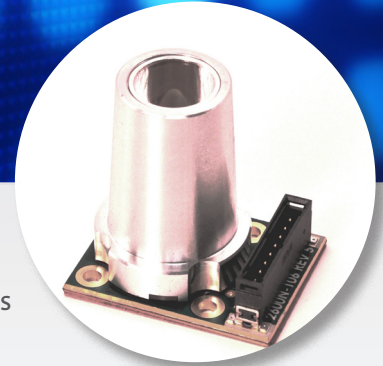




LumiBright™ UV 2600N-700

LumiBright Ultraviolet Light Engines provide extreme brightness and a highly uniform light distribution. Chip-on-Board LED technology with metallic PCB substrates offers excellent thermal performance. The specialized glass primary optic is ideal for high power UV light. It is a non-imaging concentrator that delivers high collection efficiency and a homogeneous beam.



The Model LE 2600N-700 produces a 20-degree half angle beam from a 15.3-mm diameter aperture with options for 14 LED die in single or multi-wavelength configurations. An on-board thermistor (included) allows real-time monitoring of temperature for closed-loop control.

Benefits:

- Uniform near and far fields
- Fused Silica optics for UV, high power, and high temperature operations
- Continuous high current or pulsed operation
- RoHS compliant - Environmentally friendly
- λ_p 365nm thru 405nm

Features:

- 20 degree half angle far field
- 15.3 mm output diameter
- High thermal conductivity metal core PCB
- COB array technology, 14 Die
- Patent-pending non-imaging optics

Options:

- Single or or multi-wavelength configurations
- Heat sink and thermal pads
- Drivers and Controllers

Typical Applications:

- UV Curing
- High speed printing
- Document verification
- Water and air purification
- Medical phototherapy
- Fluorescence excitation
- Mercury lamp replacement
- Machine vision

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SPECIFICATIONS

Parameter	Specification	Comment
Number of LED die	14	Connected in parallel, chip-on-board
Drive current	30A Maximum	Continuous operation
*Forward voltage	Turn on: 3.0V Limit: 4.8V	Requires constant current operation
UV optical power	30 Watts	At max current
UV optical power density	20 W/cm ²	At exit aperture, max current
Clear aperture (CA ₀)	14.0 mm	At exit aperture
Far field angle	20°	-
Numerical aperture (NA ₀)	0.34	-
Electrical connector	1 row, 8 pin	Surface mount, high current
Overall size (mm)	30 x 39 x 40.5	W x L x H
PCB Thermal impedance	0.45° C/W	-
Thermistor B _{25/85}	3574 to 3646	For 10 kΩ
Thermistor impedance	10 kΩ	At 25° C
Operating temperature	15° C to 45° C	<85% RH, non-condensing
Lifetime (hours)	-	Depending on drive conditions and temperature
<i>*Note: Drive circuits must prevent exceeding the maximum recommended open circuit voltage for any LED die.</i>		

NOTES

Notes on Thermal Management

The 2600N-700 uses a metal core circuit board for high thermal conductivity that allows heat to dissipate in all directions. An external heat sink or heat pipe is required to dissipate the heat generated at full drive power. Adding the feature of forced air convection across the heat sink or heat pipe fins removes heat faster and more efficiently. The 2600N-700 circuit board features an attached thermal pad for heat sink contact, no thermal grease is needed. Every 2600N-700 circuit board has a built-in thermistor for temperature monitoring. Lifetime of the LEDs will be compromised if the temperature of the circuit board exceeds 60° C.

CHARTS

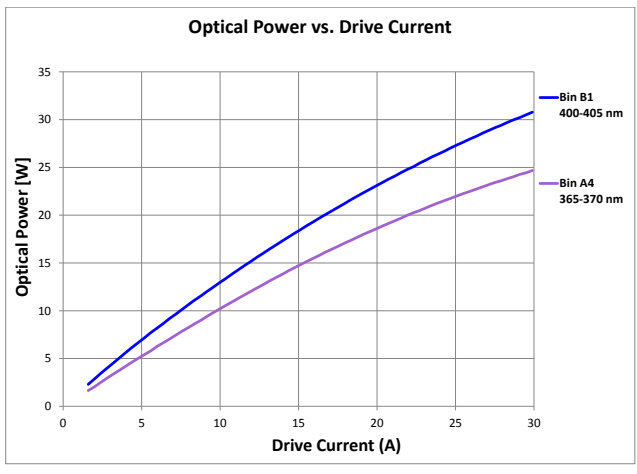


Figure 1

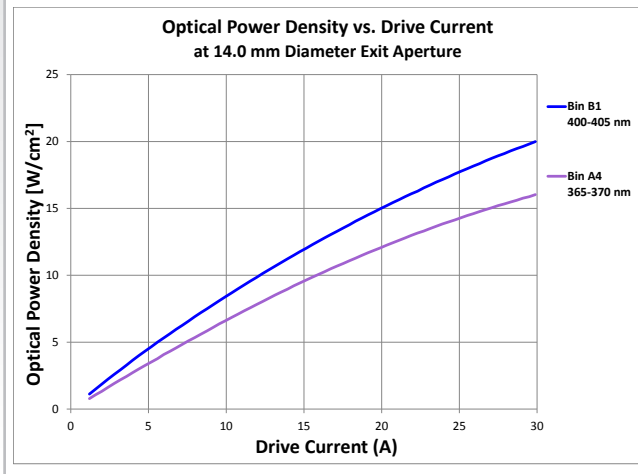


Figure 2

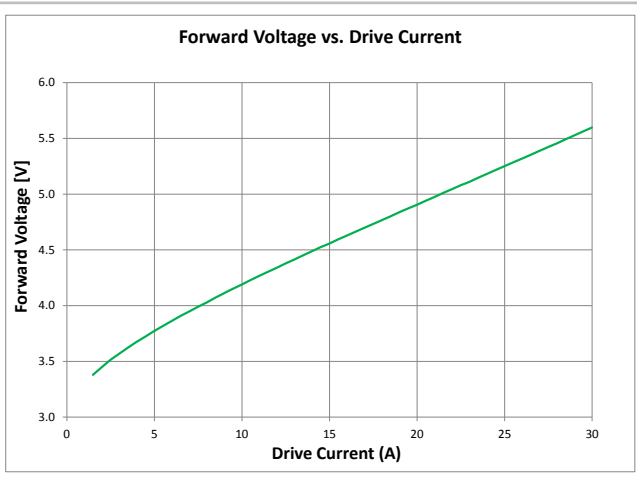


Figure 3

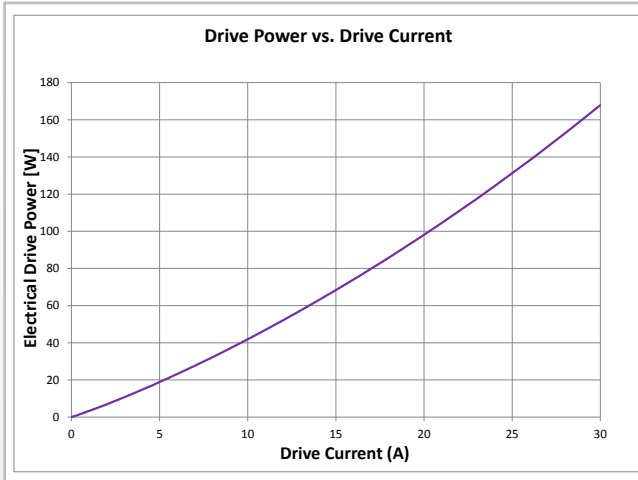


Figure 4

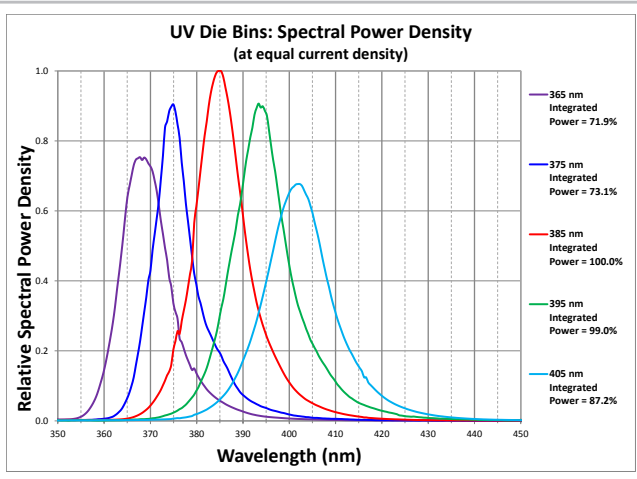


Figure 5

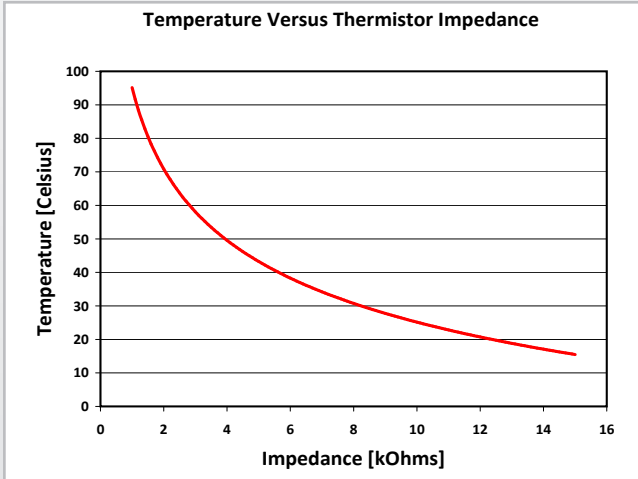
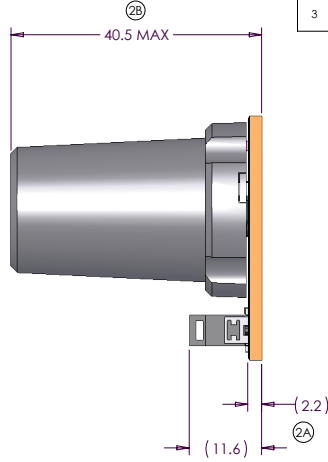
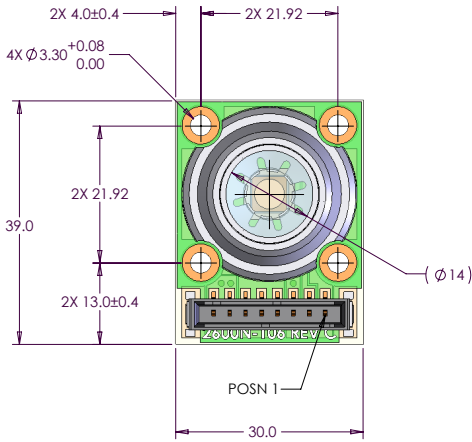


Figure 6

INSTALLATION CONTROL DRAWING



REVISIONS			
REV	DESCRIPTION	DATE	ECO
1	PRERELEASE	8/29/2011	BG
2	A) (2.2) WAS (2.4); (11.6) WAS (11.8) B) 40.5 MAX WAS 41 MAX	1/27/2013	BG
3	A) DELETE PHOTO SENSOR OPTION FROM INTERCONNECT TABLE B) DELETE NOTE 2	4/22/2014	BG

INTERCONNECT TABLE	
CONN POSN	DEVICE
1	THERMISTOR
2	THERMISTOR
3	VACANT
4	VACANT
5	CATHODE (COMMON)
6	CATHODE (COMMON)
7	ANODE (COMMON)
8	ANODE (COMMON)

NOTES:
1. CONTENT FOR REFERENCE ONLY AND SUBJECT TO CHANGE

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		DRW	BG	DATE
TOLERANCES: 1 PLACE DECIMAL: ± 0.3 2 PLACE DECIMALS: ± 0.20 3 PLACE DECIMALS: ± 0.100 ANGLE: ± 0.1°		ENG	BG	DATE
		ENG APVD	TB	DATE
		8/29/2011		
MATERIAL:		FINISH:		



INNOVATIONS IN OPTICS, INC.			
82 Cummings Park Woburn, MA 01801 TEL: (781) 933-4477 FAX: (781) 933-0007			
TITLE LUMIBRIGHT ASSY, 20 DEG, 14.2MM (GLASS)			
SIZE	DWG. NO.	REV	
B	2600N-700-ICD	3	
SCALE: 2:1		SHEET 1 of 1	

ACCESSORIES

Cooling Fans	Thermal Pads	Heat Sinks
LumiBright DR Driver/ Controller	Heat Pipes	Wire Harness Assemblies

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