

FILAMENTO VALTO VS. PHILIPS TRUEFORCE



Aberdeen, Scotland



VALTO 400

- 400W HID equivalent
- 105W/15,000 Lumens
- Ballast compatible OR Bypass

[Product Link](#)

CASE STUDY FACTS



ENERGY SAVINGS

27,888 kWh/Y



SIMPLE PAYBACK

£4,462/yr = 18 month ROI
at 8 hours/day



LIGHT LEVELS

Original: 265 lux/25 fc
Replacement: 665 lux/62 fc

Summary – VALTO Superior to TrueForce using existing MH Ballast

- More than 2.5x brighter
- No glare
- >2x longer lifetime

Opportunity – The International School of Aberdeen

The International School in Aberdeen Scotland (ISA) looked at multiple replacement sources for their gymnasium lighting and eventually chose Filamento's VALTO 400.

The school building is about eight years old and the aging HID lighting needed to be upgraded for maintenance purposes and energy savings. The lighting levels were 265 lux/25 fc, significantly below the recommended standard of 500 lux/46 fc for basketball courts. They also wanted a retrofit solution that would directly work with their magnetic ballast to minimize install costs.

Ian Williamson, Facility Operations Manager, initially narrowed the solution to Philips TrueForce as the lamps are ballast compatible. However, on a trial installation he found significant shortcomings:

- Lighting levels did not meet recommendations for basketball
- Displayed a very high glare level – UGR < 27
- A failure rate of > 90% in five years¹

¹. Philips TrueForce Datasheet, June 2018, Lifetime Chart



[Video Link](#)



ISA is a university prep school with an internationally diverse student body of about 500 students



Ian Williamson
ISA Facilities Operations Manager

Solution – Filamento VALTO

Ian was determined that energy savings should not automatically equate to poor light quality and shorter life spans. After some research, he found the Filamento VALTO light source. It promised all of the benefits with none of the shortcomings. To test the lighting, he set up a head-to-head comparison of Filamento VALTO vs. HID and Filamento VALTO vs. Philips TrueForce.

The results were surprising and quite spectacular. The HID and Phillips had created significant wasted glare, while the tailored beam distribution of Filamento directed the light to the floor without the glare. Filamento resulted in 2.5x higher lighting levels and a more even appearance on the gym floor. Once the basketball team and coaches saw the difference, the decision was obvious, they chose VALTO. In summary, other light solutions did not meet recommended light levels, had very high glare and therefore, were unacceptable.

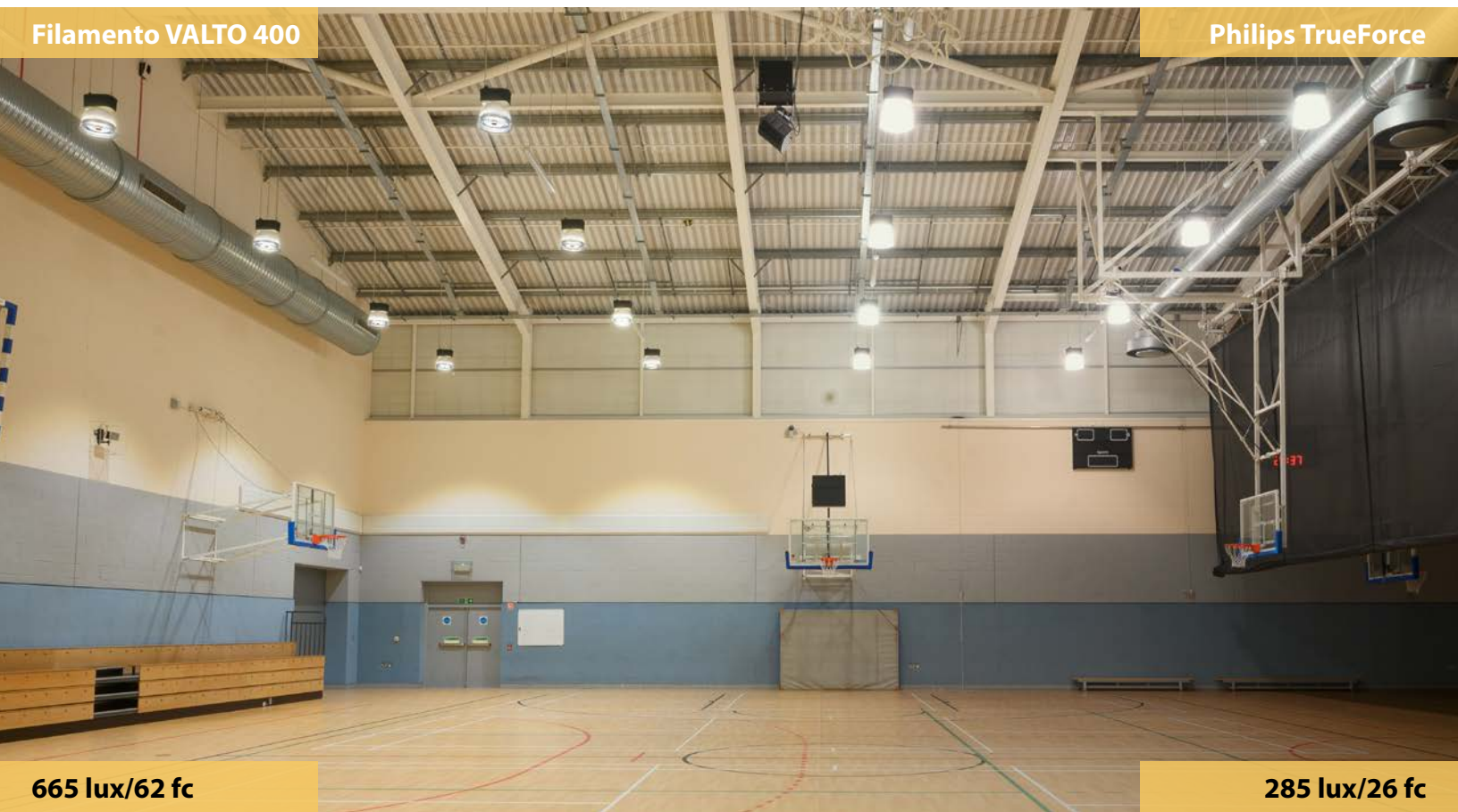
“The comparison was shocking and we could not go back to the dark. The Filamento side was much more even, very natural and with no glare.” -Ian Williamson



665 lux/62 fc

265 lux/25 fc

"The new lights [Filamento] were much easier on the eyes and very bright on the floor, but the other HID or Philips lights were only bright when you looked up and then blinded you." -Ian Williamson



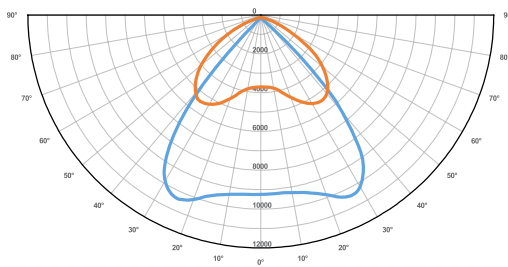
665 lux/62 fc

285 lux/26 fc



VALTO 400 lamps provided an average of 665 lux in the ISA gym

Superior Optical Distribution



— Philips TrueForce
— Filamento VALTO

Benefits

Filamento filled all the school's requirements. Filamento is 2.5x brighter and lowered their energy consumption by over 27,888 kWh/Y VALTO eliminates significant maintenance time changing HID bulbs when they burn out every three months or so. Additional benefits were:

- Retrofitting into ballast enabled immediate energy saving
- Installation by existing maintenance crew saved contractor costs
- Future plans to replace the ballasts with the VALTO BASE lampholder to enable even more energy savings of 40W per fixture
- Meets and exceeds required lighting levels
- Lack of glare creates more human centric lighting

“Filamento filled all of our requirements - it gives out a better light, lowered our energy consumption and it has a five-year warranty.” - Ian Williamson

Comparison

	VALTO 400	TrueForce
Model Number	VAL-E40-105-8-40-VL-AN-B90-010-U15	LED HPI ND 110-88W E40 840 120D
Lumens	15,000	11,000
Average Lighting Level Measure	665 lux/62 fc	285 lux/26 fc
Failure Rate at 50,000 Hours	<1% Lamp Failure	85% Lamp Failure ¹
UL Listed for ANY Ballast 175-600W	Yes	No
Glare	No Glare – UGR<15	High Glare – UGR<27
Control Options (Ballast Bypass)	Dali/0-10V/BLE/Occupancy	None

1. Philips TrueForce Datasheet, June 2018, Lifetime Chart