ECO Spot LED10™ User Manual

Thank you for choosing an ECO Spot LED10™ Gobo projector. This unit is equipped with a fan cooled 10W LED bulb with 50,000hrs bulb life. No more need for replacement bulbs.

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

WARNING! Select the correct Line Voltage with the selector on the back of the unit before Operating.

Package Contents

- ✓ Projector with power cord
- ✓ Test Gobo
- ✓ Spare gobo retaining ring and Spare drive belt

Safety Information

- 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).
- Minimum distance to illuminated surface = 3.3 ft (1.0m).
- 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.
- Don't touch the hot surface during operation, use gloves if necessary.
- Always unplug the unit from the power mains before any service is done.
- Allow 20 minutes to cool down before servicing the unit.
- Replace Lamps only with the same type, other lamps may cause damage.
- Light fixtures should be installed and maintained only by qualified personnel with experience in lighting equipment and general electrical experience.

Electrical Safety

- Disconnect the fixture from AC power before handling the fixture.
- 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, defective or wet, or if they show signs of overheating.

Handling Instructions

- Before the initial start-up, please unpack and carefully check for damage caused during transportation.
- Place your fixture at a suitable place with good air flow.
- Make sure there are no flammable materials close to the lamp.
- 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.

Warranty

One Year from Date of Purchase. For warranty, contact your dealer or

Globus New Media LLC at 1-800-213-1092 or 1-831-431-8800

Focusing

- Power up the projector by pressing the larger switch in the back.
- Turn on the gobo rotator with the smaller switch in the back and switch it off when the gobo projects in the desired position.
- Focus the projection by twisting the lens in and out until the image is well focused. When used for the first time, the lens will often need to be twisted outwards many rotations to reach the focusing point.

Gobo Rotator

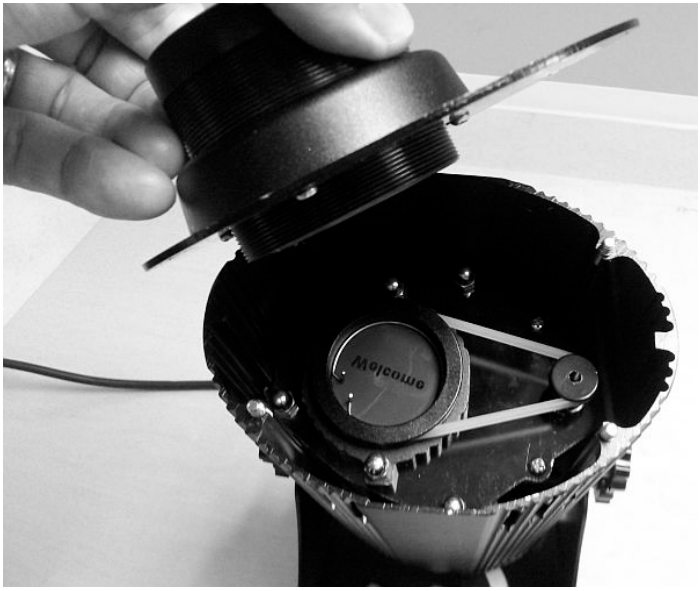
- The gobo rotator can be turned on/off with the small switch on the back plate.
- There are no controls for rotating speed or direction.

Multi-functional Yoke

- The yoke can slide over the whole length of the fixture body to accommodate multiple pointing directions.
- The yoke acts as a stand foot.
- The yoke can be screwed to a wall or ceiling or fastened with a C-clamp

Gobo Replacement

- Unplug the power cord.
- Unscrew the four thumbscrews to remove the front cover with the projection lens.
- Push the two pins of the gobo retaining ring together and pull out the retaining ring. Carefully remove the old gobo and replace it with the new gobo.
- If you have a glass gobo, place the more reflective side towards the light bulb.
- Replace the retaining ring and make sure it evenly pushes the gobo all the way back.
- Replace the front cover and adjust the focus.



Line Voltage

Use the Line Voltage Selector in the back to select the correct line voltage.

US Setting (120V)
90-130V, 60Hz, 14W
International Setting (220V)
200-240V, 50Hz, 14W

Ambient Operating Temperature

-22°F to 122°F (-30°C to 50°C)

Dimensions / Weight

Body without yoke:
10 x 4.33 x 3.5in (L x W x H)
(254 x 110 x 90mm)
Add 0.5 to 2in (12 to 50mm) to the length depending on the projection lens.
Height with yoke: 5.7in (145mm)

Weight 4.7lbs (2.1kg)

Gobo Dimensions

Metal or Glass Gobos and Dichroic filters
Outer Diameter (OD): 37.5mm (1.47in)
Max. Image Diameter (ID): 25mm (1.0in)
Max Thickness: 4mm (0.16in)

Lens Options

The projector can be equipped with different projection lenses. The more narrow the lens, the smaller and brighter the image will be at a given distance. Currently these lenses are available:

- Wide 25 degree
- Medium 20 degree
- Medium Narrow 15 degree
- Narrow 10 degree

Dimming Options

Not Dimmable

LED Lamp

- Extremely high light density for ultra-efficient projection.
- Power: 10W
- Bulb life 50,000h
- Color Temperature 5,500k
- Rated Luminous flux: 850lm
- Effective luminous flux: 400lm (average)

ECO Spot™ Photometrics — ECO Spot is a Trademark of Globus New Media LLC dba Gobosource

Model Gobo Size	Color Temp.	Lens	Beam Mult.	Effective lm	CD	Value	PROJECTION DISTANCE IN FEET (ft) 3	6	9	12	15	20	24	30	36	42	64	88	112	136	200	300
ES-LED10 E-Size ID=25mm	5000k +/- 500k	140mm (10°)	0.18	194	7,632	Size (ft)			1.6	2.2	2.7	3.6	4.3	5.4	6.5	7.6						
						Brightn.(fc)			94	53	34	19	13	8	6	4						
		100mm (15°)	0.26	191	3,600	Size (ft)		1.6	2.3	3.1	3.9	5.2	6.2	7.8	9.4							
						Brightn.(fc)		100	44	25	16	9	6	4	3							
		70mm (20°)	0.35	263	2,736	Size (ft)	1.1	2.1	3.2	4.2	5.3	7.0	8.4	10.5								
						Brightn.(fc)	304	76	34	19	12	7	5	3								
		50mm (25°)	0.45	252	1,584	Size (ft)	1.4	2.7	4.1	5.4	6.8	9.0	11									
						Brightn.(fc)	176	44	20	11	7	4	3									
		28mm (45°)	0.80	145	288	Size (ft)	2.4	4.8	7.2	9.6	*Max. Gobo Image Size for this lens = 23mm											
						Brightn.(fc)	32	8	4	2												

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How to Read the Illumination Values	
Foot Candles (ft)	For a quick overview, the illumination values in the tables are color coded. There are many factors that determine the visibility of a projection, such as ambient light, color and reflectiveness of the projection surface, competing light, gobo colors, projector color temperature, and other factors. Therefore our recommendations should only be used as guidelines and we cannot guarantee a successful application. If you are unsure, please call us to discuss.
Projection Size Calculation	For the resulting Projection Size at any given Distance, Multiply the number in the "Beam Mult." column with your Projection Distance. **Projection Size = Distance x Beam Mult.** For the Distance needed to achieve a desired Projection Size, Divide the Projection size by the Beam Multiplier. **Distance = Projection Size / Beam Mult.**
300+	Extreme brightness for extremely bright environments, i.e. bright areas, additionally flooded with daylight, such as Lobby-, Retail-, Trade Show-, Environment. Outdoors (shady, no direct sunlight).
150-300	Very high brightness for very bright environments, such as light flooded Office-, Lobby-, Retail-, Trade Show-, Environment. Color gobos project in vibrant colors. Outdoors well visible at night with vibrant colors.
45-150	The most common brightness bracket for bright environments, such as Office, Lobby, Retail, Tradeshow. Outdoors extremely bright at night. Color gobos project well.
15-45	Sufficient brightness for environments, such as Bars, Clubs, and intimate Restaurants, Theaters, and dimmed Conference rooms. Outdoors well visible at night. Color gobos should preferably be used with lighter colors and the projection surface should be light and somewhat reflective.
15-2	Only advisable for dark environments and subtle projection of light colored artwork, preferably on light, reflective projection surface. If all conditions are met, the max. listed image distance/size can be doubled in most cases.

Metric Conversions: For Meters multiply feet by .3048. For Lux multiply footcandles by 10.76