

**SECTION 16510 INTERIOR LUMINAIRES**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Interior luminaires and accessories.
- B. Ballasts.
- C. Lamps.
- D. Lighting controls.

**1.2 RELATED SECTIONS**

- A. Section 16130 - Boxes

**1.3 REFERENCES**

- A. ANSI C82.1 - Ballasts for Fluorescent Lamps - Specifications.
- B. ANSI/NFPA 70 - National Electrical Code.

**1.4 SUBMITTALS**

- A. Shop Drawings: Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
- B. Product data: Provide dimensions, ratings and performance data.

**1.5 PROJECT RECORD DOCUMENTS**

- A. Accurately record actual locations of each luminaire.

**1.6 REGULATORY REQUIREMENTS**

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

## PART 2 - PRODUCTS

### 2.1 LUMINAIRES

- A. Furnish products as specified in schedule attached to this Section.

### 2.2 BALLASTS

- A. Electronic Fluorescent Ballast Manufacturers:
  - 1. *Sylvania.*
  - 2. *Advance.*
  - 3. Substitutions: Approved equal.
- B. Electronic Fluorescent Ballast Description: ANSI C82.1, rapid start electronic ballast.
  - 1. THD: less than 10%.
  - 2. Voltage: 120 volts.
  - 3. PF: 98% (minimum).
  - 4. Crest Factor: 1.55 (maximum).

### 2.3 LAMPS

- A. Approved Manufacturers:
  - 1. *General Electric.*
  - 2. *Sylvania.*
  - 3. *Philips.*
  - 4. Substitutions: None Permitted.
- B. Provide lamp type specified for each luminaire.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrate and supporting grids for luminaires.
- B. Examine each luminaire to determine suitability for lamps specified.

### 3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install suspended luminaires using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height.
- C. Locate recessed ceiling luminaires as indicated on reflected ceiling plan.
- D. Install surface mounted luminaires plumb and adjust to align with building lines and with each other. Secure to prohibit movement.
- E. Install recessed luminaires to permit removal from below.

- F. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating.
- G. Install wall mounted luminaires at height as scheduled.
- H. Install accessories furnished with each luminaire.
- I. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.
- J. Bond products and metal accessories to branch circuit equipment grounding conductor.
- K. Install specified lamps in each luminaire.

### 3.3 FIELD QUALITY CONTROL

- A. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

### 3.4 ADJUSTING

- A. Aim and adjust luminaires as directed.
- B. Re-lamp luminaires that have failed lamps at Substantial Completion.

### 3.5 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosure.
- C. Clean photometric control surfaces as recommended by manufacturer.
- D. Clean finishes and touch up damage.

\*\*\*END OF SECTION\*\*\*

Project: Pearl Place  
Location: Portland, Maine  
Date: September 1, 2006

**Bartlett Design**  
942 Washington Street, Bath, ME  
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### LIGHTING FIXTURE SCHEDULE

All fixtures are 120 volt, unless specifically noted otherwise.

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**Dimensions:** Height = 5" Diameter = 23-1/2"

Type: A

Description: Decorative close to ceiling light with silver finish and white acrylic diffuser. Provide electronic ballast.

Lamps: (2) FT36DL/830

Manufacturers: Forecast Lighting # F2061-12E1

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**Dimensions:** Height = 4" Diameter = 16"

Type: B

Description: Similar to type A except smaller in size.

Lamps: (2) CF26DT/E/IN/827

Manufacturers: Forecast Lighting # F2060-12U

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**Dimensions:** Height = 4" Diameter = 10-5/8"

Type: C

Description: Surface ceiling downlight with white etched white glass lens, and white trim. Provide electronic ballast.

Lamps: (1) CF13DS/827

Manufacturers: Forecast Lighting # F2450-81N1-E1

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**Dimensions:** Height = 6" Length = 27-1/2" Projection = 4"

Type: D

Description: Fluorescent light with white trim and white acrylic diffuser. Mount fixture directly above door head trim inside closets. Provide electronic ballast.

Lamps: (2) F017/841/ECO

Manufacturers: Forecast Lighting # F3402-80EBU

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**Dimensions:** Height = 5-1/2" Diameter = 14-1/2"

**Type:** E

**Description:** Close to ceiling light with white acrylic diffuser and satin nickel trim. Provide electronic ballast.

**Lamps:** (2) CF18DD/E/827

**Manufacturers:** *Forecast Lighting* # F6130-36E1

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**Dimensions:** Length = 37" Height = 5" Projection = 5"

**Type:** F

**Description:** Wall mounted fluorescent light with satin nickel trim and white acrylic diffuser. Provide electronic ballast.

**Lamps:** (2) F025/830/ECO

**Manufacturers:** *Forecast Lighting* # F3453-36E1

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**Dimensions:** Height = 6-1/2" Diameter = 18-1/2"

**Type:** G

**Description:** Similar to type E except larger size.

**Lamps:** (2) CF26DT/E/IN/827

**Manufacturers:** *Forecast Lighting* # F6131-36E1

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**Dimensions:** Height = 14-1/2" Width = 10" Projection = 4"

**Type:** H

**Description:** Wall mounted fixture with etched white glass diffuser and silver metallic trim. Fixture shall be UL listed for wet locations. Mount fixture at height/location as directed by Architect. Provide electronic ballast.

**Lamps:** (2) CF18DD/E/827

**Manufacturers:** *Forecast Lighting* # F8440-41E1FHM

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**Dimensions:** Height = 6" Length/Width = 27-1/2"

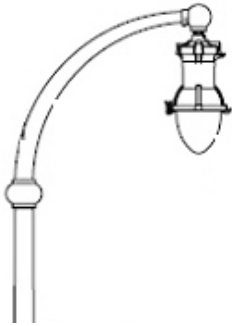
**Type:** L

**Description:** Surface mounted fluorescent contoured, shallow white acrylic cloud suspended from white chassis. Provide electronic ballast.

**Lamps:** (2) FBO30/830XP/6/SS/ECO

**Manufacturers:** *Forecast Lighting* # F2522-C80E8U

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**Type:** L1a

**Description:** Decorative roadway fixture with IESNA Type V distribution, 70 watt metal halide lamp mounted on a tapered steel 9'-0" pole with a 3'-9" tall bracket arm, and *Holophane* Cambridge Series clamshell cast aluminum base. Provide Old Navy Silver, Y003J custom color finish. NOTE: CONTRACTOR TO PROVIDE POLE, BRACKARM, BASE COVER, AND INTERNAL POLE WIRING. LUMINAIRE TO BE LEASED FROM THE CENTRAL MAINE POWER COMPANY.

**Lamps:** (1) MXR70/U/MED/0

**Manufacturers:** *Holophane* # ESP70DMH12A5-PR (fixture)  
*Holophane* # OCU (modified) 6063-T6 (bracket)  
*Holophane* # BHLF200-SCA/AS (slip fitter)

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**Type:** L1b

**Description:** Similar to Type L1a. 175 watt metal halide fixture with a IESNA Type III distribution mounted on a 15'-0" pole with a 4'-3" tall bracket arm. NOTE: CONTRACTOR TO PROVIDE POLE, BRACKARM, BASE COVER, AND INTERNAL POLE WIRING. LUMINAIRE TO BE LEASED FROM THE CENTRAL MAINE POWER COMPANY.

**Lamps:** (1) MVR175/U

**Manufacturers:** *Holophane* # ESU175MH12A4-PR (fixture)  
*Holophane* # OCU (modified) 6063-T6 (bracket)  
*Holophane* # BHLF200-SCA/AS (slip fitter)

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**Dimensions:    Height = 22"    Width = 14"**

Type:    **L2**

Description:    Similar to type H except larger size. Mount fixture horizontally above exterior entry door at height/location as directed by the Architect.

Lamps:    (2) FT36DL/830

Manufacturers:    *Forecast Lighting* # F8441-41E1FHM

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Type:    **L3a**

Description:    Cut-off area light with a flat tempered glass lens and IESNA Type III distribution pattern. Provide a photocell control with each luminaire. The pole shall be 4-inch square straight steel, 16-foot high, and shall be provided with a base cover. The luminaire and pole finish shall be grey polyester powder coat paint.

Lamp:    (1) MXR100/U/MED

Manufacturers:    *Spaulding Lighting* # NK1-A-P10-H3-F-Q-GR-P3 (luminaire)

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Type:    **L3b**

Description:    Identical to Type L2 except with for lighting pole base type. See drawings E0.1 for details.

Lamp:    (1) MXR100/U/MED

Manufacturers:    *Spaulding Lighting* # NK1-A-P10-H3-F-Q-GR-P3 (luminaire)

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Type:    **L3c**

Description:    Identical to Type L2 except with house side shield.

Lamp:    (1) MXR100/U/MED

Manufacturers:    *Spaulding Lighting* # NK1-A-P10-H3-F-Q-GR-P3-HSS (luminaire)

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**Dimensions:    Diameter = 6.95"    Recessed Depth = 3.6"**

Type:    **L4**

Description:    Recessed mounted step light with a low voltage 50 watt lamp and cast brass trim. UL listed for wet locations.

Lamps:    (1)

Manufacturers:    *Architectural Area Lighting* # ASL7-RD-EYE-BRASS-LV50

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**Dimensions: Diameter = 11" Height = 4"**

**Type: L5**

**Description:** Surface ceiling mounted fixture with polycarbonate diffuser. UL listed for damp locations.

**Lamps:** (2) CFTR32W/GX24Q/827

**Manufacturers:** *Fail Safe* # CTTW-PP-32A-120V

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**Dimensions: Height = 4" Length = 51-1/2" Width = 13-3/4"**

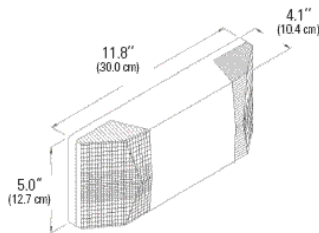
**Type: M**

**Description:** Surface mounted fluorescent white acrylic cloud suspended from white chassis.

**Lamps:** (2) FO32/835/XP/ECO

**Manufacturers:** *Lightolier* # 10306E81-10325

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**Type: N**

**Description:** Surface mounted low profile decorative emergency light with self-testing and self-diagnostic nickel-cadmium battery.

**Lamps:** By Manufacturer

**Manufacturers:** *Lightolier* # E8-W

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**Dimensions: Height = 9-1/2" Width = 13-3/4" Thickness = 1.66"**

**Type: P**

**Description:** Thermoplastic white LED aluminum exit sign with red letters. Provide arrows as indicated on drawings

**Lamps:** By Manufacturer

**Manufacturers:** *Lightolier* # LT=N-U-R-W

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**Dimensions:** Width = 6" Height = 10" Projection = 4"

**Type:** Q

**Description:** Thin profile surface wall fixture, UL listed for damp locations with polycarbonate diffuser. Mount in elevator pit 24" above pit floor. Provide electronic ballast.

**Lamps:** (1) CF13DD/827

**Manufacturers:** Stonco # GSW13HFL

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**Dimensions:** Diameter = 10-58" Height = 4"

**Type:** R

**Description:** Surface ceiling fixture with etched white glass and satin nickel trim. Provide electronic ballast.

**Lamps:** (1) CFQ13W/G24Q/827

**Manufacturers:** Forecast Lighting # F2450-81N13

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**Dimensions:** Diameter = 13-1/2" Height = 14-3/4"

**Type:** T

**Description:** Similar to Type R except larger.

**Lamps:** (2) CFQ13W/G24Q/827

**Manufacturers:** Forecast Lighting # F2451-81N13

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**Dimensions:** Width = 15" Height = 5-1/2" Projection = 4"

**Type:** W

**Description:** Wall mounted decorative fixture with white etched glass diffuser and satin nickel finish. Provide electronic ballast.

**Lamps:** (1) CF18DD/E/827

**Manufacturers:** Forecast Lighting # F1544-62E1

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