

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - PR**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - RGBW**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ **NEBULA BOLLARD - A**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ **NEBULA BOLLARD - SNOOT**

<input type="checkbox"/> snoot 30°
<input type="checkbox"/> snoot 45°

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

<input type="checkbox"/> Linear Diffusion

☐ **NEBULA BOLLARD - FINISH**

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	


NEBULA BOLLARD
LUMINAIRE HEAD
DOWN LIGHT
ST

PR

RGBW

A

Aperture lens

Transparent flat glass

Prismatic flat glass

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - PR**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - RGBW**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ **NEBULA BOLLARD - A**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ **NEBULA BOLLARD - SNOOT**

<input type="checkbox"/> snoot 30°
<input type="checkbox"/> snoot 45°

☐ **NEBULA BOLLARD - REFRACTOR SCREEN**

<input type="checkbox"/> Linear Diffusion

☐ **NEBULA BOLLARD - FINISH**

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	


NEBULA BOLLARD
LUMINAIRE HEAD
DOWN LIGHT
ST

PR

RGBW

A

Aperture lensTransparent flat
glassPrismatic flat
glass

NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ NEBULA BOLLARD - PR

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ NEBULA BOLLARD - RGBW

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ NEBULA BOLLARD - A

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ NEBULA BOLLARD - SNOOT

<input type="checkbox"/> snoot 30°
<input type="checkbox"/> snoot 45°

☐ NEBULA BOLLARD - REFRACTOR SCREEN

<input type="checkbox"/> Linear Diffusion

☐ NEBULA BOLLARD - FINISH

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	



NEBULA BOLLARD LUMINAIRE HEAD DOWN LIGHT

ST

PR

RGBW

A

Aperture lens

Transparent flat
glass

Prismatic flat
glass

NERI

Nebula Bollard

Source	LED
Weight	17,6lb
Height	42"
Diameter	4"
EPA	1,27 ft ²

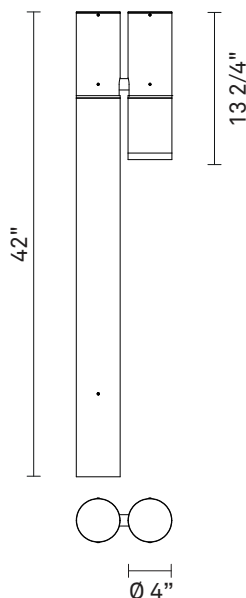
Nebula luminaire heads are composed by one light source.



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

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	02/2020



Luminaire head	Optic system	CCT	Delivered lumen choices	Driver functions	Aperture lens
	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° Medium wide flood				
	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.
Anodizing:
silver anodizing, gold anodizing, bronze anodizing, brown anodizing, black anodizing.
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 180 to 2,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80 (70 and 90 on demand).
- LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).

- LED type: Lumileds Luxeon COB 1211, Nebula PR (estimated life 70,000 h L80 - Tq=77°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

1-10V (Analogic control)

DMX

NERI

Nebula Bollard

Source	LED
Weight	22,0lb
Height	42"
Diameter	4"
EPA	1,55 ft ²

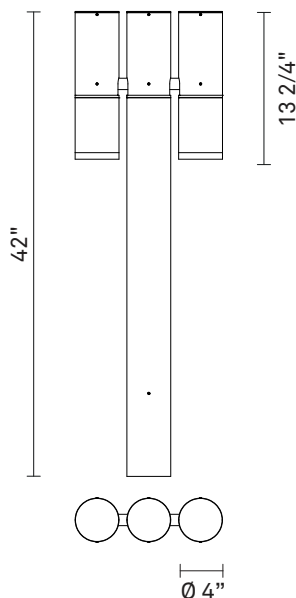
Nebula luminaire heads are composed by two light sources.



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

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	02/2020



Luminaire head	Optic system	CCT	Delivered lumen choices	Driver functions	Aperture lens
Left	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° Medium wide flood				
Right	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° 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.
Anodizing:
silver anodizing, gold anodizing, bronze anodizing, brown anodizing, black anodizing.
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 $\pm 45^\circ$.

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 180 to 2,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80 (70 and 90 on demand).
- LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).

- LED type: Lumileds Luxeon COB 1211, Nebula PR (estimated life 70,000 h L80 - Tq=77°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

1-10V (Analogic control)

DMX

NERI

NEBULA BOLLARD - ST

Transparent flat glass - COB LED

2,700K

lm tot	W tot	lm/W
1,000	10.3	97

3,000K

lm tot	W tot	lm/W
1,000	10.0	100

3,500K

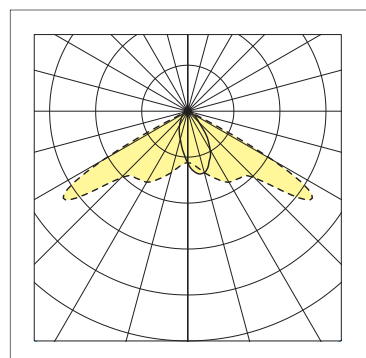
lm tot	W tot	lm/W
1,000	9.5	105

4,000K

lm tot	W tot	lm/W
1,000	9.3	108

Type I

Prismatic flat glass



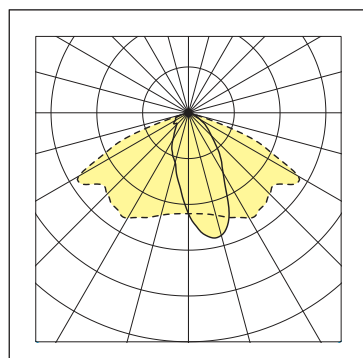
LOR 100%

Full Cutoff



Type II

Prismatic flat glass



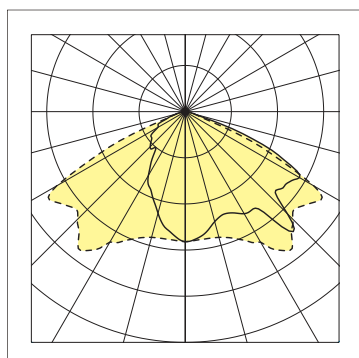
LOR 100%

Full Cutoff



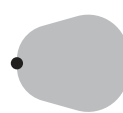
Type IV

Prismatic flat glass



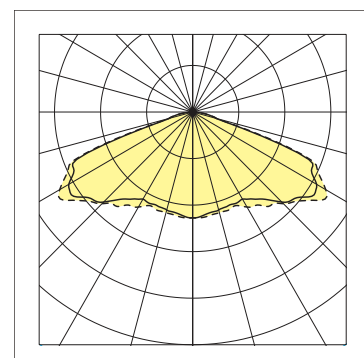
LOR 100%

Full Cutoff



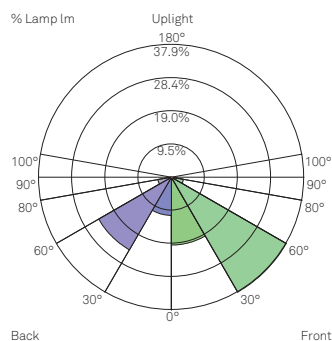
Type V

Prismatic flat glass



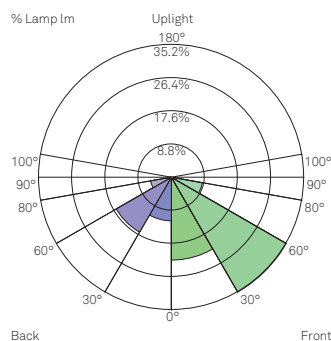
LOR 100%

Full Cutoff



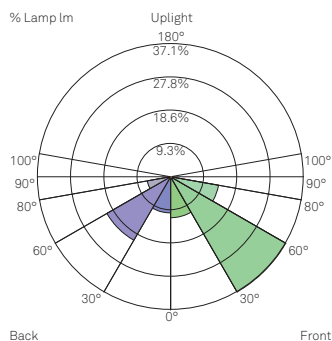
LCS Zone	Angles	% Lamp	% Lum
FL	0° - 30°	19.4	19.4
FM	30° - 60°	37.9	37.9
FH	60° - 80°	3.5	3.5
FVH	80° - 90°	0.2	0.2
BL	0° - 30°	10.9	10.9
BM	30° - 60°	24.0	24.0
BH	60° - 80°	3.9	3.9
BVH	80° - 90°	0.2	0.2
UL	90° - 100°	0.0	0.0
UH	100° - 180°	0.0	0.0
Totals		100.0	100.0

1,000lm - BUG: B1 U0 G0



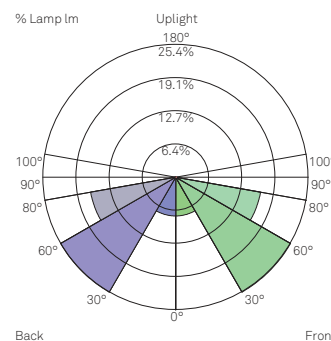
LCS Zone	Angles	% Lamp	% Lum
FL	0° - 30°	22.0	22.0
FM	30° - 60°	35.2	35.2
FH	60° - 80°	8.3	8.3
FVH	80° - 90°	0.3	0.3
BL	0° - 30°	11.6	11.6
BM	30° - 60°	16.8	16.8
BH	60° - 80°	5.6	5.6
BVH	80° - 90°	0.3	0.3
UL	90° - 100°	0.0	0.0
UH	100° - 180°	0.0	0.0
Totals		100.0	100.0

1,000lm - BUG: B1 U0 G0



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



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

NEBULA BOLLARD - PR

Transparent flat glass - COB LED

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

2,700K		
lm tot	W tot	lm/W
1,500	13.9	108
2,500	24.0	104

3,000K		
lm tot	W tot	lm/W
1,500	13.4	112
2,500	23.3	107

3,500K		
lm tot	W tot	lm/W
1,500	13.1	114
2,500	22.8	110

4,000K		
lm tot	W tot	lm/W
1,500	12.6	119
2,500	22.0	114

30° Medium narrow spot

Transparent flat glass

60° Medium flood

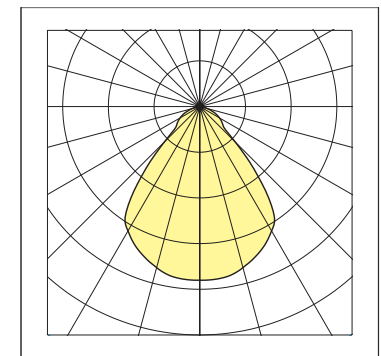
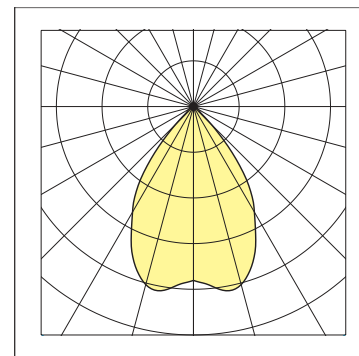
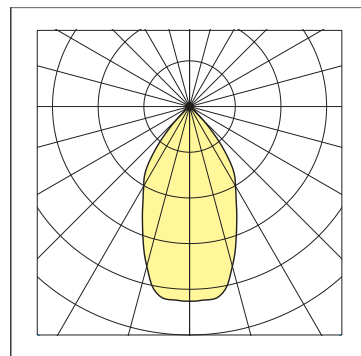
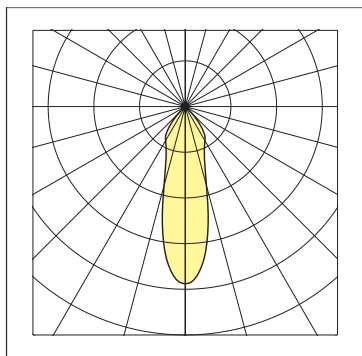
Transparent flat glass

70° Medium wide flood

Transparent flat glass

80° Medium wide flood

Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 7x7



NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

NEBULA BOLLARD - RGBW

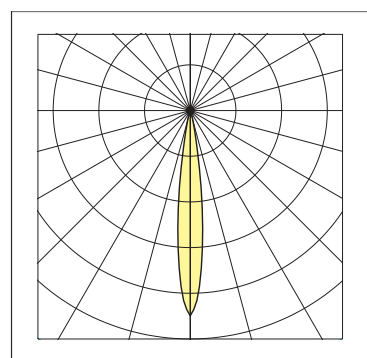
Transparent flat glass - High Power LED

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

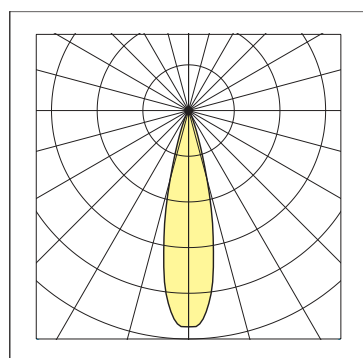


LOR 100%
Full Cutoff
NEMA class 2x2



25° Narrow spot

Transparent flat glass

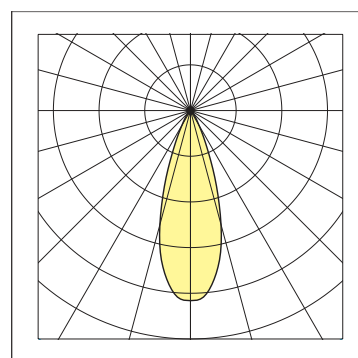


LOR 100%
Full Cutoff
NEMA class 3x3



35° Medium narrow spot

Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 4x4



NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

NEBULA BOLLARD - A

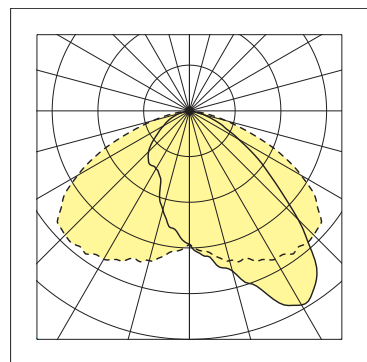
Prismatic flat glass - High Power LED

Amber

Color	lm	λ (nm)
Amber	350	598

Type II

Prismatic flat glass



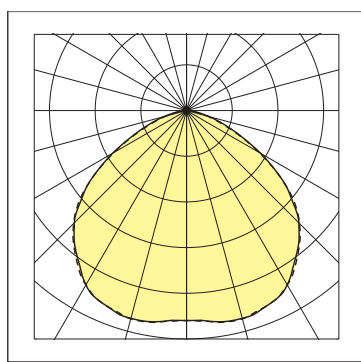
LOR 100%

Full Cutoff



Type V

Prismatic flat glass



LOR 100%

Full Cutoff



Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - PR**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - RGBW**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ **NEBULA BOLLARD - A**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ **NEBULA BOLLARD - SNOOT**☐ snoot 30°☐ snoot 45°☐ **NEBULA BOLLARD - REFRACTOR SCREEN**☐ Rhombic diffusion☐ Linear Diffusion☐ Linear Diffusion high transmission☐ **NEBULA BOLLARD - COLOR**

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - PR**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ **NEBULA BOLLARD - RGBW**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ **NEBULA BOLLARD - A**

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ **NEBULA BOLLARD - SNOOT**☐ snoot 30°☐ snoot 45°☐ **NEBULA BOLLARD - REFRACTOR SCREEN**☐ Rhombic diffusion☐ Linear Diffusion☐ Linear Diffusion high transmission☐ **NEBULA BOLLARD - COLOR**

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	

NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

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
<input type="checkbox"/> Type I	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,000	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> Type II	<input type="checkbox"/> 3,000K			
<input type="checkbox"/> Type IV	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> Type V	<input type="checkbox"/> 4,000K			

☐ NEBULA BOLLARD - PR

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 30° Medium narrow spot	<input type="checkbox"/> 2,700K	<input type="checkbox"/> 1,500	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 60° Narrow flood	<input type="checkbox"/> 3,000K	<input type="checkbox"/> 2,500		
<input type="checkbox"/> 70° Medium wide flood	<input type="checkbox"/> 3,500K			
<input type="checkbox"/> 80° Medium wide flood	<input type="checkbox"/> 4,000K			

☐ NEBULA BOLLARD - RGBW

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> 15° Very narrow spot	<input type="checkbox"/> RGBW	270 lm (R)	<input type="checkbox"/> DMX	<input type="checkbox"/> Transparent flat glass
<input type="checkbox"/> 25° Narrow spot		210 lm (G)		
<input type="checkbox"/> 35° Medium narrow spot		75 lm (B)		
		390 lm (W)		

☐ NEBULA BOLLARD - A

Optic system	CCT	Lumen output	Driver function	Aperture lens
<input type="checkbox"/> Type II	<input type="checkbox"/> Amber	350 lm (A)	<input type="checkbox"/> 1-10V	<input type="checkbox"/> Prismatic flat glass
<input type="checkbox"/> Type V				

☐ NEBULA BOLLARD - SNOOT

- ☐ snoot 30°
- ☐ snoot 45°

☐ NEBULA BOLLARD - REFRACTOR SCREEN

- ☐ Rhombic diffusion
- ☐ Linear Diffusion
- ☐ Linear Diffusion high transmission

☐ NEBULA BOLLARD - COLOR

Powder coating	Anodizing
<input type="checkbox"/> Neri grey	<input type="checkbox"/> Silver anodizing
<input type="checkbox"/> Pure white	<input type="checkbox"/> Gold anodizing
<input type="checkbox"/> White aluminum	<input type="checkbox"/> Bronze anodizing
<input type="checkbox"/> Grey aluminum	<input type="checkbox"/> Brown anodizing
<input type="checkbox"/> Jet black	<input type="checkbox"/> Black anodizing
<input type="checkbox"/> Moss green	



NEBULA BOLLARD LUMINAIRE HEAD DOWN LIGHT

ST

PR

RGBW

A

Aperture lens

Transparent flat glass

Prismatic flat glass

NERI

Nebula Bollard

Source	LED
Weight	24,2lb
Height	9'
Diameter	4"
EPA	2,73 ft ²

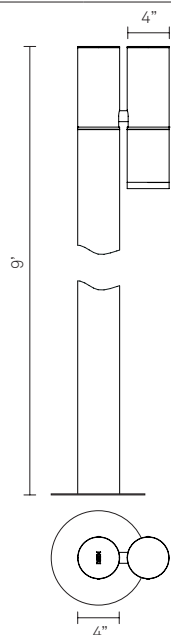
Nebula luminaire heads are composed by one light source.



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

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.00	03/2021



Luminaire head	Optic system	CCT	Delivered lumen choices	Driver functions	Aperture lens
	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° Medium wide flood				
	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.
Anodizing:
silver anodizing, gold anodizing, bronze anodizing, brown anodizing, black anodizing.
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 $\pm 45^\circ$.

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 180 to 2,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80 (70 and 90 on demand).
- LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).

- LED type: Lumileds Luxeon C0B 1211, Nebula PR (estimated life 70,000 h L80 - Tq=77°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

1-10V (Analogic control)

DMX

NERI

Nebula Bollard

Source	LED
Weight	28,6lb
Height	9'
Diameter	4"
EPA	3,1 ft ²

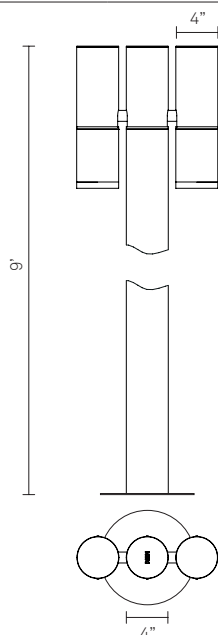
Nebula luminaire heads are composed by two light sources.



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

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.00	03/2021



Luminaire head	Optic system	CCT	Delivered lumen choices	Driver functions	Aperture lens
Left	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° Medium wide flood				
	80° Medium wide flood				
Right	Type I	2,700K	350	1-10V	Prismatic flat glass
	Type II	3,000K	390	DMX	Transparent flat glass
	Type IV	3,500K	1,000		
	Type V	4,000K	1,500		
	15° Very narrow spot	RGBW	2,500		
	25° Narrow spot	Amber			
	30° Medium narrow spot				
	35° Medium narrow spot				
	60° Medium flood				
	70° Medium wide flood				
	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.
Anodizing:
silver anodizing, gold anodizing, bronze anodizing, brown anodizing, black anodizing.
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 $\pm 45^\circ$.

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 180 to 2,500 lm.
- Color temperature: 2,700K to 4,000K, RGBW and Amber.
- Color Rendering Index: CRI > 80 (70 and 90 on demand).
- LED type: Nichia NVSLE21A, Nebula ST (estimated life 100,000 h L80 - Tq=77°F).

- LED type: Lumileds Luxeon COB 1211, Nebula PR (estimated life 70,000 h L80 - Tq=77°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

1-10V (Analogic control)

DMX

NERI

NEBULA BOLLARD - ST

Transparent flat glass - COB LED

2,700K

lm tot	W tot	lm/W
1,000	10.3	97

3,000K

lm tot	W tot	lm/W
1,000	10.0	100

3,500K

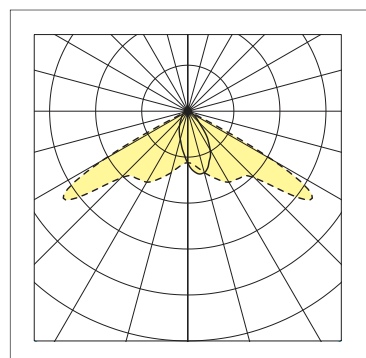
lm tot	W tot	lm/W
1,000	9.5	105

4,000K

lm tot	W tot	lm/W
1,000	9.3	108

Type I

Prismatic flat glass



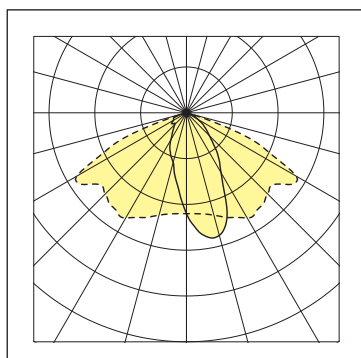
LOR 100%

Full Cutoff



Type II

Prismatic flat glass



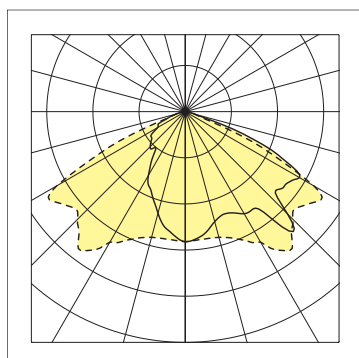
LOR 100%

Full Cutoff



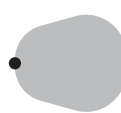
Type IV

Prismatic flat glass



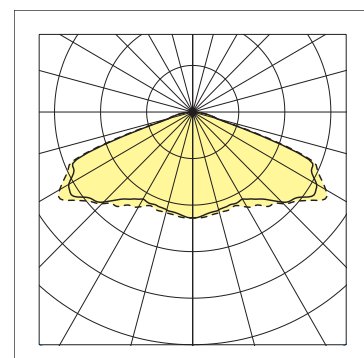
LOR 100%

Full Cutoff



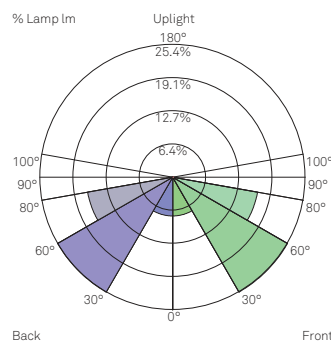
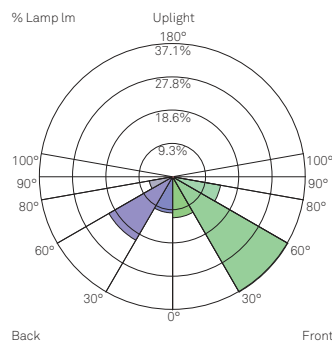
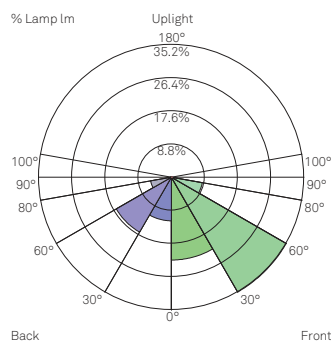
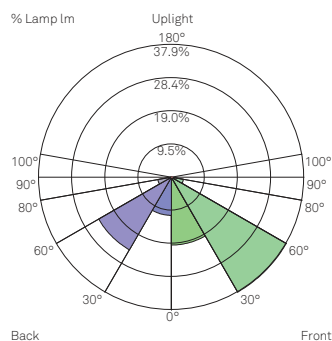
Type V

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

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

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

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

NEBULA BOLLARD - PR

Transparent flat glass - COB LED

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

2,700K		
lm tot	W tot	lm/W
1,500	13.9	108
2,500	24.0	104

3,000K		
lm tot	W tot	lm/W
1,500	13.4	112
2,500	23.3	107

3,500K		
lm tot	W tot	lm/W
1,500	13.1	114
2,500	22.8	110

4,000K		
lm tot	W tot	lm/W
1,500	12.6	119
2,500	22.0	114

30° Medium narrow spot

Transparent flat glass

60° Medium flood

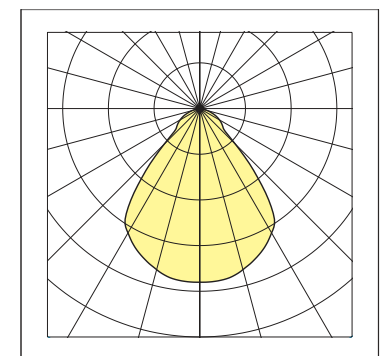
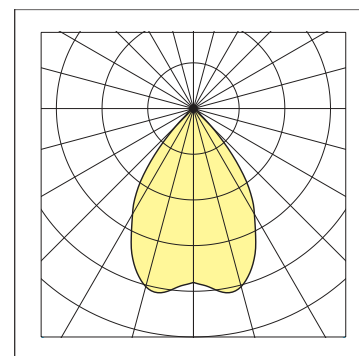
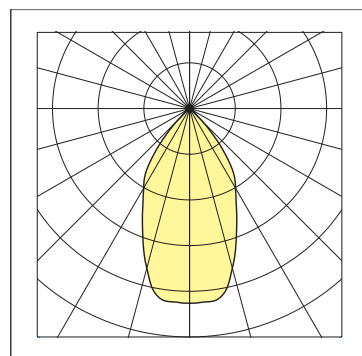
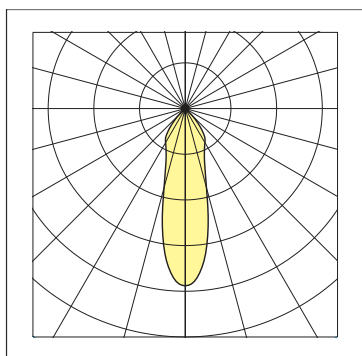
Transparent flat glass

70° Medium wide flood

Transparent flat glass

80° Medium wide flood

Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 5x5



LOR 100%
Full Cutoff
NEMA class 7x7



NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

NEBULA BOLLARD - RGBW

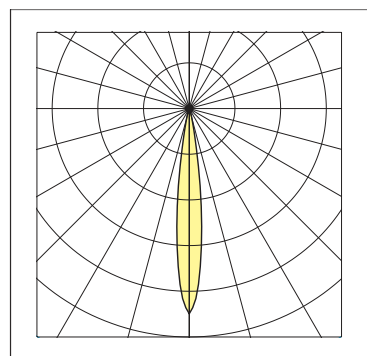
Transparent flat glass - High Power LED

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

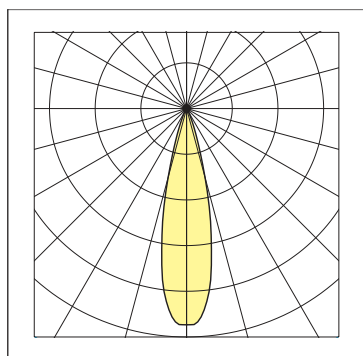


LOR 100%
Full Cutoff
NEMA class 2x2



25° Narrow spot

Transparent flat glass

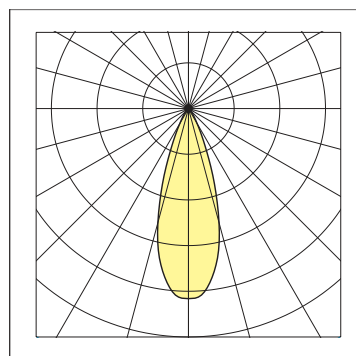


LOR 100%
Full Cutoff
NEMA class 3x3



35° Medium narrow spot

Transparent flat glass



LOR 100%
Full Cutoff
NEMA class 4x4



NERI

Project location:	
Project name:	
Model code #:	Date

Fixture type:	
Rev.01	09/2022

NEBULA BOLLARD - A

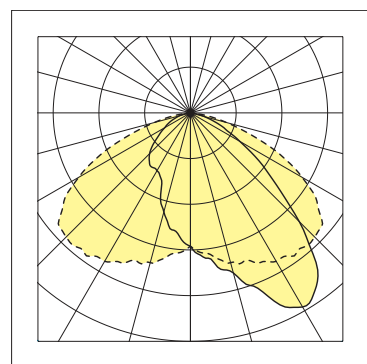
Prismatic flat glass - High Power LED

Amber

Color	lm	λ (nm)
Amber	350	598

Type II

Prismatic flat glass



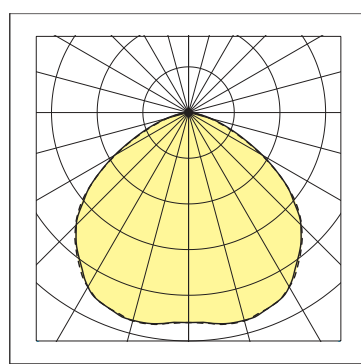
LOR 100%

Full Cutoff



Type V

Prismatic flat glass



LOR 100%

Full Cutoff

