



## OVERVIEW

### Fixture Overview

Offering a classic retro look with its radial diffuser, TurboRay brings a distinctive appearance to any lighting rig. Used as a punchy narrow-angle washlight or as a powerful hard edge beam that produces beautiful aerial and other effects, the fixture is truly versatile.

TurboRay's soft edges, homogenized color and smooth intensity fall off make for a spectacular wash. In the air or projected on a surface, the animated gobo wheel and other features produce spectacular textures unseen in any other fixture. With a punchy zoom, pixel LED control, and both split and saturated colors, TurboRay provides limitless looks to bring excitement to the stage.

### Applications

- Live concerts
- Tradeshows
- Festivals
- Industrial shows
- Award shows
- Studios

### Product Features

- Additive LED RGBW color mixing system for extremely powerful saturated colors and tunable white control
- Patent pending optical system
- Quadrant control over the fixture's four LED system
- Beautiful radial diffusers with a retro scenic look
- Powerful narrow beam for dramatic aerals
- Smooth and even wash with a punchy 3:1 zoom range
- Animated gobo wheel for dramatic aerial beam texturing
- Color wheel for deeper saturates and beautiful split colors

## ORDERING INFORMATION

### TurboRay

Model	Description
2591A1000-F	TurboRay fixture, black, with styrofoam packaging

**Color options:** Fixtures ship standard in black. White available by request.

**Note:** Fixture includes two (2) Omega Brackets and one (1) fixture power cord, bare ends to powerCON TRUE1™ Input.

### Accessories

Model #	Description
2560B7004	Fixture power cord upgrade, L5-20 Edison to powerCON TRUE1, 20 A
2560B7005	Fixture power cord upgrade, Stage Pin to powerCON TRUE1, 20 A
2560B7006	Fixture power cord upgrade, L6-20 to powerCON TRUE1, 20 A
2560B7007	Fixture power cord upgrade, L5-20 to powerCON TRUE1, 20 A
67040007	MegaClaw™
55040014	Cheeseborough 2" Alloy 1/2 Coupler Truss Clamp
67040010	Mini-Claw™



## PRODUCT SPECIFICATIONS

### Source

Engine options	Four, Osram Ostar Stage RGBW COBs
LED details	Four 60W engines
Max lumens on the wall	6,000 lumens (pending)
LPW	12 lumens per Watt
LED life	50,000 hours

### Color

Color mixing	Red, green, blue, and white
Color temperature	Variable from 2800 K - 8000 K
Color wheel	Three (3) dichroic colors repeated in quadrants with split color

### Optical

Beam angle range	3° narrow beam 3.5 - 15° degree wash with radial diffusion
Pattern projection and animation	Custom animation wheel with two animation patterns entering the beam in quadrants
Frost	18 segment primary radial diffuser 4 segment secondary diffuser
Flicker control/Hz range	1.1 kHz, 2.2 kHz, 4.4 kHz, 17.6kHz

### Control

Input method	DMX (5-pin) or ethernet
Protocols	DMX via RS-485 ArtNet or sACN via ethernet
RDM functions	Yes
UI type	Full color graphical UI with 6 button navigational control
Local control	Yes
Effects Engine	Built-in effects engine with multi parameter color and speed control
Pixel mapping	Four (4) cell pixel mapping control
Dimming performance	16-Bit, DMX controlled

### Electrical

Voltage range	100-240V 50-60Hz
Input method	powerCON TRUE1
Max wattage	500 W
Max current	5 A @ 100 V

### Thermal

Ambient operating temp	0° to 40° C (32° to 104° F)
Fan mode	Standard, Studio, Continuous, Studio Continuous

### Physical

Pan and tilt range	540° pan, 239° tilt
Max pan/tilt speed	360° in 2.54s / 180° in 1.78s
Materials	Steel and aluminum frame with molded plastic covers
Color options	Black, white by request
Mounting options	Any orientation
IP rating	IP-20
Weight	50.1 lb, 22.7 kg
Included accessories	powerCON TRUE1 to bare end fixture tail Two (2) clamp brackets Safety cable

### Warranty

Fixture warranty	Five (5) years for light engine Two (2) year for complete fixture
Warranty details	<a href="https://www.highend.com/warranty/">https://www.highend.com/warranty/</a>

### Regulatory & Compliance

Regulatory standards	Listed to UL 1573 Certified to CSA STD. C22.2 No: 166
CE compliance declared to the following standards	Safety: EN 60598-1, EN 60598-2-17, EN 62031, EN 62471 EMC: EN 55015, EN 61547, EN 61000-3-2, EN 6100-3-3
Complies to the ROHS directive	Yes

### Safety

Safety	Minimum distance to illuminated surface = 2.0 m Minimum distance from fixture head to combustible materials = 0.1 m
--------	--

### Notes about LED luminaires:

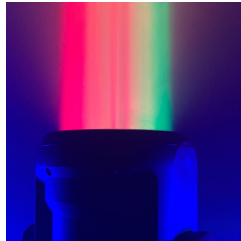
All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. Thermal conditions can be affected by ambient temperatures and orientation.

**ADDITIONAL DETAILS**



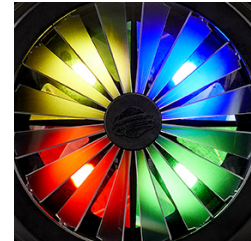
**Radial Diffusers**

Taking advantage of the classic radial diffuser look, the TurboRay gives a whole new twist whether edge-lit or back lit, the diffusion gives your design a multifacet scenic element for beautiful visuals.



**Aerial Animation**

Whether the fixture is projecting a narrow beam or focused out into individual primary rays of light, TurboRay provides endless aerial projection options to make your haze look better than ever before.



**Color control**

Utilizing four additive RGBW LED engines, TurboRay gives you all of the color control you desire, whether in quadrants, primary rays, or in half colors and deep saturates through the fixed color wheel.



**Haze Protected**

Throughout our history of making fixtures one thing remains clear, the importance of clean optics. With a passion toward reduced maintenance and increased output High End Systems leads the industry in protecting your output with the inclusion of our patent pending HazeFree lens coatings, an industry first in haze buildup prevention.



**Big bold Beam**

Thanks to TurboRay's wide aperture and extremely narrow beam, the fixture easily gives lighting designers big bold aerial looks.

**Warranty**

High End Systems fixtures are engineered to last, and to dedicate our commitment to this we offer a two year warranty with an extension on LEDs out to five years. This fixture promises to be a staple of the rig for years to come.

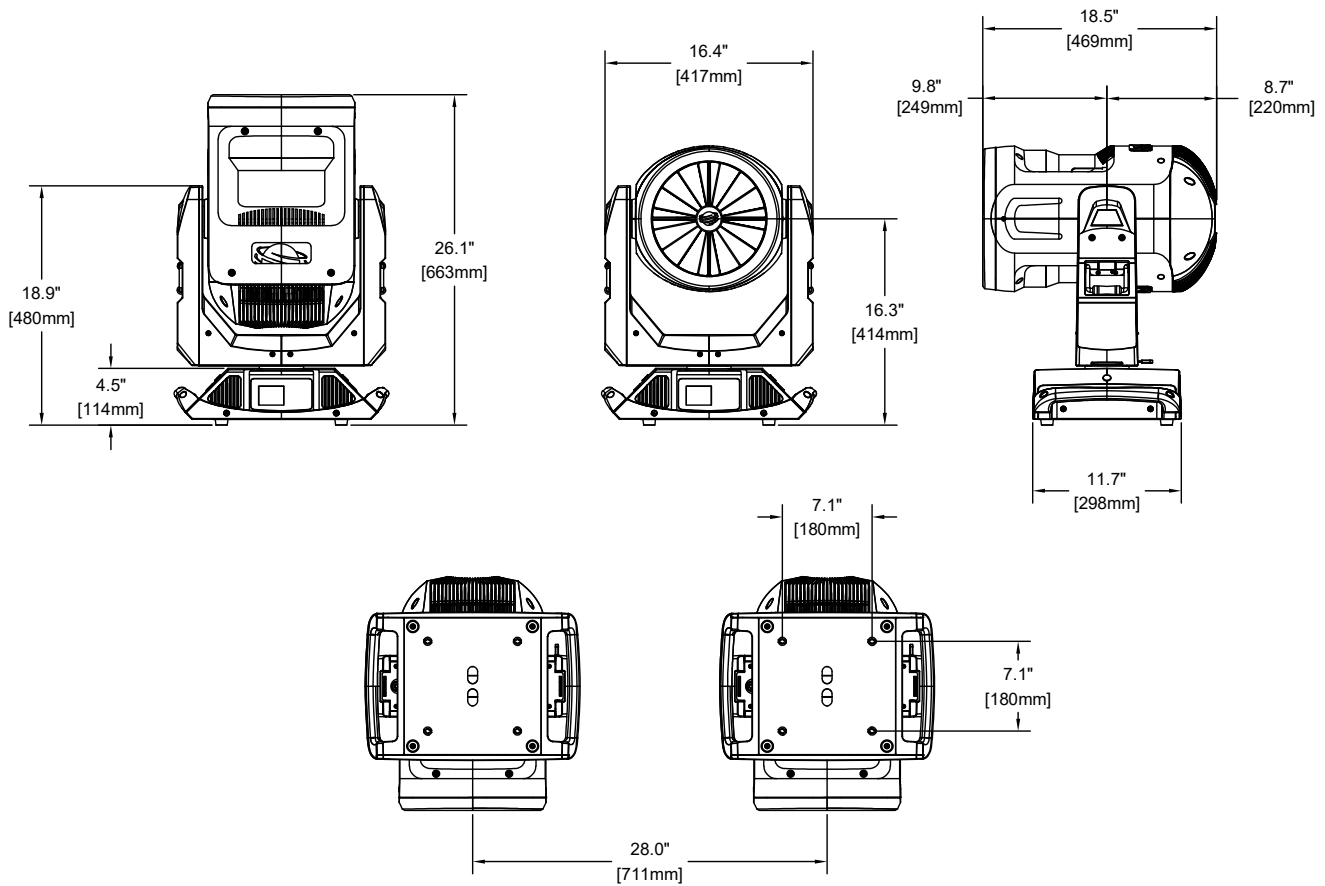


**PHYSICAL INFORMATION**

**TurboRay Dimensions Table**

Model	Height		Width		Depth		Weight	
	in	mm	in	mm	in	mm	lb	kg
TurboRay*	26.1	663	16.4	417	11.7	298	50.1	22.7

\*Does not include hanging hardware.



**TurboRay Power Table**

VAC	Amps	Hz	Watts	VA	PF
100	4.3	50	428	430	0.99
120	3.5	60	416	418	0.99
200	2.1	50	400	413	0.97
208	2.0	60	401	411	0.97
220	1.9	50	412	432	0.96
240	1.8	60	403	418	0.96