

KETRA[®]

A20 Tunable Lamp

- Fully tunable spectrum single point source produces wide range of white, pastels and saturated colors
- Closed-loop color point maintenance to <1 MacAdam ellipse over lifetime and temperature
- Integrated temperature protection maintains product within safe operating conditions
- Wireless and TRIAC dimmable to 0.1%
- Integrated wireless control for seamless connection with Ketra's predefined light content
- Ketra's technology ensures consistent appearance and guaranteed compatibility as LED technology evolves



Hardware Ordering Guide

A	20	<input type="text"/>	B	T	1	<input type="text"/>	WH	<input type="text"/>	<input type="text"/>
Series	Form Factor	Lumens	Platform	Control	Region	Base Type	Housing Color	Custom Code (Optional)	Custom Field (Optional)
Series		Code	Platform (see page 4 color chart)			Code	Base Type		Code
A Series Lamp		A	Wide Gamut			B	E26		E26
							GU24 (Available Q3 2015)		G24
Form Factor		Code	Control			Code	Housing Color		Code
A20 Lamp		20	Tunable			T	White		WH
Lumens		Code	Region			Code	Custom Order Codes		
600		06	NA 120 V 60 Hz			1	See Page 4 for custom order code options		
800		08							

770-00000X-0X-6

Specifications are subject to change without notice.

Specifications¹

Optical Performance

Lumen Output ²	600 lm/ 800 lm
CRI (Ra)	>90
Lumen Maintenance ³	25,000 hours to L70 @ 25°C Ambient
Color Spatial Uniformity	<2 MacAdam ellipses across field angle
Color Point Maintenance	<1 MacAdam ellipse over product lifetime
Equivalent Traditional Lamp	40W/ 60W Incandescent lamp
Dimming Range ⁴	0.1 - 100% lm

Environmental

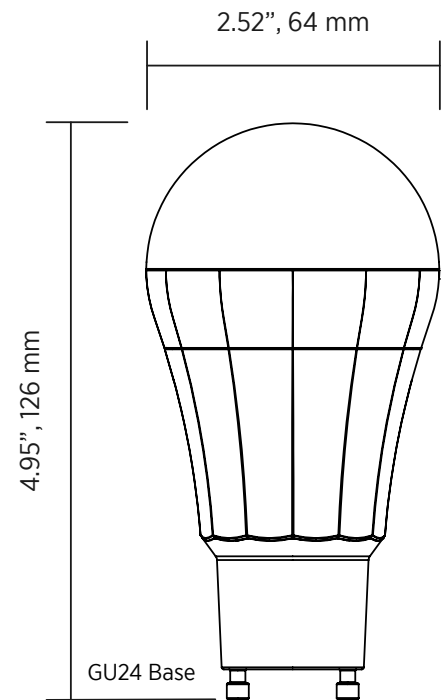
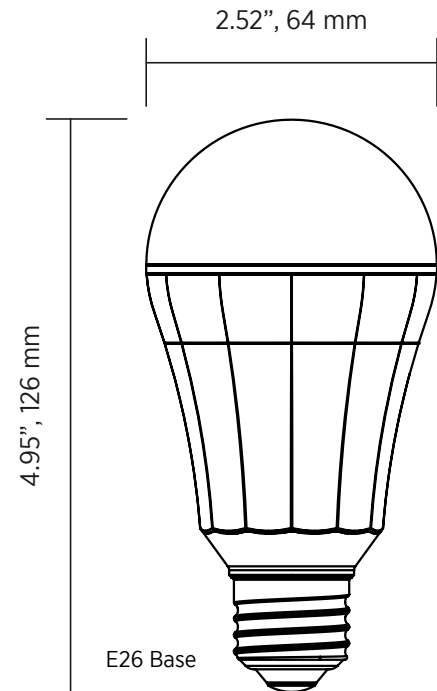
Ambient Operating Temperature ⁵	0 - 50°C
Storage Temperature	-20 - 80°C
Humidity	0 - 95%, Non-condensing
Certification	UL, cUL, RoHS, FCC Class B
Location	UL Damp Location, IP50, Suitable for use in fully enclosed luminaires

Mechanical

Weight	13.8 oz, 390 g
Housing Material	Powder Coated Aluminum, Polymer
Lens Material	Non-yellowing PMMA
Base Type	E26 GU24

Electrical

Power Consumption	A20.06 10W/ A20.08 11W
Power Factor	>0.9
Current	100 mA Max
Efficacy	≥60 lm/W



Available Q3 2015

CAD files available upon request

¹ All performance measurements taken at 3000K, 25°C ambient, 100% power input, unless otherwise stated.

² Lumen measurement complies with IES LM-79-08 testing procedures.

³ Lumen maintenance values calculated in accordance to TM-21 procedures based on LM-80 compliant measurement data.

⁴ Intensity and color point controlled via Ketra's wireless network

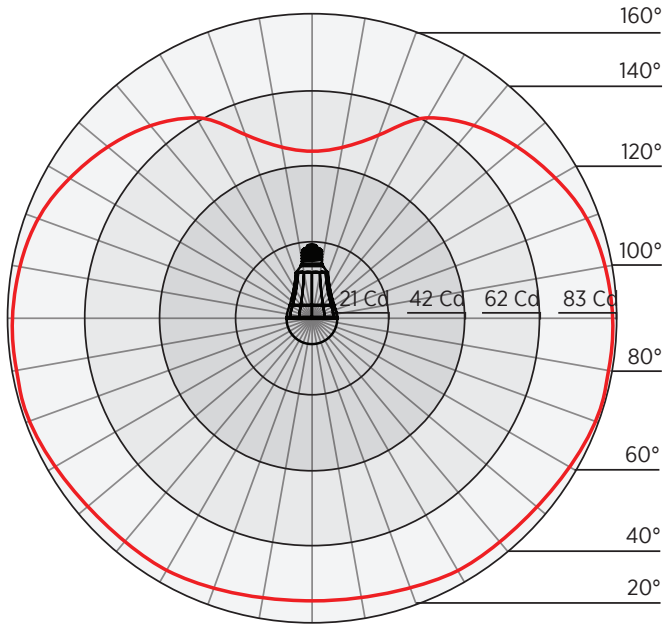
⁵ Suitable for use in fully enclosed luminaires.

ISO Footcandle Charts: 2700 - 5000K Values Only

LM-79 compliant IES files available upon request.

A20 - A Lamp

Product Code ¹	Wattage	Lumens	Max Cd
S2106AT1E26WH	12W	800	83

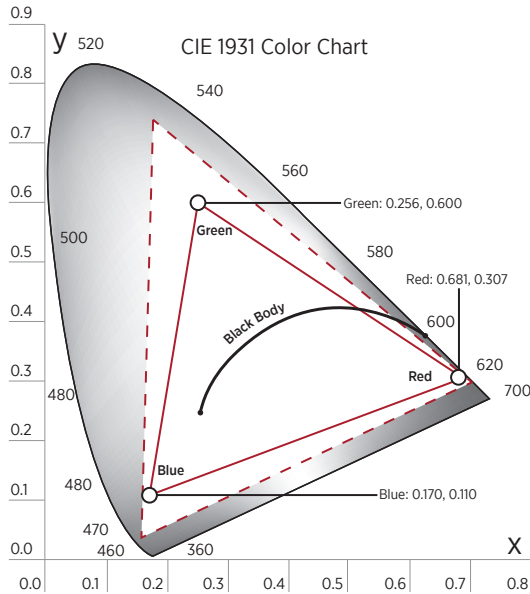


¹ Performance data applies to all base types and housing colors. 770-00000X-0X-6

Specifications are subject to change without notice.

Wide Gamut:

Ketra's tunable spectrum lamp can easily be configured via our intuitive Design Studio software tool. The product can reproduce any color point within the triangle shaped gamut indicated in the chart below. With Ketra's innovative optical and thermal feedback system, the color point is maintained to an accuracy of <1 MacAdam ellipse over the lifetime of the product and across operating temperature range.



— Calibrated Gamut: color point is maintained to an accuracy of <1 MacAdam ellipse over the lifetime of the product and across operating temperature range
 - - - Expanded Gamut: Color calibration is relaxed such that each product produces the most saturated color it is capable of.

Custom Order Codes:

Custom Order Code	Notes	Code	Custom Field
Lamp	Ketra can emulate typical lamps and dim curves	L	I= Incandescent H= Halogen X= Xenon
Gel	Standard gel colors available	G	A = illuminant A L = Lee R= Rosco G = GAM D = D65 Source A = Apollo "XXXX"(Gel #)
CCT Value	Specifiable in 1° Kelvin increments 1,400 K - 10,000 K	K	XXXXX
CIE 1931 x, y Coord.	Example: x=.340, y=.350 OC=A340350	A	XXXXXX
Pantone	Ketra can emulate standard Pantone colors	P	XXXXXX

General Specifications:

LED lamp shall employ closed loop optical and thermal feedback capable of maintaining color point accuracy of <1 MacAdam ellipse.
 LED lamp shall have color spatial uniformity of <2 MacAdam ellipses over full field angle.
 LED lamp shall have an integrated wireless control on-board.
 LED lamp shall be capable of a CRI >90 at any point along the Black Body Curve from 2700 - 5000K.
 LED lamp shall be a single source multi-die emitter consisting of both monochromatic and phosphor converted blue LED die.
 LED lamp shall be sealed, meeting UL damp location and IP20 requirements.

LED lamp shall be compatible with E26 or GU24 base sockets.
 LED lamp shall be dimmable to 0.1% of measured luminous flux with digital dimming.
 LED lamp shall be UL listed and RoHS compliant.
 LED lamp shall be capable of in situ firmware and software upgrades.
 LED Lamps shall be warranted to be free from material defects in material and workmanship for five (5) years or 25,000 hours from date of shipment, whichever is less.

LED A20 lamp shall be # _____