SEATTLE CITY LIGHT

MATERIAL STANDARD

STANDARD NUMBER: 5722.20

PAGE: 1 of 3 SUPERSEDING: new

EFFECTIVE DATE: February 7, 2008

LAMP, HIGH PRESSURE SODIUM, STANDARD LIFE, MEDIUM BASE



1. Foreword

1.1 Scope

This material standard covers the requirements for standard life, single-ended, single arc tube, high pressure sodium, streetlight lamps with medium screw bases. High pressure sodium (HPS) lamps are a subcategory of high intensity discharge (HID) lamps.

This material standard applies to the following Seattle City Light Stock Numbers:

| Stock Number | Wattage | Bulb Finish |
|--------------|---------|--------------------|
| 572270 | 35 | clear |
| 572220 | 35 | coated |
| 572225 | 50 | coated |
| 572230 | 70 | coated |
| 572232 | 100 | clear |
| 572233 | 150 | clear |

1.2 Application

Lamps are for installation in open or enclosed, high pressure sodium streetlight luminaires with medium screw base lamp holders. Lamps have no restriction on burning position.

For similar lamps with mogul screw base, refer to Material Standard 5772.40.

1.3 Industry Standards

Lamps shall meet the applicable requirements of the following industry standards:

ANSI C78.42-2004 - American National Standard for Electric Lamps: High-Pressure Sodium Lamps

| STANDARDS COORDINATOR | STANDARDS SUPERVISOR | UNIT DIRECTOR |
|-----------------------|----------------------|-------------------------|
| Goldhil John Shipek | John Barnett | F.T. Kenst Lichard Kent |

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2. Construction

Lamps shall meet the applicable requirements of ANSI C78.42 and Table 1 of this material standard with the following clarifications:

Lamps shall be of single arc tube design.

Lamps shall be capable of operation in all positions.

Lamp bases shall be E26 / 24 medium screw.

Average rated life is defined as:

The total operation hours at which 65% of any group of lamps is still operating. The average life of a lamp shall be based on vertical operation (unless otherwise noted) of representative lamps operated under controlled conditions of up to 15 hours per start.

Lamp color rendering index (CRI) shall be 21 or greater.

Lamps shall cycle at end-of-life.

Table 1

| | ANSI Designation | | nation | Average | Minimum Output, lumens | | Minimum Correlated | Glass |
|-----------------------|------------------|----------|------------------------|-------------------|------------------------|-------|-----------------------|----------------|
| Stock Number Watta | Wattage | Lamp | Bulb | Rated Life, hours | Initial | Mean | Color Temp., K | Bulb Finish |
| 572270 | 35 | S76/O-ZL | B17, BD-17, E17, ED-17 | 16000 | 2250 | 2025 | 1600 | clear |
| 572220 | 35 | S76/O-ZL | B17, BD-17, E17, ED-17 | 16000 | 2100 | 1935 | 1900 | coated |
| 572225 | 50 | S68/O-ZL | B17, BD-17, E17 | 24000 | 3700 | 3420 | 1900 | coated |
| 572230 | 70 | S62/O-ZL | B17, BD-17, E17 | 24000 | 5800 | 4900 | 1900 | coated |
| 572232 | 100 | S54/O-ZL | B17, BD-17, E17 | 24000 | 9500 | 8000 | 2000 | clear |
| 572233 | 150 | S55/O-RV | B17, BD-17, E17 | 24000 | 15800 | 13400 | 2000 | clear |

3. Tests and Test Reports

Lamp test data that establishes compliance with the requirements of ANSI C78.42 and this material standard shall be provided upon request.

4. Packaging

Lamps shall be individually packaged to prevent damage during shipping, storage, and casual handling prior to installation. Quantity of lamps per shipping carton shall be as mutually agreed upon between supplier and Seattle City Light.

5. Shipping

Lamps shall be shipped in whole cartons only.

Lamps shall be shipped to the address specified on the Purchase Order.

6. Issuance

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7. Approved Manufacturers

| Stock Number | Wattage | General Electric (Lucalox) | | OSRAM/Sylvania (Lumalux) | | Phillips (Ceramalux) | |
|-----------------|---------|-------------------------------|-------------|-----------------------------|--------------------------|----------------------|------------------|
| | | Order Code | Description | Item Number | Ordering Abbreviation | Product Number | Ordering Code |
| 572270 | 35 | 11668 | LU35/MED | 67500 | LU35/MED | 046677-30632-4 | C35S76/M |
| 572220 | 35 | 11669 | LU35/D/MED | 67501 | LU35/D/MED | 046677-30633-2 | C35S76/D/M |
| 572225 | 50 | 11347 | LU50/D/MED | 67503 | LU50/D/MED | 046677-30337-0 | C50S68/D/M |
| 572230 | 70 | 11340 | LU70/D/MED | 67505 | LU70/D/MED | 046677-33214-8 | C70S62/D/M |
| 572232 | 100 | 13250 | LU100/MED | 67506 | LU100/MED | 046677-34446-5 | C100S54/M |
| 572233 | 150 | 13252 | LU150/MED | 67508 | LU150/55/MED | 046677-30347-9 | C150S55/M |