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NVLAP TESTING
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Test report of

IES LM-79-08

Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Rendered to:
LED One Corporation
12437 Bellegrave Ave Eastvale,CA 91752 United States

For products:
High Bay Luminaires (Commercial and Industrial)

Models No.:
LOC-ELHB-MW(80/100/150)65KD-LV

Test Date:	Oct. 9, 2021
Test Lab.:	**LCTECH Guangdong Testing Services Co., Ltd.** 2/F., Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China Tel:+86-760-22833366 Fax:+86-760-22833399 E-mail:Service@lccert.com http://www.lccert.com
Test Sites:	1/F., Building I, Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China
Template No.:	LC-RT-PL-051 Rev.1.3
Test Note:	*N/A*

Complied by:		**Reviewed by:**	
Kargel Yuan	Kargel Yuan	**Lin Qiu**	Lin
Oct. 27, 2021		**Oct. 27, 2021**	

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1. General

1.1 Product Information

Brand Name	LEDone®
Category	Indoor
General Application	High-Bay
Primary Use	High Bay Luminaires (Commercial and Industrial)
Model Number	LOC-ELHB-MW(80/100/150)65KD-LV
Rated Inputs	100-277VAC, 50/60Hz
Rated Power	80W/100W/120W/150W
Rated Light output	22500lm
Declared CCT	6500K
Power Supply	LF-FHB150BAIV
LED Package, Array or Module	Model: L130-6570003000X21, manufactured by Lumileds
Dimming	Continuous Dimming
Integral Controls	No
Controls Controllability	No
Receipt Samples	1 unit
Sample Code of lab.	210927104002
Date of Receipt Samples	Sep. 27, 2021
Note	This is a multi-power product, 150W was selected for the test.

1.2 Standards or methods

The following standards are partly or totally used or referenced for test:

No.	Name
ANSI/NEMA/ ANSLG C78.377- 2017	Specifications for the Chromaticity of Solid State Lighting Products
ANSI/IES TM-30-18*	IES Method for Evaluating Light Source Color Rendition
ANSI C82.77-2002	Harmonic Emission Limits—Related Power Quality Requirements for Lighting Equipment
CIE Pub. No. 13.3-1995	Method of Measuring and Specifying Color Rendering of Light Sources
CIE Pub. No. 15:2004	Colorimetry
IES LM-79-08	Electrical and Photometric Measurements of Solid-State Lighting Products

Note:

**For reference only and not in the scope of NVLAP.*

1.3 Equipment list

Instrument	ID	Model name	Cal. date	Next cal. Date
AC Power supply	LC-I-987	APW-120N	2020-12-23	2021-12-22
AC Power supply	LC-I-989	APW-120N	2020-12-23	2021-12-22
Power analyzer	LC-I-928	WT210	2020-12-25	2021-12-24
Power analyzer	LC-I-954	WT210	2020-12-25	2021-12-24
Multimeter	LC-I-972	Fluke 17B	2021-07-19	2022-07-18
Photometric colorimetric electric system** (2 meter sphere)	LC-I-956	HAAS-2000	Before use	Before use
Standard lamp***	LC-PL-I-011	D204C	2021-07-09	2022-07-08
Luminous Flux Standard Lamp****	LC-PL-I-003	24V100W	2021-07-09	2022-07-08
Goniophotometer(with mirror)	LC-I-902	GMS2000	2021-04-22	2022-04-21
Wireless temperature transmitter	LC-I-PL-009	DWLR-DLR	2020-12-24	2021-12-23
Wireless temperature transmitter	LC-I-PL-008	DWLR-DLR	2020-12-24	2021-12-23

Note:

** *Bandwidth of spectroradiometer is 1 nm.*

*** *halogen lamp, 100W, omni-directional type, and its traceability to NIM.*

**** *halogen lamp, 100W, omni-directional type, and its traceability to NIM.*

2. Test conducted and method

The luminaire was operated at least 2 hours to reach stabilization and temperature equilibrium before test.

2.1 Ambient Condition

The ambient temperature in which measurements are being taken was maintained at 25 °C ± 1°C; the air flow around the sample(s) being tested did not affect the performance.

2.2 Power Supply Characteristics

The AC power supply had a sinusoidal voltage wave shape at the prescribed frequency (60 Hz) such that the RMS summation of the harmonic components does not exceed 3 percent of the fundamental during operation of the test item.

The voltage of AC power supply (RMS voltage) applied to the device under test was regulated to within±0.2 percent under load.

2.3 Seasoning and Stabilization

No seasoning was performed in accordance with IESNA LM-79-08. And before the measurement, the sample was stabilized until the light output and power variations were less than 0.5% in 30 minutes intervals (3 readings, 15 minutes apart).

2.4 Electrical Instrumentation

The calibration uncertainties of the instruments for AC voltage and current were less than 0.2 percent, and the calibration uncertainty of the AC power meter was less than 0.5 percent(95 % confidence interval, k=2).

2.5 Color Measurement Method

Spectral radiant flux was measured by a sphere (2 meter)-spectroradiometer system, and the color characteristics (Color rendering index, correlated color temperature, chromaticity coordinate) were calculated from these by software automatically.

2.6 Total Luminous Flux Measurement Method

Total luminous flux was measured by sphere-spectroradiometer system.

Spectral radiant flux was measured by a sphere (2 meter)-spectroradiometer system, and the total luminous flux was calculated from these by software automatically.

2.7 Luminous Intensity Distribution Measurement Method

The customer did not require this measurement.

2.8 Spatial Non-uniformity of Chromaticity

The customer did not require this measurement.

3. Test Result Summary

3.1 Electrical data

Criteria Item	Result(Sphere)
Input Voltage & Frequency	120.01 V~60Hz
Input Current(A)	1.292
Total Power(W)	154.70
Power Factor	0.998
I-THD	5.13 %
Off-state Power(W)	-

3.2 Photometric data

Criteria Item	Result(Sphere)
Total Lumens(lm)	24072.17*
Luminaire Efficacy(lm/W)	155.61
Correlated Color Temperature (CCT)(K)	6468
Color Rendering Index (CRI)	75.3
R9	-14
R_f	75
R_g	92
$R_{cs,h1}$	-17%
Chromaticity Coordinate (x,y)	x = 0.3136 y = 0.3271
Chromaticity Coordinate (u',v')	u' = 0.1992 v' = 0.4675
Duv	0.0018

3.3 Color Rendering Details

R1	R2	R3	R4	R5	R6	R7	R8
74	80	81	75	73	71	85	64
R9	R10	R11	R12	R13	R14	R15	-
-14	48	70	41	75	89	71	-

3.4 Electrical data on 277V

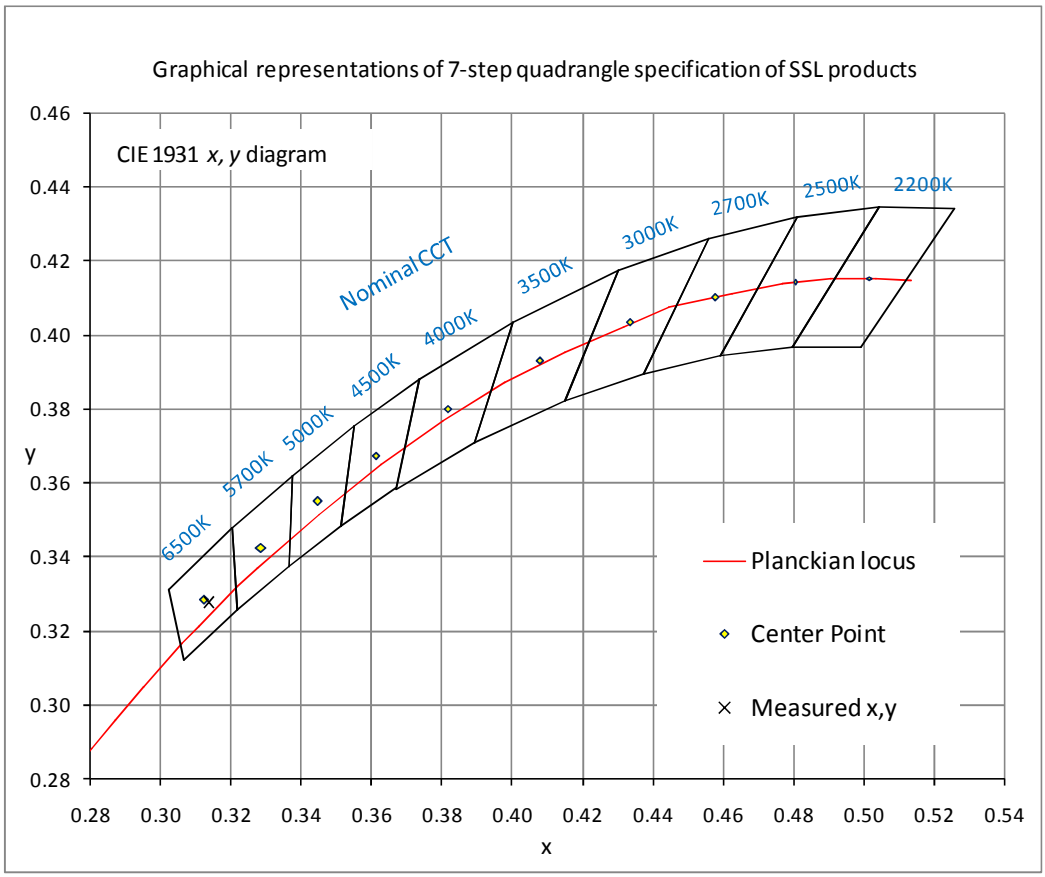
Criteria Item	Result(Sphere)
Input Voltage & Frequency	276.97 V~60Hz
Power Factor	0.946
I-THD	7.55 %

Note:

**: Self-absorption is 1.161.*

4. Test Data

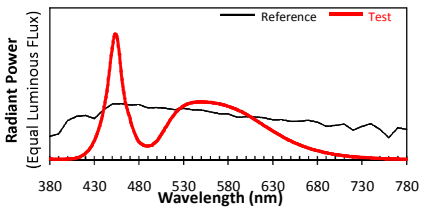
4.1 ANSI Chromaticity Quadrangles Diagram

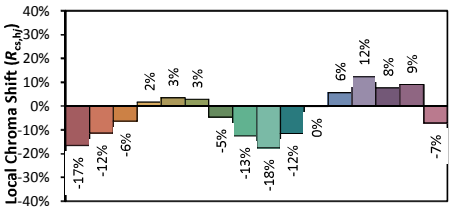


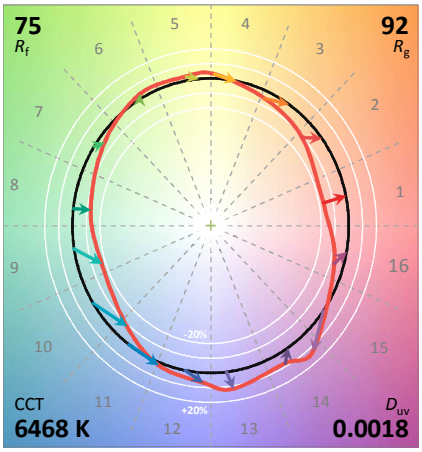
4.2 ANSI/IES TM-30-18 Color Rendition

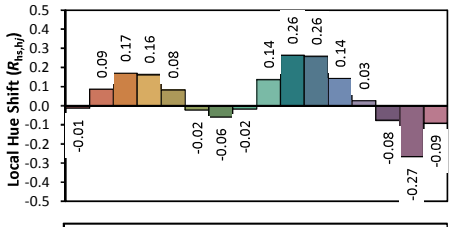
ANSI/IES TM-30-18 Color Rendition Report

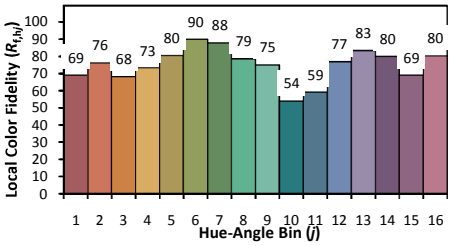
Source:	User SPD	**Manufacturer:**	LED One Corporation
Date:	2021/10/27	**Model:**	LOC-ELHB-MW(80/100/150)65KD-LV

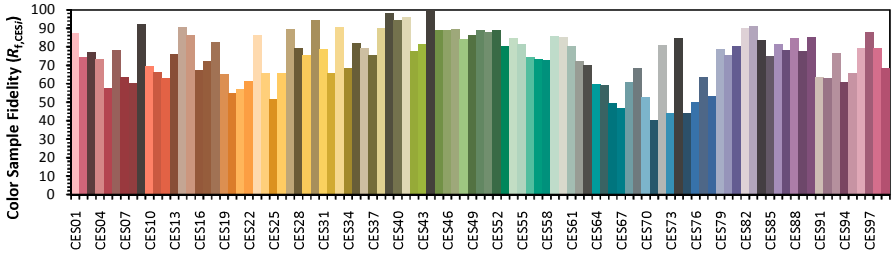










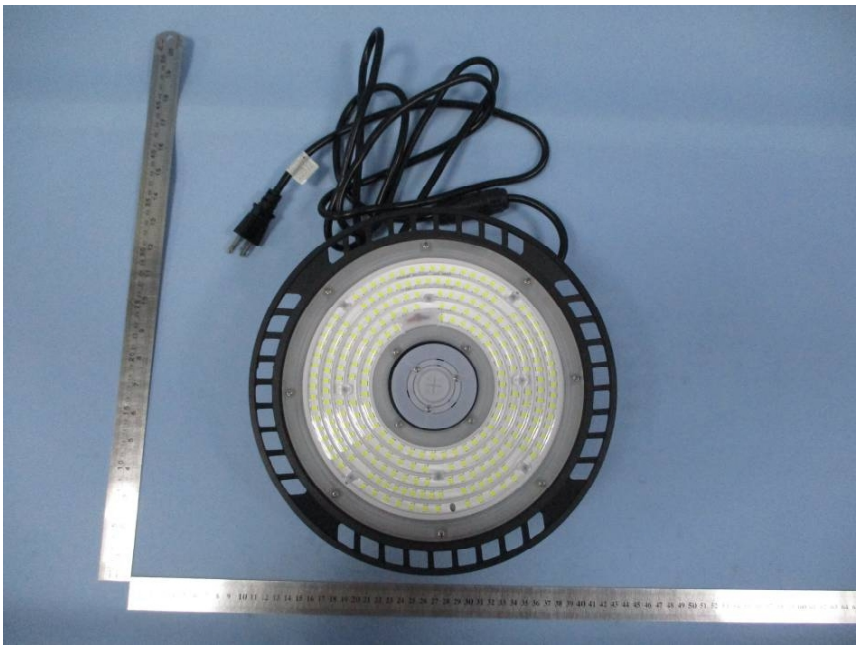


Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

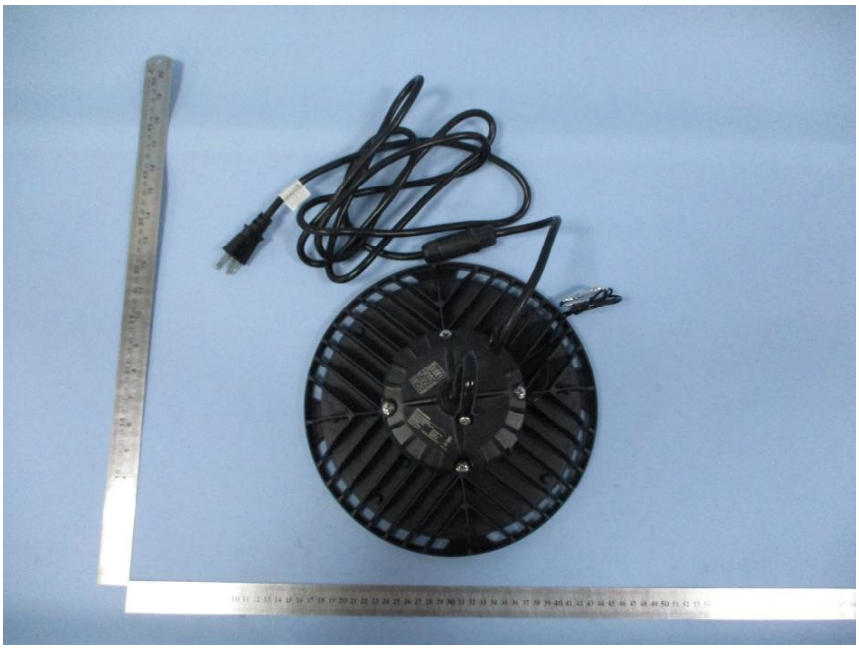
x	0.3136
y	0.3271
u'	0.1992
v'	0.4675

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.

Appendix A Product Photo



Picture 1



Picture 2

****End of test report****