

REPORT

25800 COMMERCE CENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103961645

Date: July 9, 2019

REPORT NO. 103961645LAX-013

TEST OF ONE LED LUMINAIRE

MODEL NO. ALD-R-300W-HV-40K-T4
LED MODEL NO. GWP9LR34.PM-M2M3
DRIVER MODEL NO. ESD-320S620DT
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-00983281.

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-300W-HV-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 LAN1903191345-010.

DATES OF TESTS: July 9, 2019

SUMMARY

Model No.:	ALD-R-300W-HV-40K-T4
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	35295
Total Power (W)	299.6
Luminaire Efficacy (LPW)	117.8
Power Factor at 277Vac	0.994
Power Factor at 480Vac	0.965
Current ATHD % at 277Vac	8.01
Current ATHD % at 480Vac	10.53
Correlated Color Temperature (CCT - K)	3993
Color Rendering Index (CRI - Ra)	71.7
Color Rendering Index (CRI - R9)	-35.1
DUV	0.001
Chromaticity Coordinate (x)	0.381
Chromaticity Coordinate (y)	0.379
Chromaticity Coordinate (u')	0.225
Chromaticity Coordinate (v')	0.503

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	07/09/19
Spectrometer	CDS-3020-T	000834	VBU	VBU	07/09/19
Power Supply (AC 3P / DC)	CSW5550-208-LAN	001339	VBU	VBU	07/09/19
Power Meter	WT330	001319	07/02/19	07/02/20	07/09/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	07/09/19
DC Power Supply	LPS-100-0833	000832	01/31/19	01/31/20	07/09/19
Network TC Reader	iSD-TC	000824	02/01/19	02/01/20	07/09/19
Variac 3 phase	6020E-3Y	001096	VBU	VBU	07/09/19
Power Meter	WT333	001322	11/28/2018	11/28/2019	07/09/19

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

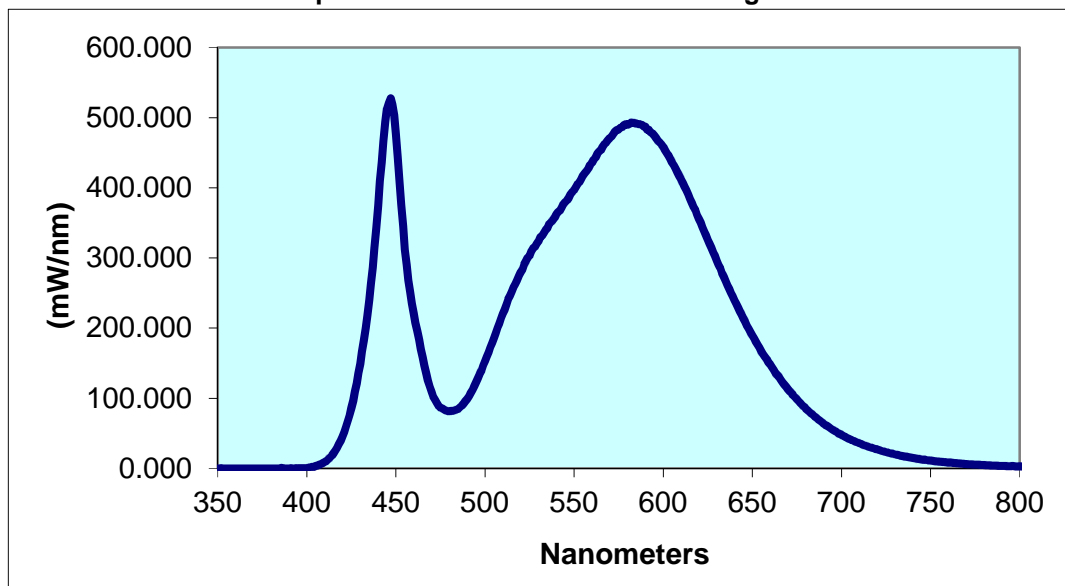
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) - Integrating Sphere Method

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)
LAN1903191345-010	Up	276.9 479.7	1089 659.3	299.6 305.2	0.994 0.965	8.01 10.53	35295	117.8
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')	
3993	71.7	-35.1	0.001	0.381	0.379	0.225	0.503	

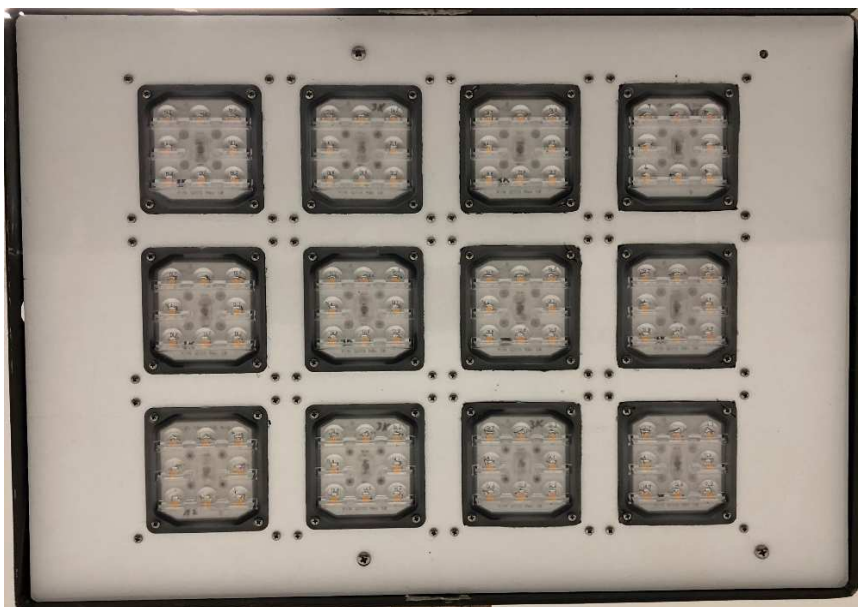
Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.000	440	375.1	530	323.8	620	355.7	710	35.75
355	0.000	445	512.8	535	343.0	625	325.5	715	31.06
360	0.000	450	477.6	540	361.6	630	295.9	720	27.11
365	0.000	455	311.9	545	379.4	635	266.9	725	23.33
370	0.000	460	220.8	550	396.6	640	239.7	730	20.18
375	0.000	465	158.3	555	417.1	645	213.8	735	17.24
380	0.000	470	109.0	560	435.6	650	189.6	740	14.84
385	0.000	475	86.68	565	453.7	655	167.1	745	12.76
390	0.000	480	81.62	570	471.0	660	148.0	750	11.07
395	0.007	485	84.77	575	483.1	665	129.9	755	9.441
400	0.495	490	99.08	580	489.8	670	112.9	760	8.319
405	3.319	495	122.9	585	491.9	675	98.34	765	7.078
410	9.235	500	153.0	590	486.9	680	85.41	770	6.118
415	21.39	505	186.2	595	474.3	685	73.91	775	5.449
420	45.17	510	220.4	600	458.4	690	63.97	780	4.698
425	86.17	515	251.5	605	435.9	695	55.30		
430	149.0	520	279.6	610	412.3	700	47.80		
435	239.8	525	303.5	615	384.2	705	41.41		

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:

A handwritten signature in black ink, appearing to read 'Erik Linares'.

Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Vladimir Kozak'.

Vladimir Kozak
Engineering Supervisor
Lighting Division