

NobleLight®

BlueLight® Flash System
High speed, pulsed light disinfection
for packaging production



excelitas.com


excelitas®



**>Log 4
Reduction!**

**Excelitas Noblelight's BlueLight[®]
flash system is a chemical-free, powerful
technology offering you instant disinfection.
It is a sophisticated pulsed light
solution ideally suited to high-speed
cap disinfection.**

For a reliable, fast and environmentally friendly solution

Key features and benefits

- Instant treatment with no warm-up time
- Compact, easy to integrate into any orientation, and can be retrofitted
- Environmentally friendly disinfection with no use of chemicals and mercury free
- Low energy consumption
- Built in safety – a protective quartz window with breakage detection
- Easy to use with an operator friendly HMI
- Simple UV lamp replacement – a cartridge design enables reduced downtime
- Utilises special fused silica quartz for UV flash lamps, unique to Excelitas
- Stainless steel hygienic design UV module to IP65
- Reflector optimised for maximum UV intensity
- Support, service and commissioning for system integration

Applications



Flat caps from
Ø26mm to Ø55mm



>Log 4 reduction



Speeds up to
90,000 bph



Food packaging disinfection
for liquid and viscous food
including beverage bottle caps,
pots, tubs and sealing films

Delivering energy efficiency and cost savings

Owning a BlueLight® Flash System is more cost effective than you think. Thanks to our years of learning and development with our BlueLight® family of products we are able to bring you the latest in disinfection technology

Sample calculation

Machine runtime: 3500 h/year*
BlueLight® Flash system including chiller
2 lamp head - 2750v @ 10Hz
4.9kW total lamp power
£1.08/h
Energy cost - £3780/year

(*two shift operation £0.15/kWh/3500h)





UV module



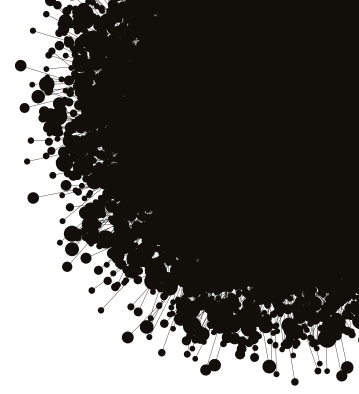
BlueLight® Flash UV module

Dimension or unit description	
UV module size L×H×W (mm)	400×210×130
Optical window (mm)	240×70
UV module weight (kg)	10
UV module IP rating	IP65
Conduit – control module to UV module (m)	10
Mounting point dimensions (mm)	95×368

Microbiological data

	Packaging / Sample Material	Reference Germ	Inoculation Method	Distance Sample to lamp (mm)	Average log reduction:	
					1 flash	2 flash
Plastic Bottle Screw Caps		<i>Aspergillus brasiliensis</i> ATCC 1604	Multi dot	20	2,02	4,21
Stainless Steel discs (ø20mm)		<i>Bacillus pumilus</i> ATCC 27142	Nebulised	30	3,90	4,80
Aluminium Tin (Volume 820ml)		<i>Cronobacter sakazakii</i> DSM 4485	Sprayed	20	4,50	4,80
Aluminium Lid (ø108mm)		<i>Cronobacter sakazakii</i> DSM 4485	Sprayed	20	5,00	5,20

Powerful, pulsed light disinfection for packaging



Chiller and control module



BlueLight® Flash typical chiller

BlueLight® Flash typical control module side and front profile

Dimension or unit description	
Control module – inclusive of fixings H×D×W (mm)	1775×1034×702
Control module weight (kg)	200
Control module IP rating	IP55
Chiller dimensions H×D×W (mm)	1140×820×654
Chiller weight (kg)	150

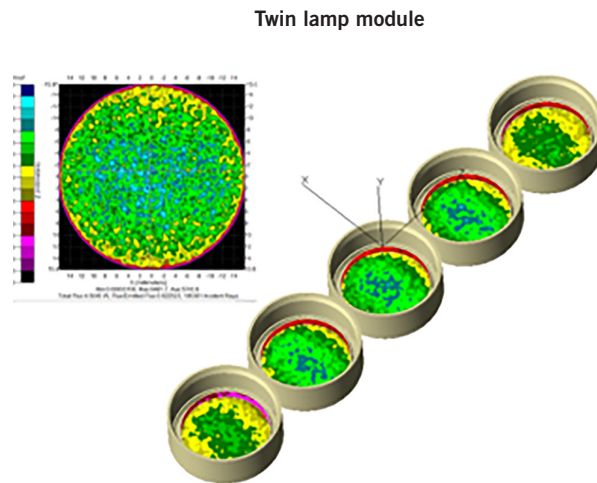
Productivity

Beverage caps	Time	Volume
Max production rate – caps up to 30mm	Caps/hr	>90,000
Max production rate – caps up to 40mm	Caps/hr	80,000
Max production rate – caps up to 50mm	Caps/hr	60,000
Start-up time	Seconds	<1

Ray tracing simulation

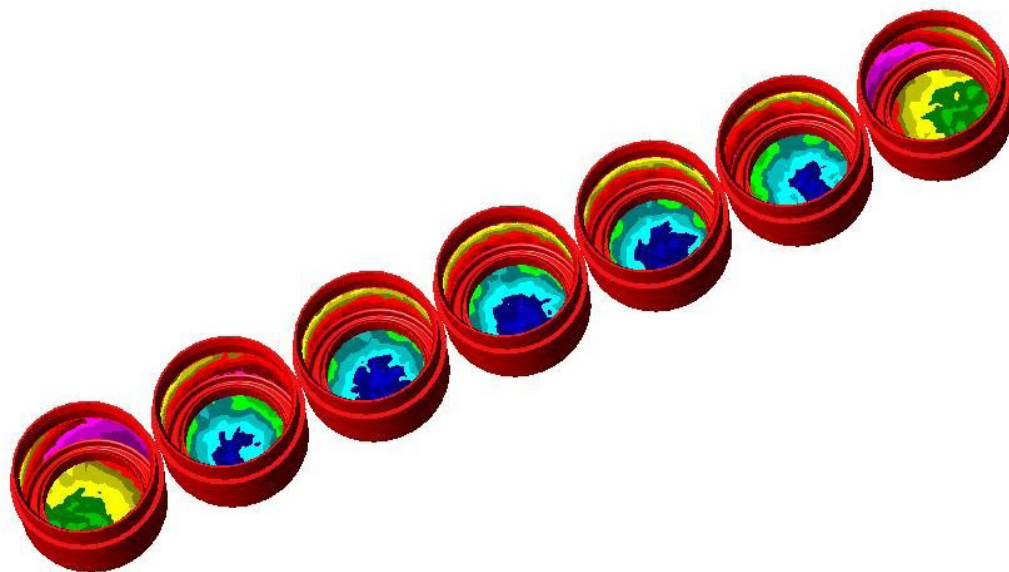
Excelitas Noblelight has developed a unique ray tracing simulation tool to be able to accurately model log reduction rates across a wide range of food packaging and materials.

Diagram 1: In house ray tracing simulation representing optical head and substrate



Results: Light distribution quite even on wet surface, so most of the surface will get a similar dose

Diagram 2: Ray tracing model showing energy distribution



All information herein is indicative only and is subject to change without any notice at any time.

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TEST BEFORE YOU DECIDE

Make use of our ray tracing simulation and microbiological test capabilities before you decide on a solution. We will be happy to advise you! BlueLight Flash – for long-lasting enjoyable food and beverages.

About Excelitas Technologies

Excelitas is a leading provider of advanced, life-enriching technologies that make a difference, serving global market leaders in the life sciences, advanced industrial, next-generation semiconductor, aerospace and defense end markets. Headquartered in Pittsburgh, PA, USA, Excelitas is an essential partner in the design, development and manufacture of photonic technologies, offering leading-edge innovation in sensing, detection, imaging, optics, and specialty illumination for customers worldwide. Excelitas is at the forefront of addressing many of the relevant megatrends impacting the world today, including precision medicine, industrial automation, artificial intelligence, connected devices (IoT) and military modernization.

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For a complete listing of our global offices, visit www.excelitas.com/locations

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