HSCC/SES/OT-Light/LHMC/2022

All Bidders

Amendment-VIII

Subject: Execution including Supply, Installation, Testing & Commissioning of Surgical Operation Theatre Light at LHMC-New Delhi

Tender No: HSCC/SES/OT-Light/LHMC/2022 Date: 27.10.2022

This has reference to above tender.

The following Amendment may be noted which shall be treated as part of the tender document and to be submitted duly signed & stamp along with tender.

Sr.	Bidders Queries	Reply
No.	A. Double Dome light Specification	A. Double Dome light
	1. Should be Double Dome Surgical Light	Specification
	incorporating the latest LED technology only for	May be read as should be
	Homogenous and with Y shaped Light Dome, preferably, to have shadow less operating light field	Double Dome Surgical Light incorporating the latest LED
	Unique suspension design to fully comply with	technology only, for
	laminar air flow with the following specifications:	Homogenous and shadow less operating light field
	Amendment Request	Unique suspension design to fully comply with laminar air
	1. Should be Double Dome Surgical Light incorporating the latest	flow with the following specifications:
	LED technology only, for Homogenous and shadow	•
	to fully comply with laminar air flow with the	
	following specifications:	
	Different manufacturers have different shapes and	
	designs of light domes, with the same output result.	
	company specific and not fair.	
2.	2. The surgical O.T. Light should have Latest	
	Generation Single Bright White Color LED's to	The surgical O.T. Light
	develop cool and nonlogenous light herd	Generation bright white
	Amendment Request	color LED's/warm LED's to
	2. The surgical O.T. Light should have Latest	homogenous light field. The
	Generation 3 Color LED's to develop cool and	output light must be glare-
	homogenous light field. The output light must be glare-free	free.

	Plain single white color leds will never give good R9 values. Most of all world standard lights use 3 different colors of leds in surgical lights, and specifying 3 colors will enable all standard manufacturers to participate in the tender. Tissue differentiation during surgery can be seen only with 3 color led technology and not with single white leds, The glare free lights reduce eve strain and fatigue for surgeons during surgeries.	
3.	3. Main suspension arms using steel material, no visible screws, for an efficient and hygienic cleaning. Sealed light-head, smooth, resistant to disinfecting agents. Impact resistant ABS-PC and PMMA XT choc casing.	Main suspension arms with smooth manoeuvrability. Sealed light-head, smooth, resistant to disinfecting agents. Light dome housing base must be made of solid heavy
	3. Main suspension arms with smooth maneuverability. Sealed light-head, smooth, resistant to disinfecting agents. Light dome housing base must be made of solid heavy aluminum casting, land not of any kind of plastic material.	casting/ABS-PC
	Plastic is a verv poor conductor of heat, and in a plastic body dome, all the heat generated will be passed on to the output light, making it hot instead of desired cold light output in surgery. All standard international brands make lights with aluminum base, as it is a very good conductor of heat and all the heat is absorbed by the dome base making the output light very cold as desired for surgeries.	
4.	 4. The surgical O.T. Light should have Latest Generation Single Bright White Color LED's to develop cool and homogenous light field The surgical O. T. Light should have Latest Generation 3 Color LED's to develop cool and homogenous light field. 	The surgical O.T. Light should have Latest Generation bright white color LED's/warm LED's to develop cool and homogenous light field. The output light must be glare-
	Plain single white color leds will never give good R9 values. Most of all world standard lights use 3 different colors of leds in surgical lights, and specifying 3 colors will enable all standard manufacturers to participate in the tender. Tissue differentiation during surgery can be seen only with 3 color led technology and not with single white leds.	free.

5.	Both Main and one satellite Domes should have Power LEDs, main dome should have 4 Modules with each Module having 4 Power LEDs with 24 Latest Generation White Color LEDs & Satellite Dome should have 3 Modules, with each Module having 4 Power LEDs which has 12 no's Latest Generation White Color LEDs. Each of these Power LEDs should have 36 Sub LEDs built-in, totaling to 432 LEDS in both Main Dome & in Satellite dome Both main and satellite domes should have light output of 160000 lux each	Total of more than 350 LED's in both main dome & in satellite dome for better shadow dilution and depth of illumination. Both main and satellite domes should have light output of 160000 lux each.
	Different manufacturers have different designs of lights, with the same output result. Specifying particular number of leds or the pattern is very company specific and not fair.	
6.	Highly cool, homogeneous, symmetrically distributed, colour-true and cast shadow free light, produced by overlapping identical light beams from single-type white LEDs. Light transmission via collimators for an extremely high in-depth illumination Amendment Request:	Highly cool, homogeneous, symmetrically distributed, colour-true and cast shadow free light, produced by overlapping identical light beams from LEDs. Light output should have extremely high in-depth illumination
	Highly cool, homogeneous, symmetrically distributed, colour-true and cast shadow free light, produced by overlapping identical light beams from LEDs. Light output should have extremely high in- depth illumination	
	The poing mentioned is very company specific and will prevent many standard manufacturers from offering world class lights.	
7.	'The main light and satellite should have the following specifications	Fixed Color Temperature of 4000K – 4500K. Control panel on dome
	Lux Intensity of 1,60,000 Lux in Main and Satellite Dome.	handle should have adjustment of Intensity, Field diameter (focus), Endo
	Variable Light patch diameter from 20 - 25 cms in each domes	function & Power On-Off function, camera control.
	Fixed Color temperature of 4300 K	
	Color rendering index, Ra and R15 of 95.	

	 Electronic Illumination adjustment 10% to 100% Depth of illumination (L1 + L2) at 20% of EC should be 110 cms Remaining illuminance with two masks of 50 % Total Irradiance (Ee) (max. 1000 W/m² for 2 lightheads according to IEC) in standard mode less than 500 W /m2 d50/d10 of 0.55 Temperature rise at the surgeon's head should be <1° 	
	Amendment Request;	
	Color Temperature adjustable to 3500K-4000K- 4500K- 5000 K in 4 distinct steps, for easy tissue differentiation. Control panel on dome handle should have adjustment of Intensity, Field diameter (focus), Color Temperature, Endo function & Power On-Off function, on a LCD / LED panel for better visibility. It should also be possible to operate all these functions with a cordless remote control also. Both the control panel and cordless remote control should have built in camera controls for easy use.	
	These are the standard features in all latest led surgical lights. A fixed color temperature used to be there in earlier halogen lights, where the light output was fixed without having any adjustments. All international standard lights today have this feature of color temperature change options which allow surgeons to see tissues better. Fixed color temperature is an obsolete technology.	
8.	Should have Diverging & Refractive technology to produce multiple light beams for perfect visualization on surface as well as in deep cavities.	Should have Diverging & Refractive technology to produce multiple light beams for perfect visualization on surface as well as in deep cavities.
9.	Should have Latest Generation Single Bright White LED's & they should have minimum life of 60,000 hours. Amendment Request;	Should have Latest Generation LED's & they should have minimum life of 60,000 hours.
	Should have Latest Generation LED's & they should have minimum life of 60,000 hours. The control	

	panel should have a built in digital hour counter to show the number of hours the light has worked.	
	Without a hour counter in the control panel, its impossible to verify the life of 60000 hours, and today all standard lights have this feature for reliability.	
10.	Should have Special Electronics which avoids variations in Light output due to loss of illumination due to LED technology, to achieve stable & constant illumination throughout the Surgical Procedures	Should have Special Electronics which avoids variations in Light output due to loss of illumination due to LED technology, to achieve stable & constant illumination throughout the Surgical Procedures
11.	Should have LED's of a single color only for long term maintenance and ease of replacement Amendment Request:	Should have easily replaceable LED's for long term maintenance and ease
	Should have easily replaceable LED's for long term maintenance and ease of replacement	of replacement.
	Single color leds are not desired and is an obsolete technology.	
12.	Should have only Green Ambient lighting with Illumination in the range up to 500 lux, incremental in 5 steps to offer an Illumination field of about 100 cms useful in MIS procedures, available through the control keypad at the light head and at the sterilizable handle in option.	Should have Ambient lighting useful in MIS procedures, available through the control keypad at the light head.
	Amendment Request;	
	Should have Ambient lighting useful in MIS procedures, available through the control keypad at the light head and at the remote control unit in option. The control panel should have a sync function, so that both domes can be controlled at the same time from any single control panel at the same time, whenever required for ease of working. The light domes should have shadow compensation sensors to give uniform light during the surgery, even if someones head comes below the light dome.	
	Specifying Green ambient light is very company specific and is a non standard feature. Also mentioning control from sterilisable handle is	

	company specific and non standard feature. This will be favoring a brand and will prevent most of the standard world class manufacturers from participating in the bid. The sync feature is a very user friendly feature that allows easy control of parameters of both domes from single control when need arises. Since you are buying an expensive and latest light, it should have all the latest featues available in todays technology.	
13.	Should have average radiant energy of the lights should be less than 3.5 mW/m2	Should have average radiant energy of the lights should be less than 3.5 mW/m2
14.	Light emission surface: 798 cm ² for both the domes.	Light emission surface: 798 cm^2 for both the domes.
15.	The light should have the following shadow parameters or better Feature Parameter Shadow dilution with 1 single Mask 48% or better Shadow dilution with 2 Mask 50% or better Shadow dilution with 1 Cavity 96% Shadow dilution with 1 mask and 1 tube 44% or better Shadow dilution with 2 masks and 1 tube 49% or better	The light should have the following shadow parameters or better Feature Parameter Shadow dilution with 1 single Mask 48% or better Shadow dilution with 2 Mask 50% or better Shadow dilution with 1 Cavity 96% Shadow dilution with 1 mask and 1 tube 44% or better Shadow dilution with 2 masks and 1 tube 49% or better
16.	Should be BIS/US FDA, CE, UL certified.	All indigenous certification,
	Should be BIS/US FDA / CE/ UL certified. These are the standard quality parameters all over India in all Govt. tenders.	mentioned in technical specification prevails.
17.	 Applicable Standards: BIS/CE marking and UL listed IEC 60601-1, UL 60601-1, CSA C22.2 N° 601.1 IEC 60601-2-41:2004, UL 60601-2-41:2004, CSA C22.2 N° 60601.2.41:2004 EN 60601-1-2, FCC Part 15 BIS 	All indigenous certification, standards and directives mentioned in technical specification prevails.
	Amenament Request;	

	Applicable Standards: BIS/CE marking / USDA/ UL listed IEC 60601-1 IEC 60601-2 EN 60601-1 Applicable Standards: BIS/CE marking / USDA/	
	These are the standard quality parameters all over India in all Govt. tenders.	
18.	 B. HD Camera Specification Central camera fitting underneath light-head, integrated in central handle. Always HD video prepared light-head for adapting HD camera system to optimize future update. Should have facility to attach Latest Wi- Fi Full HD Camera, which should be mounted on the Centre of the Light dome. Sensor- 1/3" CMOS Signal System- 1080p Number of pixels- 2,120,000 Aspect ratio: 16:9 S/N ratio- > 50dB Lens (zoom)- x7 (42x with digital zoom) Focal length- 5.1 to 51mm Aperture- F1.6 to F1.8 Ant flicker- Yes Sensitivity (lx)- 0.5 lx White Balance- Auto/indoor/ outdoor/ manual Location of camera- Centre of light head in post for Serializable handle Should be BIS/US FDA, CE, UL certified. 	B.HDCameraSpecificationLens zoom (with digital zoom) = total 40x or moreAll indigenous certification, standards and directives mentioned in technical specification prevails.
	Amendment Request; Lens 10x optical zoom X 12x digital zoom, total 120x zoom 42x total zoom is very obsolete and will hardly allow surgeons to capture fine arteries and tissues. 120X zoom is a very standard technology all over the world today in all led lights.	

	Should be BIS/US FDA / CE/ UL certified.	
	These are the standard quality parameters all over India in all Govt tenders.	
19.	SPECIFICATION FOR DOUBLE DOME LED O.T. LIGHT	SPECIFICATION FOR DOUBLE DOME LED O.T. LIGHT
	Should be Double Dome Surgical Light incorporating the latest LED technology only for Homogenous and with YY shaped Light Dome, preferably, to have shadow less operating light field Unique suspension design to fully comply with laminar air flow with the following specifications:	Should be Double Dome Surgical Light incorporating the latest LED technology only, for Homogenous and shadow less operating light field Unique suspension
	Amendment Request; Should be Double Dome Surgical Light incorporating the latest LED technology only, for Homogenous and shadow less operating light field Unique suspension design to fully comply with laminar air flow with the following specifications:	design to fully comply with laminar air flow with the following specifications:
	Different manufacturers have different shapes and designs of light domes, with the same output result. Specifying a particular shape of light dome is very company specific and not fair.	
20.	The surgical O.T. Light should have Latest Generation Single Bright White Color LED's to develop cool and homogenous light field. Amendment Request;	The surgical O.T. Light should have Latest Generation bright white color LED's/warm LED's to develop cool and
	The surgical O.T. Light should have Latest Generation 3 Color LED's to develop cool and homogenous light field. The output light must be glare-free	homogenous light field. The output light must be glare- free.
	Plain single white color leds will never give good R9 values. Most of all world standard lights use 3 different colors of leds in surgical lights, and specifying 3 colors will enable all standard manufacturers to participate in the tender. Tissue differentiation during surgery can be seen only with 3 color led technology and not with single white leds. The glare free lights reduce eve strain	
21.	Main suspension arms using steel material, no visible screws, for an efficient and	

	 hygienic cleaning. Sealed light-head, smooth, resistant to disinfecting agents. Impactresistant ABS-PC and PMMA XT choc casing. Amendment Request; Main suspension arms with smooth maneuverability. Sealed light-head, smooth, resistant to disinfecting agents. Light dome housing base must be made of solid heavy aluminum casting, and not of any kind of plastic material. 	Main suspension arms with smooth maneuverability. Sealed light-head, smooth, resistant to disinfecting agents. Light dome housing base must be made of solid heavy aluminum casting, and not of any kind of plastic material.
	Plastic is a very poor conductor of heat, and in a plastic body dome, all the heat generated will be passed on to the output light, making it hot instead of desired cold light output in surgery. All standard international brands make lights with aluminum base, as it is a very good conductor of heat and all the heat is absorbed by the dome base making the output light very cold as desired for surgeries.	
22.	The surgical O.T. Light should have Latest Generation Single Bright White Color LED's to develop cool and homogenous light field. Amendment Request; The surgical O.T. Light should have Latest Generation 3 Color LED's to develop cool and homogenous light field.	The surgical O.T. Light should have Latest Generation bright white color LED's/warm LED's to develop cool and homogenous light field. The output light must be glare- free.
	Plain single white color leds will never give good R9 values. Most of all world standard lights use 3 different colors of leds in surgical lights, and specifying 3 colors will enable all standard manufacturers to participate in the tender, Tissue differentiation during surgery can be seen only with 3 color led technology and not with single white leds.	
23.	Both Main and one satellite Domes should have Power LEDs, main dome should have 4 Modules with each Module having 4 Power LEDs with 24 Latest Generation White Color LEDs & Satellite Dome should have 3 Modules, with each Module having 4 Power LEDs which has 12 no's Latest Generation White Color LEDs. Each of these Power LEDs should have 36 Sub LEDs built-in, totaling to 432 LEDS in both Main Dome & in Satellite dome.	Total of more than 300 LED's in both main dome & in satellite dome for better shadow dilution and depth of illumination. Both main and satellite domes should have light output of 160000 lux each.

	Amendment Request;	
	Both main and satellite domes should have light output of 160000 lux each	
	Different manufacturers have different designs of lights, with the same output result. Specifying particular number of leds or the pattern is very company specific and not fair.	
24.	Highlycool,homogeneous,symmetricallydistributed,colour-true and cast shadowfreelight,produced by overlapping identical light beamsfrom single-type white LEDs.Light transmission via collimators for an extremelyhigh in-depth illumination.Amendment Request;Highlycool,homogeneous,symmetricallydistributed,colour-true and cast shadow free light,produced by overlapping identical light beams fromLEDs.Light output should have extremely high in-depthillumination	Highly cool, homogeneous, symmetrically distributed, colour-true and cast shadow free light, produced by overlapping identical light beams from LEDs. Light output should have extremely high in-depth illumination
	The poing mentioned is very company specific and will prevent many standard manufacturers from offering world class lights.	
25.	The main light and satellite should have the following specifications:- Lux Intensity of 1,60,000 Lux in Main and Satellite Dome. Variable Light patch diameter from 20 - 25 cms in each domes Fixed Color temperature of 4300 K Color rendering index, Ra and R15 of 95. Electronic Illumination adjustment 10% to 100% Depth of illumination (L1 + L2) at 20% of EC should be 110 cms Remaining illuminance with two masks of 50 % Total Irradiance (Ee) (max. 1000 W/m² for 2 lightheads according to IEC) in standard mode less than 500 W /m2 d50/d10 of 0.55 Temperature rise at the surgeon's head should be <1°C 	Fixed Color Temperature of 4000K – 4500K. Control panel on dome handle should have adjustment of Intensity, Field diameter (focus), Endo function & Power On-Off function, camera control.
	Amendment Request;	

	Color Temperature adjustable to 3500K-4000K- 4500K- 5000 K in 4 distinct steps, for easy tissue differentiation. Control panel on dome handle should have adjustment of Intensity, Field diameter (focus), Color Temperature, Endo function & Power On-Off function, on a LCD / LED panel for better visibility. It should also be possible to operate all these functions with a cordless remote control also. Both the control panel and cordless remote control should have built in camera controls for easy use.	
	These are the standard features in all latest led surgical lights. A fixed color temperature used to be there in earlier halogen lights, where the light output was fixed without having any adjustments. All international standard lights today have this feature of color temperature change options which allow surgeons to see tissues better. Fixed color temperature is an obsolete technology.	
26.	Should have Diverging & Refractive technology to produce multiple light beams for perfect visualization on surface as well as in deep cavities.	Should have Diverging & Refractive technology to produce multiple light beams for perfect visualization on surface as well as in deep cavities.
27.	Should have Latest Generation Single Bright White LED's & they should have minimum life of 60,000 hours. Amendment Request;	Should have Latest Generation LED's & they should have minimum life of 60,000 hours.
	Should have Latest Generation LED's & they should have minimum life of 60,000 hours. The control panel should have a built in digital hour counter to show the number of hours the light has worked. Without a hour counter in the control panel, its impossible to verify the life of 60000 hours, and	
	today all standard lights have this feature for reliability.	
28.	Should have Special Electronics which avoids variations in Light output due to loss of illumination due to LED technology, to achieve stable & constant illumination throughout the Surgical Procedures	Should have Special Electronics which avoids variations in Light output due to loss of illumination due to LED technology, to achieve stable & constant illumination

		throughout the Surgical Procedures
29.	Should have LED's of a single color only for long term maintenance and ease of replacement. Amendment Request;	Should have easily replaceable LED's for long term maintenance and ease of replacement
	Should have easily replaceable LED's for long term maintenance and ease of replacement	
	Single color leds are not desired and is an obsolete technology.	
30.	Should have only Green Ambient lighting with Illumination in the range up to 500 lux, incremental in 5 steps to offer an Illumination field of about 100 cms useful in MIS procedures, available through the control keypad at the light head and at the sterilizable handle in option.	Should have Ambient lighting useful in MIS procedures, available through the control keypad at the light head and at the remote control unit in option.
	Amendment Request;	
	Should have Ambient lighting useful in MIS procedures, available through the control keypad at the light head and at the remote control unit in option. The control panel should have a sync function, so that both domes can be controlled at the same time from any single control panel at the same time, whenever required for ease of working. The light domes should have shadow compensation sensors to give uniform light during the surgery, even if someones head comes below the light dome.	
	Specifying Green ambient light is very company specific and is a non standard feature. Also mentioning control from sterilisable handle is company specific and non standard feature. This will be favoring a brand and will prevent most of the standard world class manufacturers from participating in the bid. The sync feature is a very user friendly feature that allows easy control of parameters of both domes from single control when. need arises. Since you are buying an expensive and latest light, it should have all the latest featues available in	
31.	todays technology. Should have average radiant energy of the lights should he have them 2.5 mW/r 2	Should have average radiant
	should be less than 3.5 mW/m2	energy of the lights should be less than 3.5 mW/m2

32.	Light emission surface: 798 cm ² for both the domes.	Light emission surface: 798
22		cm ² for both the domes
33.	The light should have the following shadow	The light should have the following shadow
	Feature Parameter	narameters or better
	• Shadow dilution with 1 single Mask 48% or	Feature Parameter
	better	Shadow dilution with
	• Shadow dilution with 2 Mask 50% or better	1 single Mask 48% or
	• Shadow dilution with 1 Cavity 96%	better
	• Shadow dilution with 1 mask and 1 tube	• Shadow dilution
	44% or better	with 2 Mask 50% or
	• Shadow dilution with 2 masks and 1 tube	better
	49% or better	• Shadow dilution with
		1 Cavity 96%
		• Shadow dilution with
		I mask and I tube 44% or better
		Shadow dilution with 2
		masks and 1 tube 49% or
		better
34.	Should be BIS/US FDA, CE, UL certified.	All indigenous certification,
		standards and directives
	Amendment Request;	mentioned in technical
	Should be DIS/USEDA / CE/III contified	specification prevails.
	Should be BIS/US FDA / CE/ OL certified.	
	These are the standard quality parameters all over	
	India in all Govt tenders.	
35.	Applicable Standards: BIS/CE marking and UL	All indigenous certification,
	listed	standards and directives
		mentioned in technical
	• IEC 60601-1, UL 60601-1, CSA C22.2 N°	specification prevails.
	• $IEC = 60601.2.41 \cdot 2004$ UI = 60601.2	
	41:2004 CSA C22.2 N° 60601 2.41:2004	
	• EN 60601-1-2. FCC Part 15	
	• BIS	
	Amendment Request;	
	Applicable Standards: BIS/CE marking / LISDA/	
	Applicable Standards: BIS/CE marking / USDA/	
	IEC 60601-1	
	IEC 60601-2	
	EN 60601-1	

	Applicable Standards: BIS/CE marking / USDA/ UL listed	
	These are the standard quality parameters all over India in all Govt tenders.	
36.	Normally in any government tenders, we are exempted from EMD as we are MSME.	Tender terms & conditions prevails.
	But, to our surprise nowhere we could find the exemption for EMD under MSME.	
	Hence, we request you give us clarity on this.	
37.		
	Govt. of India Circular for Preference to Make in	Govt of India circular No.
	India	Z.28018/67/2017-EPW
		dated: 05.11.2019 for
		Preference to Make in India
		circular enclosed.

All other terms & conditions remain unchanged.

Sd/-Director, LHMC, New Delhi F. No. Z.28018/67/2017-EPW Government of India Ministry of Health & Family Welfare (EPW Division)

> Nirman Bhawan, New Delhi Dated: 05.11.2019

OFFICE MEMORANDUM

Sub: Implementation of Public Procurement (Preference to Make in India) Order, 2017 issued by DPIIT -reg.

The undersigned is directed to refer to minutes of 8th Standing Committee meeting of DPIIT held on 10.10.2019 to review the implementation of Public Procurement (Preference to Make in India) Order, 2017 (PPP-MII). It is observed that in-spite of this office OMs dated 14.01.2018, 23.02.2018, 26.02.2018, 02.11.2018 & 25.10.2019, procuring entities are still incorporating restrictive and discriminatory clause of mandatory USFDA/European CE certification in procurement of health sector goods.

Standing Committee has directed that stipulation of mandatory exclusion clause like USFDA/European CE certified products is restrictive and discriminatory for local manufacturers and hence policy should be discontinued forthwith.

All the procuring entities under MoHFW are requested to strictly comply with the provisions of PPP-MII Order, 2017 and desist from such restrictive and discriminatory clauses.

1115 (Rajendran(Mair M.B.) Under Secretary (EPW) Tel:-23061436

To:

- 1. PPS to DGHS, Nirman Bhawan, New Delhi
- PPS to AS&FA, AS&MD, AS(H), AS&DG, MoHFW, Nirman Bhawan, New Delhi.
 3. JS(SP)/ JS(LA)/ JS(SK)/ DS(MAK)
- JS(SP)/ JS(LA)/ JS(SK)/ JS(MA)/ JS(RS)/ JS(SS)/ JS(VG)/ JS(MKB)/JS(NACO)/ JS(PP)/ JS(GM)/JS(RS)/ EA (PN)/EA(NS).
 The Director ATMS New Conv. (PN)/EA(NS).
- 4. The Director, AIIMS, New Delhi/ Patna/ Bhubaneshwar/ Raipur/ Bhopal/ Jodhpur/ Rishikesh.