



**Juno**<sup>®</sup>

Recessed and Trac Lighting

## Flex 12<sup>™</sup>

Flex 12 satin aluminum ribbon trac inspires inventive, unique solutions that integrate art and architecture



JUNO LIGHTING GROUP  
an **AcuityBrands** company



<b>Spotlights</b>	<b>2</b>
Geometrics	2
Delta 200 Series <sup>®</sup>	2
Gyrus <sup>™</sup>	5
Trapezia <sup>™</sup>	5
Gimbal Ring	6
Luminous Indirect Cone	6
Universal	7
<b>Decorative Pendants</b>	<b>8</b>
<b>System Components and Transformers</b>	<b>14</b>
<b>Typical Layouts</b>	<b>20</b>

**Flex 12" Catalog Number Index**

R37D .....	17	TF165 .....	2	TFB100 .....	20
R37F .....	17	TF196 .....	6	TFG116 .....	2
T94SL .....	17	TF301 .....	7	TFP78 .....	13
T965L .....	17	TF308SL .....	7	TFP100 .....	6
TF4SL .....	14	TF309BU .....	7	TFP116 .....	2
TF8SL .....	14	TF309W .....	7	TFP144 .....	13
TF21SL .....	16	TF309YL .....	7	TFW4SL .....	14
TF22SL .....	16	TF34SL-144 .....	16	TLP300BU .....	6
TF23SL .....	14	TF529SL .....	17	TLP300GR .....	6
TF24SL .....	14	TF530SL .....	17	TLP300WH .....	6
TF30SL .....	14	TF540SL .....	14	TLP300YL .....	6
TF31SL .....	14	TF903SL .....	17	TLP310 .....	10
TF32SL .....	14	TF912SL .....	17	TLP311 .....	10
TF33SL .....	16	TF918SL .....	17	TLP312 .....	11
TF34SL .....	16	TF924SL .....	17	TLP314 .....	10
TF40SL .....	14	TF936SL .....	17	TLP315 .....	10
TF45SL .....	17	TF948SL .....	17	TLP316 .....	12
TF90SL .....	17	TF950SL .....	16	TLP318 .....	11
TF91SL .....	17	TF950SL-144 .....	16	TLP320 .....	12
TF92SL .....	17	TF5150BL .....	18	TLP322 .....	11
TF93SL .....	17	TF5300BL .....	18	TLP324 .....	11
TF130-9 .....	5	TF5600BL .....	18	TLP326 .....	12
TF130-16 .....	5	TF5600BL-24V .....	18	TLP327 .....	12
TF140 .....	5	TF6150E-SL .....	18	TLP328 .....	13
TF160 .....	2	TF6300SL .....	18		
TF161 .....	2	TF51200BL-24V .....	18		

Flex 12 satin aluminum ribbon-like trac and pure geometrical forms make it unique among monorail systems. Use it in straight runs or field-curve it to echo the natural rhythms of curved walls or to introduce pleasing visual contrast into an angular space. Whether mounted close to the ceiling, suspended from stainless steel cable or extended off of a wall, Flex 12 offers unlimited possibilities with a system that is widely recognized for its simple installation with minimum number of components. Flex 12 inspires inventive, unique solutions that integrate art and architecture.



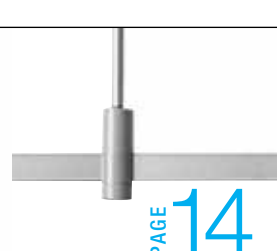
**Spotlights**

A wide range of silver finished spotlights is available to produce efficient, effective accent lighting effects from this most playful system.



**Decorative Pendants**

Juno's enticing array of eye-catching forms, colors and patterns provide effective and attractive illumination over tables, counters or feature displays.



**System Components and Transformers**

Flex 12™ trac sections, electrical feeds, connectors, mounting options, transformers and light control accessories, along with typical layouts are presented in this comprehensive section.



## Geometrics

The timeless simplicity of cones and spheres. Choose the petite MR11 Dart for a playful accent, the MR16 Cone for a more sophisticated design statement or the Orb for balanced, consistent appearance regardless of aiming angle.

FINISHES:  SILVER (SL)

### Dart

CATALOG #	LAMP	DIMENSIONS
<b>TF161</b>	<b>12V OR 24V 20-35W MR11</b>	

FINISHES: SL

### Cone

CATALOG #	LAMP	DIMENSIONS
<b>TF160</b>	<b>12V OR 24V 20-50W MR16</b>	

FINISHES: SL

ACCESSORIES:

Color Filters	T551-5
UV Filter	T5522
Dichroic Lenses	T5501-18
Diffuse Spread Lens	T5520
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Uniformity Lens	T5521
Hexcell Louver	T5559BL

### Orb

CATALOG #	LAMP	DIMENSIONS
<b>TF165</b>	<b>12V OR 24V 20-50W MR16</b>	

FINISHES: SL

ACCESSORIES:

Color Filters	T551-5
UV Filter	T5522
Dichroic Lenses	T5501-18
Diffuse Spread Lens	T5520
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Uniformity Lens	T5521
Hexcell Louver	T5559BL

## Delta 200 Series®

An angular, die-cast fixture body and rod-supported lamp bezel create a semi-exposed, technical appearance. Choose the Pendant model for ceiling applications or the Gallery model to throw light back onto vertical surfaces, signage or displays.

FINISH:  SILVER (SL)

### Gallery

CATALOG #	LAMP	DIMENSIONS
<b>TFG116</b>	<b>12V OR 24V 20-50W MR16</b>	

FINISHES: SL

ACCESSORIES:

Black Barn Doors	T74BL
Color Filters	T551-5
UV Filter	T5522
Diffuse Spread Lens	T5520
Dichroic Lenses	T5501-18
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Uniformity Lens	T5521
Hexcell Louver	T5559BL
Snoot	T558BL

### Pendant

CATALOG #	LAMP	DIMENSIONS
<b>TFP116</b>	<b>12V OR 24V 20-50W MR16</b>	

FINISHES: SL

ACCESSORIES:

Black Barn Doors	T74BL
Color Filters	T551-5
UV Filter	T5522
Dichroic Lenses	T5501-18
Diffuse Spread Lens	T5520
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Uniformity Lens	T5521
Hexcell Louver	T5559BL
Snoot	T558BL

See page 20 for complete accessory descriptions.

## Artistically and Physically Pliable

Flex 12™ is easily field curved to express a limitless variety of designs. Radii as small as 15" electrically accept fixtures and feeds. Radii as small as 4" are possible where fixtures or feeds are not required. Flex 12 can be hand bent free-form by someone with an artisan's touch or precision formed using Juno's proprietary bending machine.

## Creative Potential

Flex 12 array of decorative fixtures and pendants provide a colorful palette for the contemporary interior. In combination with the satin aluminum ribbon-like trac and pure geometrical fittings, Flex 12 inspires unbounded possibilities for creative expression.



TF140/E



TF130-9



TF130-16

## Gyrus™

With Integral Dual  
Accessory Holder

A new spin on an old idea, the Gyrus™ combines dramatic aerodynamic styling with an integral accessory holder that accepts up to two standard 2" diameter lenses and louvers. The snap-on design makes this an easy to accessorize fixture for more demanding display lighting applications.

FINISH:  SILVER(SL)

CATALOG #	LAMP	DIMENSIONS
<b>TF140</b>	<b>12V OR 24V 20-50W MR16</b>	

FINISH: **SL**

**ACCESSORIES:**

Color Filters	T741-46
UV Filters	T7422
Dichroic Lenses	T7401-18
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Diffuse Spread Lens	T7420
Uniformity Lens	T7421
Hexcell Louver	T7459BL

## Trapezia™

Trapezia™ suspends the MR16 lamp down from the trac with the grace of a trapeze artist. Slender 9-inch or 16-inch long tubes conceal supply wires feeding into an elegantly sculpted die-cast lamp housing. The light, airy appearance is great for display, exhibition and gallery lighting and the downward reach can make pendant mounting of trac unnecessary.

FINISH:  SILVER(SL)

CATALOG #	LAMP	DIMENSIONS
<b>TF130-9</b>	<b>12V OR 24V 20-50W MR16CG COVER GLASS</b>	

FINISH: **SL**

**ACCESSORIES:**

Accessory Holder	T7400BL, SA
Barn Doors*	T7470BL
Color Filters*	T741-6
UV Filters*	T7422
Dichroic Lenses*	T7401-18
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Diffuse Spread Lens*	T7420
Uniformity Lens*	T7421
Hexcell Louver*	T7459BL

CATALOG #	LAMP	DIMENSIONS
<b>TF130-16</b>	<b>12V OR 24V 20-50W MR16CG COVER GLASS</b>	

FINISH: **SL**

**ACCESSORIES:**

Accessory Holder	T7400BL, SA
Barn Doors*	T7470BL
Color Filters*	T741-6
UV Filters*	T7422
Dichroic Lenses*	T7401-18
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Diffuse Spread Lens*	T7420
Uniformity Lens*	T7421
Hexcell Louver*	T7459BL

\*Filters, lenses and barn door require accessory holder for installation.X

See page 20 for complete accessory descriptions.

Gyrus and Trapezia patent pending

Gyrus US Patent No. D508,792  
Trapezia US Patent No. D504,974





TF196k



TFP100  
WITH TLP300GR

## Gimbal Ring

This sculpted dual yoke design is an elegant interpretation of the classic gimbal ring.

**FINISHES:**

SILVER(SL)

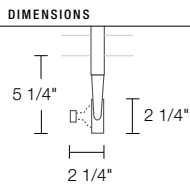
CATALOG #	LAMP	DIMENSIONS
-----------	------	------------

**TF196**     **12V OR 24V**  
**20-50W MR16**

FINISH: SL

**ACCESSORIES:**

Color Filters	T551-5
UV Filter	T5522
Diffuse Spread Lens	T5520
Dichroic Lenses	T5501-18
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Uniformity Lens	T5521
Hexcell Louver	T5559BL



## Luminous Indirect Cone

Indirect cones add a hint of perceived brightness, color and sparkle into a room.

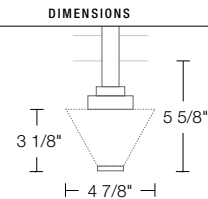
**FINISHES:**

SILVER(SL)

CATALOG #	LAMP	DIMENSIONS
-----------	------	------------

**TFP100**     **20-35W HALOGEN**  
**BALL LIGHT**  
**20-35W G4/GY6.35**  
**HALOGEN BI-PIN CAPSULE**

FINISH: SL

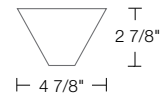


CATALOG #	SHADE	DIMENSIONS
-----------	-------	------------

**TLP300**     **GLASS CONE**  
**SHADE WITH**  
**WHITE INTERIOR**

**FINISHES:**

<b>TLP300WH</b>	WHITE(WH)
<b>TLP300BU</b>	BLUE(BU)
<b>TLP300GR</b>	GREEN(GR)
<b>TLP300YL</b>	YELLOW(YL)







## Universal

Use the minimalist universal by itself for a do everything basic lampholder, or in combination with one of the scoop accessories for playful metallic or colorful accents.

**FINISHES:**

 SILVER(SL)

CATALOG #	LAMP	DIMENSIONS
<b>TF301</b>	<b>12V OR 24V 20-50W MR16CG COVER GLASS</b>	

**FINISH: SL**

**ACCESSORIES:**

Accessory Holder	T7400BL, SA
Barn Doors*	T7470BL
Color Filters*	T741-6
UV Filters*	T7422
Dichroic Lenses*	T7401-18
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Diffuse Spread Lens*	T7420
Uniformity Lens*	T7421
Hexcell Louver*	T7459BL

## Accessory Scoops

Universal halogen spotlights take on a whole new appearance when you dress them up in one of these metal or luminous scoops.

CATALOG #	DESCRIPTION	DIMENSIONS
<b>TF308SL</b>	<b>PERFORATED METAL SCOOP</b>	
<b>FINISHES:</b>		
 SILVER(SL)		

CATALOG #	DESCRIPTION	DIMENSIONS
<b>TF309</b>	<b>LUMINOUS SCOOP</b>	
<b>SCOOP FINISHES:</b>		
 WHITE(W)		
 BLUE FROST(BU)		
 YELLOW FROST(YL)		
<b>RETAINING COLLAR FINISHES:</b>		
 SILVER(SL)		

**ORDERING EXAMPLE:**  
TF309BU-SL

\*Filters, lenses, louvers and barn door require accessory holder for installation.

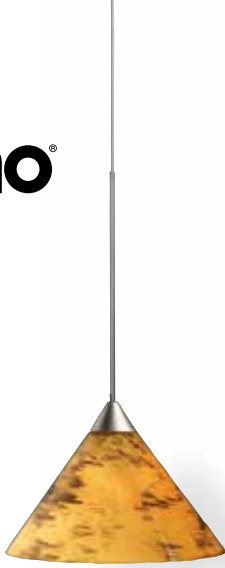
See page 20 for complete accessory descriptions.





# Decorative Pendants

Express your true colors through the radiant mystique of luminous, artisan-crafted glass or cast alluring pools of glare-free light using timeless shapes of lustrous metal. Juno's enticing array of eye-catching forms, colors and patterns provide effective and attractive illumination over tables, counters or feature displays. Complement virtually any personal taste and interior décor with designs that include Inferno Flames, Glacier Teardrops, Silver Flutes and more.



TLP310AMBERDRIFT



TLP311SILVER



TLP314GLACIER\*



TLP315SILVER

## Short Cone-GLASS

Hand blown cased glass with opal interior and satin nickel plated finial.

## Short Cone-METAL

High-reflectance white interior finish and satin nickel plated finial.

## Flute-GLASS

Hand blown cased glass with opal interior and satin nickel plated finial.

## Flute-METAL

High-reflectance white interior finish and satin nickel plated finial.

CATALOG # LAMP

**TLP310\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS

CATALOG # LAMP

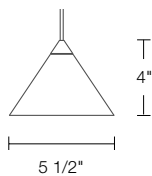
**TLP311\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS

CATALOG # LAMP

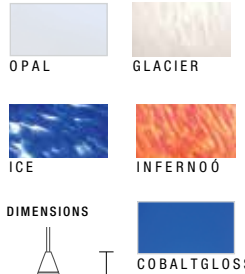
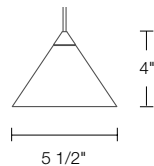
**TLP314\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS

CATALOG # LAMP

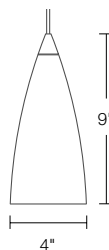
**TLP315\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS  
(EXCEPT 35W MAX FOR  
MIDNIGHT FINISH)



DIMENSIONS



DIMENSIONS



DIMENSIONS



**PLEASE NOTE:** All pendant shades require a TFP78 or TFP144 pendant cordset. Cordset must be ordered separately. See complete description at far right.

\*When ordering add finish name after catalog number, **EXAMPLE:** TLP310NIGHTBLUE.



TLP312COBALT



TLP322PISTACHIO



TLP324OPAL



TLP318ICE

## Tall Cone

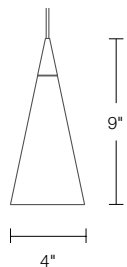
Hand blown cased glass with opal interior and satin nickel plated finial.

CATALOG # LAMP

**TLP312\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS



DIMENSIONS



## Ellipse

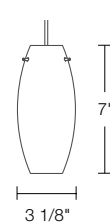
Hand blown cased glass with opal interior and satin nickel plated support spider.

CATALOG # LAMP

**TLP322\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE



DIMENSIONS



## Cylinder

Hand blown cased glass with opal interior and satin nickel plated support spider.

CATALOG # LAMP

**TLP324\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS



DIMENSIONS



## Teardrop

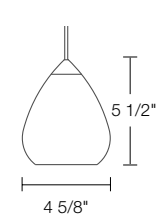
Hand blown cased glass with opal interior and satin nickel plated finial.

CATALOG # LAMP

**TLP318\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS



DIMENSIONS



**PLEASE NOTE:** All pendant shades require a TFP78 or TFP144 pendant cordset. Cordset must be ordered separately. See complete description at far right.

\*When ordering add finish name after catalog number, **EXAMPLE:** TLP310NIGHTBLUE.



TLP326MAIZE



TLP327NATURAL



TLP320INFERNO



TLP316ORANGEPEEL

## RLM-GLASS

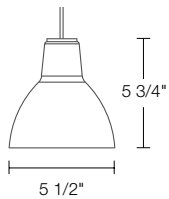
Hand blown cased glass with opal interior and chrome plated top cap.

CATALOG # LAMP

**TLP326\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS



DIMENSIONS



## RLM-METAL

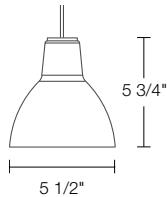
High-reflectance white interior finish. Top cap finished to match body.

CATALOG # LAMP

**TLP327\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS  
(EXCEPT 35W MAX FOR  
MIDNIGHT FINISH)



DIMENSIONS



## Flame

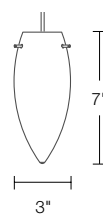
Hand blown cased glass with opal interior and satin nickel plated support spider.

CATALOG # LAMP

**TLP320\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE



DIMENSIONS



## Wrap

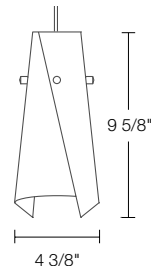
Precision cut, interleaved layers of suede polycarbonate or parchment sheet captured by nickel plated support spider and cap nuts.

CATALOG # LAMP

**TLP316\*** 12V OR 24V, 50W MAX  
T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR  
MR16CG COVER GLASS

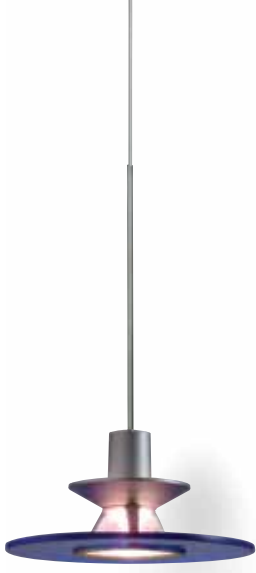


DIMENSIONS



**PLEASE NOTE:** All pendant shades require a TFP78 or TFP144 pendant cordset. Cordset must be ordered separately. See complete description at far right.

\*When ordering add finish name after catalog number, EXAMPLE: TLP310NIGHTBLUE.



TLP328COBALT

## Disc

Precision aluminum casting with integrated aperture ring securely supports tempered glass disc. Use of dichroic lamps washes inverted cone with a decorative aura.

CATALOG # LAMP

**TLP328\* 12V 50W**  
MR16CG COVER GLASS

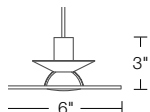


FROST COBALT



AMBERK

### DIMENSIONS



Disc is patent pending.

## Pendant Cordsets

### Flex 12™

Pendant cordset for use with 12-volt Flex 12™ trac systems and monopoints. Includes Flex 12 adapter, splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable, 7" cord straightening sleeve, socket assembly and frosted glass diffuser capsule.

CATALOG # LAMP

**TFP78\* 78" Cordset**

FOR ALL SHADES EXCEPT TLP328:  
12V OR 24V, 50W MAX T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR MR16CG COVER GLASS

**TFP144\* 144" Cordset**

FOR ALL SHADES EXCEPT TLP328:  
12V OR 24V, 50W MAX T4 HALOGEN GY6.35  
BI-PIN CAPSULE OR MR16CG COVER GLASS

FOR TLP328 DISC:  
12V 50W MAX ONLY MR16CG COVER GLASS  
(DISCARD GLASS DIFFUSER CAPSULE)

### FINISHES:

SILVER(SL)

### Halogen Bi-Pin Lamp Data T4 Bi-Pin Base Lamps

CATALOG #	WATTS	VOLTS	LAMP TYPE	CLEAR/		LUMENS*	LIFE*
				FROSTED			
TL925	35	12	Halogen	Clear		600	4,000
TL926	50	12	Halogen	Clear		930	4,000
TL927	37	12	Halogen	Clear		900	4,000
TL928-24V	50	24	Halogen	Clear		850	2,000

\* Rated lumens and lamp life provided by lamp manufacturer.



Flex 12's unique trac construction combines a flexible insulating core that separates two flat aluminum conductors.

**Key Features:**

- Attractive satin aluminum finish
- Can be used in straight sections or field curved
- 25-amp capacity (12V or 24V) for long, economical runs up to 600 watts per circuit
- Available in 4' and 8' lengths
- Connectors that electrically and/or mechanically join trac sections into longer runs

**Flex 12™ Trac Sections** Low voltage trac sections consisting of flexible, insulating center and conductive aluminum skin. Can be field cut and curved (see p.21). 25-amp capacity.  
**DIMENSIONS: 1 3/8" W X 1/8" D**



CATALOG #		FINISHES
<b>TF4SL</b>	<b>4' Trac</b> (actual length 48")	Silver(SL)
<b>TF8SL</b>	<b>8' Trac</b> (actual length 96")	Silver(SL)
<b>TFW4SL</b>	<b>4' Wave Trac</b> (actual length 46 1/8")	Silver(SL)

**End Cover**



**TF30SL End Cover**  
 Optional vinyl-dipped sleeve protects end of trac. One End Cover per package.

**Connectors**



**TF23SL Straight Connector**  
 Electrically and/or mechanically joins two sections of trac. 25-amp capacity.



**TF24SL Right Angle (90°) Connector**  
 Electrically and/or mechanically joins two sections of trac at a right angle (90°). 25 amp capacity.

**Close-to-Ceiling Feed and Mini-Support Cylinders**

Low profile electrical feed cylinder and mechanical mini-support cylinder. Spaces trac 2 1/4" from mounting surface. One electrical feed per circuit is required. Best suited for use in rigid ceiling applications.



**TF31SL Low Profile Electrical Feed Cylinder**  
 With integral outlet box cover. 25-amp capacity.  
**5" DIAMETER**



**TF32SL Low Profile Mechanical Mini-Support Cylinder**  
 With integral micro-canopy. Secures to mounting surface with toggle bolt (supplied) or 10-24 headless hanger screw (not supplied).  
**1 1/4" DIAMETER**

**Monopoints**

For mounting over standard ceiling outlet boxes. Accepts all Flex 12™ spotlights and decorative pendants.



**TF540SL Monopoint with Transformer**  
 With integral 12-volt, 50VA electronic transformer.  
**5" DIAMETER**



**TF40SL Monopoint**  
 For use with remote mounted transformer.  
**5" DIAMETER**

See page 21 for recommended mounting spacings.



Flex 12™ fixtures simply push up onto the trac and lock into position with a screw-on cap. Fixtures can be repositioned or added as needed.

Designed for simple, trouble-free installation, the electrical feed cylinder features a self-locating wiring channel and integral screw terminal connections suitable for up to 10 gauge solid wire. The heavy gauge contacts ensure a permanent, positive electrical connection to the trac. Feed and support cylinders can be installed prior to inserting the trac, further simplifying installation.

## Ceiling Suspended and Wall Mounts



### Pendant Stem Electrical Feed

Canopy and stem assembly mounts over a standard ceiling outlet box that is wired to the transformer secondary.

Specify:

- (1) **TF90SL**
- or
- (1) **TF91SL**
- and
- (1) **TF903SL-TF948SL**
  
- (1) **TF21SL**

### Flexible Electrical Feed

Canopy with flexible 10 gauge wire mounts over a standard ceiling outlet box that is wired to the transformer secondary.

Specify:

- (1) **TF950SL (-144)**
- (1) **TF21SL**
  
- (1) **TF21SL**

### Pendant Stem Mechanical Support

Flex 12™ can be mechanically suspended from the ceiling at non-feed points from a mini-canopy using pendant stems.

Specify:

- (1) **TF92SL\***
- (1) **TF903SL-TF948SL**
- (1) **TF22SL**

\*If mounting on grid, order R37D or R37F T-bar attachment clip.

### Wire Cable Mechanical Support

Steel wire cable mounting offers the most elegant means of supporting Flex 12™ trac. Ideal for trac patterns, it can be easily adjusted to a precise mounting height and has the least prominent mounting hardware. Recommended for patterns only.

Specify:

- (1) **TF34SL (-144)**

### Threaded Rod Mechanical Support

Flex 12™ can also be mechanically suspended from the ceiling at non-feed points using commonly available 10-24 threaded rod (not supplied). This method offers the most economical installation and less conspicuous mounting hardware.

Specify:

- (1) **TF93SL**
- (1) **TF33SL**
- 10-24 threaded rod  
(by others)

## Suspended Mount Electrical Feeds



### Electrical Feed Cylinder

Used to mechanically support and electrically feed power to the trac. One electrical feed circuit is required. For use with pendant stems.

**TF21SL** Electrical Feed Cylinder with 25-amp capacity.



### Flexible Feed Kit

Canopy supplied with 60" or 144" of 10 gauge stranded tandem wire. Allows electrical feed location to be placed independently of mechanical supports. Can be mounted over 4" ceiling outlet boxes or used in conjunction with Flex 12™ surface transformers. Requires TF21SL Electrical Feed Cylinder (order separately). 25-amp capacity.  
4 3/4" DIAMETER

**TF950SL** 60" Feed Wire  
**TF950SL-144** 144" Feed Wire

## Mechanical Support Cylinders



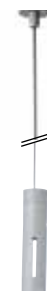
### TF22SL Mechanical Support Cylinder

Mechanical Support Cylinder less electrical contacts.



### TF33SL Threaded Rod Mini-Support Cylinder

Mini-support cylinder with threaded insert for supporting Flex 12™ trac using 10-24 threaded rod (not supplied). Provides mechanical support only. Designed to be used in conjunction with TF93SL Mini-Canopy.



### TF34SL Wire Cable Mini-Support Cylinder and Mini-Canopy

Steel wire cable mounting system for mechanical support of Flex 12™ trac. Supplied with all mounting hardware, including mini-support cylinder, 48" or 144" steel cable, cable glider and mini-canopy for ceiling attachment. Secures to ceiling with toggle bolt (supplied) or wood screw. Other cable lengths available – consult factory.

**TF34SL** 48" Cable  
**TF340SL-144** 144" Cable

See page 21 for recommended mounting spacings.

## Canopies & Pendant Stems



### Large Canopies

Used in conjunction with pendant stems for electrical feed and mechanical support of trac.  
4 3/4" DIAMETER

### TF90SL Canopy for T-Bar Ceilings

Mounts onto T-bar runner and can be fed via flexible metal conduit or non-metallic cable entering into the top of the ceiling mounting plate.

### TF91SL Canopy for Rigid Ceilings

Mounts over standard ceiling outlet boxes.



### Mini-Canopies

Used in conjunction with pendant stems or 10-24 threaded rod (not supplied) for mechanical support of trac. Secures to ceiling with toggle bolt (supplied), wood screw or optional T-bar attachment clip.  
2 1/4" DIAMETER

**TF92SL** Mini-Canopy for Pendant Stems

**TF93SL** Mini-Canopy for 10-24 Threaded Rod

**R37F\*** T-bar Attachment Clip

**R37D\*** T-Bar Attachment Clip with spacer for ceilings using dropped tiles

\*T-Bar clips must be ordered separately



### T94SL Sloped Ceiling Adapter

Permits pendant stems to be hung vertically from sloped ceilings. Used in conjunction with TF91 or TF92 Ceiling Canopies (not included). Allows feeding of wires to trac at up to a 60 degree angle. Accommodates a maximum of two 12 gauge solid THHN copper wires. 20-amp capacity.

### Pendant Stems

Threaded top and bottom permit attachment at the top to canopy assemblies, and at the bottom to electrical feed/support cylinders. Inside diameter accommodates two 10 gauge solid THHN copper wires.

<b>TF903SL</b>	3 1/2"
<b>TF912SL</b>	12"
<b>TF918SL</b>	18"
<b>TF924SL</b>	24"
<b>TF936SL</b>	36"
<b>TF948SL</b>	48"
<b>T96SL</b>	Pendant Stem Coupling

### Wall Feed/Mechanical Support

Flex 12™ may be mechanically supported perpendicular to the wall and electrically fed through a wall-mounted outlet box that is wired to the transformer secondary.

Specify:

(1) **TF45SL**

### Outrigger Feed/Mechanical Support

Flex 12™ may be mounted parallel to the wall and electrically fed when installed over a wall-mounted outlet box that is wired to the transformer secondary.

Specify:

(1) **TF530SL** or (1) **TF529SL**



## Wall Mount Electrical Feeds & Mechanical Supports



### TF45SL Wall Feed/Support Canopy

Electrically feeds and/or mechanically supports the trac perpendicular to wall. Mounts directly to wall or over standard 4" outlet boxes. 25-amp capacity.  
5" DIAMETER



### Outrigger Electrical Feed and Mechanical Support

Used to mechanically support and electrically feed power to the trac in a parallel to wall installation. Extends 5 1/2" from wall. One electrical feed outrigger per circuit is required.

### TF529SL Electrical Feed Outrigger

25-amp capacity. Mounts over standard 4" wall outlet boxes.  
5" DIAMETER

### TF530SL Mechanical Support Outrigger

Canopy fastens to wall with toggle bolts (supplied) or wood screws.  
3" DIAMETER



## Flex 12™ Transformers



Specify:

- (1) **TF6150E-SL**
- or
- (1) **TF6300SL**
- and
- (1) **TF903SL-TF948SL**
- (1) **TF21SLa**

Specify:

- (1) **TF6150E-SL**
- or
- (1) **TF6300SL**
- and
- (2) **TF903SL-TF948SL**
- (1) **TF21SL**
- (1) **TF22SL**

Specify:

- (1) **TF6150E-SL**
- or
- (1) **TF6300SL**
- and
- (1) **TF950SL (-144)**
- (1) **TF21SL**

### Universal Surface Mount Transformers

Designed to mount over standard 4" ceiling outlet boxes, this versatile design can be used with a single pendant stem to support/feed one end of a trac run or with two pendant stems to support/

feed up to a 4' trac section. May also be used with a Flexible Feed Kit to create a non-rigid floating feed, independent of mechanical support of the trac.



CATALOG #	OUTPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/WATTAGE PER CIRCUIT	RECOMMENDED WATTAGE RANGE PER CIRCUIT	DIMENSIONS
<b>TF6150E-SL*</b>	12V	150 watts	1 / 150 watts	50-150 watts	3"H x 12"Dia.
Electronic surface mount transformer with automatic resetting overload and short-circuit protection. Should be mounted within 5' of trac. 120VAC input.					
<b>TF6300SL**</b>	12V	300 watts	1 / 300 watts	150-300 watts	3"H x 12"Dia.
Magnetic toroidal surface mount transformer with resettable circuit breaker. 120VAC input.					

### Remote Magnetic Transformers

Remote mount magnetic transformers are designed to be installed in remote locations such as basements, attics, plenums and electrical closets. The location must be accessible and well ventilated with ambient temperatures below 140-degrees Fahrenheit. 12-volt transformers are the most popular due to the wide selection and availability of 12-volt MR11 & MR16 lamps. 24-volt transformers

double the wattage capacity vs. a 12-volt system, allowing twice as many fixtures to be installed per 25-amp circuit. All magnetic transformers have resettable magnetic circuit breakers and dual-tap standard/ boost primary input leads to adjust for voltage drop. 120VAC input.†



CATALOG #	OUTPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/WATTAGE PER CIRCUIT	RECOMMENDED WATTAGE RANGE PER CIRCUIT	DIMENSIONS
<b>TF5150BL</b>	12V	150 watts	1 / 150 watts	50-150 watts	10"H x 3 7/8"W x 4"D
<b>TF5300BL**</b>	12V	300 watts	1 / 300 watts	150-300 watts	10 7/8"H x 4 7/8"W x 4 7/8"D
<b>TF5600BL**</b>	12V	600 watts	2 / 300 watts	150-300 watts	11 7/8"H x 5 7/8"W x 5 7/8"D
<b>TF5600BL-24V**</b>	24V	600 watts	1 / 600 watts	300-600 watts	11 7/8"H x 5 7/8"W x 5 7/8"D
<b>TF51200BL-24V**</b>	24V	1200 watts	2 / 600 watts	300-600 watts	12 7/8"H x 6 7/8"W x 5 7/8"D

\* Dimmable—for best results use dimmer designed for use with electronic transformers.

\*\* Dimmable—for best results use dimmer specifically designed for use with magnetic transformers.

† 277-volt transformers are available. Consult factory.



## Light Control Accessories

Juno offers a complete range of light control accessories to custom tailor effects:

		Lens/Louver Diameter	
		1 3/4" COMPATIBLE WITH	2" COMPATIBLE WITH
<b>Accessory Holders</b> Required for listed fixtures. Accepts one filter, lens, and louver except where noted.			<b>T7400BL</b> <b>T7400SA</b> Accepts up to 2 accessories
<b>Light Control Lenses</b> These alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.		<b>Light Control Lenses</b> <b>Uniformity Lens</b> <b>Diffusion Lens</b> <b>Prismatic Spread Lens</b> <b>Linear Spread Lens</b>	<b>T5521</b> <b>T5520</b> <b>T557</b> <b>T559</b>
<b>UV Filters</b> These museum quality lenses filter out ultraviolet radiation above 400 nanometers to protect fade sensitive art and objects.		<b>UV Filter</b>	<b>T5522</b>
<b>Color Correction Filters</b> These correct the light, either to warm it up to approximate incandescent, or cool it down to approximate daylight.		<b>Color Correction Filters</b> <b>Halogen-to-Incandescent, 2700K</b> <b>Halogen-to-Daylight, 4250K</b>	<b>T5518</b> <b>T5516</b>
<b>Color Filters</b> These change white light into colored light and are available in colored glass and more efficient/saturated dichroic filters.		<b>Colored Glass Filters</b> <b>Medium Pink</b> <b>Warm Red</b> <b>Daylight Blue</b> <b>Medium Blue</b> <b>Medium Amber</b> <b>Medium Green</b>	<b>T551</b> <b>T553</b> <b>T555</b>
		<b>Dichroic Glass Filters</b> <b>Red</b> <b>Medium Green</b> <b>Medium Blue</b> <b>Yellow</b> <b>Magenta</b> <b>Blue-Green (Cyan)</b>	<b>T5501</b> <b>T5503</b> <b>T5504</b> <b>T5505</b> <b>T5506</b> <b>T5511</b>
<b>Louvers</b> Hexcell louvers reduce perceived fixture brightness.		<b>Hexcell Louvers</b>	<b>T5559BL</b>
<b>Snoot</b> These extend lamp shielding and can reduce spill light in the edge of a beam pattern.		<b>Snoot</b>	<b>T558BL</b>
<b>Barn Doors</b> These create a theatrical look and allow control of the spill light coming off of a lamp.		<b>Barn Doors</b> Does not require separate accessory holder except where noted.	<b>T74BL</b>
			<b>T7400BL</b> Also requires T7400 Accessory Holder
			<b>T7421</b> <b>T7420</b> <b>T7477</b> <b>T7478</b>
			<b>T7422</b>
			<b>T7418</b> <b>T7416</b>
			<b>T741</b> <b>T742</b> <b>T743</b> <b>T744</b> <b>T745</b> <b>T746</b>
			<b>T7401</b> <b>T7403</b> <b>T7404</b> <b>T7405</b> <b>T7406</b> <b>T7411</b>
			<b>T7459BL</b>
			<b>TF160, TF165, TF196, TFG116, TFP116</b>
			<b>TF160, TF165, TF196, TFG116, TFP116</b>
			<b>TF160, TF165, TF196, TFG116, TFP116</b>
			<b>TF140* and fixtures with T7400 Accessory Holder</b>
			<b>TF140* and fixtures with T7400 Accessory Holder</b>
			<b>TF140* and fixtures with T7400 Accessory Holder</b>
			<b>TF140* and fixtures with T7400 Accessory Holder</b>
			<b>TF130, TF301</b>

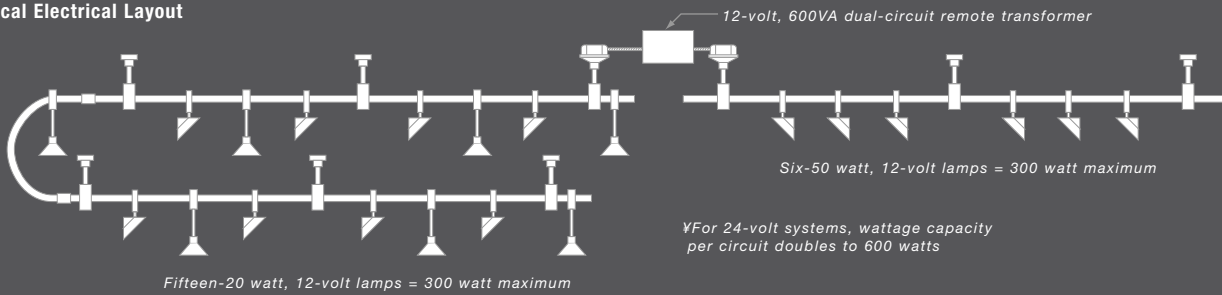
\*Simultaneously accepts any combination of up to two filters, lenses or louver.]



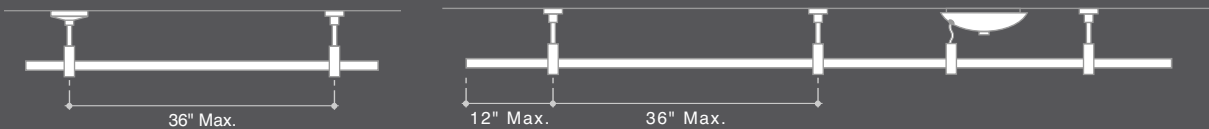
### Typical Layouts

Flex 12™ provides a vast amount of design flexibility, limited primarily by one's imagination. The following examples provide some basic ideas for layouts as well as guidelines that should be applied to any installation.

#### Typical Electrical Layout

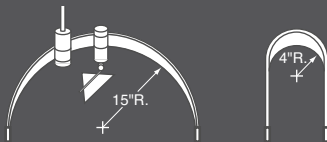


#### Straight Runs



For a straight 4' trac installation, two supports suffice. For a straight 8' trac installation, three supports are required. (Note: In applications where a large number of trac lampholders are to be employed, more supports, more closely spaced, may be required.)

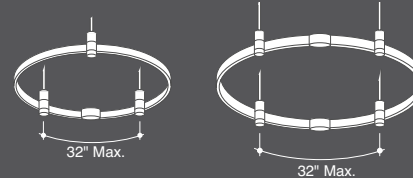
#### Minimum Bending Radii



The trac can be bent to a minimum radius of 15" and still successfully receive Feed Cylinders, Support Cylinders and trac lampholders.

The trac can be bent as tightly as a 4" radius for design purposes but loses the ability to be safely fed with power or receive lampholders. If uncertain about a desired layout, please contact the factory.

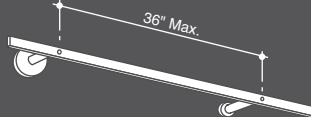
#### Circles



A perfect circle can be made using an 8' section of trac supported at three points 32" apart. This results in a 30.5" diameter circle.

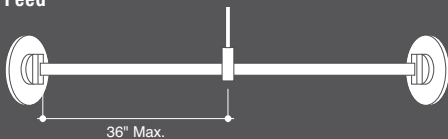
Larger circles can be made by joining multiple trac sections, as long as supports are no greater than 32" apart.

#### Outriggers



Outriggers should be spaced no greater than 36" apart. (In applications where a large number of trac lampholders are to be employed, more tightly spaced outriggers may be required.)

#### Wall Feed



When using a wall feed, the maximum free span of trac before a Feed Cylinder or Support Cylinder is employed is 36".

#### Waveforms



For sinusoidal wave forms, it is recommended that the supports be located at the "peaks" of the wave form for greater trac stability.

Trac is field-bendable by hand, plywood form or by proprietary Juno bending machine (Catalog No. TFB100). Use of a full-size paper template is recommended.

#### TFB100 Portable Trac Bending Machine

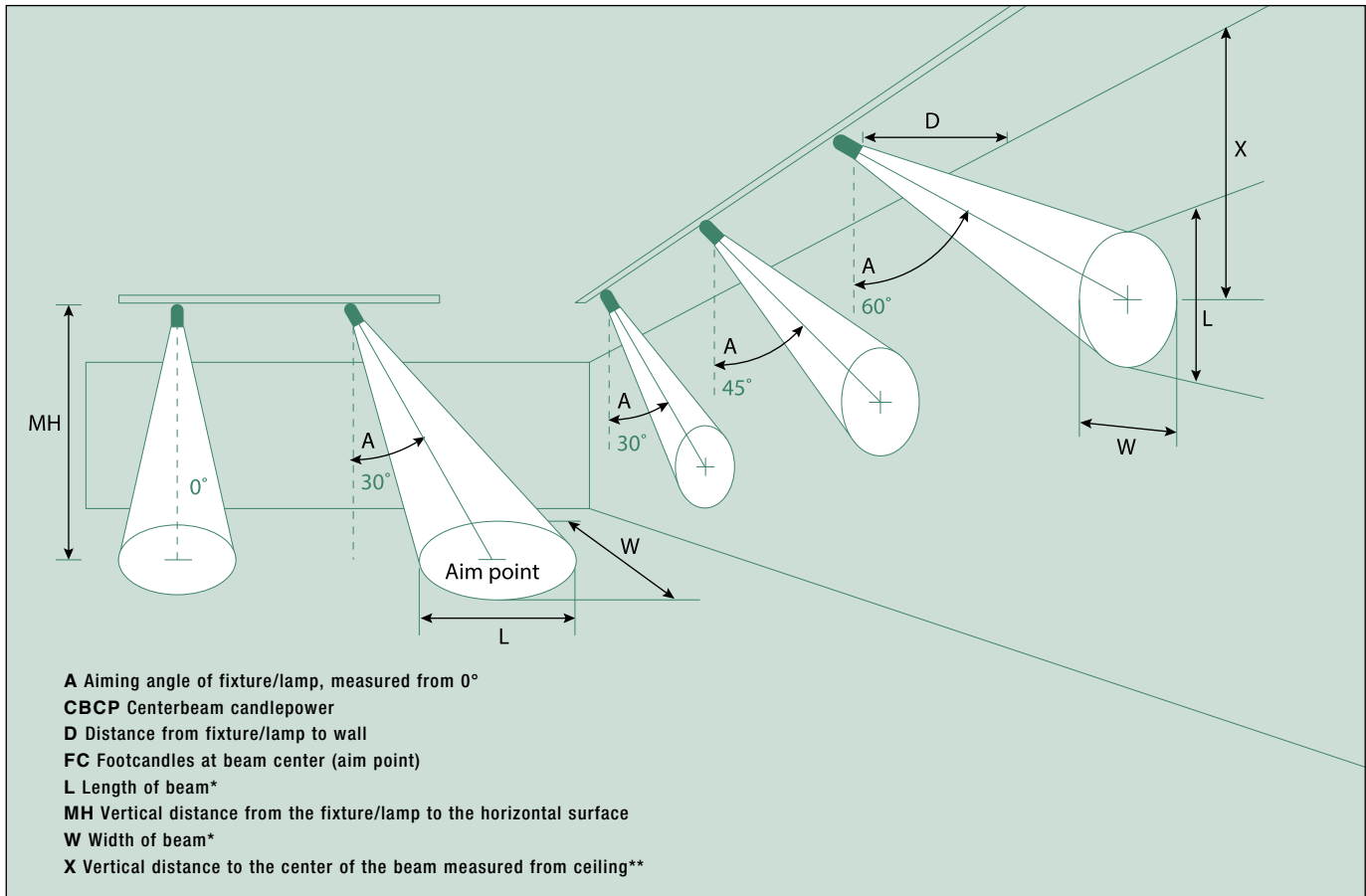
Juno's proprietary trac bender is designed to facilitate simple, in-field bending of Flex 12™ trac. The trac bender is portable and designed for quick clamp-on mounting to a work table.



# Photometric Data

The photometric charts on the following pages provide illumination levels (FC) and beam size (in feet) for lamps of various wattages and beam patterns. Data is given for lamps aimed at both horizontal and vertical surfaces.

Maximum candlepower and rated life is also indicated for each lamp. Lamp performance is based on bare lamp photometrics provided by lamp manufacturers. Additional information may be obtained from Juno.



## 12-Volt and 24-Volt MR11/MR16 (Mirrored Reflector)



These Mirrored Reflector (MR) lamps have smaller “point-source” filaments that are precisely aligned in a miniature multi-faceted reflector to produce exacting beam distributions of white, halogen light. For spot distributions they produce more usable light per watt of energy than comparable wattage halogen PAR lamps. Available in a wide range of beam spreads and wattages, the miniature 2” MR16 lamps allow for very compact fixture designs and, in combination with light control lenses, a high degree of specificity in lighting design. They are the best accent source for highlighting artwork, sculpture, or creating dramatic effects. Smaller, lower wattage 1-3/8” diameter MR11 lamps are also available for special situations where ultra-miniature fixture size is required. Like halogen PAR lamps, many MR16 lamps are now available in “IR” models whereby the infrared heat produced by the lamp is reflected back onto the filament, enabling it to burn hotter and brighter, improving energy efficiency up to 30%. Life ranges from 2000 to 6000 hours. MR lamps require a step-down transformer to supply their required 12 or 24 volts.

\*The beam spread in degrees and the beam “L” and “W” in the following tables are computed at 50% of centerbeam candlepower and represent areas of “effective illumination.”

\*\* In vertical aiming applications, aim point (x) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.577 for 30°, 1.0 for 45°, 1.732 for 60°)

# Low Voltage HALOGEN

Horizontal Aiming Angles

Vertical Aiming Angles

LAMP	BEAM TYPE	BEAM SPREAD	RATED LIFE	CBCP	0 DEGREES				30 DEGREES			30 DEGREES				45 DEGREES				60 DEGREES					
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
20W MR11 Halogen 12 Volt <sub>h</sub>	SP	10°	4000	5500	2	1375	0.3	0.3	893	0.5	0.4	1	688	1.7	0.7	0.3	1945	1.0	0.4	0.2	2	893	1.2	0.5	0.4
					4	344	0.7	0.7	223	0.9	0.8	2	172	3.5	1.4	0.7	486	2.0	0.7	0.5	3	397	1.7	0.7	0.6
					6	153	1.0	1.0	99	1.4	1.2	3	76	5.2	2.1	1.0	216	3.0	1.1	0.7	4	223	2.3	0.9	0.8
					8	86	1.4	1.4	56	1.9	1.6	4	43	6.9	2.9	1.4	122	4.0	1.4	1.0	5	143	2.9	1.2	1.0
					10	55	1.7	1.7	36	2.3	2.0	5	28	8.7	3.6	1.7	78	5.0	1.8	1.2	6	99	3.5	1.4	1.2
	NFL	30°	3500	600	1	600	0.5	0.5	390	0.7	0.6	1	75	1.7	2.7	1.1	212	1.0	1.2	0.8	2	97	1.2	1.5	1.2
					2	150	1.1	1.1	97	1.5	1.2	2	19	3.5	5.5	2.1	53	2.0	2.3	1.5	3	43	1.7	2.2	1.9
					3	67	1.6	1.6	43	2.2	1.9	3	8	5.2	8.2	3.2	24	3.0	3.5	2.3	4	24	2.3	2.9	2.5
					4	38	2.1	2.1	24	2.9	2.5	4	5	6.9	10.9	4.3	13	4.0	4.6	3.0	5	16	2.9	3.7	3.1
					5	24	2.7	2.7	16	3.7	3.1	5	3	8.7	13.7	5.4	8	5.0	5.8	3.8	6	11	3.5	4.4	3.7
20W MR11 Halogen 24 Volt	SP	12°	2000	2200	2	550	0.4	0.4	357	0.6	0.5	1	275	1.7	0.9	0.4	778	1.0	0.4	0.3	2	357	1.2	0.6	0.5
					4	138	0.8	0.8	89	1.1	1.0	2	69	3.5	1.7	0.8	194	2.0	0.9	0.6	3	159	1.7	0.8	0.7
					6	61	1.3	1.3	40	1.7	1.5	3	31	5.2	2.6	1.3	86	3.0	1.3	0.9	4	89	2.3	1.1	1.0
					8	34	1.7	1.7	22	2.3	1.9	4	17	6.9	3.5	1.7	49	4.0	1.7	1.2	5	57	2.9	1.4	1.2
					10	22	2.1	2.1	14	2.8	2.4	5	11	8.7	4.3	2.1	31	5.0	2.1	1.5	6	40	3.5	1.7	1.5
	NFL	30°	2000	500	1	500	0.5	0.5	325	0.7	0.6	1	63	1.7	2.7	1.1	177	1.0	1.2	0.8	2	81	1.2	1.5	1.2
					2	125	1.1	1.1	81	1.5	1.2	2	16	3.5	5.5	2.1	44	2.0	2.3	1.5	3	36	1.7	2.2	1.9
					3	56	1.6	1.6	36	2.2	1.9	3	7	5.2	8.2	3.2	20	3.0	3.5	2.3	4	20	2.3	2.9	2.5
					4	31	2.1	2.1	20	2.9	2.5	4	4	6.9	10.9	4.3	11	4.0	4.6	3.0	5	13	2.9	3.7	3.1
					5	20	2.7	2.7	13	3.7	3.1	5	3	8.7	13.7	5.4	7	5.0	5.8	3.8	6	9	3.5	4.4	3.7
35W MR11 Halogen 12 Volt	SP	10°	4000	8500	4	531	0.7	0.7	345	0.9	0.8	2	266	3.5	1.4	0.7	751	2.0	0.7	0.5	4	345	2.3	0.9	0.8
					6	236	1.0	1.0	153	1.4	1.2	3	118	5.2	2.1	1.0	334	3.0	1.1	0.7	5	221	2.9	1.2	1.0
					8	133	1.4	1.4	86	1.9	1.6	4	66	6.9	2.9	1.4	188	4.0	1.4	1.0	6	153	3.5	1.4	1.2
					10	85	1.7	1.7	55	2.3	2.0	5	43	8.7	3.6	1.7	120	5.0	1.8	1.2	7	113	4.0	1.6	1.4
					12	59	2.1	2.1	38	2.8	2.4	6	30	10.4	4.3	2.1	83	6.0	2.1	1.5	8	86	4.6	1.9	1.6
	NFL	35°	3500	1500	1	1500	0.6	0.6	974	0.9	0.7	1	188	1.7	3.6	1.3	530	1.0	1.4	0.9	2	244	1.2	1.7	1.5
					2	375	1.3	1.3	244	1.7	1.5	2	47	3.5	7.2	2.5	133	2.0	2.8	1.8	3	108	1.7	2.6	2.2
					3	167	1.9	1.9	108	2.6	2.2	3	21	5.2	10.8	3.8	59	3.0	4.2	2.7	4	61	2.3	3.5	2.9
					4	94	2.5	2.5	61	3.5	2.9	4	12	6.9	14.4	5.0	33	4.0	5.6	3.6	5	39	2.9	4.3	3.6
					5	60	3.2	3.2	39	4.3	3.6	5	8	8.7	18.0	6.3	21	5.0	7.0	4.5	6	27	3.5	5.2	4.4
20W MR16 Halogen 12 Volt	VNSP	7°	3000	7400	6	206	0.7	0.7	134	1.0	0.8	3	103	5.2	1.5	0.7	291	3.0	0.7	0.5	6	134	3.5	1.0	0.8
					9	91	1.1	1.1	59	1.5	1.3	4	58	6.9	2.0	1.0	164	4.0	1.0	0.7	7	98	4.0	1.1	1.0
					12	51	1.5	1.5	33	2.0	1.7	5	37	8.7	2.5	1.2	105	5.0	1.2	0.9	8	75	4.6	1.3	1.1
					15	33	1.8	1.8	21	2.4	2.1	6	26	10.4	3.0	1.5	73	6.0	1.5	1.0	9	59	5.2	1.5	1.3
					18	23	2.2	2.2	15	2.9	2.5	7	19	12.1	3.5	1.7	53	7.0	1.7	1.2	10	48	5.8	1.6	1.4
	NSP	15°	5000	3750	4	234	1.1	1.1	152	1.4	1.2	2	117	3.5	2.2	1.1	331	2.0	1.1	0.7	4	152	2.3	1.4	1.2
					6	104	1.6	1.6	68	2.1	1.8	3	52	5.2	3.3	1.6	147	3.0	1.6	1.1	5	97	2.9	1.8	1.5
					8	59	2.1	2.1	38	2.8	2.4	4	29	6.9	4.4	2.1	83	4.0	2.1	1.5	6	68	3.5	2.1	1.8
					10	38	2.6	2.6	24	3.5	3.0	5	19	8.7	5.6	2.6	53	5.0	2.7	1.9	7	50	4.0	2.5	2.1
					12	26	3.2	3.2	17	4.2	3.6	6	13	10.4	6.7	3.2	37	6.0	3.2	2.2	8	38	4.6	2.8	2.4
FL	40°	5000	525	3	58	2.2	2.2	38	3.0	2.5	1	66	1.7	4.8	1.5	186	1.0	1.7	1.0	2	85	1.2	2.0	1.7	
				5	21	3.6	3.6	14	5.1	4.2	2	16	3.5	9.7	2.9	46	2.0	3.4	2.1	3	38	1.7	3.0	2.5	
				7	11	5.1	5.1	7	7.1	5.9	3	7	5.2	14.5	4.4	21	3.0	5.0	3.1	4	21	2.3	4.1	3.4	
				9	6	6.6	6.6	4	9.1	7.6	4	4	6.9	19.3	5.8	12	4.0	6.7	4.1	5	14	2.9	5.1	4.2	
				11	4	8.0	8.0	3	11.2	9.2	5	3	8.7	24.2	7.3	7	5.0	8.4	5.1	6	9	3.5	6.1	5.0	
20W MR16 Halogen 12 Volt Lensed	NSP	15°	5000	3150	4	197	1.1	1.1	128	1.4	1.2	2	98	3.5	2.2	1.1	278	2.0	1.1	0.7	4	128	2.3	1.4	1.2
					6	88	1.6	1.6	57	2.1	1.8	3	44	5.2	3.3	1.6	124	3.0	1.6	1.1	5	82	2.9	1.8	1.5
					8	49	2.1	2.1	32	2.8	2.4	4	25	6.9	4.4	2.1	70	4.0	2.1	1.5	6	57	3.5	2.1	1.8
					10	32	2.6	2.6	20	3.5	3.0	5	16	8.7	5.6	2.6	45	5.0	2.7	1.9	7	42	4.0	2.5	2.1
					12	22	3.2	3.2	14	4.2	3.6	6	11	10.4	6.7	3.2	31	6.0	3.2	2.2	8	32	4.6	2.8	2.4
	FL	40°	5000	475	3	53	2.2	2.2	34	3.0	2.5	1	59	1.7	4.8	1.5	168	1.0	1.7	1.0	2	77	1.2	2.0	1.7
					5	19	3.6	3.6	12	5.1	4.2	2	15	3.5	9.7	2.9	42	2.0	3.4	2.1	3	34	1.7	3.0	2.5
					7	10	5.1	5.1	6	7.1	5.9	3	7	5.2	14.5	4.4	19	3.0	5.0	3.1	4	19	2.3	4.1	3.4
					9	6	6.6	6.6	4	9.1	7.6	4	4	6.9	19.3	5.8	10	4.0	6.7	4.1	5	12	2.9	5.1	4.2
					11	4	8.0	8.0	3	11.2	9.2	5	2	8.7	24.2	7.3	7	5.0	8.4	5.1	6	9	3.5	6.1	5.0



# Low Voltage HALOGEN

LAMP	BEAM TYPE	BEAM SPREAD	RATED LIFE	CBCP	Horizontal Surface								Vertical Surface												
					0 DEGREES				30 DEGREES				30 DEGREES				45 DEGREES				60 DEGREES				
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
	NSP	8°	5000	6500	4	406	0.6	0.6	264	0.7	0.6	2	203	3.5	1.1	0.6	575	2.0	0.6	0.4	4	264	2.3	0.7	0.6
					6	181	0.8	0.8	117	1.1	1.0	3	90	5.2	1.7	0.8	255	3.0	0.8	0.6	5	169	2.9	0.9	0.8
					8	102	1.1	1.1	66	1.5	1.3	4	51	6.9	2.3	1.1	144	4.0	1.1	0.8	6	117	3.5	1.1	1.0
					10	65	1.4	1.4	42	1.9	1.6	5	33	8.7	2.8	1.4	92	5.0	1.4	1.0	7	86	4.0	1.3	1.1
					12	45	1.7	1.7	29	2.2	1.9	6	23	10.4	3.4	1.7	64	6.0	1.7	1.2	8	66	4.6	1.5	1.3
	FL	36°	5000	1000	3	111	1.9	1.9	72	2.7	2.3	1	125	1.7	3.8	1.3	354	1.0	1.5	0.9	2	162	1.2	1.8	1.5
					5	40	3.2	3.2	26	4.5	3.8	2	31	3.5	7.6	2.6	88	2.0	2.9	1.8	3	72	1.7	2.7	2.3
					7	20	4.5	4.5	13	6.3	5.3	3	14	5.2	11.4	3.9	39	3.0	4.4	2.8	4	41	2.3	3.6	3.0
					9	12	5.8	5.8	8	8.1	6.8	4	8	6.9	15.2	5.2	22	4.0	5.8	3.7	5	26	2.9	4.5	3.8
					11	8	7.1	7.1	5	9.9	8.3	5	5	8.7	19.0	6.5	14	5.0	7.3	4.6	6	18	3.5	5.4	4.5
	NSP	10°	4000	8300	6	231	1.0	1.0	150	1.4	1.2	3	115	5.2	2.1	1.0	326	3.0	1.1	0.7	5	216	2.9	1.2	1.0
					8	130	1.4	1.4	84	1.9	1.6	4	65	6.9	2.9	1.4	183	4.0	1.4	1.0	6	150	3.5	1.4	1.2
					10	83	1.7	1.7	54	2.3	2.0	5	42	8.7	3.6	1.7	117	5.0	1.8	1.2	7	110	4.0	1.6	1.4
					12	58	2.1	2.1	37	2.8	2.4	6	29	10.4	4.3	2.1	82	6.0	2.1	1.5	8	84	4.6	1.9	1.6
					14	42	2.4	2.4	28	3.3	2.8	7	21	12.1	5.0	2.4	60	7.0	2.5	1.7	9	67	5.2	2.1	1.8
	SP	20°	5000	3900	4	244	1.4	1.4	158	1.9	1.6	2	122	3.5	3.1	1.4	345	2.0	1.5	1.0	4	158	2.3	1.9	1.6
					6	108	2.1	2.1	70	2.9	2.4	3	54	5.2	4.7	2.1	153	3.0	2.2	1.5	5	101	2.9	2.4	2.0
					8	61	2.8	2.8	40	3.8	3.3	4	30	6.9	6.2	2.8	86	4.0	2.9	2.0	6	70	3.5	2.9	2.4
					10	39	3.5	3.5	25	4.8	4.1	5	20	8.7	7.8	3.5	55	5.0	3.6	2.5	7	52	4.0	3.3	2.9
					12	27	4.2	4.2	18	5.7	4.9	6	14	10.4	9.3	4.2	38	6.0	4.4	3.0	8	40	4.6	3.8	3.3
NFL	25°	4000	3100	4	194	1.8	1.8	126	2.4	2.0	2	97	3.5	4.2	1.8	274	2.0	1.9	1.3	4	126	2.3	2.4	2.0	
				6	86	2.7	2.7	56	3.6	3.1	3	43	5.2	6.2	2.7	122	3.0	2.8	1.9	5	81	2.9	3.0	2.6	
				8	48	3.5	3.5	31	4.8	4.1	4	24	6.9	8.3	3.5	69	4.0	3.7	2.5	6	56	3.5	3.6	3.1	
				10	31	4.4	4.4	20	6.0	5.1	5	16	8.7	10.4	4.4	44	5.0	4.7	3.1	7	41	4.0	4.2	3.6	
				12	22	5.3	5.3	14	7.2	6.1	6	11	10.4	12.5	5.3	30	6.0	5.6	3.8	8	31	4.6	4.8	4.1	
FL	40°	4000	700	2	175	1.5	1.5	114	2.0	1.7	1	88	1.7	4.8	1.5	247	1.0	1.7	1.0	2	114	1.2	2.0	1.7	
				4	44	2.9	2.9	28	4.1	3.4	2	22	3.5	9.7	2.9	62	2.0	3.4	2.1	3	51	1.7	3.0	2.5	
				6	19	4.4	4.4	13	6.1	5.0	3	10	5.2	14.5	4.4	27	3.0	5.0	3.1	4	28	2.3	4.1	3.4	
				8	11	5.8	5.8	7	8.1	6.7	4	5	6.9	19.3	5.8	15	4.0	6.7	4.1	5	18	2.9	5.1	4.5	
				10	7	7.3	7.3	5	10.2	8.4	5	4	8.7	24.2	7.3	10	5.0	8.4	5.1	6	13	3.5	6.1	5.0	
WFL	60°	4000	650	1	650	1.2	1.2	422	1.7	1.3	1	81	1.7	**	2.3	230	1.0	3.5	1.6	2	106	1.2	3.5	2.7	
				2	163	2.3	2.3	106	3.5	2.7	2	20	3.5	**	4.6	57	2.0	6.9	3.3	3	47	1.7	5.2	4.0	
				3	72	3.5	3.5	47	5.2	4.0	3	9	5.2	**	6.9	26	3.0	10.4	4.9	4	26	2.3	6.9	5.3	
				4	41	4.6	4.6	26	6.9	5.3	4	5	6.9	**	9.2	14	4.0	13.9	6.5	5	17	2.9	8.7	6.7	
				5	26	5.8	5.8	17	8.7	6.7	5	3	8.7	**	11.5	9	5.0	17.3	8.2	6	12	3.5	10.4	8.1	
	SP	20°	5000	3200	4	200	1.4	1.4	130	1.9	1.6	2	100	3.5	3.1	1.4	283	2.0	1.5	1.0	4	130	2.3	1.9	1.6
					6	89	2.1	2.1	58	2.9	2.4	3	44	5.2	4.7	2.1	126	3.0	2.2	1.5	5	83	2.9	2.4	2.0
					8	50	2.8	2.8	32	3.8	3.8	3.3	4	25	6.9	6.2	2.8	71	4.0	2.9	2.0	6	58	3.5	2.9
					10	32	3.5	3.5	21	4.8	4.1	5	16	8.7	7.8	3.5	45	5.0	3.6	2.5	7	42	4.0	3.3	2.9
					12	22	4.2	4.2	14	5.7	4.9	6	11	10.4	9.3	4.2	31	6.0	4.4	3.0	8	32	4.6	3.8	3.3
	FL	40°	5000	900	2	225	1.5	1.5	146	2.0	1.7	1	113	1.7	4.8	1.5	318	1.0	1.7	1.0	2	146	1.2	2.0	1.7
					4	56	2.9	2.9	37	4.1	3.4	2	28	3.5	9.7	2.9	80	2.0	3.4	2.1	3	65	1.7	3.0	2.5
					6	25	4.4	4.4	16	6.1	5.0	3	13	5.2	14.5	4.4	35	3.0	5.0	3.1	4	37	2.3	4.1	3.4
					8	14	5.8	5.8	9	8.1	6.7	4	7	6.9	19.3	5.8	20	4.0	6.7	4.1	5	23	2.9	5.1	4.2
					10	9	7.3	7.3	6	10.2	8.4	5	5	8.7	24.2	7.3	13	5.0	8.4	5.1	6	16	3.5	6.1	5.0

\*\*Due to steep aiming angle, length of beam extends beyond 25'. Each angle listed is measured from 0° vertical.

# Low Voltage HALOGEN

Horizontal Surface

Vertical Surface








LAMP	BEAM TYPE	BEAM SPREAD	RATED LIFE	CBCP	0 DEGREES				30 DEGREES				45 DEGREES				60 DEGREES								
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
35W MR16 Halogen 24 Volt Lensed	SP	12°	4000	4950	6	138	1.3	1.3	89	1.7	1.5	3	69	5.2	2.6	1.3	194	3.0	1.3	0.9	5	129	2.9	1.4	1.2
					8	77	1.7	1.7	50	2.3	1.9	4	39	6.9	3.5	1.7	109	4.0	1.7	1.2	6	89	3.5	1.7	1.5
					10	50	2.1	2.1	32	2.8	2.4	5	25	8.7	4.3	2.1	70	5.0	2.1	1.5	7	66	4.0	2.0	1.7
					12	34	2.5	2.5	22	3.4	2.9	6	17	10.4	5.2	2.5	49	6.0	2.6	1.8	8	50	4.6	2.3	1.9
					14	25	2.9	2.9	16	3.9	3.4	7	13	12.1	6.1	2.9	36	7.0	3.0	2.1	9	40	5.2	2.5	2.2
	FL	24°	3500	1200	2	300	0.9	0.9	195	1.2	1.0	1	150	1.7	2.0	0.9	424	1.0	0.9	0.6	2	195	1.2	1.2	1.0
					4	75	1.7	1.7	49	2.3	2.0	2	38	3.5	3.9	1.7	106	2.0	1.8	1.2	3	87	1.7	1.7	1.5
					6	33	2.6	2.6	22	3.5	2.9	3	17	5.2	5.9	2.6	47	3.0	2.7	1.8	4	49	2.3	2.3	2.0
					8	19	3.4	3.4	12	4.6	3.9	4	9	6.9	7.9	3.4	27	4.0	3.6	2.4	5	31	2.9	2.9	2.5
					10	12	4.3	4.3	8	5.8	4.9	5	6	8.7	9.8	4.3	17	5.0	4.5	3.0	6	22	3.5	3.5	2.9
37W MR16 Halogen IR 12 Volt	SP	10°	4000	12500	6	347	1.0	1.0	226	1.4	1.2	3	174	5.2	2.1	1.0	491	3.0	1.1	0.7	7	166	4.0	1.6	1.4
					9	154	1.6	1.6	100	2.1	1.8	4	98	6.9	2.9	1.4	276	4.0	1.4	1.0	8	127	4.6	1.9	1.6
					12	87	2.1	2.1	56	2.8	2.4	5	63	8.7	3.6	1.7	177	5.0	1.8	1.2	9	100	5.2	2.1	1.8
					15	56	2.6	2.6	36	3.5	3.0	6	43	10.4	4.3	2.1	123	6.0	2.1	1.5	10	81	5.8	2.3	2.0
					18	39	3.1	3.1	25	4.2	3.6	7	32	12.1	5.0	2.4	90	7.0	2.5	1.7	11	67	6.4	2.6	2.2
	NFL	25°	4000	4400	4	275	1.8	1.8	179	2.4	2.0	2	138	3.5	4.2	1.8	389	2.0	1.9	1.3	4	179	2.3	2.4	2.0
					6	122	2.7	2.7	79	3.6	3.1	3	61	5.2	6.2	2.7	173	3.0	2.8	1.9	5	114	2.9	3.0	2.6
					8	69	3.5	3.5	45	4.8	4.1	4	34	6.9	8.3	3.5	97	4.0	3.7	2.5	6	79	3.5	3.6	3.1
					10	44	4.4	4.4	29	6.0	5.1	5	22	8.7	10.4	4.4	62	5.0	4.7	3.1	7	58	4.0	4.2	3.6
					12	31	5.3	5.3	20	7.2	6.1	6	15	10.4	12.5	5.3	43	6.0	5.6	3.8	8	45	4.6	4.8	4.1
FL	40°	4000	2200	3	244	2.2	2.2	159	3.0	2.5	1	275	1.7	4.8	1.5	778	1.0	1.7	1.0	2	357	1.2	2.0	1.7	
				5	88	3.6	3.6	57	5.1	4.2	2	69	3.5	9.7	2.9	194	2.0	3.4	2.1	3	159	1.7	3.0	2.5	
				7	45	5.1	5.1	29	7.1	5.9	3	31	5.2	14.5	4.4	86	3.0	5.0	3.1	4	89	2.3	4.1	3.4	
				9	27	6.6	6.6	18	9.1	7.6	4	17	6.9	19.3	5.8	49	4.0	6.7	4.1	5	57	2.9	5.1	4.2	
				11	18	8.0	8.0	12	11.2	9.2	5	11	8.7	24.2	7.3	31	5.0	8.4	5.1	6	40	3.5	6.1	5.0	
42W MR16 Halogen 12 Volt	VNSP	9°	3500	12300	8	192	1.3	1.3	125	1.7	1.5	4	96	6.9	2.6	1.3	272	4.0	1.3	0.9	7	163	4.0	1.5	1.3
					10	123	1.6	1.6	80	2.1	1.8	5	62	8.7	3.2	1.6	174	5.0	1.6	1.1	8	125	4.6	1.7	1.5
					12	85	1.9	1.9	55	2.5	2.2	6	43	10.4	3.8	1.9	121	6.0	1.9	1.3	9	99	5.2	1.9	1.6
					14	63	2.2	2.2	41	2.9	2.5	7	31	12.1	4.5	2.2	89	7.0	2.2	1.6	10	80	5.8	2.1	1.8
					16	48	2.5	2.5	31	3.4	2.9	8	24	13.9	5.1	2.5	68	8.0	2.5	1.8	11	66	6.4	2.3	2.0
50W MR16 Halogen 12 Volt <sub>6</sub>	NSP T526	15°	6000	9100	8	142	2.1	2.1	92	2.8	2.4	3	126	5.2	3.3	1.6	357	3.0	1.6	1.1	6	164	3.5	2.1	1.8
					10	91	2.6	2.6	59	3.5	3.0	4	71	6.9	4.4	2.1	201	4.0	2.1	1.5	7	121	4.0	2.5	2.1
					12	63	3.2	3.2	41	4.2	3.6	5	46	8.7	5.6	2.6	129	5.0	2.7	1.9	8	92	4.6	2.8	2.4
					14	46	3.7	3.7	30	4.9	4.3	6	32	10.4	6.7	3.2	89	6.0	3.2	2.2	9	73	5.2	3.2	2.7
					16	36	4.2	4.2	23	5.6	4.9	7	23	12.1	7.8	3.7	66	7.0	3.8	2.6	10	59	5.8	3.5	3.0
	NFL T527	25°	6000	3200	6	89	2.7	2.7	58	3.6	3.1	2	100	3.5	4.2	1.8	283	2.0	1.9	1.3	4	130	2.3	2.4	2.0
					8	50	3.5	3.5	32	4.8	4.1	3	44	5.2	6.2	2.7	126	3.0	2.8	1.9	5	83	2.9	3.0	2.6
					10	32	4.4	4.4	21	6.0	5.1	4	25	6.9	8.3	3.5	71	4.0	3.7	2.5	6	58	3.5	3.6	3.1
					12	22	5.3	5.3	14	7.2	6.1	5	16	8.7	10.4	4.4	45	5.0	4.7	3.1	7	42	4.0	4.2	3.6
					14	16	6.2	6.2	11	8.4	7.2	6	11	10.4	12.5	5.3	31	6.0	5.6	3.8	8	32	4.6	4.8	4.1
FL T528	40°	6000	1700	3	189	2.2	2.2	123	3.0	2.5	1	213	1.7	4.8	1.5	601	1.0	1.7	1.0	2	276	1.2	2.0	1.7	
				5	68	3.6	3.6	44	5.1	4.2	2	53	3.5	9.7	2.9	150	2.0	3.4	2.1	3	123	1.7	3.0	2.5	
				7	35	5.1	5.1	23	7.1	5.9	3	24	5.2	14.5	4.4	67	3.0	5.0	3.1	4	69	2.3	4.1	3.4	
				9	21	6.6	6.6	14	9.1	7.6	4	13	6.9	19.3	5.8	38	4.0	6.7	4.1	5	44	2.9	5.1	4.2	
				11	16	7.9	7.9	10	10.4	9.2	5	9	8.7	24.2	7.3	25	5.0	8.4	5.1	6	33	4.3	6.1	5.0	
WFL	55°	6000	900	3	100	3.1	3.1	65	4.6	3.6	1	113	1.7	22.3	2.1	318	1.0	2.9	1.5	2	146	1.2	3.1	2.4	
				5	36	5.2	5.2	23	7.6	6.0	2	28	3.5	**	4.2	80	2.0	5.7	2.9	3	65	1.7	4.6	3.6	
				7	18	7.3	7.3	12	10.7	8.4	3	13	5.2	**	6.2	35	3.0	8.6	4.4	4	37	2.3	6.1	4.8	
				9	11	9.4	9.4	7	13.7	10.8	4	7	6.9	**	8.3	20	4.0	11.4	5.9	5	23	2.9	7.6	6.0	
				11	7	11.5	11.5	5	16.8	13.2	5	5	8.7	**	10.4	13	5.0	14.3	7.4	6	16	3.5	9.2	7.2	

\*\*Due to steep aiming angle, length of beam extends beyond 25°. Each angle listed is measured from 0° vertical.

# Low Voltage HALOGEN

Horizontal Surface

Vertical Surface

LAMP	BEAM TYPE	BEAM SPREAD	RATED LIFE	CBCP	0 DEGREES				30 DEGREES				45 DEGREES				60 DEGREES							
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L
50W MR16 Halogen IR 12 Volt 	SP	10° 	4000	15000	8	234	1.4	1.4	152	1.9	1.6	4	117	6.9	2.9	1.4	331	4.0	1.4	1.0	7	199	4.0	1.6
					12	104	2.1	2.1	68	2.8	2.4	5	75	8.7	3.6	1.7	212	5.0	1.8	1.2	8	152	4.6	1.9
					16	59	2.8	2.8	38	3.7	3.2	6	52	10.4	4.3	2.1	147	6.0	2.1	1.5	9	120	5.2	2.1
					20	38	3.5	3.5	24	4.7	4.0	7	38	12.1	5.0	2.4	108	7.0	2.5	1.7	10	97	5.8	2.3
					24	26	4.2	4.2	17	5.6	4.8	8	29	13.9	5.7	2.8	83	8.0	2.8	2.0	11	81	6.4	2.6
	NFL	25° 	4000	5700	4	356	1.8	1.8	231	2.4	2.0	2	178	3.5	4.2	1.8	504	2.0	1.9	1.3	5	148	2.9	3.0
					8	89	3.5	3.5	56	4.8	4.1	3	79	5.2	6.2	2.7	224	3.0	2.8	1.9	6	103	3.5	3.6
					12	40	5.3	5.3	26	7.2	6.1	4	45	6.9	8.3	3.5	126	4.0	3.7	2.5	7	76	4.0	4.2
					16	22	7.1	7.1	14	9.6	8.2	5	29	8.7	10.4	4.4	81	5.0	4.7	3.1	8	58	4.6	4.8
					20	14	8.9	8.9	9	12.0	10.2	6	20	10.4	12.5	5.3	56	6.0	5.6	3.8	9	46	5.2	5.4
	FL	40° 	4000	2850	4	178	2.9	2.9	116	4.1	3.4	1	356	1.7	4.8	1.5	1008	1.0	1.7	1.0	4	116	2.3	4.1
					6	79	4.4	4.4	51	6.1	5.0	2	89	3.5	9.7	2.9	252	2.0	3.4	2.1	5	74	2.9	5.1
					8	45	5.8	5.8	29	8.1	6.7	3	40	5.2	14.5	4.4	112	3.0	5.0	3.1	6	51	3.5	6.1
					10	29	7.3	7.3	19	10.2	8.4	4	22	6.9	19.3	5.8	63	4.0	6.7	4.1	7	38	4.0	7.1
					12	20	8.7	8.7	13	12.2	10.1	5	14	8.7	24.2	7.3	40	5.0	8.4	5.1	8	29	4.6	8.1
	50W MR16 Halogen 24 Volt Lensed 	NSP TL945- 24V	15° 	4000	8400	8	131	2.1	2.1	85	2.8	2.4	3	117	5.2	3.3	1.6	330	3.0	1.6	1.1	6	152	3.5
10						84	2.6	2.6	55	3.5	3.0	4	66	6.9	4.4	2.1	186	4.0	2.1	1.5	7	111	4.0	2.5
12						58	3.2	3.2	38	4.2	3.6	5	42	8.7	5.6	2.6	119	5.0	2.7	1.9	8	85	4.6	2.8
14						43	3.7	3.7	28	4.9	4.3	6	29	10.4	6.7	3.2	82	6.0	3.2	2.2	9	67	5.2	3.2
16						33	4.2	4.2	21	5.6	4.9	7	21	12.1	7.8	3.7	61	7.0	3.8	2.6	10	55	5.8	3.5
FL TL947- 24V		40° 	4000	1570	3	174	2.2	2.2	113	3.0	2.5	1	196	1.7	4.8	1.5	555	1.0	1.7	1.0	2	255	1.2	2.0
					5	63	3.6	3.6	41	5.1	4.2	2	49	3.5	9.7	2.9	139	2.0	3.4	2.1	3	113	1.7	3.0
					7	32	5.1	5.1	21	7.1	5.9	3	22	5.2	14.5	4.4	62	3.0	5.0	3.1	4	64	2.3	4.1
					9	19	6.6	6.6	13	9.1	7.6	4	12	6.9	19.3	5.8	35	4.0	6.7	4.1	5	41	2.9	5.1
					11	13	8.0	8.0	8	11.2	9.2	5	8	8.7	24.2	7.3	22	5.0	8.4	5.1	6	28	3.5	6.1

**JUNO**<sup>®</sup>

Recessed and Trac Lighting

**indy**<sup>™</sup>

Architectural Recessed Lighting

**AccuLite**<sup>®</sup>

Commercial and Industrial Lighting

**AcuLux**<sup>™</sup>

Precision Recessed Lighting

**NaviLite**<sup>®</sup>

Exit and Emergency Lighting

**DanaLite**<sup>™</sup>

Architectural Linear Lighting



**Juno Lighting Group**

1300 South Wolf Road  
Des Plaines, IL 60018  
Ph: 847.827.9880  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

**Regional Offices & Warehouses**

California  
Illinois  
Indiana  
Pennsylvania  
Texas  
Ontario, CN

©2016 Acuity Brands Lighting, Inc. The marks appearing in this catalog are trademarks of Acuity Brands Lighting, Inc. Products shown in this brochure may be covered by U.S. and international patents and patents pending. Specifications subject to change without notice.