REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103924656 Date: May 10, 2019

REPORT NO. 103924656LAX-006

TEST OF ONE LED LUMINAIRE

MODEL NO. ALD-R-160W-LV-50K-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-50K-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 3, 2019

SUMMARY

Model No.:	ALD-R-160W-LV-50K-T4
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	20065
Total Power (W)	156.6
Luminaire Efficacy (LPW)	128.1
Power Factor at 120Vac	0.997
Power Factor at 277Vac	0.968
Current ATHD % at 120Vac	6.60
Current ATHD % at 277Vac	7.30
Correlated Color Temperature (CCT - K)	5037
Color Rendering Index (CRI - Ra)	70.3
Color Rendering Index (CRI - R9)	-38.1
DUV	0.001
Chromaticity Coordinate (x)	0.344
Chromaticity Coordinate (y)	0.354
Chromaticity Coordinate (u')	0.210
Chromaticity Coordinate (v')	0.486

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	05/03/19
Spectrometer	CDS-3020-T	000834	VBU	VBU	05/03/19
Power Supply (AC 3P / DC)	CSW5550-208-LAN	001339	VBU	VBU	05/03/19
Power Meter	WT330	001319	08/13/18	08/13/19	05/03/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	05/03/19
DC Power Supply	LPS-100-0833	000832	01/31/19	01/31/20	05/03/19
Network TC Reader	iSD-TC	000824	02/01/19	02/01/20	05/03/19

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

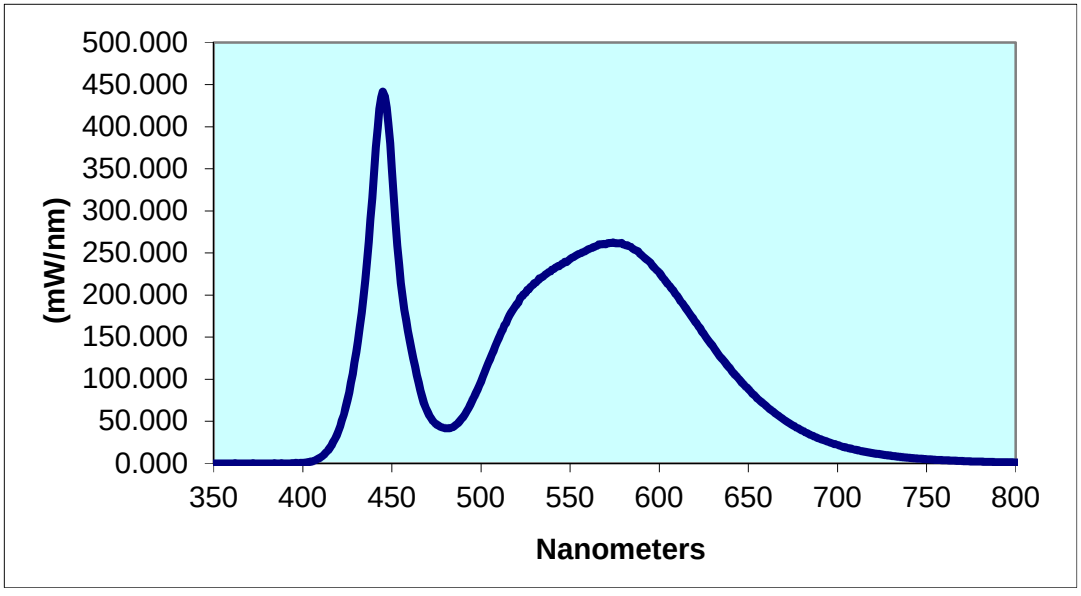
Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Current ATHD (%)	Luminous Flux (Lumens)	Lumen Efficacy (LPW)
LAN1903191345-003A	Up	120.0	1309	156.6	0.997	6.60	20065	128.1
		277.1	567.0	152.2	0.968	7.30		

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')
5037	70.3	-38.1	0.001	0.344	0.354	0.210	0.486

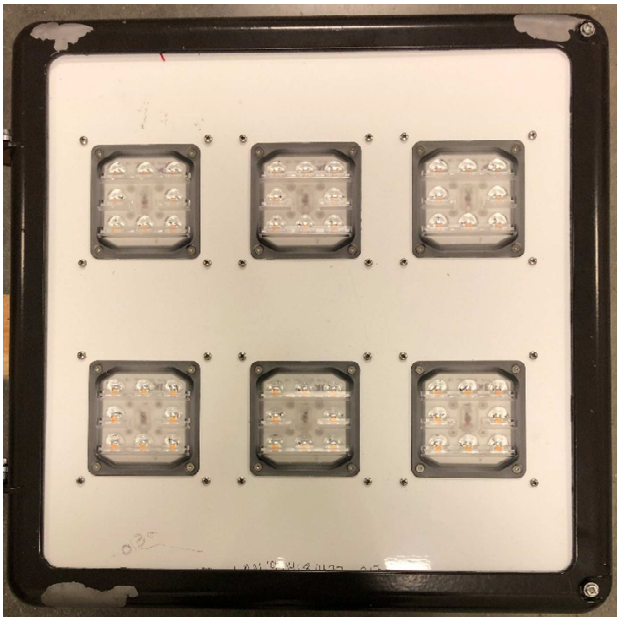
Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.000	440	347.9	530	214.3	620	168.5	710	16.29
355	0.000	445	441.6	535	222.4	625	153.8	715	14.02
360	0.000	450	349.6	540	230.3	630	139.6	720	12.10
365	0.000	455	214.3	545	236.5	635	124.6	725	10.59
370	0.000	460	145.9	550	242.6	640	111.9	730	8.966
375	0.000	465	95.66	555	248.8	645	99.43	735	7.844
380	0.000	470	61.29	560	254.4	650	87.98	740	6.566
385	0.000	475	46.37	565	258.3	655	77.21	745	5.718
390	0.000	480	41.66	570	260.4	660	68.26	750	4.918
395	0.000	485	44.08	575	261.8	665	59.63	755	4.274
400	0.636	490	55.12	580	259.7	670	51.92	760	3.699
405	2.331	495	73.70	585	255.3	675	45.18	765	3.147
410	7.181	500	97.25	590	247.9	680	39.16	770	2.859
415	17.81	505	124.0	595	238.8	685	33.89	775	2.315
420	38.18	510	148.6	600	226.4	690	29.30	780	2.064
425	74.99	515	171.3	605	212.8	695	25.34		
430	132.3	520	188.9	610	199.5	700	21.81		
435	217.4	525	202.6	615	184.3	705	18.93		

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:

Vladimir Kozak
Engineering Supervisor
Lighting Division

Attachment: None