

STRUCTURE™

INTERIOR ARCHITECTURAL LIGHTING SYSTEM



INNOVATIVE SOLUTIONS TO LIGHTING CHALLENGES



IN PURSUIT OF STYLED MOUNTING ALTERNATIVES, STRUCTURE CONVEYS ELEGANCE; THE CONFLUENCE OF FORM AND FUNCTION. UNIQUE EXTRUDED SHAPES MARRIED WITH HIGH PERFORMANCE LIGHTING FIXTURES, ACCENTUATED BY COLORED AND PERFORATED PANELS MAKE STRUCTURE THE NEW, BEST CHOICE FOR THE INNOVATIVE DESIGN PROFESSIONAL. SPORTING FACILITIES, MALLS AND EDUCATIONAL VENUES REPRESENT BUT A FEW OPPORTUNITIES FOR THIS ENTIRELY NEW ARCHITECTURAL ELEMENT. THE CHOICE TO INCLUDE INDIRECT LIGHTING INTO THE SPACE IS ENHANCED BY THE MYRIAD OF STRUCTURE OPTIONS AND ACCESSORIES. STRUCTURE; AN ARCHITECTURAL LIGHTING SYSTEM AHEAD OF ITS TIME.

MISSION STATEMENT

INSIGHT LIGHTING BELIEVES IN THE INTEGRITY OF PRODUCT AND LIGHTING DESIGN. OUR MISSION IS TO DEVELOP INNOVATIVE NEW PRODUCTS TO ASSIST OUR CUSTOMERS IN MEETING THEIR LIGHTING CHALLENGES. BY CREATING FUNCTIONAL, AESTHETIC AND ENERGY CONSCIOUS PRODUCTS, WE STRIVE TO ENHANCE THE APPEARANCE AND PERFORMANCE OF A WORKING ENVIRONMENT.

INSIGHT LIGHTING – THERE IS NO SUBSTITUTE FOR INTEGRITY.



STRUCTURE™

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Specifications



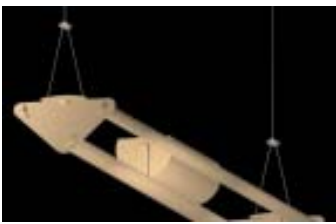
Frame

Constructed of decorative cast aluminum end plates and fluted extruded aluminum channels. Each frame section contains its own wireway, mobile fixture mounting bracket and stem or cable support mechanism. In 4', 5', 6' and 8' modules for stand alone or continuous runs. Product can be ordered preassembled.



Stem Mount

Rigid steel stems attach to cast end plates without hardware or tools. All stems are supplied with swivel canopies for up to 30° slope. 5/8" diameter steel stems are provided on the medium Structure frame and 1" diameter steel stems on the large frame. Stems are painted to match Structure frame and ceiling canopies are painted white unless otherwise specified.



Aircraft Cable Mount

3/32" diameter stainless steel aircraft cable attaches to cast end plates without additional hardware or tools. All aircraft cable suspended products are supplied with a steel triangular shaped transition piece and field adjustable locking cable grippers. Ceiling canopies are painted white unless otherwise specified.



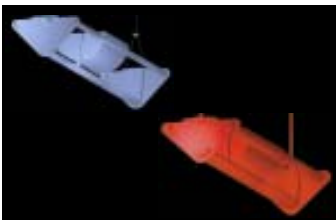
Wall End Mount

A telescoping bracket with field adjustable plates allows for ± 1 " adjustment to perpendicular walls. Additional single or multiple cable center supports are supplied for runs over 8' in length.



Wiring

All Structure sections are shipped from the factory pre-wired with quick-connects between sections for ease of powering the luminaire and thru-wiring conditions. The extruded aluminum raceway is supplied with a snap-in cover for ease of maintenance.



Finishes

All painted surfaces are pretreated and powder coated to 3 mil thick for use in natatoriums. Standard painted finishes are available in textured white, black, bronze, natural, and sandstone. Additional Insight color palette finishes are available. Contact factory for custom finishes.



Labels

UL, CUL Approved.



Non-Luminous/Luminous Side Panels

Non-luminous and luminous side panels are available in clear acrylic, colored acrylic, opal acrylic and perforated steel. Screen printing on acrylic panels can also be specified (contact factory for signage requirements).



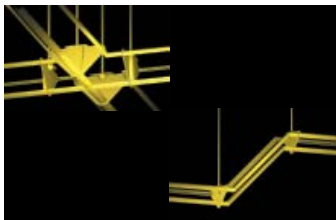
Banner Hardware

Structure is capable of supporting a myriad of banners and exterior signage that can also be independently illuminated. Contact factory for your specific requirements.



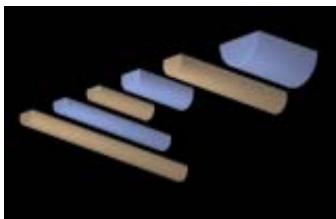
Downlighting

A large selection of lamp and fixture sizes are available for downlighting, both within the Structure system and externally mounted. See pages 6 and 8 for standard options. Contact factory for specific variations



Transitions and Elevation Changes

Transition modules including 45°, 90°, 3-way, 4-way and elevation changes are available. Contact factory for custom or departure from standard transition options.



Luminaire Selections

Luminaires offered with the Structure incorporate all of the design and performance features and benefits present in the Taos or Paseo products. For detailed specifications, please see Taos or Paseo Series brochures.

Medium Structure

Long Twin Tube Fluorescent:

2', 4' and 6' fixtures are offered in either single or twin lamp configurations in both asymmetric and symmetric reflectors.

T5HO Fluorescent:

2', 4' and 6' fixtures are offered in single, twin, or triple lamp configurations in both asymmetric and symmetric reflectors.

T8 Fluorescent

3', 4' and 6' fixtures are offered in either single or twin lamp configurations in both asymmetric and symmetric reflectors.

Metal Halide:

Metal Halide lamping from 175W to 400W in either one or two lamp versions in both asymmetric and symmetric reflectors.

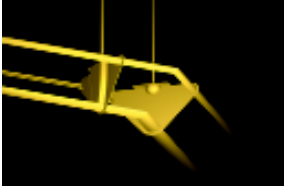
Large Structure

The large Structure offers one lamp reflectors from 400W to 1000W in both Metal Halide and High Pressure Sodium in either asymmetric or symmetric distributions. Pulse Start and fluorescent lamps are available, please contact factory for details.

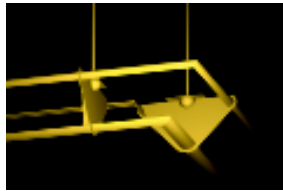
Ballasts in all luminaire selections are integral within the luminaire housing.

Transitions

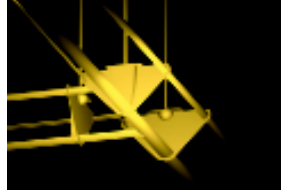
45° Transition - Cat. No. M1-A



90° Transition - Cat. No. M2-A



3-way Transition - Cat. No. M3-A

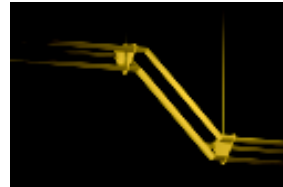
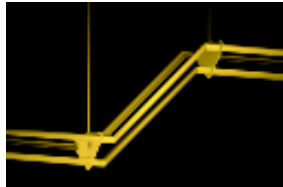


4-way Transition - Cat. No. M4-A

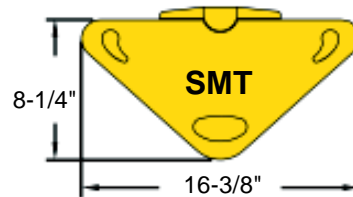
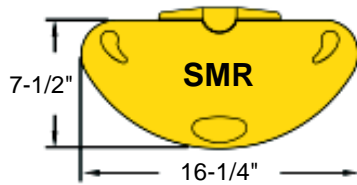


Elevation Changes

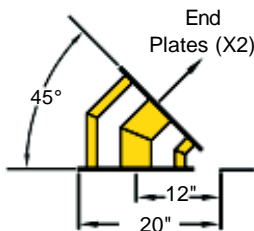
Elevation Change - Up/Down - Cat. No. M5-A-B



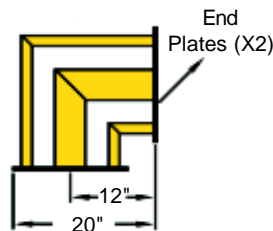
Dimensions, Suspension Points, and Weights



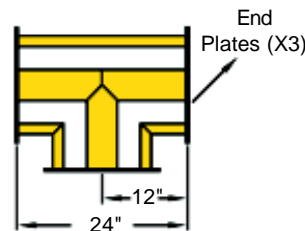
45° Transition-Cat. No. M1-A



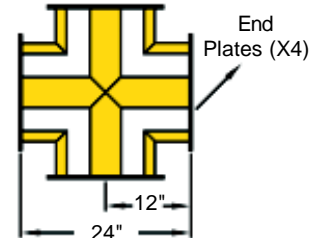
90° Transition-Cat. No. M2-A



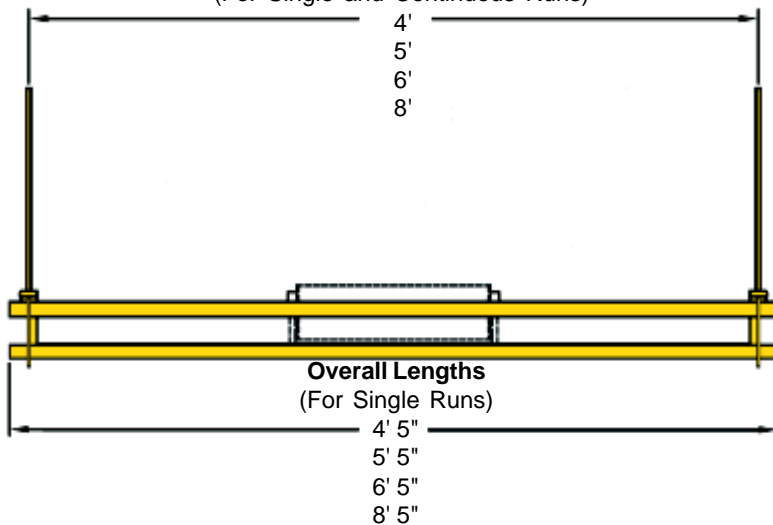
3-way Transition-Cat. No. M3-A



4-way Transition-Cat. No. M4-A



Suspension Points
(For Single and Continuous Runs)



Medium Structure Frame Weights

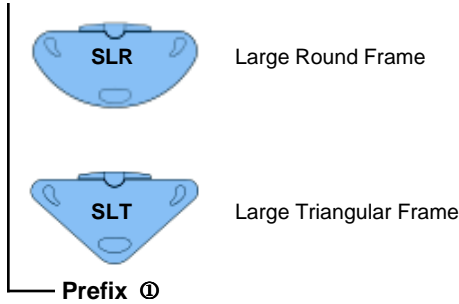
Length	Weight (lbs)
4'	26 lbs
5'	30 lbs
6'	34 lbs
8'	42 lbs

All weights are for individual lengths without fixtures.

Ordering Information

Large Structure

Metal Halide & High Pressure Sodium (400W - 1000W)



- TW** Textured White
- TBL** Textured Black
- TBR** Textured Bronze
- TLB** Textured Light Bronze
- TN** Textured Natural
- TS** Textured Sandstone
- SF** Specify Finish (See Color Chart)
- CC** Custom Color (Contact Factory)

Finish ⑦

- AC-XX** Aircraft Cable Mount*
- PN-XX** Pendant Mount*
- WE-YY** End Wall Mount (YY=If Run Is Longer Than 8', Specify Aircraft Cable; **AC-XX**, or Pendant; **PN-XX**, For Intermediate Supports.)

*XX = Cable or Pendant Length (Contact factory for pendant lengths over 10')

Mounting ②

- A-B-C** (A) Specify Nominal Run Length In Feet
- (B) Specify Intermediate Section Lengths (4', 5', 6', 8')
- (C) Specify Total Number Of Fixtures Required Within Run

Overall Run Length-Intermediate Lengths-Qty of Fixtures ③

Frame Options

- NC-A** Non-Luminous Acrylic Side Panel
(Contact Factory For Colors, Acrylic Type & Signage)
- LC-A** Luminous Acrylic Side Panel
(Contact Factory For Colors, Acrylic Type & Signage)
- NP-A** Non-Luminous Perforated Side Panel
- LP-A** Luminous Perforated Side Panel
- BH-A** Banner Hardware
- DL** Downlight (Available 2nd Qtr 2002)
- L1-A** 45° Transition
- L2-A** 90° Transition
- L3-A** 3-way Transition
- L4-A** 4-way Transition
- L5-A-B** Elevation Change - Up/Down

A = Specify Quantity

B = Specify Elevation Change in Inches

Metal Halide & HPS Luminaire Options

- CF** Colored Lens (Contact Factory For Colors)
- VS** Solid Cutoff Visor
- VP** Perforated Cutoff Visor
- SS** Adjustable Sawtooth Shield (For Asymmetric Reflector Only)
- QL** Quartz Restrike (Hot/Cold Start, 250W Max. Lamp By Others)
- QEM** Emergency Quartz Lamp Socket
(Up to 250W Max. Lamp By Others)
- AB** Sound Rated Ballast (Available 2nd Qtr. 2002)

Options ⑧

Ordering Example:

SLT / PN-72" / 48'-6'-8 / 1043 / SS / 2 / TS / L5-1-12" / VP / QL
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑧ ⑧

Lamp Type	Total # Of Lamps	Reflector Type
Metal Halide 1043-(1)-400MH (POMB/Mogul Base, ED37)	1	SA Single Lamp Asymmetric
1045-(1)-1000MH (Mogul Base, BT37)	1	
High Pressure Sodium 1063-(1)-400HPS (Mogul Base, ED37)	1	SS Single Lamp Symmetric
1066-(1)-1000HPS (Mogul Base, ED37)	1	
Contact Factory For Fluorescent and Pulse Start Lamps.		

Indirect Luminaire Selection

- 1 120V
- 2 277V
- 3 208V
- 4 240V
- 5 480V
- 7 347V (Contact Factory For Availability)

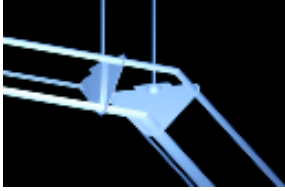
Voltage ⑥



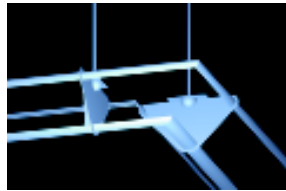
Wire raceway with snap-in cover

Transitions

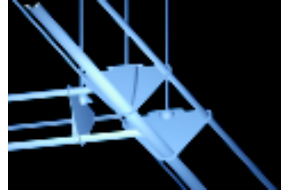
45° Transition - Cat. No. L1-A



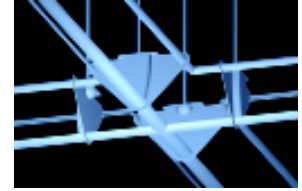
90° Transition - Cat. No. L2-A



3-way Transition - Cat. No. L3-A

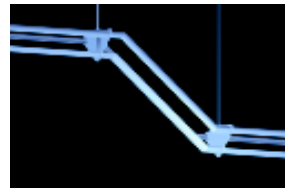
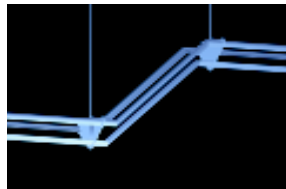


4-way Transition - Cat. No. L4-A

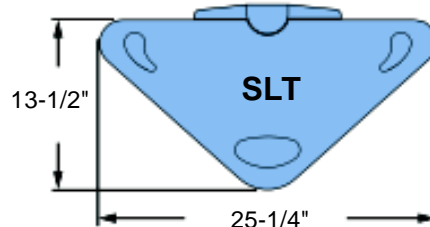
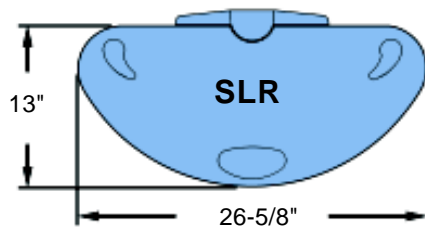


Elevation Changes

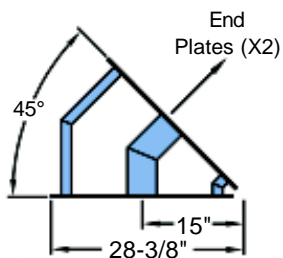
Elevation Change - Up/Down - Cat. No. L5-A-B



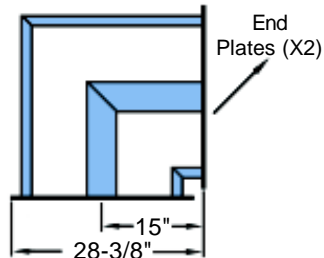
Dimensions, Suspension Points, and Weights



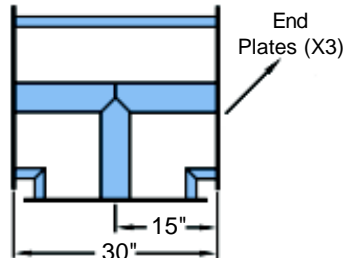
45° Transition - Cat. No. L1-A



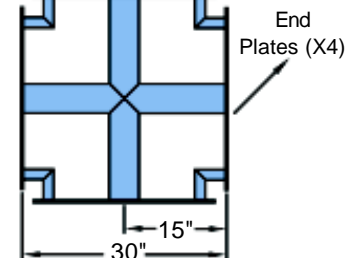
90° Transition - Cat. No. L2-A



3-way Transition - Cat. No. L3-A

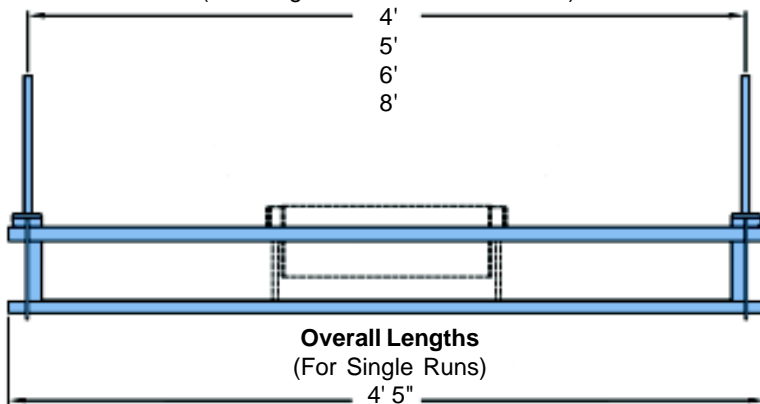


4-way Transition - Cat. No. L4-A



Suspension Points

(For Single and Continuous Runs)



Overall Lengths (For Single Runs)

4' 5"
5' 5"
6' 5"
8' 5"

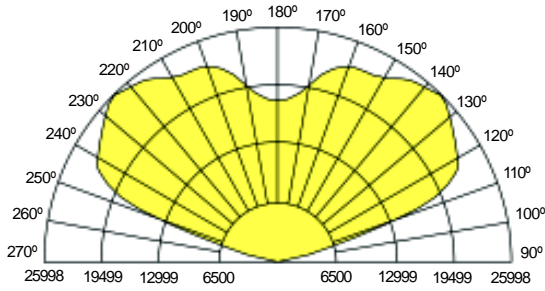
Large Structure Frame Weights

Length	Weight (lbs)
4'	42 lbs
5'	46 lbs
6'	50 lbs
8'	58 lbs

All weights are for individual lengths without fixtures.

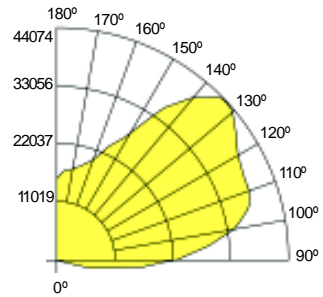
Photometric Data

Structure Indirect
One Lamp, Symmetric Distribution
Cat# SLR/XX/XX/1045/SS/X/SF
1000W Metal Halide @ 110,000 Lumens



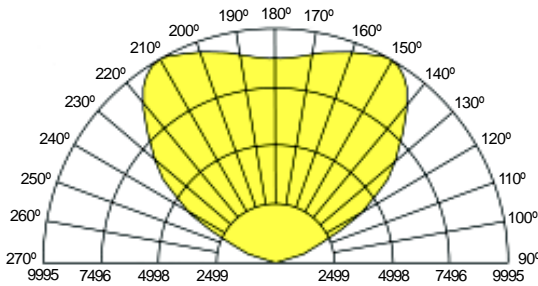
Total Luminaire Efficiency = 83.7%
Multipliers:
1000W MH 110,000 Lumens X 1.00

Structure Indirect
One Lamp, Asymmetric Distribution
Cat# SLR/XX/XX/1045/SA/X/SF
1000W Metal Halide @ 110,000 Lumens



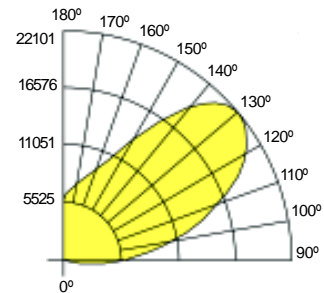
Total Luminaire Efficiency = 74.7%
Multipliers:
1000W MH 110,000 Lumens X 1.00

Structure Indirect
One Lamp, Symmetric Distribution
Cat# SMR/XX/XX/923/SS/X/SF
400W POMB Metal Halide @ 40,000 Lumens



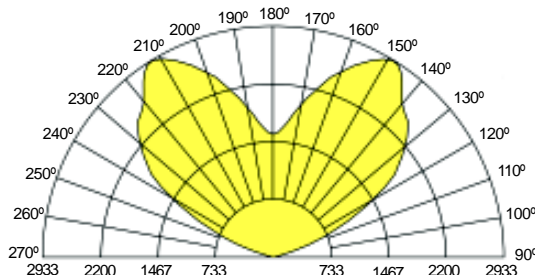
Total Luminaire Efficiency = 71.9%
Multipliers:
175W MH 14,000 Lumens X 0.35
250W MH 21,000 Lumens X 0.53
400W MH 36,000 Lumens X 0.90
400W MH POMB 40,000 Lumens X 1.00

Structure Indirect
One Lamp, Asymmetric Distribution
Cat# SMR/XX/XX/923/SA/X/SF
400W POMB Metal Halide @ 40,000 Lumens



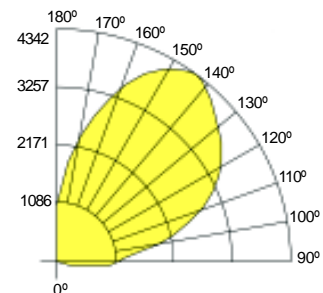
Total Luminaire Efficiency = 84.5%
Multipliers:
175W MH 14,000 Lumens X 0.35
250W MH 21,000 Lumens X 0.53
400W MH 36,000 Lumens X 0.90
400W MH POMB 40,000 Lumens X 1.00

Structure Indirect
Twin Lamp, Symmetric Distribution
Cat# SMR/XX/XX/695(2')/TS/X/SF
(2)-54W T5HO Fluorescents @ 5,000 Lumens/Lamp

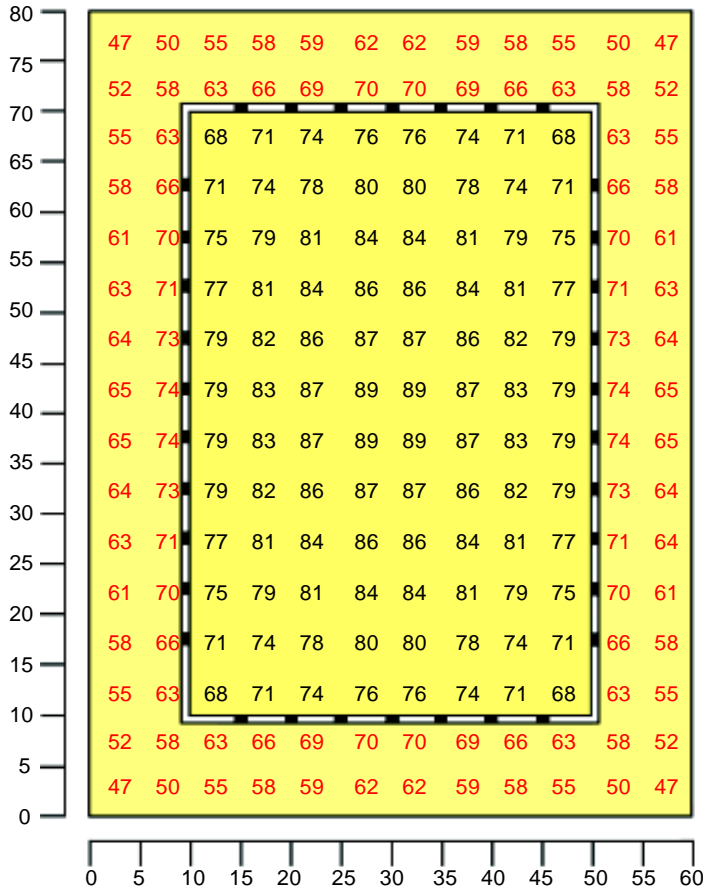


Total Luminaire Efficiency = 88.7%
Multipliers:
(2)-54W T5HO Fluorescent 5000 Lumens/Lamp X 1.0

Structure Indirect
Twin Lamp, Asymmetric Distribution
Cat# SMR/XX/XX/695(2')/TA/X/SF
(2)-54W T5HO Fluorescents @ 5,000 Lumens/Lamp



Total Luminaire Efficiency = 77.8%
Multipliers:
(2)-54W T5HO Fluorescent 5000 Lumens/Lamp X 1.0



Indoor Swimming Pool Application

60 Feet Wide By 80 Feet Long By 40 Feet Ceiling Height
 Catalog Number: SMT/AC-60"/200'-X'-34/923/SA/X/SF/M2-4

Lighting Calculations Results:

Illuminance Along Ceiling = 240.35 Avg. Maintained Fc
 Ceiling Uniformity Ratio = 3.92 : 1 Max/Min
 Illuminance at Pool Surface = 79.68 Avg. Maintained Fc
 Pool Surface Uniformity = 1.31 : 1 Max/Min
Illuminance on Deck Area = 62.41 Avg. Maintained Fc
Deck Area Uniformity = 1.61 : 1 Max/Min

Lamp Data Per Luminaire:

(1)-400Watt T-15 POMB Metal Halide Lamp
 Initial Lamp Lumens = 40,000
 Light Loss Factor = 0.72

Luminaire Mounting Locations:

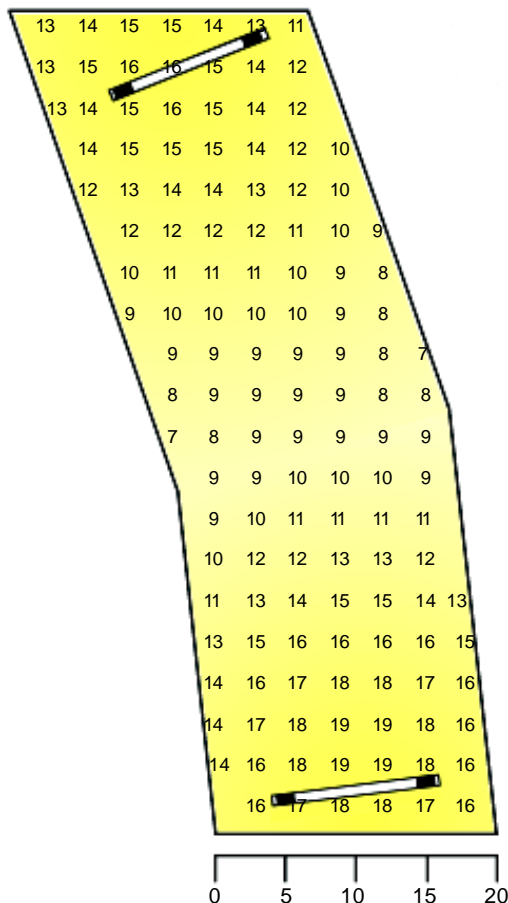
35 Feet Above Finished Floor
 Ten luminaires along Left and Right Runs
 Seven luminaires along Top and Bottom Runs
 (34 Total luminaires)
 Spacing on Center = 6 Feet

Room Reflectances

Ceiling = .8, Walls = .5, Floor = .2

Multipliers:

175 Watt MH 14,000 Lumens X 0.35
 250 Watt MH 21,000 Lumens X 0.525
 400 Watt MH 36,000 Lumens X 0.9
 400 Watt POMB MH 40,000 Lumens X 1.0



Concourse Application

20 Feet Wide By 120 Feet Long By 20 Feet Ceiling Height
 Catalog Number: SMR/AC-60"/12'-6'-2/923/SS/X/SF

Lighting Calculation Results:

Illuminance at Floor = 11.75 Avg. Maintained Fc
 Floor Uniformity Ratio = 2.71 : 1 Max/Min

Lamp Data Per Luminaire:

(1)-400Watt T-15 Metal Halide Lamp
 Initial Lamp Lumens = 36,000
 Light Loss Factor = 0.72

Luminaire Mounting Locations:

15 Feet Above Finished Floor
 Two luminaires required in each run
 Spacing on Center = 55 Feet

Room Reflectances

Ceiling = .8, Walls = .5, Floor = .2

Multipliers:

175 Watt MH 14,000 Lumens X 0.389
 250 Watt MH 21,000 Lumens X 0.583
 400 Watt MH 36,000 Lumens X 1.0
 400 Watt POMB MH 40,000 Lumens X 1.11

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Credits:

Photography by David Nufer Photography
Albuquerque, NM

Page 3
Rendered in Accurender by
Gregory T. Hicks & Assoc., P.C. Architects/Planners
Albuquerque, NM

Cover:
SMT/Fluorescent Fixture with Opal Acrylic Side Panel.

Insight Lighting reserves the right
to change specifications without notice
due to product improvements.