

Decoflood² LED

The urban lighting toolbox



Castle of Malmaison, Rueil-Malmaison, France

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Decoflood² -The urban lighting toolbox

Light has a role to play in re-humanizing the urban environment, creating warm, inviting places that people enjoy living in and visiting. Light can create areas of ambience that encourage people to socialize after the sun has set. Light can highlight areas of interest or beauty to provide a sense of spectacle or even play a promotional role in building an identity for the city.

Decoflood² LED floodlights are ideal for illuminating a wide variety of structures, with collimators for accent and tree lighting, façade and area lighting, and architectural street lighting. In a myriad of ways, they can improve the quality of life in a city, town or village.

The first part of this guide gives all the product details, while the second part illustrates some of the exciting and beautiful effects which are possible, and provides design information to show how they can be achieved.





Completing the existing traditional floodlighting

Combining functionality and simple, clean aesthetics, Decoflood² LED is a comprehensive range of three LED floodlights designed for architectural outdoor lighting. The Decoflood² LED range offers a selection of housings based on LED technology to complete the original range based on traditional lamps. It has been designed to deliver the optimal lighting effect, from high-powered floodlighting to more subtle accent effects. The aesthetics of Decoflood² LED floodlights allow them to complete existing projects based on the existing conventional range.

Decoflood² LED optics have been designed to guarantee uniform light output with optimum color mixing. Keeping the high degree of flexibility of the existing Decoflood² range and adding the latest LED technology, combined with best-in-class optics, will result in a fully flexible solution that is easy to install, can be integrated anywhere, and provides a perfect lighting effect.



Thermal management

A good thermal management calculation will determine the best housing to provide sufficient cooling and maintain a high level of efficacy for LEDs during the lifetime of the product. Compared with traditional Decoflood² floodlights, housings have been revised, keeping in mind the aesthetics of the full range. The aim was to optimize thermal management while retaining the design philosophy of the Decoflood² family range. Thanks to this approach, two floodlights have external heat sinks, made in the same look & feel as the conventional range. The last floodlight simply integrates the heat sink in its housing for exactly the same aesthetics as in the traditional Decoflood².



Optical performance

Optical design has always been one of Philips Lighting's strengths. When focusing on optical collimators for floodlighting we look at color mixing, uniformity of beam, gradient of light and purity of beam when the floodlight is used close to the object to be illuminated. With that in mind, three different beams have been developed for the two circular floodlights, from 12° to 40°. They have been designed for all accent and front lighting effects.

The square shape of Decoflood² LED will integrate optical plates from LEDGINE technology, to be used from the front, as a wall washer, or to simply light areas and streets when this type of aesthetics is needed.

The following pages give a quick overview of the photometric performance of Decoflood² LED floodlights with White LEDs.





Optical performance – BCP623

- BCP623 15xLED/HB
- Warm White 2700 K
- Neutral White 4000 K
- Three solid colors: red, blue or green (amber on request) as well as Tunable White (TWH) and RGB versions.



Warm White 2700 K Luminaire Lumen Output: 1143 lm

Neutral White 4000 K Luminaire Lumen Output: 1414 lm







 $^{1}/_{2}I_{max} = -20^{\circ}, 20^{\circ}$ $I_{max} = 1574 \text{ cd}/1000 \text{ Im}, 0^{\circ}$

Warm White 2700 K Luminaire Lumen Output: 1129 lm

Neutral White 4000 K Luminaire Lumen Output: 1397 Im



Warm White 2700 K Luminaire Lumen Output: 1095 lm

Neutral White 4000 K Luminaire Lumen Output: 1355 lm



Optical performance – BVP626

- BVP626 34xLED/HB
- Warm White 2700 K
- Neutral White 4000 K
- Three solid colors: red, blue or green (amber on request) as well as Tunable White (TWH) and RGB versions.



Warm White 2700 K Luminaire Lumen Output: 2593 lm

Neutral White 4000 K Luminaire Lumen Output: 3212 lm







Warm White 2700 K Luminaire Lumen Output: 2564 lm

Neutral White 4000 K Luminaire Lumen Output: 3173 lm





Warm White 2700 K Luminaire Lumen Output: 2487 Im

Neutral White 4000 K Luminaire Lumen Output: 3078 lm



Optical performance – BVP636

- BVP636 64xLED/HB
- Warm White 2700 K
- Neutral White 4000 K
- Three solid colors: red, blue or green (amber on request) as well as Tunable White (TWH) and RGB versions.





Warm White 2700 K Luminaire Lumen Output: 5483 lm

Neutral White 4000 K Luminaire Lumen Output: 6786 lm





Warm White 2700 K Luminaire Lumen Output: 5525 Im

Neutral White 4000 K Luminaire Lumen Output: 6837 Im

-19°, 19° ------44°, 44° -----950 cd/1000 lm, 0°





Warm White 2700 K Luminaire Lumen Output: 5477 Im

Neutral White 4000 K Luminaire Lumen Output: 6779 Im



Optical performance – BVP646

- BVP646 64xLED/HB
- Warm White 2700 K
- Neutral White 4000 K





Area lighting (A)

Warm White 2700 K Three levels of LED Lumen Output with 3100 lm - LOR = 0.85



Neutral White 4000 K Three levels of LED Lumen Output with related LOR are available: 8000 lm - LOR = 0.85 6400 lm - LOR = 0.85 3840 lm - LOR = 0.85



Neutral White 4000 K Three levels of LED Lumen Output with related LOR are available: 8000 lm - LOR = 0.84 6400 lm - LOR = 0.84 3840 lm - LOR = 0.84

related LOR are available: 6450 lm - LOR = 0.85 5160 lm - LOR = 0.85



Street lighting (DM)

Warm White 2700 K

Three levels of LED Lumen Output with related LOR are available: 6450 lm - LOR = 0.84 5160 lm - LOR = 0.84 3100 lm - LOR = 0.84

Parks and gardens in Chaumont-sur-Loire, France

Lighting Design: Neo Light

Decoflood² LED: the quality of white



Warm White, 2700 K



Neutral White, 4000 K

Decoflood² offers the choice of three versions of White LEDs:

 2700 K, also called Warm White version: available in a static or dynamic mode (via DMX/RDM protocol), the 2700 K option gives you a golden white that can be very attractive when used on some materials like stone or bricks.

- 4000 K, also called Neutral White version: available in a static or dynamic mode (via DMX/RDM protocol), the 4000 K option gives you a powerful white that could be the right choice when used on concrete or plant life.
- Tunable White, also called TWH: based on a 3-channel mounting system with 2700 K, 4000 K and 6500 K LEDs, this version finetunes the perfect white ambiance needed for a specific application. The guide below shows color temperature differences depending on the input values. At full output, the color temperature is about 4100 K. For a perfect color mixing, BCP623, BVP626 and BVP636 are delivered in standard with a frosted glass instead of the traditional clear glass.



Decoflood² LED: powerful colors









The saturated color of LEDs will transform the natural color of the material and give it a strong saturated color.

The lumen outputs for colored light are low compared with white. This gives rise to incorrect conclusions. The human eye is much more sensitive to colored light. Moreover, the perception of brightness also varies from one color to another.

Thanks to this analysis, we have decided how to cluster our LEDs within Decoflood². In all our RGB floodlights you will find more blue LEDs than red and green ones. These are all the configurations of our LEDs: BCP623: 5xRed - 3xGreen - 7xBlue BVP626: 12xRed - 6xGreen - 16xBlue BVP636: 22xRed - 10xGreen - 32xBlue

With this approach, lumen outputs of each single color are also quite similar. And when mixing all colors together at full output we get the following lighting point coordinates:

x = 0.240; y = 0.170

Then, to get a pure white, levels will need to be adapted. For a white with a CCT close to 4000 K (x = 0.365; y = 0,295), green can stay at around 100%, while red and blue should be adapted to around 82% and 19% respectively.

For other combinations the guide below shows color differences depending on the input values. For a perfect color mixing, BCP623, BVP626 and BVP636 are delivered in standard with a frosted glass instead of the traditional clear glass.





Yellow is created by mixing red and green





Magenta is created by mixing red and blue

Time Warner Center, New York, USA

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Lighting design: Ted Mather

Color effects with Decoflood² LED

This page gives technical lighting details about each floodlight configuration: luminaire lumen outputs, power consumption and efficacies are specified. All the following values apply to a configuration with the narrowest beam angle and clear glass (when available). They should guide you for any project you wish to perform.

Туре	Colors				Color tempe	Color temperatures			
	Green	Blue	Red	RGB	Warm White	Neutral White	Tunable White		
	24	224	Contraction of the	24 31					
	1000	a far an	100	The STR					
	and the second	- deministra	- and the	and the second					
	and the second second		- Crakely	Crakely -					
BCP623				based on GF			based on GF		
	• 1175m	• 552 lm	• 841 lm	• 658 lm	• 1143 lm	• 1414 lm	• 1081 lm		
	• 27.5 W	• 26.3 W	• 18.0 W	• 24.8 W	• 27.0 W	• 27.0 W	• 27.0 W		
	• 42.7 lm/W	• 21 lm/W	• 46.7 lm/W	• 26.5 lm/W	• 42.3 lm/W	• 52.4 lm/W	• 40 lm/W		
BVP626				based on GF			based on GF		
	• 2649 lm	• 1238 lm	• 1873 lm	• 1459 lm	• 2596 lm	• 3212 lm	• 2456 lm		
	• 53.0 W	• 51.3 W	• 37.4 W	• 48.9 W	• 53.0 W	• 53.0 W	• 53.0 W		
V	• 50 lm/W	• 24.1 lm/W	• 50.1 lm/W	• 29.8 lm/W	• 49 lm/W	• 60.6 lm/W	• 46.3 lm/W		
BVP636 based	on MB								
	• 5638 lm	• 2635 lm	• 3666 lm	• 3402 lm	• 5483 lm	• 6786 lm	• 6243 lm		
	• 102.2 W	• 98.4 W	• 70.9 W	• 91.3 W	• 98.0 W	• 98.0 W	• 98.0 W		
	• 55.2 lm/W	• 26.8 lm/W	• 51.7 lm/W	• 37.3 lm/W	• 55.9lm/W	• 69.2 lm/W	• 63.7 lm/W		
-									



Decoflood² LED: installation

Number of Decoflood² floodlights per main circuit-breaker

All Decoflood² LED luminaires must be connected to a fused power supply. Depending on the circuit-breakers used there are limitations to the number of $Decoflood^2$ LED floodlights that can be connected. The data below can be used to determine the maximum power consumption of your installation.

The inrush current of the Decoflood² LED floodlight is higher than the nominal current; you should therefore apply a safety margin when calculating. This will depend on the characteristic of the circuit-breakers used.

Inrush current 1/2 value time at typical mains impedance

- + BCP623 and BVP626: 35 A / 350 μs
- + BVP636 and BVP646: 70 A / 350 μs

Model type	Type of main circuit-breaker					
	B10A	B16A	C10A	C16A		
BCP623	13	22	22	37		
BVP626	13	22	22	37		
BVP636/646	6	11	11	18		

Example: max. number of Decoflood² floodlights per main circuit-breaker type:

DMX/RDM control and network setup

With DMX512 you are able to control the light output of each Decoflood² LED floodlight (intensity and color). This can be a slow color change or fast dynamic scenes. In addition, the Decoflood² LED range supports RDM (Remote Device Management). This enables you to configure your whole Decoflood² LED installation remotely from one single point. Using a Smart Jack PRO, you can set the DMX start address of each luminaire. DMX/RDM is only needed to configure each

floodlight. Any DMX512 controller can be used.

How DMX control works

In a DMX controlled installation there is a controller sending out commands to all connected luminaires. From this start address setting, the luminaire derives the required intensity level of each LED color. In our factory all Decoflood² LED floodlights will be set to start address 1. This means when the luminaire receives data from a controller it will derive the values (0-100%) of:

- Channel 1 for the intensity of the red LED
- Channel 2 for the intensity of the green LED
- Channel 3 for the intensity of the blue LED

It is possible that multiple DMX luminaires have the same start address. They will have the same light output.

DMX/RDM addressing

Installation scheme

If you do not want to control each Decoflood² LED separately, no changes to the addressing need be made. If individual control of each luminaire is required, all Decoflood² LED floodlights must have their own DMX start address. The start address must be set using RDM communication with the Decoflood². This can be done with the Philips Smart Jack PRO.



Max. distance between controller and last luminaire: 300 m Each Decoflood² floodlight is equipped with two cable glands for DMX (IN & OUT).

Technical data

Decoflood² BCP623

Product features	Variations
Ingress Protection	IP66
Safety class	L, II
Impact resistance	IK08*
Power Consumption	27 W (White)
Beam angle	12° (narrow beam), 24° (medium beam) or 40° (wide beam)
Luminous flux	1143 lm (warm white, 2700 K) or 1414 lm (neutral white, 4000 K) for narrow beam
Fixture efficacy	42,3 lm/W (warm white, 2700 K) or 52,4 lm/W (neutral white, 4000 K) for narrow beam
Correlated Color Temperature	Warm white: 2700 K, Neutral white: 4000 K, Tunable white: 2700 to 6500 K
Color Rendering Index	> 80 (2700 K),> 75 (4000 K)
Maintenance of lumen output - L70	50,000 hours
Driver failure rate	5% per 60,000 hours
Operating temperature range	- 20 to 35 °C
Mains voltage	100-277 VAC / 50-60 Hz
Inrush current	35 A / 350 μs
Dimming	DMX-512 control and RDM discovery and addressing, one address per fixture
Options	Possibilities to have on request DMX protocol for all versions with RDM discovery and addressing
Optical cover	Extra white glass (+10% transmission) for all Mono Color versions and frosted glass for RGB or TWH versions
Material	Housing, driver box and cover: high-pressure die-cast aluminum
	Gaskets (flood and driver box): silicone rubber
	Optical cover: glass, extra white, tempered, 4 mm thick
Color	Housing, driver box and cover: ultra-dark grey, RAL10714
	Front frame: silver grey, approx. RAL9006
	Other RAL or AKZO Futura colors available on request
Connection	Via the driver box, push-in connector, 3-poles mains and control signal
Maintenance	Driver access by opening the driver box cover with four Allen screws
Installation	Floor or wall mounting with the separate driver box; installation of both fixture and driver box with 4xM6 screws
	Max. distance between the driver box and fixture is 18 m
	Fixture is pre-wired with a cable of 2 m length and a connector for easy plug
	Additional lenghts of cables with plugs from 1 to 16 m to extend distance between the fixture and the box, can be ordered separately
	Operating temperature: - 20 °C < Ta< 35 °C
	Weight : 4.5 kg (BCP623 and its driver box)
	Max adjustment from the horizontal: -177.5° to +177.5°
	Max vertical aiming: -67.5 to +67.5°
	Angle indicator with marking integrated
Cable gland	2 x M20 for mains cables and through-wiring facilities
	2 x M12 for data cables (data IN and OUT in case of dynamic version)
Remarks	Static versions available in 2 types of white (warm white - WW, 2700 K or neutral white - NW, 4000 K) as well as 3 solid colors (red, blue,
	green), amber is available on request
	Dynamic versions are available in RGB and TWH (tunable white based on 2700, 4000 and 6500 K LEDs)
	All monochromatic versions are also available on request with DMX protocol
	Fixtures can be marine-salt protected on request
	Compliant with IEC 598 and EN60598

* IK06 in case of frosted glass

Decoflood² BVP626

Product features	Variations
Ingress Protection	IP66
Safety class	l, II
Impact resistance	IK08*
Power Consumption	53 W (White)
Beam angle	12° (narrow beam), 24° (medium beam) or 40° (wide beam)
Luminous flux	2596 lm (warm white, 2700 K) or 3212 lm (neutral white, 4000 K) for narrow beam
Fixture efficacy	49 lm/W (warm white, 2700 K) or 60,6 lm/W (neutral white, 4000 K) for narrow beam
Correlated Color Temperature	Warm white: 2700 K, neutral white: 4000 K, Tunable white: 2700 to 6500 K
Color Rendering Index	> 80 (2700 K),> 75 (4000 K)
Maintenance of lumen output - L70	50,000 hours
Driver failure rate	5% per 60,000 hours
Operating temperature range	- 20 to 35 °C
Mains voltage	100-277 VAC / 50-60 Hz
Inrush current	35 Α / 350 μs
Dimming	DMX-512 control and RDM discovery and addressing, one address per fixture
Options	Possibilities to have on request DMX protocol for all versions with RDM discovery and addressing
Optical cover	Extra white glass (+10% transmission) for all Mono Color versions and frosted glass for RGB or TWH versions
Material	Housing and cover: high-pressure die-cast aluminum
	Gaskets: silicone rubber
	Optical cover: glass, extra white, tempered, 4 mm thick
Color	Housing and cover: ultra-dark grey, RAL10714
	Front frame: silver grey, approx. RAL9006
	Other RAL or AKZO Futura colors available on request
Connection	Via the rear cover, push-in connector, 3-poles mains and control signal
Maintenance	Driver access by opening the rear cover with three Allen screws
	Optic access, if necessary, by toolless opening of the front frame
	If the fixture is installed in an accessible area, then the possibility is given to lock the system by screwing the clip on the housing
Installation	Ceiling, wall or floor mounting
	Rear access for mains connection, no through-wiring possibility
	Operating temperature: - 20 °C < Ta< 35 °C
	Weight : 7.5 kg
	Projected area in horizontal position: 0.05 m ²
	Max adjustment from the horizontal: -180° to +180°
	Max vertical aiming: -90 to +90°
	Angle indicator with marking integrated
Cable gland	1 x M20 for main cable
	2 x M12 for data cables (data IN and OUT in case of dynamic version)
Remarks	Static versions available in 2 types of white (warm white - WW, 2700 K or neutral white - NW, 4000 K) as well as 3 solid colors (red, blue,
	green), amber is available on request
	Dynamic versions are available in RGB and TWH (tunable white based on 2700, 4000 and 6500 K LEDs)
	All monochromatic versions are also available on request with DMX protocol
	Fixtures can be marine-salt protected on request
	Compliant with IEC 598 and EN60598

* IK06 in case of frosted glass

Decoflood² BVP636/646

Product features	Variations
Ingress Protection	IP66
Safety class	I,II
Impact resistance	IK08*
Power Consumption	98 W (White)
Beam angle	2x10°/2x34° (MB), 2x19°/2x44° (WB) or asymetrical beam for wall-washing (DW)
	Asymetrical beam for area lighting (A)
	Street lighting beam (DM)
Luminous flux	5483 lm (warm white, 2700 K) or 6786 lm (neutral white, 4000 K) for medium beam
Fixture efficacy	55.9 lm/W (warm white, 2700 K) or 69.2 lm/W (neutral white, 4000 K) for medium beam
Correlated Color Temperature	Warm white: 2700 K, neutral white: 4000 K, Tunable white: 2700 to 6500 K
Color Rendering Index	> 80 (2700 K), > 75 (4000 K)
Maintenance of lumen output - L70	50,000 hours
Driver failure rate	5% per 60,000 hours
Operating temperature range	- 20 to 35 °C
Mains voltage	100-277 VAC / 50-60 Hz
Inrush current	70 A / 350 µs
Dimming	DMX-512 control and RDM discovery and addressing, one address per fixture
Options	Possibilities to have on request DMX protocol for all versions with RDM discovery and addressing
Optic	Rectangular Medium beam and Wide beam - Asymmetrical beams for wall washing and area lighting - Street lighting beam
Optical cover	Extra white glass (+10% transmission) for all Mono Color versions and frosted glass for RGB or TWH versions
Material	Housing and cover: high-pressure die-cast aluminum
	Gaskets: silicone rubber
	Optical cover: glass, extra white, tempered, 4 mm thick
Color	Housing: ultra-dark grey, RAL10714
	Front frame: silver grey, approx. RAL9006
	Other RAL or AKZO Futura colors available on request
Connection	Push-in connector, 3-poles mains and control signal
Maintenance	Driver access by opening the front frame
	Optic access, if necessary, by toolless opening of the front frame
	If the fixture is installed in an accessible area, then the possibility is given to lock the system by screwing the clip on the housing
Installation	Ceiling, wall or floor mounting
	Front access for mains connection, no though-wiring possibility
	Operating temperature: - 20 °C < Ta< 35 °C
	Weight : 12.9 kg
	Projected area in horizontal position: 0.14 m ²
	Max adjustment from the horizontal: -180° to +180°
	Max vertical aiming: -90 to +90°
	Angle indicator with marking integrated
Cable gland	1 x M20 for main cable
	2 x M12 for data cables (data IN and OUT in case of dynamic version)
Remarks	Static versions available in 2 types of white (warm white - WW, 2700 K or neutral white - NW, 4000 K) as well as 3 solid colors (red, blue,
	green), amber is available on request
	Dynamic versions are available in RGB and TWH (tunable white based on 2700, 4000 or 6500 K LEDs)
	All monochromatic versions are also available on request with DMX protocol
	Fixtures can be marine-salt protected on request
	Compliant with IEC 598 and EN60598
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* IK06 in case of frosted glass

Decoflood² LED dimensional drawing

Decoflood² BCP623

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Decoflood² BVP626



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Decoflood² BVP636/646

360°



Decoflood² LED ordering information

Many configurations are possible with Decoflood² LED. Since the choice seems unlimited, the table below gives a quick overview of all the possibilities.

BCP623	15xLED-HB/	RGB	NB	I.	DMX	GR	со	GF	
Designation	ation Product features								
BCP623	Product type		BVP626 • BVP636 • BVP646						
15xLED-HB	Light Source		34xLED-HB • 64xL	ED-HB • NW/LED3	3 • NW/LED64 • NV	V/LED80 • WW/LED	31 • WW/LED52 • V	VW/LED65	
RGB	Light Source Co	lor	NW = Neutral Wh	nite 4000 K • WW = 1	Warm White 2700 K	• RGB = Red/Gree	n/Blue		
			TWH = Tunable White 2700/4000/6500 K • RD = Red • BL = Blue • GN = Green						
NB	Optic		NB = Narrow Beam • MB = Medium Beam • WB = Wide Beam • DW = Distribution for wall washing						
			A = Distribution fo	or area lighting • DM	= Distribution for st	reet lighting			
1	Electrical class		I = Safety Class I •	II = Safety Class II					
DMX	Controls		"nothing" = static p	product • DMX = DM	IX controllable prod	uct			
GR	Color		GR = Philips dark §	grey 10714 • RALxxx	= RAL color with it	s reference number			
			CLRCH = AKZO	color with its referen	ce number				
со	Color parts		CO = Housing color as defined with light grey front frame						
			AL = Housing and front frame with the previous defined color						
GF	Front glass		GC = Glass Clear • GF = Glass Frosted						

Decoflood² LED

Designation	LED version	Optic	Electrical class	Code (EOC)
Decoflood ² BCP623				
BCP623 15xLED-HB/NW NB I GR CO GC	Neutral White 4000 K	12°	1	41934100
BCP623 15xLED-HB/NW MB I GR CO GC	Neutral White 4000 K	24°	1	41935800
BCP623 15xLED-HB/NW WB I GR CO GC	Neutral White 4000 K	40°	1	41936500
BCP623 15xLED-HB/NW NB II GR CO GC	Neutral White 4000 K	12°	II	41937200
BCP623 15xLED-HB/NW MB II GR CO GC	Neutral White 4000 K	24°	II	41938900
BCP623 15xLED-HB/NW WB II GR CO GC	Neutral White 4000 K	40°	II	41939600
BCP623 15xLED-HB/WW NB I GR CO GC	Warm White 2700 K	12°	I	41940200
BCP623 15xLED-HB/WW MB I GR CO GC	Warm White 2700 K	24°	1	41941900
BCP623 15xLED-HB/WW WB I GR CO GC	Warm White 2700 K	40°	I	41942600
BCP623 15xLED-HB/WW NB II GR CO GC	Warm White 2700 K	12°	II	41943300
BCP623 15xLED-HB/WW MB II GR CO GC	Warm White 2700 K	24°	II	41944000
BCP623 15xLED-HB/WW WB II GR CO GC	Warm White 2700 K	40°	II	41945700
BCP623 15xLED-HB/RGB NB I DMX GR CO GF	RGB	12°	I	41946400
BCP623 15xLED-HB/RGB MB I DMX GR CO GF	RGB	24°	I	41947100
BCP623 15xLED-HB/RGB WB I DMX GR CO GF	RGB	40°	I	41948800
BCP623 15xLED-HB/RGB NB II DMX GR CO GF	RGB	12°	II	41949500
BCP623 15xLED-HB/RGB MB II DMX GR CO GF	RGB	24°	II	41950100
BCP623 15xLED-HB/RGB WB II DMX GR CO GF	RGB	40°	II	41951800
BCP623 15xLED-HB/TWH NB I DMX GR CO GF	Tunable White 2700-6500 K	12°	I	41952500
BCP623 15xLED-HB/TWH MB I DMX GR CO GF	Tunable White 2700-6500 K	24°	1	41953200
BCP623 15xLED-HB/TWH WB I DMX GR CO GF	Tunable White 2700-6500 K	40°	I	41954900
BCP623 15xLED-HB/TWH NB II DMX GR CO GF	Tunable White 2700-6500 K	12°	II	41955600
BCP623 15xLED-HB/TWH MB II DMX GR CO GF	Tunable White 2700-6500 K	24°	II	41956300
BCP623 15xLED-HB/TWH WB II DMX GR CO GF	Tunable White 2700-6500 K	40°	II	41957000
Decoflood ² BVP626				
BVP626 34xLED-HB/NW MB I GR CO GC	Neutral White 4000 K	24°	I	41959400
BVP626 34xLED-HB/NW WB I GR CO GC	Neutral White 4000 K	40°	I	41960000
BVP626 34xLED-HB/NW NB II GR CO GC	Neutral White 4000 K	12°	II	41961700
BVP626 34xLED-HB/NW MB II GR CO GC	Neutral White 4000 K	24°	II	41962400
BVP626 34xLED-HB/NW WB II GR CO GC	Neutral White 4000 K	40°	II	41963100
BVP626 34xLED-HB/WW NB I GR CO GC	Warm White 2700 K	12°	I	41964800
BVP626 34xLED-HB/WW MB I GR CO GC	Warm White 2700 K	24°	1	41965500
BVP626 34xLED-HB/WW WB I GR CO GC	Warm White 2700 K	40°	1	41966200
BVP626 34xLED-HB/WW NB II GR CO GC	Warm White 2700 K	12°	II	41967900
BVP626 34xLED-HB/WW MB II GR CO GC	Warm White 2700 K	24°	II	41968600
BVP626 34xLED-HB/WW WB II GR CO GC	Warm White 2700 K	40°	II	41969300
BVP626 34xLED-HB/RGB NB I DMX GR CO GF	RGB	12°	1	41970900
BVP626 34xLED-HB/RGB MB I DMX GR CO GF	RGB	24°	1	41971600
BVP626 34xLED-HB/RGB WB I DMX GR CO GF	RGB	40°	I	41972300
BVP626 34xLED-HB/RGB NB II DMX GR CO GF	RGB	12°	II	41973000
BVP626 34xLED-HB/RGB MB II DMX GR CO GF	RGB	24°	II	41974700
BVP626 34xLED-HB/RGB WB II DMX GR CO GF	RGB	40°	II	41975400
BVP626 34xLED-HB/TWH NB I DMX GR CO GF	Tunable White 2700-6500 K	12°	I	41976100

Tunable White 2700-6500 K

24°

40°

12°

24°

40°

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BVP626 34xLED-HB/TWH MB I DMX GR CO GF

BVP626 34xLED-HB/TWH WB I DMX GR CO GF

BVP626 34xLED-HB/TWH NB II DMX GR CO GF

BVP626 34xLED-HB/TWH MB II DMX GR CO GF

BVP626 34xLED-HB/TWH WB II DMX GR CO GF

41977800

41978500

41979200

41980800

41981500

Decoflood² LED

Designation	LED version	Optic	Electrical class	Code (EOC)
Decoflood ² BVP636				
BVP636 64xLED-HB/NW MB I GR CO GC	Neutral White 4000 K	MB	1	41982200
BVP636 64xLED-HB/NW WB I GR CO GC	Neutral White 4000 K	WB	1	41983900
BVP636 64xLED-HB/NW DW I GR CO GC	Neutral White 4000 K	DW	1	41984600
BVP636 64xLED-HB/NW MB II GR CO GC	Neutral White 4000 K	MB	II	41991400
BVP636 64xLED-HB/NW WB II GR CO GC	Neutral White 4000 K	WB	II	41992100
BVP636 64xLED-HB/NW DW II GR CO GC	Neutral White 4000 K	DW	II	41993800
BVP636 64xLED-HB/WW MB I GR CO GC	Warm White 2700 K	MB	I	42000200
BVP636 64xLED-HB/WW WB I GR CO GC	Warm White 2700 K	WB	I	42001900
BVP636 64xLED-HB/WW DW I GR CO GC	Warm White 2700 K	DW	I	42002600
BVP636 64xLED-HB/WW MB II GR CO GC	Warm White 2700 K	MB	II	42009500
BVP636 64xLED-HB/WW WB II GR CO GC	Warm White 2700 K	WB	II	42010100
BVP636 64xLED-HB/WW DW II GR CO GC	Warm White 2700 K	DW	II	42011800
BVP636 64xLED-HB/RGB MB I DMX GR CO	RGB	MB	I	42018700
BVP636 64xLED-HB/RGB WB I DMX GR CO	RGB	WB	I	42019400
BVP636 64xLED-HB/RGB DW I DMX GR CO	RGB	DW	I	42020000
BVP636 64xLED-HB/RGB MB II DMX GR CO	RGB	MB	II	42021700
BVP636 64xLED-HB/RGB WB II DMX GR CO	RGB	WB	II	42022400
BVP636 64xLED-HB/RGB DW II DMX GR CO	RGB	DW	II	42023100
BVP636 64xLED-HB/TWH MB I DMX GR CO	Tunable White 2700-6500 K	MB	I	42024800
BVP636 64xLED-HB/TWH WB I DMX GR CO	Tunable White 2700-6500 K	WB	I	42025500
BVP636 64xLED-HB/TWH DW I DMX GR CO	Tunable White 2700-6500 K	DW	I	42026200
BVP636 64xLED-HB/TWH MB II DMX GR CO	Tunable White 2700-6500 K	MB	II	42027900
BVP636 64xLED-HB/TWH WB II DMX GR CO	Tunable White 2700-6500 K	WB	II	42028600
BVP636 64xLED-HB/TWH DW II DMX GR CO	Tunable White 2700-6500 K	DW	II	42029300
Decoflood ² BVP646				
BVP646 NW/LED38 A I GR CO GC	Neutral White 4000 K - 3800 lm	A	I	41985300
BVP646 NW/LED64 A I GR CO GC	Neutral White 4000 K - 6400 lm	A	I	41986000
BVP646 NW/LED80 A I GR CO GC	Neutral White 4000 K - 8000 lm	A	I	41987700
BVP646 NW/LED38 DM I GR CO GC	Neutral White 4000 K - 3800 lm	DM	I	41988400

BVP646 NW/LED80 A I GR CO GC	Neutral White 4000 K - 8000 Im	A	I	41987700
BVP646 NW/LED38 DM I GR CO GC	Neutral White 4000 K - 3800 Im	DM	I	41988400
BVP646 NW/LED64 DM I GR CO GC	Neutral White 4000 K - 6400 Im	DM	I	41989100
BVP646 NW/LED80 DM I GR CO GC	Neutral White 4000 K - 8000 Im	DM	I	41990700
BVP646 NW/LED38 A II GR CO GC	Neutral White 4000 K - 3800 Im	А	Ш	41994500
BVP646 NW/LED64 A II GR CO GC	Neutral White 4000 K - 6400 Im	А	II	41995200
BVP646 NW/LED80 A II GR CO GC	Neutral White 4000 K - 8000 Im	А	Ш	41996900
BVP646 NW/LED38 DM II GR CO GC	Neutral White 4000 K - 3800 Im	DM	Ш	41997600
BVP646 NW/LED64 DM II GR CO GC	Neutral White 4000 K - 6400 Im	DM	Ш	41998300
BVP646 NW/LED80 DM II GR CO GC	Neutral White 4000 K - 8000 Im	DM	11	41999000
BVP646 WW/LED31 A I GR CO GC	Warm White 2700 K - 3100 lm	А	I	42003300
BVP646 WW/LED52 A I GR CO GC	Warm White 2700 K - 5200 Im	А	I	42004000
BVP646 WW/LED65 A I GR CO GC	Warm White 2700 K - 6500 lm	А	I	42005700
BVP646 WW/LED31 DM I GR CO GC	Warm White 2700 K - 3100 Im	DM	I	42006400
BVP646 WW/LED52 DM I GR CO GC	Warm White 2700 K - 5200 Im	DM	I	42007100
BVP646 WW/LED65 DM I GR CO GC	Warm White 2700 K - 6500 Im	DM	I	42008800
BVP646 WW/LED31 A II GR CO GC	Warm White 2700 K - 3100 lm	А	11	42012500
BVP646 WW/LED52 A II GR CO GC	Warm White 2700 K - 5200 Im	А	11	42013200
BVP646 WW/LED65 A II GR CO GC	Warm White 2700 K - 6500 Im	А	11	42014900
BVP646 WW/LED31 DM II GR CO GC	Warm White 2700 K - 3100 lm	DM	11	42015600
BVP646 WW/LED52 DM II GR CO GC	Warm White 2700 K - 5200 Im	DM	Ш	42016300
BVP646 WW/LED65 DM II GR CO GC	Warm White 2700 K - 6500 Im	DM	Ш	42017000

Parks and Gardens of Chaumont-sur-Loire, France

Lighting design: Neo Light



Accent lighting with Decoflood² LED

All rotation-symmetrical collimators provided with Decoflood² LED BCP623 and BVP626 luminaires are dedicated to accent lighting, as well as architectural detail modeling.

In both products, three beams are offered to highlight one or more architectural details. The impact of the effect will depend on the brightness of the element compared with its surroundings. Plants and trees can be illuminated with a narrow beam as well as a wide beam, depending on the position of the floodlights. This is why in the relevant section we make a distinction between accent lighting effects created by a floodlight in a position close to the object and accent lighting emitted from the front.



Accent with a floodlight located close to the object to light

All the following illuminance maps are based on neutral white luminaires (4000 K). If Warm White floodlights are selected, illuminance levels may be lower.



d = 15 cm



d = 25 cm













All the following illuminance maps are based on Neutral White luminaires (4000 K). If Warm White floodlights are selected, illuminance levels may be lower.

The table below gives the diameter (m) of the visual spot of light for both BCP623 and BVP626 depending on the distance d (m) of projection

Beam	VBA*	Distance d (m)					
		3	6	9	12	15	
12° (NB)	14°	0.7	1.5	2.2	2.9	3.7	
24° (MB)	34°	1.8	3.7	5.5**	7.3	9.2	
40° (WB)	50°	2.8	5.6	8.4	11.2	14.0	

The table below gives the average illuminance (lux) for BCP623 and BVP626 depending on the distance d (m) of projection

Beam	VBA*	Distance d (m)					
			3	6	9	12	15
12° (NB)	14°	BCP623	1585	360	163	93	58
		BVP626	3815	852	385	218	136
24° (MB)	34°	BCP623	337	80	36	20	13
		BVP626	792	187	84**	48	30
40° (WB)	50°	BCP623	56	33	14	8	5
		BVP626	134	78	34	19	12

*VBA (Visual Beam Angle) corresponds to the strongest gradient of light that gives the most easily perceptible visual spot. This is why it is different from the beam angle that refers to the half-intensity as indicated in intensity diagrams.



** BVP626 Medium beam neutral white at 9 m from the surface

Visual beam of light: Visual spot diameter: 5.5 m Average illuminance in 5.5 x 5.5 m: 84 lux



Wall washing with Decoflood² LED

With Decoflood² LED BVP636 a dedicated optical plate DW has been developed for a wall-washing effect. Decoflood² LED BVP636 will create a uniform lighting effect, starting from the bottom until the top of the wall with a smooth gradient of light. Walls up to 8m high can be uniformly illuminated with good spacing between luminaires.

Everything has been made so as to produce a uniform lighting effect with a limited number of luminaires.

Finally, this optical plate has also been designed to minimize upward spill light, combining high efficiency and good uniformity.





Asymmetrical beam for wall washing (DW)

The following illuminance map is based on Neutral White luminaires (4000 K). If Warm White floodlights are selected, illuminance levels may be lower.



 $h = 8-10 \text{ m} \cdot d = h/2 \cdot s = 2d$

Scale (in lux)

500

Front lighting with Decoflood² LED

For façade lighting from the front, medium and wide beams are generally used. They offer uniform lighting of building façades and any other vertical surface.







All the following illuminance maps are based on Neutral White luminaires (4000 K). If Warm White floodlights are selected, illuminance levels may be lower.



2x10° / 2x34° (MB)

2x19° / 2x44° (WB)

Scale (in lux)

500

300

200

100

75

50

25

10

0 lux

Area lighting with Decoflood² LED

Decoflood² LED BVP646 can be equipped with one dedicated optical plate A for an asymmetrical beam to light up areas such as pedestrian zones, parking lots, and rest areas, where light is needed to bring visual comfort and prevent vandalism. Several lumen outputs are available, so there will always be a solution for your application.

Color	LED lumen	LOR	System power	Luminaire
temperature	package (lm)		consumption (W)	efficacy (Im/W)
Neutral White	8000 lm	0.85	98.0 W	69.4 lm/W
4000 K	6400 lm	0.85	81.0 W	67.2 lm/W
	3840 lm	0.85	48.2 W	67.7 lm/W
Warm White	6450 lm	0.85	98.0 W	55.9 lm/W
2700 K	5160 lm	0.85	81.0 W	54.1 lm/W
	3100 lm	0.85	48.2 W	54.7 lm/W









Warm White - 3100 lumen Mounting height 4 m Spacing 12 m Width 18 m E ave = 14.2 lux Uo = 0.24

Neutral White - 8000 lumen Mounting height 8 m Spacing 24 m Width 36 m E ave = 10 lux Uo = 0.31



Warm White - 5160 lumen

Mounting height 6 m Spacing 20 m Width 10 m E ave = 13 lux Uo = 0.30

Neutral White - 8000 lumen

Mounting height 8 m Spacing 28 m Width 14 m E ave = 10.8 lux Uo = 0.25

Street lighting with Decoflood² LED

With its flush and discreet design, and its dedicated optical plate DM for architectural street lighting, Decoflood² LED BVP646 further extends its coherent and elegant family design to all urban lighting applications. It can provide visual comfort and security at night in pedestrian zones, shopping streets, and on quays, with the assurance of a nice urban design during the day.

The floodlights can be mounted on a mast or wall.

Color	LED lumen	LOR	System power	Luminaire
Temperature	package (lm)		consumption (W)	efficacy (Im/W)
Neutral White	8000 lm	0.84	98.0 W	68.6 lm/W
4000 K	6400 lm	0.84	81.0 W	66.4 lm/W
	3840 lm	0.84	48.2 W	66.9 lm/W
Warm White	6450 lm	0.84	98.0 W	55.3 lm/W
2700 K	5160 lm	0.84	81.0 W	53.5 lm/W
	3100 lm	0.84	48.2 W	54.0 lm/W







Path in park Spacing 27 m Class S2 E ave = 10 lux E min = 3 lux



Warm White - 3100 lumen

Residential road Spacing 27 m Class ME5 $L = 0.5 \text{ cd/m}^2$ Uo = 0.35UI = 0.4TI = 15%SR = 50%



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