

# Specifications on NST-0808

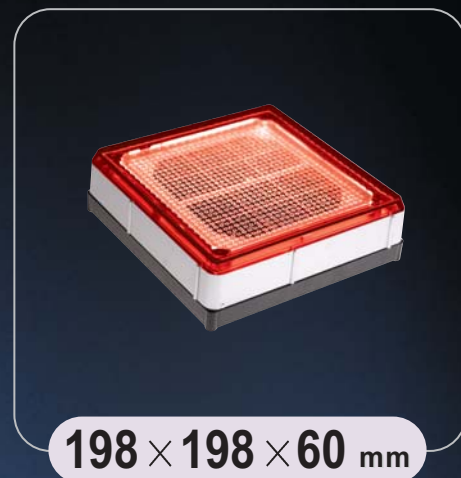


## \* Dimensions and Weight

- Size ..... 198 x 198 x 60 mm
- Weight ..... 2.8 kg

## \* Physical Properties

- Modulus of Rupture ..... 222 kgf/cm<sup>2</sup>
- Compressive Strength ..... 28 kgf/cm<sup>2</sup>
- Breaking Load ..... 2555 kgf
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 12 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 3 (sunny) to 8 (cloudy and rainy)



## \* Lighting Properties

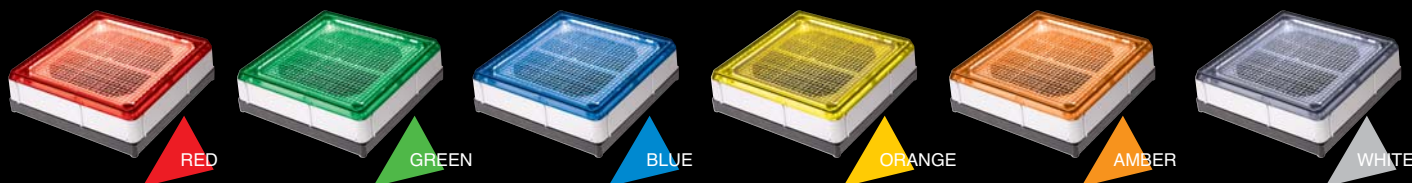
Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>
		average	min	max	average	min	max	
NST-0808	Red	5.2	5.7	4.7	16.33	17.9	14.8	82%
NST-0808	Green	8.3	8.8	7.8	26.06	27.6	24.5	89%
NST-0808	Blue	15.05	16.8	13.3	47.26	52.8	41.8	79%
NST-0808	Orange	2.85	3.1	2.6	8.95	9.7	8.2	84%
NST-0808	Amber	2.85	3.1	2.6	8.95	9.7	8.2	84%
NST-0808	White	14.9	16.6	13.2	46.79	52.1	41.4	80%

- 1) Luminance(cd/m) measurement: The luminance of 9 points on the lighting area are measured and averaged.
- 2) Illuminance(lm/m) is obtained by multiplying 3.14 to luminance.
- 3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## \* Basic Components

<b>Single Crystalline Solar Cell</b>	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	2.34W  7.85mA 2.98V
<b>LED</b>	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	3.5x2.8mm chip type (3.2V / 20 mA) 20mA per each 2.0mA per each R,Y,O(2.5V) B,W,G(4.0V) R,Y,O(0.02W) B,W,G(0.032W) 4 PCS
<b>Pseudocapacitor</b>	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F R,G,B,Y,O (5 EA) W(6 EA)
<b>Poly Carbonate Housing</b>		
<b>Electronic Controller</b>		

## Colors



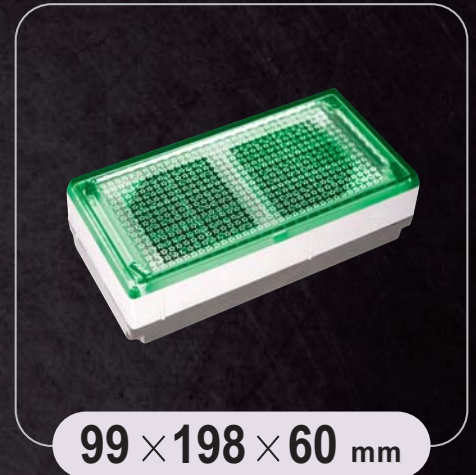
# Specifications on NST-0408

## ■ Dimensions and Weight

- Size ..... 99 x 198 x 60 mm
- Weight ..... 1.0 kg

## ■ Physical Properties

- Modulus of Rupture ..... 95 kgf/cm<sup>2</sup>
- Compressive Strength ..... 9.1 kgf/cm<sup>2</sup>
- Breaking Load ..... 1518 kgf
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 12 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 3 (sunny) to 8 (cloudy and rainy)



## ■ Lighting Properties

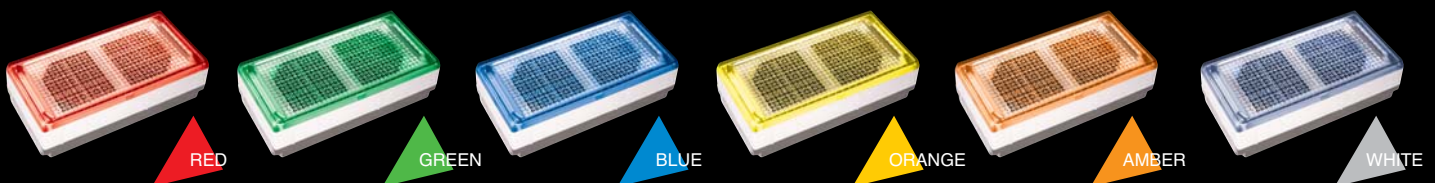
Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>
		average	min	max	average	min	max	
NST-0408	Red	4.65	5.5	3.8	14.60	17.3	11.9	69%
NST-0408	Green	11.45	13.8	9.1	35.95	43.3	28.6	66%
NST-0408	Blue	14.1	16.6	11.6	44.27	52.1	36.4	70%
NST-0408	Orange	4.2	5.3	3.1	13.19	16.6	9.7	58%
NST-0408	Amber	2.8	3.4	2.2	8.79	10.7	6.9	65%
NST-0408	White	14.8	17.4	12.2	46.47	54.6	38.3	70%

- 1) Luminance(cd/m) measurement: The luminance of 9 points on the lighting area are measured and averaged.  
 2) Illuminance(lm/m) is obtained by multiplying 3.14 to luminance.  
 3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## ■ Basic Components

<b>Single Crystalline Solar Cell</b>	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	1.17 W  393mA 2.98V
<b>LED</b>	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	3.5x2.8mm chip type 20mA per each 1.8mA per each (RYO) 2.5V (BWG) 4V (RYO) 0.018W (BWG) 0.028W 4 PCS
<b>Pseudocapacitor</b>	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F (RYO) 3 EA (BWG) 4 EA
<b>Poly Carbonate Housing</b>		
<b>Electronic Controller</b>		

## Colors



# Specifications on ST-0808

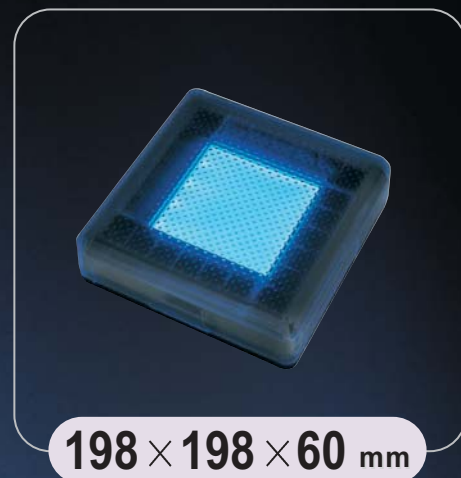


## \* Dimensions and Weight

- Size ..... 198 x 198 x 60 mm
- Weight ..... 2.8 kg

## \* Physical Properties

- Modulus of Rupture ..... 222 kgf/cm<sup>2</sup>
- Compressive Strength ..... 28 kgf/cm<sup>2</sup>
- Breaking Load ..... 3560 kgf
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 12 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 3 (sunny) to 8 (cloudy and rainy)



## \* Lighting Properties

Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>	
		average	min	max	average	min	max		
ST-0808	Red	5.85	6.0	5.7	18.35	18.8	17.9	80%	75%
ST-0808	Green	14.65	15.0	14.3	45.9	47.1	44.7	75%	70%
ST-0808	Blue	4.0	4.1	3.9	12.55	12.9	12.2	80%	75%
ST-0808	Orange	5.35	5.5	5.2	16.8	17.3	16.3	80%	75%
ST-0808	Amber	2.9	3.0	2.8	9.1	9.4	8.8	80%	75%
ST-0808	White	11.2	11.5	10.9	35.15	36.1	34.2	80%	75%

1) Luminance (cd/m) measurement : The luminance of 9 points on the lighting area are measured and averaged.

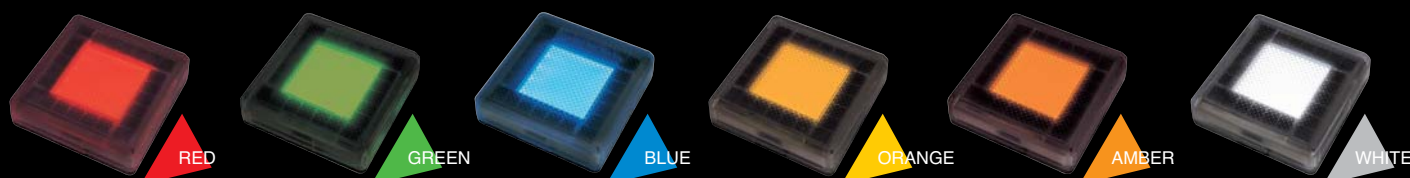
2) Illuminance (lm/m) is obtained by multiplying 3.14 to luminance.

3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## \* Basic Components

Single Crystalline Solar Cell	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	1.788W  600mA 2.98V
LED	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	φ5 (3.2 V / 20mA) 20mA per each 1.8mA per each R,Y,O(2.5V) B,W,G(4.0V) R,Y,O(0.018W) B,W,G(0.028W) 4 PCS
Pseudocapacitor	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F R,G,B,Y,A (4 PCS) W (5 PCS)
Poly Carbonate Housing		
Electronic Controller		

## Colors



# Specifications on ST-0408

## ■ Dimensions and Weight

- Size ..... 99 x 198 x 60 mm
- Weight ..... 1.0 kg

## ■ Physical Properties

- Modulus of Rupture ..... 95 kgf/cm<sup>2</sup>
- Compressive Strength ..... 9.1 kgf/cm<sup>2</sup>
- Breaking Load ..... 1518 kgf
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 12 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 3 (sunny) to 8 (cloudy and rainy)



## ■ Lighting Properties

Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>	
		average	min	max	average	min	max		
ST-0408	Red	5.2	5.5	4.9	16.35	17.3	15.4	75%	80%
ST-0408	Green	10.3	10.6	10.0	32.35	33.3	31.4	75%	80%
ST-0408	Blue	2.5	2.6	2.4	7.85	8.2	7.5	75%	80%
ST-0408	Orange	4.45	4.7	4.2	14.0	14.8	13.2	75%	80%
ST-0408	Amber	2.7	2.9	2.5	8.5	9.1	7.9	75%	80%
ST-0408	White	5.55	6.0	5.1	17.4	18.9	15.9	75%	80%

1) Luminance(cd/m) measurement: The luminance of 9 points on the lighting area are measured and averaged.

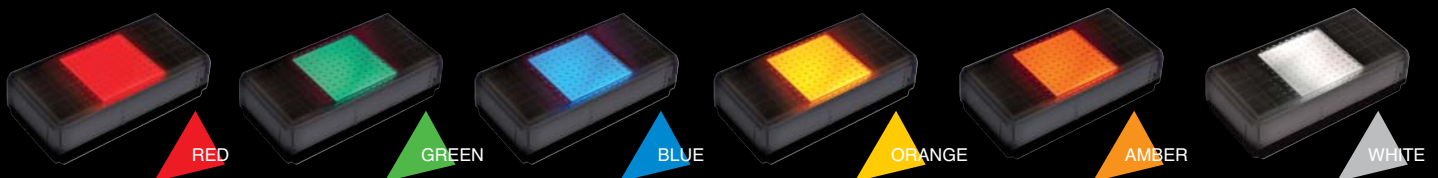
2) Illuminance(lm/m) is obtained by multiplying 3.14 to luminance.

3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## ■ Basic Components

<b>Single Crystalline Solar Cell</b>	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	0.894W  300mA 2.98V
<b>LED</b>	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	φ5 (3.2 V / 20mA) 20mA per each 1.6mA per each (RYO) 2.5V (BWG) 4V (RYO) 0.012W (BWG) 0.192W 3 PCS
<b>Pseudocapacitor</b>	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F R,G,B,Y,A (2 PCS) W (3 PCS)
<b>Poly Carbonate Housing</b>		
<b>Electronic Controller</b>		

## Colors



# Specifications on NST-0404

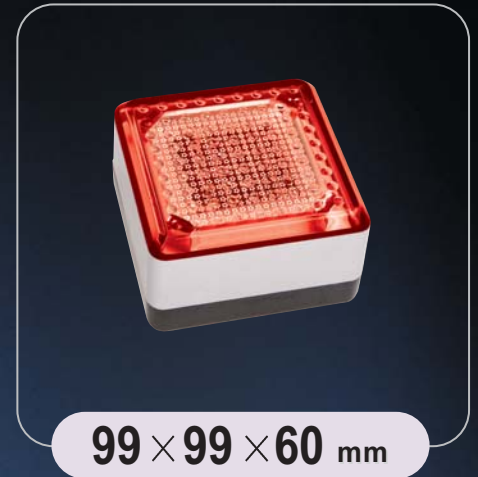


## \* Dimensions and Weight

- Size ..... 99 x 99 x 60 mm
- Weight ..... 650 g

## \* Physical Properties

- Modulus of Rupture ..... -
- Compressive Strength ..... 69,872 N
- Breaking Load ..... -
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 20 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 5 (sunny) to 15 (cloudy and rainy)



## \* Lighting Properties

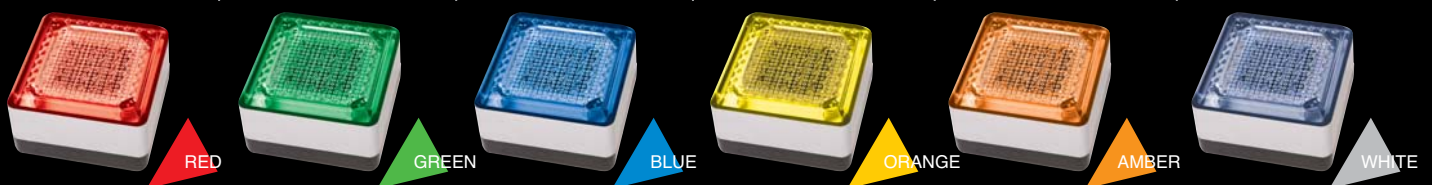
Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>
		average	min	max	average	min	max	
NST-0404	Red	4.2	4.6	3.8	13.19	14.4	11.9	83%
NST-0404	Green	5.1	5.6	4.6	16.01	17.6	14.4	82%
NST-0404	Blue	8.9	9.7	8.1	27.95	30.5	25.4	84%
NST-0404	Orange	3.1	3.4	2.8	9.73	10.7	8.8	82%
NST-0404	Amber	2.2	2.4	2.0	6.91	7.5	6.3	83%
NST-0404	White	9.1	9.8	8.4	28.57	30.8	26.4	86%

- 1) Luminance (cd/m) measurement : The luminance of 9 points on the lighting area are measured and averaged.
- 2) Illuminance (lm/m) is obtained by multiplying 3.14 to luminance.
- 3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## \* Basic Components

<b>Single Crystalline Solar Cell</b>	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	0.268W  90mA 2.98V
<b>LED</b>	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	3.5x2.8mm chip type 20mA per each R,Y,O (1.8mA per each) B,W,G (1.1mA per each) (RYO) 2.5V (BWG) 4V 0.004W 4 pcs
<b>Pseudocapacitor</b>	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F 2 pcs
<b>Poly Carbonate Housing</b>		
<b>Electronic Controller</b>		

## Colors



# Specifications on NST-100

## ■ Dimensions and Weight

- Size .....  $\phi$  100 x 60
- Weight ..... 650 g

## ■ Physical Properties

- Modulus of Rupture ..... -
- Compressive Strength ..... 62,135 N
- Breaking Load ..... -
- Water Proof ..... IP68
- Operating Temperature ..... -40°C to +70°C
- Operating Time ..... more than 20 hours
- Onset Point ..... 150 - 350 LUX
- Charging Time ..... 5 (sunny) to 15 (cloudy and rainy)



## ■ Lighting Properties

Model NO	Color	Luminance(Nit) <sup>1)</sup>			Illuminance(Lux) <sup>2)</sup>			Uniformity <sup>3)</sup>
		average	min	max	average	min	max	
NST-100	Red	4.4	5.6	3.2	13.82	17.6	10.0	57%
NST-100	Green	6.0	7.3	4.7	18.84	22.9	14.8	64%
NST-100	Blue	11.25	13.7	8.8	35.33	43.0	27.6	64%
NST-100	Orange	3.85	4.7	3.0	12.09	14.8	9.4	64%
NST-100	Amber	3.1	3.9	2.3	9.73	12.2	7.2	59%
NST-100	White	7.55	8.8	6.3	23.71	27.6	19.8	72%

1) Luminance(cd/m) measurement: The luminance of 9 points on the lighting area are measured and averaged.

2) Illuminance(lm/m) is obtained by multiplying 3.14 to luminance.

3) Uniformity is obtained by dividing minimum luminance by maximum luminance from 9 point measurements.

## ■ Basic Components

<b>Single Crystalline Solar Cell</b>	Solar module Size Solar Maximum Output Power Solar Charging Current at 20,000 lux & 100,000 lux Solar Operating Current Solar Voltage	0.268W  90mA 2.98V
<b>LED</b>	LED Size LED Current LED Operating Current LED Voltage LED Wattage LED Quantities	3.5x2.8mm chip type 20mA per each R,Y,O (1.8mA per each) B,W,G (1.1mA per each) (R,Y,O) 2.5V (B,W,G) 4V 0.004W 4 pcs
<b>Pseudocapacitor</b>	Pseudocapacitor Number of Pseudocapacitor	2.3V 120F 2 pcs
<b>Poly Carbonate Housing</b>		
<b>Electronic Controller</b>		