

## A20 Tunable Lamp

### The Ketra Difference:

**High Def Palette**—covers a wide range of 16.7 million colors, including pastels, saturated colors and high CRI whites spanning from 1,400K to 10,000K.

**Dynamic Spectrum**—precisely tunes the amount of energy across the visible spectrum to produce Natural Light, Natural Dimming and Vibrancy.

**TruBeam**—produces uniform color across any available beam angle.

**Color Lock**—maintains your desired color point at a one-step MacAdam Ellipse across all Ketra product families and over each product's lifetime.



## ORDERING GUIDE

Please download this PDF to use the interactive drop down features of the ordering guide.

### A20

Product Line	Model	Lumens	System/Beam Angle	Region/Voltage/Base	Housing Color
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Order code: \_\_\_\_\_

Product Line	Code	Lumens	Code	Region/Voltage/Base	Code
Commercial (Athena compatible)	<b>CM-</b>	600 (Omni-Directional only) <sup>1</sup>	<b>06</b>	North America, 120 V~ 60 Hz, E26	<b>11E26</b>
		800 (Semi-Directional only) <sup>1</sup>	<b>08</b>		
Residential (HomeWorks compatible)	<b>HW-</b>	800 (Semi-Directional only) <small>High-Efficacy<sup>2,3</sup></small>	<b>08H</b>	North America, 120 V~ 60 Hz, GU24	<b>11G24</b>
Model	System/Beam Angle			Housing Color	
A-Series Lamp	<b>A20</b>	KetraNet Omni-Directional	<b>BTOD</b>	White	<b>WH</b>
		KetraNet Semi-Directional	<b>BTSD</b>		
		CCX Omni-Directional <sup>4</sup>	<b>GTOD</b>	Black	<b>BK</b>
		CCX Semi-Directional <sup>4</sup>	<b>GTSD</b>		

<sup>1</sup> This option is not available for sale in California.

<sup>2</sup> The state of California requires the use and sale of high-efficacy light sources.

<sup>3</sup> High-efficacy only available for design with Clear Connect-Type X systems.

<sup>4</sup> CCX stands for Clear Connect-Type X.

**SPECIFICATIONS<sup>1</sup>**
**Optical Performance**

Lumen Output <sup>2</sup>	<b>600 lm 800 lm</b>
CRI (Ra) <sup>3</sup>	<b>&gt;90</b>
Lumen Maintenance <sup>3</sup>	<b>50,000 hours to L70 @ 25 °C Ambient</b>
Color Point Maintenance <sup>4</sup>	<b>One-step MacAdam Ellipse over product lifetime</b>
Color Point Range <sup>4</sup>	<b>1400 °K - 10,000 °K, Fully Saturated, &amp; Pastel</b>
Equivalent Traditional Lamp	<b>40 W / 60 W Incandescent lamp</b>
Dimming Range <sup>4</sup>	<b>0.1-100%</b>

**Environmental**

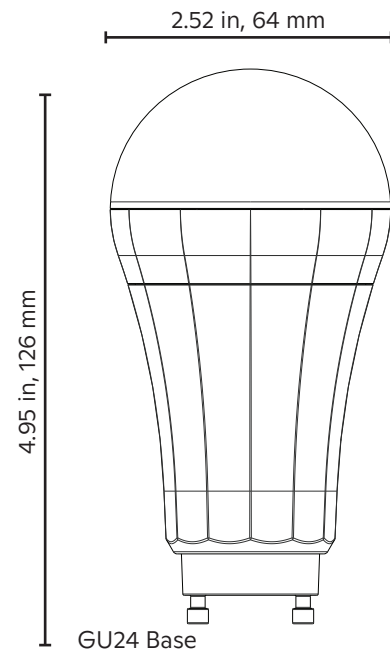
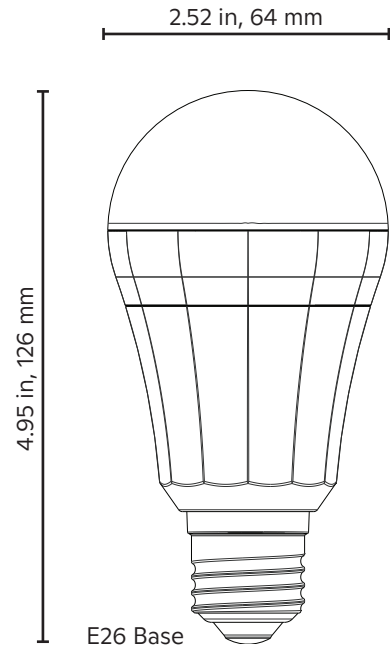
Operating Temperature	<b>0 - 50°C</b>
Storage Temperature	<b>-20-80°C</b>
Humidity	<b>0-95%, Non-condensing</b>
Certification	<b>UL, cUL, RoHS, FCC Class B</b>
Location	<b>UL Damp Location, IP20</b>
Outdoor Use	<b>Not for use in outdoor applications</b>

**Mechanical**

Weight	<b>8.39 oz (234 g)</b>
Housing Material	<b>Powder Coated Aluminum, Polymer</b>
Lens Material	<b>Non-yellowing PMMA</b>
Base Type	<b>E26 GU24</b>

**Electrical**

Power consumption	<b>A20.06 10 W A20.08 11 W</b>
Power Factor	<b>&gt;0.9</b>
Current	<b>100 mA Max</b>
Efficacy	<b>&gt;60 lm/W</b>



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

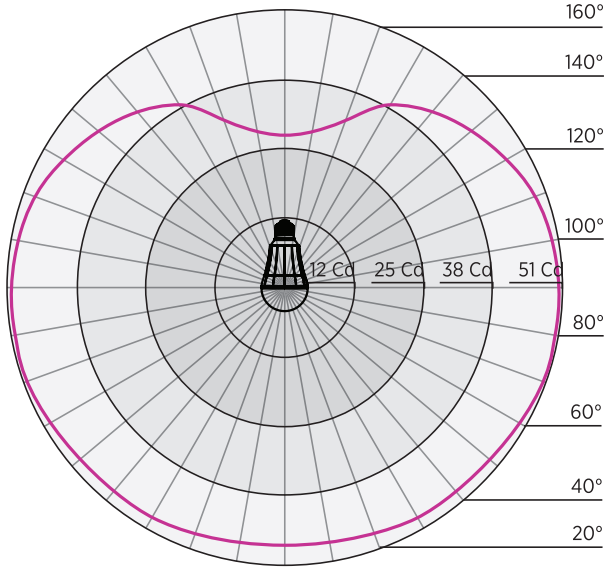
<sup>2</sup> Lumen measurement complies with IES LM-79-08 testing procedures.

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

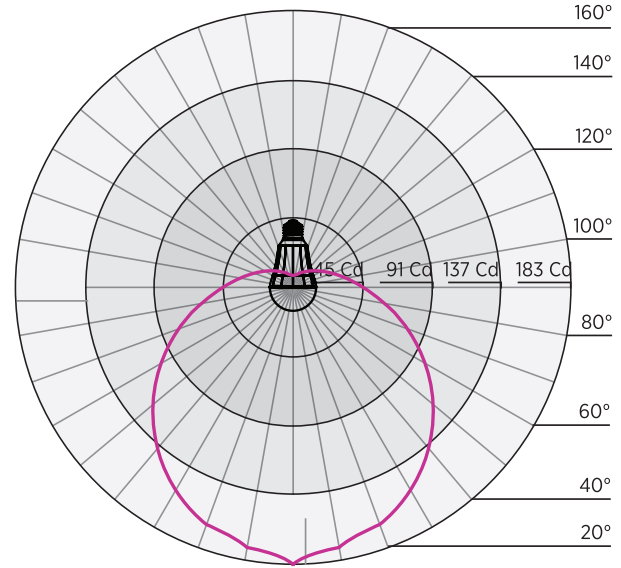
<sup>4</sup> Intensity and color point control requires compatible system.

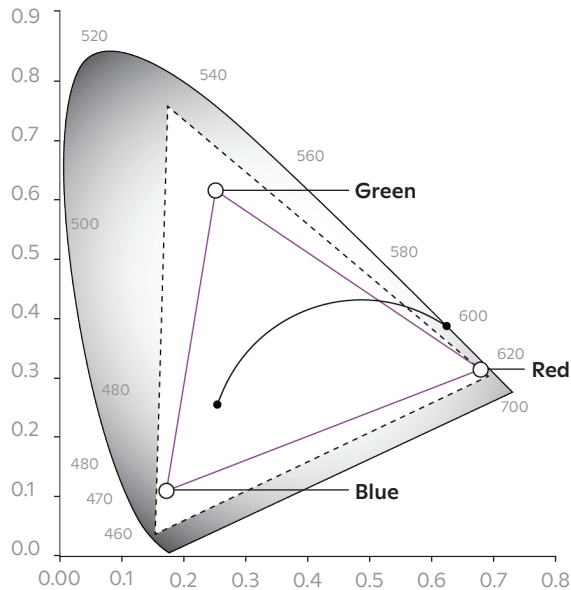
**ISO FOOTCANDLE CHARTS: 2700 - 5000 K VALUES ONLY**
**A20 - OD**

Product Code	Wattage	Lumens	Max Cd
A20.06.OD	10 W	600	51


**A20 - SD**

Product Code	Wattage	Lumens	Max Cd
A20.08.SD	11 W	800	183



**WIDE GAMUT**
**CIE 1931 Color Chart**


Ketra's A20 tunable lamp can easily be commissioned into Lutron HomeWorks or Athena systems. The product can reproduce any color point within the triangle shaped gamut indicated in the chart to the left. With Ketra's Color Lock tool, the color point is maintained to an accuracy of one-step MacAdam Ellipse over the lifetime of the product and across operating temperature range.

— **Color Lock**—Color point is maintained to an accuracy of one-step 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.

**A20 General Specifications**

**Color Point Maintenance:** Employ closed loop optical and thermal feedback capable of maintaining color point accuracy at a one-step MacAdam ellipse over product lifetime.

**Wireless Capability:** LED light source shall have an integrated wireless control on board.

**Color Rendering Index (CRI):** Capable of CRI greater than 90 at any point along the Black Body Curve from 2,700K to 5,000K.

**Single Source Multi-Dye Emitter Design:** Employ a single source multi-dye emitter consisting of both monochromatic and phosphor converted blue LED dye.

**LED Estimated Useful Life:** Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.

**Warranty:** Ketra's light source is 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.

**Lighting System Capable of the Following Dimming Functionality:**

1. Automatically mimicking natural daylight by shifting Correlated Color Temperature (CCT) and intensity based on time-of-day.
2. Shifting from high CCT at high intensity to low CCT at low intensity, mimicking dimming curve of an incandescent lamp.
3. Changing intensity while maintaining full color spectrum or CCT.
4. Changing full color spectrum or CCT while maintaining intensity.

**Spectral Power Distribution Manipulation:** Light system capable of manipulating the Spectral Power Distribution (SPD) by automatically adjusting distributions of color intensity while maintaining the same Correlated Color Temperature (CCT).

**Dimming Range:** Dimmable from 100 to 0.1 percent measured luminous flux.

**Color Point Range:** Single light source capable of producing 16.7 million colors and white from 1,400K to 10,000K Correlated Color Temperature (CCT).