

## Features

- Light source: 10W Sharp LED
- Long LED life: More than 30,000 hours
- Low heat, less than 60°C for 10W
- No UV or IR light radiation
- No mercury or other inorganic
- Highest Color-rendering index: Ra >90
- Homogeneous flood illumination
- Machined aluminum heat fins with excellent thermal efficiencies
- The 10W NAR111 is available in the following tuneable color temperatures:  
2000K – 3000K (Warm White)
- 10W NAR111 can output equivalent to 35W metal halide lamp illumination
- 2 year limited warranty (see page 4)
- Works with worldwide lighting systems



**SHARP**  
LED inside



## Typical Applications

- Energy Saving Programs
- Sustainable Energy
- Landscape Accent/Spot lighting
- Retail Store Lighting
- Display Case Accent
- Commercial Lighting
- Mood Lighting/General lighting

### DIMMING RANGE



### TUNEABLE COLOR RANGE



## PRODUCT SPECIFICATIONS

|                             |  |
|-----------------------------|--|
| <b>LIGHT SOURCE</b>         | 10W Sharp COB LED                                    |
| <b>OPTICS</b>               | Optic lense and metalized coating aluminum reflector |
| <b>BULB TYPE</b>            | NAR111 series  |
| <b>BEAM ANGLE</b>           | 20°/55°±2°   |
| <b>RENDERING INDEX (Ra)</b> | >95  |
| <b>TOTAL LENGTH</b>         | 56MM (including pins)                                |
| <b>WEIGHT</b>               | 320±5g   |
| <b>HEATSINK</b>             | Machined pure aluminum with anodize finish           |
| <b>BASE TYPE</b>            | G53  |
| <b>DIMMABILITY</b>          | Dimmable   |
| <b>COLOR TEMPERATURE</b>    | Tuneable   |

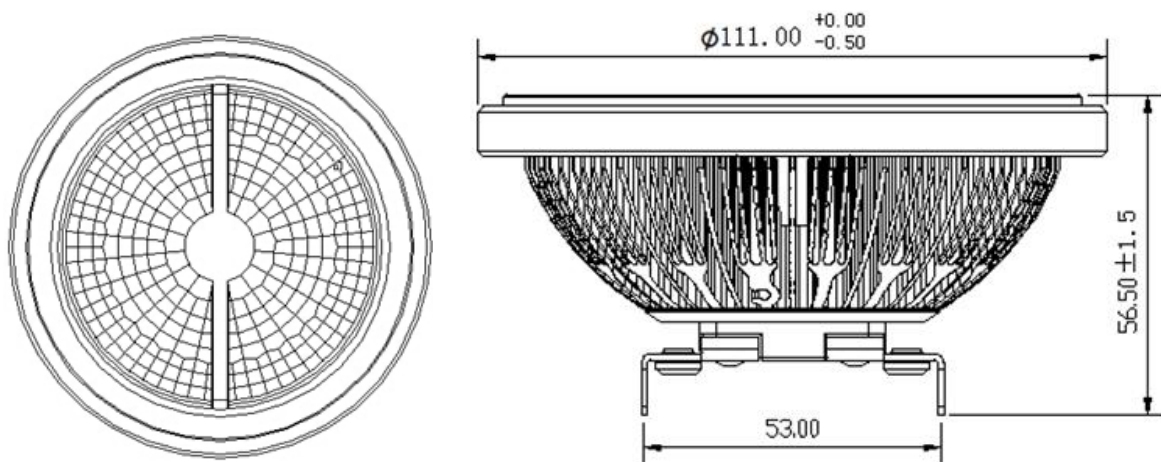
## ENVIRONMENTAL SPECIFICATIONS

|                          |   |
|--------------------------|---|
| <b>TEMPERATURE RANGE</b> | Ambient: -20°C to 40°C; Surface of Lamp: 60°C to 70°C |
| <b>HUMIDITY RANGE</b>    | 0 to 95% non-condensing humidity                      |

## ELECTRICAL SPECIFICATIONS

|                            |          |
|----------------------------|----------|
| <b>VOLTAGE REQUIREMENT</b> | 12VAC/DC |
| <b>POWER CONSUMPTION</b>   | 10W±10%  |
| <b>POWER FACTOR</b>        | >0.9     |

## PRODUCT DIMENSIONS (mm)



## PRODUCT CODE

### NAR111X<sub>1</sub>X<sub>2</sub>-X<sub>3</sub>-X<sub>4</sub>/S

|                   |               |        |   |
|-------------------|---------------|--------|---|
| color code (X1)   | V(warm white) |        |   |
| Beam Angle (X2)   | N(20°)        | S(55°) | / |
| Voltage code (X3) | 10(10W)       | /      | / |
| Base code (X4)    | 1(G53)        | /      | / |

## PRODUCT ORDERING CODE

| Order Code | Product Code    | Color    | CCT (K)     | Beam Angle ±2° | Base Type | Operating Voltage | Power ±10% | Typical Luminous Flux (lm)±10% | Typical Illuminance@ 3m (Lux)±10% |
|------------|-----------------|----------|-------------|----------------|-----------|-------------------|------------|--------------------------------|-----------------------------------|
| BT5319     | NAR111VN-10-1/S | Tuneable | 2000K~3000K | 20°±2°         | G53       | 12V AC/DC         | 10W        | 70 ~ 400                       | /                                 |
| BT5344     | NAR111VS-10-1/S | Tuneable | 2000K~3000K | 55°±2°         | G53       | 12V AC/DC         | 10W        | 70 ~ 400                       | /                                 |

## Typical Electrical Characteristics at T<sub>a</sub>=25°C

| Parameter                            | Symbol          | Min | Typ    | Max | Unit  |
|--------------------------------------|-----------------|-----|--------|-----|-------|
| Input Voltage (DC)                   | V <sub>DC</sub> | -   | 12     | -   | V     |
| Input Current                        | I <sub>F</sub>  | -   | 900    | -   | mA    |
| Estimated Life[*]                    |                 | -   | 30,000 | -   | hours |
| Optimized Body Temperature (10W LED) | T               | 52  | 55     | 58  | °C    |

Note[\*] – Manufacturer projects NAR111 made with Sharp LED to maintain an average of 70% lumens maintenance after 30,000 hours. This estimation is made based on data from LED manufacturer

## LIMITED WARRANTY

Manufacturer warrants to the Purchaser that each Product manufactured and sold by it will be free from defects in material and workmanship in its intended use (normal wear and tear excepted) for the period of two years from manufactured date. Manufacturer's warranty flows only to Purchaser. If any Product covered by this warranty is returned by Purchaser in accordance with Manufacturer's Products Return Policy, including without limitation its return authorization provisions, within the applicable warranty period set forth above, and upon examination Manufacturer determines to its satisfaction that such Product was defective in material or workmanship at the time of delivery to the Purchaser, Manufacturer will, at its option, repair or replace the Product or the defective part thereof, or reimburse Purchaser for the purchase price. For purposes of clarity, "repair or replace the Product or the defective part thereof" does not include any reinstallation costs or expenses. If Manufacturer chooses to replace the Product and is not able to do so because it has been discontinued or is not available, Manufacturer may replace it with a comparable product. The Products Return Policy is posted on Manufacturer's Internet web site at <http://www.brilliance-led.com> The foregoing notwithstanding, Manufacturer will not be responsible for damage to any Product resulting from misuse, negligence, acts of God or accident or resulting from repairs or alterations made by any person or firm not duly authorized by Manufacturer in writing. Purchaser shall convey with each Product distributed to end users the MANUFACTURER'S LIMITED WARRANTY included by Manufacturer with such Product, and, if Manufacturer determines that the appropriate remedy for a defective product is refund of Purchaser's purchase price, Purchaser shall refund to the end user (or arrange for the refund to the end user of) the full purchase price paid by the end user for such defective Product.

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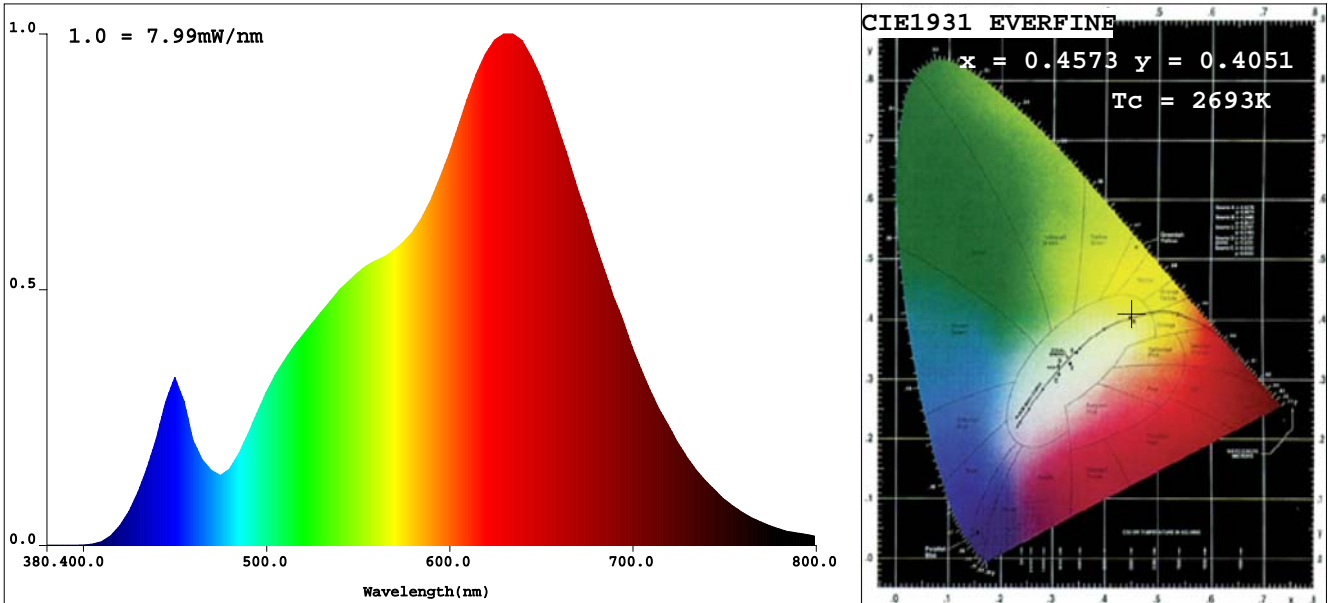
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**Light Source Test Report**



**CIE Color Parameters:**

Chromaticity Coordinate:  $x=0.4573$   $y=0.4051$  /  $u'=0.2633$   $v'=0.5248$  ( $duv=-1.84e-003$ )

CCT:  $T_c=2693K$  Prcp WaveL:  $\lambda_p=584.9nm$  Purity=58.8%

Peak WaveL:  $\lambda_p=635nm$  Half Width:  $\Delta\lambda=148.4nm$  Ratio: R=27.6% G=70.0% B=2.4%

Average Wave: 615nm

Rendering Index: Ra=96.9

R1 =99 R2 =99 R3 =94 R4 =95 R5 =98 R6 =98 R7 =97 R8 =96  
R9 =90 R10=96 R11=92 R12=95 R13=99 R14=96 R15=99

**Photo Parameters:**

Flux:  $\Phi=334.95(lm)$  Luminous Efficacy: 33.82(lm/W) Radiant Power:  $P=1.277(W)$

**Electrical Parameters:**

U=229.8V I=0.0558A P=9.903W PF=0.772

**Instrument Status:**

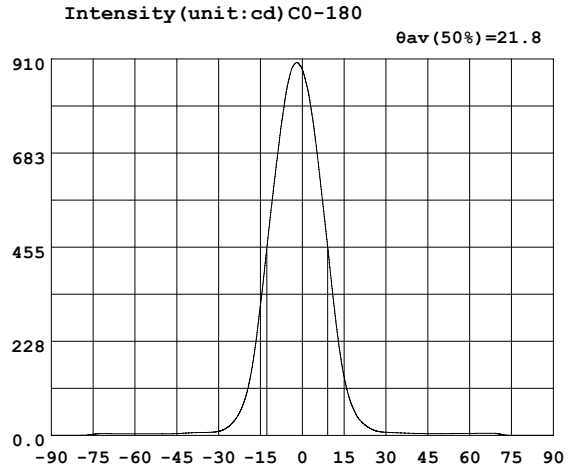
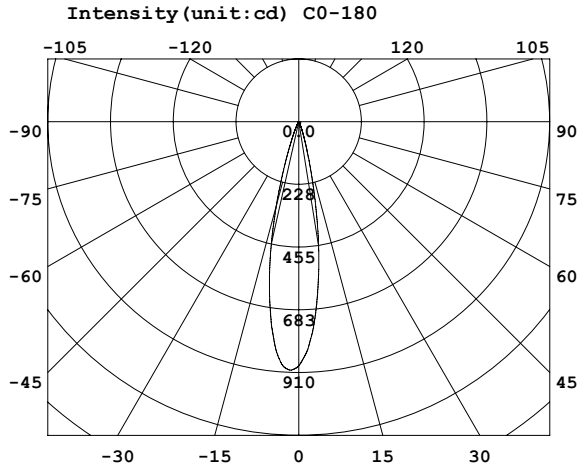
Scan Range: 380.0nm-800.0nm  
REF = 9322

Interval: 5.0nm  
% = -0.249%

$I_p = 62047(G=6, D=62)$   
TMP(PMT) = 24.1(deg.celsius)

Product Type: 工程-NAR111  
Instrument: PMS-50 System  
Temperature: 0.0deg  
Test Operator: zhan

Manufacturer: BRILLIANCE  
Test Department: BRILLIANCE  
Humidity: 65.0%  
Test Date: 2016-04-05 13:45



Intensity data:(deg , cd) C0-180

| A     | I      | A     | I     | A     | I     | A    | I     | A    | I     | A    | I      |
|-------|--------|-------|-------|-------|-------|------|-------|------|-------|------|--------|
| -90.0 | 0.0804 | -58.5 | 3.967 | -27.0 | 18.74 | 4.5  | 726.8 | 36.0 | 6.019 | 67.5 | 5.352  |
| -88.5 | 0.1459 | -57.0 | 3.969 | -25.5 | 26.91 | 6.0  | 642.6 | 37.5 | 5.592 | 69.0 | 5.236  |
| -87.0 | 0.1795 | -55.5 | 3.951 | -24.0 | 38.60 | 7.5  | 553.6 | 39.0 | 5.195 | 70.5 | 3.797  |
| -85.5 | 0.2096 | -54.0 | 3.955 | -22.5 | 55.40 | 9.0  | 462.0 | 40.5 | 4.967 | 72.0 | 1.687  |
| -84.0 | 0.2419 | -52.5 | 3.967 | -21.0 | 78.86 | 10.5 | 367.6 | 42.0 | 4.798 | 73.5 | 0.4766 |
| -82.5 | 0.2971 | -51.0 | 3.992 | -19.5 | 113.5 | 12.0 | 278.1 | 43.5 | 4.667 | 75.0 | 0.3073 |
| -81.0 | 0.3358 | -49.5 | 4.031 | -18.0 | 164.2 | 13.5 | 201.2 | 45.0 | 4.587 | 76.5 | 0.2893 |
| -79.5 | 0.3824 | -48.0 | 4.110 | -16.5 | 232.6 | 15.0 | 141.4 | 46.5 | 4.543 | 78.0 | 0.2608 |
| -78.0 | 0.4845 | -46.5 | 4.235 | -15.0 | 315.2 | 16.5 | 98.76 | 48.0 | 4.551 | 79.5 | 0.2291 |
| -76.5 | 1.311  | -45.0 | 4.503 | -13.5 | 404.3 | 18.0 | 69.25 | 49.5 | 4.573 | 81.0 | 0.2336 |
| -75.0 | 2.842  | -43.5 | 5.002 | -12.0 | 496.4 | 19.5 | 48.09 | 51.0 | 4.581 | 82.5 | 0.2094 |
| -73.5 | 3.916  | -42.0 | 5.692 | -10.5 | 585.3 | 21.0 | 34.82 | 52.5 | 4.606 | 84.0 | 0.1358 |
| -72.0 | 4.370  | -40.5 | 6.284 | -9.0  | 670.4 | 22.5 | 25.44 | 54.0 | 4.648 | 85.5 | 0.0474 |
| -70.5 | 4.314  | -39.0 | 6.752 | -7.5  | 751.5 | 24.0 | 18.34 | 55.5 | 4.710 | 87.0 | 0.0048 |
| -69.0 | 4.261  | -37.5 | 7.034 | -6.0  | 820.0 | 25.5 | 13.32 | 57.0 | 4.778 | 88.5 | 0.0015 |
| -67.5 | 4.221  | -36.0 | 7.187 | -4.5  | 869.4 | 27.0 | 10.09 | 58.5 | 4.854 | 90.0 | 0.0017 |
| -66.0 | 4.182  | -34.5 | 7.290 | -3.0  | 895.8 | 28.5 | 8.473 | 60.0 | 4.927 |      |        |
| -64.5 | 4.141  | -33.0 | 7.573 | -1.5  | 900.2 | 30.0 | 7.678 | 61.5 | 5.005 |      |        |
| -63.0 | 4.104  | -31.5 | 8.326 | 0.0   | 885.4 | 31.5 | 7.185 | 63.0 | 5.079 |      |        |
| -61.5 | 4.067  | -30.0 | 9.943 | 1.5   | 849.2 | 33.0 | 6.808 | 64.5 | 5.164 |      |        |
| -60.0 | 4.013  | -28.5 | 13.09 | 3.0   | 796.0 | 34.5 | 6.413 | 66.0 | 5.259 |      |        |

**Electricity Parameter:**

Current I: 0.0560A Power: 10.00W  
Voltage V: 230.0V PF: 0.699

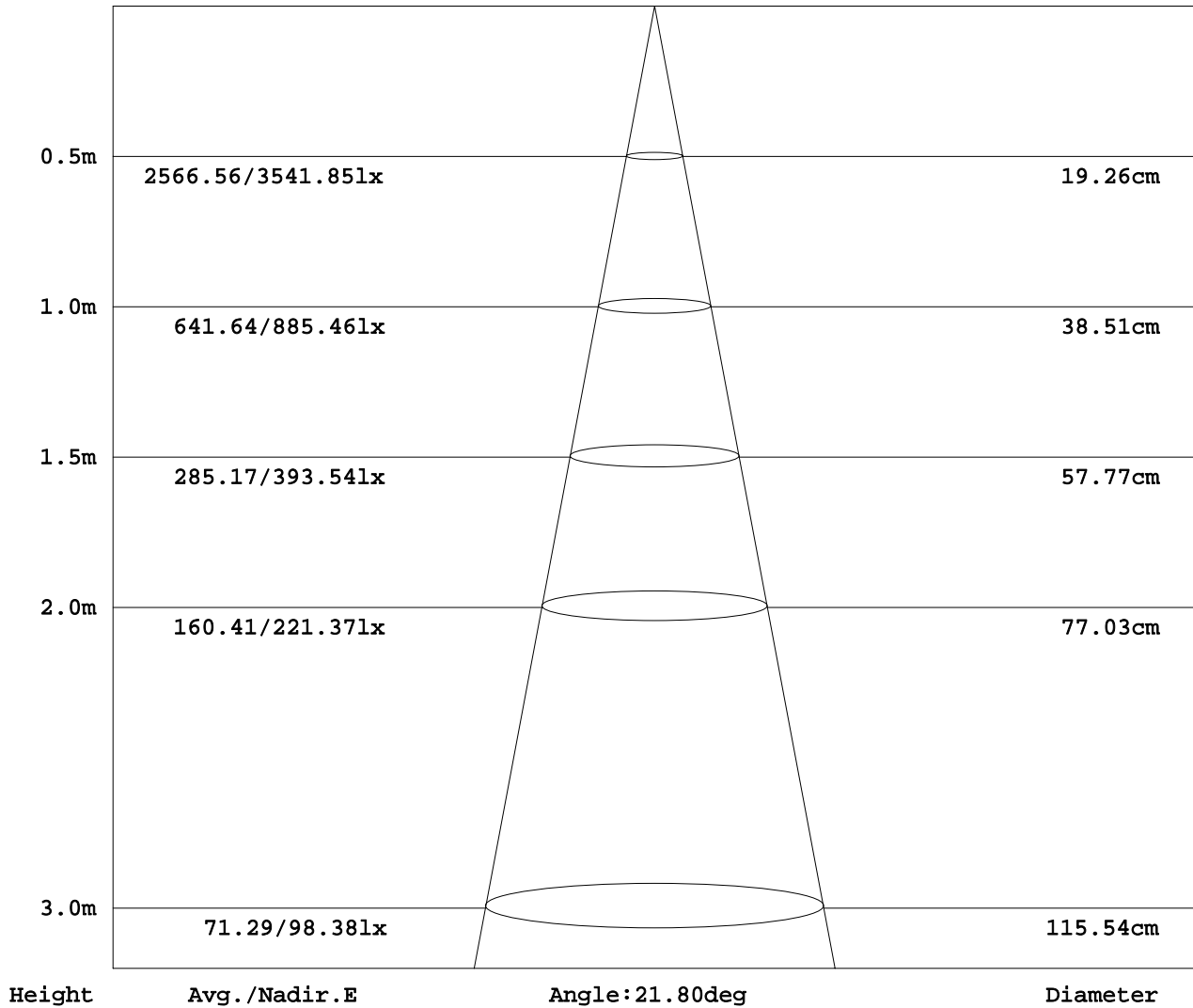
**Optical Parameter (Distance=1.000m) :**

Diffuse angle: @ (25%): 29.5deg @ (50%): 21.8deg @ (75%): 14.2deg @ (50%): 21.8deg  
Diffuse angle: @ (25%): 29.7deg @ (50%): 22.1deg @ (75%): 14.7deg @ (50%): 22.1deg  
Imax=901.6cd (C=0.0deg,G=-2.0deg) C0-180Plane Imax= 901.6cd(G=-2.0deg)  
C0-180Plane I0= 885.4cd

Lamp Type:NAR111  
Tester:SHUN  
Temperature:25.3deg  
Manufacturer:EVERFINE

Luminaires Type:  
Test Date:2016-04-05  
Humidity:65%  
Remarks:

**Average Illuminance Figure**



Lamp Type: NAR111  
 Tester: SHUN  
 Temperature: 25.3deg  
 Manufacturer: EVERFINE

Luminaires Type:  
 Test Date: 2016-04-05  
 Humidity: 65%  
 Remarks: