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
Fax: 86574-8783 5902

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-260WiE-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-260WiE-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-K-R.	
Representative (Tested) Model	AOK-260WiE-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-K1	
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	260W
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. ANSI C78.377-2015 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. 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	264.7	**N/A**	**N/A**	
		277V	260.0			
Power Factor	2700K	120V	0.9976	Pass	>= 0.9(-3%)	
		277V	0.9402			
THD %	2700K	120V	5.91	Pass	<= 20(+5)	
		277V	18.47			
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	32033	Pass	>=1000(-10%)	
		277V	31067			
Luminous Efficacy	2700K	120V	121.02	Pass	Standard: >= 100(-3%)	Premium: >= 120(-3%)
		277V	119.49			

2.2 Electrical, Photometric and Chromaticity Measurements

Test date	2019-03-01	**Test Ambient:**	25.2 ℃
Test Orientation	As intended	**Stabilization Time (min)**	90
Model Number	AOK-260WiE-NV-LV2-00-2770-T302-P		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
JAE190121-K1	120.0	60	2.211	264.7	0.9976	5.91
	277.0	60	0.9983	260.0	0.9402	18.47

Photometric Measurement – Goniophotometer Method:

Parameter	Result	
Test Voltage (V)	120.0	277.0
Frequency (Hz)	60	60
Total Luminous (lm)	32033	31067
Luminous Efficacy (lm/W)	121.02	119.49
Zonal lumens in the 0-90 °	100	--
Zonal lumens in the 80-90 °	0.5	--
Beam Angle (°)	105.9	--
Center Beam Candle Power (cd)	7335	--

Ningbo TengLi Testing Co., Ltd

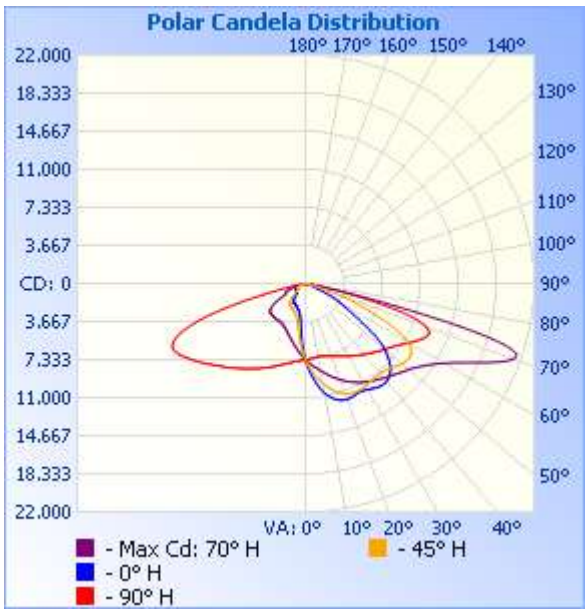
2nd floor, Block B, Ningbo Testing and Certification Base, No. 66
Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang
Tel: 86574-8783 6802
Fax: 86574-8783 5902

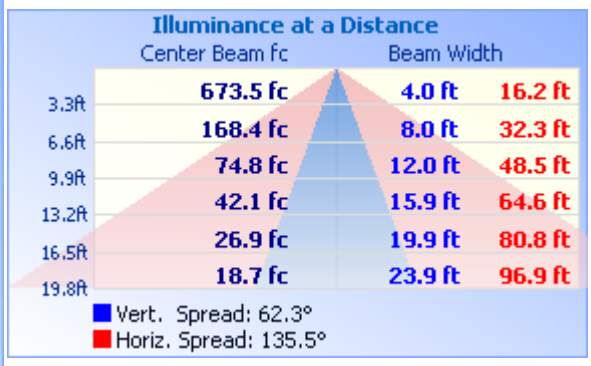
Zonal Lumen Tabulation

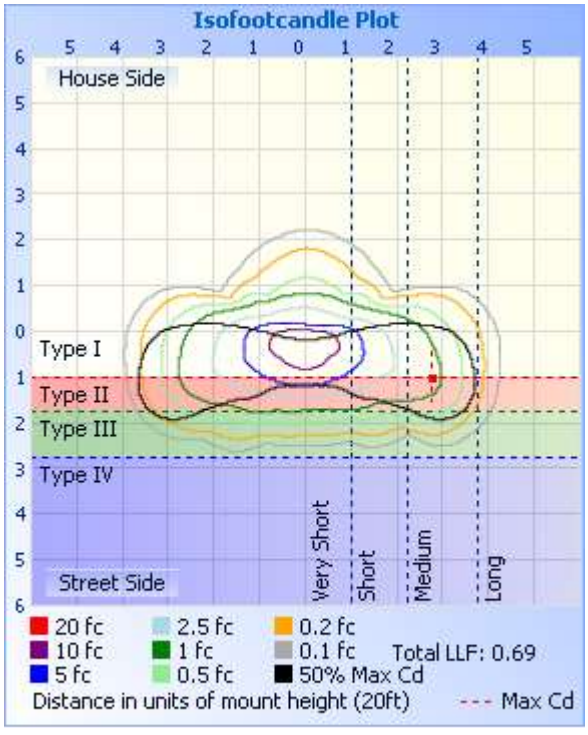
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	6,142.7	19.2%
0-40	10,860.2	33.9%
0-60	23,086.2	72.1%
60-90	8,946.6	27.9%
70-100	2,933.0	9.2%
90-120	0	0%
0-90	32,032.8	100%
90-180	0	0%
0-180	32,032.8	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	680.7	2.1%	90-100	0	0%
10-20	2,043.7	6.4%	100-110	0	0%
20-30	3,418.3	10.7%	110-120	0	0%
30-40	4,717.5	14.7%	120-130	0	0%
40-50	5,837.1	18.2%	130-140	0	0%
50-60	6,388.9	19.9%	140-150	0	0%
60-70	6,013.6	18.8%	150-160	0	0%
70-80	2,785.2	8.7%	160-170	0	0%
80-90	147.9	0.5%	170-180	0	0%

Photometric Data







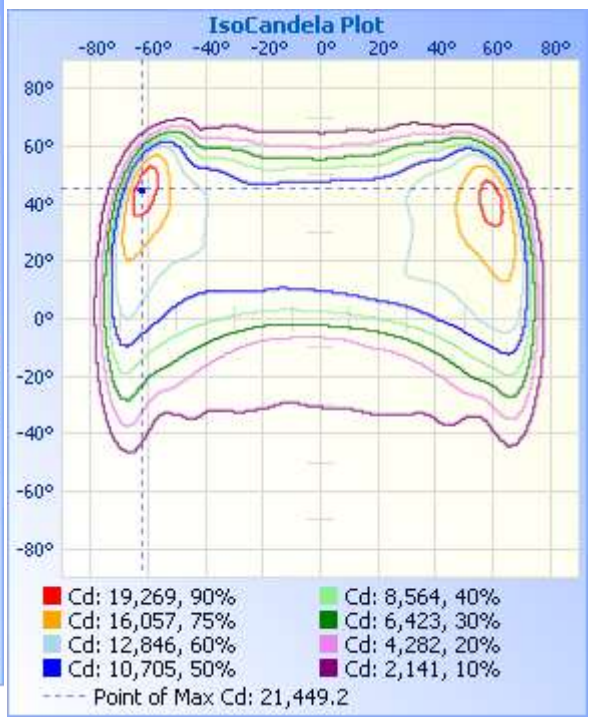


Table--1 UNIT: ×10cd

γ (DEG) \ C (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733
5	747	766	785	802	818	834	850	863	875	886	896	905	911	917	922	925	927	928	929
10	770	809	842	874	905	935	960	980	999	1017	1033	1042	1050	1058	1064	1067	1068	1070	1072
15	803	860	904	947	990	1029	1057	1078	1098	1118	1133	1140	1146	1152	1157	1157	1156	1155	1155
20	845	916	970	1022	1074	1117	1142	1158	1173	1189	1194	1194	1194	1193	1192	1190	1187	1185	1183
25	892	972	1033	1093	1153	1195	1209	1212	1216	1219	1215	1207	1199	1191	1185	1181	1177	1173	1168
30	943	1028	1092	1156	1219	1256	1256	1243	1230	1218	1206	1195	1183	1171	1166	1169	1173	1177	1181
35	1000	1086	1149	1213	1276	1306	1291	1265	1238	1213	1202	1195	1188	1181	1181	1189	1198	1206	1215
40	1061	1145	1208	1270	1332	1356	1331	1296	1261	1227	1218	1214	1211	1208	1208	1211	1213	1216	1220
45	1130	1214	1275	1336	1397	1417	1386	1346	1306	1267	1248	1235	1222	1209	1198	1188	1178	1168	1159
50	1208	1292	1354	1416	1478	1495	1461	1417	1374	1331	1282	1233	1184	1137	1101	1076	1052	1028	1004
55	1296	1387	1457	1527	1595	1606	1552	1490	1429	1367	1264	1155	1047	941	865	821	779	737	693
60	1384	1498	1590	1682	1771	1764	1654	1534	1416	1299	1146	987	829	672	573	530	492	453	412
65	1418	1576	1718	1859	1996	1954	1725	1480	1239	1005	853	710	565	420	331	300	271	242	212
70	1180	1381	1578	1778	1976	1920	1597	1250	904	565	449	352	252	152	99.2	94.0	91.9	89.6	87.4
75	496	560	618	680	743	714	579	429	270	110	91.4	83.2	75.0	65.6	60.6	59.2	58.1	56.8	55.4
80	82.8	85.5	87.5	89.0	90.1	85.6	75.2	64.1	52.5	40.7	40.3	40.4	40.5	40.6	39.8	38.3	36.8	35.2	33.6
85	7.84	9.70	11.7	13.8	15.9	17.0	17.1	16.9	16.5	16.1	16.8	17.6	18.4	19.1	18.9	17.9	16.9	15.7	14.6
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

2nd floor, Block B, Ningbo Testing and Certification Base, No. 66
Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang
Tel: 86574-8783 6802
Fax: 86574-8783 5902

ACCREDITED
Certificate#4703.02

Table--2 UNIT: ×10cd

C (DEG) / γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733
5	926	923	919	914	907	899	891	880	868	855	842	827	811	794	777	759	740	721	701
10	1066	1061	1056	1049	1038	1025	1013	998	979	958	935	913	885	854	821	788	754	714	672
15	1149	1144	1139	1133	1123	1111	1099	1086	1067	1044	1019	995	963	920	874	827	780	721	656
20	1179	1175	1171	1167	1161	1154	1147	1140	1127	1106	1085	1063	1033	985	929	871	813	742	657
25	1167	1166	1165	1163	1161	1160	1158	1155	1150	1139	1127	1115	1093	1045	980	915	849	770	669
30	1173	1166	1159	1152	1148	1146	1145	1144	1143	1145	1148	1151	1141	1097	1029	960	890	807	694
35	1203	1191	1180	1168	1158	1148	1139	1130	1126	1141	1157	1173	1177	1139	1069	999	929	844	722
40	1213	1206	1200	1193	1181	1165	1149	1133	1125	1149	1175	1201	1216	1183	1113	1042	972	887	755
45	1162	1167	1172	1175	1173	1166	1159	1152	1152	1181	1211	1240	1260	1230	1160	1089	1018	933	790
50	1016	1030	1043	1055	1077	1108	1139	1171	1205	1235	1266	1296	1318	1289	1218	1145	1073	986	830
55	721	747	773	801	861	952	1045	1139	1227	1274	1320	1366	1405	1381	1302	1222	1142	1048	872
60	439	465	490	519	601	738	875	1012	1144	1243	1343	1444	1536	1533	1441	1347	1253	1143	918
65	234	255	276	300	369	482	595	707	829	1056	1292	1532	1757	1800	1670	1535	1398	1247	981
70	88.9	90.3	91.7	95.3	134	207	279	350	446	837	1244	1655	2044	2127	1912	1692	1472	1245	971
75	56.5	57.6	58.5	59.6	63.0	68.8	74.3	80.2	107	423	734	1030	1298	1333	1172	1014	869	734	564
80	35.0	36.4	37.7	38.9	39.7	39.9	40.0	40.1	41.2	61.0	79.7	96.8	112	122	125	127	127	117	98.0
85	15.6	16.6	17.5	18.4	18.5	17.9	17.2	16.4	15.8	16.6	17.3	17.7	18.0	17.0	15.0	13.0	11.0	9.00	8.09
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--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	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733
5	681	662	642	622	602	583	566	550	535	520	507	497	490	486	481	478	474	480	486
10	630	588	548	509	470	431	396	374	358	344	331	320	314	313	311	309	307	313	318
15	591	525	470	426	389	351	317	296	287	280	273	268	265	264	264	264	264	268	272
20	571	486	416	372	343	314	287	268	262	256	250	245	243	242	241	241	240	244	248
25	569	469	385	338	315	293	272	255	248	242	236	231	228	227	226	226	225	228	231
30	581	468	372	320	299	280	260	244	237	230	223	217	214	214	215	215	215	217	218
35	599	477	369	311	290	271	251	234	226	217	209	201	198	198	199	199	200	201	203
40	623	491	371	306	284	263	242	222	208	194	179	166	158	155	153	150	148	150	151
45	647	504	372	294	262	231	199	171	157	145	133	122	117	117	117	117	117	116	116
50	673	516	369	276	231	187	143	106	104	105	105	105	107	108	110	112	114	111	109
55	694	516	346	245	204	165	126	92.5	93.2	95.2	97.3	99.4	102	104	106	108	111	108	105
60	691	463	245	133	117	103	90.6	80.5	83.0	86.1	89.3	92.4	96.2	100	104	108	113	107	102
65	715	447	193	70.4	67.8	67.8	67.8	68.2	71.6	75.1	78.5	82.0	84.6	86.4	88.3	90.1	92.0	89.1	86.2
70	702	434	179	55.7	54.1	54.3	54.5	54.8	56.1	57.5	58.9	60.3	61.3	62.0	62.8	63.5	64.3	62.7	61.1
75	403	249	106	37.7	36.5	36.5	36.5	36.5	36.2	35.8	35.5	35.1	34.8	34.6	34.5	34.4	34.2	33.9	33.6
80	72.4	49.1	28.8	19.3	18.9	18.8	18.7	18.5	16.6	14.5	12.4	10.3	8.79	7.72	6.68	5.61	4.53	5.53	6.53
85	7.08	6.14	5.30	4.73	4.38	4.04	3.73	3.39	2.74	2.11	1.54	0.98	0.65	0.48	0.31	0.15	0.00	0.15	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

Table--4 UNIT: ×10cd

γ (DEG) \ C (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355			
0	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733			
5	493	500	509	521	537	553	570	587	606	627	647	668	688	708	728			
10	323	328	338	353	371	391	411	438	478	520	563	605	647	688	729			
15	276	280	287	296	308	319	333	361	405	452	499	550	609	674	739			
20	252	256	262	271	281	292	303	331	370	410	451	504	580	669	757			
25	234	237	242	251	261	271	282	308	342	376	411	469	564	673	783			
30	219	221	226	234	243	252	263	288	319	350	383	449	560	687	815			
35	205	207	212	221	230	239	250	275	306	336	368	441	569	713	856			
40	153	155	164	182	200	218	237	265	296	328	360	441	585	744	903			
45	115	115	120	131	143	155	169	209	254	299	344	442	604	780	955			
50	107	105	103	103	103	102	105	153	209	266	325	441	624	819	1014			
55	102	98.6	96.2	94.4	92.7	91.1	91.1	132	180	228	279	407	621	847	1072			
60	97.4	92.4	88.4	85.8	83.2	80.6	78.8	90.9	106	122	141	278	545	826	1106			
65	83.3	80.4	77.5	74.6	71.7	68.8	65.9	66.1	66.8	67.5	71.1	210	499	804	1110			
70	59.6	58.1	56.8	55.7	54.7	53.6	52.6	52.7	52.8	53.0	54.8	169	409	661	917			
75	33.3	33.1	33.1	33.5	33.9	34.3	34.6	34.9	35.2	35.5	36.6	81.1	174	277	386			
80	7.48	8.47	9.88	11.8	13.8	15.8	17.6	17.9	18.1	18.2	18.6	24.8	37.7	51.8	66.8			
85	0.48	0.65	0.98	1.55	2.12	2.75	3.41	3.75	4.07	4.42	4.79	5.24	5.82	6.47	7.17			
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-260WiE-NV-LV2-00-2770-T302-P	2700K	32033	264.7	121.02
AOK-260WiE-NV-LV2-00-3070-T302-P	3000K	32213	264.7	121.70
AOK-260WiE-NV-LV2-00-3570-T302-P	3500K	32511	264.7	122.82
AOK-260WiE-NV-LV2-00-4070-T302-P	4000K	32806	264.7	123.94
AOK-260WiE-NV-LV2-00-4570-T302-P	4500K	33088	264.7	125.00
AOK-260WiE-NV-LV2-00-5070-T302-P	5000K	33383	264.7	126.11
AOK-260WiE-NV-LV2-00-5770-T302-P	5700K	33565	264.7	126.80

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 (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

4. Product Photo

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