Technical Data Sheet

NeoBulb Spectra VI for Flood/Area Lighting Application

NeoBulb Spectra VI is a LEDs outdoor lighting device associating six ultra-high-power NeoPac Light Engines coupled with narrow or wide or asymmetric secondary optics. **NeoBulb Spectra VI** offers ultra high brightness with asymmetric, narrow & wide beam patterns for flood /area lighting application. It is available in different colors such as white, warm white, red, green, blue and amber. Available in different wattage, it is perfect for car parking, parks, squares, small areas, working areas, patios, gardens, forecourts, building facades, loading bays, advertising bill boards, flood lighting, amenity and security lighting.

NeoBulb Spectra Series as well as entire NeoBulb product lines are ingeniously engineered LED lighting devices that are designed based on the proprietary NeoPac Universal Platform (NUP). Empowered by this structural LED technological platform, all NeoBulb products can operate at ultra-high power with high luminous flux, low junction temperature (T_j) and have outstanding performance with long predictable reliable life.

■ Features:

- Applications : car parking, parks, squares, small areas, working areas, patios, gardens, forecourts, building facades, loading bays, advertising bill boards, flood lighting, amenity and security lighting
- Extra-high-power LED emitters
- High performance optical system
- Excellent thermal management
- Proprietary NeoPac® Universal Platform
- Excellent aesthetic design and durable construction
- Narrow or wide or asymmetric beam pattern
- Long useful life (> 50,000 hours)
- Excellent luminaire efficiency > 75~90%
- IP65

■ Specifications

Items	Characteristics
Voltage Range	AC 100~ 240 V, 50 ~ 60 Hz
Power Efficiency	82 %
Beam Pattern / Beam Angle	Wide (80°), Narrow (26°), Asymmetric(135°)
Operating Temp.& Humidity	- 30 ~ 50°C & 10 ~ 90 % RH
Storage Temp.	10°C ~85°C
Useful Life	> 50,000 Hrs
Case	Die-cast Aluminum
Dimensions(mm)	538 (L) X 283 (W) X148(H)
Net Weight(Approx.)	12.0 kg
Ingress Protection	IP 65

■ Narrow Beam Specifications

Items	Spectra-VI (Red)	Spectra-VI (Amber)	Spectra-VI (Green)	Spectra-VI (Blue)	Spectra-VI (White)	Spectra-VI (M. White)	Spectra-VI (Warm White)
LED-Power Consumption	42 W	42 W	60 W	60 W	60 W	51 W	60 W
System Power Consumption	51 W	51 W	73 W	73 W	73 W	62 W	73 W
LEDs Initial Luminous Flux	1,340 lm	1,680 lm	2,640 lm	720 lm	3600 lm	3345 lm	2700 lm
LEDs Maintained Luminous Flux	1,180 lm	1,260 lm	2,480 lm	685 lm	3315 lm	3010 lm	2460 lm
Lighting Fixture Luminous Flux	1,060 lm	1,130 lm	2,230 lm	615 lm	2980 lm	2710 lm	2215 lm
Max. Illuminance (E_{max}) (@5m)	>80 lux	>85 lux	>171 lux	>47 lux	>294 lux	>195 lux	>192 lux
Wavelength(λ) nm / CCT(K)	620~630 nm	586~594 nm	520~535 nm	465~475 nm	5000~7000 K (CRI > 75)	2700~ 3700 K (CRI >65)	2800~ 3200 K (CRI >65)
Light Source(NeoPac® Emitter)	7 Watt	7 Watt	10 Watt	10 Watt	10 Watt	7&10 Watt	10 Watt
Junction Temperature (T_j)(T_a= 25°C)	50°C ± 1°C	50°C ± 1°C	60°C ± 1°C	60°C ± 1°C	60°C ± 1°C	55°C ± 1°C	60°C ± 1°C
Sys. Thermal Resistance (R_{ja})	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W
Housing Ambient Temp.(T_a=25°C)	36°C	36°C	40°C	40°C	40°C	38°C	40°C

■ Wide Beam Specifications

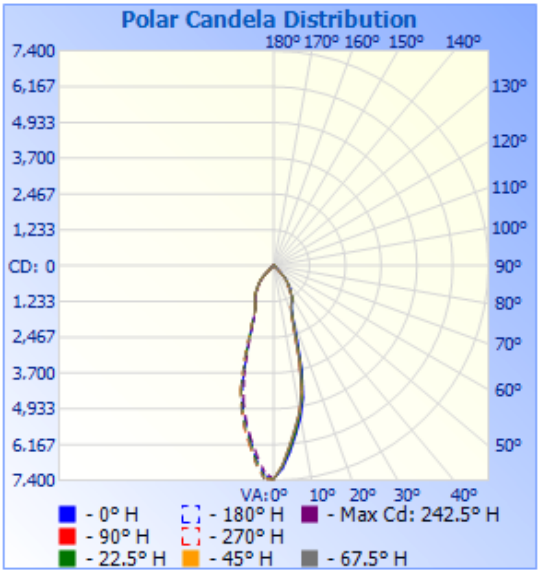
Items	Spectra-VI (Red)	Spectra-VI (Amber)	Spectra-VI (Green)	Spectra-VI (Blue)	Spectra-VI (White)	Spectra-VI (M. White)	Spectra-VI (Warm White)
LED-Power Consumption	42 W	42 W	60 W	60 W	60 W	51 W	60 W
System Power Consumption	51 W	51 W	73 W	73 W	73 W	62 W	73 W
LEDs Initial Luminous Flux	1,340 lm	1,680 lm	2,640 lm	720 lm	3600 lm	3345 lm	2700 lm
LEDs Maintained Luminous Flux	1,180 lm	1,260 lm	2,480 lm	685 lm	3315 lm	3010 lm	2460 lm
Lighting Fixture Luminous Flux	1,000 lm	1,070 lm	2,100 lm	580 lm	2820 lm	2560 lm	2090 lm
Max. Illuminance (E_{max}) (@5m)	>18 lux	>20 lux	>36 lux	>7 lux	>66 lux	>46 lux	>45 lux
Wavelength(λ) nm / CCT(K)	620~630 nm	586~594 nm	520~535 nm	465~475 nm	5000~7000 K (CRI > 75)	2700~ 3700 K (CRI >65)	2800~ 3200 K (CRI >65)
Light Source(NeoPac® Emitter)	7 Watt	7 Watt	10 Watt	10 Watt	10 Watt	7&10 Watt	10 Watt
Junction Temperature (T_j)(T_a= 25°C)	50°C ± 1°C	50°C ± 1°C	60°C ± 1°C	60°C ± 1°C	60°C ± 1°C	55°C ± 1°C	60°C ± 1°C
Sys. Thermal Resistance (R_{ja})	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W
Housing Ambient Temp.(T_a=25°C)	36°C	36°C	40°C	40°C	40°C	38°C	40°C

■ Asymmetric Beam Specifications

Items	Spectra-VI (Red)	Spectra-VI (Amber)	Spectra-VI (Green)	Spectra-VI (Blue)	Spectra-VI (White)	Spectra-VI (M. White)	Spectra-VI (Warm White)
LED-Power Consumption	42 W	42 W	60 W	60 W	60 W	51 W	60 W
System Power Consumption	51 W	51 W	73 W	73 W	73 W	62 W	73 W
LEDs Initial Luminous Flux	1,340 lm	1,680 lm	2,640 lm	720 lm	3600 lm	3345 lm	2700 lm
LEDs Maintained Luminous Flux	1,180 lm	1,260 lm	2,480 lm	685 lm	3315 lm	3010 lm	2460 lm
Lighting Fixture Luminous Flux	945 lm	1010 lm	1985 lm	550 lm	2650 lm	2410 lm	1970 lm
Max. Illuminance (E_{max}) (@5m)	>9 lux	>11 lux	>20 lux	>5 lux	>34 lux	>28 lux	>23 lux
Wavelength(λ) nm / CCT(K)	620~630 nm	586~594 nm	520~535 nm	465~475 nm	5000~7000 K (CRI > 75)	2700~ 3700 K (CRI >65)	2800~ 3200 K (CRI >65)
Light Source(NeoPac® Emitter)	7 Watt	7 Watt	10 Watt	10 Watt	10 Watt	7&10 Watt	10 Watt
Junction Temperature (T_j)(T_a= 25°C)	50°C ± 1°C	50°C ± 1°C	60°C ± 1°C	60°C ± 1°C	60°C ± 1°C	55°C ± 1°C	60°C ± 1°C
Sys. Thermal Resistance (R_{ja})	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W	0.58°C / W
Housing Ambient Temp.(T_a=25°C)	36°C	36°C	40°C	40°C	40°C	38°C	40°C

■ Photometric Data

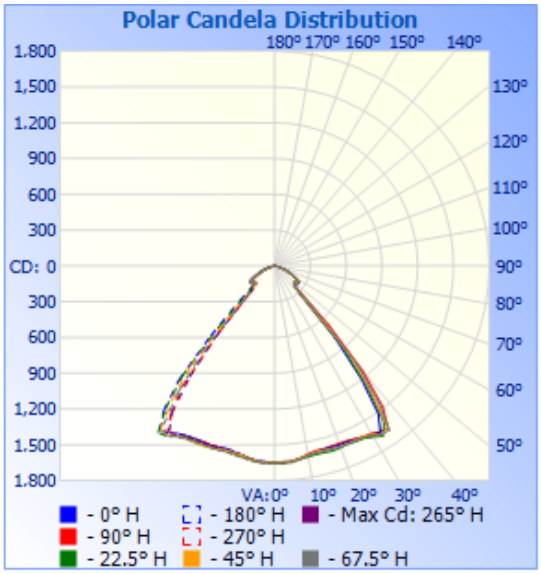
◆ Narrow Beam Pattern (26°)



Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	87.5%	2,932.4	80.1	80.1
Beam (50%):	36%	1,206.9	31	31.2
Total:	99.7%	3,342.2		

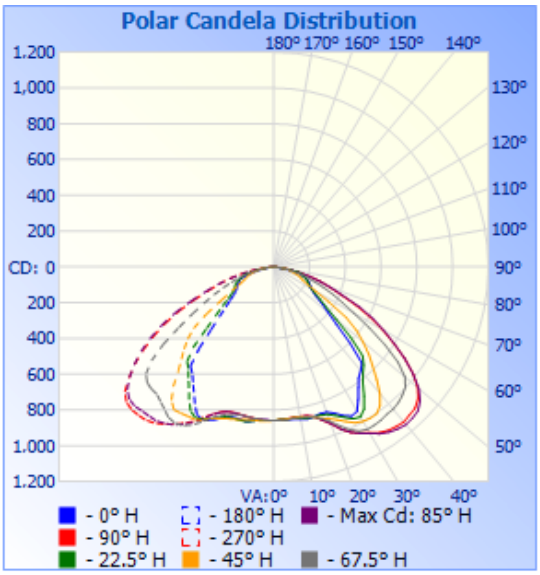
◆ Wide Beam Pattern (80°)



Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	95.1%	2,857.0	115.3	124
Beam (50%):	78%	2,343.7	55.6	77.7
Total:	99.9%	3,001.5		

◆ Asymmetric Beam Pattern (135°)



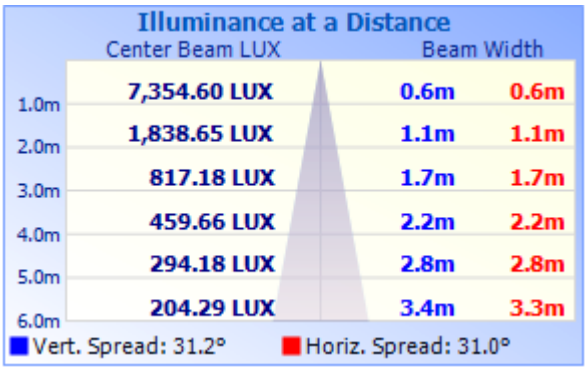
Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	97.9%	2,846.0	159.6	141.4
Beam (50%):	75.9%	2,205.6	128.6	76
Total:	99.9%	2,906.1		

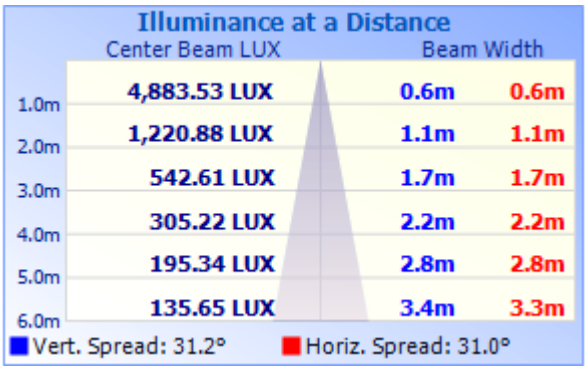
■ Illuminance Distribution Vs. Distance

◆ Narrow Beam Distribution (26°)

White color

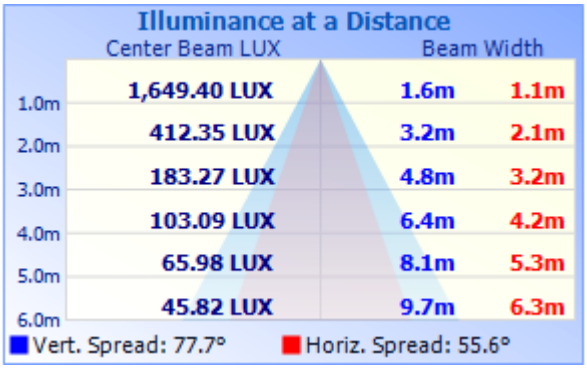


M. White color

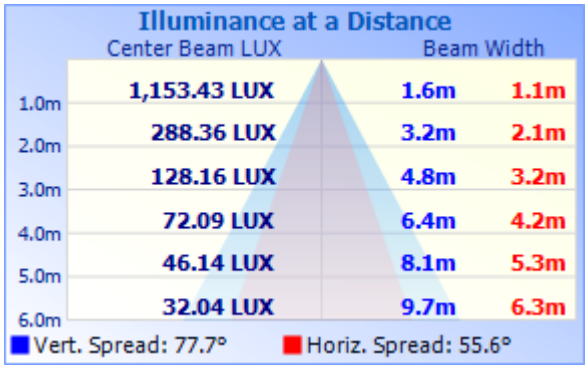


◆ Wide Beam Distribution (80°)

White color

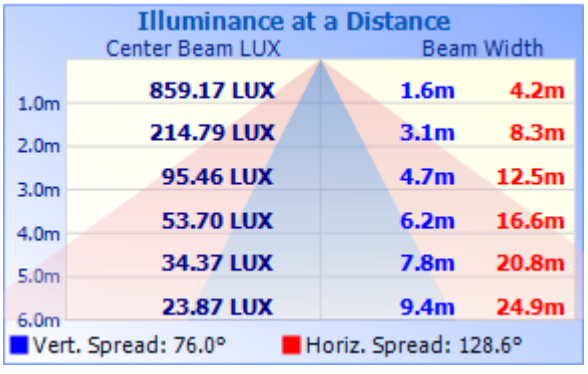


M. White color

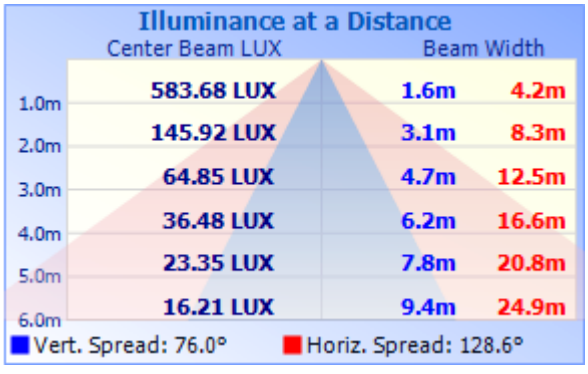


◆ Asymmetric Beam Distribution (135°)

White color



M. White color

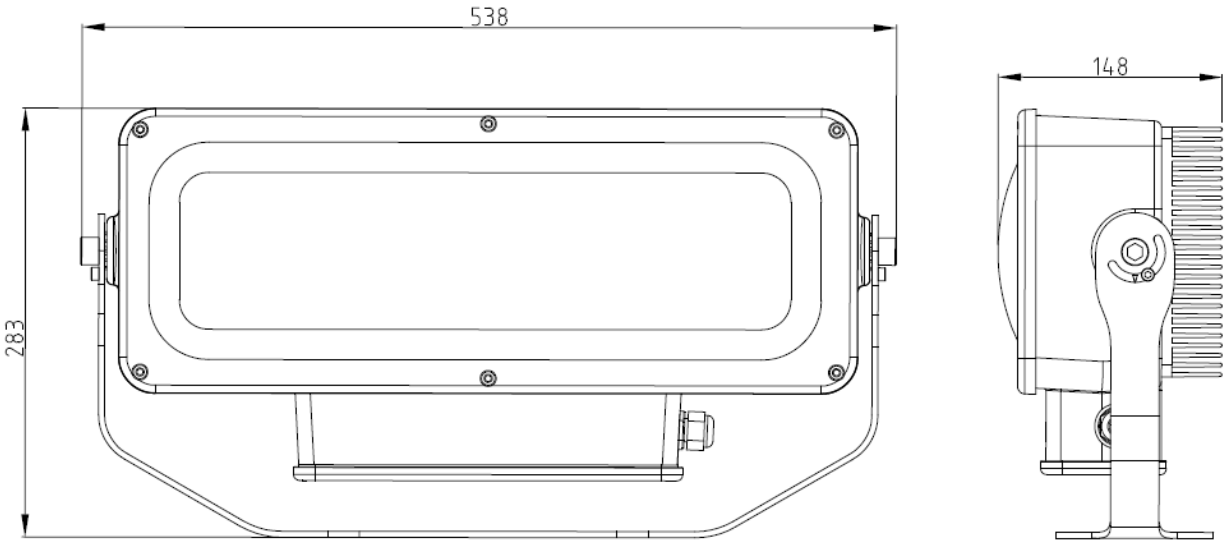


Note:

Different colors illuminance distribution at different heights could get from white color illuminance distribution diagram multiplying by a factors for narrow beam, wide beam and asymmetric beam as shown in the below table.

COLOR	ILLUMINANCE VALUE (LUX) AT PARTICULAR HEIGHT
Red	White color lux x 0.28
Amber	White color lux x 0.32
Green	White color lux x 0.58
Blue	White color lux x 0.16
Warm White	White color lux x 0.72

■ Drawings:



Remark:

1. Deviation +/- 10 % for all listed data

Dimensional Units: mm

1. Saturation Time under Natural Convection: 2 Hrs.