



BKL SERIES

Area backlights (1/3) - BKL0303A to BKL1007B

Posterior diffuse lighting system usually design to measure precisely or emphasize light-dark differences by contrast that allows to have good images of object's shape.

Are used to inspect profiles and edges also used for bright fields creation.

Technical specifications¹

Lighting model	BKL0303A	BKL0504B	BKL0505A	BKL0705B	BKL0707B	BKL1007B
Dimensions	40x34x22	52x55x22	62x55x22	75x75x22	86x77x22	89x107x22
Active surface	30x30	40x50	50x50	50x70	70x70	70x100
Weight	45g	85g	91g	185g	196g	255g
IP rating	IP40	IP40	IP40	IP40	IP40	IP40
Mounting holes	(x2)M4I6	(x4)M4I6	(x4)M4I6	(x6)M4I6	(x6)M4I6	(x6)M4I6
Connection (Type C/S)	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V
Power cable (Not-included)	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series
Modifiers ²	N/A	N/A	N/A	N/A	N/A	N/A
Accessories ³						
iBlueDrive tech.	inline	inline	inline	inline	inline	inline
iBlueDrive connection	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴
iBlueDrive power cable (Not-included)	VCC Series	VCC Series	VCC Series	VCC Series	VCC Series	VCC Series
iBlueDrive accessories ³						

Instantaneous consumption⁵ (max.)

*WT

Lighting model		BKL0303A	BKL0504B	BKL0505A	BKL0705B	BKL0707B	BKL1007B	
TYPE C 24VDC		1.2W	1.4W	2.3W	3.1W	4.2W	5.3W	-470C
		1W	1.8W	1.9W	2.4W	3.5W	3.8W	-525C
		1W	2.2W	3.5W	4.4W	3.6W	6.2W	-630C
		1W	2.6W	4.8W	2.2W	4.3W	4.3W	-850C
		0.6W	0.7W	1.2W	1.7W	2.4W	3W	-W00C
TYPE P		No "Type P" standard LED lighting systems in this series						
TYPE S Dmax= 1/20 Ton max= 2ms		320mA/7.7W	150mA/3.6W	640mA/15W	880mA/21W	1280mA/31W	1200mA/29W	-470S
		320mA/7.7W	150mA/3.6W	640mA/15W	880mA/21W	800mA/19W	1200mA/29W	-525S
		160mA/3.8W	400mA/10W	640mA/15W	880mA/21W	1280mA/31W	1600mA/38W	-630S
		200mA/4.8W	550mA/13W	640mA/15W	500mA/12W	1100mA/24W	1000mA/24W	-850S
		320mA/7.7W	205mA/4.9W	640mA/15W	880mA/21W	1280mA/31W	1600mA/38W	-W00S
TYPE I ⁶ 		N/A	600mA/14W channel	600mA/14W channel	600mA/14W channel	1708mA/41W channel	1800mA/43W channel	-RGBS
		2.4W[10W/1.6W]	3.8W[17W/2.5W]	4.3W[20W/2.8W]	5.8W[27W/3.6W]	8.2W[39W/4.7W]	10W[48W/5.8W]	-470i
		1.9W[10W/1.2W]	3W[17W/1.8W]	3.4W[20W/2W]	4.4W[27W/2.6W]	6.2W[39W/3.6W]	7.7W[48W/4.3W]	-525i
		2.4W[10W/1.4W]	5.5W[17W/3.5W]	6.2W[20W/3.9W]	8.4W[27W/5.2W]	8.2W[39W/6.2W]	13W[48W/6.7W]	-630i
		1.9W[10W/1.4W]	4.1W[24W/2.9W]	6.2W[39W/4.3W]	4.1W[24W/2.9W]	7.7W[48W/5.3W]	7.7W[48W/4.8W]	-850i
		2.4W[10W/1.4W]	3.8W[17W/3W]	4.3W[20W/3.4W]	5.8W[27W/4.4W]	7.4W[39W/5.7W]	9.1W[48W/7W]	-W00i

N/A= Not available

(1) Environmental specifications and iconography legend in additional annex Z1.4 and Z2 respectively.

(2) Prior to manufacturing optional modifications in standard lighting systems. Please, consult the code before ordering (additional annex Z2.1).

(3) Accessories are not-included. More information in accessories section.

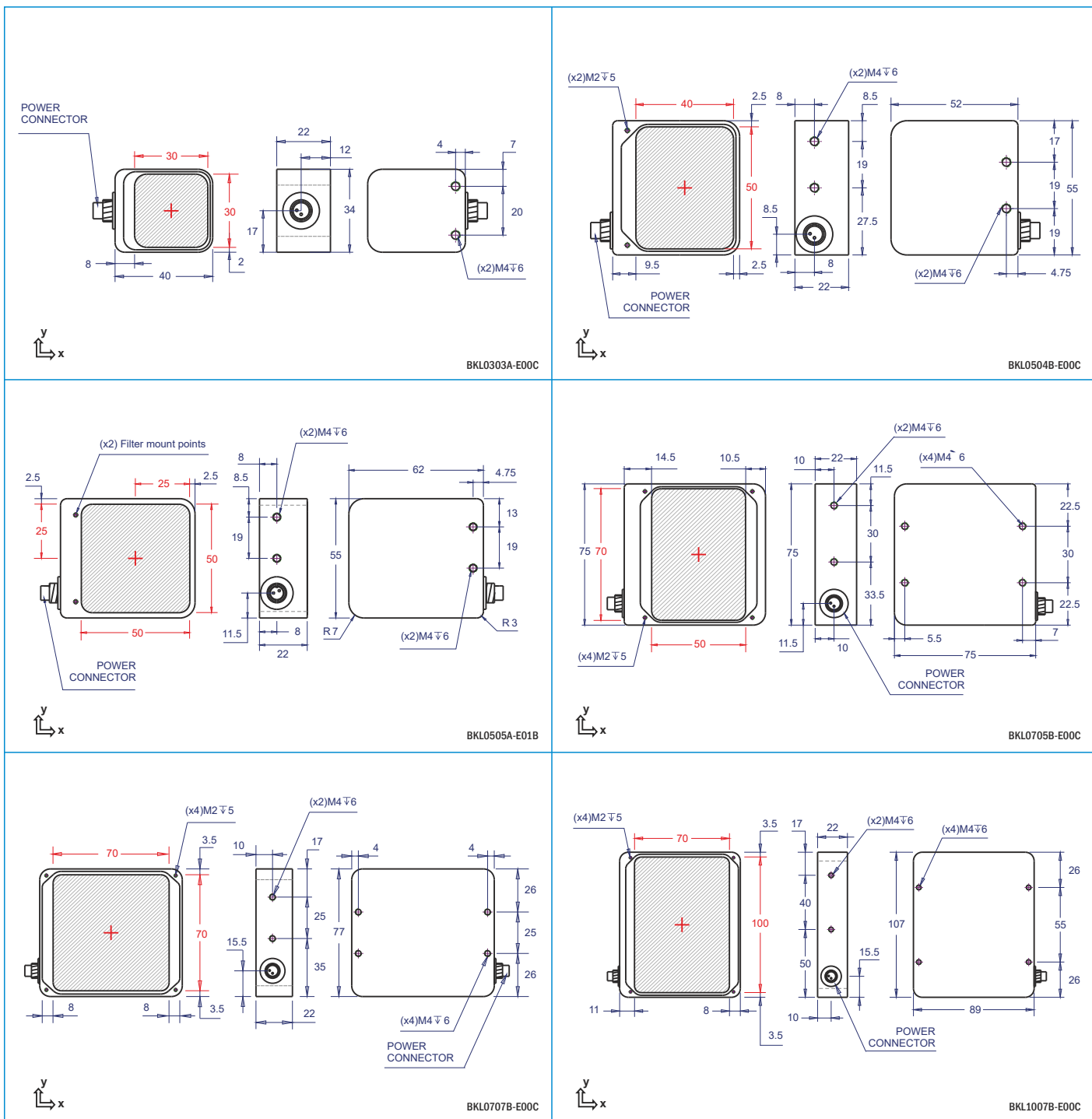
(4) iBlueDrive control input wiring specifications in additional annex Z1.2.

(5) Bear in mind that consumption table is only to be used as a guide. To refer to real values, please, consult product label when purchasing.

(6) Values of maximum instantaneous consumption of "Type I" lighting systems in Powered mode (Strobe mode / Continuous mode)



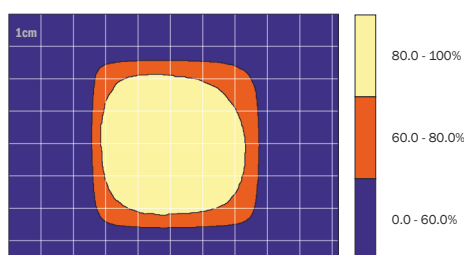
BKL SERIES



All units in millimeters, if not indicated.



Example of BKL captured image



Brightness distribution of BKL0505A-630C



BKL SERIES

Area backlights (2/3) - BKL1010A to BKL2010A

Posterior diffuse lighting system usually design to measure precisely or emphasize light-dark differences by contrast that allows to have good images of object's shape.


















Are used to inspect profiles and edges also used for bright fields creation.

► Technical specifications¹

Lighting model	BKL1010A	BKL1510A	BKL1515B	BKL1818A	BKL2005A	BKL2010A
						
Dimensions	116x106x22	116x154x22	169x157x22	194x184x22	66x204x22	116x207x22
Active surface	100x100	100x150	150x150	180x180	50x200	100x200
Weight	305g	435g	620g	770g	370g	515g
IP rating	IP40	IP40	IP40	IP40	IP40	IP40
Mounting holes	(x6)M4I6	(x7)M4I6	(x7)M4I6	(x7)M4I6	(x7)M4I6	(x7)M4I6
Connection (Type C/S)	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V
Power cable (Not-included)	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series
Modifiers ²	N/A	N/A	N/A	N/A	N/A	N/A
Accessories ³						
iBlueDrive tech.	inline	inline	inline	inline	inline	inline
iBlueDrive connection	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴
iBlueDrive power cable (Not-included)	VCC Series	VCC Series	VCC Series	VCC Series	VCC Series	VCC Series
iBlueDrive accessories ³						

► Instantaneous consumption⁵ (max.)

*WT

Lighting model		BKL1010A	BKL1510A	BKL1515B	BKL1818A	BKL2005A	BKL2010A	
TYPE C 24VDC		7.7W	11W	16W	26W	7.7W	19W	-470C
		6.1W	6.5W	9.5W	16W	5.4W	12W	-525C
		7W	7.8W	13W	17W	4.6W	12W	-630C
		10W	12W	15W	27W	7.6W	19W	-850C
		4.8W	6.8W	10W	16W	4.8W	12W	-W00C
TYPE P		No 'Type P' standard LED lighting systems in this series						
TYPE S Dmax= 1/20 Ton max= 2ms		1920mA/46W	2700mA/65W	3960mA/95W	6480mA/156W	1920mA/46W	4800mA/115W	-470S
		1920mA/46W	2700mA/65W	3960mA/95W	6480mA/156W	1920mA/46W	4800mA/115W	-525S
		2560mA/61W	3600mA/86W	5280mA/127W	8640mA/207W	2560mA/61W	6400mA/154W	-630S
		2400mA/58W	2700mA/65W	4620mA/111W	6600mA/158W	1760mA/42W	4400mA/106W	-850S
		2560mA/61W	3600mA/86W	5280mA/127W	8640mA/207W	2560mA/61W	6400mA/154W	-W00S
		3000mA/72W channel	4500mA/108W channel	6600mA/158W channel	9000mA/216W channel	2700mA/65W channel	7800mA/187W channel	-RGBS
TYPE i ⁶ 		16W[48W/8.2W]	12W[96W/8W]	24W[96W/12W]	21W[96W/11W]	16W[48W/8.2W]	24W[96W/12W]	-470i
		12W[48W/6.6W]	10W[96W/7W]	24W[96W/12W]	21W[96W/11W]	8.2W[48W/5.9W]	24W[96W/12W]	-525i
		19W[48W/9.7W]	18W[96W/12W]	21W[96W/11W]	21W[96W/11W]	14W[48W/9.7W]	24W[96W/12W]	-630i
		18W[48W/11W]	17W[48W/11W]	18W[96W/13W]	24W[96W/12W]	12W[48W/7.4W]	24W[96W/12W]	-850i
		16W[48W/8.9W]	17W[48W/11W]	21W[96W/15W]	24W[96W/12W]	15W[48W/7.6W]	24W[96W/12W]	-W00i

(1) Environmental specifications and iconography legend in additional annex Z1.4 and Z2 respectively.

(2) Prior to manufacturing optional modifications in standard lighting systems. Please, consult the code before ordering (additional annex Z2.1).

(3) Accessories are not-included. More information in accessories section.

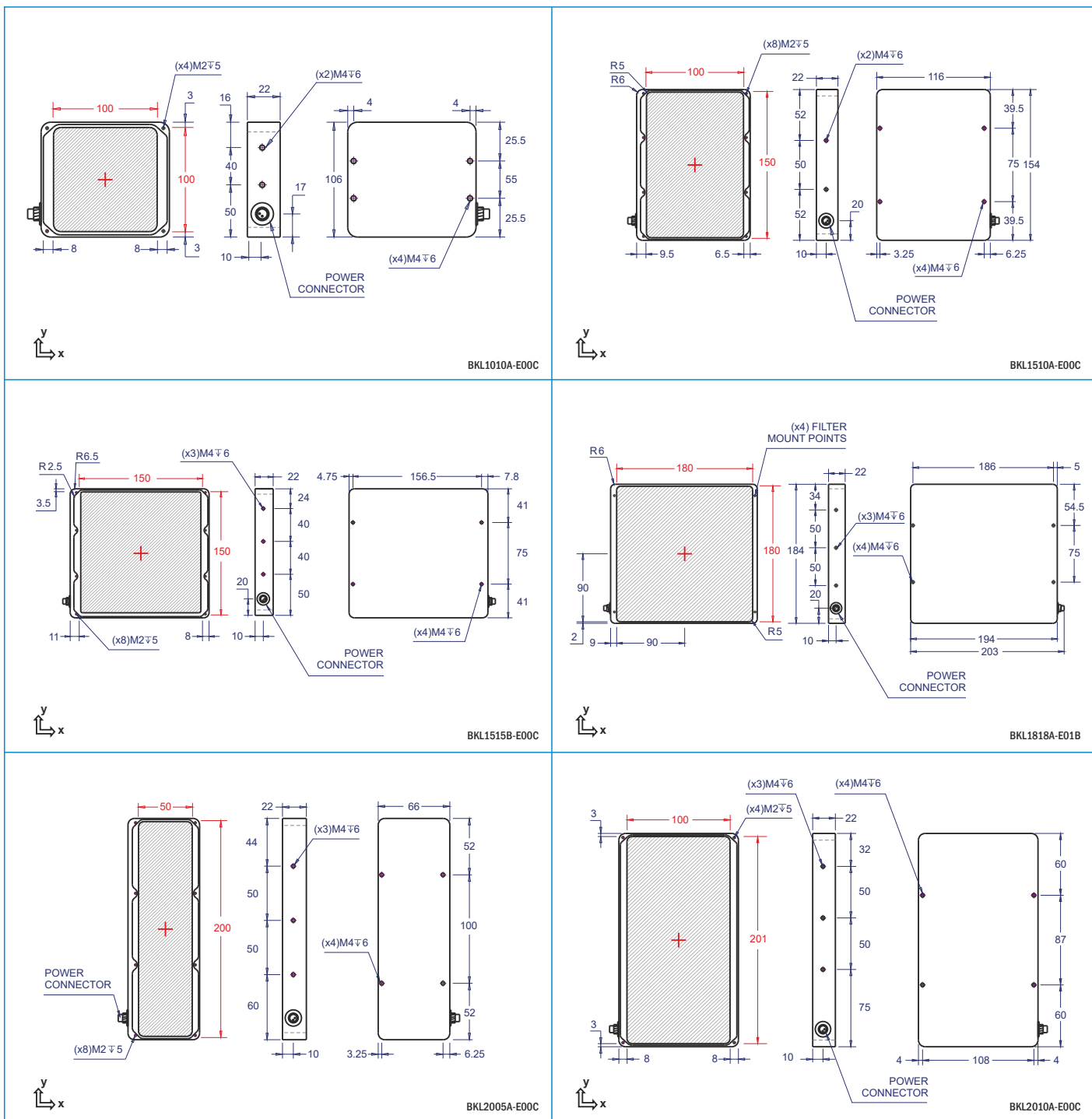
(4) iBlueDrive control input wiring specifications in additional annex Z1.2.

(5) Bear in mind that consumption table is only to be used as a guide. To refer to real values, please, consult product label when purchasing.

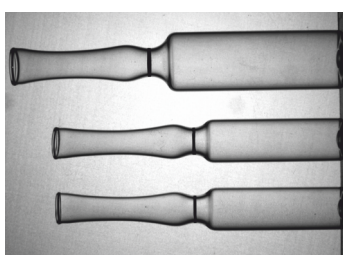
(6) Values of maximum instantaneous consumption of "Type I" lighting systems in Powered mode (Strobe mode / Continuous mode)



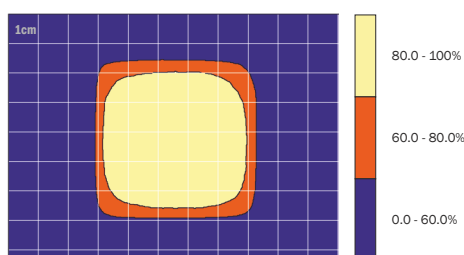
BKL SERIES



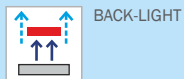
All units in millimeters, if not indicated.



Example of BKL captured image



Brightness distribution of BKL1010A-630C



BKL SERIES

Area backlights (3/3) - BKL2222A to BKL4005A

Posterior diffuse lighting system usually design to measure precisely or emphasize light-dark differences by contrast that allows to have good images of object's shape.


Are used to inspect profiles and edges also used for bright fields creation.

Technical specifications¹

Lighting model	BKL2222A	BKL2515B	BKL2518A	BKL3005A	BKL4005A
Dimensions	239x227x22	169x257x22	198x255x22	69x304x22	66x404x22
Active surface	220x220	150x250	180x250	50x300	50x400
Weight	1195g	1015g	1125g	585g	692g
IP rating	IP40	IP40	IP40	IP40	IP40
Mounting holes	(x10)M4I6	(x10)M4I6	(x10)M4I6	(x10)M4I6	(x13)M4I6
Connection (Type C/S)	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V
Power cable (Not-included)	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series
Modifiers ²	N/A	N/A	N/A	N/A	N/A
Accessories ³					
iBlueDrive tech.	inline	inline	N/A	inline	inline
iBlueDrive connection	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	N/A	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴
iBlueDrive power cable (Not-included)	VCC Series	VCC Series	N/A	VCC Series	VCC Series
iBlueDrive accessories ³			N/A		

Instantaneous consumption⁵ (max.)

*WT

Lighting model		BKL2222A	BKL2515B	BKL2518A	BKL3005A	BKL4005A	
TYPE C 24VDC	B	35W	21W	26W	10W	16W	-470C
	G	21W	13W	28W	6.8W	11W	-525C
	R	31W	19W	19W	7W	9.5W	-630C
	I	23W	24W	24W	11W	14W	-850C
	W	22W	17W	25W	6.2W	10W	-W00C
TYPE P		No 'Type P' standard LED lighting systems in this series					
TYPE S Dmax= 1/20 Ton max= 2ms	B	8640mA/207W	6720mA/161W	13200mA/317W	2460mA/59W	3900mA/94W	-470S
	G	8640mA/207W	6720mA/161W	13200mA/317W	2460mA/59W	3900mA/94W	-525S
	R	11520mA/276W	8960mA/215W	13200mA/317W	3280mA/79W	5200mA/125W	-630S
	I	7920mA/190W	6710mA/161W	8250mA/198W	2640mA/69W	3300mA/79W	-850S
	W	11520mA/276W	8960mA/215W	13200mA/317W	3280mA/69W	5200mA/125W	-W00S
	RGB	14400mA/346W channel	11100mA/266W channel	5940mA/143W channel	4500mA/108W channel	N/A	-RGBS
TYPE I ⁶ 	B	24W[96W/12W]	24W[96W/12W]	N/A	15W[96W/10W]	24W[96W/12W]	-470i
	G	24W[96W/12W]	24W[96W/12W]	N/A	15W[96W/10W]	16W[96W/11W]	-525i
	R	24W[96W/14W]	24W[96W/12W]	N/A	18W[48W/12W]	24W[96W/12W]	-630i
	I	20W[96W/10W]	24W[96W/12W]	N/A	15W[48W/10W]	24W[96W/12W]	-850i
	W	25W[96W/13W]	24W[96W/12W]	N/A	15W[48W/10W]	24W[96W/12W]	-W00i

N/A= Not available

(1) Environmental specifications and iconography legend in additional annex Z1.4 and Z2 respectively.

(2) Prior to manufacturing optional modifications in standard lighting systems. Please, consult the code before ordering (additional annex Z2.1).

(3) Accessories are not-included. More information in accessories section.

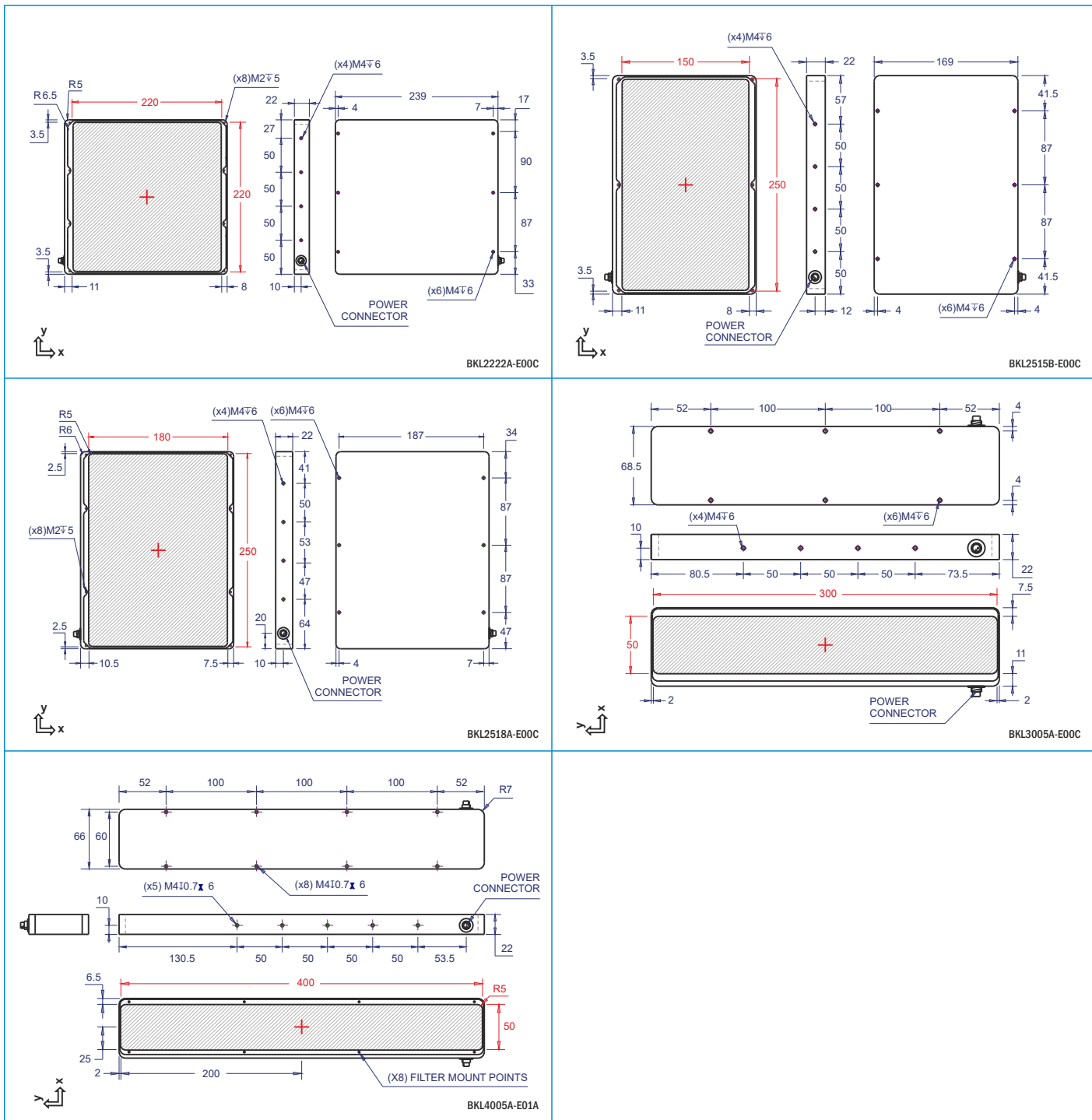
(4) iBlueDrive control input wiring specifications in additional annex Z1.2.

(5) Bear in mind that consumption table is only to be used as a guide. To refer to real values, please, consult product label when purchasing.

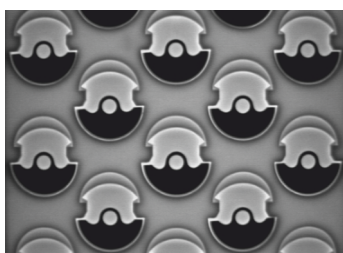
(6) Values of maximum instantaneous consumption of "Type I" lighting systems in **Powered mode (Strobe mode / Continuous mode)**



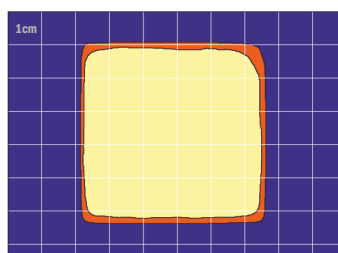
BKL SERIES



All units in millimeters, if not indicated.



Example of BKL captured image



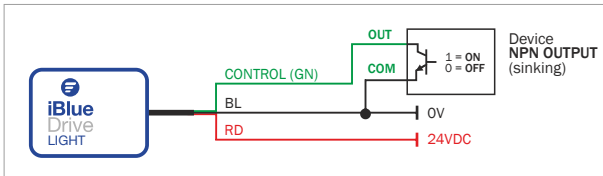
Brightness distribution of BKL2222A-630C



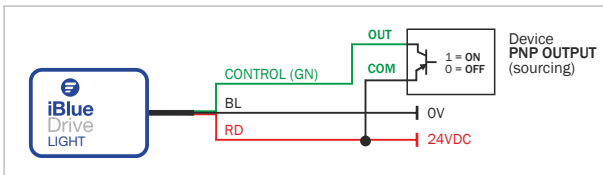
► Z2.1 - iBlueDrive control input wiring

All iBlueDrive products come together with a quick-start guide for connection and working conditions. Refer to iBlueDrive Manual for extended information.

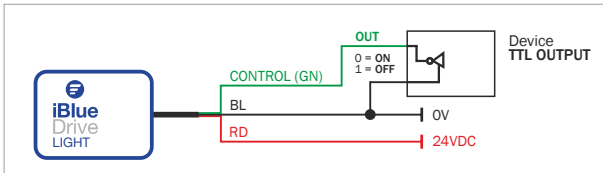
NPN wiring for strobe or ON/OFF mode



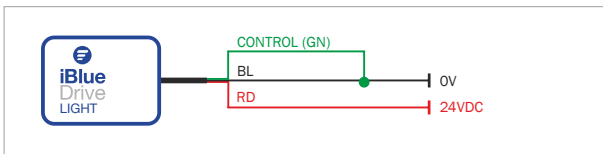
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode

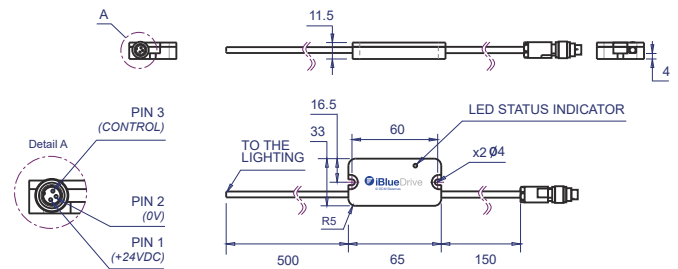
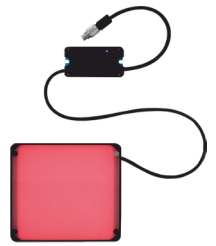


Wiring for continuous mode



► Z2.2 - iBlueDrive inline

iBlueDrive inline is the driver for iBlueDrive technology integrated as a box of 65x33mm to the cable that goes from the lighting system to the connector. It is used when iBlueDrive driver can not be integrated on chassis. See *diagram*:





WARNING! In continuous and powered mode, clamp driver to a metal surface for heat dissipation. In Strobe mode is not required, but recommended.

► Z2.3 - iBlueDrive Accessories legend


















icon	Description	Serie/Product
	Accessorie to configure iBlueDrive devices: iBlueDrive Box, iBlueDrive USB	VTA0005A, VTA0006A, VTA0007A
	iBlueDrive optocoupler	VTA0020A
	iBlueDrive potentiometer	VTA0030B















► Z3.1 - Environmental Specifications

Max. Operating Humidity	85% non-condensing
Operating Temperature	0 - 40°C
Storage Temperature	0 - 60°C
Housing material	Anodized aluminium
Standards	 






► Z3.2 - Modifiers legend

icon	Description	Code
	Narrow angle of emission	/AN
	Medium angle of emission (default)	/AM
	Wide angle of emission	/AW
	Oval angle of emission = 23-24° (x) 17-18° (y)	/AO
	Diffuse emission	/AD
	Polarizer filter	/FPL
	Diffuser filter	/FDR
	Backlight hole of 42mm	/H
	Backlight hole of 65mm	/H1
	Dome hole of 46mm	/CC1
	Dome hole of 40mm	/CC2
	IP Rating = IPxx = IP65 / IP67	/65 / 67
	PNP input model	/P
	50mm focal Length	/F1
	150mm focal Length	/F2
	Infinite focal Length	/F3
	Lighting by sectors = 2 or 4 sectors	/2S / 4S

► Z3.3 - Accessories legend

icon	Description	Serie
	Power cable/s	VCB, VCC, VCD Series
	Other cable/s	VCU, VCL
	Strobe and RGB controller/s	VST, VSC Series
	Polarizer filter	VPF, VPC
	Diffuser filter	VDF
	Collimator filter on x axis	VCFx
	Collimator filter on y axis	VCfy
	Collimator filter on xy axis	VCfxy
	Darkfield converter	VRF
	Protector filter	VPT
	Heat dissipator	VHD
	Fixing bracket	VBA, VBB, VBC Series








► Z3.4 - Technical drawings legend

icon	Description
	Optical axis
	Viewing window dimensions
	Lighting elements
	Light emission center
	Lighting surface dimensions




► Z3.5 - Colours & Wavelegths legend

icon	Wavelength	Colour	Code
	365nm	UV-	-365
	400nm	UV	-400
	470nm	BLUE	-470
	525nm	GREEN	-525
	630nm	RED	-630
	850nm/880nm	IR	-850/-880
		WHITE	-W00
		RGB	-RGB

► Z3.6 - Types of lighting legend

icon	Description
	Radial lighting
	'Darkfield' lighting effect. Low angle illumination
	Backlight illumination
	'Cloudy day' lighting effect
	'Bright field' lighting effect
	Projector lighting
	Axial lighting

► Z3.7 - Types of light legend

icon	Description
	Direct light
	Diffuse light
	Ultra-diffuse light