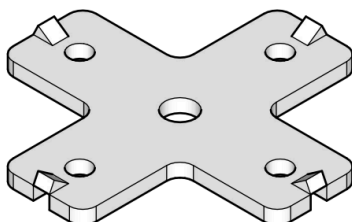
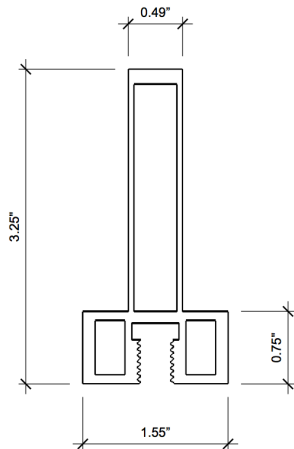
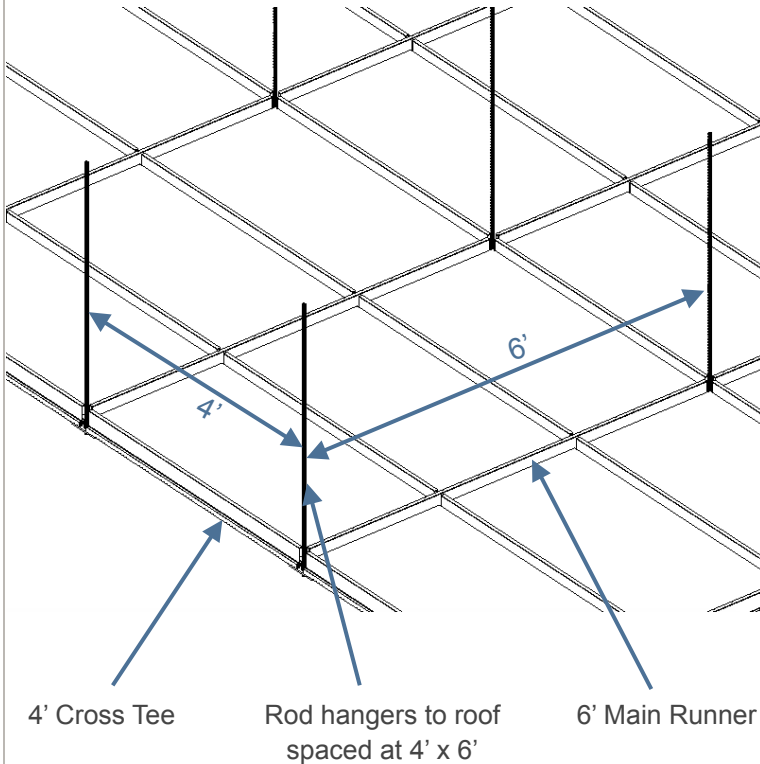




# PICS - Polargy Integrated Ceiling System

## Data Sheet

June 9, 2020



### PICS SPECIFICATIONS

- Architectural structural data center ceiling grid made of aluminum with a 3/8-16 continuous threaded slot.
- Grid typically configured of 6' Main Runners and 4' Cross Tees connected using bottom plate connectors.
- Capable of supporting power bus bar, light fixtures, cable trays, aisle containment partitions, and other accessories.
- System Weight
  - 2'x4' grid: 0.82 lbs/ft<sup>2</sup>
  - 4'x4' grid: 0.54 lbs/ft<sup>2</sup>
- Grid sizing can be configured to 24\"/>

### MAIN EXTRUSION

- H 3.25\"/>

### PLATE CONNECTORS

- Tabbed for quick alignment
- Galvanized steel at 0.25\"/>

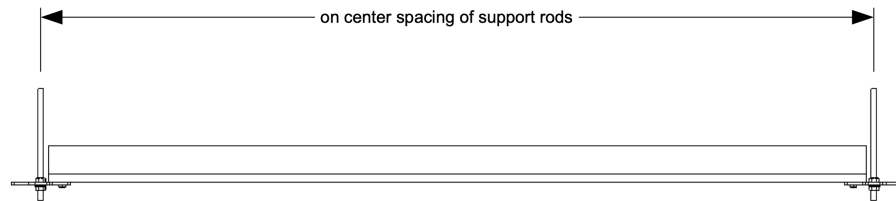


# PICS - Polargy Integrated Ceiling System

## Data Sheet

June 9, 2020

### PERFORMANCE CRITERIA



#### Capacities Based on Connector/Rod Strength Allocated to Associated Area

On Center Spacing of Support Rods	Uniform Load lbs/sq ft	Max. Allowable Deflection <sup>1</sup>	Max. Point Load lbs
4'	225	L/180	800
5'	144	L/180	500
6'	100	L/180	400
7'	73	L/180	250
8'	56	L/180	150

#### Capacities Based on Allowable Moment of Controlling Member

On Center Spacing of Support Rods	Uniform Load lbs/sq ft	Deflection At Point Load	Max. Point Load lbs	Safety Factor
4' x 4'	90	0.1167" L/380	575	2
4' x 6'	38	0.36" L/200	400	2

<sup>1</sup> Aesthetic standard



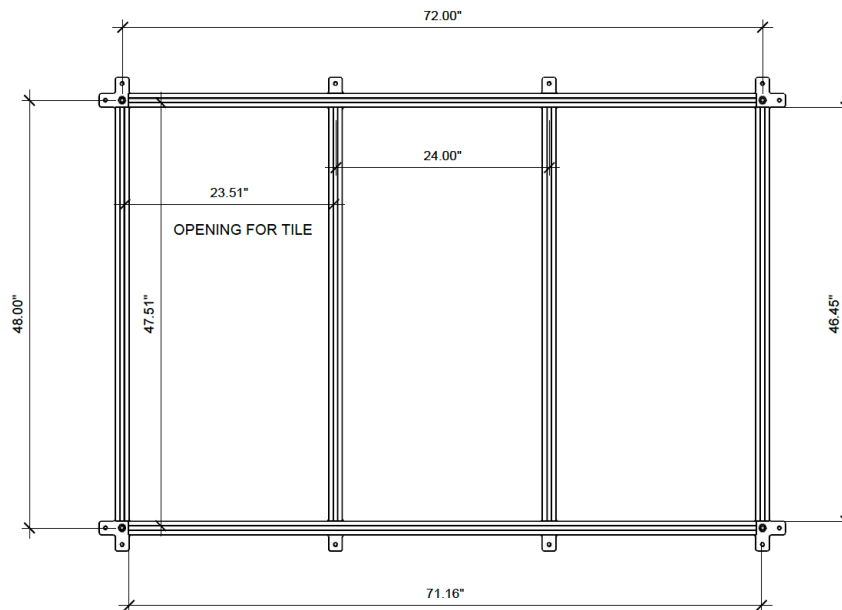
# PICS - Polargy Integrated Ceiling System

## Data Sheet

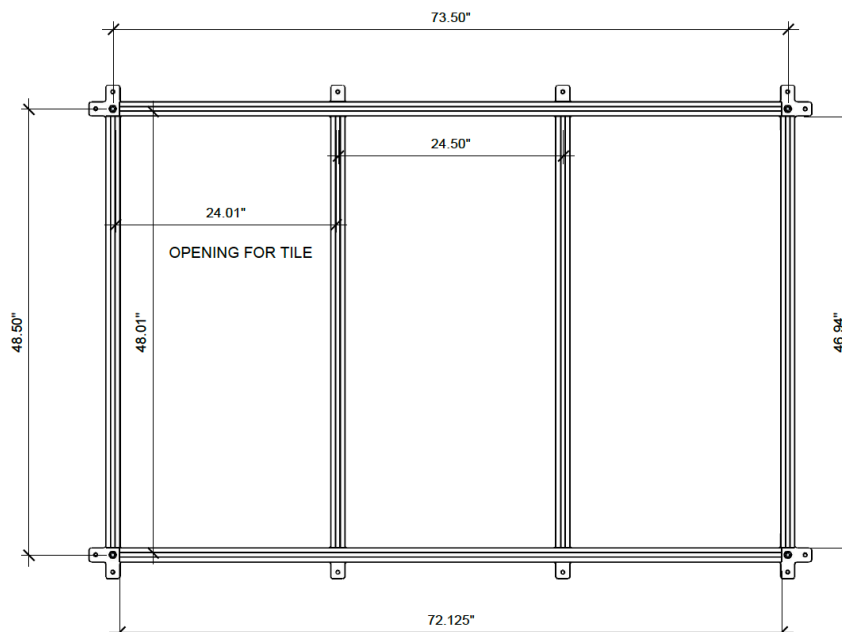
June 9, 2020

### GRID SPACING AND TILE SIZING

**PICS**  
Configuration for 24.0"/48.0" On Center



**PICS**  
Configuration for Standard Sized Tiles and Light Fixtures





# PICS - Polargy Integrated Ceiling System

## Data Sheet

June 9, 2020

### 1. In-Service and Configuration

- a. The Ceiling Grid System as indicated herein is subject to installation exactly as noted by the manufacturer. The installer shall ensure that the Ceiling Grid System installation shall conform to local/or national codes, which ever is more stringent, and that the system be vertically and laterally braced as required by code.
- b. Other configurations not indicated herein may not have been designed, analyzed, or tested and as such other configurations are not warranted by the manufacturer to perform as indicated or to be safe for use. If there is a need for a configuration other than what has been indicated herein the manufacturer reserves the right to accept or decline it's use for other configurations. The manufacturer offers analysis of other configurations for in-service use for a fee. The manufacturer reverse the right to accept or decline requests for other configurations.

### 2. Testing Standards

Testing was performed in conformance with the ASTM Designation C635-13 Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings as modified for load size and bracing conditions for in-service conditions. The in-service use of this system may exceed the arbitrary esthetic limit of deflection of  $L/360$  as stated within the specification for typical non-hybrid systems that are used for lightweight acoustical panels. Test results as indicated were for conditions of the main grid members longitudinally braced at both ends or longitudinally braced at one end, and unbraced for the full length of the member between member ends. Installations with bracing at the ends of the member, and at every 24-inch intervals between member ends may expect better performance than what is represented in the testing results.

### 3. Design

The information contained herein does not take the place of required engineering calculations, signature, and seal for the support rods and/or connections and lateral bracing requirements per code required for submittal to approving jurisdictions. The designer and/or installer is required to be competent in code requirements for the specific jurisdiction for which the Ceiling Grid System will be installed.

#### Allowable Fastener Loads

The following allowable in-service loads were developed from laboratory testing of the materials the fasteners are intended to be attached to and the specific fastener as identified herein. Two different types of fasteners were tested to accommodate a wide range of loading applications and conditions for both the vertical and lateral load conditions required by the ASCE 7. Vertical load as defined as a load parallel to the shaft of the fastener and lateral load defined as a load perpendicular to the shaft of the fastener.



# PICS - Polargy Integrated Ceiling System

## Data Sheet

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### Fastener Specifications:

**Type A Fastener: 3/8"  $\varnothing$  x 3/4" Hex Head Machine Bolts with 16 threads per inch with a material Grade 2 and minimum yield strength of 60 ksi.**

Type "A" bolt is installed to a maximum torque of 80 in-pounds. Bolt head shall be seated and/or bearing properly on the part it is fastened to. The threaded end of bolt shall not bear or seat on the internal top of the channel slot so as not to create additional load and material strain from bolt tightening against the top of channel slot. Over tightening of this bolt will weaken and strip the thread engagement of the bolt to the channel walls.

TA = 350 pounds (Allowable tension Load)

VA = 106 pounds (Allowable lateral parallel to open channel slot)

**Type "B" Fastener: 3/8"  $\varnothing$  x 2" Hex Head Self-Drilling Screw with 12 threads per inch and #3 Point with a material Grade 410 SS and minimum yield strength of 65 ksi.**

Type "B" self-tapping or drilling screw is tightened until seated with full bearing of screw head and penetration of screw shaft through the internal top of the channel slot. Over tightening of this bolt will weaken and strip the thread engagement of the bolt to the channel walls.

TA = 350 pounds (Allowable tension Load)

VA = 739 pounds (Allowable lateral load)

This information is intended for use by the structural Engineer of Record (EOR) responsible for the design and analysis of the in-service loading conditions of the fasteners and support systems. Any fastener that has been attached to a member resulting in over tightening will be considered damaging of both the fastener and the main member and both shall be abandoned and replaced with new fasteners and members.