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Report No: L111700301



**Report No:** L111700301

**Issue Date:** 11/3/2017

**Report Prepared For:** Inda-Gro  
6176 Federal Blvd. San Diego, CA. 92114

**Model Number:** Impact Series 151-740

**Test:** Photosynthetically active radiation (PAR) & Electrical measurement

**Standards Used:** Appropriate part or all test guidelines were used for test performed:  
*IESNA LM79: 2008* Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products  
*ANSI NEMA ANSLG C78.377: 2008* Specification of the Chromaticity of Solid State Lighting Products  
*ANSI C82.77:2002:* Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

**Description of Sample:** Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

**Testing Condition:** Fixture is tested with High/Flower Settings

**Sample Arrival Date:** 10/31/17

**Date of Tests:** 11/1/17 - 11/3/17

**Seasoning of Sample:** No seasoning was performed in accordance with IESNA LM-79.

**Equipment List**

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	11/28/17
ITECH	IT6122	PS-DC03-S1	11/28/17
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/28/17
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

**Test Summary**

<b>Manufacturer:</b>	Inda-Gro
<b>Model Number:</b>	Impact Series 151-740
<b>Driver Model Number 1:</b>	MEAN WELL HLG-240H-42B (2 DRIVERS)
<b>Driver Model Number 2:</b>	MEAN WELL HLG-320H-42B
<b>Total PPF (μmol/s)</b>	1287.25
<b>Total Radiant Flux(W):</b>	280.96
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	6.32
<b>Input Power (W):</b>	755.60
<b>Input Power Factor:</b>	1.00
<b>Current ATHD @ 120V(%):</b>	4%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:30
<b>Total Operating Time (Hours):</b>	1:45

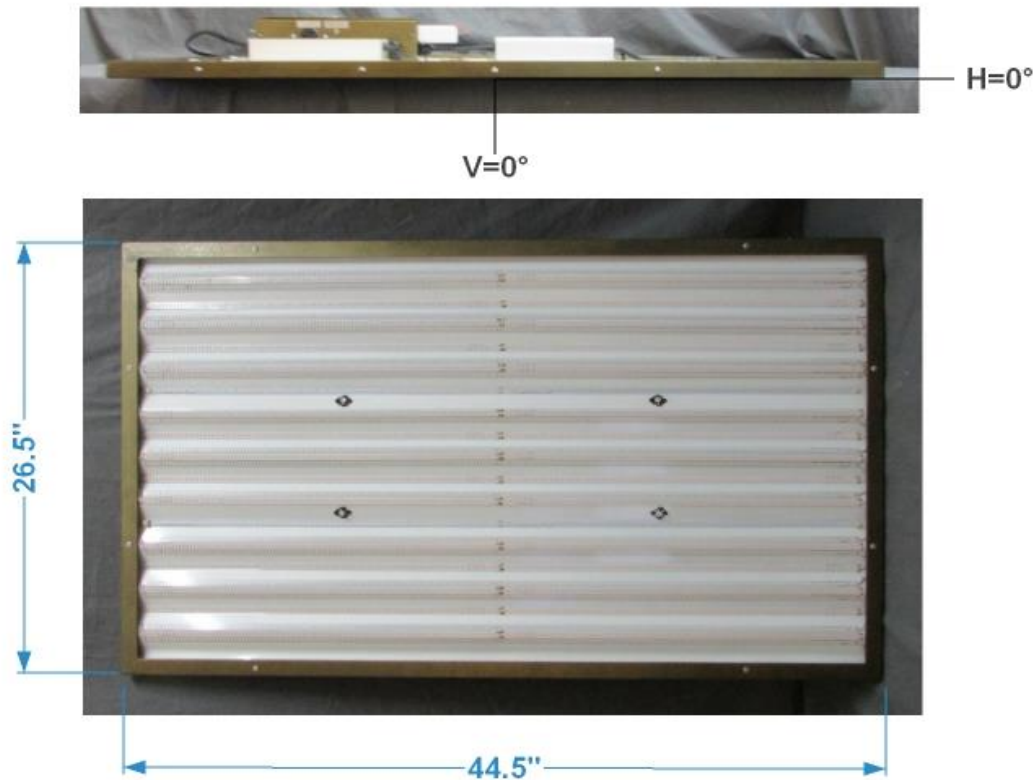
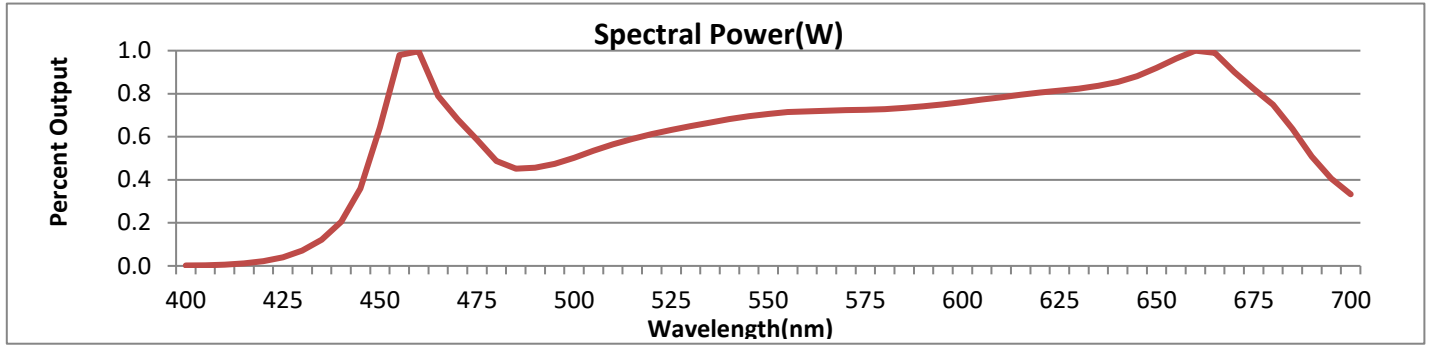


FIG. 1 LUMINAIRE

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



**PPF ( $\mu\text{mol/s}\cdot\text{nm}$ ) distribution**

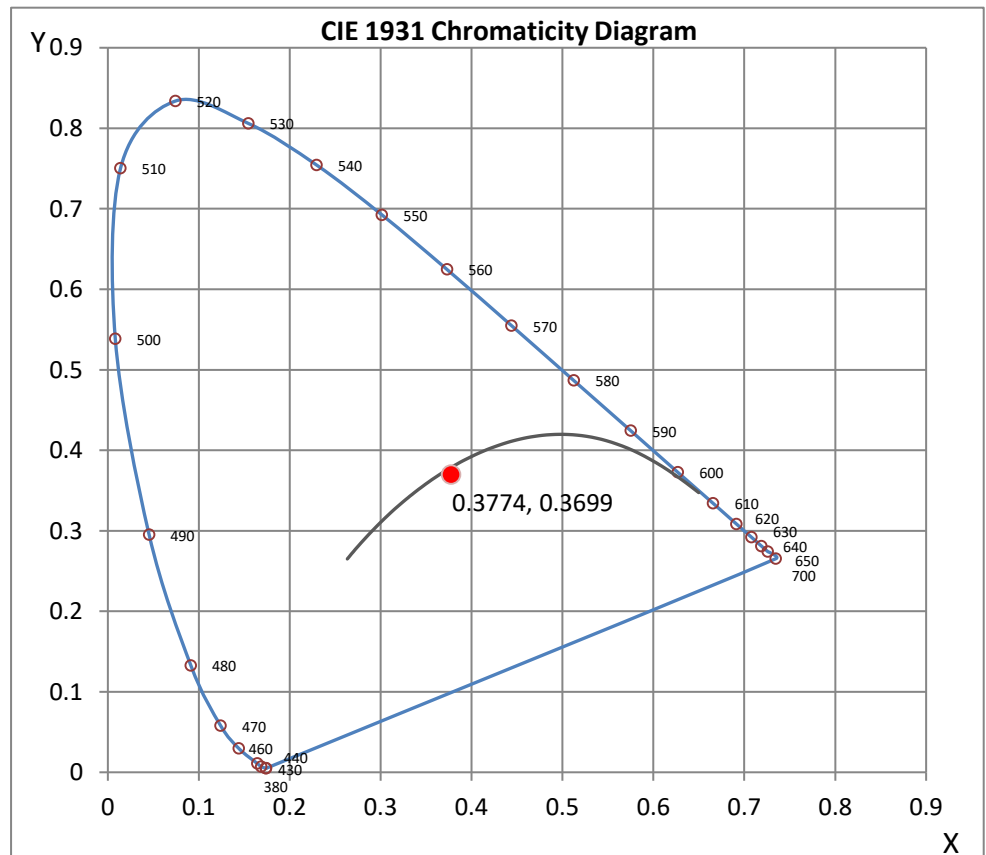
Wavelength	$\mu\text{mol/s}\cdot\text{nm}$	Wavelength	$\mu\text{mol/s}\cdot\text{nm}$	Wavelength	$\mu\text{mol/s}\cdot\text{nm}$	Wavelength	$\mu\text{mol/s}\cdot\text{nm}$	Wavelength	$\mu\text{mol/s}\cdot\text{nm}$	Wavelength	$\mu\text{mol/s}\cdot\text{nm}$
400	9.44E-02	460	5.52E+01	520	3.83E+01	580	5.09E+01	640	6.58E+01	700	2.80E+01
410	2.73E-01	470	3.85E+01	530	4.14E+01	590	5.26E+01	650	7.20E+01		
420	1.09E+00	480	2.82E+01	540	4.43E+01	600	5.50E+01	660	7.94E+01		
430	3.66E+00	490	2.69E+01	550	4.67E+01	610	5.76E+01	670	7.26E+01		
440	1.09E+01	500	3.02E+01	560	4.84E+01	620	6.01E+01	680	6.13E+01		
450	3.49E+01	510	3.47E+01	570	4.96E+01	630	6.25E+01	690	4.22E+01		

**CRI & CCT**

x	0.3774
y	0.3699
u'	0.2259
v'	0.4981
CRI	95.80
CCT	4034
Duv	-0.00234

**R Values**

R1	96.44
R2	96.74
R3	99.22
R4	94.77
R5	95.30
R6	95.71
R7	94.70
R8	93.84
R9	85.98
R10	95.26
R11	97.56
R12	73.32
R13	96.24
R14	99.23



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## Test Methods

### Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure total photosynthetic photon flux (PPF), chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

#### Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

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