

Special Specification 6091

Decorative Wall Lighting



1. DESCRIPTION

Furnish and install Decorative Wall Lighting illumination assemblies as shown on plans.

The term "Decorative Wall Level Lighting" means the complete assemblage of fixtures, equipment and miscellaneous components, installed as shown on the plans and in accordance with these specifications, forming a complete and independent lighting assembly, including extra concrete and forming.

2. MATERIALS.

Provide new materials that comply with the details shown on the plans, the requirements of this Item, and the pertinent requirements of the following Items:

- Item 616, "Performance Testing of Lighting Systems"
- Item 618, "Conduit"
- Item 620, "Electrical Conductors"

Furnish 6 sets of submittals to the Engineer at the project address. Do not purchase materials or begin work before these submittals are approved.

Provide 0.35A Low Level LED direct lens, light fixtures to be formed into concrete walls. Provide fixture with die cast, low copper (<0.6% Cu) aluminum housing integral with the lens. Provide fixture with a junction box for wiring connections with four 1" NPT conduit taps with removable plugs. Protect housing and junction box with a clear anodized coating. Low level floodlight fixtures will be as shown on plans. Lighting fixtures will meet the following requirements;

- Dimensions: 13 7/8" x 11 3/8", as shown on plans
- Color Temperature: 4200K typical
- Photometry: Symmetric: Downlight, Asymmetric Left Downlight or Asymmetric Right Downlight
- Lumens: Symmetric Downlight fixture – minimum 1593 Lumens; Asymmetric Downlight fixtures – minimum 791 Lumens

Ensure the door frame is die-cast, low-copper aluminum with a fine pebbled texture on the outer surface. Secure the door frame to the housing by four captive stainless steel countersunk socket head screws. Provide gaskets between the door frame and housing, and between the junction box and housing. Ensure fixtures are UL-listed for wet locations and are rated IP66. Provide one piece optical module.

Color to be black. Paint door frame with TGIC thermoset polyester powdercoat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; A.S.T.M. 2500 hour salt spray test endurance rating. Ensure the outside coatings are uniform in appearance and free of scratches. Repair coating in accordance with manufacturer's recommendations and to the satisfaction of the Engineer.

Ensure all electrical module has all components UL and CSA recognized, mounted on a single plate and factory prewired with quick disconnect plugs. Module includes a driver, thermal control device and surge protector.

Ensure the submittal contains sufficient information to verify compliance with specifications.

3. CONSTRUCTION.

Perform work in accordance with the details shown on the plans and the requirements of this Item.

Prevent scarring or marring of the fixtures. Replace damaged components. Repair damaged galvanizing in accordance with Section 445.3.5.2, "Repair Processes." Repair damaged painted areas in accordance with Item 446, "Field Cleaning and Painting Steel."

Cast each illumination assembly in place as shown on the plans and according to manufacturer's instructions. The Department may shift an assembly's location, if necessary, to secure a more desirable location.

4. MEASUREMENT.

This Item is measured as each Decorative Wall Lighting illumination assembly installed complete in place.

5. PAYMENT.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement", is paid for at the unit price bid for "Decorative Wall Lighting" of the types specified (downlight, left downlight or right downlight.) The Department will pay for electrical energy consumed by the lighting system.

This price is full compensation for furnishing, installing, and testing illumination assemblies; waterproof junction boxes, liquid-tight flexible metal conduit, LEDs, drivers, mounting plates, and connections; system performance testing; and for furnishing labor, tools, equipment and any incidentals.

New conduit will be paid for under Item 618, "Conduit." New electrical conductors will be paid for under Item 620, "Electrical Conductors." New ground boxes will be paid for under Item 624, "Ground Boxes." New electrical services will be paid for under Item 628, "Electrical Services."