

SolaSpot 3000
Technical Datasheet

Information subject to change without notice

100-240V



OVERVIEW

ORDERING INFORMATION

Fixture Overview

High End Systems' SolaSpot 3000 combines unprecedented light output from its 1000 W Ultra-Brite 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-Brite 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-Brite Engine to 85+ CRI
- Patented Lens Defogger

SolaSpot 3000

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

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

Notes: Fixture includes two (2) Omega Brackets and one (1) Fixture Power Cord, Bare Ends to powerCON TRUE1™ Input, one (1) 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™



PRODUCT SPECIFICATIONS

Source

Engine Options	Ultra-Brite white engine	High Fidelity white engine
LED Details	1000 W	1000 W
Max Lumens on the Wall	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

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
Notes	See Page 5 for color rendering information

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
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
Flicker control/Hz range	2.4 khz or 16 khz
Animation	Graphical rotating animation wheel and Glass textured rotating animation wheel
Iris	16 Blade Iris
Notes	See page 3 for additional gobo information

Control

Input method	DMX (5-pin) or Ethernet
Protocols	DMX via RS-485 ArtNet or sACN via Ethernet
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 V 50–60 Hz
Input method	powerCON TRUE1
Wattage	See Page 6 for wattage table
Current	See Page 6 for current table
Notes	See Page 6 for power factor information

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

Physical

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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	103 lb (46.7 kg)
Included accessories	powerCON TRUE1 to bare end fixture tail Two (2) clamp Brackets Safety Cable
Notes	See page 6 for dimensions

Warranty

Fixture Warranty	Five (5) years for light engine Two (2) years for complete fixture
Warranty Details	https://www.highend.com/warranty/

Regulatory & Compliance

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

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.



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



1 - Red



2 - Light Blue



3 - Green



4 - TM-30



5 - Orange



6 - Dark Blue

Fixed Gobo Wheel



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-Brite

Mode	Degree	Candela	Field Lumens	Power Consumption	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

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

Narrow Zoom - 7 Degrees

Throw Distance (d)	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 Zoom - 30 Degrees

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Throw Distance (d)	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 Zoom - 55 Degrees

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Throw Distance (d)	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	196 ft
	3.17 m	4.76 m	6.34 m	7.93 m	60 m
Illuminance (fc)	601	273	157	104	1.8
Illuminance (lux)	6,477	2,974	1,695	1,120	20

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

SolaSpot 3000 - High Fidelity

Mode	Degree	Candela	Field	Power	Lumens
			Lumens	Consumption	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

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

Narrow Zoom - 7 Degrees

Throw Distance (d)	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 Zoom - 30 Degrees

Throw Distance (d)	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 Zoom - 55 Degrees

Throw Distance (d)	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.

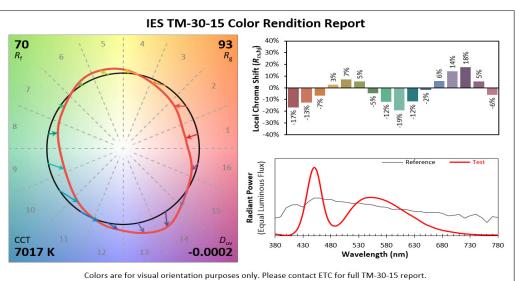


Ultra-Brite Engine

Ultra-Brite Engine with TM-30 Filter

High Fidelity Engine

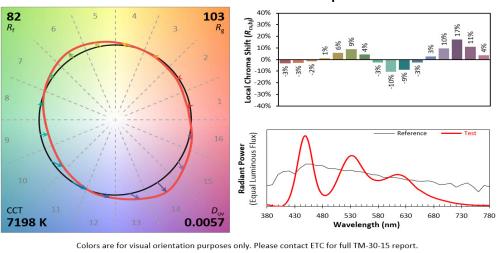
COLOR METRIC INFORMATION



Additional Color Metrics

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

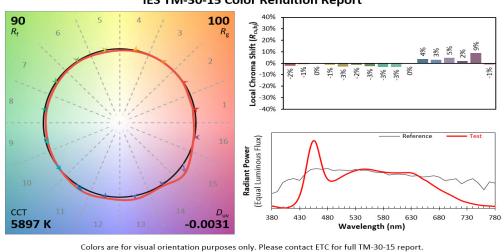
IES TM-30-15 Color Rendition Report



Additional Color Metrics

SolaSpot 3000 Ultra-Brite Engine with TM-30 Filter				
$CRIR_a(R_9)$	85 (70.2)			
TLCI 84				

IES TM-30-15 Color Rendition Report



Additional Color Metrics

SolaSpot 3000 High Fidelity Engine		
$CRIR_a(R_9)$	96 (94)	
TLCI	94	

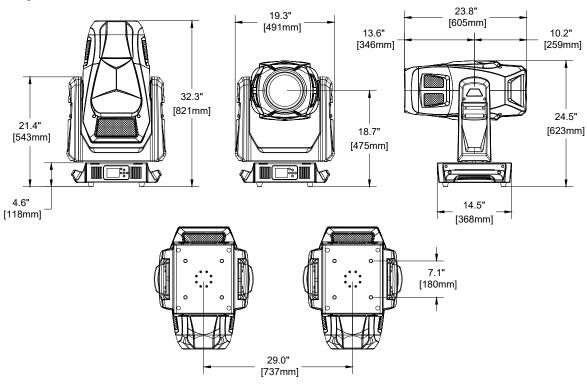


PHYSICAL INFORMATION

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 Box	28.2	715	27.2	690	22.7	575	124	56.2
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

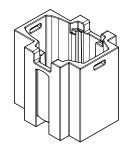


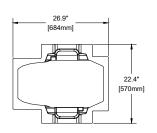
ADDITIONAL ORDERING INFORMATION

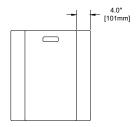
Additional Accessories

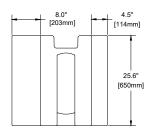
MODEL	DESCRIPTION
2581A2015	Optional Four Facet Linear Prism Accessory (Not Installed)
PSR1082	Molded Case Insert
H7500001	Extra Omega Brackets
H7300105	Galvanized Safety Cable w/Spring Snap

Molded Case Insert Dimensions









Roadcase Dimensions (Single Mode)

(Dual Mode)

