REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103924656 Date: May 10, 2019

REPORT NO. 103924656LAX-005

TEST OF ONE LED LUMINAIRE

MODEL NO. ALD-R-160W-LV-40K-T4
LED MODEL NO. GWP9LR34.PM-M2M3
DRIVER MODEL NO. EUD-150S350DTA
RETROFIT MODEL NO. LITHONIA KAD CONTOUR SERIES

RENDERED TO

SIMPLYLEDS LLC
111 W. 34TH STREET
GARDEN CITY, IDAHO, 83714

TEST: Electrical and Photometric tests as required to the IESNA test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-00973316.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

ANSI NEMA ANSLG C78.377: 2015: Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number ALD-R-160W-LV-40K-T4. The sample was received by Intertek on March 19, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN1903191345-003A.

DATES OF TESTS: May 2, 2019

SUMMARY

Model No.:	ALD-R-160W-LV-40K-T4
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	19955
Total Power (W)	158.2
Luminaire Efficacy (LPW)	126.1
Power Factor at 120Vac	0.997
Power Factor at 277Vac	0.969
Current ATHD % at 120Vac	6.52
Current ATHD % at 277Vac	7.04
Correlated Color Temperature (CCT - K)	3961
Color Rendering Index (CRI - Ra)	71.5
Color Rendering Index (CRI - R9)	-36.1
DUV	0.001
Chromaticity Coordinate (x)	0.383
Chromaticity Coordinate (y)	0.381
Chromaticity Coordinate (u')	0.225
Chromaticity Coordinate (v')	0.504

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
3m Sphere	CSTM-LMS-3M-3020	000830	VBU	VBU	05/02/19
Spectrometer	CDS-3020-T	000834	VBU	VBU	05/02/19
Power Supply (AC 3P / DC)	CSW5550-208-LAN	001339	VBU	VBU	05/02/19
Power Meter	WT330	001319	08/13/18	08/13/19	05/02/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	05/02/19
DC Power Supply	LPS-100-0833	000832	01/31/19	01/31/20	05/02/19
Network TC Reader	iSD-TC	000824	02/01/19	02/01/20	05/02/19

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical Measurements – Integrating Sphere Method

A Labsphere Model CDS-3020 High Sensitivity Multi Channel Spectrometer and Two Meter or Three Meter Sphere was used to measure correlated color temperature, chromaticity coordinates, and the color rendering index for each SSL unit.

Ambient temperature was measured at a position inside the sphere. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation. Each SSL unit was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

The calibration of the sphere photometer-spectroradiometer system is traceable to the National Institute of Standards and Technology.

RESULTS OF TEST

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) - Integrating Sphere Method

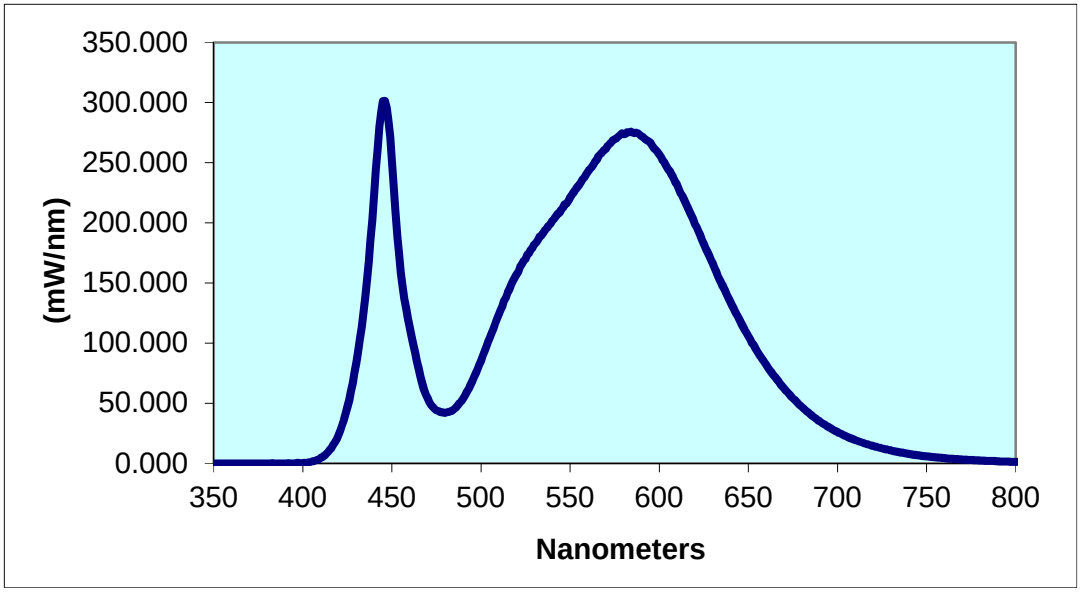
Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Current ATHD (%)	Luminous Flux (Lumens)	Lumen Efficacy (LPW)
LAN1903191345-003A	Up	120.1	1322	158.2	0.997	6.52	19955	126.1
		277.1	572.5	153.7	0.969	7.04		

Correlated Color Temperature (K)	CRI -Ra	CRI -R9	DUV	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
3961	71.5	-36.1	0.001	0.383	0.381	0.225	0.504

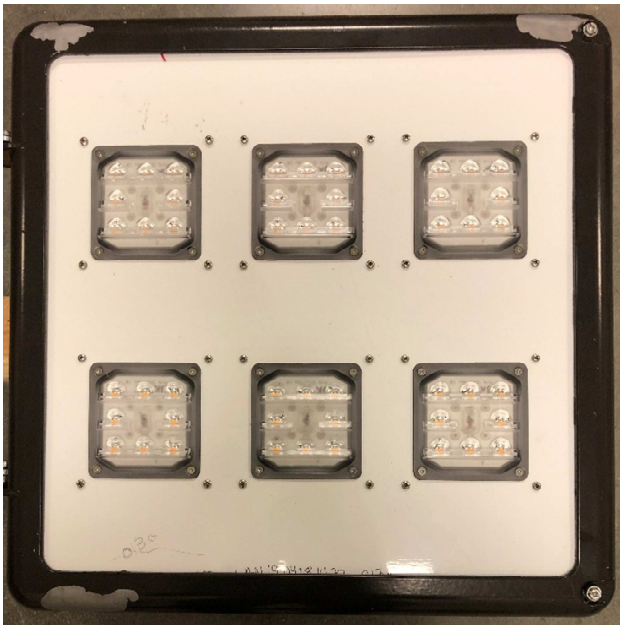
Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.000	440	224.8	530	182.3	620	199.0	710	19.43
355	0.000	445	301.2	535	191.9	625	182.6	715	16.78
360	0.000	450	252.2	540	201.8	630	166.3	720	14.51
365	0.000	455	158.4	545	211.0	635	149.2	725	12.41
370	0.000	460	113.0	550	221.0	640	134.4	730	10.74
375	0.000	465	78.69	555	231.6	645	119.6	735	9.202
380	0.000	470	54.14	560	242.7	650	105.7	740	7.870
385	0.000	475	44.19	565	252.8	655	93.04	745	6.803
390	0.000	480	42.02	570	261.4	660	82.08	750	5.821
395	0.000	485	45.09	575	269.5	665	71.76	755	5.051
400	0.163	490	53.90	580	273.8	670	62.44	760	4.399
405	1.427	495	68.01	585	275.0	675	54.24	765	3.754
410	4.556	500	85.33	590	272.2	680	47.04	770	3.240
415	10.82	505	105.0	595	266.9	685	40.62	775	2.789
420	23.40	510	123.6	600	257.0	690	35.01	780	2.418
425	46.68	515	142.0	605	244.7	695	30.30		
430	83.40	520	157.1	610	232.1	700	25.95		
435	138.4	525	170.0	615	216.0	705	22.47		

Spectral Data Over Visible Wavelengths



PICTURES (not to scale)



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:

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Lighting Division

Report Reviewed By:

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Engineering Supervisor
Lighting Division

Attachment: None