

Fabrication & installation of customized Lighting Fixtures of Sri Darbar Sahib - Amritsar						
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			
	Physical size					Length : customized as per site
						Width :- not greater then 10mm
						Height :- not greater then 20mm
						Luminance:- 600-800 lumens per meter
	Operating voltage :- 24V DC (23 V _{min} , 25 V _{max})					

3	Maximum power Not exceeding more then 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 following 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					