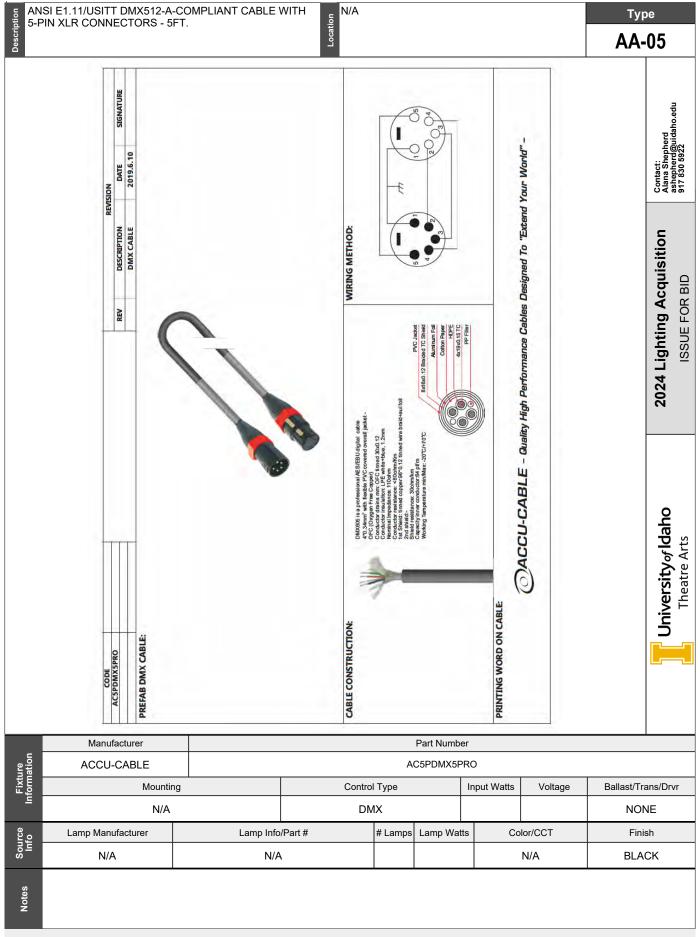
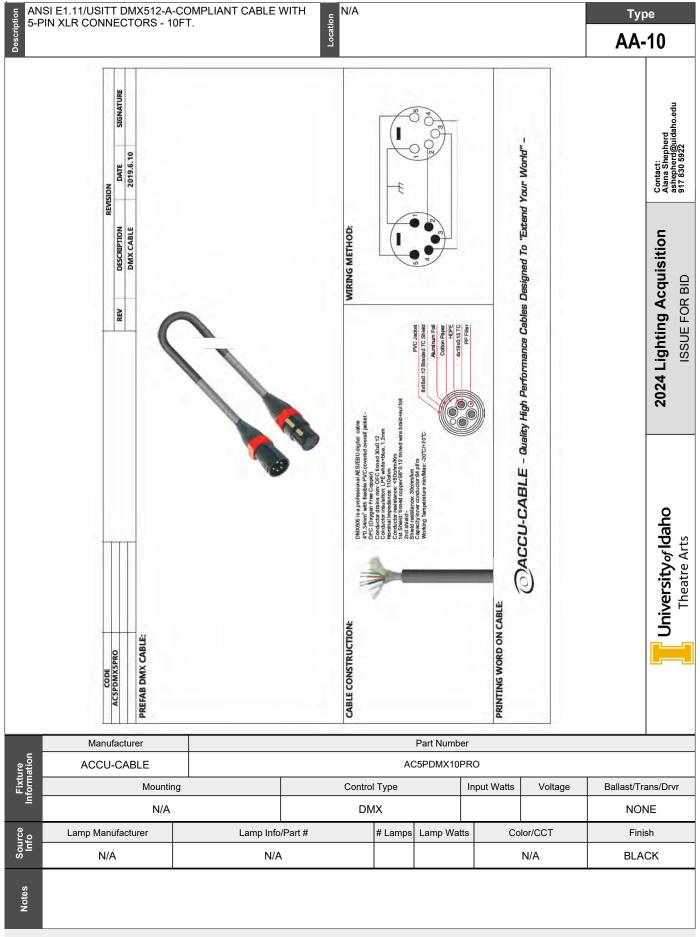
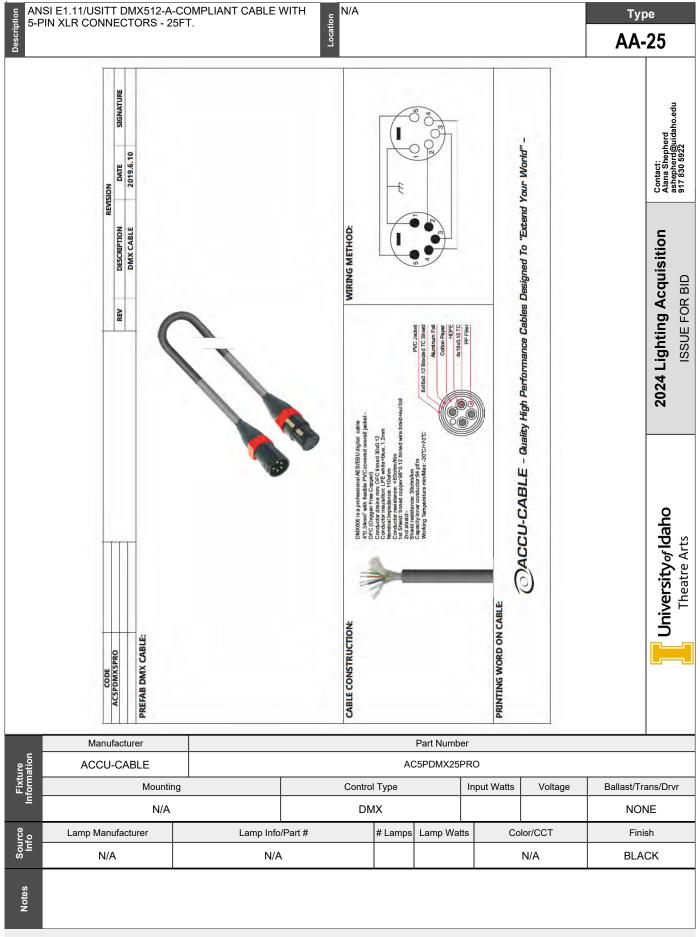


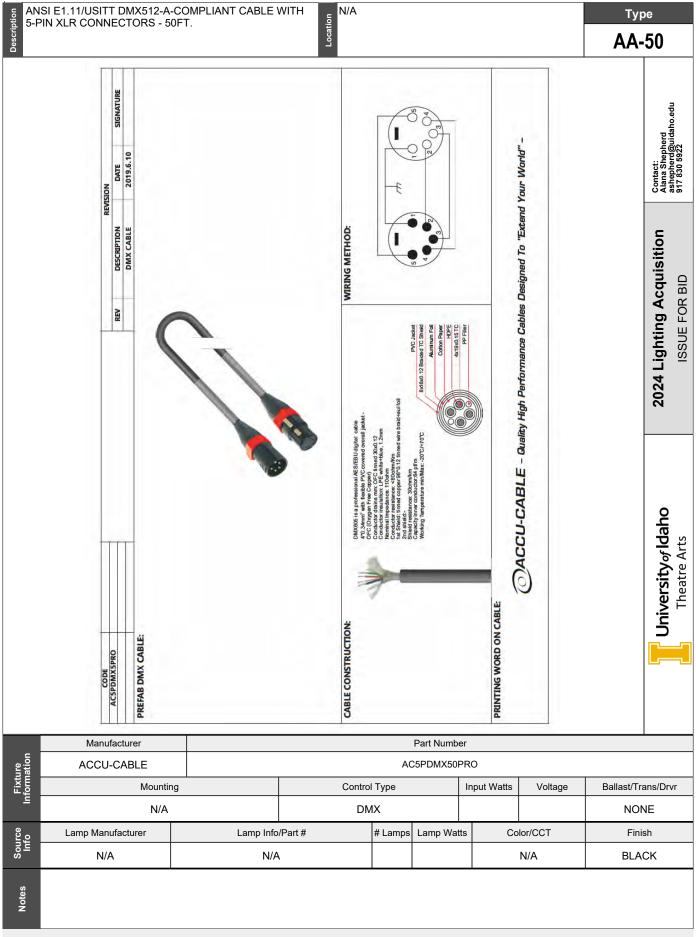
2024 Lighting Acquisition UI Theatre ISSUE FOR BID 3/25/2023

REVISION: 0









Pro Cables

6-CIRCUIT MULTICABLE ASSEMBLIES 14-CONDUCTOR / 19-PIN



Connector Options—Male ProSeries® 19-Pin-Solder ProSeries® 19-Pin-Crimp

Connector Options-Female

ProSeries* 19-Pin-Solder ProSeries* 19-Pin-Crimp KC* 19-Pin-Solder

KC** 19-Pin-Solder

Description

TMB Pro Cables offers a comprehensive range of cable assemblies, serving the needs of lighting, audio, video, and power distribution professionals in the entertainment production and staging industry.

Dependable, highest quality 6-Circuit Assemblies feature the attention to detail that puts Pro Cables assemblies in a class of their own. Available with TMB ProSeries or KC 19-pin connectors and a range of TMB ProCable or Starcable 14-conductor multicables.

Features

- TMB Pro Cables proven, quality construction, rigorous QC and Rush Service Normall
- Intended to carry six 15 20 Amp circuits in a single cable, 14-conductor multicable offers a lighter weight solution for applications where bussed grounds are acceptable. A TMB First, now the industry standard for six lighting circuits in North America and most other 120V countries.
- Unique to TMB, our Pro Cables 6-Circuit Assemblies made in North America are cCSAus Listed for extra-hard usage and therefore fully compliant with the NEC for use in all stage, studio and event applications

 Available in 12 AWG (4mm²), and 14 AWG (2.5mm²)
- All black construction ideal for stage and set lighting applications. White ProCable 12/14 cable also available.
- Labeling for length, standard
- High quality, custom printed Customer ID cable labeling, optional
 Sosh cord cable tie, optional
- Kellum grips available

Applications

Six circuits of 100 to 240 VAC power in a single cable. Suitable for dimmed or constant power lighting and video applications in Concerts; Touring: Theatre; Film and Television Production:

Available Cables

ProCable[®] 12/14 - 12 AWG 14C Multicable ProCable[®] 12/14 - 12 AWG 14C White Multicable ProCable[®] 14/14 - 14 AWG 14C Multicable Starcable" 12/14 - 12 AWG 14C Multicable

Available Connectors

ProSeries[®] 19-Pin Connectors-Solder ProSeries[®] 19-Pin Connectors-Crimp [special order] KC 19-Pin Connectors-Solder

Certifications



The First and Still the Best!

TMB Pro Cables - High-quality custom cable assemblie for the entertainment production and staging industry since 1983. Over 60 highly skilled assembly technicians worldwide. Well over 400 years combined experience! Rigorous testing and quality control Famous TMB Rush Service Normall

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sales@tmb.com Part Number

	Manuacturei		r art vulliber						
Fixture formation	ТМВ		Z-1214-PSP-50						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr	
Ξ	N/A		N/A					NONE	
rce fo	Lamp Manufacturer	Lamp Info	p/Part # # La		Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	N/A	N/A	1				N/A	BLACK	

Pro Cables

6-CIRCUIT MULTICABLE ASSEMBLIES 14-CONDUCTOR / 19-PIN

ProCable™ 6-Circuit Multicables

PC1214T

Extra heavy-duty portable (indoor/outdoor) 12 AWG (3.3mm²), 14-conductor, 600V 105C round cable with PVC thermoplastic insulation (UE 1015) jacketed in black, proprietary pressure-extruded thermoplastic compound (UL/cUL, style 2586).

Full specifications at: https://tmb.com/docs/procable/pdf/ProCable-LTR-web.pdf

Extra heavy-duty portable (indoor/outdoor) 12 AWG (3.3mm²), 14-conductor (UL 1581), 600V 105C round cable with PVC thermoplastic insulation (UL 1015) jacketed in white, proprietary pressure-extruded thermoplastic compound (UL/cUL, style 2586). Full specifications at: https://tmb.com/docs/procable/pdf/ProCable-LTR-web.pdf

Extra heavy-duty portable (indoor/outdoor) 14 AWG (2,1 mm2), 14-conductor (UL 1581), Control beday any portable finished values in a Arva principle in the Control Full specifications at: https://tmb.com/docs/procable/pdf/ProCable-LTR-web.pdf

Starcable® 6-Circuit Multicables

WDP1214T

Heavy-duty portable (indoor/outdoor) 12 AWG (3.3mm²), 14-conductor (UL 1015), 600V 105C round cable with PVC insulation (UL 1015) jacketed in black, pressure-extruded PVC compound (UL/cUL, style 2586).

Full specifications at: https://tmb.com/docs/starcable/Starcable-Multi-LTR-web.pdf



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	Manufacturer		Part Number							
Fixture Information	ТМВ		Z-1214-PSP-50							
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	N/A		N/A					NONE		
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A	1				N/A	BLACK		

Project: 2401 Revision: 0 Page 6 of 70 Type

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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Date: 3/25/2023

Description

Notes

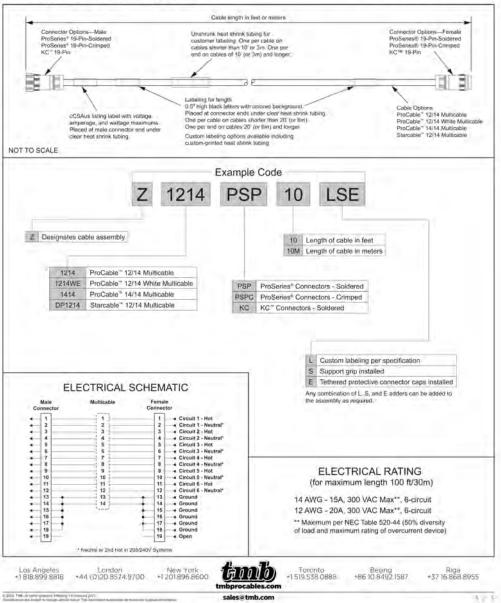
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ISSUE

6-CIRCUIT MULTICABLE ASSEMBLIES 14-CONDUCTOR / 19-PIN



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	Manufacturer		Part Number							
Fixture Information	ТМВ			Z-1214-PSP-50						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
<u>1</u>	N/A		N/A					NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source	N/A	N/A	1				N/A	BLACK		

Date: 3/25/2023

Pro Cables

6-CIRCUIT MULTICABLE ASSEMBLIES 14-CONDUCTOR / 19-PIN



Connector Options—Male ProSeries® 19-Pin-Solder ProSeries® 19-Pin-Crimp

Connector Options-Female

ProSeries® 19-Pin-Solder ProSeries® 19-Pin-Crimp

KC 19-Pin-Solder

KC** 19-Pin-Solder

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Certifications



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Z-1214-PSP-75

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Part Number Manufacturer

Fixture Iformation Mounting Control Type Input Watts Voltage Ballast/Trans/Drvr N/A N/A NONE Lamp Manufacturer Lamp Info/Part # # Lamps Lamp Watts Color/CCT Finish **BLACK** N/A N/A N/A

Pro Cables

6-CIRCUIT MULTICABLE ASSEMBLIES 14-CONDUCTOR / 19-PIN

ProCable™ 6-Circuit Multicables

PC1214T

Extra heavy-duty portable (indoor/outdoor) 12 AWG (3.3mm²), 14-conductor, 600V 105C round cable with PVC thermoplastic insulation (UE 1015) jacketed in black, proprietary pressure-extruded thermoplastic compound (UL/cUL, style 2586). Full specifications at: https://tmb.com/docs/procable/pdf/ProCable-LTR-web.pdf

Extra heavy-duty portable (indoor/outdoor) 12 AWG (3.3mm²), 14-conductor (UL 1581), 600V 105C round cable with PVC thermoplastic insulation (UL 1015) jacketed in white, proprietary pressure-extruded thermoplastic compound (UL/cUL, style 2586). Full specifications at: https://tmb.com/docs/procable/pdf/ProCable-LTR-web.pdf

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	Manufacturer		Part Number							
Fixture Information	ТМВ			Z-1214-PSP-75						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	N/A		N/A					NONE		
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A	1				N/A	BLACK		

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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Description

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

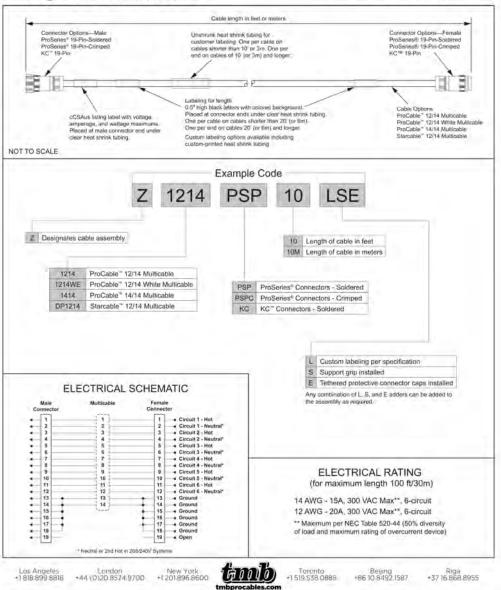
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6-CIRCUIT MULTICABLE **ASSEMBLIES** 14-CONDUCTOR / 19-PIN



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	Manufacturer		Part Number							
Fixture Information	ТМВ			Z-1214-PSP-75						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	N/A		N/A					NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A	1				N/A	BLACK		
		•						·		

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2024 Lighting Acquisition

BD

Pro Cables

6-CIRCUIT BREAK-IN/BREAK-OUT MULTICABLE ASSEMBLIES

Description

Featuring ProSeries" and KC" 19-pin connectors, a comprehensive line of B(eak-in/Break-out assemblies are available with a variety of connector options and rugged 12 AWG C3 Type SJOOW cable hard usage. Highly customizable. Pro Cables Break-in/Break-out assemblies are in a class of their own.

- . Expertly constructed and clearly labeled for reliable, easy use.
- Available in staggered, straight or custom configurations, built to your specs as required
- Unique to TMB, our Pro Cables assemblies made in North America are cCSAus Listed for hard usage, fully compliant with NEC codes for use in stage, studio and event applications

Applications

ancert tours; Theatre; Motion Pictures; Television production

Available Cables

12 AWG 3C Type SJOOW Hard Usage 14 AWG 3C Type SJOOW Hard Usage 16 AWG 3C Type SJOOW Hard Usage

Available 19-Pin Connectors

ProSeries 19-Pin KC 19-Pin

Available Circuit Connectors

Hubbell" NEMA L5-20 20A Twist-Lock-All Black Hubbell" NEMA L6-20 20A Twist-Lock-All Black Hubbell" NEMA 5-15 15A Edison-All Black Hubbell" NEMA 5-20 20A Edison-All Black Neutrik TRUE 1 TOP" ProPin* 20A Stage Pin



Certifications



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Part Number Manufacturer Fixture nformation Z-BO6-PS-SP-ST-12 TMB Mounting Control Type Input Watts Voltage Ballast/Trans/Drvr N/A N/A NONE Lamp Manufacturer Lamp Info/Part # # Lamps Lamp Watts Color/CCT Finish **BLACK** N/A N/A N/A

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Pro Cables

6-CIRCUIT BREAK-IN/BREAK-OUT MULTICABLE ASSEMBLIES

Type SJOOW Cable

Type SIOOW cables are widely-used, general-purpose partable power cables, available under various brands from various manufacturers. The SIOOW cables used in TMB Pra Cables' assemblies are typically General", Southwire", or TF" brand, although we may use other quality brands as circumstances dictate. SIOOW Cables are all UL Listed for hard usage.

Heavy-duty portable (indoor/outdoor) 3-conductor, 300V round cable, with black obrasion-, weather-, water-, and UV-resistant rubber jacket Stranded bare copper conductors. Conductor color code: black, white, green. Temperature range: -40° to $+90^{\circ}$ C. Assemblies CSA Listed for hard usage.

Size	No. of Conductors	Stranding	Nom, Insulati	on Thickness	Nom, Overall Diameter App		Approx. Weight	Current Max.	
AWG		#/AWG	Inch	mm	Inch	mm	Lbs/1Kft	Amps	
12	3	65/30	0.030	0.76	0.43	10.9	131	25	
14	3	41/30	0.030	0.76	0.36	9.2	88	18	
16	3	26/30	0.030	0.76	0,33	8.4	66	13	
	AWG 12 14	Conductors AWG 12 3 14 3	AWG #/AWG 12 3 65/30 14 3 41/30	Conductors AWG #/AWG Inch 12 3 65/30 0.030 14 3 41/30 0.030	Conductors AWG #/AWG Inch mm 12 3 65/30 0.030 0.76 14 3 41/30 0.030 0.76	Conductors AWG #/AWG Inch mm Inch 12 3 65/30 0.030 0.76 0.43 14 3 41/30 0.030 0.76 0.36	Conductors AWG #/AWG Inch mm Inch mm 12 3 65/30 0.030 0.76 0.43 10.9 14 3 41/30 0.030 0.76 0.36 9.2	Conductors AWG #/AWG Inch mm Inch mm Lbs/1Kft 12 3 65/30 0.030 0.76 0.43 10.9 131 14 3 41/30 0.030 0.76 0.36 9.2 88	

^{*} Ampacities based on NEC Table 400.5(A)(1). Green conductor for grounding only



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Part Number Manufacturer Fixture Iformation Z-BO6-PS-SP-ST-12 TMB Mounting Control Type Input Watts Voltage Ballast/Trans/Drvr N/A N/A NONE Lamp Manufacturer Lamp Info/Part # # Lamps Lamp Watts Color/CCT Finish **BLACK** N/A N/A N/A

Project: 2401 Revision: 0 Page 12 of 70 Date: 3/25/2023

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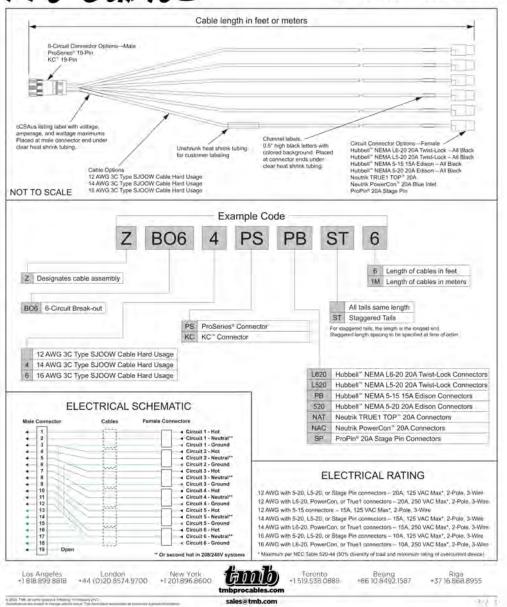
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Descript

Pro Cables

6-CIRCUIT BREAK-OUT MULTICABLE ASSEMBLIES



Contact:
Alana Shepherd
ashepherd@uidaho.edu
917 830 5922

2024 Lighting Acquisition

BD

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	Manufacturer		Part Number						
Fixture Information	ТМВ		Z-BO6-PS-SP-ST-12						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr	
<u></u>	N/A		N/A					NONE	
rce	Lamp Manufacturer	Lamp Info	p/Part # # Lamp		Lamp Wat	ts Co	lor/CCT	Finish	
Source	N/A	N/A	\				N/A	BLACK	
	-								

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	Manufacturer		Part Number							
Fixture Information	TMB			Z-BI6-PS-SP-6						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
트	N/A		N/A					NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A	1				N/A	BLACK		
	·		•							

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2024 Lighting Acquisition

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Pro Cables

6-CIRCUIT BREAK-IN/BREAK-OUT MULTICABLE ASSEMBLIES

Type SJOOW Cable

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Part Number	Size No. of Conductor		Stranding Nom, Insulation Thick		on Thickness	Nom, Over	all Diameter	Approx. Weight	Current Max."	
	AWG		#/AWG	Inch	mm	Inch	mm	Lbs/1Kft	Amps	
WSJO123	12	3	65/30	0.030	0.76	0.43	10.9	131	25	
WSJO143	14	3	41/30	0.030	0.76	0.36	9.2	88	18	
WSJO163	16	3	26/30	0.030	0.76	0.33	8.4	66	13	

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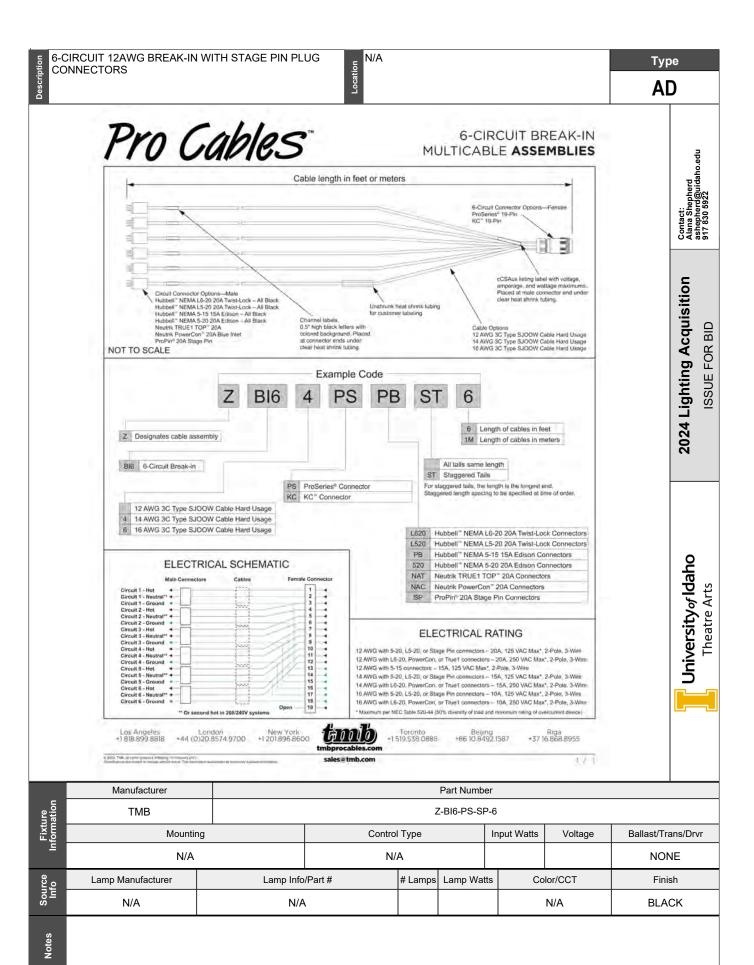
	Manufacturer		Part Number							
Fixture Information	ТМВ		Z-BI6-PS-SP-6							
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	N/A		N/A					NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source	N/A	N/A	A				N/A	BLACK		

Project: 2401 Revision: 0 Page 15 of 70 Date: 3/25/2023

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Beam Control





Barndoors provide adjustable beam control. Movable doors can be set to cut off stray beams where needed, such as off of scenery or projection screens.

PART NUMBER	NAME	A	В	С
2230	Gantom DMX FL	1.1/4"	1.1/4"	3/4
2240	Gantom Precision Z	1 1/4"	1 1/4"	3/4"
2220	Gantom 1	2 1/2"	2 1/2"	1 3/4"
2574	S4 Mini, Black	2.76"	2.76"	2"
2599	D-22	5,55"	5.55	4.95"
2488	S4 PAR/PARNel*	7.1/2"	7 1/2"	6 3/4"
2488S	S4 PAR/PARNel (short)	7 1/2"	7 1/2"	6 3/4"
2568	S4 Fresnel 8 Leaf	7 1/2"	7 1/2"	6 3/4"
2561	Altman AP150	7.88"	7.88	7.18"
2500	6 1/4"	6 1/4"	6 1/4"	5 1/4"
2588	D-60	8 7/8"	8 7/8"	-8"
2496	104	8 7/8"	8 7/8"	8"
2554	Selador 11*	10.5/8"	4 1/16"	-
2542	KREIOS® FL 60W and FLx 90W	12"	9.5"	10"
510 or 510C	Philips SL Nitro	18 1/4"	3 1/4"	14 1.2
2489	185mm	185mm	185mm	171mm

*Fits D-40

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	Manufacturer				Part Numb	er		'
Fixture Information	CITY THEATRICAL				2488			
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr
Inf	N/A		N/A					NONE
rce	Lamp Manufacturer	Lamp Info	p/Part # # Lamps Lamp Wa			ts Co	olor/CCT	Finish
Source	N/A	N/A	1				N/A	BLACK

Project: 2401 Revision: 0 Page 17 of 70 Date: 3/25/2023

Beam Control

Standard Half Top Hats







Half Top Hats mask the beam on one side, and allow max light output on the other side. They have a black flocked interior.

PART NUMBER	NAME	A	В	С	D
2572	S4 Mini	2.76"	2.76"	2.3"	2.3"
2573	Short S4 Mini	2.76"	2.76"	1.5"	2.3'
2465	PAR 16	2 7/8*	2 7/8"	2*	2"
2466	PAR 20	3 1/4"	3 1/4"	2 1/2"	2 1/2"
2467	3" Fresnel	3 3/4*	3 3/4"	3"	3"
2464	3 1/2" Ellipsoidal	4 1/8"	4 1/8"	3 1/2"	3 1/2"
2614	ColorSource Spot Jr.	5.45"	5.45"	-4-	4.1
2591	D-22	5.55"	5.55"	3"	4.95"
120-	ColorBlast 6, White	5 5/8"	4 5/8"	3,	
120- 000010-04	ColorBlast 6, Black	5 5/8*	4 5/8*	3"	
2460	S4, SL, SH, PC*	6 1/4"	6 1/4"	5"	5"
2441	Short S4, SL, SH, PC*	6 1/4"	6 1/4"	3"	5"
2420	6" Ellipsoidal	7 1/2"	7 1/2"	6"	6"
2482	S4 PAR**	7 1/2*	7 1/2"	6"	6 3/4"
2482S	Short S4 Par	7 1/2"	7 1/2"	3*	6 3/4"
2492	S4 PAR Round Frame**	7 1/2"	7 1/2"	6"	6 3/4"
2522	Altman AP150	7.785	8.25"	3"	7.11
2582	D-60	8 7/8"	8 7/8"	6*	8"
2463S	Short PAR 64 (Altman, L&E)	10*	24"	24"	10"
2463	PAR 64 (Altman and L&E)	10°	10"	8°	8"
2462	S4 10°, SL 10°	12"	12"	10"	10"
120- 000009-03	ColorBlast 12, White	12 1/2"	5 3/8"	3"	
120- 000009-04	ColorBlast 12, Black	12 1/2*	5 3/8"	3*	
2461	S4 5°	14"	14"	12"	12"
2468	SL 5°	16"	16"	14"	14"
2469	17.5"	17 1/2"	17 1/2"	15 1/2"	15 1/2"
2442	125mm	125mm	125mm	100mm	100mm
2444	185mm	185mm	185mm	150mm	150mm
2541	Kreios FL 60w and FLx 90w	239mm	239mm	108mm	156mm
2446	245mm	245mm	245mm	205mm	205mm





- * Source Four, Strand SL, Shakespeare, and Pacific ellipsoidals (19-50°)
- ** These accessories can also be used with S4 PARNel,
- S4 Zoom fixtures, S4 14", and ETC D-40.

Note: We do not recommend the use of 5" long accessories in 50° lens tubes. We do not recommend the use of any accessories in 70° or 90° lens tubes. Extreme loss of light will occur.

800.230.9497 or 201.549.1160

		000.	20.01071101112011010				51		
	Manufacturer				Part Number	er			
Fixture Information	CITY THEATRICAL				2460				
Fixt	Mountii	ng	Contro	I Туре		Input Watts	Voltage	Ballast/Tra	ans/Drvr
_=	N/A		N/	A				NON	IE
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	s Co	olor/CCT	Finis	sh
Sou	N/A	N/A	1				N/A	BLAG	CK

Project: 2401 Revision: 0 Page 18 of 70 Date: 3/25/2023

2024 Lighting Acquisition

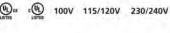
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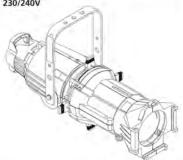
University of Idaho



Source Four® 19°

Ellipsoidal Series





SPECIFICATIONS

PHYSICAL

ETC®

- · Rugged, die cast aluminum construction
- Rotating shutter assembly ±25°
 20 gauge stainless steel shutters in a tri-plane assembly
- Interchangeable lens tubes with smooth-running teflon guides provide nine user-fit field angle options
- Thermally insulated rear handle
 High impact, thermally insulated knobs and shutter handles
- · Two accessory slots and a top mounted, gel frame retainer
- Steel yoke with two mounting positions
 Positive locking single-clutch fixture body
- Slot for glass or stainless steel patterns
 Wide accessory slot with sliding cover for motorized pattern
- devices or optional ins

 UL and cUL Listed

ELECTRICAL

- 115-240V, 50/60Hz
 High temperature 3–conductor 36" leads in a glass fiber
- Supports ETC Dimmer Doubling™ technology

LAMP

- HPL compact tungsten filament contained in a krypton-filled quartz envelope (see table for suitable lamp types)
- Patented filament geometry makes for extremely efficient light collection and transmission
- Integral die cast aluminum heat sink lamp base

SPECIFICATIONS

OPTICAL

- · Re-optimized optical system for improved photometric
- performance and field uniformity Projector-quality, high contrast aspheric lens
- . Optional enhanced definition lens tube available for even higher image quality.
- · Faceted borosilicate reflector with dichroic cold mirror coating removes greater than 90% infrared radiation (heat) and reflects greater than 95% of visible light
- Reflector secured with anti-vibration shock mounts
 Lens(es) secured with anti-vibration shock mounts
- Tool free, positive locking X, Y and Z lamp centering adjustments, unaffected by relamping

- Beam edge continually adjustable hard-to-soft
 Interchangeable lens barrels permit selection of 5°, 10′, 14°, 19°, 26°, 36°, 50°, 70° and 90° field angles as well as 19°, 26°, 36°, and 50° EDLT lenses

ORDERING INFORMATION

Source Four

MODEL	DESCRIPTION
419	19' ellipsoidal (black)
419-1	19° ellipsoidal (white)

Connector Designation

MODEL	DESCRIPTION
-A	Parallel-blade U-ground connector
-B	Two-pin and ground, 20 amp connector
-C	Grounded, 20 amp, twistlock connector
-M	Dimmer Doubling Connector (NEMA L515P)

See back page for Source Four Accessories

1314

	Manufacturer				Part Number	er		
Fixture Information	ETC		419-B+400SC					
Fixt	Mountin	g	Control	I Туре		Input Watts	Voltage	Ballast/Trans/Drvr
드	C-CLAM	1P	LIN	IE		750 W	120	NONE
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts C	olor/CCT	Finish
Sou	USHIO	HPL7	'50	1	750 W	;	3200K	BLACK

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Date: 3/25/2023

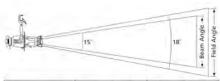
Source Four® 19°

Ellipsoidal Series

PHOTOMETRICS

ETC®

Photometric data below is measured with an HPL 750W/115V 300 hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp, listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF.



Throw Distance (d)	25'	40'	55'	70'
	7.6m	12,2m	16.7m	21.3m
Field Diameter	8'	13'	18'	22'
	2.4m	3.9m	5.4m	6.8m
Illuminance (fc)	392	153	81	50
Illuminance (lux)	4.217	1.648	872	538

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

For Field diameter at any throw distance, multiply the throw distance by .32 For Beam diameter at any throw distance, multiply the throw distance by .26

> Iso-Illuminance Diagram (Flat Surface Distribution)

Go to http://www.etcconnect.com/downloads.asp

Source Four 19'(cosine)

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
19"	243,520	11,180	8,785	51.1%	14.9

Cosine Candela Plot

Degrees

Metric Conversions. For Meters multiply feet by .3048. For Lux multiply footcandles by 10,76



Lot 4

	Manufacturer				Part Number	er		
Fixture Information	ETC		419-B+400SC					
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr
드	C-CLAM	IP	LIN	IE		750 W	120	NONE
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish
Source	USHIO	HPL7	50	1	750 W	3	200K	BLACK

Source Four® 19°

Ellipsoidal Series

LAMPS.

To determine Candela (Cd) or Lumens (Lm) for any other HPL lamp, multiply the Candela or Lumen value by the appropriate multiplying factor (CdMF or LmMF) shown for that lamp in the table below.

ETC Part #	Lamp Code	Watts	Volts	Initial Lumens	Color Temp. K	Average Rated Life	19° Cd MF	19° Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500	.64	.74
RT113	HPL 575/115**	575	115	16,520	3,250	300	.85	.82
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.56	156
RT142	HPL 375/115	375	115	10,540	3,250	300	.71	.53
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.49	.40
N/A	HPL 750/120	750	120	21,900	3,250	300	1.00	1.00
N/A	HPL 750/120X	750	120	16,400	3,050	1,500	.64	.74
RT115	HPL 575/120	575	120	16,520	3,250	300	.85	:82
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.56	.56
BT112	HPL 550/77*	550	77	16,170	3,250	300	.87	.81
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.59	.56
RT160	HPL 750/230**	750	230	19,750	3,200	300	.64	.70
N/A	HPL 750/230X	750	230	15,600	3,050	1,500	.40	.55
RT129	HPL 575/230**	575	230	14,900	3,200	400	:55	.53
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.38	.42
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.30	.28
N/A	HPL 750/240	750	240	19,750	3,200	300	.64	.70
N/A	HPL 750/240X	750	240	15,600	3,050	1,500	.40	.55
RT130	HPL 575/240	575	240	14,900	3,200	400	:52	.53
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.36	.42
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	30	.28

Source Four is rated for 750W maximum

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition ISSUE FOR BID

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	Manufacturer				Part Number	er		
Fixture Information	ETC			4	419-B+400S	SC		
Fixt	Mountin	9	Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr
트	C-CLAN	Р	LIN	ΙE		750 W	120	NONE
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish
Source Info	USHIO	HPL7	50	1	750 W	3	200K	BLACK
		_					-	_

^{*77} Volt HPL lamps are for use with ETC Dimmer Doubling technology only

^{**}Photometric data was prepared using a production future and the Frometric CCD measurement system. Fixture adjusted for cosine distribution and tested with calibrated large at rated voltage. All data normalized to normal large lumins in accordance write its LM-73-04. Bishing performed at ETC West, Hollywood, CA. All other multiplying factors extrapolated from primary test data.

For links to photometry file downloads (IES LM-63-02 formal) go to www.etcconnect.com

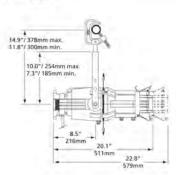
HFL Specified Tolerances: Watts 4/-5%, Lumens 4/-7%, Average life 4/-10%, Color Temperature 4/-50K

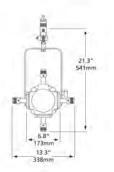
[&]quot;N/A" lamps are not available for purchase from STC. Contact your Dealer for purchase.

Source Four® 19°

Ellipsoidal Series

PHYSICAL





Source Four Weights'

MODEL	WEI	GHT	SHIPPING	WEIGHT
	lbs	kgs	lbs	kgs
19"	14	6.4	20	9.1

Mincludes 2.3 lbs for C-clamp

ORDERING INFORMATION

Continued from front page

Source Four Accessories

MODEL	DESCRIPTION
419LT	19" lens tube with lens installed (black)
419LT-1	19" lens tube with lens installed (white)
419EDLT	19' Enhanced Definition Lens Tube complete (black)
419EDLT-1	19' Enhanced Definition Lens Tube complete (white)
400CC	C-clamp (included)
400PH-A	Pattern holder (A size)
400PH-B	Pattern hölder (B siże)
400PH-G	Glass pattern holder
400SC	Safety cable
400RS	Drop-in iris
400CF	Colortrame (6.25") (included)
400DN	Donut (6.25")
400TH	Top hat
400HH	Half hat
400GE	Gel extender (Recommended for 19° and 26° only)
407GE	Conical gel extender (requires 407CF below)
407CF	7.5" Square color frame (Required for 14°, 70° 90° and 407GE)
400FB	Source Four Fixture Body, Single Clutch

Note: For colors other than black or white, please call ETC.

Source Four products are protected by one or more of the following patents:

U.S.	USRE36,3316, US5,345,371, US6,092,914 and US5,775,799
U.K.	GB0592589, GB0673488, 99930527.9*
Germany	DE0592589, GB0673488, 99930527.9*
Japan	JP2,501,772

** European patent application number



Notes

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	Manufacturer			Part Number	er				
Fixture Information	ETC		419-B+400SC						
Fixt	Mountin	Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	C-CLAN	LINE			750 W	120	NONE		
rce Fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	USHIO	HPL7	'50	1	750 W	3	200K	BLACK	

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Source Four® 26°

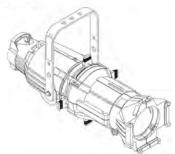


ETC®



100V 115/120V 230/240V





SPECIFICATIONS

PHYSICAL

- Rugged, die cast aluminum construction
 Rotating shutter assembly ±25°
- 20 gauge stainless steel shutters in a tri-plane assembly
 Interchangeable lens tubes with smooth-running teflon
- guides provide nine user-fit field angle options

 Thermally insulated rear handle
- High impact, thermally insulated knobs and shutter handles
 Two accessory slots and a top mounted, gel frame retainer
- · Steel yoke with two mounting positions
- Positive locking single-clutch fixture body
 Slot for glass or stainless steel patterns
- Wide accessory slot with sliding cover for motorized pattern devices or optional ins
- UL and cUL Listed

ELECTRICAL

- 115-240V, 50/60Hz
 High temperature 3-conductor 36" leads in a glass fiber
- Supports ETC Dimmer Doubling[™] technology

LAMP

- HPL compact tungsten filament contained in a krypton-filled quartz envelope (see table for available lamp options)
- Patented filament geometry makes for extremely efficient light collection and transmission
- · Integral die cast aluminum heat sink lamp base

SPECIFICATIONS

- Re-optimized optical system for improved photometric performance and field uniformity

- Projector-quality, high contrast aspheric lens
 Optional enhanced definition lens tube available for even higher image quality

 Faceted borosilicate reflector with dichroic cold mirror coating
- removes greater than 90% infrared radiation (heat) and reflects greater than 95% of visible light.
- Reflector secured with anti-vibration shock mounts
 Lens(es) secured with anti-vibration shock mounts
- Tool free, positive locking X, Y and Z lamp centering
- adjustments, unaffected by relamping Beam edge continually adjustable hard-to-soft
- Interchangeable lens barrels permit selection of 5', 10', 14', 19', 26', 36', 50', 70', and 90° field angles as well as 19', 26', 36', and 50' EDLT lenses

ORDERING INFORMATION

Source Four

MODEL	DESCRIPTION
426	26' ellipsoidal (black)
426-1	26' ellipsoidal (white)

Connector Designation

MODEL	DESCRIPTION					
-A	Parallel-blade U-ground connector					
-B	Two-pin and ground, 20 amp connector					
-C	Grounded, 20 amp, twistlock connector					
-M	Dimmer Doubling Connector (NEMA L515P)					

See back page for Source Four Accessories

1314

	Manufacturer		Part Number							
Fixture Information	ETC		426-B+400SC							
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	C-CLAMP		LINE			750 W	120	NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish		
Source Info	USHIO	HPL7	'50	1	750 W	3	200K	BLACK		

Project: 2401 Revision: 0 Page 23 of 70 Date: 3/25/2023

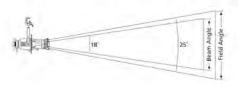
Source Four® 26°

Ellipsoidal Series

PHOTOMETRICS

ETC®

Photometric data below is measured with an HPL 750W/11SV 300 hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp, listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF.



Throw Distance (d)	15'	30'	45'	60'
	4.6m	9.1m	13.7m	18.1m
Field Diameter	6.7'	13.4°	20.1°	26.8°
	2.0m	4.1m	6.1m	8.2m
Illuminance (fc)	783	196	87	49
Illuminance (lux)	8,432	2,108	937	527

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

For Field diameter at any throw distance, multiply the throw distance by 45

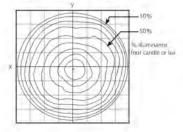
For Beam diameter at any throw distance, multiply the throw distance by .32

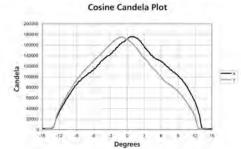
Source Four 26'(cosine)

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
26'	176,255	13,690	9,040	62.5%	18.3

Metric Conversions: For meters, multiply feet by 3048 For Lux multiply footcandles by 10.76

(Flat Surface Distribution)





Complete IES photometry, data files (LM-63-02 format) may be downloaded from the ETC website, Go to http://www.etcconnect.com/downloads.asp

Lot A

	Manufacturer		Part Number						
Fixture Information	ETC		426-B+400SC						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr	
드	C-CLAMP		LINE			750 W	120	NONE	
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	USHIO	HPL7	750	1	750 W	3	200K	BLACK	

Project: 2401 Revision: 0 Page 24 of 70 Date: 3/25/2023

Source Four® 26°

Ellipsoidal Series

LAMPS

To determine Candela (Cd) or Lumens (Lm) for any other HPL lamp, multiply the Candela or Lumen value by the appropriate multiplying factor (CdMF or LmMF) shown for that lamp in the table below

ETC Part #	Lamp Code	Watts	Volts	Initial Lumens	Color Temp. K	Average Rated Life	26° Cd MF	26° Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500	.64	.74
RT1.13	HPL 575/115**	575	115	16,520	3,250	300	.78	82
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.56	156
RT14Z	HPL 375/115	375	115	10,540	3,250	300	.66	.52
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.45	.40
N/A	HPL 750/120	750	120	21,900	3,250	300	1.00	1.00
N/A.	HPL 750/120X	750	120	16,400	3,050	1,500	.64	.74
RT115	HPL 575/120	575	120	16,520	3,250	300	.78	:82
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.56	.56
RT112	HPL 550/77*	550	77	16,170	3,250	300	.77	.77
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.59	.56
RT160	HPL 750/230**	750	230	19,750	3,200	300	.64	.75
N/A	HPL 750/230X	750	230	15,600	3,050	1,500	.40	.59
RT129	HPL 575/230**	575	230	14,900	3,200	400	.53	.61
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.38	.45
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.29	-32
N/A	HPL 750/240	750	240	19,750	3,200	300	.64	.75
N/A	HPL 750/240X	750	240	15,600	3,050	1,500	.40	.59
RT130	HPL 575/240	575	240	14,900	3,200	400	:50	.61
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.36	.45
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	29	.32

Source Four is rated for 750W maximum

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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3 51 4

	Manufacturer		Part Number						
Fixture Information	ETC		426-B+400SC						
Fixt	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr		
드	C-CLAMP		LINE		750 W	120	NONE		
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	USHIO	HPL7	50	1	750 W	3	200K	BLACK	
		·	·						

^{*77} Voit HPE lamps are for use with ETC Dimmer Doubling technology only

^{**}Photometric data was prepared using a production future and the frometric CCD measurement system. Taxture adjusted for costine distribution and tested with calibrated lamp at rated wildage. All data normalized to normal lamp lumens in accordance with itS LM-73-04. Testing performed at ETC West, Hollywood, CA. All other multiplying factors extrapolated from printary test data.

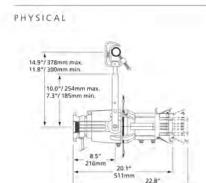
For links to photometry file downloads (IES LM-63-02 former) go to www.etcconnect.com

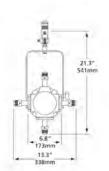
HFL Specified Tolerances: Watts +/- 5%, Lumens +/-7%, Average life +/-30%, Color Temperature +/- 50K.

[&]quot;N/A" lamps are not available for purchase from ETC. Contact your Dealer for purchase.

Source Four® 26°

Ellipsoidal Series





ORDERING INFORMATION

Control of the Personal

Source Four Accessories

MODEL	DESCRIPTION
426LT	26' lens tube complete (black)
426LT-1	26° lens tube complete (white)
426EDLT	26° Enhanced Definition Lens Tube complete (black)
426EDLT-1	26° Enhanced Definition Lens Tube complete (white)
400CC	C-clamp (included)
400PH-A	Pattern holder (A size)
400PH-B	Pattern holder (B size)
400PH-G	Glass pattern holder
400SC	Safety cable
400RS	Drop-in iris
400CF	Colorframe (6.25") (included)
400DN	Danut (6.25")
400TH	Top hat
400HH	Half hat
400GE	Gel extender (Recommended for 19° and 26° only)
407GE	Conical gel extender (requires 407CF below)
407CF	7.5" Square color frame (required for 14°, 70° 90° and 407GE)
400FB	Source Four fixture body, single clutch

Note: For colors other than black or white, please call ETC

Source Four Weights'

MODEL	WE	GHT	SHIPPING WEIGHT		
	lbs	kgs	lbs	kgs	
26:	14	6.4	20	9.1	

*Includes 2.3 lbs for C-clamp

Source Four products are protected by one or more of the following

U.S.	USRE36,3316, US5,345,371, US6,092,914 and US5,775,799
U.K.	GB0592589, GB0673488, 99930527.9*
Germany	DE0592589, GB0673488, 99930527.9*
Japan	JP2,501,772

* European paterit application number



Corporate Readquarters - 3031 Testiand Vev. 92. PD Soc 40/0979. Multilleror Wt 3562 70/39 (5.6.4 16.4 50) 831 4110 - Rob. +1 208 836 1736 Landon, UK * Unit 26-27, Victima Indicated State, Victima Rosel, Evaluar W3 6UU, UK * 10 -444 (9/20 8596 1000 • 7 oz. 444 (6/20 8596 2000 • Robert State) 1 - Robert State) 1 - Robert State, 3 - Robe

4 61.4

	Manufacturer		Part Number							
Fixture Information	ETC			426-B+400SC						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	C-CLAMP		LINE			750 W	120	NONE		
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Sou	USHIO	HPL7	HPL750		750 W	3	200K	BLACK		

Jotes

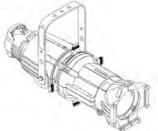
Source Four® 36°





100V 115/120V 230/240V





SPECIFICATIONS

PHYSICAL

- · Rugged, die cast aluminum construction

- Rotating shutter assembly ±25'
 20 gauge stamless steel shutters in a tri-plane assembly Interchangeable lens tubes with smooth-running teflor guides provide nine user-fit field angle options
 Thermally insulated rear handle.
- High impact, thermally insulated knobs and shutter handles
 Two accessory slots and a top mounted, gel frame retainer
- Steel yoke with two mounting positions
 Positive locking single-clutch fixture body
- Slot for glass or stainless steel patterns
- Wide accessory slot with sliding cover for motorized pattern devices or optional iris
- . UL and cUL Listed.

ELECTRICAL

- 115-240V, 50/60Hz
- High temperature 3-conductor 36" leads in a glass fiber outer sleeve
- Supports ETC Dimmer Doubling" technology

LAMP

- 750W maximum
- HPL compact tungsten filament contained in a krypton-filled quartz envelope (see table for suitable lamp types)
- Patented filament geometry makes for extremely efficient light collection and transmission
- . Integral die cast aluminum heat sink lamp base

SPECIFICATIONS

- Re-optimized optical system for improved photometric performance and field uniformity
- Projector-quality, high contrast meniscus front lens and bi-convex rear lens
- Optional enhanced definition lens tube available for even. higher image quality
- Faceted borosilicate reflector with dichroic cold mirror coating removes greater than 90% infrared radiation (heat) and
- reflects greater than 95% of visible light Reflector secured with anti-vibration shock mounts
- Lens(es) secured with anti-vibration shock mounts
 Tool free lamp positive locking X, Y, and Z lamp centering adjustment knobs, unaffected by relamping
- Beam edge continually adjustable hard-to-soft
 Interchangeable lens barrels permit selection of 5°, 10°, 14°, 19°, 26°, 36°, 50°, 70° and 90° field angles as well as 19°, 26°, 36', and 50' EDLT lenses

ORDERING INFORMATION

Source Four

MODEL	DESCRIPTION
436	36° ellipsoidal (black)
436-1	36' ellipsoidal (white)

Connector Designation

Use Suffixes below to specify Factory-Fitted Connector type

MODEL	DESCRIPTION
-A	Parallel-blade U-ground connector
-B	Two-pin and ground, 20 amp connector
-Ç	Grounded, 20 amp, twistlock connector
-M	Dimmer Doubling Connector (NEMA L515P)

See back page for Source Four Accessories



1314

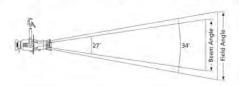
	Manufacturer		Part Number							
Fixture Information	ETC		436-B+400SC							
Fixt	Mountin	Control	Control Type In			Voltage	Ballast/Trans/Drvr			
드	C-CLAMP		LINE			750 W	120	NONE		
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	USHIO	HPL7	HPL750		750 W	3	200K	BLACK		

Source Four® 36°

Ellipsoidal Series

PHOTOMETRICS

ETC®



Throw Distance (d)	15'	25'	35'	45'
	4.6m	7.6m	10,7m	13.7m
Field Diameter	9.2°	15.3°	21.4°	27.6
	2.8m	4.7m	6.5m	8.4m
Illuminance (fc)	404	145	74	45
Illuminance (lux)	4,348	1,565	7.99	483

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

For Field diameter at any distance, multiply distance by $\hat{\sigma})$

For Beam diameter at any distance, multiply distance by 47

Iso-Illuminance Diagram

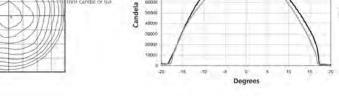
Photometric data below is measured with an HPL 750W/11SV 300 hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp, listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF



Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
36	90,885	14,240	10,510	65%	19

Metric Conversions, For Meters multiply feet by 3048.
For Lux multiply footcandles by 10,76

(Flat Surface Distribution)	Cosine Candela	Plot
Y	100000	
1000	90001	
5D%	1000	
% Mulluminan	ce 70000	1
foot candle	or liux <u>m</u> 60031	1



Complete IES photometry, data files (LM-63-02 format) may be downloaded from the ETC website. Go to http://www.etcconnect.com/downloads.asp

2 of 4

	Manufacturer		Part Number							
Fixture formation	ETC			436-B+400SC						
Fixt	Mountin	Control Type			Input Wa	tts Voltage	Ballast	/Trans/Drvr		
ΙÚ	C-CLAMP		LINE			750 W	120	N	IONE	
Source Info	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts	s Color/CCT		inish	
Sou	USHIO	HPL7	750	1	750 W		3200K	ВІ	LACK	

Source Four® 36°

Ellipsoidal Series

LAMPS.

To determine Candela (Cd) or Lumens (Lm) for any other HPL lamp, multiply the Candela or Lumen value by the appropriate multiplying factor (CdMF or LmMF) shown for that lamp in the table below.

ETC Part #	Lamp Code	Watts	Volts	Initial Lumens	Color Temp. K	Average Rated Life	36° Cd MF	36° Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500	.64	.74
RT113	HPL 575/115**	575	115	16,520	3,250	300	.67	.75
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.56	.56
RT142	HPL 375/115	375	115	10,540	3,250	300	.56	.48
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.39	.36
N/A	HPL 750/120	750	120	21,900	3,250	300	1.00	1.00
N/A	HPL 750/120X	750	120	16,400	3,050	1,500	.64	.74
RT115	HPL 575/120	575	120	16,520	3,250	300	.67	.75
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.56	.56
RT112	HPL 550/77*	550	77	16,170	3,250	300	.68	.73
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.59	.56
RT160	HPL 750/230**	750	230	19,750	3,200	300	74	.85
N/A	HPL 750/230X	750	230	15,600	3,050	1,500	.46	.67
RT129	HPL 575/230**	575	230	14,900	3,200	400	.63	.65
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.44	.51
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.35	.34
N/A	HPL 750/240	750	240	19,750	3,200	300	.74	.85
N/A	HPL 750/240X	750	240	15,600	3,050	1,500	.46	.67
RT130	HPL 575/240	575	240	14,900	3,200	400	.60	65
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.41	:51
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	35	.34

Source Four is rated for 750W maximum

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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	Manufacturer		Part Number							
Fixture Information	ETC		436-B+400SC							
Fixt	Mounting	Control Type Ir			Input Watts	Voltage	Ballast/Trans/Drvr			
드	C-CLAMP		LINE		750 W	120	NONE			
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Watts Co		lor/CCT	Finish		
Source Info	USHIO	HPL7	50	1	750 W	3	200K	BLACK		
		·	·					_		

^{*77} Volt HPL lamps are for use with ETC Dimmer Doubling technology only

^{**}Procometric data was prepared using a production fixture and the Prometric CCD measurement system. Exclure adjusted for cosine distribution and texted with calibrated lamp at raced voltage. All data normalized to normal lamp lumens in accordance with IES LM-73-04. Testing performed at ETC West, Hollywood, CA. All other multiplying factors extrapolated from primary text data.

For links to photometry file downloads (IES LM-63-02 formet) go to www.etcconnect.com

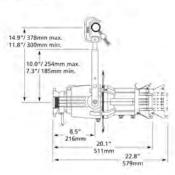
HPL Specified Tolerances: Watts +/- 5%, Lument. +/-7%, Average life +/-10%, Color Temperature +/- 30k

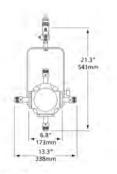
[&]quot;N/A" lamps are not available for purchase from ETC. Contact your Sesier for purchase

Source Four® 36°

Ellipsoidal Series







Source Four Weights'

MODEL	WE	GHT	SHIPPING	WEIGHT
	Ibs	kgs	lbs	kgs
36"	14	6.4	20	9.1

*Includes 2:3 lbs for C-clamp

ORDERING INFORMATION

Source Four Accessories

MODEL	DESCRIPTION					
436LT	36' lens tube with lens installed (black)					
436LT-1	36° lens tube with lens installed (white).					
436EDLT	36° Enhanced Definition Lens tube complete (black)					
436EDLT-1	36° Enhanced Definition Lens tube complete (white)					
400CC	C-clamp (included)					
400PH-A	Pattern holder (A size)					
400PH-B	Pattern holder (B size)					
400PH-G	Glass pattern holder					
400SC	Safety cable					
400RS	Drop-in iris					
400CF	Colorframe (6.25") (included)					
400DN	Donut (6.25")					
400TH	Top hat					
400HH	Half hat					
400GE	Gel extender					
407GE	Conical gel extender					
407CF	7.5" Square color frame (required for 14°, 70° 90° and 407GE)					
400FB	Source Four fixture body, single clutch					

Note: For colors other than black or white, please call FTC

Source Four products are protected by one or more of the following patents:

U,S.	USRE36,3316, US5,345,371, US6,092,914 and US5,775,799
U.K.	GB0592589, GB0673488, 99930527.9*
Germany	DE0592589, GB0673488, 99930527.9*
Japan	JP2;501,772

^{*} European patent application number



Corporate Headquarters • 3031 PreciamI View Itd. P0 Exx 67/979. Millulined Wt 515/2 1979 (ISA • 16 + 1 508 831 4116 • 164 + 1 508 831 4116 • 164 + 1 508 836 1736 Landon, UK • Unit 25-78. Victima Reduction Elsars, vicered Reset Levelum V3 8UU, UK • 16 +44 0702 8796 1000 • 1 as +44 0702 8796 2000 • 80ms, IT • Var Perro brons, 48, 00.055 80ms, Itd. • Var Perro brons, 48, 00.055 80ms, Itd. • Var Perro brons, 48, 00.055 80ms, Itd. • Var Perro brons, 49, 00.04 176, 47, 00.04 150, 47, 00.04 176, 47,

4 61.6

	Manufacturer					er				
Fixture Information	ETC					436-B+400SC				
Fixt	Mountin	g	Control Type			Input Watts	Voltage	Ballast/Trans/Drvr		
드	C-CLAN	1P	LINE		750 W	120	NONE			
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	s Color/CCT		Finish		
Source Info	USHIO	HPL7	HPL750		750 W	3	200K	BLACK		

Source Four® 50°

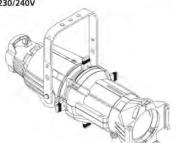
Ellipsoidal Series



ETC®



100V 115/120V 230/240V



SPECIFICATIONS

PHYSICAL

- · Rugged, die cast aluminum construction
- Rotating shutter assembly ±25°
 20 gauge stainless steel shutters in a tri-plane assembly
- Interchangeable lens tubes with smooth-running teflon-guides provide nine user-fit field angle options
- Thermally insulated rear handle
 High impact, thermally insulated knobs and shutter handles
 Two accessory slots and a top mounted, gel frame retainer
- Steel yoke with two mounting positions
 Positive locking single-clutch fixture body
- Slot for glass or stainless steel patterns
 Wide accessory slot with sliding cover for motorized pattern
- devices or optional iris

 UL and cUL Listed

ELECTRICAL

- 115-240V, 50/60Hz
 High temperature 3-conductor 36" leads in a glass fiber.
- · Supports ETC Dimmer Doubling" technology

LAMP

- . HPL compact tungsten filament contained in a kryptonfilled quartz envelope (see table for suitable lamp types)
- Patented filament geometry makes for extremely efficient light collection and transmission
- . Integral die cast aluminum heat sink lamp base

SPECIFICATIONS

OPTICAL

- · Re-optimized optical system for improved photometric performance and field uniformity Projector-quality, high contrast aspheric lens
- Optional enhanced definition lens tube available for even higher image quality
- Faceted borosilicate reflector with dichroic cold mirror coating removes greater than 90% infrared radiation (heat) and reflects greater than 95% of visible light
- Reflector secured with anti-vibration shock mounts
 Lens(es) secured with anti-vibration shock mounts
- Tool free, positive locking X, Y and Z lamp centering adjustments, unaffected by relamping
- Beam edge continually adjustable hard-to-soft
 Interchangeable lens barrels permit selection of 5°, 10°, 14°, 19°, 26°, 36°, 50°, 70° and 90° field angles as well as 19°, 26°, 36°, and 50° EDLT lenses

ORDERING INFORMATION

Source Four

MODEL	DESCRIPTION
450	50° ellipsoidal (black)
450-1	50' ellipsoidal (white)

Connector Designation

MODEL	DESCRIPTION					
-A	Parallel-blade U-ground connector					
-B	Two-pin and ground, 20 amp connector					
-C	Grounded, 20 amp, twistlock connector					
-M	Dimmer Doubling Connector (NEMA L515P)					

See back page for Source Four Accessories

1314

	Manufacturer				Part Number				
Fixture Information	ETC			450-B+400SC					
Fixt	Mountin	Mounting		Control Type			Voltage	Ballast/Trans/Drvr	
드	C-CLAN	1P	LINE		750 W	120	NONE		
rce	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	USHIO	HPL7	HPL750		750 W	3200K		BLACK	

Project: 2401 Revision: 0 Page 31 of 70 Date: 3/25/2023 Source Four 50'(cosine)

45,650

50

-30 -25

Field

Lumens

13,980

Cosine Candela Plot

Degrees

Metric Conversions. For Meters multiply feet by 3048 For Lux multiply footcandles by 10,76

Beam

Lumens

8,600

Efficiency

63.8%

15 20 26 30

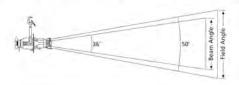
per watt

18.6

PHOTOMETRICS

ETC®

Photometric data below is measured with an HPL 750W/115V 300hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp, listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF



Throw Distance (d)	10'	15°	25'	30'
	3m	4.6	7.6m	9.1m
Field Diameter	9.3°	1.4°	23.3°	27.9°
	2.8m	4.3m	7.1m	8.5m
Illuminance (fc)	457	203	73	51
Illuminance (lux)	4,914	2,184	786	546

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

For Field diameter at any distance, multiply distance by .93

For Beam diameter at any distance, multiply distance by 65

Iso-Illuminance Diagram (Flat Surface Distribution)

Source Four® 50°

Ellipsoidal Series

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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Complete IES photometry data files (LM-63-02 format) may be downloaded from the ETC website, Go to http://www.etcconnect.com/downloads.asp

2 of 4

	Manufacturer		Part Number						
Fixture Information	ETC		450-B+400SC						
Fixt	Mountin	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
드	C-CLAM	IP	LINE			750 W	120	NONE	
rce	Lamp Manufacturer	Lamp Info	Lamp Info/Part # #		Lamp Wat	s Color/CCT		Finish	
Source	USHIO	HPL7	HPL750		750 W	3	200K	BLACK	

Source Four® 50°

Ellipsoidal Series

LAMPS.

To determine Candela (Cd) or Lumens (Lm) for any other HPL lamp, multiply the Candela or Lumen value by the appropriate multiplying factor (CdMF or LmMF) shown for that lamp in the table below.

ETC Part #	Lamp Code	Watts	Volts	Initial Lumens	Color Temp. K	Average Rated Life	50° Cd MF	50° Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500	.64	.74
RT113	HPL 575/115**	575	115	16,520	3,250	300	.79	.76
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.56	156
RT142	HPL 375/115	375	115	10,540	3,250	300	.66	.49
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.46	.36
N/A	HPL 750/120	750	120	21,900	3,250	300	1.00	1.00
N/A	HPL 750/120X	750	120	16,400	3,050	1,500	.64	.74
RT115	HPL 575/120	575	120	16,520	3,250	300	79	.76
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.56	.56
BT112	HPL 550/77*	550	77	16,170	3,250	300	.81	.75
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.59	.56
ŘT160	HPL 750/230**	750	230	19,750	3,200	300	.74	.75
N/A	HPL 750/230X	750	230	15,600	3,050	1,500	.46	:59
RT129	HPL 575/230**	575	230	14,900	3,200	400	.61	.60
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.45	.45
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.34	.31
N/A	HPL 750/240	750	240	19,750	3,200	300	.74	.75
N/A	HPL 750/240X	750	240	15,600	3,050	1,500	.46	:59
RT130	HPL 575/240	575	240	14,900	3,200	400	.58	.60
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.42	.45
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	34	.31

Source Four is rated for 750W maximum

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition

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	Manufacturer		Part Number						
Fixture Information	ETC				450-B+400SC				
Fixt	Mounting	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
드	C-CLAM	P	LINE			750 W	120	NONE	
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part # #		Lamp Wat	ts Co	lor/CCT	Finish	
Source Info	USHIO	HPL7	HPL750		750 W	3	200K	BLACK	
		·	·					_	

^{*77} Volt HPL lamps are for use with ETC Dimmer Doubling technology only

^{**}Photometric data was prepared using a production future and the Frometric CCD measurement system. Fixture adjusted for cosine distribution and tested with calibrated large at rated voltage. All data normalized to normal large lumins in accordance with its LM-73-04. Bishing performed at ETC West, Hollywood, CA. All other multiplying factors extrapolated from primary test data.

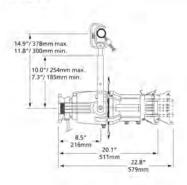
For links to photometry file downloads (IES LM-63-02 formal) go to www.etcconnect.com

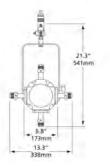
HFL Specified Tolerances: Watts 4/-5%, Lumens 4/-7%, Average life 4/-10%, Color Temperature 4/-50K

[&]quot;N/A" lamps are not available for purchase from STC. Contact your Dealer for purchase.

Ellipsoidal Series







Source Four Weights'

MODEL	WEI	IGHT	SHIPPING WEIGH		
	lbs	kgs	lbs	kgs	
50"	14	6.4	20	9.1	

^{*}Includes 2.3 lbs for C-clamp

ORDERING INFORMATION

Source Four Accessories

MODEL	DESCRIPTION						
450LT	50' lens tube with lens installed (black)						
450LT-1	50° lens tube with lens installed (white).						
450EDLT	50° Enhanced Definition Lens Tube complete (black)						
450EDLT-1	50° Enhanced Definition Lens Tube complete (white)						
400CC	C-clamp (included)						
400PH-A	Pattern holder (A size)						
400PH-B	Pattern holder (B size)						
400PH-G	Glass pattern holder						
400SC	Safety cable						
400RS	Drop-in ins						
400CF	Colorframe (6.25") (included)						
400DN	Donut (6.25")						
400TH	Top hat						
400HH	Half hat						
400GE	Gel extender						
407GE	Conical gel extender						
407CF	7.5" Square color frame (required for 14°, 70°, 90° and 407GE)						
400FB	Source Four fixture body, single clutch						

Note: For colors other than black or white, please call FTC.

Source Four products are protected by one or more of the following

U,S.	USRE36,3316, US5,345,371, US6,092,914 and
U.K.	US5,775,799 GB0592589, GB0673488, 99930527.9*
Germany	DE0592589, GB0673488, 99930527.9*
Japan	JP2;501,772

^{*} European patent application number



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4-61-4

	Manufacturer		Part Number						
Fixture Information	ETC		450-B+400SC						
	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr	
드	C-CLAMP		LINE			750 W	120	NONE	
Source Info	Lamp Manufacturer	Lamp Info)/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish	
	USHIO	HPL7	750	1	750 W	3	200K	BLACK	

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition ISSUE FOR BID

ETC

ColorSource Fresnel V

ColorSource Series





GENERAL INFORMATION

An LED luminaire crafted by lighting experts with a proven history of quality fixtures, ColorSource Fresnel V brings a richness of color, increased brightness, and leading technology at a price point you'll love. Featuring a five-color array of red, green, blue, indigo, and lime, the ColorSource Fresnel V provides soft pastels and bold saturated colors from a single fixture. Control the motorized 13°-44° zoom using DMX or manually from the rear of the fixture. ColorSource Fresnel V also features wireless DMX/RDM control using Multiverse* technology, NFC configuration from your mobile device, and next level brightness, making it the ultimate in affordable wash light technology

FEATURES

- Five-color array (red, green, blue, indigo, and lime)
 Motorized 13-44 degree zoom with DMX and local control
 Simple user interface with seven-segment display
 powerCON* TRUE1* TOP connector
- DMX/RDM in and thru (5-pin XLR)
 Multiverse wireless DMX/RDM
- NFC (near field communication) configuration
 LED droop compensation

- Optically calibrated
 Tour-ready, aluminum housing

- · Universities and schools
- Hospitality
- · Retail

ORDERING INFORMATION

ColorSource Fresnel V

color source	i canci e			
Model	Description	ETL Part Number	CE Part Number	
CSFRESVMV	ColorSource Fresnel V LED Fixture, black	7417A1011	7417A1211	-1

Color options: -1 = white, -5 = silver gray, -8 = custom colors.

Also available without Multiverse wireless control. Contact your dealer for ordering information.

Additional ordering information (including accessories) can be found on pages 6-7

- APPLICATIONS
 Theatres and performance spaces.
 Houses of worship

 - · Exhibition centers
 - Meeting roomsClubs
 - Cafetoriums

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Fixture Information	Manufacturer	Part Number							
	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10						
	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr		
	C-CLAMP		DMX			148 W	120	INTEGRAL ELECT	
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish	
	N/A	N/A	1	1	148 W	F	RGBIL	BLACK	

SUPPLY WITHOUT MULTIVERSE WIRELESS CONTROL OPTION.

Project: 2401 Revision: 0 Page 35 of 70 Date: 3/25/2023

ColorSource Fresnel V

ColorSource Series

PRODUCT SPECIFICATIONS

Source

LED details	44 Lumileds LUXEON® C LEDs				
Max lumens	5330				
Lumens per watt	36				
L70 rating (hours to 70% output)*	54,000 hours				

Color

Colors used	Red, Green, Blue, Indigo , Lime				
Color temperature range	Color mixing				
Calibrated array	Yes				
Red shift	No				

Optical

Beam angle range	13°-44°
Gate size	N/A
Aperture size	190 mm (7.48 in)
Pattern projection	No
Pattern size	N/A
Camera flicker control/Hz range	5,000 Hz (default) and 25,000 Hz (via RDM

Control

5-Pin XLR, Multiverse wireless (optional), and NFC				
DMX-512, RDM, City Theatrical Multiverse (optional), NFC				
4 modes, see page 6				
Yes				
Seven-segment display, three-button interface, Focus encoder				
Yes				
Yes (12)				
Yes (5)				
No				
Yes				
15-bit virtual dimming engine				

Wireless

Band	2.400-2.480 GHz			
Range	100 m indoors, 500 m line of sight (subject to conditions)			
Max receivers	DMX: No limit RDM: Varies by transmitter used Multiverse SHoW Baby®: 585 Multiverse Transmitter: 5,000			
Broadcast power	100 mW			

Electrical

Voltage range	100-240 VAC 50/60 Hz
Input method	powerCON TRUE1 TOP power in and thru
Inrush (first half-cycle)	120 V: 36 A 240 V: 57 A
Fixtures per circuit on standard R20 breaker	9 (link up to 8 via Power Thru connector)* Note: TRUE1 connector rated for 20 A (120 V / 60 Hz) and 16 A (240 V / 50 Hz)
Wattage (typical)	120 V: 148.4 W 230 V: 147.0 W
Current draw	120 V: 1.28 A 230 V: 0.70 A

*Note: All measurements are for 120 V, 60 Hz. Results may vary in different regions.

Thermal

Ambient operating temp	0°C-40° C (32°F-104° F)
Fan (controllable)	Yes (yes)
Droop compensation	Yes
Average dB	22.7 dBA
BTUs/hour (120 V)	508

Physical

Materials	Cast and extruded aluminum
Color options	Black, white, silver, or custom color
Mounting options	Yoke
IP rating	IP20
Weight	6.24 kg (13.75 lb)
Included accessories	Yoke, power cable

Warrant

· · · · · · · · · · · · · · · · · · ·	
Fixture	5 years
LED array	10 years

Regulatory and Compliance

legalatory and compliance					
Approved regulatory standards	cETLus Listed Conforms to UL 1598 & 924 Complies to CSA C22.2 No. 250.0 and 141 CE & UKCA compliant				

*Note: All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. In individual situations, LEDs will be used for different durations and levels. This can eventually lead to minor alterations in color performance, necessitating slight adjustments to presets, cues or programs.

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2024 Lighting Acquisition

University of Idaho



	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt	Mountin	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr
트	C-CLAMP		DMX		148 W	120	INTEGRAL ELECT	
Source	2 c Lamp Manufacturer Lamp Info/l		/Part#	# Lamps	Lamp Watt	s Co	lor/CCT	Finish
Sou	N/A	N/A	1	1	148 W	RGBIL		BLACK

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2024 Lighting Acquisition

ISSUE FOR BID

ColorSource Fresnel V

ColorSource Series

PRODUCT FEATURES



RGBIL ARRAY
The custom five-color blend of LEDs incorporates indigo and lime to increase spectral reach and color depth.



WIRELESS
Multiverse gives you up to 10 universes
of wireless DMX/RDM control. And NFC
configuration is standard with ETC's free
Set Light app on your mobile device.

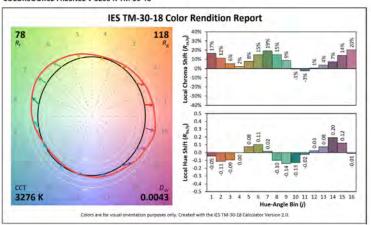


MOTORIZED ZOOM

Control the 13°–44° zoom via DMX or focus it manually from the rear of the fixture.

COLOR METRIC INFORMATION

COLORSOURCE FRESNEL V 3200 K TM-30-18



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	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt	Mountin	g	Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
트	C-CLAMP		DMX		148 W	120	INTEGRAL ELECT	
Source	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	s Color/CCT		Finish
Sou	N/A	N/A		1	148 W	F	GBIL	BLACK

SUPPLY WITHOUT MULTIVERSE WIRELESS CONTROL OPTION.

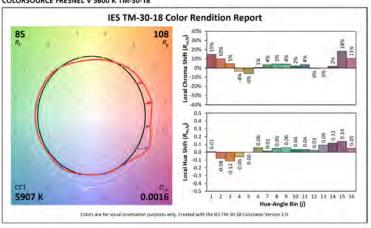
Project: 2401 Revision: 0 Page 37 of 70 Date: 3/25/2023

ColorSource Fresnel V

ColorSource Series

COLOR METRIC INFORMATION

COLORSOURCE FRESNEL V 5600 K TM-30-18



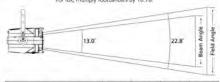
PHOTOMETRY INFORMATION

ColorSource Fresnel V Spot

Mode	Degree	Candela	Field Lumens	Beam Lumens	Power Consumption	Lumens Per Watt
Full On Direct	13	86,166	4,248	2,041	149	28.5
3200 K	13	77,172	3,756	1,803	117.2	32
5600 K	13	76,845	3,741	1,795	131	28.6

Metric conversions: For meters, multiply feet by 0.3048.

For lux, multiply footcandles by 10.76.



Throw Distance (d)	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	30 ft 9.1 m	293.5 ft 89.5 m
Field Diameter	4.0 ft 1.2 m	6.0 ft 1.8 m	8.1ft. 2.5 m	12.1 ft 3.7 m	18
Illuminance (fc)	862	383	215	96	=1=
Illuminance (lux)	9,275	4,122	2,319	1,031	10.76

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

For field diameter at any distance, multiply distance by 0.403. For beam diameter at any distance, multiply by 0.228.

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	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt	Mountin	g	Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr
드	C-CLAM	Р	DM	MX		148 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish
Source Info	N/A	N/A	N/A		148 W	RGBIL		BLACK

4

Description

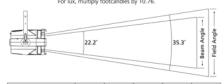
ColorSource Fresnel V

PHOTOMETRY INFORMATION

ColorSource Fresnel V Mid

Mode	Degree	Candela	Field Lumens	Beam Lumens	Power Consumption	Lumens Per Watt
Full On Direct	22	38,530	4,981	2,781	149	33.4
3200 K	22	34,508	4,404	2,456	117.2	37.6
5600 K	22	34,362	4,387	2,446	131	33.5

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



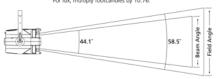
Throw Distance (d)	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	30 ft 9.1 m	196.3 ft 59.8 m
Field Diameter	6.4 ft 1.9 m	9.5 ft 2.9 m	12.7 ft 3.9 m	19.1 ft 5.8 m	-
Illuminance (fc)	385	171	96	43	1
Illuminance (lux)	4,147	1,843	1,037	461	10.76

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

ColorSource Fresnel V Flood

Mode	Degree	Candela	Field Lumens	Beam Lumens	Power Consumption	Lumens Per Watt
Full On Direct	44	11,602	5,330	3,757	149	35.8
3200 K	44	10,391	4,713	3,318	117.2	40.2
5600 K	44	10,347	4,694	3,305	131	35.8

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



Throw Distance (d)	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	30 ft 9.1 m	107.7 ft 32.8 m
Field Diameter	11.2 ft 13.4 m	16.8 ft 5.1 m	22.4 ft 6.8 m	33.6 ft 10.2 m	-
Illuminance (fc)	116	52	29	13	1
Illuminance (lux)	1,249	555	312	139	10.76

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

For field diameter at any distance, multiply distance by 1.120. For beam diameter at any distance, multiply by 0.810.

ColorSource Series

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2024 Lighting Acquisition

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	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt	Mountin	g	Control Type			Input Watts	Voltage	Ballast/Trans/Drvr
트	C-CLAN	C-CLAMP		MX		148 W	120	INTEGRAL ELECT
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watt	s Co	lor/CCT	Finish
Sou	N/A	N/A	N/A		148 W	RGBIL		BLACK

For field diameter at any distance, multiply distance by 0.635. For beam diameter at any distance, multiply by 0.392.

ColorSource Fresnel V

ColorSource Series

CONTROL

DMX Input Channel Profiles

DMX PROFILE	DMX CHANNELS	CHANNEL ASSIGNMENTS	NOTES
Stn : Standard (Default mode)	7	1-Intensity 2-Red 3-Green 4-Blue 5-Strobe 6-Zoom 7-Fan	Indigo and Lime are mixed automatically.
RGB	4	1–Red 2–Green 3–Blue 4–Zoom	Indigo and Lime are mixed automatically.
1ch: 1-channel	1	1-Intensity	This mode controls the intensity of Preset 1.
Dir: Direct	9	1-Intensity 2-Red 3-Green 4-Blue 5-Indigo 6-Lime 7-Strobe 8-Zoom 9-Fan	

ADDITIONAL ORDERING INFORMATION

Accessories

MODEL	DESCRIPTION	PART NUMBER	Г
407CF	Color frame (7.5 in)	7061A3007	Г
400SC	Safety cable	7060A1022	Г
400CC	C-clamp	7060A2009	Г
400PTH3	Top hat, 3 in	PSF1022	Г
400PTH6	Top hat, 6 in	PSF1023	Г
400PHH	Half hat	PSF1027	Г
400WB	Weighted base	PSF1032	Г
400XBTH	Cross baffle top hat	PSF1031	Г
400L	Egg crate louver	PSF1028	Г
400BD	Barn door, 4-leaf with extension ring, 190 mm (7.5 in), black (for use in inner accessory slot to reduce light leak)	PSF1019	
400BDS	Barn door, 4-leaf with short extension ring, 190mm (7.5 in), black	PSF1095*	Г
FRESBD7.5	Studio barn door, 8-leaf, 190 mm (7.5 in), black	PSF1191	Г
BDS	Studio barn door, 4-leaf, 190 mm (7.5 in), black	PSF1101	Г

2024 Lighting Acquisition

University of Idaho



	Manuacturei				rait Nullibe	71		
Fixture formation	ETC	CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10						
Fixt form	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr
ᄪ	C-CLAMI)	DMX			148 W	120	INTEGRAL ELECT
es c	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watt	s Co	lor/CCT	Finish

rce Fo	Lamp Manufacturer	Lamp Info/Part #	# Lamps	Lamp Watts	Со	lor/CCT	Finish
Sou	N/A	N/A	1	148 W	R	GBIL	BLACK

ColorSource Fresnel V

ColorSource Series

ADDITIONAL ORDERING INFORMATION

Multiverse

MODEL	DESCRIPTION	PART NUMBER
CT-5900	City Theatrical Multiverse SHoW Baby	4360A1091
CT-5902	City Theatrical Multiverse Node 900 MHz / 2.4 GHz	4360A1092
CT-5903	City Theatrical Multiverse Node 2.4 GHz	4360A1093
CT-5910	City Theatrical Multiverse Transmitter 900 MHz / 2.4 GHz	4360A1094
CT-5911	City Theatrical Multiverse Transmitter 2.4 GHz	4360A1095

Power Input Cables

Use information below to order 1.5 m (5 ft) power input leads with factory-fitted connectors. CE fixtures ship with powerCON TRUE1 TOP to bare end cables in the box.

MODEL	DESCRIPTION	PART NUMBER (NOT CE)
T1PA-A	1.5 m (5 ft) Edison plug to TRUE1 receptacle, UL 1573, black	2500B7029-A
T1PA-B	1.5 m (5 ft) Stage Pin plug to TRUE1 receptacle, UL 1573, black	2500B7029-B
T1PA-C	1.5 m (5 ft) Twist Lock plug to TRUE1 receptacle, UL 1573, black	2500B7029-C
T1PA-X	1.5 m (5 ft) Bare end pigtail to TRUE1 receptacle, UL 1573, black	2500B7029-X

Power Thru Jumpers

Note: Power thru jumpers connect to a fixture's output (thru) connector to provide a link to successive fixtures.

ivote. Forver tind ju	impers connect to a nature's output (tilla) connector to provide a link to successive natures.		
MODEL	DESCRIPTION	PART NUMBER (NOT CE)	
T1PJ-5	1.5 m (5 ft) TRUE1 plug to TRUE1 receptacle fixture power jumper, UL rated, black	2500B7030	
T1PJ-10	3 m (10 ft) TRUE1 plug to TRUE1 receptacle fixture power jumper, UL rated, black	2500B7031	
DPT1A-5	1.5 m (5 ft) powerCON plug (gray) to TRUE1 receptacle adapter cable, black	2500B7038	
T1DPA-5	1.5 m (5 ft) TRUE1 plug to powerCON receptacle (blue) adapter cable, black	2500B7039	

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	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
드	C-CLAN	C-CLAMP		DMX		148 W	120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish
Source	N/A	N/A		1	148 W	F	RGBIL	BLACK

Notes

ColorSource Fresnel V

ColorSource* Series

PHYSICAL

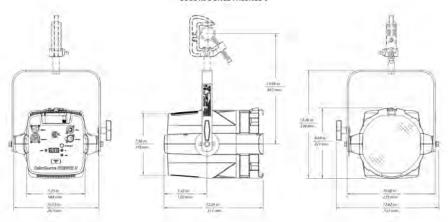
ColorSource	Fresnel	V Dimensions

Model	He	ight	W	idth	De	pth
	mm	in	mm	in	mm	in
Fresnel V	339	13.36	321	12.62	311	12.26

ColorSource Fresnel V Weights

Model	Weight		Shipping Weight		
	kg	lb	kg	lb	
Fresnel V	6.24	13.75	8.62	19	

COLORSOURCE FRESNEL V



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etcconnect.com

	Manufacturer		Part Number					
Fixture Information	ETC		CSFRESV+407CF+400SC+400CC+400BD+T1PJ-10					
Fixt form	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
u	C-CLAM	IP	DM	ΙX		148 W	120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watt	ts Co	lor/CCT	Finish
Source Info	N/A	N/A	A	1	148 W	R	GBIL	BLACK

SUPPLY WITHOUT MULTIVERSE WIRELESS CONTROL OPTION.

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2024 Lighting Acquisition

ISSUE FOR BID

ETC Lonestar



High End Systems

GENERAL INFORMATION

The High End Systems Lonestar brings the renowned brightness, quality, and performance of our bright white LED framing fixtures in a more compact package. With more than 15,400 lumens and a rich feature set, Lonestar is a perfect addition to lighting systems in theatres, television studios, cruiseships, and other small to mediumsized venues. The luminaire's rich colors, powerful zoom, full curtain framing, diffusion, and prism effects make Lonestar a versatile and affordable tool for designers who want maximum performance from a compact-sized automated fixture.

Applications

- Houses of worship
 Nightclubs and retail installations
 Small to medium-sized performance venues
 Cruiseships and themed entertainment
- · Production rental companies . Tradeshow and ballroom AV
- Studio and film

Product Features

- Bright white LED engine
 290 W Ultra-Bright engine
- Fixture output 15,400 lumens
 High quality 13-lens optic system

- Extremely powerful 3.8°-55° zoom
 CMY color mixing system
 Electronic linear CCT mixing control
- Ten position plus open color wheel
 Full-curtain framing system for total control of beam shaping
 16-blade ins for extremely tight beam effects
 Two diffusion Light and Medium system with additional,
- optional heavy diffusion

 Nine position plus open Rotating Gobo Wheel
- Dual prisms for compound beam and projection effects
 Linearly insertable rotating animation wheel

ORDERING INFORMATION

Model	Description		
LS-UB-MI	Lonestar, Black, Ultra-Bright in Molded		
2550A1200-B	Insert, Boxed		
RC-LS	Road Case, Holds Up to Three (3) Lonestar		
2550K1001	Fixtures in Molded Insert		

Color Options: Fixtures ship standard in black. White available by request. Included Accessories: Fixture includes two (2) 107 mm Three-hole Omega brackets, one (1) fixture power cord with bare ends to power COM* TRUE*

Accessories

Part Number	Description
LS-TH 2550A1020	Top Hat, Snoot for Lonestar
LSA-HFROST 2550A2083	Heavy Frost Accessory for Lonestar
2500B7029-A	Fixture Power Cord Upgrade, 5-15 Edison to powerCON TRUE1 TOP, 15 A
256087005	Fixture Power Cord Upgrade, Stage Pin to powerCON TRUE1 TOP, 20 A
256087006	Fixture Power Cord Upgrade, L6-20 to powerCON TRUE1 TOP, 20 A
256087007	Fixture Power Cord Upgrade, L5-20 to powerCON TRUE1 TOP, 20 A
55040014	Cheeseborough 2" Alloy 1/2 Coupler Truss Clamp
67040010	Mini-Claw"

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2024 Lighting Acquisition

BD

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Fixture Information	Manufacturer		Part Number					
	ETC		LS-UB-MI-2550A1200-B+2500B7029-A					
	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr	
	OMEGA/C-CLAMP		DMX		290 W	120	INTEGRAL ELECT	
Source	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Watt	s Co	lor/CCT	Finish
Sou	N/A	N/A	N/A		290 W	CMY	+WHEEL	BLACK

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2024 Lighting Acquisition

University of Idaho

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ETC Lonestar

High End Systems

PRODUCT SPECIFICATIONS

Source

Erigine	Ultra-Bright	
LED Details	290 W	
Field Lumens	See photometrics on page 4	
Integrating Sphere Lumens	15,400 Juriens	
LPW	53	
LED Life	50,000 hours	
Native CCT	7000 K	

Color

Color Mixing	Cyan, magenta, yellow, CTO-linear			
Color Temperature	Variable down to 2200 K			
Color Wheel	Ten (10) dichroic colors plus open			

Optical

Beam Angle Ranger	3.8°-55°				
Gate Size	15.8 mm 120 mm				
Aperture Size					
Pattern Projection	Rotating and indexable wheel with nine (9) patterns plus open				
Animation,	Bi-directional animation wheel				
Prison	Five facet star and four facet linear rotating prism with simultaneous insertion				
Diffusion	Light and medium diffusion Optional heavy diffusion in posm slot.				
fris	16-blade iris				
Framing	Four-plane, full-curtain framing system with 120° module rotation				
Flicker ControVHz Range	Z 4 kHz and 16 kHz				

Control

Input Method	DMX (5-pin) or Ethernet				
Protocols	DMX via RS-485 Art-Net or sACN via Ethernot Passive Ethernot in and itinusvith and without Bower Palented data conversion system for DMX to Ethernet Ethernet to DMX.				
Elbernet Pass-Thru					
Data Conversion					
Modes (Footprint)	Standard or Trifusion (48 channels)				
RDM Functions	Yes.				
UF Туре	Full color graphical UI with 6-button navigational control				
Local Control	Yes				
Dimming Performance	16-bit, DMX controlled				

Notes: 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.

Electrical

Voltage Range	100-240 V 50-60 Hz powerCON TRUE1 TOP				
Input.Method					
Wattage (Max)	615 W				
Current (Max)	6.2 A @ 100 V				
Inrush (First Half Cycle)	120 V 56 8 A 230 V: 78 0 A				
Fixtures per Circuit	2 fixtures (15 A power thru connector) 3 fixtures (820 module or similar) Note: TRUET TOP connector rated for 20 A (120 V / 50 Hz) and 16 A (240 V / 50 Hz)				

Thermal

Ambient Operating Temp	=10°-40°C (14°-104°F)		
Fan Mode	Standard, Studio, and Linear Continuous control channel		
Stationary Noise	35 dBA at full intensity (16.3 dBA background rioise)		

Physical

Pan and Tilt Range	540° pan, 251° tilt				
Max Pan/Trit Speed	360° in £ 306 V180° in † 26 s				
Materials	Steel and aluminum frame with miolded plastic covers.				
Calor Options	Black, while by request				
Mounting Options	Any orientation				
IP Rating	IP20				
Weight	22.7 kg (50 lb)				
Included Accessories	powerCON TRUE1 TOP to bare end fixture tail Two (2) 107 mm Three-hale Omega clamp brockets Safery cable				

Warranty

Fixture Warranty	Five (5) years for light engine Two (2) years for complete fixture			
Warranty Details	erran tree in WW in its			

Regulatory & Compliance

Regulatory Standards	Listed to UL 1573 Certified to CSA 5TD C22 2 No 166 FCC Class A 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 61000-3-3
Complies to the ROHS directive	Yes

Safety

Safety	Minimum distance to illuminated surface = 3,0 m,10 ft; Minimum distance from fixture field to combustible materials = 0,1 m (4,0 in)
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	Manufacturer		Part Number						
Fixture Information	ETC		LS-UB-MI-2550A1200-B+:			+2500B7029-	2500B7029-A		
	Mounting		Control Type		Input Watts	Voltage	Ballast/Trans/Drvr		
	OMEGA/C-CLAMP		DMX		290 W	120	INTEGRAL ELECT		
rce fo	Lamp Manufacturer Lamp Info/F		/Part#	# Lamps	# Lamps Lamp Watts		lor/CCT	Finish	
Source Info	N/A	N/A		1	290 W CMY		+WHEEL	BLACK	

2

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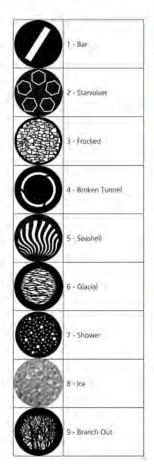
ETC Lonestar High End Systems

FEATURE DETAILS

Dutside Diameter	17.5 mm (0.69 ib)
lmage Diameter	13 mm (0.51 m)
Materials	0.5 mm aluminum

Color Wheel Details						
Shape:	Fixed wirdge					
Materials	1.1 mm glass Borotloat					

or Wh	eel Details	Animation Wheel Details				
90	Exed windge	Movement	Bi-directional continuous ro			
erialit	1.1 mm glass Berefloat	Materials -	0.5 mm atuminum			





	Manufacturer		Part Number					
Fixture Information	ETC		LS-UB-MI-2550A1200-B+2500B7029-A					
Fixt	Mountir	ng	Contro			Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-0	CLAMP	MP DM		290 W		120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	tts Co	lor/CCT	Finish
Source	N/A	N/A	N/A		290 W CMY		+WHEEL	BLACK
les								

| University of Idaho

ETC Lonestar

High End Systems

PHOTOMETRIC DATA

Lonestar - Ultra-Bright

	Degree	Candela	Field Lumens	Power Usage	Lumens Per Watt
Narrow	3.8"	1,771,100	5,209	290 W	18
Medium	26°	143,900	12,073	290 W	42
Wide	55%	30,000	10,700	290 W	37

Throw Distance	10 ft 3.0 m	20 ft 6.1 m	30 ft 9.1 m	50 ft 15.2 m	200 ft
Field Diameter	0.7 ft 0.21 m	1.3 ft 0.41 m	2.0 ft 0.51 m	3.3 ft 1.02 m	13,3 ft 4.05 m
Illuminance (fc)	17,711	4,428	1,968	709	45
Illuminance (lux)	190,564	47,641	21,174	7,623	476

Throw Distance	10 ft	20 ft	30 ft	50 ft.	200 ft
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	4.6 h	9.2 ft	13.9 ft	23.1 ft.	92,3 ft
	1.41 m	2.82 m	4.23 m	7.04 m	28,15 m
Illuminance (fc)	1,439	360	160	58	4
Illuminance (lux)	15,479	3,870	1,720	619	39

Throw Distance	10 H	20 ft	30 ff	50 ft	200 H
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	10.4 ft	20,8 ft	31.2 ft	52.1 ft	208.2 ft
	3.18 m	6.35 m	9.53 m	15.87 m	63.47 m
Illuminance (fc)	300	75	34	-12	1
Illuminance (lux)	3,226	807	358	129	8

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.

_				_	_	_
Er	d	SI	ict	01	m	c

ANSI (ES TM-30-18 Color Rendition Report

Additional Color Metrics					
CRIR, (R _s)	73 (-24)				
TLCI	50				

	Manufacturer				Part Number	er		
Fixture Information	ETC		LS-UB-MI-2550A1200-B+2500B7029-A					
Fixt	Mounting	I	Control Type			Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-CLAMP		DMX			290 W	120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watts Co		lor/CCT	Finish
Source	N/A	N/A	A	1	290 W	CMY	+WHEEL	BLACK

-A

ETC Lonestar

High End Systems

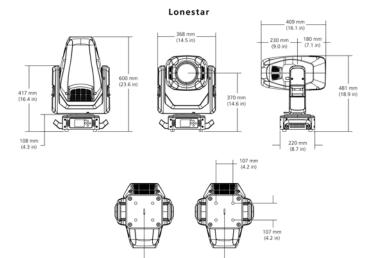
Product Dimensions

Model	Height		Wi	dth	Depth	
	in	mm	in	mm	in	mm
Lonestar**	23.6	600	14.5	368	8.7	221
Lonestar in Box with Molded Insert	26.6	676	21.1	536	14.9	378

Product Weight

Model	Weight	
	lb	kg
Lonestar**	50.0	22.7
Lonestar in Box with Molded Insert	77	34.9

 $[\]star\star \mathsf{Does}$ not include mounting hardware



Power Table

	IUDIC				
VAC	Amps	Hz	Watts	VA	PF
100	6.2	50	615	619	0.99
120	5.1	60	611	614	0.99
200	2.9	50	570	602	0.97
208	2.9	60	583	602	0.97
220	2.7	50	579	599	0.97
230	2.6	50	580	596	0.96
240	2.5	60	575	607	0.95

5

	Manufacturer					er		·	
Fixture Information	ETC	LS-UB-MI-2550A1200-B+2500B7029-A							
Fixt	Mounting		Control Type		Input Watts	Voltage	Ballast/Trai	ns/Drvr	
드	OMEGA/C-C	CLAMP	MP DMX			290 W	120	INTEGRAL	ELECT
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	tts Co	olor/CCT	Finisl	h
Source Info	N/A	N/A	N/A		290 W	CMY	+WHEEL	BLAC	к

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Lonestar*

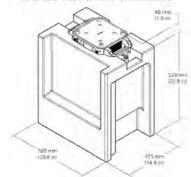
High End Systems

ADDITIONAL ORDERING INFORMATION

Additional Accessories

Model Number	Description
2599A2000	Omega bracket, 107 mm Three-hole (included)
H7180023	Omega bracket, 107 mm Single-hole
H7300105	Galvanized safety cable with spring snap

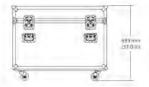
Molded Case Insert Dimensions



Optional Road Case









Corporate Headquariers + Alddwinon, Willias
Global Offices - London (M. * Rome, I'm + Indistrution; Oli + Rinn; fill + Indistrution; Dipute, I.M. * - Surgagore * - New Yord, Ne * - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, Ne * - Surgagore - Surgagore * - New Yord, New Yor

etcconnect.com

	Manufacturer	Part Number									
Fixture Information	ETC		LS			LS-UB-MI-2550A1200-B+2500B7029-A					
Fixt	Mounting	Control Type			Input Watts	Voltage	Ballast/Trans/Drvr				
드	OMEGA/C-C	LAMP	DMX			290 W	120	INTEGRAL ELECT			
Source Info	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish			
Sou	N/A	N/A	N/A		290 W	CMY	+WHEEL	BLACK			

Project: 2401 Revision: 0

ETC SolaPix



OVERVIEW

Fixture Overview

The SolaPix family of wash fixtures from High End Systems takes the traditional concept of a pixel wash and pushes it to its maximum potential. Whether you are using the fixture to spread color all over a ballroom, tradeshow floor, or concert stage, the bright and punchy output will envelop your production with beautiful saturated color. Additionally, when you need to add interest, the narrow zoom and fully macro- and pixel-controlled face gives you a wide variety of looks and effects to help set the mood and steal the show.

Applications

- Live concerts
- TradeshowsFestivals
- Industrial shows
- · Award shows
- Studios · Theatre
- Corporate events

Product Features

- Additive LED, RGBW, color mixing system for extremely powerful saturated colors and tunable white control
- Versatile 4.5%-60° zoom
- · Extremely efficient optical system provides market-leading lumen output

 FleX Effects Generator for easily customizable macros

- Pixel mapping on all models
 Modular control with Art-Net, or sACN in addition to simultaneous DMX control
 • Patent-Pending HaloGraphic Pixel Definition

ORDERING INFORMATION

Type(s) Project Date Notes

SolaPix

Model	Description
2594A1000-B	SolaPix 7, black, packaged in molded insert
2594K1001	Roadcase for SolaPix 7 (fits up to six (6) SolaPix 7)
2595A1100-B	SolaPix 19, black, packaged in molded insert
2595K1001	Roadcase for SolaPix 19 (fits up to three (3) SolaPix 19)
2596A1200-8	SolaPix 37, black, packaged in molded insert
2596K1001	Roadcase for SolaPix 37 (fits up to two (2) SolaPix 37)

High End Systems

Note: Fixture includes two (2) Omega brackets, one (1) fixture power cord, bare ends to powerCON* TRUET* TOP input, and a safety cable.

Please see tables on page 9 for bracket type details.

Accessories

Model	Description
256087009*	Fixture power cord upgrade, NEMA 5-15P "Edison" to powerCON TRUE1, 15 A.
256087004	Fixture power cord upgrade, NEMA 5-20P to powerCON TRUE1, 20 A
2560B7005	Fixture power cord upgrade, Stage Pin to powerCON TRUE1, 20 A
2560B7006	Fixture power cord upgrade, L6-20P to powerCON TRUE1, 20 A
2560B7007	Fixture power cord upgrade, L5-20P to powerCON TRUE1, 20 A
67040007	Mega-Claw TM
55040014	Cheeseborough 2" Alloy 1/2 Couplet Truss Clamp
67040010	Mini-Claw TM

[•] Not rated for use with SolaPix 37

	Manufacturer	facturer Part Number						
Fixture Information	ETC		2595A1100-B+2560B7009-A					
Fixt	Mounting	ting Contro			Input Watts		Voltage	Ballast/Trans/Drvr
드	OMEGA/C-C	_AMP	DMX			900 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish
Source Info	N/A	N/A	1	1	900 W	RGB+2	800K-8000K	BLACK
			·					

Project: 2401 Revision: 0 Page 49 of 70 Date: 3/25/2023

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ETC SolaPix

High End Systems

PRODUCT SPECIFICATIONS

Source

Fixture Type	SolaPix 7	SolaPix 19	SolaPix 37		
LED Quantity	7	19	37.		
Max. Field Lumens	5,500	14,500	29,000		
Integrating Sphere Lumens	5,600	15,200	30,500		
LPW	20	20	20		
LED Type	40 W Osram	Ostar LED			
LED Life	50,000 Hours	50,000 Hours / 5 year warranty			

Color

Color Mixing	Red, Green, Blue, and White	
Color Temperature Range	Vanable from 2800–8000 K	

Optical

Beam Angle	4.5°-60°
Flicker Control/Hz Range	2.4 kHz, 16 kHz

Control

Input Method	DMX (5-pin) or Ethernet
Protocols	DMX via RS-485 Art-Net, or sACN via Ethernet
RDM Functions	Yes
UI Type	Full color graphical UI with 6 button navigational control
Local Control	Yes
Effects Engine	Built in effects engine with multi parameter color and speed control
Pixel Mapping	Individual addressing via DMX, Art-Net, or sACN
Dimming Performance	16-Bit, DMX controlled

Electrical

Fixture Type	SolaPix 7	SolaPix 19	SolaPix 37	
Max Wattage	400 W	900 W	1700 W	
Max Current	4,0 A @ 100 V 1 7 A @ 240 V	7.6 A @ 100 V 3.8 A @ 240 V	14.3 A @ 120 V 7.2 A @ 240 V	
Inrush (First Half Cycle)	120 V: 57 A 230 V: 78 A	120 V. 28 A 230 V: 96 A	120 V: 69 A 230 V: 91 A	
Fixtures Per Circuit	5 fixtures (R20 module or similar)	2 fixture (R20 module or similar)	1 foctore (R20 module or similar)	
Voltage Range	100-240 V 50-	50 Hz	120-240V 50-60Hz	
Input Method	powerCON TRU			
Additional Details	See pages 6-8 f	or additional pow	er information	

Thermal

Ambient Operating Temp	0°-40° C (32°-104° F)
Fan Mode	Standard, Studio, User fan control channel

Physical

Fixture Type	SolaPix 7	SolaPix 19	SolaPix 37				
Pan and Tilt Range	540° Pán 255° Tilt	540° Pan 255° Tilt	540° Pan 258° Tift				
Max Pan/Tilt Speed	Pan - 360° m 1 2 s Titt -180° in 0.66 s	Pan - 360° in 1.6 s Tilt - 180° in 0.91 s	Pan - 360° in 2.5.5 Tilt - 180° in 1.72.5				
Weight	9.1 kg (20 lb)	15.8 kg (35 lb)	23.6 kg (52.lb)				
Materials	Steel and alumi covers	Steel and aluminum frame with molded plastic covers					
Color Options	Black, white by	Black, white by request					
Mounting Options	Any orientation	Any orientation					
IP Rating	IP-20						
Included Accessories	powerCON TRUE Two (2) Ornege b Safety cable	1 TOP to bare end fix rackets	ture tail				

Warranty

Fixture Warranty	Five (5) years for light engine Two (2) year for complete fixture
Warranty Details	excornection is opport warrant assu-

Regulatory & Compliance

Regulatory Standards	Listed to UL 1573 Certified to CSA STD. C22.2 No: 166 EAC
CE Compliance Declared to the Following Standards	Safety: EN 60598-1, EN 60598-2-17, EN 62031; EN 62471 EMC: EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3
Complies to the ROHS Directive	Yes

Safety

	Minimum distance to illuminated surface = 2.0 m
Safety	Minimum distance from fixture head to
	combustible materials = 0,1 m

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

	Manufacturer				Part Number	er		
Fixture Information	ETC	ETC			100-B+2560)B7009-A		
Fixt	Mountin	g	Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-C	LAMP	DMX			900 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish
Source Info	N/A	N/A	1	1	900 W	RGB+2	800K-8000K	BLACK

SolaPix

High End Systems

PHOTOMETRIC DATA

	Degree	Ca	andela	ι	Field umens		Power Usage	Lumens Per Watt
Narrow Beam	4.5°	40	0,700	2,9	2,954		0 W	9
Narrow Wash	14°	11	116,300		3,953		0 W	12
Medium Wash	26°	50	,200	4,5	55	28	0 W	14
Wide Wash	60°	13	13,200 5		96	28	0 W	17
Narrow Bea	m - 4.	5°						
Throw Distance	10 ft 3.0 m		20 ft 6.1 m		30 ft 9.1 m		50 ft 15.2 m	200 ft 61 m
Field Diameter	0.8 ft 0.24 m		1.6 ft 048 m		2.4 ft 0.72 m	- 1 '	3.9 ft 1.20 m	15.7 ft 4.80 m
Illuminance (fc)	4,007	4,007 1,002			446	Т	161	11
Illuminance (lux)	43,105 10,77		10,776		4,789	Т	1,724	108
Narrow Wa	sh - 14	1°						
Throw Distance	10 ft 3.0 m		20 ft 6.1 m		30 ft 9.1 m		50 ft 15.2 m	200 ft 61 m
Field Diameter	2.5 ft 0.8 m				7.4 ft 2.3 m		12.3 ft 3.8 m	49.1 ft 15 m
Illuminance (fc)	1,163	1,163			130	7	47	3
Illuminance (lux)	12,512	12,512			1,390	500	500	31
Medium Wa	sh - 2	6°						
Throw Distance	10 ft 3.0 m		20 ft 6.1 m		30 ft 9.1 m		50 ft 15.2 m	200 ft 61 m
Field Diameter	4.6 ft 1.4 m		9.2 ft 2.8 m		13.9 ft 4.2 m		23.1 ft 7.0 m	92.3 ft 28.2 m
Illuminance (fc)	502		126		56	7	21	2
Illuminance (lux)	5,394		1,348		599	7	216	13
Wide Wash	- 60°							
Throw Distance	10 ft 3.0 m		20 ft 6.1 m		30 ft 9.1 m		50 ft 15.2 m	200 ft 61 m
Field Diameter	11.5 ft 3.52 m		23.1 ft 7.04 m		34.6 ft 10.56 m		57.7 ft 17.60 m	230.9 ft 70.40 m
Illuminance (fc)	132		33		15	1	6	1
Illuminance (lux)	1,419		355		158		57	4

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.

SolaPix 19	9 -	ΑII	on,	Standard	Mode
------------	-----	-----	-----	----------	------

	Degree	Candela	Field Lumens	Power Usage	Lumens Per Watt
Narrow Beam	4.5°	1,087,400	8,017	570 W	11
Narrow Wash	14°	315,700	10,730	570 W	15
Medium Wash	26°	136,100	12,362	570 W	17
Wide Wash	60°	35,800	14,917	570 W	20

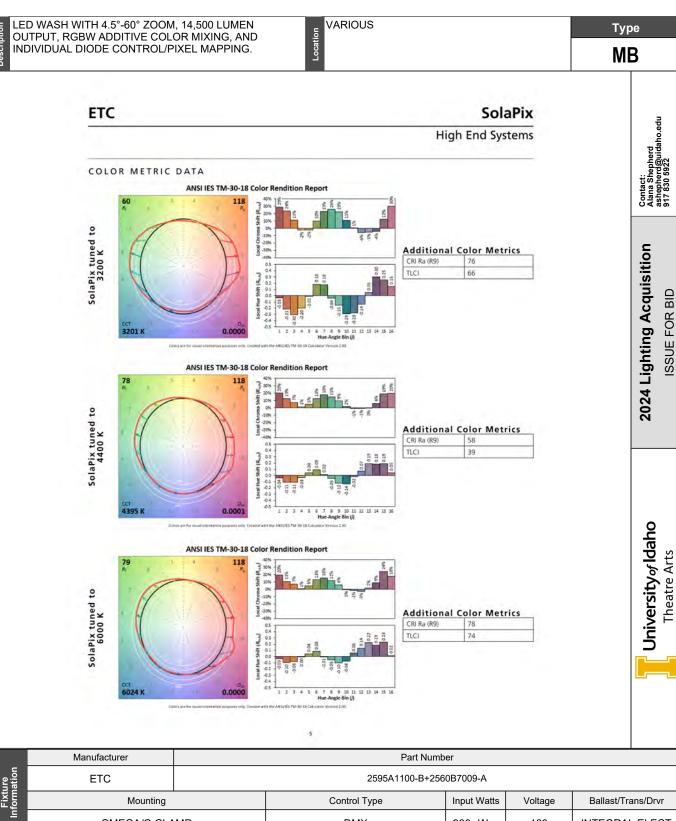
Narrow Beam - 4.5°						
Throw Distance	10 ft 3.0 m	20 ft 6.1 m	30 ft 9.1 m	50 ft 15.2 m	200 ft 61 m	
Field Diameter	0.8 ft 0.24 m	1.6 ft 048 m	2.4 ft 0.72 m	3.9 ft 1.20 m	15.7 ft 4.80 m	
Illuminance (fc)	10,874	2,719	1,209	435	28	
Illuminance (lux)	117,000	29,250	13,000	4,680	293	

Throw Distance	10 ft	20 ft	30 ft	50 ft	200 ft
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	2.5 ft	4.9 ft	7.4 ft	12.3 ft	49.1 ft
	0.8 m	1.5 m	2.3 m	3.8 m	15 m
Illuminance (fc)	3,157	790	351	127	8
Illuminance (lux)	33,960	8,490	3,773	1,358	85

wedium wa	sn - 26				
Throw Distance	10 ft 3.0 m	20 ft 6.1 m	30 ft 9.1 m	50 ft 15.2 m	200 ft 61 m
Field Diameter	4.6 ft 1.4 m	9.2 ft 2.8 m	13.9 ft 4.2 m	23.1 ft 7.0 m	92.3 ft 28.2 m
Illuminance (fc)	1,361	341	152	55	4
Illuminance (lux)	14,640	3,660	1,627	586	10

Wide Wash	- 60°				
Throw Distance	10 ft 3.0 m	20 ft 6.1 m	30 ft 9.1 m	50 ft 15.2 m	200 ft 61 m
Field Diameter	11.5 ft 3.52 m	23.1 ft 7.04 m	34.6 ft 10.56 m	57.7 ft 17.60 m	230.9 ft 70.40 m
Illuminance (fc)	358	90	40	15	1
Illuminance (lux)	3,852	963	428	154	4

	Manufacturer		Part Number					·
Fixture Information	ETC		2595A1100-B+2560B7009-A					
Fixt	Mountin	g	Control			Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-C	LAMP	MP DM.			900 W	120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	cs Color/CCT		Finish
Source Info	N/A	N/A	N/A		900 W RGB+2		800K-8000K	BLACK



	Manufacturer		Part Number					·	
Fixture Information	ETC			2595A1100-B+2560B7009-A					
Fixt	Mountin	g	Control	Туре	Input Watts		Voltage	Ballast/Trans/Di	rvr
드	OMEGA/C-C	CLAMP DM		ΙX	900 W		120	INTEGRAL ELE	ECT
Source	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish	
Sou	N/A	N/A	1	1	900 W	RGB+2800K-8000K		BLACK	
Notes									

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ETC SolaPix

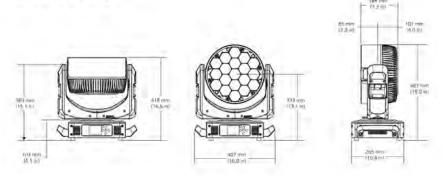
High End Systems

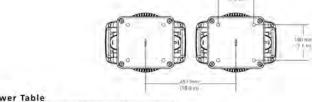
PHYSICAL INFORMATION

SolaPix 19 Dimension Table

Model	Height	Width	Depth	Weight
SolaPix 19	19 in	16 in	10.4 in	35 lb
50/aPix 19	483 mm	407 mm	265 mm	15.8 kg
SolaPix 19 in molded insert with box	- 25 in	22 in	16 in	59 lb
(shipping dimensions)	635 mm	.559 mm	407	26.8 kg
Three (3) SolaPix 19 in molded insert	37 in	47 in	23.4 in	296 lb
with road case (shipping dimensions)	939 mm	1195 mm	595 mm	134.3 kg

SolaPix 19 Drawing





owe	r Table				
VAC	Amps	Hz	Watts	VA	PF
100	10,0	50	990	1000	0.99
120	8.1	60	930	965	0.99
200	4.7	50	910	934	0.97
208	4.5	50	928	930	0.97
220	4.3	50	907	938	0.96
240	3.9	60	896	928	0.96

	Manufacturer		Part Number					
Fixture Information	ETC		2595A1100-B+2560B7009-A					
Fixt	Mounting		Control			Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-C	_AMP	DM	IX		900 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish
Source Info	N/A	N/A	1	1	900 W	RGB+2	800K-8000K	BLACK

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SolaPix

High End Systems

ADDITIONAL ORDERING INFORMATION

SolaPix 7 Accessories

Model #	Description
H7180023	Omega bracket, 107 mm Single-hole
2599A2000	Omega bracket, 107 mm Three-hole (included)
2594A1020	SolaPix 7 Hex Snoot
2594A1021	SolaPix 7 Hex Snoot with Diffusion
H7000012	Galvanized Safety Cable with Spring Snap

SolaPix 19 Accessories

Model #	Description
H7150008	Omega bracket, 180 mm Single-hole (included
2599A2001	Omega bracket, 180 mm Three-hole
2595A1020	SolaPix 19 Hex Snoot
2595A1021	SolaPix 19 Hex Snoot with Diffusion
H7000012	Galvanized Safety Cable with Spring Snap

SolaPix 37 Accessories

Model #	Description
H7150008	Omega bracket, 180 mm Single-hole (included)
2599A2001	Omega bracket, 180 mm Three-hole
2596A1020	SolaPix 37 Hex Snoot
2596A1021	SolaPix 37 Hex Snoot with Diffusion
H7000012	Galvanized Safety Cable with Spring Snap.



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	Manufacturer		Part Number					
Fixture Information	ETC		2595A1100-B+2560B7009-A					
Fixt	Mountin	g	Control			Input Watts	Voltage	Ballast/Trans/Drvr
드	OMEGA/C-CLAMP		DMX			900 W	120	INTEGRAL ELECT
rce	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	ts Co	lor/CCT	Finish
Source	N/A	N/A		1	900 W	RGB+28	300K-8000K	BLACK

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ETC SolaPix*

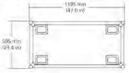
High End Systems

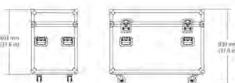
ADDITIONAL ORDERING INFORMATION

Road Case Accessories

Model #	Description					
102	Spacer for empty road case, Half					
(03)	Spacer for empty road case, Third					
104	Spacer for empty road case, Quarter					
106	Spacer for empty road case, Sixth					

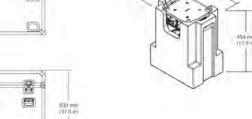
Optional Road Case



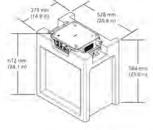


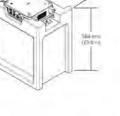
SolaPix 7 Molded Insert

SolaPix 37 Molded Insert



SolaPix 19 Molded Insert







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etcconnect.com

	Manufacturer				Part Numb	er		
Fixture Information	ETC		2595A1100-B+2560B7009-A					
Fixt	Mounting		Control	Type Input Watts Voltage		Voltage	Ballast/Trans/Drvr	
드	OMEGA/C-CLAMP		DMX		900 W	120	INTEGRAL ELECT	
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish
Source Info	N/A	N/A	1	1	900 W	RGB+2	800K-8000K	BLACK
			·	· · · · · · · · · · · · · · · · · · ·		•		· ·

Project: 2401 Revision: 0 Page 55 of 70 Date: 3/25/2023

Ministar

High End Systems Type(s) Project Date Notes

GENERAL INFORMATION

The High End Systems Ministar is a bright and shining example of reduction without compromising. Minister's smaller size contains a broad variety of features all while outputting a blistering 9,700 lumens. Perfect for professionals at small to medium venues and where budget is a top priority. Ministar's simple feature set includes a ton of variety and flair. Furthermore, the luminaire's VersaColor capabilities use dual color wheels to create 60 unique colors while QuadraTech can create split and quad color effects for unmatched aerial and projection effects.

Applications

- Nightclubs and concert venues
- · Theatre venues
- · Cruise ships and themed entertainment
- Houses of worship
 Production rental companies
- Tradeshow and ballroom AV
 Studio and film

Product Features

- Bright white LED engine
 300 W Ultra-Bright engine
- Fixture output greater than 9,700 lumens
 6,5°-48° zoom
- VersaColor 60 unique colors spread across the entire color gamut, organized and presented via a single color control
- QuadraTech Splits the light beam into four distinct colors in 64 different combinations
- · Variable Medium diffusion
- Six position plus open rotating gobo wheel with replaceable
- · Nine position plus open fixed gobo wheel
- · Prism for compound beam and projection effects

ORDERING INFORMATION

Model	Description
MS-UB-MI	Ministar, Black, Ultra-Bright in Molded Insert, Boxed
RC-MS	Road Case, Holds up to Three (3) Ministal Fixtures in Molded Insert

Color Options: Fixtures ship standard in black. White available by request. Included Accessories: Fixture includes two (2) 107 mm Three-hole Omega brackets, ome (1) fixture power Cord with bare ands to power CON® TRUE 18 TOP input, and a salety cable.

Accessories

Model	Description
MS-TH	Top Hat, Snoot for Minister
2500B7029-A	Fixture Power Cord Upgrade, 6 ft TRUE1 TOP to Parallel Blade U-Ground (Edison)
2560B7005	Fixture Power Cord Upgrade, Stage Pin to powerCON TRUE1 TOP, 20 A
256087006	Fixture Power Cord Upgrade, L6-20 to powerCON TRUE1 TOP, 20 A
2560B7007	Fixture Power Cord Upgrade, L5-20 to powerCON TRUE1 TOP, 20 A
67040007	MegaClaw™
55040014	Cheeseborough 2" Alloy 1/2 Coupler Truss Clamp
67040010	Mini-Claw**

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition

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ISSUE I

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	Manufacturer		Part Number					
Fixture	ETC		LS-UB-MI-2550A1200-B+2500B7029-A					
Fixt	Mounting	J	Control Type Input Watts Voltage Ballas				Ballast/Trans/Drvr	
Ξ	OMEGA/C-C	LAMP	MP DM			300 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	ts Co	lor/CCT	Finish
Source Info	N/A	N/A	N/A		300 W	DUA	L-WHEEL	BLACK

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| University₀/Idaho

ETC Ministar

High End Systems

PRODUCT SPECIFICATIONS

Source

Erigine	Ultra-Bright
LED Details	300 W
Field Lumens	See photometrics on page 4
Max Integrating Sphere Lumens	9,700 lumers
LPW	31
LED Life	50,000 hours
Native CCT	8000 K

Color

Color Mixing	60 unique colors mixed via dual color wheels
Color Temperature	8000 K Native, Soft White, Warm White, Neutral White, and Full CTB
Color Wheel	Two wheels with sever (7) colors on each

Optical

Beam Angle Range	6.5"-48"		
Gate Size	21 min		
Aperture Size	95 mm		
Pattern Projection	Rotating and indexable wheel with six (6) interchangeable patterns plus open Fixed wheel with nine (9) non-interchangsable patterns plus open.		
Prism	Five-facet star rotating prevn		
Diffusion	Linear insertable medium diffusion		
Flicker Control/Hz Range	2.4 kHz and 16 kHz		

Control

logat Method	DMX (5-pin)
Protocols	DMX via RS-485
Modes (Footprint)	Standard (31)
RDM Functions	Yes.
Lit Type	Simple text display with 4-button navigational control
Local Control	Yes
Dimming Performance	16-bit, DMX-controlled

Notes: All LED sources expenence same 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

Electrical

Voltage Range	100-240 V 50-60 Hz
Input Method	powerCON TRUE1 TOP
Listed Max Wattage	450 W
Current (Max)	4.5 A @ 100 V
Inrush (First Half Cycle)	120 V 28,8 A 230 V 120.0 A
Fortures per Circuit	3 fixtures (15 A power thru connector) A fixtures (R20 module or similar) Note: TRUE 1 TOP connector rated for 20 A (120 V / 60 Hz) and 16 A (240 V / 50 Hz)

Thermal

Ambient Operating Temp	-10°C-40°C (14°F-104°F)
Fan Mode	Standard, Studio, and Linear Continuous control channel

Physical

Pan and Tilt Range	540* pan, 256* tilt
Max ParVTilt Speed	360° in 1,70 s / 180° in 0,96 s
Materials.	Steel and aluminum frame with molded plastic covers
Calai Options	Black, white by request
Mounting Options	Any orientation
IP Rating	IPZO
Weight	16.2 kg (25.7 tb)
Included Accessories	powerCONTRUET TOP to bare end fixture tail Two (2) 107 mm, three-hole clamp brackets Safety cable

Warranty

Fixture Warranty	Five (5) years for light engine Two (2) years for complete fixture		
Warranty Betails	Store 100 miles and sections		

Regulatory & Compliance

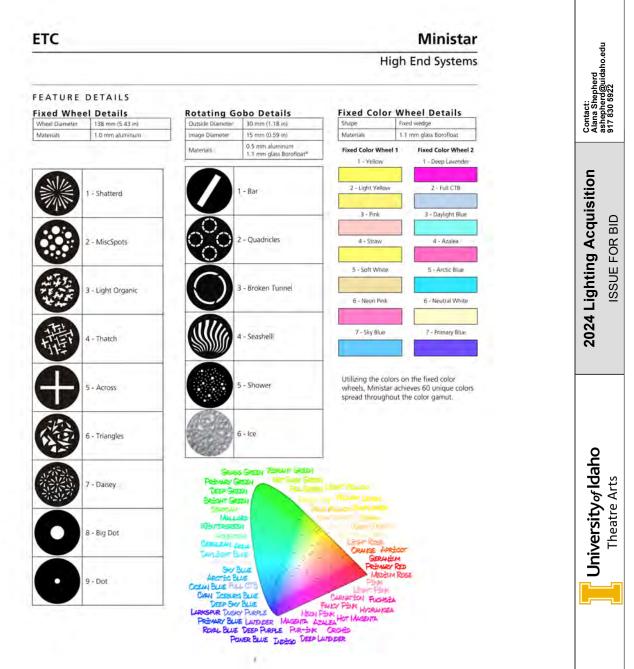
Approved regulatory standards	cFTLus Listed Listed to UL 1573 Certified to CSA STD: C22.2 No: 166 CE Compliant UKCIA Compliant
Compiles to the ROHS directive	Yes

Safety

	Minimum distance to illuminated
Safety	Surface = 2 (I m (6 6 II)) Minimum distance from fixture head to
	combustible materials = 0.1 m (4.0 m)

	Manufacturer	Part Number									
Fixture Information	ETC		LS-UB-MI-2550A1200-B+2500B7029-A								
Fixt	Mountin	3	Control Type			Input Watts Voltage		Ballast/Trans/Drvr			
드	OMEGA/C-CLAMP		DMX			300 W	120	INTEGRAL ELECT			
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watts Co		lor/CCT	Finish			
Source	N/A	N/A	A	1	300 W	DUA	L-WHEEL	BLACK			
						<u> </u>	<u> </u>				

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	Manufacturer	acturer				er		
Fixture Information	ETC		LS-UB-MI-2550A1200-B+2500B7029-A					
Fixt	Mounting	9	Control	rol Type Input Watts			Voltage	Ballast/Trans/Drvr
드	OMEGA/C-C	LAMP	.MP DM			300 W	120	INTEGRAL ELECT
rce fo	Lamp Manufacturer	Lamp Info	/Part #	# Lamps	Lamp Wat	tts Co	olor/CCT	Finish
Source Info	N/A	N/A	N/A			DUA	L-WHEEL	BLACK
otes								

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ETC Ministar

High End Systems

PHOTOMETRIC DATA

Ministar - Ultra-Bright

	Degree	Candela	Field Lumens	Power Usage	Lumens Per Watt
Narrow	6.5*	587,400	3,415	300 W	-11
Medium	26°	84,100	9,705	300 W	32
Wide	486	35,600	8,448	300 W	28

Narrow - 6.5°

Throw Distance	10 ft	20 ft	30 ft	50 ft	200 ft
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	1.1 ft	2.3 ft	3.4 ft	5.7 ft	22.7 ft
	0.34 m	0.71 m	1.04 m	1.74 m	6.92 m
Illuminance (fc)	5,874	1,469	553	235	15
Illuminance (lux)	63,200	15,800	7,022	2,528	158

Medium - 26°

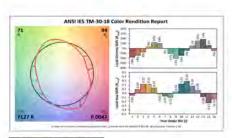
Throw Distance	10 ft	20 ft	30 ft	50 ft	200 ft
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	4,6 h	9.2 ft	13.9 ft	23.1 ft.	92,3 ft
	1,41 m	2.82 m	4.23 m	7.04 m	28,15 m
Illuminance (fc)	841	211	94	34	3
Illuminance (lux)	9.040	2,260	1.004	362	23

Wide - 48°

Throw Distance	10 ft	20 ft	30 ff'	50 ft	200 ft
	3.0 m	6.1 m	9.1 m	15.2 m	61 m
Field Diameter	9.3 ft	18.7 ft	28 ft	46.6 ft	186.5 ft
	2.84 m	5.70 m	8.54 m	14.21 m	56.85 m
Illuminance (fc)	356	89	40	15	1
Illuminance (lux)	3,828	957	425	153	10

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,



Additional C	Color Metrics
CRIR, (R)	70 (-36)
TLCI	47

	Manufacturer	Part Number										
Fixture Information	ETC		LS-UB-MI-2550A1200-B+2500B7029-A									
Fixt	Mounting		Control Type			Input Watts Voltage		Ballast/Trans/Drvr				
드	OMEGA/C-CLAMP		DMX			300 W	120	INTEGRAL ELECT				
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Watts C		lor/CCT	Finish				
Source	N/A	N/A	1	1	300 W	DUAI	L-WHEEL	BLACK				

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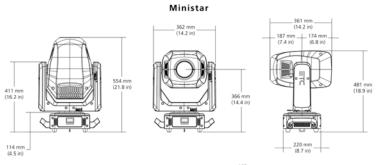
ETC Ministar

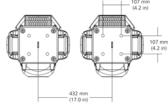
High End Systems

Product Dimensions

Model	Height		Width		De	pth	Weight	
	in	mm	in	mm	in	mm	lb	kg
Ministar**	21.8	554	14.2	362	8.7	220	35.7	16.2
Ministar in Box with Molded Insert	26.6	676	21.1	536	14.9	378	62.7	28.5

^{**}Does not include mounting hardware





Power Table

VAC	Amps	Hz	Watts	VA	PF
100	4.8	50	480	509	0.99
120	4.0	60	480	497	0.99
200	2.5	50	480	484	0.98
208	2.4	60	480	489	0.97
220	2.3	50	479	491	0.97
230	2.2	50	479	495	0.97
240	2.1	60	473	492	0.95

	Manufacturer	Manufacturer			Part Number							
Fixture formation	ETC		LS-UB-MI-2550A1200-B+2500B7029-A									
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr				
Ξ	OMEGA/C-CLAMP		DMX			300 W	120	INTEGRAL ELECT				
rce	Lamp Manufacturer	Lamp Info)/Part#	# Lamps Lamp Wa		s Co	lor/CCT	Finish				
Source	N/A	N/A	4	1	300 W	DUAL	WHEEL	BLACK				

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Ministar*

High End Systems

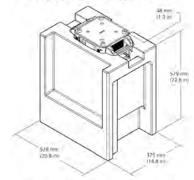
ADDITIONAL ORDERING INFORMATION

Additional Accessories

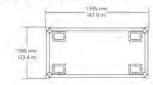
ETC

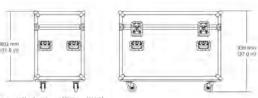
Model Number	Description
2599A2000	Omega bracket, 107 mm Three-hole (included)
H7180023	Omega bracket, 107 mm Single-holé
H7000012	Galvanized safety cable with spring snap

Molded Case Insert Dimensions



Optional Roadcase Dimensions







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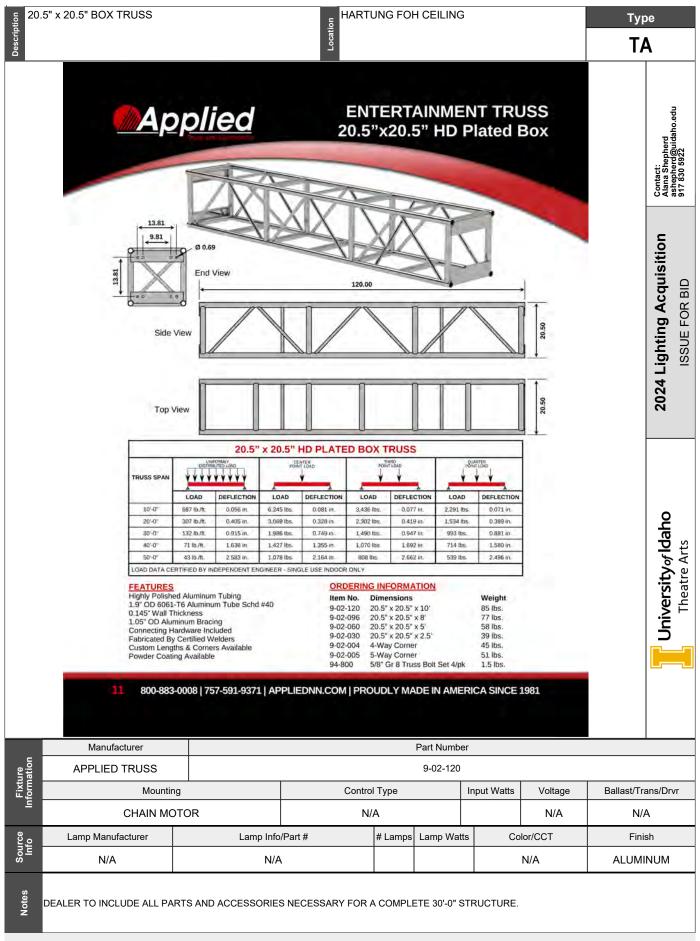
	Manufacturer	Part Number								
Fixture Information	ETC		LS-	LS-UB-MI-2550A1200-B+2500B7029-A						
Fixt	Mounting		Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr		
드	OMEGA/C-CLAMP		DMX			300 W	120	INTEGRAL ELECT		
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A	1	1 300 W		DUAI	L-WHEEL	BLACK		

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Revision: 0

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Date: 3/25/2023





LODESTAR CLASSIC

STAR® CLASSIC

ELECTRIC CHAIN

CAPACITIES 1/8 to 2 Ton

60 feet standard (other lifts available)

SPEEDS 5 to 100 feet/minuter

1-phase & 3-phase available

VOLTAGES

The legendary CM-ET Classic Lodestar electric chain motor is back for a command performance. Leading the entertainment industry for more than three decades, this workhorse offers best-in-class performance, safety and reliability. The Classic Lodestar is universally trusted by rigging professionals around the world and is ideal for touring concerts and productions both indoors and out.

BENEFITS & FEATURES

LOW VOLTAGE CONTROL

110 volt for long cable runs without voltage drop. 24 and 48 volt optional, Single-phase and three-phase also available.

An Ingress Protection (IP) Rating of 66 indicates that the Lodestar Classic offers protection from dust and high-pressure water – making this unit ideal for use in outdoor environments.

 HIGH-PERFORMANCE COMPOSITE CORD GRIPS
 Prevent water from entering the motor body at the pendant and power cord

points of entry. . CONTINUOUS GASKETS

Create a waterproof seal between the gearbox assembly and the back frame and motor covers.

O-RINGS ON LIFT WHEEL BEARING Prevent water from entering the motor body through the lift wheel opening.

LONG SERVICE LIFE

- Standard AC brake is designed for a long service life.
- Lifetime grease-lubricated gear box ensures better wear and smooth operation. Heavy-duty-rated motors.
- Standard external chain guide helps extend chain life

DUTY CYCLE

H-4 duty rated for heavy-duty applications, 2M+ FEM class, 50% duty cycle or 300 on/off per hour.

OVERLOAD PROTECTOR

Helps prevent lifting of dangerous overloads

OVER-TRAVEL PREVENTION

Adjustable limit switch prevents load from over-travel in both up and down directions.

LIGHTWEIGHT, CAST-ALUMINUM HOUSING

Durable and strong cast-aluminum housing is black powder coated for low visibility.

METRIC RATED

ROAD READY

Easy to stow and travel. LIFETIME WARRANTY

The industry's best warranty against manufacturing and material defects.





PHONE: 800.888.0985





ENTERTAINMENT PRODUCT CATALOG

6

WWW.CM-ET.COM

Manufacturer Part Number Fixture nformation CM L-3609CF Mounting Control Type Input Watts Voltage Ballast/Trans/Drvr 136 CHAIN N/A W 115 N/A Source Info Lamp Manufacturer Lamp Info/Part # # Lamps Lamp Watts Color/CCT Finish 136 W **BLACK** N/A N/A 1 N/A 9

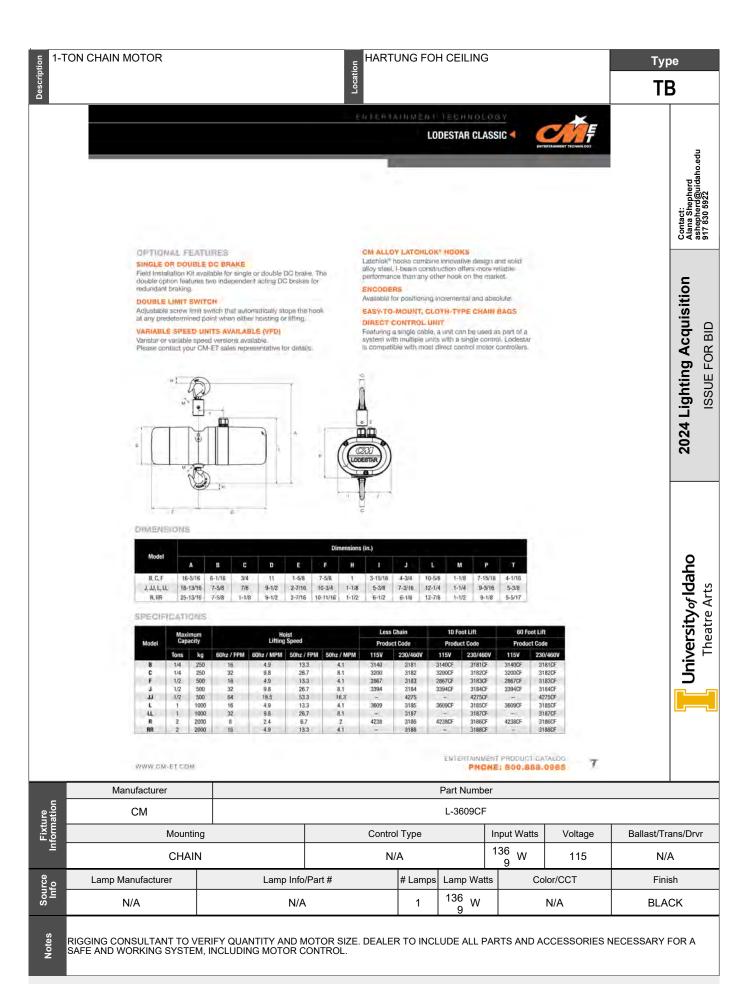
RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.

Project: 2401 Revision: 0 Page 63 of 70 Date: 3/25/2023

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition 函 ISSUE







LODESTAR CLASSIC (KEY COMPONENTS)

ESTAR° CLASSIC **ELECTRIC CHAIN MOTOR**

KEY COMPONENTS

1. 4-POCKET LIFT WHEEL

Lift wheel with improved water and dust sealing features for IP66 level protection.

2. ADJUSTABLE LIMIT SWITCH
Easy-to-adjust screw limit switch automatically stops the hook at any
predetermined point when either lifting or lowering, preventing overtravel. (Low-voltage unit only)

PROVEN BRAKE DESIGN
Heavy-duty AC electromechanical brake has been field tested in more than
one million Lodestar hoists worldwide. Optional DC brake and double
DC brake are also available.

4. EASY-ACCESS CONTROL PANEL

Finger-safe wiring and plug-and-play connectors on the control panel allow for quick voltage change from 208/230 to 460. Prevents improper voltage connections that may cause hoist darmage. Easy access to terminal strips and simple fuse installation. (Low-voltage units only)

5. ZINC-PLATED LOAD CHAIN

Designed and manufactured in the USA by Columbus McKinnon, our zinc-plated Star Grade load chain protects against corrosion. Optional black finish available.

6. EXTERNAL CHAIN GUIDE

The standard external chain guide provides efficient chain management for longer chain life. It also protects the hoist from damage caused by cross linked chain, as well as damage to the internal guides and hoist frame The guide is easily replaced and can be retrofitted to older units in the field.





LIFT WHEEL



ENTERTAINMENT PRODUCT CATALOG 8 PHONE: 800.888.0985

WWW.CM-ET.COM

	Manufacturer		Part Number							
Fixture Information	CM			L-3609CF						
Fixt	Mounting		Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr		
드	CHAIN		N/A			¹³⁶ W	115	N/A		
rce	Lamp Manufacturer Lamp Info		/Part# # Lamps Lamp \		Lamp Wat	ts Co	olor/CCT	Finish		
Source Info	N/A	N/A	4	1	136 W		N/A	BLACK		

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.

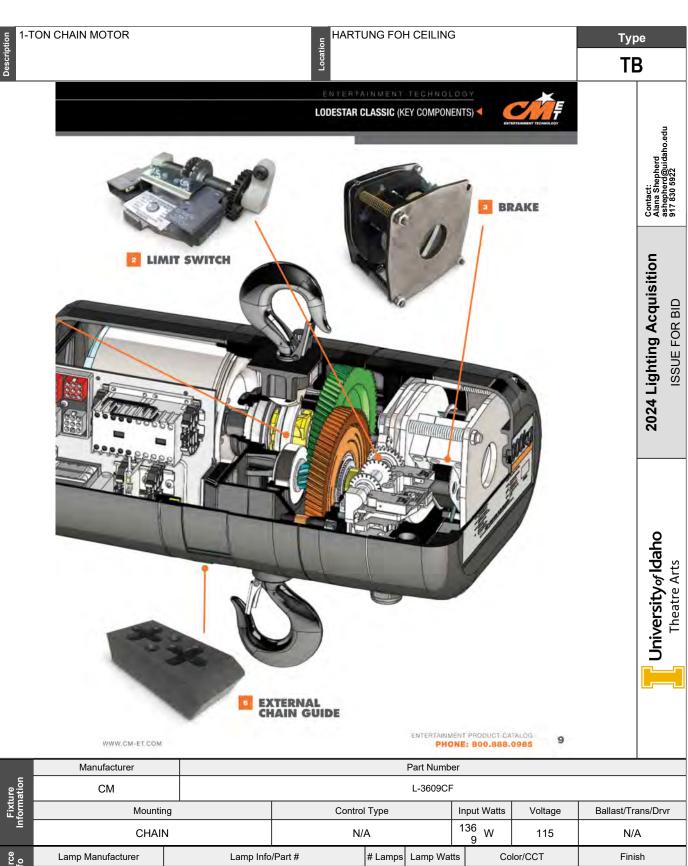
Project: 2401 Revision: 0 Page 65 of 70 Date: 3/25/2023

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition

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	Manuacturei	i artivumber								
Fixture formation	CM			L-3609CF						
Fixt	Mounting		Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr		
Ξ	CHAIN		N/A			136 9 W	115	N/A		
rce	Lamp Manufacturer Lamp Info/		/Part#	# Lamps	Lamp Wat	ts Co	lor/CCT	Finish		
Source Info	N/A	N/A N/A		1	¹³⁶ W		N/A	BLACK		

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.

Description



LODESTAR



ELECTRIC CHAIN MOT

CAPACITIES 1/8 to 2 Ton

60 feet standard (other lifts available)

SPEEDS 5 to 100 feet/minute

VOLTAGES 1-phase & 3-phase available

From world touring rock concerts and Broadway musicals to Las Vegas shows and sporting events, the CM Lodestar is the trusted industry workhorse.

BENEFITS & FEATURES

IP66 RATING
An Ingress Protection (IP) Rating of 66 indicates that the Lodestar offers protection from dust and high-pressure water – making this unit ideal for use in outdoor environments.

- HIGH-PERFORMANCE COMPOSITE CORD GRIPS
 Prevent water from entering the motor body at the pendant and
- power cord points of entry. · CONTINUOUS GASKETS Create a waterproof seal between the gearbox assembly and the back frame and motor covers.

 O-RINGS ON LIFT WHEEL BEARING

Prevent water from entering the motor body through the lift wheel opening.

5 POCKET LIFTWHEEL

Improved chain wear & smooth lifting. CLUTCH OUTSIDE GEAR TRAIN

Meets international standards.

PRECISION HELICAL GEARING For quieter operation.

REDESIGNED CONTROL PANEL

For easier access

HEAVY DUTY DC BRAKE

Designed for a long service life, the brake location allows for quick access & easy inspection.

LOW VOLTAGE CONTROL

110 Volt for long cable runs without voltage drop. 24 & 48 Volt optional. (Low Voltage Unit Only)

DURABLE & LIGHTWEIGHT HOUSING
Cast aluminum. Black powder coated finish for low visibility.

GEARING

Helical design for long wear life and smooth operation

LOAD CHAIN

Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Optional black finish available.

DUTY CYCLE

H-4 duty rated for heavy duty application, 2M+ FEM class, 50% Duty Cycle or 300 on/off per hour.

FLECTRICAL

Finger safe wiring meets all electrical codes. Quick change plugs allow for voltages 208 through 460. Prevents impoper voltage connections which can cause hoist damage. (Low Voltage Unit Only)

ADJUSTABLE LIMIT SWITCH

Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either lifting or lowering, preventing overtravel. (Low Voltage Unit Only)

OVERLOAD PROTECTOR

Designed to prevent lifting of excessive overloads. Helps prevent lifting of dangerous overloads.

METRIC RATED MEETS REQUIREMENTS

Meets or exceeds world standards.

ROAD READY

Easy to stow and travel.

LIFETIME WARRANTY The industry's best.



Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition 丽 FOR ISSUE









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	Manufacturer		Part Number								
Fixture formation	СМ		L-3609CF								
Fixt	Mounting		Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr			
Ξ	CHAIN		N/A			¹³⁶ W	115	N/A			
rce fo	Lamp Manufacturer	Lamp Info	/Part#	# Lamps	Lamp Wat	ts Co	olor/CCT	Finish			
Source	N/A	N/A	Λ	1	136 W		N/A	BLACK			

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.

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LODESTAR 4



Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

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2024 Lighting Acquisition **ISSUE** I

DIPTIONAL FEATURES

DOUBLE DC BRAKE

Two independent acting DC brakes for redundant braking. Field installation kit available.

AC ELECTRIC BRAKE

DOUBLE LIMIT SWITCH

Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either hoisting or lifting.

ENCODERS

Available for positioning incremental and absolute.

VARIABLE SPEED UNITS AVAILABLE (VFD)

Varistar or variable speed versions available, please contact your CM-ET sales representative for details.

CM ALLOY LATCHLOK® HOOKS

Latchlok" hooks combine innovative design and solid allow steel. I-beam construction offers more reliable performance than any other hook on the market.

- . One-hand operation and recessed push-button thumb release for smooth and dependable opening.
- Hook remains locked until released by the operator, even if chain goes stack.
- Sturdy forged heat treated I-beam construction for strong, yet lightweight hooks.
- Lifetime warranty.
- Made in U.S.A.

CHAIN BAGS

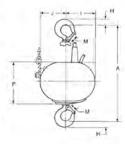
Cloth type bags easy-to-mount.

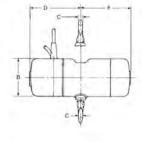
DIRECT CONTROL UNITS

The CM Lodestar is available as a Direct Control Unit. Featuring a single cable, this Direct Control Unit can be used as part of a system with multiple units with a single control. The Lodestar is compatible with most Direct Control Motor Controllers.

DIMENSIONS

Drawing		Dimensions (in.)						
Legend	Models B, C, F	Models J, JJ, L, LL	Models R, RR					
A	16.20	18.5625	24,125					
В	6.08	7.62	7.62					
C	.67	.875	1,125					
D	11.80	10.03	10.03					
F	8.94	13.01	13.01					
H	1	1.1875	1.5					
1	4.46	6.93	5,57					
J	4.22	5.69	7.05					
M	1	1.125	1.3125					
P	6.62	8.22	8.22					





SPECIFICATIONS

Model	(Ton)	Product Code		Chain Size	Lifting	Motor	Full Lo	ad Amps	Work Rating		Division	Lift
		115-1-60	230/460-3-60	Used (in.)	Speed (FPM)	HP	115-1-60	230/460-3-60	нмі	FEM	Reeving	(Feet)
В	1/4	3140NH	3169NH	1/4	16	1/4	5.3	1.8/1.1	H4	2M+	1	60
C	1/4	3200NH	3201NH	1/4	32	1/2	7.9	2.2/1.3	H4	2M+	1	60
F	1/2	2867NH	2868NH	1/4	16	1/2	7.9	2.2/1.3	H4.	2M+	1	60
	1/2	3394NH	3482NH	5/16	32	1	11.9	3.7/2.2	H4	2M+	1	60
JJ	1/2	n/a	4271NH	-5/16	64	2	n/a	7.9/5.0	H4	2M+	1	60
1	-1	3609NH	3610NH	5/16	16	1	11.9	3.7/2.2	H4	2M+	1	60
ii.	1	n/a	4273NH	5/16	32	2	n/a	7.9/5.0	H4	2M+	1	60
R	2	4238NH	4239NH	5/16	8	1	11.9	3.7/2.2	H4	2M+	2	60
RR	2	n/a	4272NH	5/16	16	2	n/a	7.9/5.0	H4	2M+	2	60

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*Metric Tons
**** Lifts other than 60 ft. available
(Standard Units shipped less chain unless specified)
Consult factory for additional speeds and capacities

2-TON, SINISLE REEVED MODELS (Next magn)

ENTERTAINMENT PRODUCT CATALOG

11 PHONE: 800,888,0985

	N/a.	ufoot	ıror	
_				

	Manufacturer		Part Number							
Fixture Information	CM			L-3609CF						
Fixt	Mountin	Control	Туре		Input Watts	Voltage	Ballast/Trans/Drvr			
ᄪ	CHAIN		N/A			¹³⁶ W	115	N/A		
rce	Lamp Manufacturer	p/Part # # Lamps Lamp V		Lamp Wat	ts Co	lor/CCT	Finish			
Source Info	N/A	N/A	\	1	136 W		N/A	BLACK		

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.

Contact: Alana Shepherd ashepherd@uidaho.edu 917 830 5922

2024 Lighting Acquisition

 $\overline{\mathbf{B}}$



ELECTRIC CHAIN MOTOR

KEY COMPONENTS

LIFT WHEEL
 Pocket Liftwheel increases chain and liftwheel engagement while providing smoother lifting, less vibration and reduced chain wear when properly maintained.

LIMIT SWITCH Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either hoisting or lifting.

3. BRAKE

Heavy Duty DC Brake is standard. AC Brake and Double DC Brake are also available.

4. CONTROL PANEL

Provides easy access to controls, plug and play connectors allow for quick voltage change for dual voltage motors. Fuses located on terminal strip (optional).

5. CLUTCH

Designed to prevent lifting of excessive overloads. Located outside the gear box. Adjustable and easy to access.

6. LOAD CHAIN

Sizes available from 1/4 in. to 5/16 in. Meets or exceeds many national and international standards. Zinc plated supplied as standard. Black phosphate finish available, 100% proof tested.

7. INTERNAL CHAIN GUIDE

Stamped Steel guide coated for corrosion resistance and quiet operation, while keeping the load chain and liftwheel aligned.



University of Idaho



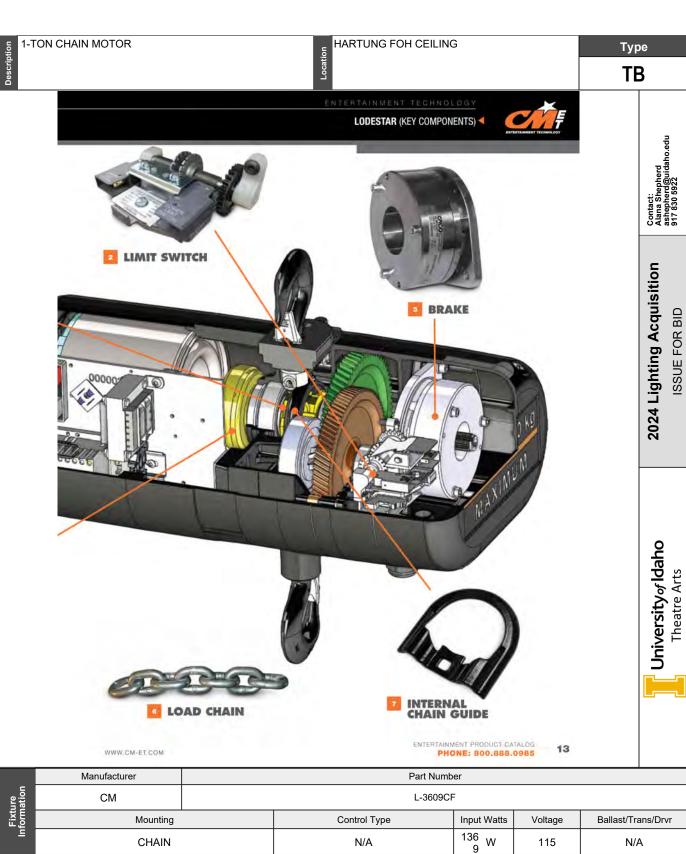
ENTERTAINMENT PRODUCT CATALOG 12 PHONE: 800.888.0985

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LIFT WHEEL

	Manufacturer		Part Number								
Fixture iformation	СМ					L-3609CF					
Fixt	Mounting		Control	I Туре		Input Watts	Voltage	Ballast/Trans/Drvr			
Ë	CHAIN		N/A			¹³⁶ W	115	N/A			
rce	Lamp Manufacturer	Lamp Manufacturer Lamp Info		o/Part## # Lamps I		ts Co	olor/CCT	Finish			
Source Info	N/A	N/A	4	1	136 W		N/A	BLACK			

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.



	Manufacturer	Part Number										
Fixture Information	СМ					L-3609CF						
Fixt	Mounting		Control Type			Input Watts	Voltage	Ballast/Trans/Drvr				
드	CHAIN		N/A			¹³⁶ W	115	N/A				
rce fo	Lamp Manufacturer	Lamp Info	Lamp Info/Part #		Lamp Wat	ts Co	lor/CCT	Finish				
Source Info	N/A	N/A	4	1	136 9 W		N/A	BLACK				

RIGGING CONSULTANT TO VERIFY QUANTITY AND MOTOR SIZE. DEALER TO INCLUDE ALL PARTS AND ACCESSORIES NECESSARY FOR A SAFE AND WORKING SYSTEM, INCLUDING MOTOR CONTROL.