

Name of Work :- Fabrication & installation of customized Lighting Fixtures of Sri Darbar Sahib - Amritsar					
Estimated Cost :- 39,65,000/-					
Earnest Money :- 79,300/-					
Time Limit :- 60 Days					
Sr.No	Description	Qty	Units	Rate	Amount
1	Supply Installation, Testing & commissioning of linear LED fixture of customised lengths (in existing teak wood moulding). the fixture must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards and should be as per followings specifications :-	76	meters		
	Physical size				
	Length : customized as per site				
	Width :- not greater then 10mm				
	Height :- not greater then 10mm				
	Luminance :- 600-800 lumens per meter				
	Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})				
	Maximum Power Not exceeding more than 10 watts / meter				
	CCT :- 2700K				
	CRI > 85				
	Binning :- +/- 150K Max				
	Beam Angle :- 60 degree (Asymmetric Beam)				
	IR value > 780nm				
	UV value < 380				
Temperature rise in enclosed environment (teakwood moulding) not greater than 20 degree centigrade					
Lifetime: 50,000 hours @ L80					
Analog Dimmable					
Power Supplies For Above		8	nos		
1.A	Rated for minimum 120Watts each				
	Out voltage: Constant voltage, 24 V DC				
	Out voltage tolerance: +/- 2%				
	IP Rating: IP20 rated				
	Protection class: Class II only				
	Overload & short circuit protection: mandatory				
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065				
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation				
	Maximum allowed dimension: L x H x W :: 220-240 mm x 20-30 mm x 30-35 mm				
	Power factor : > 0.5c				
Efficiency : Greater than 85%					
Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s					
2	Supply Installation, Testing & commissioning of linear LED fixture of customized lengths (IP 67, UV protected, saltwater resistant, solvent resistant) must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards and should be as per followings specifications :-	4	nos		
	Physical size				
	Length : 640mm				
	Width :- not greater then 25mm				
	Height :- not greater then 25mm				
	Luminance :- 1000-1200 lumens				
	Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})				
	Maximum power Not exceeding more then 20 watts				
	CCT :- 2700K				
	Ra :- CRI > 85				
	Binning :- +/- 75K Max				
	Beam Angle :- 60 degree symmetric Beam				
	IR value > 780nm				
	UV value < 380				
Temperature rise not greater than 20 degrees centigrade					
Dimmable :- Non Dimmable					
Power Supplies For Above		2	nos		
2.A	Rated for minimum 50Watts each				
	Out voltage: Constant voltage, 24 V DC				
	Out voltage tolerance: +/- 2%				
	IP Rating: IP20 rated				
	Protection class: Class II only				
	Overload & short circuit protection: mandatory				
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065				
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation				
Maximum allowed dimension: L x H x W :: 220-240 mm x 20-30 mm x 30-35 mm					
Power factor : > 0.5c					
Efficiency : Greater than 85%					
Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s					
	Supply Installation, Testing & commissioning of linear LED fixture of customised lengths. the fixture must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards and should be as per followings specifications :-	12	meters		
	Length : customized as per site				

3	Physical size	Width :- not greater than 10mm				
		Height :- not greater than 20mm				
		Luminance:- 600-800 lumens per meter				
		Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})				
		Maximum power Not exceeding more than 10 watts /meter				
		CCT :- 2700K				
		Ra :- CRI > 85				
		Binning :- +/- 75K Max				
		Beam Angle :- 10 degree				
		optics :- Grazing /Asymmetric				
		IR value > 780nm				
		UV value < 380				
		Temperature rise not greater than 20 degrees centigrade				
		Lifetime: 50,000 hours @ L80				
	Dimmable :- Analog Dimmable					
	Power Supplies For Above		3	nos		
	Rated for minimum 50Watts each					
3.A	Out voltage: Constant voltage, 24 V DC					
	Out voltage tolerance: +/- 2%					
	IP Rating: IP20 rated					
	Protection class: Class II only					
	Overload & short circuit protection: mandatory					
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065					
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation)					
	Power factor : > 0.5c					
	Efficiency : Greater than 85%					
	Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s					
4	Supply Installation, Testing & commissioning of a customize LED Fixture, the shape & size of the fixture is as per drawing no.GT0201. The fixture is to be installed on top of the fan as shown in GT0202 & optics of the fixture is to be so designed to avoid stroboscopic effect in the environment, and illustration of this is shown in drawing no GT0203. The fixture shall be IP40 & shall be in Golden Finish and must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards and should be as per followings specifications :-		18	nos		
	Physical size	As per GT0201				
		Luminance :- 1200-1500 lumens				
		Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})				
		Not exceeding 16-18 watts				
		CCT :- 2700K				
		Ra :- CRI > 85				
		Binning :- +/- 75K Max				
		Beam Angle & optics as per the lighting distribution suggested in GT0203				
		IR value > 780nm				
		UV value < 380				
		Temperature rise not greater than 20 degrees centigrade				
		Lifetime: 50,000 hours @ L80				
		Dimmable :- Non Dimmable				
	Power Supplies For Above		18	nos		
	Rated for minimum 20Watts each					
4.A	Out voltage: Constant voltage, 24 V DC					
	Out voltage tolerance: +/- 2%					
	IP Rating: IP20 rated					
	Protection class: Class II only					
	Overload & short circuit protection: mandatory					
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065					
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation)					
	Power factor : > 0.5c					
	Efficiency : Greater than 85%					
	Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s					
5	Supply Installation, Testing & commissioning of customized linear LED Wall Mounted fixture with upward and downward Lighting component. The shape & the size of the fixture is as per drawing GT0204. The suggested optics of the fixture are shown in drawing no.GT0205. The fixture shall be in golden finish to match the installation space and shall be IP40 and must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards as per Given detail Drawing and following specifications		6	nos		
	Physical size	As per GT0204				
		Luminance :- as suggested in GT0205				
		Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})				
		Not exceeding 16-18 watts				
		CCT :- 2700K				
		Ra :- CRI > 85				
		Binning :- +/- 75K (single Bin)				
	Beam Angle :- As suggested in GT0205					

	Optics :- As suggested in GT0205				
	IR value > 780nm				
	UV value < 380				
	Temperature rise not greater than 20 degrees centigrade				
	Lifetime: 50,000 hours @ L80				
	Dimmable :- Analog Dimmable				
	Power Supplies For Above	12	nos		
	Rated for minimum 120Watts each				
5.A	Out voltage: Constant voltage, 24 V DC				
	Out voltage tolerance: +/- 2%				
	IP Rating: IP20 rated				
	Protection class: Class II only				
	Overload & short circuit protection: mandatory				
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065				
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation)				
	Power factor : > 0.5c				
	Efficiency : Greater than 85%				
	Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s				
6	Supply Installation, Testing & commissioning of customized linear LED Wall Mounted fixture with downward lighting component. The shape & the size of the fixture is as per drawing GT0206. The suggested optics of the fixture are shown in drawing no.GT0207. The fixture shall be in golden finish to match the installation space and shall be IP40 and must comply to EN 62031 , IEC PAS 62717, EN 62471 -1, LM80, LM79 standards as per Given detail Drawing and following specifications		18	nos	
	Physical size	As per GT0206			
	Luminance :-	1200-1400 lumens			
	operating voltage :-	24V DC (23 V _{min} , 25 V _{max})			
	Wattage :-	16-18 watts			
	CCT :-	2700K			
	Ra :-	CRI > 85			
	Binning :-	+/- 75K (single Bin)			
	Beam Angle :-	Asymmetric Beam			
	Optics :-	As per GT0207			
	IR value >	780nm			
	UV value <	380			
	Temperature rise not greater than	20 degrees centigrade			
	Lifetime: 50,000 hours @	L80			
	Dimmable :-	Analog Dimmable			
		Power Supplies For Above	18	nos	
		Rated for minimum 20Watts each			
6.A	Out voltage: Constant voltage, 24 V DC				
	Out voltage tolerance: +/- 2%				
	IP Rating: IP20 rated				
	Protection class: Class II only				
	Overload & short circuit protection: mandatory				
	Safety standard: EN 61347-1, SELV equivalent according to EN 60065				
	Lifetime: 30,000 hours at TC max (+45 degree celsius point, 90% relative humidity, no condensation)				
	Power factor : > 0.5c				
	Efficiency : Greater than 85%				
	Inrush current : I _{peak} = 20A / I ² t = 0.08A ² s				
Total					