

Type(s)
Project
Date

Notes

OVERVIEW

Fixture Overview

High End Systems' SolaSpot 3000 combines unprecedented light output from its 1000 W Ultra-Bright White LED engine with a limitless palette of effects and color possibilities. Engineered for the largest lighting applications, SolaSpot 3000 is the first automated LED luminaire to rival and even exceed the output of the most powerful arc lamp fixtures, while simultaneously offering the advantages of LED technology such as long engine life.

Applications

- Arenas and stadiums
- Concert halls and performing arts centers
- Film and television broadcast studios
- Large scale events
- Megachurches and houses of worship

Product Features

- White LED Engine
- 1000 W Ultra-Bright engine producing 37,000 field lumens or High Fidelity Engine with incredibly accurate color rendering
- CMY/CTO-Linear color mixing system
- Six + open position replaceable Color Wheel
- Iris, Light Frost
- Two rotating Prisms
- 7°–55° Zoom
- Seven position plus open interchangeable Gobo Wheel
- Two, Seven position plus open Rotating Gobo Wheels
- Two continuously Variable Animation Wheels
- TM30 Filter Boosts Ultra-Bright Engine to 85+ CRI
- Patented Lens Defogger

ORDERING INFORMATION

SolaSpot 3000

Model	Description
2581A1100	SolaSpot 3000 fixture, Ultra-Bright, black, with Road Case
2581A1100-B	SolaSpot 3000 fixture, Ultra-Bright, black, with Molded Rubber Insert
2581A1101	SolaSpot 3000 fixture, High Fidelity, black, with Road Case
2581A1101-B	SolaSpot 3000 fixture, High Fidelity, black, with Road Molded Rubber Insert

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

Included Accessories: Fixture includes two (2) Omega brackets, one (1) fixture power cord, bare ends to powerCON® TRUE1® input, and a safety cable.

Accessories

Model	Description
2560B7004	Fixture Power Cord upgrade, 5-20 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™



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PRODUCT SPECIFICATIONS

Source

Engine	Ultra-Bright White Engine	High Fidelity White Engine
LED Details	1000 W	1000 W
Max Field Lumens	37,000 lumens	25,000 lumens
LPW	37 lumens per Watt	25 lumens per Watt
LED Life	50,000 hours	50,000 hours
Native CCT	7000 K	6000 K
Transferable Light Engine	Yes	Yes

Color

Color Mixing	Cyan, magenta, yellow, CTO-linear
Color Temperature	Variable down to 2800 K
Color Wheel	Six (6) interchangeable dichroic chips plus open includes TM-30 Filter standard

Optical

Beam Angle Range	7°–55°
Gate Size	30 mm
Aperture Size	120 mm
Pattern Projection	Two rotating and indexable wheels with seven (7) patterns plus open Fixed wheel with seven (7) patterns plus open
Animation	Graphical rotating animation wheel and Glass textured rotating animation wheel
Prism	Three-facet rotating and indexable prism and Eight-facet rotating and indexable prism Additional accessories available
Frost	Light and Heavy Frosts Additional accessories available
Iris	16-blade iris
Flicker Control/Hz Range	2.4 kHz or 16 kHz

Control

Input Method	DMX (5-pin) or Ethernet
Protocols	DMX via RS-485 ArtNet or sACN via Ethernet
Ethernet Pass-Thru	Passive Ethernet in and thru with and without power
Data Conversion	Patented data conversion system for: DMX to Ethernet Ethernet to DMX
Modes (Footprint)	One (47)
RDM Functions	Yes
UI Type	Full color graphical UI with 6 button navigational control
Local Control	Yes
Dimming Performance	16-bit, DMX controlled

Electrical

Voltage Range	100-240 VAC, 50-60 Hz
Input Method	powerCON TRUE1
Wattage (Standard/+Defogger)	1426 W / 1471 W
Current	14.7 A @ 100 V

Thermal

Ambient Operating Temp	-10-45°C (14-113°F)
Fan	Three Modes: Standard, Studio, Continuous, and Studio Continuous
Stationary dBA/Full intensity	Standard - 42 dBA Studio - 38 dBA Continuous - 44 dBA Studio Continuous - 41 dBA
Lens Defogging	Patented Lens Defogger included

Physical

Pan and Tilt Range	540 pan, 265 tilt
Max Pan/Tilt Speed	360° in 2.65 s / 180° in 1.58 s
Materials	Steel and aluminum frame with molded plastic covers
Color Options	Black, White by request
Mounting Options	Any Orientation
IP Rating	IP-20
Weight	46.7 kg (103 lb)
Included Accessories	powerCON TRUE1 to bare end fixture tail Two (2) clamp brackets Safety cable

Warranty

Fixture Warranty	Two (2) year for complete fixture Five (5) year for light engine
Warranty Details	highend.com/warranty

Regulatory & Compliance

Regulatory Standards	Conforms to UL STD.1573 Certified to CSA STD. C22.2 No: 166 CE EAC
CE compliance declared to these 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

	Minimum distance to illuminated surface = 2.0 m (6.5 ft)
Safety	Minimum distance from fixture head to combustible materials = 0.1 m (0.33 ft)

Note: 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.

OPTICAL INFORMATION

Fixed Gobo Dimensions

Outside Diameter	30 mm (1.18 in)	
Image Diameter	25 mm (0.98 in)	
Materials	0.5 mm aluminum	

Rotating Gobo Dimensions

Outside Diameter	30 mm (1.18 in)
Image Diameter	25 mm (0.98 in)
Materials	0.5 mm aluminum or 1.1 mm glass Borofloat®

Interchangeable Color Wheel Fixed Gobo Wheel



1 - Red



2 - Light Blue



3 - Green



4 - TM-30



5 - Orange



6 - Dark Blue



1 - Tunnel



2 - Triangles



3 - Organic



4 - Shower



5 - Abstract



6 - Cobble



7 - Endgrain

Rotating Gobo Wheel 1



1 - Bar



2 - Stripe Strips



3 - Crescents



4 - GeoSwirl



5 - Seashell (Magnetically indexed adaptor)



6 -Pinwheel Dots



7 - Ice

Rotating Gobo Wheel 2



1 - Zoetrope



2 - Jungle



3 - Thin Branches



4 - Tiny Triangles



5 - Starvolver (Magnetically indexed adaptor)



6 -Stainglass



7 - 31 Box

Animation Wheel 1



Continuously rotating graphical animation wheel

Animation Wheel 2



Continuously rotating glass animation wheel

PHOTOMETRIC INFORMATION

SolaSpot 3000 - Ultra-Bright

	Degree	Candela	Field Lumens	Power Usage	Lumens Per Watt
Narrow	7°	1,485,557	14,940	1000 W	14.9
Medium	30°	192,321	33,638	1000 W	33.6
Wide	55°	66,226	37,000	1000 W	37
Wide w/ Frost	58°	59,470	32,188	1000 W	32.5

Narrow - 7°

Throw Distance	10 ft	15 ft	20 ft	25 ft	188.7 ft
	3.0 m	4.6 m	6.1 m	7.6 m	57.5 m
Field Diameter	1.2 ft	1.8 ft	2.4 ft	3.1 ft	23.4 ft
	0.37 m	0.56 m	0.75 m	0.93 m	7.13 m
Illuminance (fc)	14,075	6,172	3,473	2,234	39
Illuminance (lux)	151,510	66,442	37,391	24,047	422

Medium - 30°

Throw Distance	10 ft	15 ft	20 ft	25 ft	188.7 ft
	3.0 m	4.6 m	6.1 m	7.6 m	57.5 m
Field Diameter	5.4 ft	8.0 ft	10.7 ft	13.4 ft	101 ft
	1.6 m	2.4 m	3.3 m	4.1 m	31 m
Illuminance (fc)	6,779	3,198	1,911	1,247	22
Illuminance (lux)	72,975	34,333	20,572	13,427	236

Wide - 55°

Throw Distance	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	25 ft 7.6 m	188.7 ft 57.5 m
Field Diameter	10.4 ft 3.17 m	15.6 ft 4.76 m	20.8 ft 6.34 m	26 ft 7.93 m	196 ft 60 m
Illuminance (fc)	601	273	157	104	1.8
Illuminance (lux)	6,477	2,974	1,695	1,120	20

SolaSpot 3000 - High Fidelity

	Degree	Candela	Field Lumens	Power Usage	Lumens Per Watt
Narrow	7°	1,003,755	10,094	1000 W	10
Medium	30°	129,946	22,729	1000 W	22.7
Wide	55°	44,747	24,387	1000 W	24.3
Wide w/ Frost	58°	40,182	21,749	1000 W	21.7

Narrow - 7°

Throw Distance	10 ft	15 ft	20 ft	25 ft	188.7 ft
	3.0 m	4.6 m	6.1 m	7.6 m	57.5 m
Field Diameter	1.2 ft	1.9 ft	2.5 ft	3.1 ft	23.4 ft
	0.37 m	0.57 m	0.76 m	0.94 m	7.13 m
Illuminance (fc)	10,126	4,440	2,499	1,607	28
Illuminance (lux)	109,000	47,800	26,900	17,300	304

Medium - 30°

Throw Distance	10 ft	15 ft	20 ft	25 ft	188.7 ft
	3.0 m	4.6 m	6.1 m	7.6 m	57.5 m
Field Diameter	5.4 ft	8.0 ft	10.7 ft	13.4 ft	101 ft
	1.6 m	2.4 m	3.3 m	4.1 m	31 m
Illuminance (fc)	4,877	2,294	1,374	897	16
Illuminance (lux)	52,500	24,700	14,800	9,660	170

Wide - 55°

Throw Distance	10 ft	15 ft	20 ft	25 ft	188.7 ft
	3.0 m	4.6 m	6.1 m	7.6 m	57.5 m
Field Diameter	10.4 ft	15.6 ft	20.8 ft	26 ft	23.4 ft
	3.17 m	4.76 m	6.34 m	7.93 m	7.13 m
Illuminance (fc)	432	198	113	74	1.3
Illuminance (lux)	4,660	2,140	1,220	806	20

To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared.

Metric conversions: For meters, multiply feet by 0.3048. For lux, multiply footcandles by 10.76.

ETC

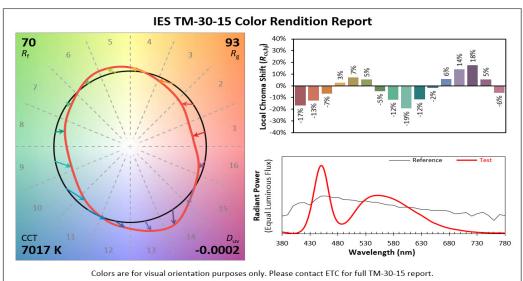
Ultra-Bright Engine

Ultra-Bright Engine with TM-30 Filter

High Fidelity Engine

High End Systems

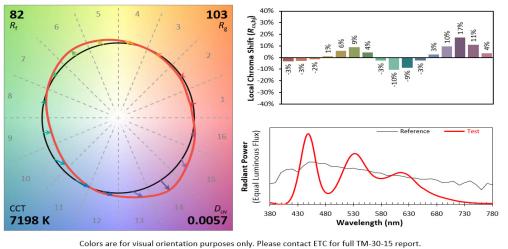
COLOR METRIC INFORMATION



Additional Color Metrics

SolaSpot 3000 Ultra-Bright Engine		
CRI R _a (R ₉)	70 (-14.5)	
TLCI	47	

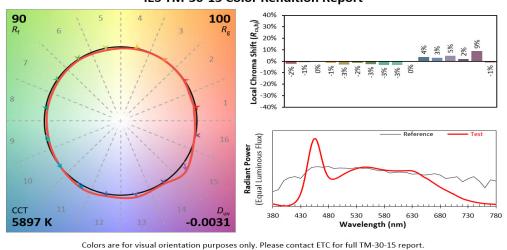
IES TM-30-15 Color Rendition Report



Additional Color Metrics

SolaSpot 3000 Ultra-Bright Engine with TM-30 Filter		
CRI R _a (R ₉)	85 (70.2)	
TLCI	84	

IES TM-30-15 Color Rendition Report



Additional Color Metrics

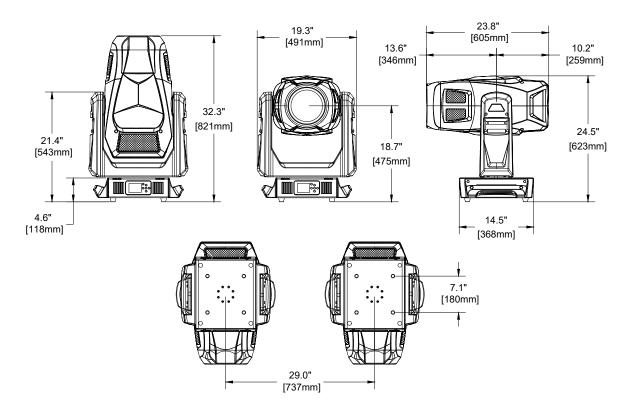
SolaSpot 3000 High Fidelity Engine			
CRI R _a (R ₉)	96 (94)		
TLCI	94		

PHYSICAL INFORMATION

SolaSpot 3000 Dimensions

Model	Height		Width		Depth		Weight	
	in	mm	in	mm	in	mm	lb	kg
SolaSpot 3000*	32.3	821	19.3	491	14.5	368	103	46.7
SolaSpot 3000 in Molded Case Insert	28.2	715	27.2	690	22.7	575	147	66.5
SolaSpot 3000 in Roadcase	39.9	1013	28.9	735	26	661	236	107

^{*}Does not include mounting hardware



SolaSpot 3000 Power Table

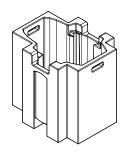
VAC	Amps	Hz	Watts	VA	PF	Crest Factor
100	14.7	50	1471	1461	0.99	1.40
120	11.8	60	1420	1416	0.99	1.41
200	6.6	50	1323	1322	0.99	1.49
208	6.3	60	1322	1326	0.99	1.47
220	6.0	50	1321	1346	0.99	1.51
240	5.5	60	1316	1324	0.98	1.50

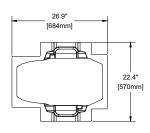
ADDITIONAL ORDERING INFORMATION

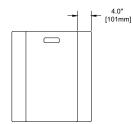
Additional Accessories

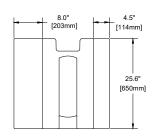
Model	Description
2581A2015	Optional Four Facet Linear Prism Accessory (not installed)
PSR1082	Molded case insert
H7500001	Extra Omega brackets
H7300105	Galvanized safety cable with spring snap

Molded Case Insert Dimensions



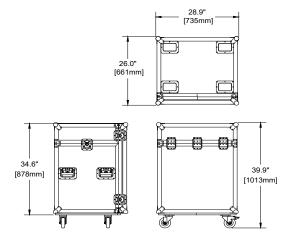


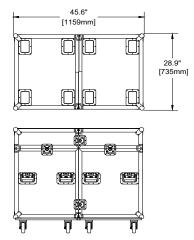




Roadcase Dimensions (Single Mode)

(Dual Mode)







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