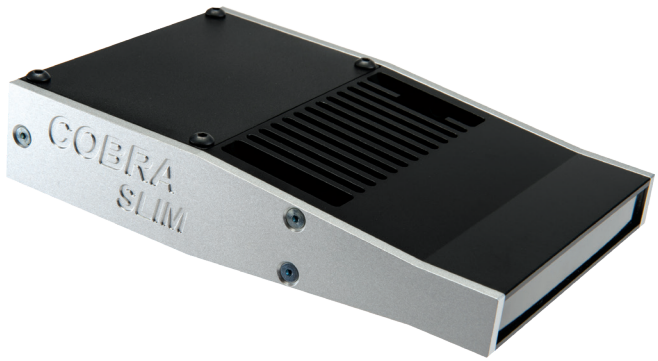
COBRA™ Slim UVC

Linescan Illumination



Crystal Clear Linescan Images

Harnessing the latest in UV-C LED technology and built on the market leading COBRA Slim platform, COBRA Slim UV-C delivers up to 61mW/cm^2 of highly uniform light at the optimum UV-C wavelength for your application.

COBRA Slim is available in UV-C wavelengths of 265nm and 275nm, and in the UV-B wavelength of 310nm. It has been engineered for integration into a wide range of applications including surface inspection, pharmaceutical and medical package inspection, textile and fabric inspection, food and beverage inspection, currency and document verification, sterilization and disinfection.

COBRA Slim UV-C is designed to deliver extreme brightness and excellent uniformity. Its slim and compact design allows for easy integration in tight spaces without sacrificing output. It is modular and is available in any length up to 6 meters. COBRA Slim's unique design allows for the lens to be adjusted in the field to the ideal focussing distance for your application. The platform has an optional strobing function that can deliver increased intensity. Ethernet control is also available as an option.

COBRA Slim is available in both convection- and fan-cooled versions; and for applications where space is restricted it is available in the compact COBRA Flex configuration, which provides a wide range of mounting options.

Key Features

- Intensity: Up to 61mW/cm^2
- Design: Slim and Compact
- Field Adjustable: Focusing Distance
- Modular: Available in any Length
- Current Monitoring & Error Detection
- Wavelengths: 265nm, 275nm and 310nm

Options Available

- Strobing Function
- Onboard Ethernet Control

Key Applications

- Surface Inspection
- Pharmaceutical & Medical Package Inspection
- Textile & Fabric Inspection
- Food & Beverage Inspection
- Currency & Document Verification
- Sterilization and Disinfection

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Spectral Characteristics

Color		UV-C 265	UV-C 275	UV-B 310
Peak Wavelength[1]	nm	265±5	275±5	308±5
Spectral Width FWHM	mm	12	14	27

(1) Nominal wavelengths and tolerance include thermal shifting

Spectral Characteristics

		UV-C 265	UV-C 275	UV-B 310
Irradiance[2]	$mW.cm^{-2}$	35.7	60.7	44.0

(2) Values for active cooling presented here correlate to the integrals of the overall emission profiles for each wavelength

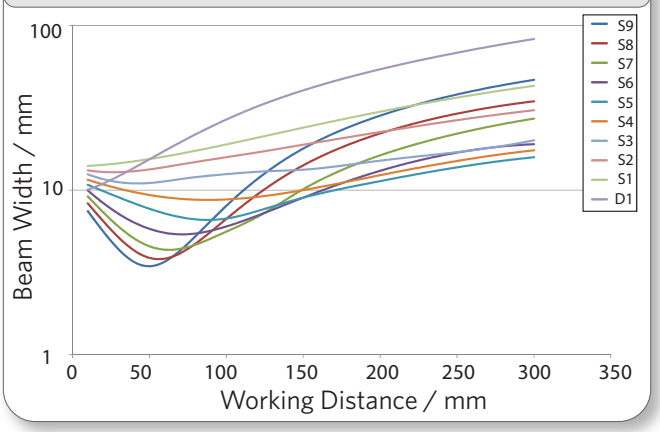


Focus & Illumination Field - COBRA Slim UV-C* (Values are typical of a White COBRA Slim and are indicative only)

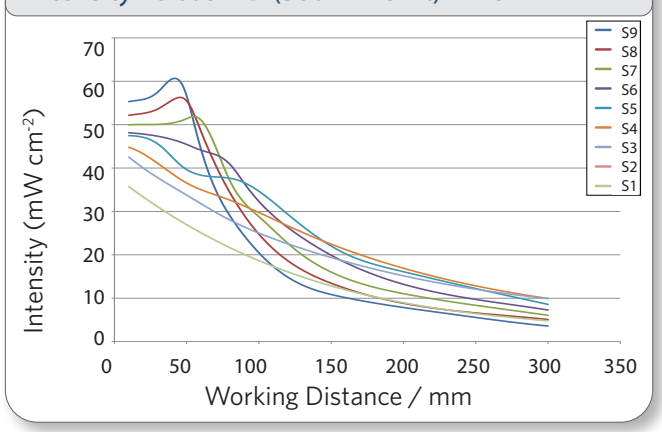
Lens Position[3]	Working Distance (WD) for Range Illuminance[4] (mm)		Working Distance at Peak Intensity (mm)		Line Width (FWHM) at WD (mm)		Focal Distance (mm)	Line Width at Focal Distance (mm) [5]
	100mm	300mm	100mm	300mm	100mm	300mm	All Lengths	All Lengths
S1	10-53	10-105	divergent	divergent	14.0-15.6	14.0-19.4	divergent	divergent
S2	10-61	10-112	divergent	divergent	12.8-13.8	12.8-16.5	divergent	divergent
S3	10-68	10-132	collimated	collimated	11.0-12.5	11.0-13.1	collimated	collimated
S4	10-85	10-150	10	10	8.7-11.5	8.7-11.5	88	8.7
S5	10-103	10-142	10	10	6.6-10.8	6.6-10.8	88	6.6
S6	10-108	10-130	10	10	5.4-9.9	5.4-9.9	71	5.4
S7	10-61	10-67	15	55	4.3-9.2	4.3-9.2	63	43
S8	10-55	10-57	42	46	3.8-8.3	8.3-3.8	56	3.8
S9	10-49	10-52	41	42	3.4-7.5	3.4-7.5	50	3.4

(3) Positions S1 and S2 are divergent i.e. no focus, beam width increases with working distance. Position S3 produces the most collimated beam
(4) For S4 - S9 positions, working distance range is the range over which intensity is ≥ 90% of maximum intensity. For S1-S3 positions, working distance range is the range over which intensity is ≥ 50% of maximum intensity.
(5) For more details on beam width and intensities, see graphs.

Beam Width Versus Working Distance



Intensity Versus WD (300mm Unit) - 275nm



Configurable Solutions

ProPhotonix has an extensive range of standard products. If your application can't be solved utilizing the standard configurations of our platform, contact us to discuss modifications.

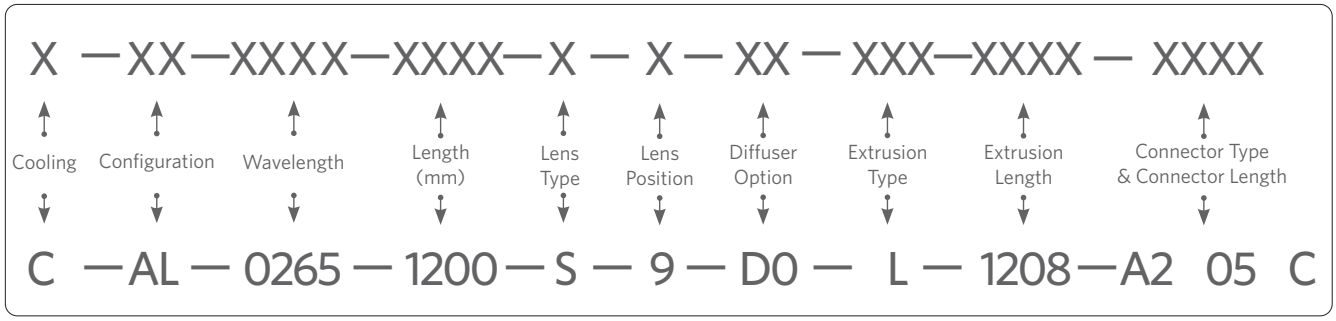
Part Numbers

Cooling		Configuration		Standard Wavelengths		Length (mm)	Lens Type [3]		Lens Postion		Diffuser	
C	Convection	IL	Error output & analog control	0265	UV-C	0100	S	Slim (No microlens)	0	No Lens	D0	No diffuser
T	Fan	EL	IL Options + Ethernet Connector	0275	UV-C	0200			1	Closest to LEDs		
		AL	EL Options + Strobe Capability	0310	UV-B	0300			2			
		IF	Cobra Flex (only): Error output & analogue control	XXXX	Customer defined							
		EF	Cobra Flex (only): IL Options + Ethernet Connector									
		AF	Cobra Flex (only): EL Options + Strobe Capability			6000			9	Furthest from LEDs		

Extrusion Type		Extrusion Length[4] (mm)		Connector Type [5]&[6]		Cable Length (m)		Cable Type (m)	
S	Low profile 16x80mm	0108	1 module	SC	Straight	01	1 meter	B	Braid
L	Large profile 40x120mm	0208	2 module	R4	Right-angled (fixed orientation)	02	2 meter	C	Cleanroom (Solid sheath)
N	No extrusion	0308	3 module	A0	Right-angled, adjustable (upright position)	05	5 meter		
				A1	45° clockwise	15	15 meter		
				A2	90° clockwise				
						XX	Custom Length		
		6008	60 module	A6	270° clockwise				
		XXXX	Custom Length	A7	315° clockwise				

(3) Non-standard lenses are also available on request
(4) Extrusion lengths are typically 8mm longer than the optical length to accommodate end caps
(5) The right angled connector is orientated 180° from vertical by default (pointing downward)
(6) Non-standard lenses are also available on request

To order your COBRA Slim- Select Cooling Option (X) - Select Configuration (XX) - Select Wavelength Code (XXXX) - Select Optical Length (XXXX) - Select Lens Type & Position (XX) - Select Diffuser (XX) - Select Extrusion Type (XXX) - Select Extrusion Length (XXXX) - Select Connector Type (X) - Select Cable Length (XX) - Select Cable Type (X)



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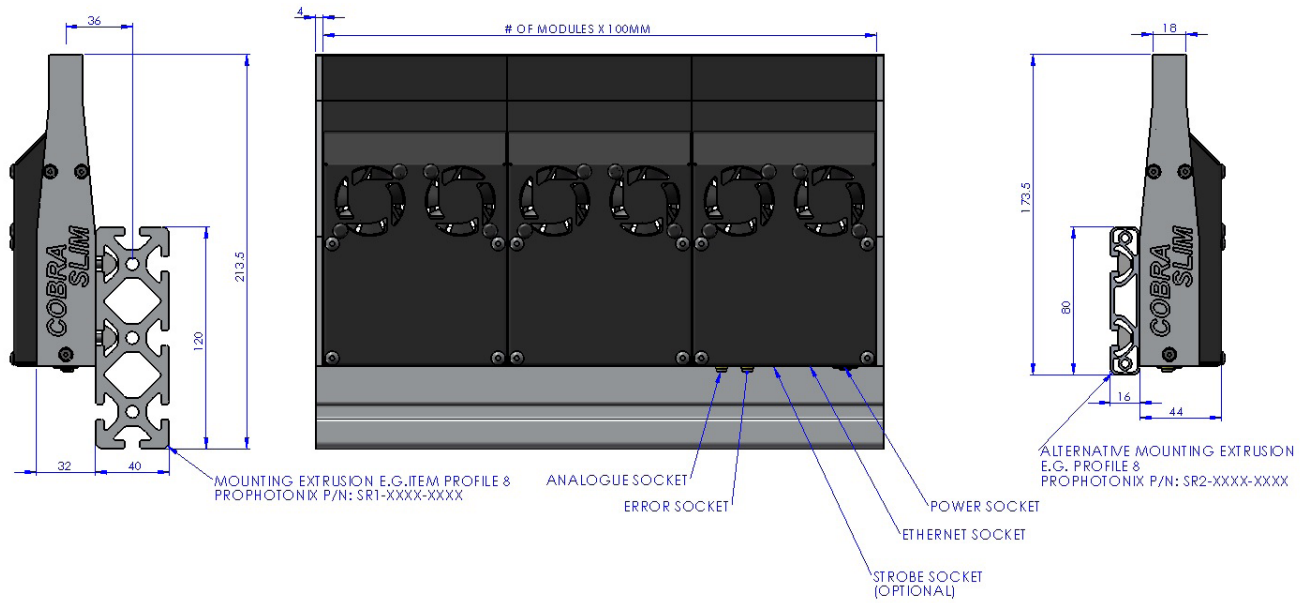
Power Requirements

Cobra Type	Power Rating Per 100mm Module	Cobra 100mm Modules Per Power Supply[9]
TXL	24 V ± 10%	5 max [7]
CXL	24 V ± 10%	8 max [8]

(7) PSU-24V-240W-XX.or comparable 24 V ± 10% standard power supply
(8) Single power input connection

COBRA Slim UV-C comes with a 2 meter power cable as standard. This is the only cable required to use the light at full intensity. This cable can be tailored to the specific application requirements. To order the power cable use the following part number C2-CAB-P-S-XXXX where XXXX is the length of the cable in cm.

Dimensional Diagram - (Fan-Cooled Option)



For all COBRA Slim UV-C longer than 100mm, standard Item brand aluminium extrusion Profile 8 is used for rigidly aligning and connecting the 100mm COBRA Slim UV-C modules together. The extrusion is also used for mounting the light in the machine. Two options are available (see dimensional specifications). To order your extrusion select the profile (SR1/SR2) - select the length of the COBRA Slim UV-C (XXXX) - Decide on the length of rail required (XXXX)

(Note: the overall length of the COBRA is 8mm longer than its illuminated width)



Note: Other extrusion profile forms and dimensions available on request. Custom back plates also available on request. 100mm units do not require a mounting extrusion.

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