# ECO Spot<sup>™</sup> PCE-Series User Manual

Thank you for choosing an ECO Spot<sup>™</sup> Gobo Projector. This manual covers our Patented ECO Spot PCE-Series models.

Please read this manual before installing or operating the fixture, follow the safety precautions listed below, and observe all warnings.

## Package Contents

- Projector with power cord
- Test Gobo
- Spare gobo retaining ring
- Mounting hardware for yoke

## Safety Information

- Please unpack and carefully check for damage caused during transportation.
- Light fixtures should be installed and maintained only by qualified personnel with experience in lighting equipment and general electrical experience.
- When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.
- Place your fixture at a suitable place with good air flow.
- Keep flammable materials away from the fixture.
- Minimum distance to flammable material = 1 ft. (0.3m).
- Provide a minimum clearance of 4 in. (10cm) around air vents.
- Use only genuine spare parts for part replacement.
- Do not look directly into the lamp; it can result in eye damage.
- Always unplug the unit from the power mains before any service is done.

## **Electrical Safety**

- Disconnect the fixture from AC power before handling it.
- Always ground (earth) the fixture electrically.
- Use only a power source that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not use the fixture if the power cable or power plug is in any way damaged or defective, or if they show signs of overheating.

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## Warranty

Two years from Date of Purchase. Keep your receipt for reference and contact your reseller in case of warranty issues.

#### **Projection Lenses**

The projector accommodates interchangeable projection lenses to allow optimizing the projection size and resulting brightness at varying distances. The narrower the lens, the smaller and brighter the image will be at a given distance.

When replacing lenses, ensure to also move the lock ring and silicone seal O-ring to the new lens.

#### Focusing

- Power up the projector.
- Focus the projection by twisting the lens in and out until the image is well focused. When used for the first time, the projection lens will often need to be twisted outwards many rotations to reach the focusing point.
- When done, secure the lens by tightening the lock ring. If used in wet environments, check that there is a silicone O-ring seal between lock ring and lens tube and between lens tube and projector.

#### Yoke

• The projector comes with a yoke that may not have been previously attached. Attach it to the projector by using the provided mounting screws



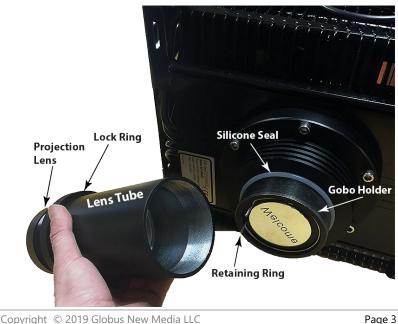
## **Gobo Placement and Adjustment**

The projector is equipped with an integrated gobo holder, which is accessible after removing the lens tube (not just the projection lens).

- Unscrew the lens tube with the lens inside to expose the gobo holder.
- Squeeze the two pins of the gobo retaining ring together and pull it out of the holder. If a gobo is already inside, carefully remove it and put in the new gobo.
- If you have a glass gobo, place the more reflective side towards the LED.
- Replace the retaining so that it evenly pushes the gobo all the way back.
- Mount the lens tube and adjust the focus as needed. Refer to "Focusing".

## If the projected image requires exact rotational positioning:

- Before screwing the lens tube back on all the way, check the projected image.
- Twist the lens tube in just a little and turn on the projector.
- If the projected image with the lens tube in this position is too fuzzy, improve its focus by twisting the projection lens in clockwise.
- Check the position of the projected image. If the gobo needs to be rotated, take the lens tube off and twist the gobo holder (with the gobo inside).
- Once the gobo has been adjusted, mount the lens tube by screwing it in hand tight until it compresses the silicone seal.
- Finally adjust the focus as needed. Refer to "Focusing".



ECO Spot Model:	C20PCE	C40PCE	C60PCE	B90PCE	B150PCE	B300PCE
Input Voltage Range		100-240/2	77VAC, 50/60Hz (Voltage Ra	100-240/277VAC, 50/60Hz (Voltage Range: 90-305VAC, 48-63Hz; 127-431VDC)	7-431VDC)	
Power Connector			Nema 5-15 (	Nema 5-15 (Edison Plug)		
Ambient Operting Temp.			-13 to 104°F	-13 to 104°F (-25 to 40°C)		
Power Draw	25W	45W	70W	100W	165W	280W
Typ Input Current	0.22A/115V, 0.1/277V	0.44/115V, 0.2/277V	0.6A/115V, 0.3/277V	1.4A/115V, 0.55A/277V	4A/115V, 1.2A/277V	3.5A/115V, 1.45A/277V
LED Power	20W	40W	M09	M06	150W	300W
UL/cUL Certification	Driver only: E334687, IP67	Driver only: E334687, IP65	E4993665, (	E4993665, CSA C22.2 No. 207-15 Standard for Portable and Stationary Electric Signs	d for Portable and Stationary E	lectric Signs
Environmental Classification	IP65	IP65		đ	IP65	
Gobo Size		E-Size OD37.5mm, ID25mm			M-Size OD66mm, ID48mm	
Lens Options	Narrow: f=140mm/10°, Wide: f	Narrow: f=140mm/10°, 5emi-Narrow: f=100mm/15°, Medium: f=70mm/20° Wide: f=50mm/25°, Ultra-Wide: f=28mm/40°	Medium: f=70mm/20° nm/40°	Narrow: f=290mm/10°, Semi-Wide: f=115mm	Narrow: f=290mm/10°, Semi-Narrow: f=200mm/15°, Medium: f=140mm/20° Semi-Wide: f=115mm/25°, Wide: f=90mm/30°, Extra-Wide: f=56mm/40°	<b>Medium:</b> f=140mm/20° : <b>a-Wide:</b> f=56mm/40°
Rated lumens (lm)	1,300lm	2,700lm	4,000lm	7,200lm	12,000lm	20,000lm
Effective lumens (lm)	840lm	2,400lm	3,400lm	6,300lm	8,900lm	11,500lm
Projection Efficiency (Im/W)	34	53	48	63	54	41
Color Temperature (k)	8,000 +500	8,000 +500	8,000 +500	8,000 +500	8,000 +500	8,000 +500
CRI	75	75	75	75	75	75
Rated LED life (L70)	40,000h	40,000h	40,000h	35,000h	35,000h	35,000h
Dimensions (incl lens)	8.5"x7.5"x4"	9.5"x7.5"x5.5"	15"x10.75"x10"	18"x10.75"x12"	19"x14.5"x13"	22"x16.2"x14"
Weight (Ibs)	5lbs	8lbs	19lbs	21lbs	28lbs	40lbs
	External	Internal	Internal	Internal	Internal	Internal
Uriver	Meanwell LPF-25-20 20V, 1.25A, UL/cUL/IP67	Meanwell HLG-40H-15B 15V, 2.67A, UL/cUL/IP65	20V, 4A, UL/cUL/IP65	15V, 8A, UL/cUL/IP65	24V, 10A, UL/cUL/IP65	Meanwell HLG-320H-36B 36V, 8.9A, UL/cUL/IP65
Driver Connector Proiector Connector	AH-M20-1502FFZ01112 AH-M20-1502MMZ01112	AH-M20-1502FFZ01112 AH-M20-1502MMZ01112				
LED	GT-FC20X3	GT-FC40X3	GT-FC60X3	GT-FC90X3	GT-FC150X3	GT-FC300X3
Max. Projection Distance	Bright: up to 16ft	Bright: up to 21ft	Bright: up to 26ft	Bright: up to 40ft	Bright: up to 48ft	Bright: up to 50ft
For these Projection Brightness	Average: up to 22ft	Average: up to 28ft	Average: up to 34ft	Average: up to 52ft	Average: up to 64ft	Average: up to 66ft
levels: Bright:90fc, Average:50fc, Dim: 30fc, Dark:4fc	Dim: up to 30ft Dark: up to 80ft	Dim: up to 36ft Dark: up to 100ft	Dim: up to 42ft Dark: up to 150ft	Dim: up to 66ft Dark: up to 200ft	Dim: up to 80ft Dark: up to 250ft	Dim: up to 88ft Dark: up to 300ft
Max Droiection Size	Bright: up to 3.5ft	Bright: up to 5ft	Bright: up to 6ft	Bright; up to 9ft	Bright: up to 12ft	Bright: up to 13ft
For these Projection Brightness	Average: up to 4.5ft	Average: up to 7ft	Average: up to 8ft	Average: up to 12ft	Average: up to 15ft	Average: up to 18ft
levels: Bright:90fc, Average:50fc, Dim: 30fc_Dark:4fc	Dim: up to 6ft	Dim: up to 9ft	Dim: up to 10ft	Dim: up to 15ft	Dim: up to 18ft	Dim: up to 20ft
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Dimmahle?			r driver trimmer or FS_CM1 C	As her driver trimmer or FS-CM1 Control Module 1-10V/PWM/Resistive not line voltage dimmable	tecictive not line voltage dim	
Blink/Eade/Dim/Motion Sensor	2	sel fest	view with o	ves with ontional ECO Snot Control Module ES-CM1	ula FS_CM1	
	2	And the desired				L
Cord Length Total (in) Proiector <-> Driver	112 32+14	102 (with driver) 24+12	90	<del>م</del>	<del>م</del>	٥ç

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