



LyonMed™

VERENTIA

LED OT LIGHTS

Medical and veterinary doctors in private practices, medical centers, implant centers, clinics and hospitals, where the lights may be used in particular in intensive care units, emergency rooms, anesthesia and recovery rooms as well as delivery and examination rooms.

LyonMed™

Enable Spectrum Productivity

Medical LED OT Light Series



VERENTIA AND LyonMed IS REGISTERED TRADEMARK OF VERENTIASOL INDIA PRIVATE LIMITED



TECHNOLOGY CONSULTING PROVIDES A TOTAL END TO END SOLUTION.

SYNOPSIS

- ◇ Long lasting and efficient light source, high performance aerodynamic light housing, narrow beam optical source with inbuilt electronic controller system.
- ◇ Accurate color reproduction, high illumination with optimum color rendering, exceptionally high light output with lower losses and high thermal performance.
- ◇ Flexible suspension system with good range, 360° rotation, support personal during medical procedures.
- ◇ Anti Microbial coating and surface treatment with view to enhance hygienic & corrosion resistance.
- ◇ Virtually maintenance free.
- ◇ Environmental friendly solutions.

CUSTOM SOLUTIONS



Verentia strengths in LED engineering and related technology allow us to offer the widest range of wavelengths available on the market. We specialize in creating custom LED solutions that utilize multiple wavelengths or non-visible wavelengths such as UV & IR solutions. The strength of our relationships with LED suppliers means that we are always up-to-date with the latest in LED technology.

INNOVATION & QUALITY



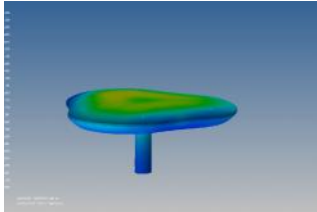
The low-glare illumination of the wound area using neutral white light with a color temperature of 4000K, a maximum luminance of 40,000 lx or 160,000lx respectively, imbibing innovative thermal solution, homogeneous light field, provides optimal lighting conditions for the user. The high color rendering index CRI > 95, and high R9 factor allows tissues to be distinguished with utmost precision.

Verentia relies on high-quality materials and precise workmanship to produce high quality major and minor OT, veterinary and examination lights which offers unmatched quality at affordable prices.



ADVANCED LED TECHNOLOGY MEDICAL LIGHTING SOLUTIONS DESIGNED FOR YOU BUSINESS NEEDS

HIGH STANDARDS IN DESIGN, MANUFACTURING AND QUALITY



Medical fraternity at hospitals encounter various tasks, surgeries, examinations and treatments. Focus and clear visibility is almost constantly challenged. Performance and reliability of medical equipment is therefore especially paramount - this includes lighting. At the same time, the subject of economic efficiency gains in importance. Intelligent and high quality light-

NANOMATERIAL ANTIMICROBIAL COATING AND SEALING FUNCTION



Verentia LyonMed OT Major/Minor/Vet/Exam lights comes with the integrated nanomaterial antimicrobial function that is sanitized in the upper and lower luminaire housing. and the control panel help to keep these critical areas hygienic.

The specially designed OT light head sealing seals the circumferential OT light head that avoids infiltrations of dust, dirt and moisture inside the medical OT lamp head located in OT light heat and TFT panels

HIGH CRI, WARRANTY AND LIFE SPAN

LyonMed comes with inbuilt high performance LED with high CRI factor to suit medical needs. Lyon-



Med offers unparalleled ease in controlling illumination, CCT and CRI. High CRI values of greater than 95+ with high R9 factor, allows surgeons/doctors or medical staff to easily identify red color from the OT

light spectrum.

PRODUCT DESIGN AND FLEXIBILITY

The use of LED technology permits high luminance, low heat build-up, a maintenance free service life, high efficiency, high CRI light quality and thus maximum economic viability.

LyonMed offers excellent flexibility to change the lumens levels with modulation in CCT according to operating conditions just with change in switch located in OT light heat and TFT panels



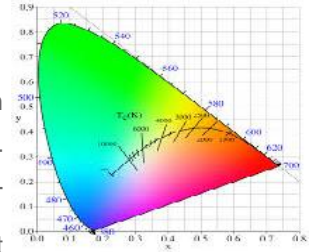
LyonMed™

CONNECTING YOUR BUSINESS TO TECHNOLOGY RESOURCES YOU NEED FOR YOUR SURGICAL AND MEDICAL PROCEDURES

VERENTIA

COLOR COMPOSITIONS AND VARIABLE CHANGE IN CCT

Verentia Lyon Med LED OT Lights offers customers diverse CCT modulation from 2500K to 6000K which allows medical fraternity to change the color temperature according to the individual needs of surgical procedures. The CCT modulation can be simply done by way of modulation available at OT Light head or touch screen control panel.



EFFICIENT MODULATION OF LED LIGHTS

LyonMed LED comes without IR components with shadow free operation during the surgical procedures with ideal illumination to light field diameter. LyonMed Led OT lights comes with high performance LED with inbuilt microprocessor based control that offers unmatched performance and reliability. Verentia specially designed micro electronics allows for ease in modulation to achieve desired Illumination levels from 15,000 to 165,000 Lux.

SD/HD CAMERA, MEDICAL MONITORS, VDR SYSTEMS WITH INBUILT ERGONOMIC HANDLE

LyonMed offers sleek SD/HD camera, medical monitors, video recording systems and inbuilt ergonomic handle. LyonMed incorporates the CMOS image sensor in a 1/1.2" optical format delivering up to 1080p resolution at 60 frames per second with selectable 3G-SDI or HD-SDI output. LyonMed medical imaging sleek camera provides excellent sensitivity and amazing dynamic range, making it suitable for a broad range of diverse medical demanding applications, LyonMed can help optimize the camera to your exact requirements.





LyonMed™

VERENTIA

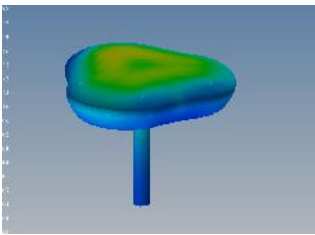
CONNECTING YOUR BUSINESS TO TECHNOLOGY RESOURCES YOU NEED FOR YOUR SURGICAL AND MEDICAL PROCEDURES

DYNAMICALLY BALANCED, STABLE & SLEEK SUSPENSION SYSTEMS



LyonMed comes with Sleek suspension system with an option for ceiling/wall and pedestal mount system, with an option for multiple light head and for mounting of medical monitors for HD/SD Video Camera. The suspension system boasts inbuilt wiring and control system for free and aerodynamic movement with Premium bearings, Perfect parallel guidance during vertical movement of the end devices, Easy movement and stays stable in every position.

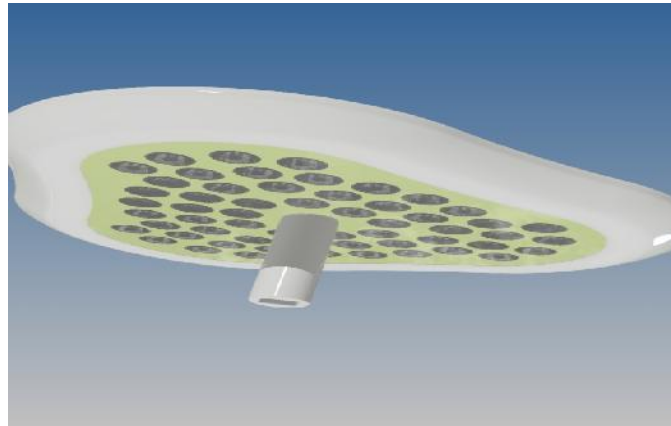
THERMAL ANALYSIS AND COMPUTATIONAL FLUID DYNAMICS



For the most challenging applications, off-the-shelf lighting solutions cannot deliver the performance you need to optimize your system. Often designed for a wide range of applications, these off-the-shelf products simply cannot deliver the same results as a custom LED solution that is designed specifically to meet your requirements. A key consideration when delivering high intensity products is thermal management. Proper thermal management allows the LEDs to be driven harder, maximizing light output without degrading the lifetime of your product. Our comprehensive LED experience has enabled us to develop unique capabilities and proprietary thermal modeling techniques setting us apart from others.



LYONMED LED OT LIGHTS SPECIFICATIONS

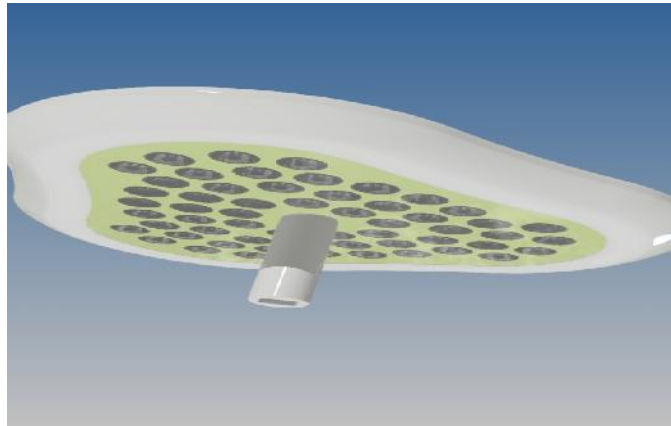


VERT-OTMA (Major OT Premium light Series)

No. of LED	15
Intensity (lx)	Max 160,000lx at 1m
Intensity Control	6steps (40000 to 160000lx)
C.R.I (Ra), R9 factor	CRI 98, R9 95
Color Temperature (K)	3000K
Head size (cm)	
Color	RAL9010 off white / RAL 9002 clear off white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000lx
Pattern size	38mm dia x 15 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	135W (max)
Power input	90~264Vac, 50/60Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS

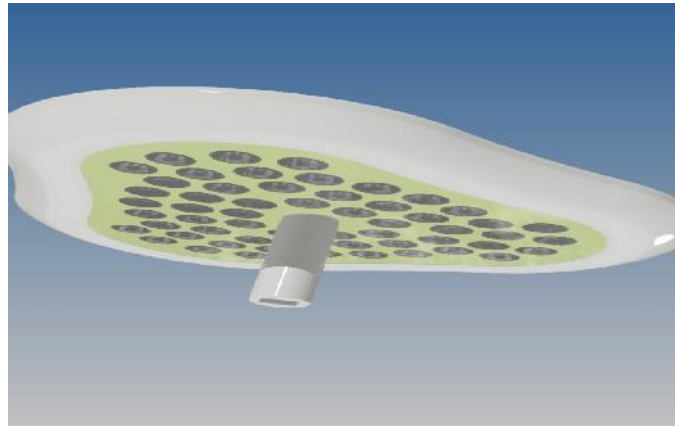


VERT-OTMA (Major OT Premium light Series)

No. of LED	15
Intensity (lx)	Max 160,000lx at 1m
Intensity Control	Dimmable
C.R.I (Ra), R9 factor	CRI 98, R9 95
Color Temperature (K)	3000K
Head size (cm)	
Color	RAL9010 off white / RAL 9002 clear off white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000lx
Pattern size	38mm dia x 15 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	135W (max)
Power input	90~264Vac, 50/60Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS

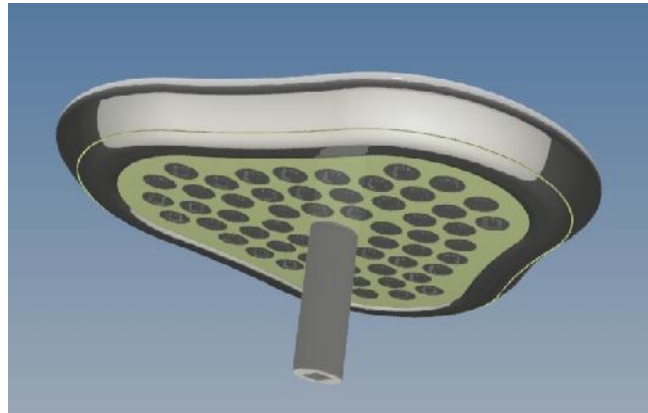


VERT-OTMA (Major OT Premium light Series)

No. of LED	15
Intensity (lx)	Max 160,000lx at 1m
Intensity Control	Fixed
C.R.I (Ra), R9 factor	CRI 98, R9 95
Color Temperature (K)	3000K
Head size (cm)	
Color	RAL9010 off white / RAL 9002 clear off white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000lx
Pattern size	38mm dia x 15 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	135W (max)
Power input	90~264Vac, 50/60Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS

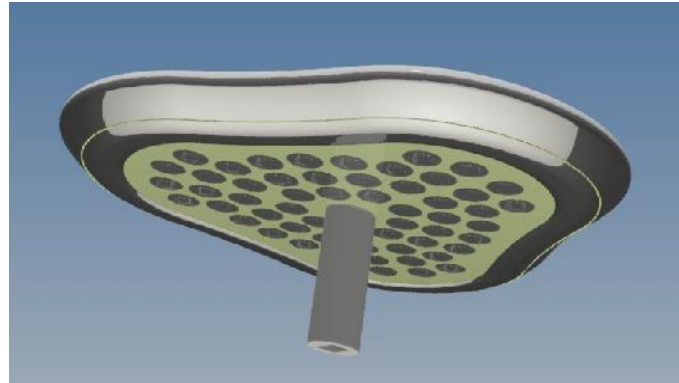


VERT-OT (Major OT light Series)

No. of LED	42
Intensity (lx)	Max 160,000lx at 1 m
Intensity Control	6 Steps (40000lx to 160000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	3000-3250-3500-3750-4000
Head size (cm)	
Color	RAL 9010 Off white / 9002 Clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000lx
Pattern size	38mm dia x 36 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	85W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS

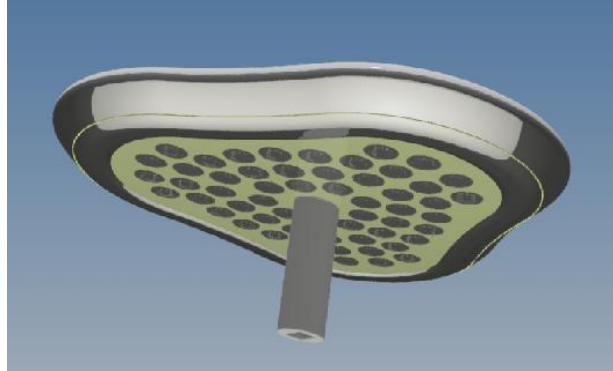


VERT-OT Major Series

No. of LED	42
Intensity (LUX)	Max 160,000Lx at 1m
Intensity Control	6 Steps (40000lx to 160000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	dimmable
Head size (cm)	
Color	RAL 9010 Off white / 9002 Clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000 Lux
Pattern size	38mm dia x 36 Nos
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	85W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT Major Series

No. of LED	42
Intensity (LUX)	Max 160,000Lx at 1 m
Intensity Control	6 Steps (40000lx to 160000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	fixed
Head size (cm)	
Color	RAL 9010 Off white / 9002 Clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 160,000 Lux
Pattern size	38mm dia x 36 Nos
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	85W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT Minor Series

No. of LED	24
Intensity (lx)	Max 120,000Lx at 1m
Intensity Control	6steps (40,000lx~120,000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	3000-3250-3500-3750-4000
Head size (cm)	
Color	RAL 9010 off white /9002 clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 120,000lx
Pattern size	22mm dia x 24 Nos
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	48W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT Minor Series

No. of LED	24
Intensity (lx)	Max 120,000 lx at 1m
Intensity Control	Dimmable
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	4000K
Head size (cm)	
Color	RAL 9010 off white /9002 clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 120,000lx
Pattern size	22mm dia x 24 Nos
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	48W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT Minor Series

No. of LED	24
Intensity (lx)	Max 120,000lx at 1m
Intensity Control	Fixed
C.R.I (Ra), R9 factor	CRI 95
Color Temperature (K)	4000K
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 120,000lx
Pattern size	22mm dia x 24 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	48W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-VET (Veterinary Series)

No. of LED	36
Intensity (lx)	Max 160,000lx at 1m
Intensity Control	6steps (40,000lx~160,000lx)
C.R.I (Ra), R9 factor	CRI 95
Color Temperature (K)	3750-4000-4250-4500-4750-5000
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / wall
Central Illuminance (Ec)	Max. 130,000lx
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	83W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-VET (Veterinary Series)

No. of LED	36
Intensity (lx)	Max 140,000 lx at 1m
Intensity Control	Dimmable
C.R.I (Ra), R9 factor	CRI 90
Color Temperature (K)	4000K (dimnable)
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / Wall
Central Illuminance (Ec)	Max. 150,000lx
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	69W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-VET (Veterinary Series)

No. of LED	36
Intensity (lx)	Max 120,000lx at 1m
Intensity Control	Fixed
C.R.I (Ra), R9 factor	CRI 90
Color Temperature (K)	4000K
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / Wall
Central Illuminance (Ec)	Max. 120,000lx
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	48W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-EXT (Examination Series)

No. of LED	24
Intensity (lx)	Max 100,000lx at 1m
Intensity Control	6steps (40,000lx~70,000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	3750-4000-4250-4500-4750-5000
Head size (cm)	
Color	RAL 9010 Off white / 9002 Clear white
Installation	Ceiling / wall / Pedestal
Central Illuminance (Ec)	Max. 70,000 Lux
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	40W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS

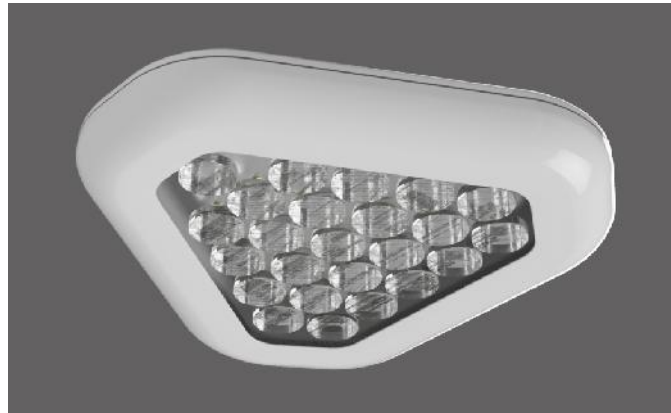


VERT-OT-EXT (Examination Series)

No. of LED	24
Intensity (lx)	Max 80,000 lx at 1m
Intensity Control	6steps (40,000lx~70,000lx)
C.R.I (Ra), R9 factor	CRI 95, R9 90
Color Temperature (K)	3750-4000-4250-4500-4750-5000
Head Size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / Wall / Pedestal
Central Illuminance (Ec)	Max. 60,000lx
Pattern size	22mm dia x 30 no's
Focal Distance	1m
D10, d50	
Light Focus Diameter	6-20cm
Power consumption	30W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-EXT (Examination Series)

No. of LED	24
Intensity (LUX)	Max 60,000lx at 1m
Intensity Control	6steps (40,000lx~70,000lx)
C.R.I (Ra), R9 factor	CRI 95
Color Temperature (K)	3750-4000-4250-4500-4750-5000
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / Wall / Pedestal
Central Illuminance (Ec)	Max. 50,000lx
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	23 W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SPECIFICATIONS



VERT-OT-EXT (Examination Series)

No. of LED	24
Intensity (lx)	Max 40,000lx at 1m
Intensity Control	6steps (40,000lx~70,000lx)
C.R.I (Ra), R9 factor	CRI 95
Color Temperature (K)	3750-4000-4250-4500-4750-5000
Head size (cm)	
Color	RAL 9010 off white / 9002 clear white
Installation	Ceiling / wall / Pedestal
Central Illuminance (Ec)	Max 40,000lx
Pattern size	22mm dia x 30 no's
Focal distance	1m
D10, d50	
Light Focus diameter	6-20cm
Power consumption	17W (max)
Power input	180~295Vac, 47-63Hz
LED life span	50,000hr (20yr : 8hr/day)



LYONMED LED OT LIGHTS SUSPENSION SYSTEM

Specifications	Particulars
Type	Ceiling Single, Ceiling Dual, Wall and Floor
Spring Version	
Maximum loads	12kg with electricity and 13kg with stop
Length of Spring Arm	Wall & ceiling version 860mm Floor Version 260 and 477mm
Initiating forces	<20n
Special features	UL
Mark of conformity	CE
Electricity	3Pole
With stop	1 cable with max 9mm ²
Fixing	Yokes, adapters or individual connections elements for equipment's
Color	RAL 9002, RAL 9010

Product	Length of Ext Arm	No of Ext Arm
Central Axis	700mm	Single
	850mm	Dual
	1000mm	Triple
	1150mm	Quadruple
Central Axis Slim Line	800mm	Dual
	950mm	
Hybrid Central Axis	1300mm	Single
	1450mm	Dual
	1600mm	
	1750mm/1900/2050	



LYONMED LED OT LIGHTS CAMERA SYSTEM

Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)
Resolution	1920 (H) x 1080 (V)
Sensor	IMX-174 CMOS
Sensor Format	1/1.2", 13.4mm diagonal
Pixel Size	5.86µm
Lens Mount	C-Mount
Frame Rates	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
Digitization	12-bit
Output Format	10-bit, 4:2:2 (YCrCb)
Dynamic Range	73dB
Gain Control	Manual, Automatic: 0 - 48dB, 480 steps
Black Level Offset	0-511
Shutter	Global Shutter
Exposure Range	29 µs to 16.1 ms / 60 fps
Exposure Control	Manual, Automatic
Inputs	External tri-level sync
Outputs	Strobe, 2nd strobe (optional), P-Iris (optional)
Camera Control	RS-232
Image Overlay	Optical center, programmable H & V lines
Image Enhancement	Threshold, contrast enhancement, knee correction
LUT (Look Up Tables)	4 user LUTs, 8 Gamma LUTs, and 8 Black Gamma LUTs
Minimum Illumination	0.4 Lux, F1.2
Test Image	HD SMPTE color bars, static/moving ramp
White Balance	Auto, once, manual, 3200k, 5600k



LYONMED LED OT LIGHTS DISPLAY SYSTEM

Display Specifications

Display type	TFT Color LCD
Display Size	4.3"
Resolution	480*272 pixels
Effective Display Area	W95xH53.9
Display Colors	65536 colors
Backlight	White LED
Backlight Service Life	50,000 hours
Brightness Control	16 levels (adjusted with touch panels)

Memory Specifications

Application Memory	8MB
--------------------	-----

Electrical Specifications

Rated Input Voltage	12..24VDC
Input Voltage Limits	10.2....28.8 VDC
Voltage Drop	12VDC 1ms or less / 24VDC: 3ms or less
Power Supply	8.1W or less
Inrush current	12VDC 20 A or less / 24VDC 40 A or less
Voltage Endurance	1,000 VAC, 20 mA for 1 minute
Insulation Resistance	500 VDC, 10 M or more

Interface Specifications

Serial Interface	Asynchronous Transmissions RS 232C
Data Length:	7 or 8 bits



 **LyonMed™**

VERENTIA

 **LyonMed™**

VERENTIA

VerentiaSol India Private Limited

Gat 1101, Pune Saswad Road
Behind Vatika Ashram,
Wadki, Pune 412308
Maharashtra, India

Mobile: +91-8169868690
Email: sonal.katyayani@verentia.com

Verentia reserves the right to change the design and drawing in the best interest of the customer without any notice whatsoever