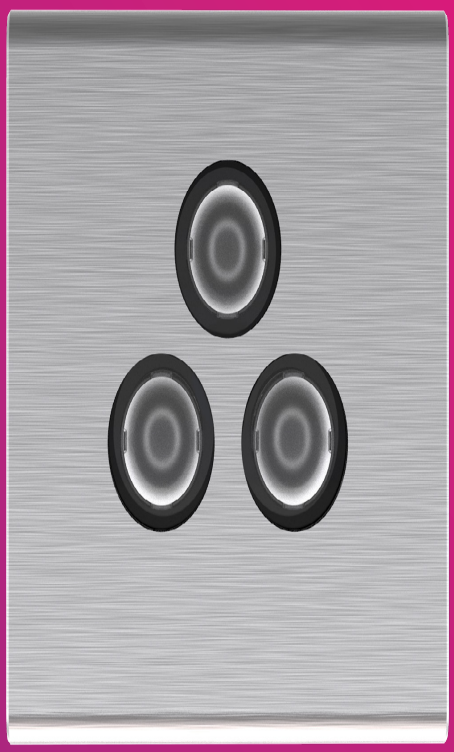
sixteen5hundred	Project 21-12877-3 Date 6/25/2021 RGB/W | Saturated Color Submitted By 16500, INC	Catalog Number SA RGB W+M DMX 801.10 CLA TP SS Notes	Type

SHOCKWAVE VIDEO LIGHTING



ACTUAL SIZE

SHOCKWAVE ECKO | COLOR SERIES

The SACO Shockwave ECKO is a stylish, compact accent light fixture using high-performance LEDs to deliver precise lighting in virtually any color. The ECKO is highly adjustable and is great end-to-end, stacked, or positioned around complex structures.

ECKO comes in narrow, medium, wide, and a variety of oval optic options making this a versatile lighting solution for most projects.

HIGH RESOLUTION	SACO's proprietary V-STREAM high-speed, high-resolution video pixel control. DMX compatible.
BRIGHT FIXTURE	SACO's intelligent control maximizes output for the brightest colors across the spectrum.
COMPACT SIZE	Ultra-compact design and remote V-BRAIN power allows for low-profile installation and discreet integration.
MODULAR	Build the perfect performer by combining and stacking fixtures to suit.
HEAT MANAGEMENT	Efficient heat dissipation. No dirt traps.

SACO

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SECKO

FEATURES GUIDE

PHYSICAL

CONSTRUCTION	Machined high grade 6061-T6 aluminum Machined scratch resistant clear polycarbonate face (0.2", 4.5mm thickness) Sturdy stainless steel hardware High-pressure silicone rubber seal (temp range -60°F to 400°F, -50°C to 200°C)
MOUNTING	Standard 304 stainless steel aimable mounting bracket (0.1", 2.6mm thickness) 180° tilt, 90° pan around central pivot Micro-adjustable for perfect aiming Locking bracket accommodates 1/4" (6mm) mechanical screws
SURFACE FINISH	Standard brushed anodized finish Custom painted colors also available
WEIGHT	1.0lb (0.5 kg), with standard cable + mounting bracket

THERMAL

HEAT CONTROL	Use of entire fixture's surface area for ideal heat dissipation No fins, no dirt buildup
SURFACE FINISH	Anodized for better emissivity
OPERATING TEMP	-40°F to 185°F (-40°C to 85°C)

ELECTRICAL

INPUT VOLTAGE	24VDC (CLASS 2)
POWER	6W Maximum
V-BRAIN LIMIT	16 (Connect maximum 4 per V-Brain 100 output. Please refer to specification guide)
CABLE	Standard 4' (1.2m) cable with quick connector (Q804), or optional 10' (3m) pigtail cable for fixed color applications (P210)
CONTROL INPUT	SACO Video (Up to 16 bit resolution) DMX512 (8 bit resolution) DMX512 with RDM (Remote Device Management) (8 bit) On/Off without control signal for fixed colors

OPTICAL

COLOR SERIES	ABC: patented Adaptive Brightness Control, for more vivid single colors Red, blue, green discrete LEDs for individual color control Custom colors available
LUMEN OUTPUT	From 130 to over 170 delivered lumens (RGB full-on), depending on optics
PERFORMANCE	From 20 to over 28lm/W, depending on optics
REFRACTORS	Injection molded PMMA total internal reflection collimators (TIR) Variety of axial and transverse beam angles, from circular to oval light spreads Factory installed for enhanced optical precision

SHOCKWAVE ACCESSORIES

EXTENSION CABLES	10' (3m) EXT10 and 20' (6m) EXT20 fixture extension cables may be used to lengthen standard cable to a maximum of 60' (18m) IP67 quick connectors for easy connections to V-BRAIN
MOUNTING	Multiple mounting and joining bracket options available See accessories guide for options
OPTICAL ACCESSORIES	Multiple optical accessories are available See accessories guide for options
CONTROLLERS	Multiple Shockwave video and DMX512 control options are available See accessories guide for options
MORE	Please refer to accessories guide for more information

ADDITIONNAL INFORMATION

CERTIFICATION	ETL listed as per UL 2108, CSA C22.2 Nº 250.0 CE IP 66, suitable for wet locations Roadway and Area Lighting Equipment Luminaire Vibration as per ANSI C136.31
WARRANTY	5 years
ORIGIN	Designed and made in North America

SHOCKWAVE VIDEO LIGHTING

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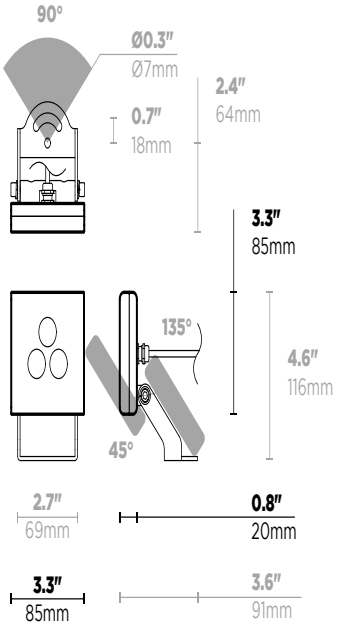
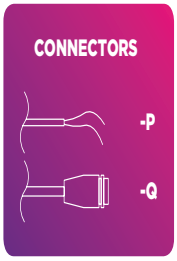
SECKO

SPECIFICATIONS GUIDE





-TP MOUNTING HARDWARE VERSION, SEE ACCESSORIES GUIDE FOR MORE.
(ADJUSTABILITY AND MOUNTING DIMENSIONS IN GREY)

PRODUCT ORDERING CODE SE--------

SE **MODEL #**

COLOR LIGHT SOURCE

- **RGB** RGB, ABC-enabled (Max 6W, 150lm approx. RGB, color changing)
- **___** Custom, please specify (Max 6W, fixed color recipe)

LIGHT SPREAD (AXIAL + TRANSVERSE) [1,2]

- **N+N** Narrow (Circular beam, nominal 10° TIR lens)
- **M+M** Medium (Circular beam, nominal 30° TIR lens)
- **W+W** Wide (Circular beam, nominal 50° TIR lens)
- **M+N** Medium + Narrow (Oval beam, nominal 30°x10° TIR lens)
- **W+M** Medium + Wide (Oval beam, nominal 50°x30° TIR lens)

[1] All beam angle values (FWHM) may vary depending on specified light color. Please refer to photometric guide for corresponding beam angles.

[2] Factory installed. Please refer to accessories guide for field-adjustable optical accessories.

CONTROL SPECIFICATION [3]

- **SVD** SACO Video (Up to 65,536 shades per color, dimming down to 0%)
- **DMX** DMX512 [4] (Up to 256 shades per color, dimming down to 0%)
- **RDM** DMX512 [4] + RDM (Up to 256 shades per color, dimming down to 0%)
- **OFF** On/Off (No dimming)

[3] Remote power supply and control gear to be ordered separately. Please refer to specification guide.

[4] DMX addresses must be identified on order.

CABLE HARNESS CONNECTOR

- **Q** Quick connector [5] (8-pin, overmolded IP67)
- **P** None, pigtail [6] (2 conductors, stripped wire ends, no connector)

[5] Default option, 8-conductor maximum cable length is 4' (1.2m), see below. Make sure connector choice corresponds with that of remote power supply.

[6] 2-conductor cable compatible only, see below.

CABLE HARNESS LENGTH

- **801.2** 8-conductor, 4' (1.2m) [7]
- **8_ _._** 8-conductor, custom length (please specify, in meters) [8]
- **203.0** 2-conductor, 10' (3m) [9]
- **2_ _._** 2-conductor, custom length (please specify, in meters) [10]

[7] Default length option, comes fitted with 8-pin quick connector only (-Q, see above).

[8] Minimum 8-conductor cable length is 6" (0.15m) and maximum 10' (3m). Longer runs can be achieved using extensions. Refer to V-Brain wiring guide for details.

[9] 2-conductor cables have pigtailed ends as standard (-P only, see above).

[10] Maximum 2-conductor cable length option is 80' (24m) length.

SURFACE FINISH

- **CLA** Clear Anodized
- **BKA** Black Anodized
- **___** Custom, please specify

MOUNTING HARDWARE [11]

- **TP** Tilt + Pan mounting bracket (Tilt 180°, Pan 90°)
- **NO** None
- **__** Custom, please specify

[11] Tilt and pan aimable mounting bracket factory installed as standard. Please refer to accessories guide for further mounting options.

MOUNTING FINISH [12]

- **SS** Stainless Steel
- **__** Custom, please specify

[12] Bracket finish is exposed stainless steel, Custom finish to be applied to stainless steel. Consult your sales agent for compatible finishes, price and availability.

SHOCKWAVE VIDEO LIGHTING

DRY WET Intertek CE

sixteen5hundred	Project 21-12877-3 Date 6/25/2021 RGB/W | Saturated Color Submitted By 16500, INC	Catalog Number SA RGB W+M DMX 801.10 CLA TP SS Notes	Type

SECKO

PHOTOMETRICS GUIDE

A NOTE ON PERFORMANCE

MASTER THE ABC Tuning a regular 3-channel RGB fixture from full-on to just displaying one or two channels basically means cutting off power to the unwanted channels. Then came Adaptive Brightness Control (ABC), SACO's patented protocol for driving LEDs.

An ABC-enabled RGB fixture makes sure each channel is getting as much light out as it can at all times, reallocating the power from unused channels to the required ones. In other words, Adaptive Brightness Control is continuously monitoring the fixture's power so that it gets the most brightness out of it, in any shade of color.

COLORED LIGHT All of the photometrics below are based on an ABC-enhanced full-on RGB light source (-RGB). Beam angle (FWHM) may vary depending on specified light color, as well as on fixture finish.

Photometric performance is measured in compliance with IESNA LM-79-08. Consult SACO website for the latest IES files.

LIGHT SPREAD Optics code sequence describe the type of light spread achieved both axially and transverse, in that order.

AXIAL + TRANSVERSE

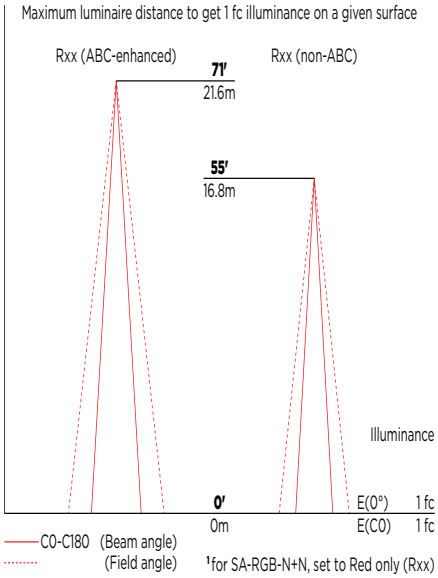
THE ABCS OF ADAPTIVE BRIGHTNESS CONTROL

Note that while different color LEDs have different efficencies due to fundamental chemical differences, all will be enhanced by ABC to notable effect.

For instance, an RGB ABC fixture set to Red only (Rxx) will get over 120% more lumens out than a regular RGB set to Red only; xGx gets over 65% more, and xxB is 80% more intense. Similarly, setting it to purple using only Red and Blue (RxB), will get 60% more lumens out from an ABC luminaire than from a regular RGB one. Finally, the ABC effect can even be noticed when driving all three channels full on: a 5% increase has been measured at SACO in-house light lab.

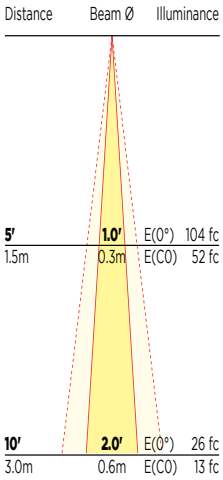
Reach Comparison Diagram [1]

Maximum luminaire distance to get 1 fc illuminance on a given surface



[1] for SA-RGB-N+N, set to Red only (Rxx)

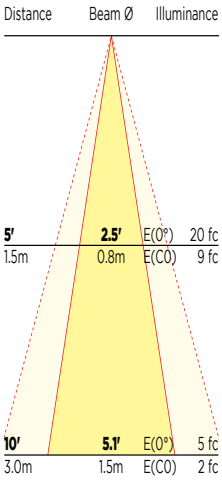
SE-RGB-N+N
NARROW BEAM



Peak Candela 2,594 cd

C0-C180 (Beam angle: 11.8°)
(Field angle: 22.7°)

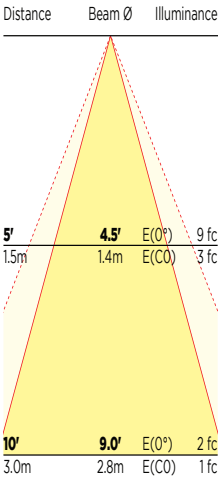
SE-RGB-M+M
MEDIUM BEAM



Peak Candela 508 cd

C0-C180 (Beam angle: 28.5°)
(Field angle: 48.2°)

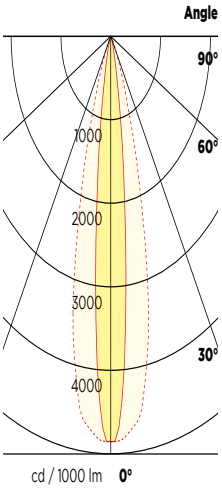
SE-RGB-W+W
WIDE BEAM



Peak Candela 223 cd

C0-C180 (Beam angle: 48.7°)
(Field angle: 66.2°)

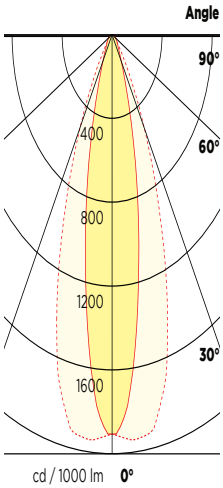
SE-RGB-M+N
MEDIUM + NARROW BEAM



Peak Candela 830 cd

C0-C180 (Beam angle: 14.1°)
C90-C270 (Beam angle: 32.1°)

SE-RGB-W+M
WIDE + MEDIUM BEAM



Peak Candela 299 cd

C0-C180 (Beam angle: 25.7°)
C90-C270 (Beam angle: 47.2°)

SHOCKWAVE VIDEO LIGHTING

DRY WET Intertek CE