

Spectral Lamp - Noble Gas - Helium

semi-mechanised equipment could be employed for their production. The electrode assembly in each of the noble gas lamps is based on the same design employed for low pressure sodium vapour lamps. A triple coil of black tungsten wire is wound into a beehive shaped hollow cathode, the spaces between the coils being filled with an emissive compound of barium, strontium and calcium oxides. The outer envelopes of these lamps are evacuated, except for the helium lamp which is nitrogen-filled to prevent overheating of the discharge tube. Manufacturer: Philips Lighting - Item No. 93098E Lamp Power: 60 Watts Helium Spectral Lamp				Spectral lamps find a home in special laboratory applications where they are commonly employed as stable, high quality sources of discrete spectral lines. Atomic spectra were originally produced by creating an arc between electrodes fabricated of the metal to be studied, or by sprinkling a powdered salt into a gas flame. Both methods produce somewhat unstable results and require constant attention. In the 1940s a range of electric discharge lamps was developed to supersede these crude methods, and delivered much more stable results by virtue of the high purity and constant output. Five lamps make up the Noble Gas group in the Philips series. These are Helium, Neon, Argon, Krypton and Xenon. They have employed a variety of different discharge tube styles over the years. Originally all were fabricated in soft glass tubes. The Helium lamp however dissipates a rather greater power than any of the others, and its discharge tube operates at a proportionately higher temperature. For this reason, the end chambers around the temperature electrodes are formed into bulbous regions to limit the glass temperature. In more recent years, quartz arc tubes have
Manufacturer: discharge tube.Philips Lighting - Item No. 93098ELamp Power: Lamp Power:60 WattsLamp Power: Lamp Current:0.9 AmpsLamp Voltage: Cap: Bulb Finish: Bulb Type: T-3275 VoltsUb Finish: Bulb Type: T-32Clear Soda-limeBulb Type: Light Centre Length: Inner / Outer Atmosphere: Luminous Efficacy: Colour Temperature & CRI: CCT: 1960K Chromaticity Co-ordinates: Canton Up / Re-strike Time: InstantaneousOuter: NitrogenLuminous Efficacy: Colour Temperature & CRI: Cate: Mared Life: Warm Up / Re-strike Time: Date of Manufacture:Instantaneous InstantaneousInstantaneous InstantaneousFactory: Date of Manufacture:Turnhout, Belgium June 1985Instantaneous InstantaneousInstantaneous Instantaneous		A CONTRACTOR		 superseded original glass types on account of the fact that semi-mechanised equipment could be employed for their production. The electrode assembly in each of the noble gas lamps is based on the same design employed for low pressure sodium vapour lamps. A triple coil of black tungsten wire is wound into a beehive shaped hollow cathode, the spaces between the coils being filled with an emissive compound of barium, strontium and calcium oxides. The outer envelopes
Manufacturer:Philips Lighting - Item No. 93098ELamp Power:60 WattsLamp Ourrent:0.9 AmpsLamp Voltage:75 Volts400V IgnitionCap:E27s/27Ni plated brassBulb Finish:ClearSoda-limeBulb Type:T-32Overall Length:110 mmLight Centre Length:110 mmLuminous Flux:20 lumensLuminous Flux:20 lumensLuminous Flicacy:0.3 lm/WColour Temperature & CRI:CCT: 1960KChromaticity Co-ordinates:CX: 0.538CCy: 0.421SundantaneousBurning Position:Vertical cap downRated Life:Not publishedWarm Up / Re-strike Time:InstantaneousFactory:Turnhout, BelgiumDate of Manufacture:June 1985		Jun (Wall		which is nitrogen-filled to prevent overheating of the
Lamp Power: 0.9 Amps Lamp Voltage: 75 Volts 400V Ignition Cap: E27s/27 Ni plated brass Bulb Finish: Clear Soda-lime Bulb Type: T-32 Overall Length: 183 mm Light Centre Length: 110 mm Electrodes: Beehive coil of black tungsten with BCT emitter Inner / Outer Atmosphere: Inner: Helium Outer: Nitrogen Luminous Flficacy: 0.3 lm/W Colour Temperature & CRI: CCT: 1960K CRI: Ra -28 Chromaticity Co-ordinates: CCx: 0.538 CCy: 0.421 Burning Position: Vertical cap down Rated Life: Not published Warm Up / Re-strike Time: Instantaneous Factory: Turnhout, Belgium Date of Manufacture: June 1985	Manufacturer:	Philips Lighting - Item	No. 93098E	
Light Centre Length: 110 mm Electrodes: Beehive coil of black tungsten with BCT emitter Inner / Outer Atmosphere: Inner: Helium Outer: Nitrogen Luminous Flux: 20 lumens Luminous Efficacy: 0.3 lm/W Colour Temperature & CRI: CCT: 1960K CRI: Ra -28 Chromaticity Co-ordinates: CCx: 0.538 CCy: 0.421 Burning Position: Vertical cap down Rated Life: Not published Warm Up / Re-strike Time: Instantaneous Factory: Turnhout, Belgium Date of Manufacture: June 1985	Lamp Power:	60 Watts		Helium Spectral Lamp
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Light Centre Length: 110 mm Electrodes: Beehive coil of black tungsten with BCT emitter Inner / Outer Atmosphere: Inner: Helium Outer: Nitrogen Luminous Flux: 20 lumens Luminous Efficacy: 0.3 lm/W Colour Temperature & CRI: CCT: 1960K CRI: Ra -28 Chromaticity Co-ordinates: CCx: 0.538 CCy: 0.421 Burning Position: Vertical cap down Rated Life: Not published Warm Up / Re-strike Time: Instantaneous Factory: Turnhout, Belgium Date of Manufacture: June 1985	Lamp Voltage:	75 Volts	400V Ignition	
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Light Centre Length: 110 mm Electrodes: Beehive coil of black tungsten with BCT emitter Inner / Outer Atmosphere: Inner: Helium Outer: Nitrogen Luminous Flux: 20 lumens Luminous Efficacy: 0.3 lm/W Colour Temperature & CRI: CCT: 1960K CRI: Ra -28 Chromaticity Co-ordinates: CCx: 0.538 CCy: 0.421 Burning Position: Vertical cap down Rated Life: Not published Warm Up / Re-strike Time: Instantaneous Factory: Turnhout, Belgium Date of Manufacture: June 1985	Bulb Type:	T-32		20.
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Electrodes:Beehive coil of black tungsten with BCT emitterInner / Outer Atmosphere:Inner: HeliumOuter: NitrogenLuminous Flux:20 lumensLuminous Efficacy:0.3 lm/WColour Temperature & CRI:CCT: 1960KCRI: Ra -28Chromaticity Co-ordinates:CCx: 0.538CCy: 0.421Burning Position:Vertical cap downRated Life:Not publishedWarm Up / Re-strike Time:InstantaneousFactory:Turnhout, BelgiumDate of Manufacture:June 1985	Light Centre Length:	110 mm		
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Luminous Efficacy:0.3 lm/WCRI: Ra -28Colour Temperature & CRI:CCT: 1960KCRI: Ra -28Chromaticity Co-ordinates:CCx: 0.538CCy: 0.421Burning Position:Vertical cap downRated Life:Not publishedWarm Up / Re-strike Time:InstantaneousFactory:Turnhout, BelgiumDate of Manufacture:June 1985	Inner / Outer Atmosphere:	Inner: Helium	Outer: Nitrogen	
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Factory: Turnhout, Belgium Date of Manufacture: June 1985	Luminous Efficacy:	0.3 lm/W		8
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Factory: Turnhout, Belgium Date of Manufacture: June 1985	Chromaticity Co-ordinates:	CCx: 0.538	CCy: 0.421	E 15-
Factory: Turnhout, Belgium Date of Manufacture: June 1985	Burning Position:	Vertical cap down		e c
Factory: Turnhout, Belgium Date of Manufacture: June 1985	Rated Life:	Not published		0 10- 9 2
Factory: Turnhout, Belgium Date of Manufacture: June 1985	Warm Up / Re-strike Time:	Instantaneous	Instantaneous	5-
Date of Manufacture: June 1985 Wavelength (nm)	Factory:	Turnhout, Belgium		
Original / Present Value: Unknown	Date of Manufacture:	June 1985		
	Original / Present Value:	Unknown		

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References: 1) Light Sources for Line Spectra, *W. Elenbaas and J. Riemens*, Philips Technical Review April 1950, V.11 No.10, pp. 299-302. 2) Spectrophotometric measurement of lamp.