1 Technical Specification and Test Compliance for LED Highbay Light-100 W

Description & Specifications nical Specification	Required	Offered by Party	Deviations
nnical Specification			Deviations
	1	1	
Rating of LED Highbay Light Fixture	100 Watt		
Make of LED High Bay Light			
	220 V AC±5% / 50 Hz, Single Phase		
Power Factor	0.95 or more		
Lumens per watt	85 or more		
Correlated Color Temperature (CCT)	5000K - 6500K		
Color Rendering Index (CRI)	70 or More		
Total Harmonic Distorsion (THD)	20% or Less		
Life of Luminaire	Minimum 50,000 working hours maintaining at least 70 % of initial lumens		
Optics	Integrate optics having High spread beam angle of 90° or more		
LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA		
Electrical Protection	Short Circuit , Over voltage , Under voltage		
Lamp Housing	Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material.		
Ingress Protection	IP-65 or greater		
Mounting	Roof Mounting with Single Point Mounting arrangement with Eye Bolt or J-Hook. All items required for mounting to be supplied by the party.		
Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.		
Compliance: Following certificates shall be p	rovided along with the offer.		
For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL /government approved laboratory.		
For LED Module	LM 80 Test report from LED chip manufacturer		
Documents	Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.		
Warranty	5 years.		
	Correlated Color Temperature (CCT) Color Rendering Index (CRI) Total Harmonic Distorsion (THD) Life of Luminaire Optics LED Make Acceptable Electrical Protection Lamp Housing Ingress Protection Mounting Driver Compliance: Following certificates shall be proceeded to the process of the pro	Input Voltage Power Factor O.95 or more Lumens per watt Soromore Correlated Color Temperature (CCT) SOOOK - 6500K Color Rendering Index (CRI) Total Harmonic Distorsion (THD) Life of Luminaire Dities Life of Luminaire Optics Integrate optics having High spread beam angle of 90° or more CREE / NICHIA / BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA Electrical Protection Short Circuit , Over voltage , Under voltage Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material. Ingress Protection Ingress Protection Protection Ingress Protection Driver Constant Current output integrated driver built into fitting / fixture and should be field replaceable. Compliance : Following certificates shall be provided along with the offer. LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL / qovernment approved laboratory. LM 80 Test report from LED chip manufacturer Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.	Input Voltage

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2 Technical Specification and Test Compliance for LED Street Light-90 W

Description & Specifications	Required	Offered by Party	Deviations
nnical Specification			
Rating of LED Street Light Fixture	90 Watt		
Make of LED Street Light			
Model of LED Street Light			
Input Voltage	220 V AC±5% / 50 Hz, Single Phase		
Power Factor	0.95 or more		
Lumens per watt	85 or more		
Correlated Color Temperature (CCT)	5000K - 6500K		
Color Rendering Index (CRI)	70 or More		
Total Harmonic Distorsion (THD)	20% or Less		
Life of Luminaire	Minimum 50,000 working hours maintaining at least 70 % of initial lumens		
Optics	Integrate optics having High spread beam angle of 120° or more		
LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA		
Electrical Protection	Short Circuit , Over voltage , Under voltage		
Lamp Housing	Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material.		
Ingress Protection	IP-65 or greater		
Mounting	Side entry suitable for 60-65 mm OD pipe bracket All items required for mounting to be supplied by the party.		
Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.		
Compliance : Following certificates shall be p	provided along with the offer.		
For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL /government approved laboratory.		
For LED Module	LM 80 Test report from LED chip manufacturer		
Documents	Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.		
Warranty	5 years.		
	mical Specification Rating of LED Street Light Fixture Make of LED Street Light Model of LED Street Light Input Voltage Power Factor Lumens per watt Correlated Color Temperature (CCT) Color Rendering Index (CRI) Total Harmonic Distorsion (THD) Life of Luminaire Optics LED Make Acceptable Electrical Protection Lamp Housing Ingress Protection Mounting Driver Compliance : Following certificates shall be performed to the product of the process of the pr	Initial Specification Rating of LED Street Light Fixture Make of LED Street Light Make of LED Street Light Input Voltage Power Factor Lumens per watt S5 or more Correlated Color Temperature (CCT) Color Rendering Index (CRI) Total Harmonic Distorsion (THD) Life of Luminaire Optics LED Make Acceptable LED Make Acceptable Lamp Housing Lamp Housing Lamp Housing Ingress Protection Mounting Driver Constant Current output integrated for mounting to be supplied by the party. Constant Current output integrated driver built into fitting / fixture and should be field replaceable. Compliance: Following certificates shall be provided along with the offer. Documents Documents Documents Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.	Inical Specification Rating of LED Street Light Fixture Make of LED Street Light Model of LED Street Light Input Voltage Power Factor Lumens per watt SS or more Correlated Color Temperature (CCT) Color Rendering Index (CRI) Total Harmonic Distorsion (THD) Life of Luminaire Optics Integrate optics having High spread beam angle of 120°or more LED Make Acceptable Lamp Housing Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material. Ingress Protection Ingress Protection Ingress Protection Driver Compliance: Following certificates shall be provided along with the offer. LED Module Documents Documents Optics All Make Acceptable CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material. LINGRESS Protection LED Module Compliance: Following certificates shall be provided along with the offer. LM 79 Test report for Iuminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL / (qovernment approved laboratory. LM 80 Test report from LED chip manufacturer Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.

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3 Technical Specification and Test Compliance for LED Street Light-45 W

3	Technical Specification and Test Compliance for LED Street Light-45 W					
S.No.	Description & Specifications	Required	Offered by Party	Deviations		
1. Technical Specification						
1.1	Rating of LED Street Light Fixture	45 Watt				
1.1 (a)	Make of LED Street Light					
1.1 (b)	Model of LED Street Light					
1.2	Input Voltage	220 V AC±5% / 50 Hz, Single Phase				
1.3	Power Factor	0.95 or more				
1.4	Lumens per watt	85 or more				
1.5	Correlated Color Temperature (CCT)	5000K - 6500K				
1.6	Color Rendering Index (CRI)	70 or More				
1.7	Total Harmonic Distorsion (THD)	20% or Less				
1.8	Life of Luminaire	minimum 50,000 working hours maintaining at least 70 % of initial lumens				
1.9	Optics	Integrate optics having High spread beam angle of 120° or more				
1.1	LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA				
1.11	Electrical Protection	Short Circuit , Over voltage , Under voltage				
1.12	Lamp Housing	Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material.				
1.13	Ingress Protection	IP-65 or greater				
1.14	Mounting	Side entry suitable for 60 to 65 mm OD pipe bracket All items required for mounting to be supplied by the party.				
1.15	Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.				
2 . Test (Compliance: Following certificates shall be p	rovided along with the offer.				
2.1	For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL /government approved laboratory.				
2.2	For LED Module	LM 80 Test report from LED chip manufacturer				
3	Documents	Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.				
4	Warranty	5 years.				

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4 Technical Specification and Test Compliance for LED Flood Light-60 W

S.No.	Description & Specifications	Required	Offered by Party	Deviations
	hnical Specification			
1.1	Rating of LED Flood Light Fixture	60 Watt		
1.1 (a)	Make of LED Floodt Light			
1.1 (b)	Model of LED Flood Light			
1.2	Input Voltage	220 V AC±5% / 50 Hz, Single Phase		
1.3	Power Factor	0.95 or more		
1.4	Lumens per watt	85 or more		
1.5	Correlated Color Temperature (CCT)	5000K - 6500K		
1.6	Color Rendering Index (CRI)	70 or More		
1.7	Total Harmonic Distorsion (THD)	20% or Less		
1.8		minimum 50,000 working hours maintaining at least 70 % of initial lumens		
1.9	Optics	Integrate optics having High spread beam angle of 120° or more		
1.1	LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA		
1.11	Electrical Protection	Short Circuit , Over voltage , Under voltage		
1.12	Lamp Housing	Pressure Die cast aluminum housing with heat resistant toughened glass cover and efficient heat sinking material.		
1.13	Ingress Protection	IP-65 or greater		
1.14	Mounting	Standard Mounting		
1.15	Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.		
2. Test	Compliance: Following certificates shall be			
2.1	For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL /government approved laboratory.		
2.2	For LED Module	LM 80 Test report from LED chip manufacturer		
3	Documents	Party shall submit the product catalog and complete specifications of the offered LED High Bay Light along with the offer.		
4	Warranty	5 years.		

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5 Technical Specification and Test Compliance for LED Bulb 5-7 Watt

S.No.	Description & Specifications	Required	Offered by Party	Deviations
1. Tec	hnical Specification	•		•
1.1	Rating of LED Bulb	5-7 Watt		
1.1 (a)	Make of LED Bulb			
1.1 (b)	Model of LED Bulb			
1.2	Input Voltage	220 V AC±5% / 50 Hz, Single Phase		
1.3	Power Factor	0.95 or more		
1.4	Lumens per watt	85 or more		
1.5	Correlated Color Temperature (CCT)	5000K - 6500K		
1.6	Color Rendering Index (CRI)	70 or More		
1.7	Total Harmonic Distorsion (THD)	20% or Less		
1.8	Life of Luminaire	minimum 50,000 working hours maintaining at least 70 % of initial lumens		
1.9	Optics	Integrate optics having High spread beam angle of 120° or more		
1.1	LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA		
1.11	Electrical Protection	Short Circuit , Over voltage , Under voltage		
1.12	Ingress Protection	IP-65 or greater		
1.13	Mounting	B22		
1.15	Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.		
2 . Test	Compliance : Following certificates shall be	-		
2.1	For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL //government approved laboratory.		
2.2	For LED Module	LM 80 Test report from LED chip manufacturer		
3	Documents	Party shall submit the product catalog and complete specifications of the offered LED Bulb along with the offer.		
4	Warranty	5 years.		

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6 Technical Specification and Test Compliance for LED Tubelight

6	Technical Specification and Test Compliance for LED Tubelight					
S.No.	Description & Specifications	Required	Offered by Party	Deviations		
	1. Technical Specification					
1.1	Rating of LED Tube Light	9 Watt				
1.1 (a)	Make of LED Tube Light					
1.1 (b)	Model of LED Tube Light					
1.2	Input Voltage	220 V AC±5% / 50 Hz, Single Phase				
1.3	Power Factor	0.95 or more				
1.4	Lumens per watt	85 or more				
1.5	Correlated Color Temperature (CCT)	5000K - 6500K				
1.6	Color Rendering Index (CRI)	70 or More				
1.7	Total Harmonic Distorsion (THD)	20% or Less				
1.8	Life of Luminaire	minimum 50,000 working hours maintaining at least 70 % of initial lumens				
1.9	Optics	Integrate optics having High spread beam angle of 120° or more				
1.1	LED Make Acceptable	CREE /NICHIA /BRIDGELUX / PHILIPS/ LUMILEDS / OSRAM / TOSHIBA				
1.11	Electrical Protection	Short Circuit , Over voltage , Under voltage				
1.12	Ingress Protection	IP-65 or greater				
1.13	Mounting	T-8				
1.15	Driver	Constant Current output integrated driver built into fitting / fixture and should be field replaceable.				
2 . Test	Compliance : Following certificates shall be p					
2.1	For Luminaire	LM 79 Test report for luminaire (Clearly mentioning the values for point No. 1.1 to 1.9) from NABL /government approved laboratory.				
2.2	For LED Module	LM 80 Test report from LED chip manufacturer				
3	Documents	Party shall submit the product catalog and complete specifications of the offered LED Tube Light along with the offer.				
4	Warranty	5 years.				

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