

2400B Series

LumiBright™ Enhanced 5mm Aperture UV Compact Multispectral Light Engines



Features

- Longer lifetime
- Higher optical power
- > 20W*
- Compact, low cost
- Patented non-imaging optics
- 14 die array
- 5mm output diameter
- NA 0.60
- Half angle 37°
- Spectral range UV-VIS-NIR
- Single or multi-λ
- Uniform near & far fields
- CW or pulsed operation
- On-board thermistor

*Wavelength dependent and requires proper thermal management

Applications

- UV curing
- Photolithography
- Fiber-optic Coupling
- Machine Vision
- Fluorescence Excitation
- Replace Lasers & Arc Lamps

LumiBright™ 14 LED die enhanced light engines deliver high radiant power with longer lifetime in the same compact form factor as the traditional 2400B-4 series, but with a smaller 5mm beam like the 2400B-5 series. The output is enhanced by a patented internal reflective aperture “breaking the etendue barrier” which also enables longer lifetime via lower drive current per die. The patented primary optics are non-imaging concentrators with high collection

efficiency and compact form. The resulting homogenous beam requires no additional optics.

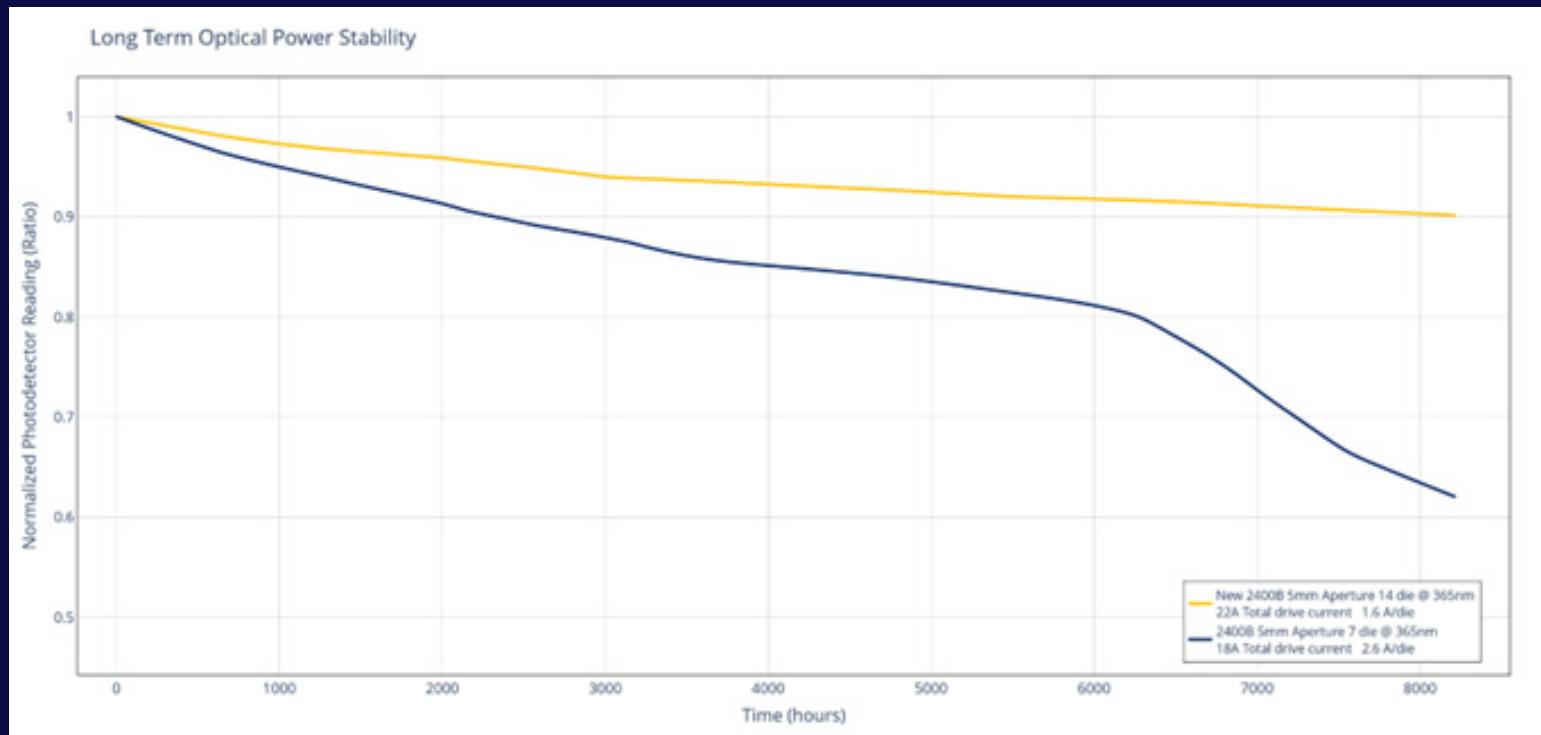
The LumiBright™ family of light engines offers multiple configurations – independently controlled, UV to NIR, single or multiple. COB LED technology with metallic PCB substrates offers excellent thermal performance with real-time temperature monitoring for closed-loop control.

UV LumiBright™ Enhanced Small Aperture 2400B-405-029 Performance

Total Drive Current 22A for 14 die (1.57A/die)

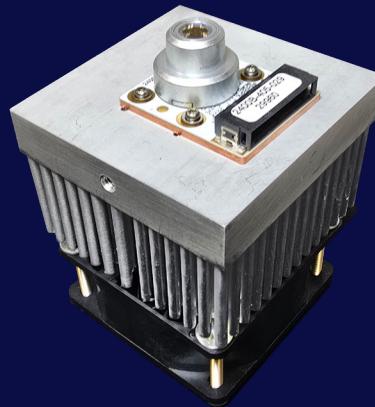
Less than 10% change over 10,400 hours with more output power compared to 7 die array (5 seconds on; 13 seconds off. Equivalent to 4,000 hours CW.)

Light recycling IP enables higher power and longer life (almost 2x optical power for same Amps/LED die)

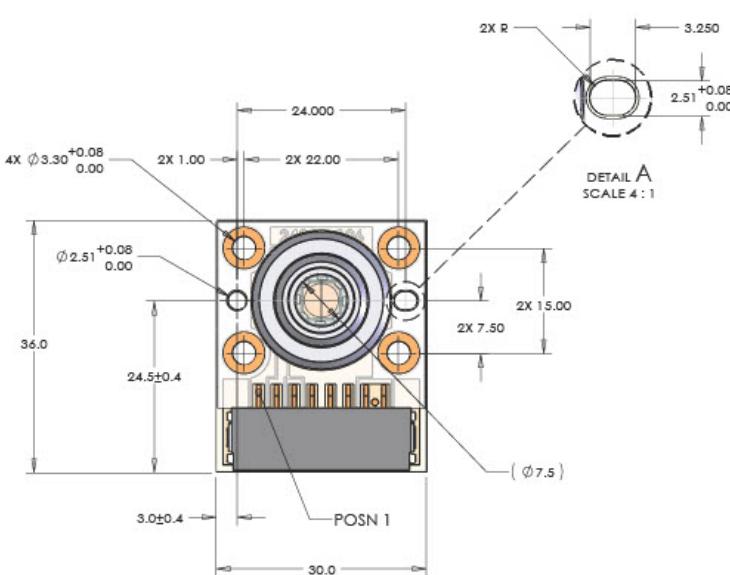


UV LumiBright™ Enhanced Small Aperture 2400B-405-029 Performance

- Sold with wire harness for interface with driver/controller
- Heat sink/fan options are available and recommended

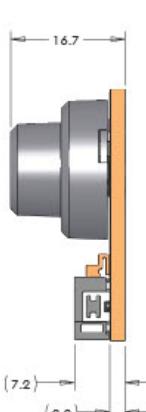


Plot Date: Wednesday, February 13, 2019 Last Saved Wednesday, February 13, 2019 3:59:04 PM by: shawns

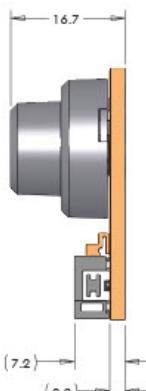


NOTES:
1. CONTENT FOR REFERENCE ONLY AND SUBJECT TO CHANGE

REVISIONS				
REV	ECN NO	DESCRIPTION	DATE	ECO
1	N/A	PRERELEASE	11/21/2016	BG
2	E-00245	A) DELETE INTERCONNECT TABLE	2/13/2019	SFS



2A



INSTALLATION CONTROL DRAWING

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS</p> <p>TOLENCIES: 1 PLACE DECIMAL: ± 0.3 2 PLACE DECIMALS: ± 0.20 3 PLACE DECIMALS: ± 0.100 ANGLE: $\pm 1^\circ$</p>	<p>DRW: BG DATE: 11/21/2016</p> <p>ENG: BG DATE: 11/21/2016</p> <p>ENG APVD: TB DATE: 11/21/2016</p>	<p>MATERIAL: FINISH:</p>
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<small>INNOVATIONS IN OPTICS, INC. 62 Cummings Park Billerica, MA 01821 TEL: (781) 933-4477 FAX: (781) 933-0007</small>		<small>TITLE: LUMIBRIGHT ASSY, 40 DEG (SILICA) SIZE: DWG. NO. 2400B-405-ICD REV 2 SCALE: 2:1 SHEET 1 of 1</small>

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