

II. LED LIGHT FIXTURES

- i. The type of LED lamps/Fittings shall be as per the specifications mentioned in the tender document and **guaranteed for FIVE YEARS.**
- ii. LED lamps /Fittings shall be installed at a height specified in approved drawings or as directed by the Engineer-In-Charge. The contractor shall be deemed to have satisfied himself regarding the site conditions for installation purpose.
- iii. Where conductors are required to be drawn through channel leading to the fittings, the channel must be free from sharp angles or projecting edge and of such size as we enable them to be wired with the conductors used for the final circuit without removing the braiding or sheathing. As far as possible all such channels should be off sufficient size to permit looping back.

Sl No.	Technical Parameters	Recommended requirement
1	Efficiency of LED light fitting	Min 95 Lumens / Watt
2	Life of LED light fitting	Not less than 50000 burning Hours
3	Approved make for LED	Nichia / Cree / Osram / Philips(Lumiled) / sharp / Ceoul(See NOTE Below)
4	CRI (Colour Rendering Index)	Min 80 for indoor application and Min 70 for outdoor applications
5	THD (Total Harmonic Distortion)	Less than 10%
6	Type of Housing	Extruded aluminium / standard alloy housing for indoor applications. High pressure die cast Aluminium/Standard alloy for Outdoor applications.
7	IP category	IP 20 or higher for indoor applications and IP 65 or higher for outdoor applications
8	Surge Protection	Shall be provided confirming to relevant IS standard / IEC 61643-II Class – 2 & EN 61643-II Type-2.
9	Labeling / identification mark	Manufactures name / Logo engraved / Embossed on housing / body or name / Logo on aluminium plate labels or name / Logo printed on housing / body
10	Warranty period	5 years warranty from actual date of completion of work on complete luminaire including driver / control gear, LED, all accessories etc.

11	Power Factor	Equal to 0.95 or More
12	Total power consumption of fitting	Not more than 110 % of rated capacity of LED light.
13	Test Reports /Certificates & Documents during execution in case of award.	Type Test Certificates from NABL accredited Labs only.
		LM 79 Test Report
		LM 80 Test Report.
		Lumen depreciation Curve of LEDs used.

Note: An undertaking be obtained from fitting manufacturer regarding confirmation about use of said make LEDs in their fittings.

Additional Conditions:

- The manpower deputed for the work shall be experienced in such type of works. As this work is being a risky in nature, the deputed man power shall be insured against death/accidental incidents with an Insurance Company approved by IRDA during the execution of work. The Insurance coverage shall be minimum **Rs. 10, 00,000/-** per individual. The original insurance documents shall be shown along with the submission of 02 sets Photostat copies, duly attested, to AAI before commencement of work. No claim/Compensation against untoward incidents/accidents during the execution of work shall be borne by AAI. The successful contractor is responsible for such claims/compensations and need to be settled through concerned insurance company.
- As this work shall be carried out at high areas, all safety measures shall be followed and all safety elements /gadgets shall be arranged by the contractor. The work shall be supervised by the contractor during the entire execution of work and all safety measures and precautions shall be ensured. AAI shall not be responsible for any lapse in safety and no claim in this regard shall be entertained.
- The fittings may be supplied in different lots to ensure progress of the work without waiting for the production of entire fittings.