NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of one source.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | ☐ 1,500 | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

☐ snoot 30°
☐ snoot 45°

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

Linear Diffusion

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of two sources. Each source can be independently configured. The overview below lists available options.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

| |
|---|
| ☐ snoot 30° |
| ☐ snoot 45° |

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

| |
|---|
| Linear Diffusion |

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of two sources. Each source can be independently configured. The overview below lists available options.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

| |
|---|
| ☐ snoot 30° |
| ☐ snoot 45° |

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

| |
|---|
| Linear Diffusion |

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

NERI

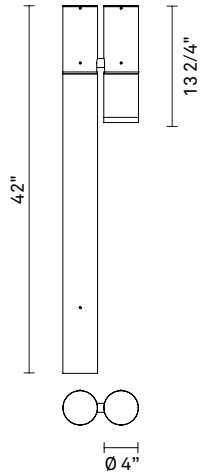
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 17,6lb |
| **Height** | 42" |
| **Diameter** | 4" |
| **EPA** | 1,27 $ft^2$ |

Nebula luminaire heads are composed by one light source.




Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 30° Medium narrow spot | 2,700K | 1,000 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | 1,500 | | |
| | 70° Medium wide flood | 4,000K | 2,500 | | |
| | 80° Medium wide flood | | | | |

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

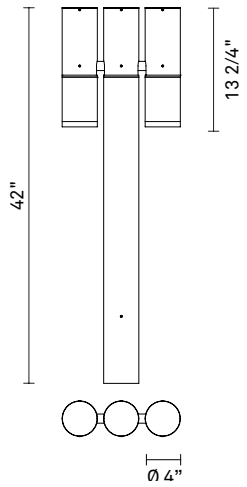
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 22,0lb |
| **Height** | 42" |
| **Diameter** | 4" |
| **EPA** | 1,55 $ft^2$ |

Nebula luminaire heads are composed by two light sources.

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Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | 30° Medium narrow spot | 2,700K | 1,000 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | 1,500 | | |
| | 70° Medium wide flood | 4,000K | 2,500 | | |
| | 80° Medium wide flood | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | 30° Medium narrow spot | 2,700K | 1,000 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | 1,500 | | |
| | 70° Medium wide flood | 4,000K | 2,500 | | |
| | 80° Medium wide flood | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

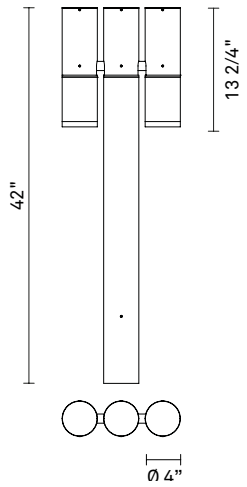
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 22,0lb |
| **Height** | 42" |
| **Diameter** | 4" |
| **EPA** | 1,55 $ft^2$ |

Nebula luminaire heads are composed by two light sources.




Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - ST**
Prismatic flat glass - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 12.5 | 80 |
| 1,500 | 18.7 | 80 |

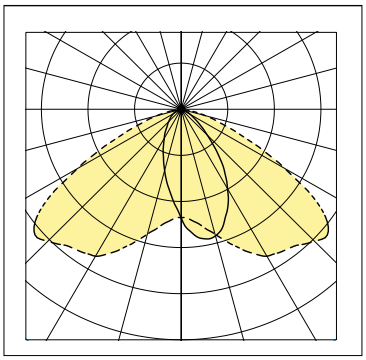
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 11.6 | 86 |
| 1,500 | 17.4 | 86 |

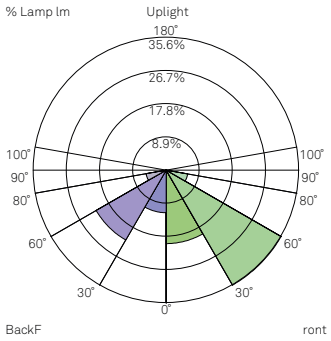
**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 10.3 | 97 |
| 1,500 | 15.5 | 97 |

**Type I**
Prismatic flat glass



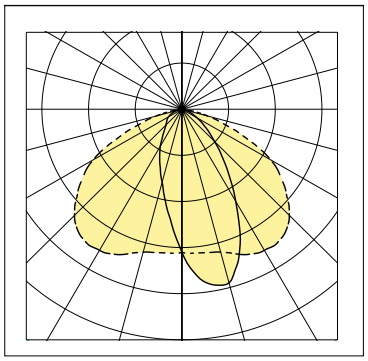
LOR 100%
Full Cutoff



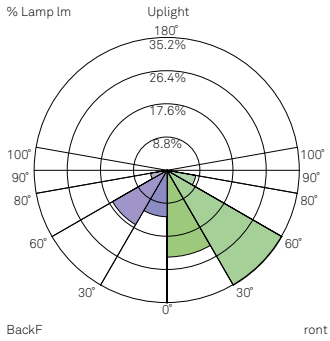

| LCS Zone | Angles | % Lamp% | Lum |
|---|---|---|---|
| FL | 0° - 30° | 19.7 | 19.7 |
| FM | 30° - 60° | 35.6 | 35.6 |
| FH | 60° - 80° | 5.95 | .9 |
| FVH | 80° - 90° | 0.20 | .2 |
| BL | 0° - 30° | 11.4 | 11.4 |
| BM | 30° - 60° | 21.6 | 21.6 |
| BH | 60° - 80° | 5.45 | .4 |
| BVH | 80° - 90° | 0.20 | .2 |
| UL | 90° - 100° | 0.00 | .0 |
| UH | 100° - 180° | 0.00 | .0 |
| Totals | | 100.01 | 00.0 |

BUG: B1 U0 G0

**Type II**
Prismatic flat glass



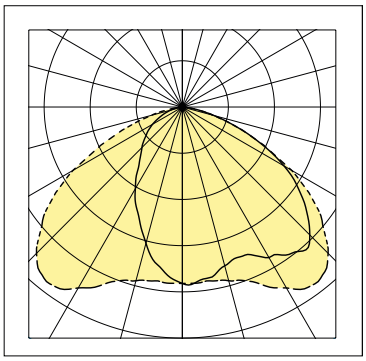
LOR 100%
Full Cutoff



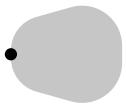

| LCS Zone | Angles | % Lamp% | Lum |
|---|---|---|---|
| FL | 0° - 30° | 23.0 | 23.0 |
| FM | 30° - 60° | 35.2 | 35.2 |
| FH | 60° - 80° | 7.87 | .8 |
| FVH | 80° - 90° | 0.30 | .3 |
| BL | 0° - 30° | 12.3 | 12.3 |
| BM | 30° - 60° | 16.7 | 16.7 |
| BH | 60° - 80° | 4.54 | .5 |
| BVH | 80° - 90° | 0.20 | .2 |
| UL | 90° - 100° | 0.00 | .0 |
| UH | 100° - 180° | 0.00 | .0 |
| Totals | | 100.01 | 00.0 |

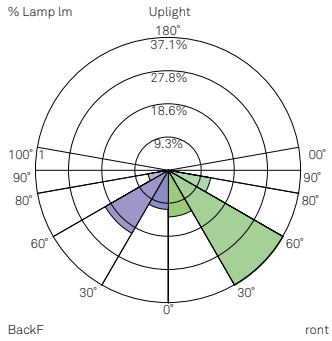
BUG: B1 U0 G0

**Type IV**
Prismatic flat glass



LOR 100%
Full Cutoff

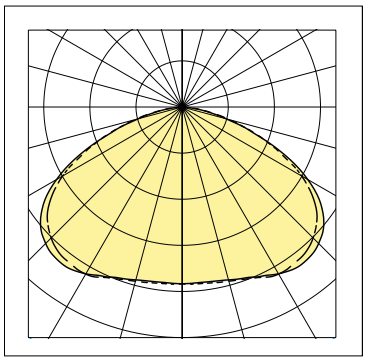




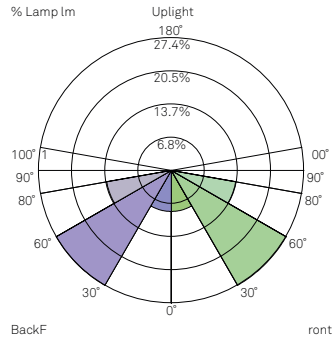

| LCS Zone | Angles | % Lamp% | Lum |
|---|---|---|---|
| FL | 0° - 30° | 13.0 | 13.0 |
| FM | 30° - 60° | 37.1 | 37.1 |
| FH | 60° - 80° | 12.1 | 12.1 |
| FVH | 80° - 90° | 0.50 | .5 |
| BL | 0° - 30° | 11.0 | 11.0 |
| BM | 30° - 60° | 20.4 | 20.4 |
| BH | 60° - 80° | 5.75 | .7 |
| BVH | 80° - 90° | 0.30 | .3 |
| UL | 90° - 100° | 0.00 | .0 |
| UH | 100° - 180° | 0.00 | .0 |
| Totals | | 100.01 | 00.0 |

BUG: B1 U0 G0

**Type V**
Prismatic flat glass



LOR 100%
Full Cutoff




| LCS Zone | Angles | % Lamp% | Lum |
|---|---|---|---|
| FL | 0° - 30° | 8.58 | .5 |
| FM | 30° - 60° | 27.4 | 27.4 |
| FH | 60° - 80° | 13.5 | 13.5 |
| FVH | 80° - 90° | 0.60 | .6 |
| BL | 0° - 30° | 8.58 | .5 |
| BM | 30° - 60° | 27.4 | 27.4 |
| BH | 60° - 80° | 13.5 | 13.5 |
| BVH | 80° - 90° | 0.60 | .6 |
| UL | 90° - 100° | 0.00 | .0 |
| UH | 100° - 180° | 0.00 | .0 |
| Totals | | 100.01 | 00.0 |

BUG: B1 U0 G0

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - PR**
Transparent flat glass - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.7 | 103 |
| 1,500 | 13.5 | 111 |
| 2,500 | 21.0 | 119 |

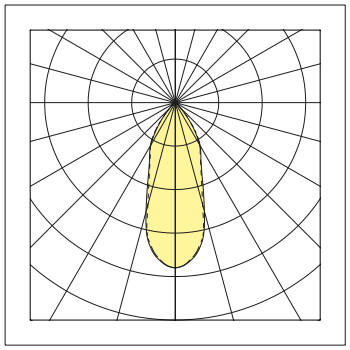
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.3 | 108 |
| 1,500 | 12.3 | 116 |
| 2,500 | 20.0 | 125 |

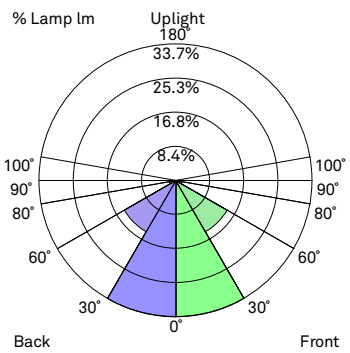
**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.0 | 111 |
| 1,500 | 12.6 | 119 |
| 2,500 | 19.4 | 129 |

**30° Medium narrow spot**
Transparent flat glass



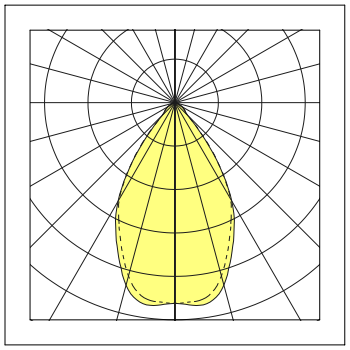
LOR 100%
Full Cutoff
NEMA class 5x5



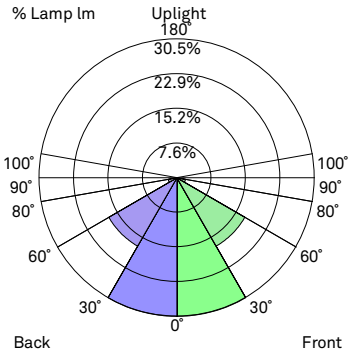

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 33.7 | 33.7 |
| FM | 30° - 60° | 14.6 | 14.6 |
| FH | 60° - 80° | 1.6 | 1.6 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 33.7 | 33.7 |
| BM | 30° - 60° | 14.6 | 14.6 |
| BH | 60° - 80° | 1.6 | 1.6 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**60° Medium flood**
Transparent flat glass



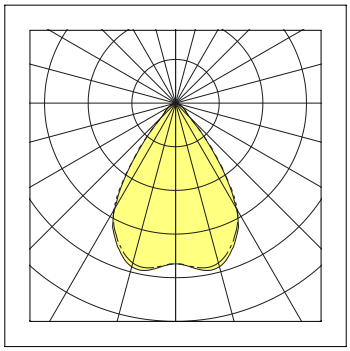
LOR 100%
Full Cutoff
NEMA class 5x5



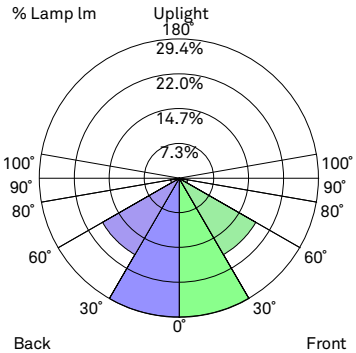

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 30.5 | 30.5 |
| FM | 30° - 60° | 17.4 | 17.4 |
| FH | 60° - 80° | 1.9 | 1.9 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 30.5 | 30.5 |
| BM | 30° - 60° | 17.4 | 17.4 |
| BH | 60° - 80° | 1.9 | 1.9 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**70° Medium wide flood**
Transparent flat glass



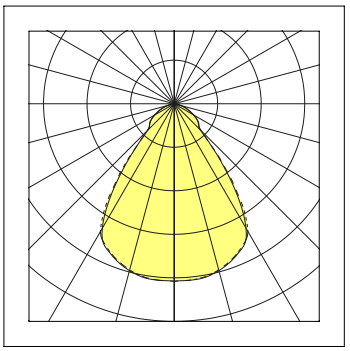
LOR 100%
Full Cutoff
NEMA class 5x5



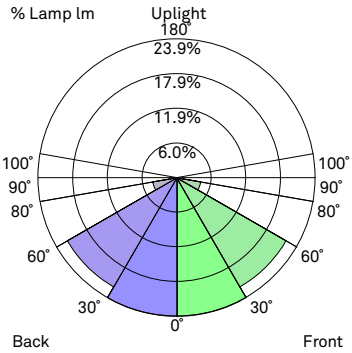

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 29.4 | 29.4 |
| FM | 30° - 60° | 18.6 | 18.6 |
| FH | 60° - 80° | 1.8 | 1.8 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 29.4 | 29.4 |
| BM | 30° - 60° | 18.6 | 18.6 |
| BH | 60° - 80° | 1.8 | 1.8 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**80° Medium wide flood**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 7x7




| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 23.9 | 23.9 |
| FM | 30° - 60° | 21.7 | 21.7 |
| FH | 60° - 80° | 4.2 | 4.2 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 23.9 | 23.9 |
| BM | 30° - 60° | 21.7 | 21.7 |
| BH | 60° - 80° | 4.2 | 4.2 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

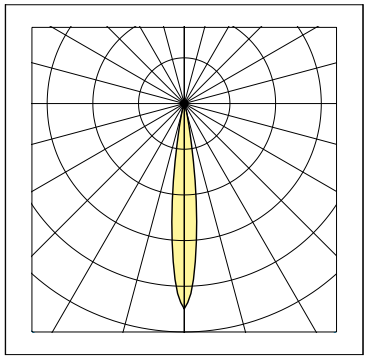
| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - RGBW**
Transparent flat glass - High Power LED

**RGBW**

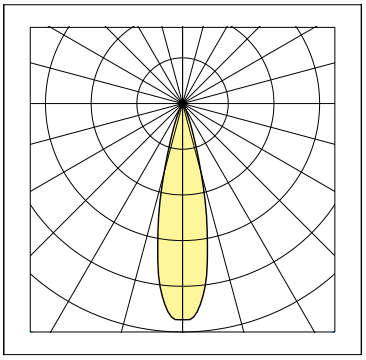
| Color | lm | λ (nm) |
|---|---|---|
| Red | 270 (R) | 623 |
| Green | 210 (G) | 517 |
| Blu | 75 (B) | 455 |
| White | 390 (W) | - |

**15° Very narrow spot**
Transparent flat glass



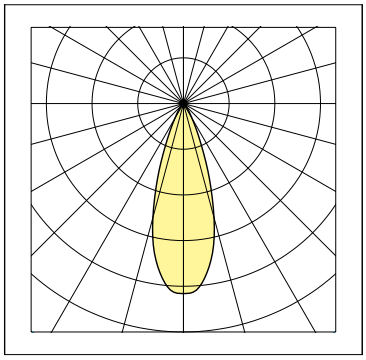
LOR 100%
Full Cutoff
NEMA class 2x2

**25° Narrow spot**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 3x3

**35° Medium narrow spot**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 4x4

NERI

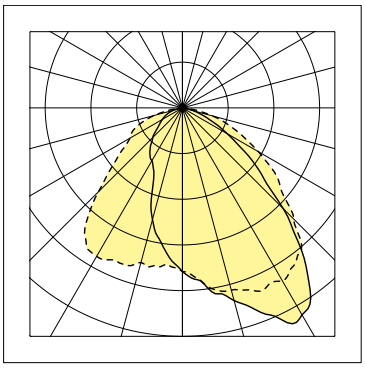
| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD - A**
Prismatic flat glass - High Power LED

**Amber**

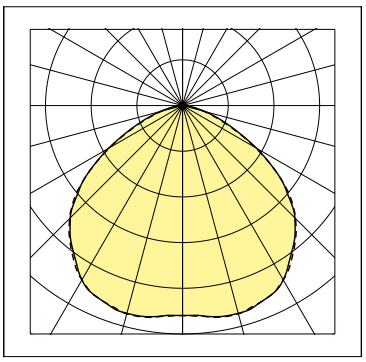
| Color | lm | λ (nm) |
|---|---|---|
| Amber | 350 | 598 |

**Type II**
Prismatic flat glass



LOR 100%
Full Cutoff

**Type V**
Prismatic flat glass



LOR 100%
Full Cutoff

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of one source.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | ☐ 1,500 | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

☐ snoot 30°

☐ snoot 45°

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

Linear Diffusion

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of two sources. Each source can be independently configured. The overview below lists available options.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | ☐ 1,500 | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

| |
|---|
| ☐ snoot 30° |
| ☐ snoot 45° |

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

| |
|---|
| Linear Diffusion |

☐ **NEBULA BOLLARD - FINISH**

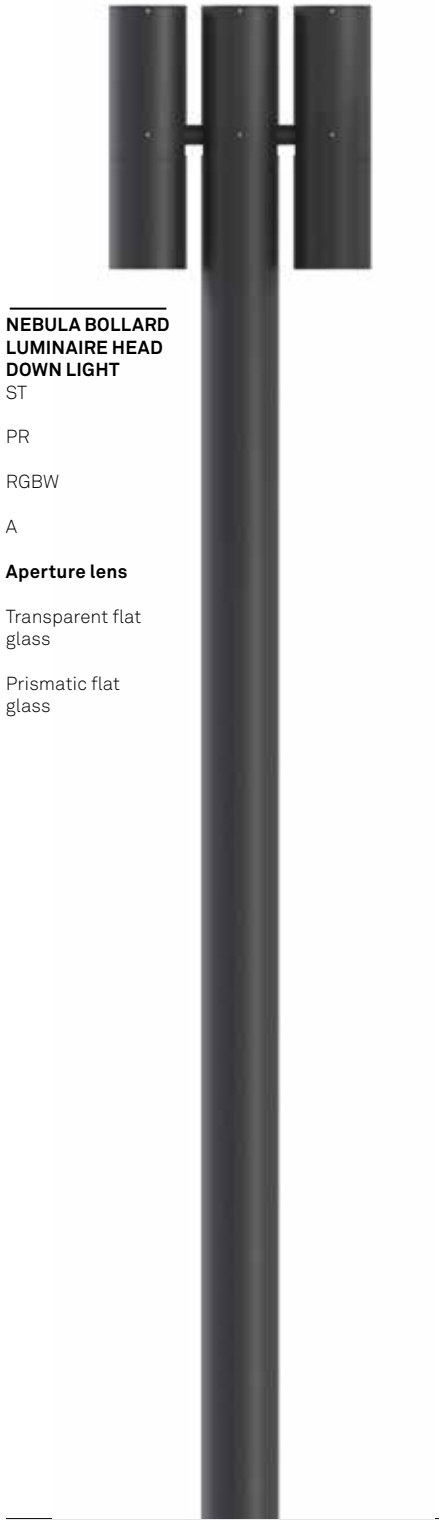
| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD (4")**
Nebula Bollard luminaire head consists of two sources. Each source can be independently configured. The overview below lists available options.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**



**NEBULA BOLLARD**
**LUMINAIRE HEAD**
**DOWN LIGHT**
ST

PR

RGBW

A

**Aperture lens**

Transparent flat glass

Prismatic flat glass

☐ **NEBULA BOLLARD - ST**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type I | ☐ 2,700K | ☐ 1,000 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ Type II | ☐ 3,000K | ☐ 2 ,500 | | |
| ☐ Type IV | ☐ 4,000K | | | |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 30° Medium narrow spot | ☐ 2,700K | ☐ 1,500 | ☐ 0-10V | ☐ Transparent flat glass |
| ☐ 60° Narrow flood | ☐ 3,000K | ☐ 2,500 | | |
| ☐ 70° Medium wide flood | ☐ 4,000K | | | |
| ☐ 80° Medium wide flood | | | | |

☐ **NEBULA BOLLARD - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 15° Very narrow spot | ☐ RGBW | 270 lm (R) | ☐ DMX | ☐ Transparent flat glass |
| ☐ 25° Narrow spot | | 210 lm (G) | | |
| ☐ 35° Medium narrow spot | | 75 lm (B) | | |
| | | 390 lm (W) | | |

☐ **NEBULA BOLLARD - A**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ Type II | ☐ Amber | 350 lm (A) | ☐ 0-10V | ☐ Prismatic flat glass |
| ☐ Type V | | | | |

☐ **NEBULA BOLLARD - SNOOT**

☐ snoot 30°

☐ snoot 45°

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

Linear Diffusion

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

NERI

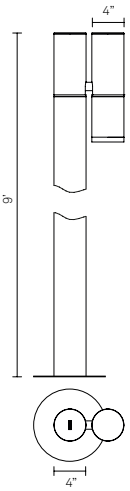
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.00 | 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 24,2lb |
| **Height** | 9' |
| **Diameter** | 4" |
| **EPA** | 2,73 $ft^2$ |

Nebula luminaire heads are composed by one light source.




c UL us
Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 30° Medium narrow spot | 2,700K | 1,000 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | 1,500 | | |
| | 70° Medium wide flood | 4,000K | 2,500 | | |
| | 80° Medium wide flood | | | | |

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

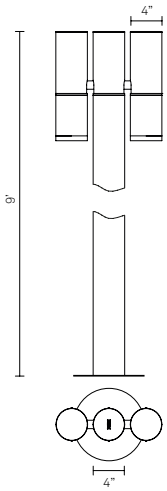
NERI

| | |
|---|---|
| Project location: | Fixture type: |
| Project name: | |
| Model code #: Date | Rev.00 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 28,6lb |
| **Height** | 9' |
| **Diameter** | 4" |
| **EPA** | 3,1 $ft^2$ |

Nebula luminaire heads are composed by two light sources.




Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - ST

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | Type I | 2,700K | 1,000 | 0-10V | Prismatic flat glass |
| | Type II | 3,000K | 1,500 | | |
| | Type IV | 4,000K | | | |
| | Type V | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | 30° Medium narrow spot | 2,700K | 1,000<br>1,500<br>2,500 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | | | |
| | 70° Medium wide flood | 4,000K | | | |
| | 80° Medium wide flood | | | | |

## Nebula Bollard - PR

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | 30° Medium narrow spot | 2,700K | 1,000<br>1,500<br>2,500 | 0-10V | Trasparent flat glass |
| | 60° Medium flood | 3,000K | | | |
| | 70° Medium wide flood | 4,000K | | | |
| | 80° Medium wide flood | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

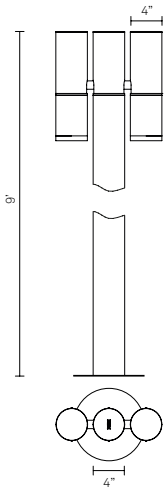
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.00 | 03/2024 |

## Nebula Bollard

| | |
|---|---|
| **Source** | LED |
| **Weight** | 28,6lb |
| **Height** | 9' |
| **Diameter** | 4" |
| **EPA** | 3,1 $ft^2$ |

Nebula luminaire heads are composed by two light sources.




Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - RGBW

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | 15° Very narrow spot | RGBW | 270 (R) | DMX | Trasparent flat glass |
| | 25° Narrow spot | | 210 (G) | | |
| | 35° Medium narrow spot | | 75 (B) | | |
| | | | 390 (W) | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Left | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

## Nebula Bollard - A

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| Right | Type II | A | 350 | 0-10V | Prismatic flat glass |
| | Type V | | | | |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Shield in extra-clear transparent or prismatic tempered glass.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Extra clear transparent or prismatic tempered flat glass.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing by two headless screws M6 lock nuts with stainless steel.
- Central frame with a tilting system of ± 45°.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 12.6 W to 24.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: from 1,000 to 1,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
  - LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).
- LED type: Cree XB-D Color, Nebula Amber (estimated life 60,000 h L80 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - ST**
Transparent flat glass - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 12.5 | 80 |
| 1,500 | 18.7 | 80 |

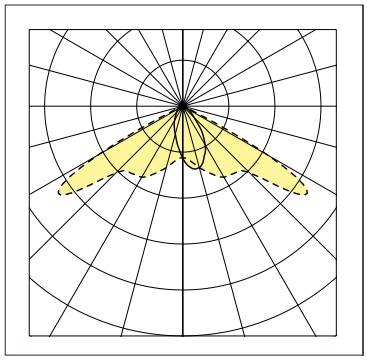
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 11.6 | 86 |
| 1,500 | 17.4 | 86 |

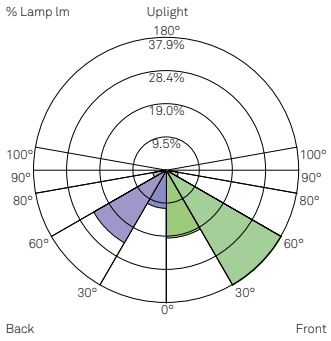
**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 10.3 | 97 |
| 1,500 | 15.5 | 97 |

**Type I**
Prismatic flat glass



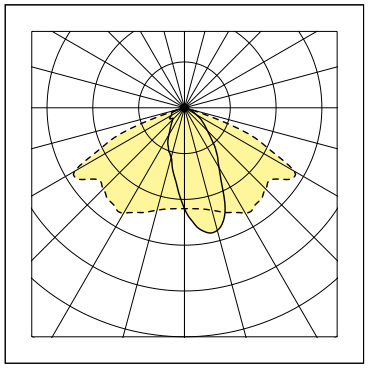
LOR 100%
Full Cutoff



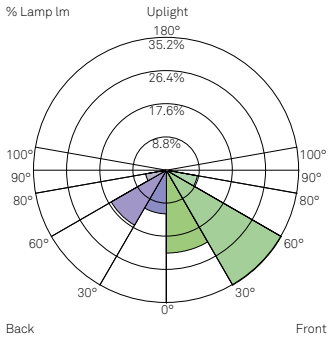

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 19.4 | 19.4 |
| FM | 30° - 60° | 37.9 | 37.9 |
| FH | 60° - 80° | 3.5 | 3.5 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 10.9 | 10.9 |
| BM | 30° - 60° | 24.0 | 24.0 |
| BH | 60° - 80° | 3.9 | 3.9 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

1,000lm - BUG: B1 U0 G0

**Type II**
Prismatic flat glass



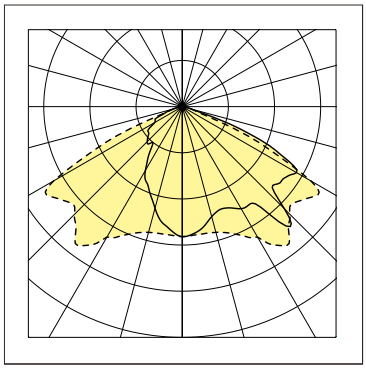
LOR 100%
Full Cutoff



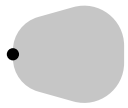

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 22.0 | 22.0 |
| FM | 30° - 60° | 35.2 | 35.2 |
| FH | 60° - 80° | 8.3 | 8.3 |
| FVH | 80° - 90° | 0.3 | 0.3 |
| BL | 0° - 30° | 11.6 | 11.6 |
| BM | 30° - 60° | 16.8 | 16.8 |
| BH | 60° - 80° | 5.6 | 5.6 |
| BVH | 80° - 90° | 0.3 | 0.3 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

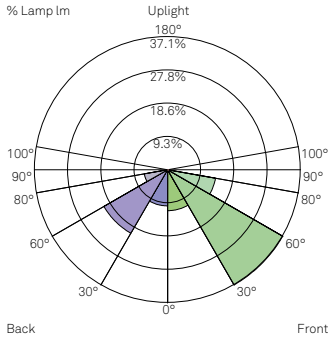
1,000lm - BUG: B1 U0 G0

**Type IV**
Prismatic flat glass



LOR 100%
Full Cutoff

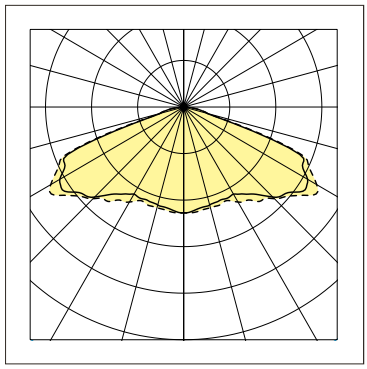




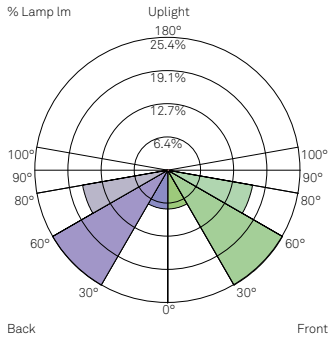

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 11.4 | 11.4 |
| FM | 30° - 60° | 37.1 | 37.1 |
| FH | 60° - 80° | 13.6 | 13.6 |
| FVH | 80° - 90° | 0.3 | 0.3 |
| BL | 0° - 30° | 10.1 | 10.1 |
| BM | 30° - 60° | 20.5 | 20.5 |
| BH | 60° - 80° | 6.6 | 6.6 |
| BVH | 80° - 90° | 0.4 | 0.4 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

1,000lm - BUG: B0 U0 G0

**Type V**
Prismatic flat glass



LOR 100%
Full Cutoff




| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 7.4 | 7.4 |
| FM | 30° - 60° | 25.4 | 25.4 |
| FH | 60° - 80° | 16.5 | 16.5 |
| FVH | 80° - 90° | 0.6 | 0.6 |
| BL | 0° - 30° | 7.4 | 7.4 |
| BM | 30° - 60° | 25.4 | 25.4 |
| BH | 60° - 80° | 16.5 | 16.5 |
| BVH | 80° - 90° | 0.6 | 0.6 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

1,000lm - BUG: B1 U0 G0

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - PR**
Transparent flat glass - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.7 | 103 |
| 1,500 | 13.5 | 111 |
| 2,500 | 21.0 | 119 |

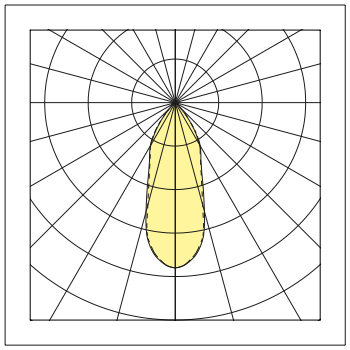
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.3 | 108 |
| 1,500 | 12.3 | 116 |
| 2,500 | 20.0 | 125 |

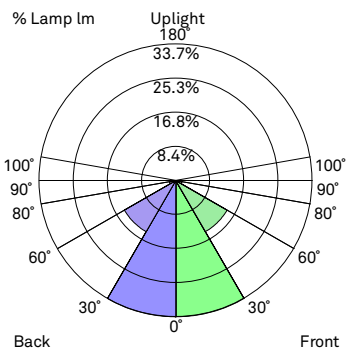
**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 1,000 | 9.0 | 111 |
| 1,500 | 12.6 | 119 |
| 2,500 | 19.4 | 129 |

**30° Medium narrow spot**
Transparent flat glass



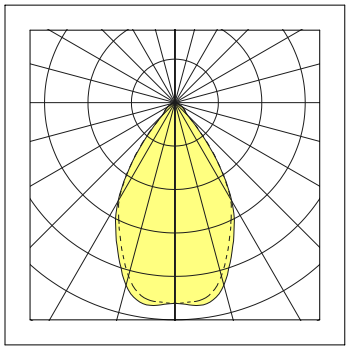
LOR 100%
Full Cutoff
NEMA class 5x5



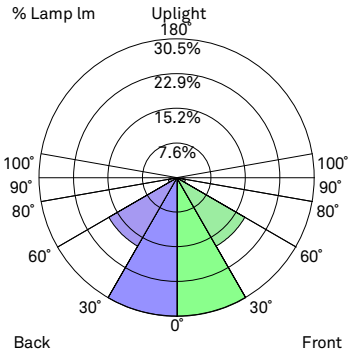

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 33.7 | 33.7 |
| FM | 30° - 60° | 14.6 | 14.6 |
| FH | 60° - 80° | 1.6 | 1.6 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 33.7 | 33.7 |
| BM | 30° - 60° | 14.6 | 14.6 |
| BH | 60° - 80° | 1.6 | 1.6 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**60° Medium flood**
Transparent flat glass



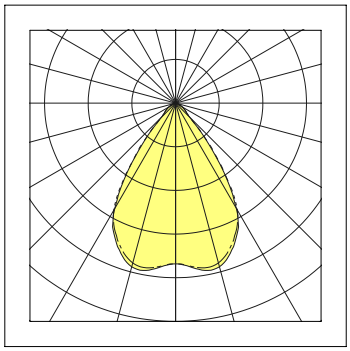
LOR 100%
Full Cutoff
NEMA class 5x5



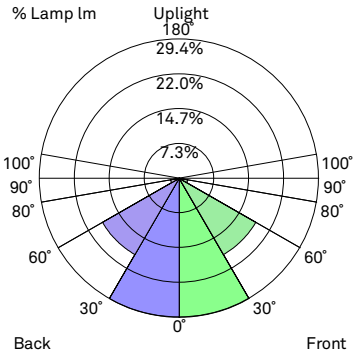

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 30.5 | 30.5 |
| FM | 30° - 60° | 17.4 | 17.4 |
| FH | 60° - 80° | 1.9 | 1.9 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 30.5 | 30.5 |
| BM | 30° - 60° | 17.4 | 17.4 |
| BH | 60° - 80° | 1.9 | 1.9 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**70° Medium wide flood**
Transparent flat glass



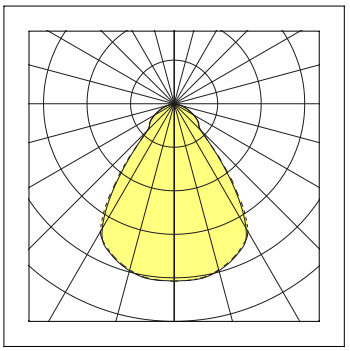
LOR 100%
Full Cutoff
NEMA class 5x5



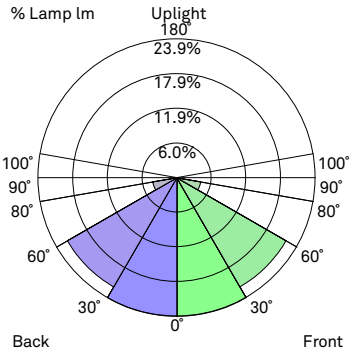

| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 29.4 | 29.4 |
| FM | 30° - 60° | 18.6 | 18.6 |
| FH | 60° - 80° | 1.8 | 1.8 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 29.4 | 29.4 |
| BM | 30° - 60° | 18.6 | 18.6 |
| BH | 60° - 80° | 1.8 | 1.8 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

**80° Medium wide flood**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 7x7




| LCS Zone | Angles | % Lamp | % Lum |
|---|---|---|---|
| FL | 0° - 30° | 23.9 | 23.9 |
| FM | 30° - 60° | 21.7 | 21.7 |
| FH | 60° - 80° | 4.2 | 4.2 |
| FVH | 80° - 90° | 0.2 | 0.2 |
| BL | 0° - 30° | 23.9 | 23.9 |
| BM | 30° - 60° | 21.7 | 21.7 |
| BH | 60° - 80° | 4.2 | 4.2 |
| BVH | 80° - 90° | 0.2 | 0.2 |
| UL | 90° - 100° | 0.0 | 0.0 |
| UH | 100° - 180° | 0.0 | 0.0 |
| Totals | | 100.0 | 100.0 |

BUG: B2 U0 G0

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

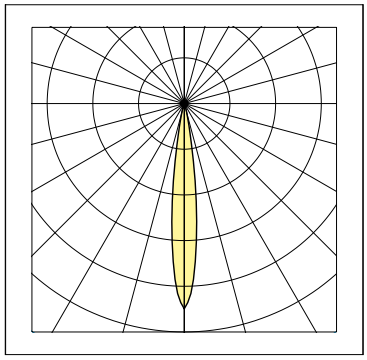
| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA BOLLARD - RGBW**
Transparent flat glass - High Power LED

**RGBW**

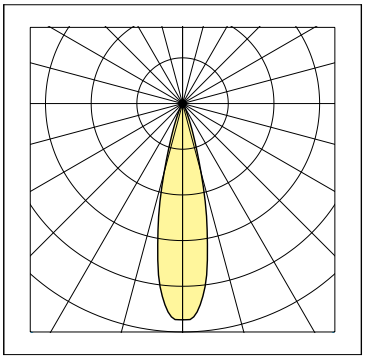
| Color | lm | λ (nm) |
|---|---|---|
| Red | 270 (R) | 623 |
| Green | 210 (G) | 517 |
| Blu | 75 (B) | 455 |
| White | 390 (W) | - |

**15° Very narrow spot**
Transparent flat glass



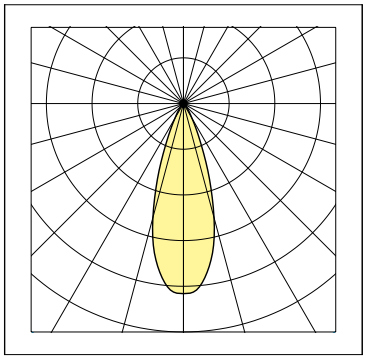
LOR 100%
Full Cutoff
NEMA class 2x2

**25° Narrow spot**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 3x3

**35° Medium narrow spot**
Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 4x4

NERI

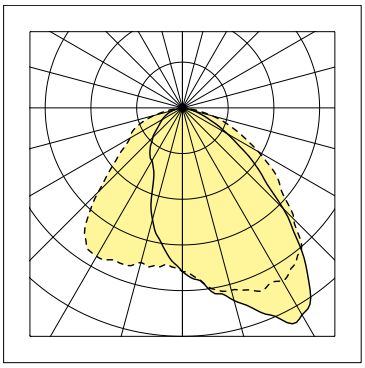
| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA BOLLARD - A**
Prismatic flat glass - High Power LED

**Amber**

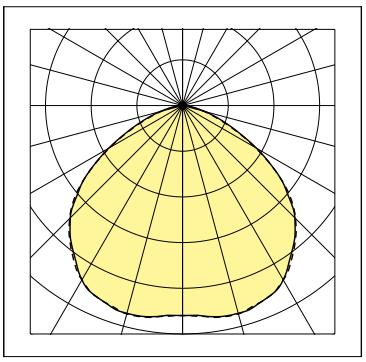
| Color | lm | λ (nm) |
|---|---|---|
| Amber | 350 | 598 |

**Type II**
Prismatic flat glass



LOR 100%
Full Cutoff

**Type V**
Prismatic flat glass



LOR 100%
Full Cutoff

NERI

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|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA PATHLIGHT (6")**
Nebula Pathlight luminaire head consists of one source.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

☐ **NEBULA PATHLIGHT - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 65° Medium wide flood | ☐ 2,700K<br>☐ 3,000K<br>☐ 4,000K | ☐ 500 | ☐ 1-10V | ☐ PC screen |

☐ **NEBULA PATHLIGHT - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 60° Medium wide flood | ☐ RGBW | 70 lm (R)<br>125 lm (G)<br>22 lm (B)<br>100 lm (W) | ☐ DMX | ☐ PC screen |

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

**NEBULA PATHLIGHT**
PR

RGBW

**Aperture lens**

PC protection screen

NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA PATHLIGHT (6")**
Nebula Pathlight luminaire head consists of two sources.

**NEBULA BOLLARD CONFIGURATION #** _____
**LUMINAIRE HEAD**
**DOWN LIGHT**

☐ **NEBULA PATHLIGHT - PR**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 65° Medium wide flood | ☐ 2,700K<br>☐ 3,000K<br>☐ 4,000K | ☐ 500 | ☐ 1-10V | ☐ PC screen |

☐ **NEBULA PATHLIGHT - RGBW**

| Optic system | CCT | Lumen output | Driver function | Aperture lens |
|---|---|---|---|---|
| ☐ 60° Medium wide flood | ☐ RGBW | 70 lm (R)<br>125 lm (G)<br>22 lm (B)<br>100 lm (W) | ☐ DMX | ☐ PC screen |

☐ **NEBULA BOLLARD - FINISH**

| Powder coating |
|---|
| ☐ Neri grey |
| ☐ Pure white |
| ☐ White aluminum |
| ☐ Grey aluminum |
| ☐ Jet black |
| ☐ Moss green |

**NEBULA PATHLIGHT**
PR

RGBW

**Aperture lens**

PC protection screen

**NEBULA PATHLIGHT**
PR

RGBW

**Aperture lens**

PC protection screen

NERI

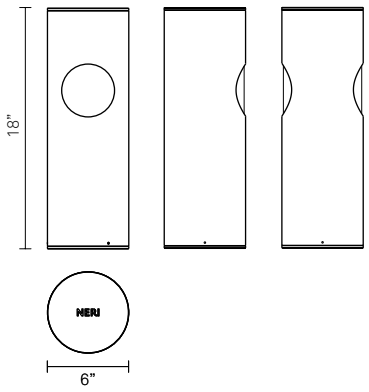
| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.00 | 03/2021 |

## Nebula Pathlight

| | |
|---|---|
| **Source** | LED |
| **Weight** | 11,0lb |
| **Height** | 18" |
| **Diameter** | 6" |
| **EPA** | 0,63 $ft^2$ |

Nebula Pathlight is composed by one or two light sources.




c UL us
Compliance:
UL Standard 1598 CSA C22.2 no.250.0-8

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 65° Medium wide flood | 2,700K<br>3,000K<br>4,000K | 500 | 1-10V | PC protection screen |

| Luminaire head | Optic system | CCT | Delivered lumen choices | Driver functions | Aperture lens |
|---|---|---|---|---|---|
| | 60° Medium wide flood | RGBW | 140 (R)<br>230 (G)<br>44 (B)<br>200 (W) | DMX | PC protection screen |

**SPECIFICATIONS:**

Construction:
- External frame in extruded aluminum.
- Polycarbonate protection screen.
- Integrated heat sink in aluminum.
- Wiring plate in galvanized steel sheet.
- Osmotic valve to balance internal/ external pressure.

Materials:
- Extruded aluminum.
- Galvanized steel.
- Polycarbonate.
- Stainless or burnished steel fasteners.

Finish:
- Powder coating or anodizing.

Powder coating:
Neri grey, pure white, white aluminum, grey aluminum, jet black, moss green. Information about paint steps used on this product in specific technical sheet.

Fixing:
- Fixing on the ground.

**TECHNICAL DATA:**

Electrical:
- Voltage: 120-277V (universal).
- Rated power: from 20. W to 40.0 W.
- Frequency: 50/60Hz.
- Protection rating: IP66, IK08.
- Operating temp.: -31°F /+95°F.
- Standard surge protection for differential/common mode 10kV/10kV.

Optical features:
- Lumen output: 500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80
- LED type: COB CREE CMU 2287, Nebula PR (estimated life 75,000 h L80 - Tq=122°F).
- LED type: Cree XM-L Color, Nebula RGBW (estimated life 91,000 h L90 - Tq=77°F).

**DRIVER FUNCTIONS:**

| Description |
|---|
| **0-10V** (Analogic control) |
| **DMX** |

NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA PATHLIGHT - PR**
PC protection screen - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 17.3 | 29 |

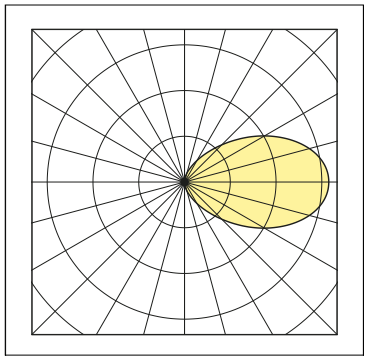
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 16.5 | 30 |

**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 16,0 | 31 |

**65° Medium wide flood**
PC protection screen



NERI

| | |
|---|---|
| Project location: | |
| Project name: | |
| Model code #: | Date |

| | |
|---|---|
| Fixture type: | |
| Rev.01 | 03/2024 |

**NEBULA PATHLIGHT - PR**
PC protection screen - COB LED

**2,700K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 17.3 | 29 |

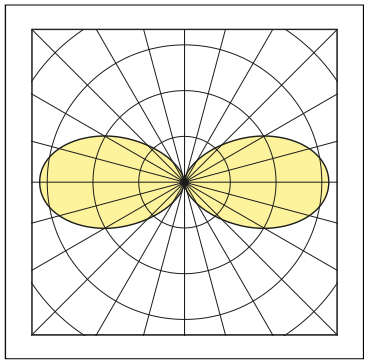
**3,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 16.5 | 30 |

**4,000K**

| lm tot | W tot | lm/W |
|---|---|---|
| 500 | 16,0 | 31 |

**65° Medium wide flood**
PC protection screen



NERI

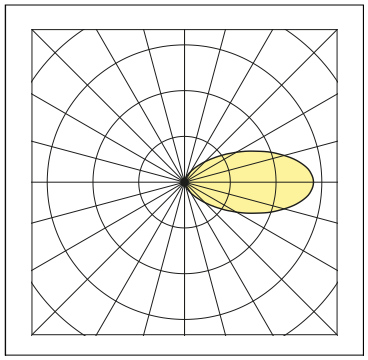
| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA PATHLIGHT - RGBW**
PC protection screen - High Power LED

**RGBW**

| Color | lm | λ (nm) |
|---|---|---|
| Red | 70 (R) | 623 |
| Green | 115 (G) | 517 |
| Blu | 22 (B) | 455 |
| White | 100 (W) | - |

**60° Medium wide flood**
PC protection screen



NERI

| | | | |
|---|---|---|---|
| Project location: | | Fixture type: | |
| Project name: | | | |
| Model code #: | Date | Rev.01 | 03/2024 |

**NEBULA PATHLIGHT - RGBW**
PC protection screen - High Power LED

**RGBW**

| Color | lm | λ (nm) |
|---|---|---|
| Red | 140 (R) | 623 |
| Green | 230 (G) | 517 |
| Blu | 44 (B) | 455 |
| White | 200 (W) | - |

**60° Medium wide flood**
PC protection screen