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|-------------------------------|--|--------------------|-------------------|
| <b>Laboratory</b>             | <b>Surya Technology &amp; Innovation Centre, Surya Roshni Limited, D-63, Hosiery Complex, Phase-II, Noida, Uttar Pradesh</b> |                    |                   |
| <b>Accreditation Standard</b> | <b>ISO/IEC 17025: 2005</b>   |                    |                   |
| <b>Discipline</b>             | <b>Photometry Testing</b>  | <b>Issue Date</b>  | <b>24.05.2014</b> |
| <b>Certificate Number</b>     | <b>T-2967</b>  | <b>Valid Until</b> | <b>23.05.2016</b> |
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| <b>S.No.</b> | <b>Product / Material of Test</b>          | <b>Specific Test Performed</b> | <b>Test Method Specification against which tests are performed</b> | <b>Range of Testing / Limits of Detection</b> |
|--------------|--|--------------------------------|--|---|
| <b>1.</b>    | <b>LAMPS, LUMINAIRES &amp; ACCESSORIES</b> |                                |  |   |
| <b>1.</b>    | <b>Lamp</b>                                | Luminous Flux                  | EN 13032:2004 Part 1 Clause 5.5                                    | 1 lm to 1 x 10 <sup>6</sup> lm                |
|              | Tungsten Filament Lamps                    |                                | IS 418:2004 Clause 8.2   |   |
|              | Tungsten Halogen Lamps                     |                                | IS 12948:1990 Clause 10.1.4  |   |
|              | Tubular Fluorescent lamps                  |                                | IS 2418 (Part1):1997 Clause 6.2.5                                  |   |
|              | Self Ballasted lamps                       |                                | IS 15111Part 2:2002 Clause 10.0                                    |   |
|              | Single capped fluorescent lamps            |                                | IEC 60901 ed.2.2 Clause 1.5.7                                      |   |
|              | High Pressure Sodium Vapour lamps          |                                | IS 9974 (Part 1):1981 Amend.4:2007 Clause 7.4.2                    |   |
|              | High Pressure Mercury Vapour lamps         |                                | IS 9900 (Part 1):1981 Clause 7.4                                   |   |
|              | Solid State Lighting (LED) Products        |                                | IES LM79-08:2008 Clause 9.3.2 , IS 16106:2012 Clause 11.4.2        |   |

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**Accreditation Standard** **ISO/IEC 17025: 2005**

**Discipline** **Photometry Testing** **Issue Date** **24.05.2014**

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| S.No. | Product /<br>Material of Test  | Specific Test Performed  | Test Method Specification<br>against which tests are<br>performed   | Range of Testing /<br>Limits of Detection       |
|-------|--|--|---|---|
| 2.    | <b>Luminaires<br/>(all types of<br/>Conventional<br/>indoor and outdoor<br/>Luminaires for<br/>general lighting<br/>application)</b> | -Luminous Intensity<br>distribution<br>-Light output Ratio<br>-Efficacy of Luminaire | IS 13383 (Part I) :1992<br>Clause 9.5 a, b, c<br>IS 13383 (Part II):1992<br>Clause 9.6 a, b, c, d<br>IS 13383 (Part III):1992<br>Clause 7.2, 7.3, 7.4 | 3x 10 <sup>5</sup> cd<br>0 -100 %<br>1-300 lm/W |
| 3.    | <b>LED Luminaire,<br/>LED Package and<br/>LED Module</b>   | -Luminous Intensity<br>distribution<br>-Luminaire Efficacy                           | IES LM 79-08: 2008<br>Clause 9.3.2<br>IS 16106:2012 Clause 11.4.2   | 3x 10 <sup>5</sup> cd<br>1- 300 lm/W            |

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