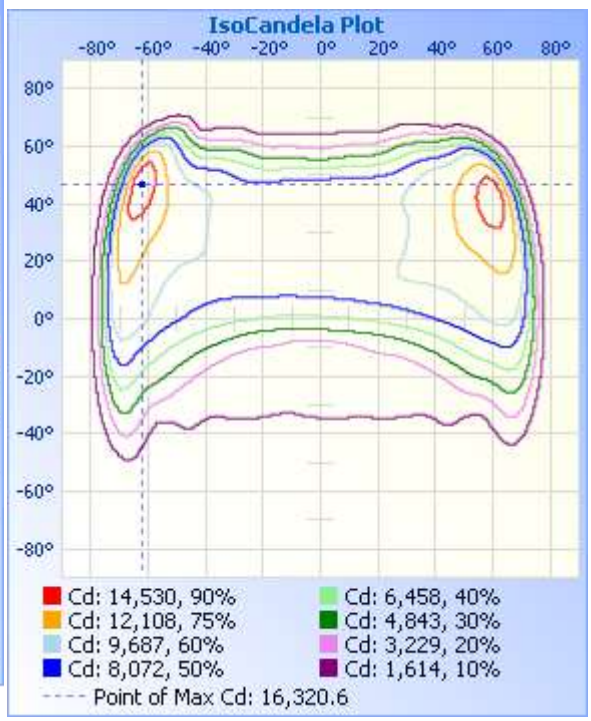


Table--1 UNIT: ×10cd

γ (DEG) \ C (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604
5	610	624	637	650	662	674	685	695	704	712	719	726	731	735	739	742	744	745	746
10	624	653	677	699	722	743	762	776	789	803	814	822	828	835	840	842	843	845	846
15	645	686	718	749	780	808	828	843	858	872	883	888	894	899	902	903	903	903	903
20	671	723	762	800	837	867	885	897	908	919	923	924	925	925	925	923	921	919	917
25	700	760	804	848	891	921	931	933	935	937	934	929	923	918	914	912	910	909	907
30	734	798	845	892	938	965	964	954	944	934	925	916	907	899	896	901	906	912	918
35	767	833	880	928	976	998	988	968	948	929	921	915	909	904	904	911	918	926	933
40	806	871	921	970	1018	1038	1019	992	965	939	932	928	926	923	922	924	926	928	931
45	848	914	964	1014	1064	1081	1058	1028	997	967	953	943	934	925	916	909	901	894	887
50	896	964	1018	1071	1123	1140	1114	1081	1049	1016	980	944	909	875	848	830	812	793	777
55	945	1023	1087	1151	1213	1227	1188	1141	1095	1048	969	887	806	726	666	628	591	553	515
60	997	1096	1182	1266	1349	1353	1274	1185	1098	1011	890	763	637	511	432	399	368	336	304
65	1003	1143	1273	1402	1527	1509	1338	1155	974	799	674	553	432	311	237	212	189	165	140
70	843	1014	1184	1358	1531	1496	1245	974	704	441	349	273	194	115	72.7	68.2	66.2	63.9	61.5
75	373	396	417	440	473	455	378	287	188	84.3	70.7	63.5	56.1	48.4	44.0	42.9	42.1	41.2	40.4
80	57.9	59.0	59.4	59.4	58.9	55.6	49.3	42.5	35.2	27.6	27.5	27.9	28.1	28.4	27.9	26.9	25.8	24.7	23.5
85	4.49	5.23	5.99	6.78	7.55	8.12	8.48	8.78	8.97	9.11	9.76	10.4	11.1	11.7	11.7	11.1	10.4	9.75	9.01
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table--2 UNIT: ×10cd

γ (DEG) \ C (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604
5	744	742	740	737	732	727	721	714	705	696	686	675	663	651	639	626	612	598	584
10	843	840	837	833	827	818	810	801	787	771	755	738	718	696	673	649	624	595	566
15	900	897	895	891	885	877	869	860	847	830	813	795	773	743	710	677	644	602	556
20	916	915	915	913	910	904	899	893	884	870	857	843	822	790	751	711	671	619	555
25	908	908	909	909	908	905	903	901	897	890	883	877	863	831	787	743	699	641	562
30	914	910	906	902	898	894	890	886	884	887	892	896	893	865	819	774	728	667	576
35	927	921	915	909	901	891	881	871	867	880	894	908	914	891	847	802	758	697	597
40	929	928	927	925	917	903	889	876	868	886	904	922	934	916	874	832	790	733	624
45	892	898	904	909	909	904	899	894	894	912	931	950	964	947	907	867	826	771	652
50	785	795	804	813	829	852	875	899	923	943	964	984	999	985	946	907	869	815	685
55	539	561	584	608	656	726	798	871	938	970	1000	1031	1057	1048	1008	967	926	871	727
60	324	343	362	384	447	553	660	766	868	938	1007	1078	1145	1153	1108	1062	1016	954	777
65	160	177	195	214	267	354	441	527	620	782	951	1124	1287	1334	1271	1205	1138	1055	831
70	63.3	65.0	66.4	69.5	97.9	151	203	254	323	609	907	1209	1497	1581	1466	1346	1225	1095	854
75	41.1	41.9	42.7	43.6	46.4	50.9	55.2	59.6	83.6	382	681	972	1244	1294	1154	1008	870	743	568
80	24.7	25.9	27.0	28.2	29.0	29.7	30.4	31.0	32.7	55.1	75.6	93.7	110	125	136	146	156	163	125
85	9.88	10.7	11.5	12.3	12.6	12.5	12.3	12.1	12.0	13.7	15.2	16.5	17.6	17.2	15.5	13.7	11.9	9.91	8.90
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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ACCREDITED
Certificate#4703.02

Table--3 UNIT: ×10cd

γ (DEG) \ C (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604
5	570	556	542	528	514	501	488	477	465	454	444	436	430	426	422	419	416	420	424
10	536	506	476	444	413	381	351	329	312	296	281	269	262	259	256	253	250	255	260
15	510	463	419	379	340	301	265	243	234	226	219	214	210	210	209	209	208	212	215
20	490	426	370	329	296	265	235	214	208	203	198	194	191	190	190	189	189	192	195
25	482	403	334	293	267	243	220	202	196	191	187	182	180	179	178	177	176	178	181
30	485	394	315	270	249	230	210	195	188	183	178	172	170	169	169	168	168	169	171
35	496	396	307	258	239	221	202	187	180	174	167	161	159	159	159	159	159	160	161
40	514	405	306	251	232	214	196	179	169	159	149	140	134	132	131	129	127	128	128
45	533	415	306	243	220	197	174	153	139	125	111	98.7	92.1	91.4	91.2	90.9	90.6	90.3	90.0
50	555	425	303	228	192	157	121	90.7	87.0	85.1	83.2	81.8	81.7	82.9	84.2	85.5	86.8	85.3	83.8
55	582	436	298	213	176	139	103	71.4	71.5	72.9	74.2	75.6	77.1	78.8	80.4	82.1	83.7	81.8	79.9
60	598	418	245	150	125	103	81.3	62.9	64.0	65.9	67.9	69.9	72.6	76.0	79.3	82.7	86.1	82.4	78.7
65	606	381	165	60.6	56.6	55.0	53.7	53.0	55.7	58.6	61.5	64.3	66.7	68.5	70.4	72.3	74.2	71.7	69.2
70	616	380	154	44.8	43.3	43.4	43.5	43.8	45.1	46.6	48.0	49.3	50.4	51.1	51.9	52.7	53.5	52.1	50.6
75	406	249	102	31.3	30.1	30.1	30.1	30.2	30.3	30.4	30.4	30.5	30.4	30.3	30.1	30.1	30.0	29.5	29.1
80	90.5	58.8	30.4	17.3	16.8	16.8	16.7	16.6	15.4	14.1	12.7	11.3	10.2	9.27	8.34	7.41	6.48	6.96	7.44
85	7.72	6.65	5.70	5.18	4.98	4.80	4.63	4.42	3.66	2.90	2.17	1.49	1.02	0.76	0.51	0.26	0.01	0.16	0.31
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Ningbo TengLi Testing Co., Ltd

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Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang
Tel: 86574-8783 6802
Fax: 86574-8783 5902

ACCREDITED
Certificate#4703.02

Table--4 UNIT: ×10cd

C(DEG) / γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355			
0	604	604	604	604	604	604	604	604	604	604	604	604	604	604	604			
5	429	434	441	450	460	472	484	496	509	523	538	553	567	582	596			
10	265	270	279	294	311	330	349	372	403	437	470	502	534	564	594			
15	218	222	228	236	246	257	269	294	332	373	414	457	502	550	597			
20	198	202	207	214	222	230	239	264	297	333	369	412	471	538	605			
25	184	186	191	198	206	214	223	244	272	301	330	377	449	533	617			
30	172	173	178	184	192	199	208	228	252	277	303	354	439	538	636			
35	162	162	166	173	180	187	195	214	238	262	286	342	440	549	658			
40	129	130	136	148	160	172	185	206	229	252	276	338	447	566	686			
45	89.7	89.7	94.4	104	115	126	138	167	199	231	263	336	456	587	717			
50	82.3	80.9	80.0	79.8	79.7	79.6	81.4	117	159	202	245	330	466	609	753			
55	78.0	76.1	74.4	72.9	71.5	70.1	69.9	100.0	135	171	208	301	456	620	783			
60	75.0	71.3	68.4	66.3	64.2	62.1	60.5	67.8	76.9	86.8	99.3	197	390	593	795			
65	66.8	64.3	61.8	59.1	56.4	53.6	51.0	50.8	50.9	51.0	53.2	151	355	570	786			
70	49.2	47.9	46.5	45.2	43.9	42.6	41.3	40.9	40.6	40.2	41.0	123	293	473	656			
75	28.6	28.2	28.0	27.8	27.7	27.6	27.5	27.3	27.2	27.1	27.5	60.9	131	208	290			
80	7.92	8.42	9.23	10.5	11.7	12.9	14.1	14.0	13.9	13.8	13.8	17.7	26.3	36.0	46.6			
85	0.47	0.62	0.89	1.30	1.74	2.21	2.69	2.85	2.99	3.14	3.31	3.49	3.71	3.96	4.24			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

2.4 Performance Assessment:

Model name	CCT(K)	Total Luminous (lm)	Power (W)	Luminous Efficacy (lm/W)
AOK-200WiE-NV-LV2-00-2770-T302-P	2700K	24942	205.3	121.49
AOK-200WiE-NV-LV2-00-3070-T302-P	3000K	25082	205.3	122.17
AOK-200WiE-NV-LV2-00-3570-T302-P	3500K	25314	205.3	123.30
AOK-200WiE-NV-LV2-00-4070-T302-P	4000K	25543	205.3	124.42
AOK-200WiE-NV-LV2-00-4570-T302-P	4500K	25762	205.3	125.49
AOK-200WiE-NV-LV2-00-5070-T302-P	5000K	25992	205.3	126.60
AOK-200WiE-NV-LV2-00-5770-T302-P	5700K	26134	205.3	127.30

According to the test report JAE190121-A-R

Scaled Methodology Explanation:

18W 3000K eff / 18W 2700K eff = 132.02 / 131.29 =1.0056

18W 3500K eff / 18W 2700K eff = 133.24 / 131.29 =1.0149

18W 4000K eff / 18W 2700K eff = 134.45 / 131.29 =1.0241

18W 4500K eff / 18W 2700K eff = 135.61 / 131.29 =1.0329

18W 5000K eff / 18W 2700K eff = 136.82 / 131.29 =1.0421

18W 5700K eff / 18W 2700K eff = 137.56 / 131.29 =1.0478

3000K eff=2700K eff*1.0056

3500K eff=2700K eff*1.0149

4000K eff=2700K eff*1.0241

4500K eff=2700K eff*1.0329

5000K eff=2700K eff*1.0421

5700K eff=2700K eff*1.0478

3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-714	Goniophotometer system	Verified by D908S standard lamp	
ST-R-710	Standard Lamp	2019-02-12	2020-02-11
ST-R-711	Power Meter for Goniophotometer	2019-01-06	2020-01-05
Uncertainty: Photometric Measurement(Goniophotometer):1.62%			

4. Product Photo

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