



**Before** – At 28 feet this gym had only 11 foot candles of light at center court using (24) 400 watt metal halide lights.



**After** – Using (30) SONARAY™ 250 watt Delta high bay lights, center court measured 91 foot candles at 28 feet.

### **SONARAY™ sheds whole new light on Richmond, Virginia high school gym.**

For a Richmond, Virginia high school looking for improved lighting, SONARAY™ proved to be nothing but net; net improved lighting, net improved energy efficiency, and net improved savings.

The school was looking to greatly improve its facilities with a lighting upgrade – one that would greatly improve the 11 foot candles of light showing at its mid court area, and all the corresponding lighting on the gym floor and in the facility.

The school had been using 400 watt metal halide lights and knew they wanted first and foremost more, brighter, and clearer lighting. Secondary to their needs was to have lighting that would offer energy efficiency, but also provide a long life and require very little maintenance. That's when SONARAY™ 250 watt Delta High Bays stepped into the starting line-up.

SONARAY™ recommended a replacement of the metal halides using 30 of the 250 watt LED high bays. Initial conservative estimates yielded by a preliminary lighting layout showed that the school could expect to increase their lighting in the mid court area from 11 foot candles to more than 70 foot candles or an increase of more than 600%. What really happened after the replacement, however, yielded even better results – The foot candles at 28 feet measured 91 foot candles or an astounding increase of more than 825%.

The good news didn't just stop with the mid court area, either. Directly under the school's basketball goals, along the baseline, the old lighting was reading only 6 foot candles of light. After the upgrade, the area registered a foot candle reading of 87 – a whopping 14.5 times more light.

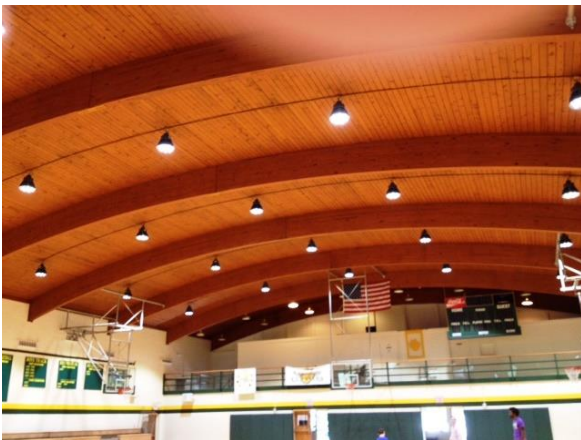
Remember, the secondary goal for the installation was to improve the lifespan of the lighting and decrease the necessity for lots of ongoing maintenance or replacement. The SONARAY™ luminaires are projected to not require replacement for 16.03 years based on 52 weeks usage per year, 5 days a week, 12 hours a day. The original lamps had projected life of 4.81 years using the same parameters for light usage. This represents a projected lifespan for the SONARAY™ lights of more than 3 times that of the metal halide lights.

In addition, the total wattage used was decreased from 10,800 watts to 7,500 resulting in about a 30% decline of usage that resulted in projected savings of more than \$1,000 per year in energy costs for the school.

Plus the SONARAY™ lights are good for the environment. The old lights were responsible for more air pollution through carbon dioxide emissions. The new high bays should reduce air pollution from carbon dioxide by over 17,000 pounds or 8.65 metric tons per year. That is equivalent to the amount of carbon sequestered by 7.1 acres of forest land in a year (<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>).

And of course, the new fixtures have “instant on” so they don't have to warm up when turned on or have to be cooled down to turn back on if they are turned off.

Below are some more photos from the new court lighting. We think it is safe to say that for this facility going with SONARAY™ LED lighting achieving their goals was a slam dunk.



**SONARAY™**