## SPECIFICATIONS

## LINEAR PANEL SYSTEM SECTION: RADIANT CEILING PANELS

## GENERAL CONDITIONS

The installation of the radiant ceiling panels shall be by the mechanical contractor and the panels shall be supplied by the Shelley Radiant Ceiling Company, Mundelein, Illinois USA. The radiant ceiling manufacturer shall provide the installation procedures as published in the construction Section of the catalog and the contractor shall install the radiant panels according to the manufacturer's recommendations.

The Shelley Panel has been used as a basis of performance experience and materials. In order for any other type of radiant panel to be considered, the radiant ceiling manufacturer must submit to the engineer, at least ten (10) days prior to the date of receipt of bid, all data, test information and sample, which all must conform with the data published by ASHRAE.

The lay-in ceiling suspension system shall be installed by the ceiling contractor. It shall include hangers, grid, cross T's and molding. All lay-in acoustical or matching metal panels shall be trimmed and installed by the acoustical contractor as required.

The mechanical contractor shall supply the accessories for the proper interconnections between panels.

Reference shall be made to the architectural drawings, room finish schedules, mechanical drawings, architectural details and mechanical details for the proper location of radiant panels. If interferences should occur and the contractor cannot work them out, the architect and/or the engineer should be consulted.

## PANEL DESCRIPTION

The radiant ceiling panel(s) shall be in extruded aluminum $6,8,9$, or 10 inch sections. Each section shall have a one-half outside diameter tube of $3 / 8 \mathrm{in}$. Type M soft copper and the tube shall be bent in a serpentine fashion with no sweat connections. The sections shall be cross-braced and locked together if required. The cross-brace shall be substantial and must be able to carry the load in suspension by two wires.

The radiant panel shall have a square groove or v-groove finished face and be painted white. The overall thickness shall be 0.110 in. thick. All acoustical panels shall be the same in appearance and locked into the radiant panel so that the unit expands and contracts as a single unit.

The thermal acoustical pad shall be . 75 \# density and 1 in . thick with a ' $U$ ' value of 0.16 inch, and in rolls. Slit to fit underneath the interconnecting tubing. $1 / 2 \mathrm{in}$. I.D. Type M soft annealed copper tubing by Shelley Radiant Ceiling a panel interconnection only. The interconnection shall be 360 degree loop (pigtail). This tubing shall neatly fit over the panel tubing, with no need for coupling.

## PANEL PERFORMANCE

Panel performance shall be based on Shelley Radiant Ceiling Company. The radiant panel shall
have $\qquad$ lateral passes. The radiant panel shall produce $\qquad$ total Btu per hour per
sq.ft. $\qquad$ deg. F mean water temperature and an AUST of $\qquad$ deg. F. The entering water temperature to the ceiling shall be $\qquad$ deg. F.

## SUBMITTALS

The radiant ceiling manufacturer shall furnish a complete set of submittal drawings. The drawings shall illustrate the dimensions of the radiant panels and matching acoustical panels which may be trimmed to size on the job. The submittal drawings shall illustrate the hot water supply and return lines, the cold water supply and return lines (if applicable), the supply and return runouts to the radiant panels and the interconnections between panels.
The radiant ceiling drawings shall include all appropriate installations and panel details. The drawing notes shall include special installation instructions.

## TESTING

A. Test each panel circuit with 100 psi nitrogen gas for four hours with no drop in pressure.
B. Test each panel circuit with 100 psi nitrogen gas and soap test each joint for leaks.
C. Hydrostatically test each panel circuit at 100 psi and inspect each joint for leaks.

## SPECIFICATION OPTIONS

## PANEL SURFACE AND CONFIGURATION

A. Square groove
B. V-groove
C. Painted white
D. Consult the home office regarding the colors other than white.

SRC-V-GRV V-Grooved Extruded Aluminum Panel.
NOTE: Width and the panel lengths should be part of the room schedule. The above model numbers represent the two extruded profiles available.

## SPECIFICATIONS

## HIGH PERFORMANCE PANEL (TUBE-ON-SHEET) SECTION: RADIANT CEILING PANELS

## GENERAL CONDITIONS

The installation of the radiant ceiling panels shall be by the mechanical contractor and the panels shall be supplied by the Shelley Radiant Ceiling Company, Mundelein, Illinois USA. The radiant ceiling manufacturer shall provide the installation procedures as published in the construction Section of the catalog and the contractor shall install the radiant panels according to the manufacturer's recommendations.

The Shelley Panel has been used as a basis of performance experience and materials. In order for any other type of radiant panel to be considered, the radiant ceiling manufacturer must submit to the engineer, at least ten (10) days prior to the date of receipt of bid, all data, test information and sample, which all must conform with the data published by ASHRAE.

The lay-in ceiling suspension system shall be installed by the ceiling contractor. It shall include hangers, grid, cross T's and molding. All lay-in acoustical or matching metal panels shall be trimmed and installed by the acoustical contractor as required.

The mechanical contractor shall supply the accessories for the proper interconnections between panels.

Reference shall be made to the architectural drawings, room finish schedules, mechanical drawings, architectural details and mechanical details for the proper location of radiant panels. If interferences should occur and the contractor cannot work them out, the architect and/or the engineer should be consulted.

## PANEL DESCRIPTION

The radiant ceiling panel(s) shall be constructed of 0.040 in . aluminum sheet with $3 / 8 \mathrm{in}$. Type M serpentine copper tubing metallugically bonded to the face. The outside diameter of the copper tube shall be $1 / 2 \mathrm{in}$. O.D. The interconnecting copper shall be $3 / 8$ inch Type M soft. $1 / 2 \mathrm{in}$. I.D. Type M soft annealed copper tubing by Shelley Radiant Ceiling as panel interconnection only. The interconnection shall be 360 degree loop (pigtail). This tubing shall neatly fit over the panel tubing, with no need for couplings.

The thermal acoustical pad shall be 1.55 \# density at $1-1 / 2$ inches thick with a ' $U$ ' valve of 0.16 inch in 2 foot by 4 foot sections and slit to fit underneath the interconnecting tubing.

## PANEL PERFORMANCE

Heating $=$
Panel performance shall be based on Shelley Radiant Ceiling Company. The radiant panel shall have $\qquad$ lateral passes. The radiant panel shall produce $\qquad$ total Btu per hour per
sq.ft. $\qquad$ deg. F mean water temperature and an AUST of $\qquad$ deg. F. The entering water temperature to the ceiling shall be $\qquad$ deg. F.

## SUBMITTALS

The radiant ceiling manufacturer shall furnish a complete set of submittal drawings. The drawings shall illustrate the dimensions of the radiant panels and matching acoustical panels which may be trimmed to size on the job. The submittal drawings shall illustrate the hot water supply and return lines, the cold water supply and return lines (if applicable), the supply and return runouts to the radiant panels and the interconnections between panels.

The radiant ceiling drawings shall include all appropriate installations and panel details. The drawing notes shall include special installation instructions.

## TESTING

A. Test each panel circuit with 100 psi nitrogen gas for four hours with no drop in pressure.
B. Test each panel circuit with 100 psi nitrogen gas and soap test each joint for leaks.
C. Hydrostatically test each panel circuit at 100 psi and inspect each joint for leaks.

## SPECIFICATION OPTIONS

## PANEL SURFACE AND CONFIGURATION

A. Non-perforated painted white
B. Tegular painted white
C. Semi-concealed painted white - call factory for selections.
D. Snap-in painted white - call factory for selections.
E. Block perforation pattern

1. Silk screened to match acoustical tile

2 Consult the home office regarding the colors other than white and other panel selections.

