GUIDE SPECIFICATION
SRP mWAVE SERIES ELECTRIC INFRARED

This section is based on the products of Superior Radiant Products, located at:

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Product Overview and Application. The electric radiant infrared heater shall be a medium-wave heating assembly engineered for reliable, targeted radiant comfort in both residential and commercial applications. The heater shall be suitable for indoor and outdoor use, with enclosures carrying an IP65 ingress protection rating. The complete assembly shall be designed for high radiant output, durability, and compatibility with modern smart control systems.

Codes, Standards, and Certification. The heater assembly shall be certified and listed and labeled in accordance with the Standard for Fixed and Location-Dedicated Electric Room Heaters, UL 2021, and the Canadian Standard for Electric Air Heaters, CSA C22.2 No. 46, and shall be certified for both United States and Canadian applications. Certification shall apply to the complete heater, including elements, hangers, reflectors, controls, and accessories as noted in the Contract Documents. Electrical grounding shall comply with the National Electric Code, ANSI/NFPA 70, for installations in the United States and the Canadian Electric Code, CSA C22.1, for installations in Canada. The manufacturer shall have successfully completed and passed the auditing requirements for the ISO 9001-2015 Quality Management System.

Basis of Design. The basis of design product shall be the Superior Radiant Products mWave Series medium-wave electric radiant heater. Substitutions shall not be permitted.

Heating Capacity and Electrical Characteristics. Heaters shall be available in wattages from 1,500 watts to 5,000 watts and shall be suitable for operation on multiple supply voltages, including 120/208/240 VAC, single phase, as called for in the Contract Documents. Heaters shall be furnished in single-lamp or two-lamp configurations according to model. All electrical components shall be properly rated and code compliant.

Radiant Performance and Efficiency. The heater assembly shall achieve a minimum radiant efficiency of 90 percent when tested in accordance with the latest AHRI 1330 test methods for radiant efficiency. The system shall be designed to deliver medium-wave infrared energy efficiently to the occupied zone.

Heating Element Construction and Output. The radiant heating element shall be a quartz infrared lamp type with a carbon sock filament, producing medium-wave infrared energy output. Elements shall be enclosed within the reflector housing with water-resistant wire connectors and shall be easily field-replaceable as a complete assembly.

Reflector Design and Materials. Each heater shall include an integral twelve-sided, deep-dish reflector engineered to direct virtually 100 percent of the infrared energy outward and away from the heating element. Heating elements shall be fully recessed within the reflector cavity, and the reflector assembly shall be complete with enclosed end caps.

Controls and Modulation. Heaters shall be available in two control configurations as called for in the Contract Documents. SMART models shall provide integrated Wi-Fi control (2.4 GHz) with smartphone app operation plus an infrared handheld remote, and shall be capable of modulating operation across five power levels (L1 through L5) corresponding to approximately 33, 50, 66, 80, and 100 percent of rated output to extend element life and enhance comfort; SMART models shall also include an integral auto-off timer adjustable from 0 to 9 hours. External control models shall be capable of reduced-output operation when supplied with the manufacturer's factory-supplied cCSAus certified control.

Housing and Mechanical Construction. The heating elements, reflector assembly, and controls shall be fully integrated within a heavy-duty extruded housing. Heating elements shall be completely enclosed and recessed within the reflector assembly and shall include gasketed end-cap enclosures as standard. A protective wire guard shall be provided as a standard feature to ensure personnel safety and element protection. Standard finish shall be black; white shall be available where called for in the Contract Documents. Overall lengths shall be as called for in the Contract Documents: 37.8 inches (960 mm) for single-lamp SMART models and 66.5 inches (1690 mm) for two-lamp SMART models; 33.7 inches (860 mm) for single-lamp external control models and 62.2 inches (1580 mm) for two-lamp mechanical models.

Mounting and Suspension Requirements. Heaters shall be capable of installation on a wall or ceiling using two manufacturer-supplied swivel installation brackets with wing screws and wing nuts, or suspended from the ceiling using two chains hooked into holes provided at the ends of each installation bracket. Brackets shall permit mounting at the desired direction and angle: horizontal to 67.5 degrees for wall installation, horizontal to 45 degrees for ceiling installation, and horizontal to 30 degrees for chain-suspended installation. The minimum installation height from the floor to the heater shall be 8 feet (2438 mm). For suspended installations, chains and anchors shall be rated to support the weight of the heater and to meet all seismic requirements for the specific building location.

Clearances to Combustibles. Clearances to combustibles shall comply with those stated in the manufacturer's Installation, Operation and Service instructions for the mounting configuration and angle specified.

Electrical Connection Provisions. Connection components shall be located in an included junction box furnished with a cord grip to facilitate incoming wire conductors, and the junction box shall be easily accessible for installation. Heaters shall be suitable for connection to permanent fixed wiring and shall be provided with

grounding means as standard. Heaters shall be protected with appropriately rated circuit breakers or fuses per the nameplate, and the supply voltage shall correspond to that shown on the nameplate.

Warranty. The manufacturer shall provide a twelve-month warranty on all components, agreeing to provide parts to repair or replace components that fail in materials or workmanship within the warranty period.

END OF SECTION

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