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| **Technical Specifications/Bid sheet of 24V DC LED light (Annexure-A)** | | | | |
| **Sl No** | **Parameter** | **Requirement** | | **Bidder Remarks** |
| **1** | **Model/CAT REF.** |  | |  |
| **2** | **Rated System Wattage (Watts)** | ≤60 Watt | |  |
| **3** | **Mounting Arrangement/Bracket** | Roof mounting with single point mounting arrangement with Eye bolt/C Clamp/Bracket | |  |
| **4** | **Type of light** | Flood Light | |  |
| **5** | **Beam Angle** | 90 ̊- 120 ̊for Luminaries | |  |
| **6** | **Power Factor** | ≥0.7 | |  |
| **7** | **Operating Voltage (Volts)** | 24 V DC | |  |
| **8** | **Total Harmonic Distortion (%)** | ≤10% | |  |
| **9** | **Internal Wiring** | Insulated Cu Wire | |  |
| **10** | **External Surge Protection (kV)** | 10kV | |  |
| **11** | **System Efficacy (lumen/watt)** | ≥100 lm/watt | |  |
| **12** | **Total Lumen Output** | ≥6000 lm | |  |
| **13** | **Junction Temperature (Tj)** | <105°C | |  |
| **14** | **Ingress Protection (IP)** | IP65 (Test Report has to be submitted ) | |  |
| **15** | **Housing** | High Pressure Die Cast Aluminium with heat resistance clear toughened glass and efficient heat sink material. | |  |
| **16** | **Luminiare cover / glass** | High Transparency Polycarbonate Diffuser suitable with high efficient secondary lens | |  |
| **17** | **Luminiare mounting arrangement** | Adjustable Mounting arrangement with eye bolt/C Clamp/Bracket, Light angle can be made application specific | |  |
| **18** | **Color Rendering Index (CRI)** | ≥70 | |  |
| **19** | **Working Life for LED (@L70) (No. of hours)** | Minimum 50,000 Burning Hours as per LM-80 Report | |  |
| **20** | **Color Temperature (Deg. Kelvin)** | ≥5700 °K | |  |
| **21** | **Mechanical Impact of the entire fitting (IK)** | ≥IK05 | |  |
| **22** | **Make of LED manufacturer** | CREE / NICHIA /OSRAM (LM80 Certified) | |  |
| **23** | **Humidity (% min & max - Relative humidity)** | 10% to 90% RH | |  |
| **24** | **Suitability for dusty conditions** | Yes | |  |
| **25** | **Operating Temperature Range** | 0°C to 50° C | |  |
| **26** | **Driver** | One No. Independent Drivers for the Luminaries with loop in loop out facility for ease of maintenance. | |  |
| **27** | **Driver Protection** | Short Circuit, Over Load, Over voltage, Open Circuit, Reverse Polarity | |  |
| **Sl No** | **Parameter** | **Requirement** | | **Bidder Offer/Remarks** |
| **28** | **Driver Technical Data Sheet** | Technical Data Sheet of the Driver used in the offered Luminaries to be submitted along with the Offer. | |  |
| **29** | **Driver Type** | Constant Current potted driver with internal Surge Protection of 4KV,CE marking & should be ROHS compliant | |  |
| **30** | **Driver Efficiency** | ≥85% | |  |
| **31** | **Driver Compliance** | 1. IS 15885 (Part 2/Sec 13) as per BIS Certificate 2. The Driver should have CE marking & should be ROHS compliant. | |  |
| **32** | **Driver Make** | BIS Approved | |  |
| **33** | **Guarantee** | 5 Years from the Date of supply on complete lamp set | |  |
| **34** | **Depreciation of Lux** | The depreciation of light (LUX at floor level) should not be more than 10% per annum compared to routine test report value. If the depreciation of light (LUX at floor light) is more than 10% per annum, then it will be treated as defective and will be liable to replacement under guarantee. | |  |
| **Mandatory Documents to be submitted along with Offer apart from the one mentioned above:** | | | | |
| **Sl No** | **Documents** | | **Requirement** | **Bidder Remarks** |
| **1** | **Technical Data Sheet of the Offered Luminaries** | | Technical Data Sheet of the Offered Luminaries to be submitted along with the Offer. |  |
| **2** | **Technical Data Sheet of the Driver** | | Technical Data Sheet of the Driver used in the Offered Luminaries to be submitted along with the Offer |  |
|  | **LM 79 Report** | | LM-79(Photometry) Report mentioning following but not limited to: Total Lumen output of the System, Input Power, Input Voltage Range, Power Factor, Input Current in Amps, Beam Angle Of the System, THD, Lux level at floor, CRI & CCT etc of the offered Luminaries to be submitted from NABL accredited LAB along with the Offer. |  |
| **4** | **LM 80 Report** | | LM-80 Report & the Photo biological Report of the LED Chip being used in the offered Luminaries from chip manufacturer/NABL Accredited LAB has to be submitted along with the Offer. |  |
| **5** | **Driver Certification** | | IEC 61347-2-3:2006, IEC 62384:2006 ROHS, CE, BIS Certificate of the Driver for electrical Safety under 15885 |  |
| **6** | **Test Report** | | All Type test Report of Luminaries as per IS 10322:2012/IS 16105:2012/IS 16106:2012 has to be submitted with offer. |  |
| **7** | **Certificate** | | ISO 9001:2008 or Equivalent Certificate for in-house design, development, testing and manufacturing of Industrial LED Lighting Application |  |