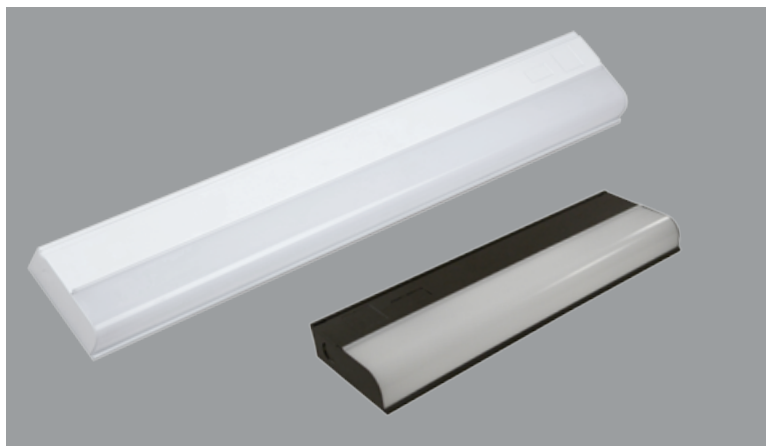
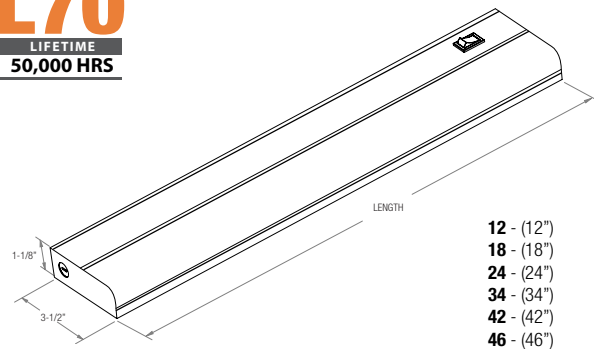




# EU-LED SERIES



CALCULATED  
**L70**  
LIFETIME  
50,000 HRS



- 12 - (12")
- 18 - (18")
- 24 - (24")
- 34 - (34")
- 42 - (42")
- 46 - (46")

**APPLICATION:**

Suitable for retail displays, gondolas, coves and undercabinet applications.

**PRODUCT FEATURES:**

- Life tested to ensure light output up to 50,000 hours of operation to L70
- Tested to LM-79 and LM-80 standards
- Easy-fit cover channel attachment
- Tool-less wireway access
- Detachable channel cover for quick installation
- Romex/BX conduit connector included with every fixture
- Soft-lumens, linear prismatic diffuser gives better visual comfort

- Knockouts available at the back, side, and rear for easy installation
- Available keyhole mounting slots on the back finish

**FINISH:**

UV coated rust resistance. Painted parts finished with polyester powder coating. 22-gauge die-formed steel housing.

**PERFORMANCE** - The light engines found in the EU-LED are rated at 90+ CRI and are available in CCTs 4100K. Rated and tested to LM-79 and LM-80 standards. The LEDs are also binned to a 3-step MacAdam ellipses to achieve consistent color from fixture to fixture.

**QUALITY CONTROL** - Every fixture is turned on and rigorously tested by our QC Department before shipping.

**ELECTRICAL** - Powered by high-quality constant-current power LED drivers which are rated for 50 to 60Hz at 120V input, produce less than 20% THD, and have a power factor of .90 to 1.00.

**WARRANTY** - Limited 5 Year Warranty

**DIMMING** - The EU-LED can be ordered with TRIAC dimming system. Consult factory for more information. Dimmable with INC (Incandescent), ELV (Electronic Low Voltage) or MLV (Magnetic Low Voltage) Dimmers.

**LISTING** - ETL listed



Example: **EU-LED-24-900L-DIMTR-40K**

| TYPE   | LENGTH / LUMENS   | DIMMING                  | COLOR OPTION   | FINISH                                  | ACCESSORIES                 |
|--------|---|--------------------------|--|---|-----------------------------|
| EU-LED | <b>9-300L</b> - (9", 4 Watts, 300 lumens)<br><b>12-450L</b> - (12", 5 Watts, 450 lumens)<br><b>18-600L</b> - (18", 7 Watts, 600 lumens)<br><b>24-900L</b> - (24", 10 Watts, 900 lumens)<br><b>34-1300L</b> - (34", 14 Watts, 1300 lumens)<br><b>42-1600L</b> - (42", 18 Watts, 1600 lumens)<br><b>46-1800L</b> - (46", 18 Watts, 1800 lumens) | <b>DIMTR</b> - 120V only | <b>30K</b> - (3000K)<br><b>35K</b> - (3500K)<br><b>40K</b> - (4100K) | <b>WH</b> - White<br><b>BZ</b> - Bronze | <b>RC</b> - Grounded outlet |

# PHOTOMETRY DATA

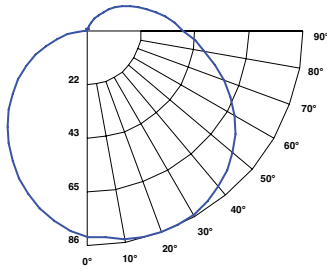
## EU-LED-12-450L-120-30K-WH

WATTAGE: 4.6

LUMENS: 313

TOTAL LUMINAIRE EFFICACY: 68

### Candle Power Distribution (Candelas)



**Spacing Criteria**

0-180 : 1.24  
 90-270 : 1.12  
 Diagonal : 1.42

**EFFICACY: 68 LM/W**

### Zonal Lumens Summary

| Zone   | Lumens | %Lamp  | %Fixt  |
|--------|--------|--------|--------|
| 0-30°  | 64.90  | 20.80  | 20.80  |
| 0-40°  | 107.28 | 34.40  | 34.30  |
| 0-60°  | 196.14 | 62.80  | 62.70  |
| 0-90°  | 277.43 | 88.80  | 88.80  |
| 0-180° | 312.59 | 100.10 | 100.00 |

### Luminaire Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 265        | 222         | 218         |
| 55°              | 249        | 206         | 203         |
| 65°              | 233        | 188         | 188         |
| 75°              | 195        | 164         | 171         |
| 85°              | 115        | 135         | 160         |

### Candela Tabulation

|    | 0      | 45     | 90     |
|----|--------|--------|--------|
| 0  | 83.005 | 83.005 | 83.005 |
| 5  | 83.000 | 81.390 | 80.800 |
| 15 | 79.610 | 75.420 | 74.150 |
| 25 | 73.230 | 67.120 | 65.500 |
| 35 | 64.510 | 56.990 | 55.530 |
| 45 | 54.810 | 45.930 | 45.010 |
| 55 | 41.750 | 34.550 | 34.090 |
| 65 | 28.720 | 23.150 | 23.250 |
| 75 | 14.740 | 12.370 | 12.920 |
| 85 | 2.940  | 3.440  | 4.070  |
| 90 | 0.300  | 1.100  | 1.600  |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|          | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 89  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 87  | 89  | 85  | 82  | 83  | 80  | 77  | 78  | 75  | 73  | 70  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 77  | 71  | 66  | 72  | 67  | 63  | 67  | 63  | 60  | 57  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 63  | 57  | 52  | 59  | 54  | 50  | 47  |
| 4        | 78  | 65  | 56  | 49  | 75  | 63  | 54  | 48  | 59  | 52  | 46  | 55  | 49  | 44  | 52  | 47  | 42  | 40  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 53  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 45  | 38  | 33  | 42  | 36  | 32  | 30  |
| 7        | 61  | 47  | 38  | 32  | 58  | 46  | 37  | 31  | 43  | 36  | 30  | 41  | 34  | 29  | 38  | 33  | 28  | 26  |
| 8        | 57  | 43  | 34  | 28  | 54  | 42  | 33  | 28  | 39  | 32  | 27  | 37  | 31  | 26  | 35  | 29  | 25  | 23  |
| 9        | 53  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 36  | 29  | 24  | 34  | 28  | 23  | 32  | 27  | 23  | 21  |
| 10       | 49  | 36  | 28  | 23  | 48  | 35  | 27  | 22  | 33  | 26  | 22  | 32  | 25  | 21  | 30  | 24  | 20  | 19  |

RC - Ceiling Cavity Reflectance      RW - Wall Reflectance

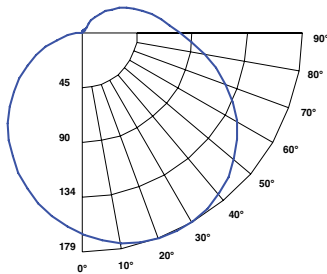
## EU-LED-24-900L-120-30K-WH

WATTAGE: 9.2

LUMENS: 636

TOTAL LUMINAIRE EFFICACY: 69

### Candle Power Distribution (Candelas)



**Spacing Criteria**

0-180 : 1.24  
 90-270 : 1.08  
 Diagonal : 1.44

**EFFICACY: 69 LM/W**

### Zonal Lumens Summary

| Zone   | Lumens | %Lamp  | %Fixt  |
|--------|--------|--------|--------|
| 0-30°  | 130.22 | 20.50  | 20.50  |
| 0-40°  | 215.55 | 33.90  | 33.90  |
| 0-60°  | 395.70 | 62.30  | 62.20  |
| 0-90°  | 562.25 | 88.50  | 88.40  |
| 0-180° | 635.79 | 100.10 | 100.00 |

### Luminaire Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 516        | 428         | 417         |
| 55°              | 491        | 391         | 384         |
| 65°              | 452        | 350         | 350         |
| 75°              | 383        | 295         | 306         |
| 85°              | 206        | 213         | 260         |

### Candela Tabulation

|    | 0       | 45      | 90      |
|----|---------|---------|---------|
| 0  | 165.575 | 165.575 | 165.575 |
| 5  | 164.260 | 160.370 | 159.180 |
| 15 | 157.310 | 147.340 | 144.660 |
| 25 | 144.860 | 130.280 | 126.820 |
| 35 | 127.690 | 110.080 | 107.070 |
| 45 | 106.610 | 88.390  | 86.090  |
| 55 | 82.330  | 65.590  | 64.330  |
| 65 | 55.770  | 43.270  | 43.180  |
| 75 | 28.970  | 22.280  | 23.110  |
| 85 | 5.240   | 5.420   | 6.630   |
| 90 | 0.580   | 2.260   | 3.240   |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|          | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 89  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 86  | 89  | 85  | 82  | 83  | 80  | 77  | 77  | 75  | 73  | 70  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 76  | 71  | 66  | 71  | 67  | 62  | 67  | 63  | 59  | 56  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 62  | 57  | 52  | 58  | 54  | 49  | 47  |
| 4        | 78  | 65  | 56  | 49  | 74  | 63  | 54  | 48  | 59  | 51  | 46  | 55  | 49  | 44  | 52  | 46  | 42  | 39  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 52  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 44  | 38  | 33  | 42  | 36  | 32  | 29  |
| 7        | 61  | 47  | 38  | 32  | 58  | 45  | 37  | 31  | 43  | 35  | 30  | 40  | 34  | 29  | 38  | 32  | 28  | 26  |
| 8        | 56  | 43  | 34  | 28  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 37  | 30  | 26  | 35  | 29  | 25  | 23  |
| 9        | 53  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 36  | 29  | 24  | 34  | 28  | 23  | 32  | 27  | 22  | 20  |
| 10       | 49  | 36  | 28  | 22  | 47  | 35  | 27  | 22  | 33  | 26  | 22  | 31  | 25  | 21  | 30  | 24  | 20  | 18  |

RC - Ceiling Cavity Reflectance      RW - Wall Reflectance

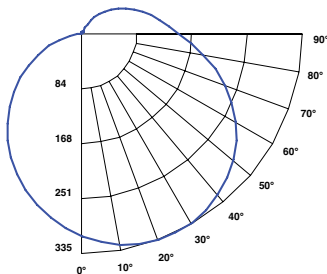
## EU-LED-46-1800L-120-30K-WH

WATTAGE: 17.5

LUMENS: 1183

TOTAL LUMINAIRE EFFICACY: 68

### Candle Power Distribution (Candelas)



**Spacing Criteria**

0-180 : 1.28  
 90-270 : 1.60  
 Diagonal : 1.44

**EFFICACY: 68 LM/W**

### Zonal Lumens Summary

| Zone   | Lumens  | %Lamp  | %Fixt  |
|--------|---------|--------|--------|
| 0-30°  | 243.38  | 20.60  | 20.60  |
| 0-40°  | 403.20  | 34.10  | 34.10  |
| 0-60°  | 739.52  | 62.60  | 62.50  |
| 0-90°  | 1046.64 | 88.50  | 88.50  |
| 0-180° | 1183.13 | 100.10 | 100.00 |

### Luminaire Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 257        | 343         | 377         |
| 55°              | 250        | 376         | 425         |
| 65°              | 236        | 430         | 507         |
| 75°              | 205        | 550         | 690         |
| 85°              | 137        | 1178        | 1626        |

### Candela Tabulation

|    | 0       | 45      | 90      |
|----|---------|---------|---------|
| 0  | 308.709 | 308.709 | 308.709 |
| 5  | 308.860 | 316.170 | 319.010 |
| 15 | 299.280 | 322.810 | 331.960 |
| 25 | 279.330 | 319.360 | 335.080 |
| 35 | 249.960 | 306.000 | 327.970 |
| 45 | 212.170 | 283.220 | 311.130 |
| 55 | 167.270 | 251.690 | 285.130 |
| 65 | 116.360 | 212.180 | 250.370 |
| 75 | 62.030  | 166.300 | 208.580 |
| 85 | 13.920  | 120.010 | 165.610 |
| 90 | 1.040   | 101.240 | 146.620 |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|          | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% | 70% | 50% | 30% |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 89  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 87  | 89  | 85  | 82  | 83  | 80  | 77  | 77  | 75  | 73  | 70  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 76  | 71  | 66  | 71  | 67  | 62  | 67  | 63  | 60  | 57  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 62  | 57  | 52  | 58  | 54  | 50  | 47  |
| 4        | 78  | 65  | 56  | 49  | 74  | 63  | 54  | 48  | 59  | 52  | 46  | 55  | 49  | 44  | 52  | 46  | 42  | 39  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 53  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 44  | 38  | 33  | 42  | 36  | 32  | 29  |
| 7        | 61  | 47  | 38  | 32  | 58  | 45  | 37  | 31  | 43  | 35  | 30  | 40  | 34  | 29  | 38  | 32  | 28  | 26  |
| 8        | 56  | 43  | 34  | 28  | 54  | 41  | 33  | 28  | 39  | 32  | 27  | 37  | 31  | 26  | 35  | 29  | 25  | 23  |
| 9        | 53  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 36  | 29  | 24  | 34  | 28  | 23  | 32  | 27  | 22  | 20  |
| 10       | 49  | 36  | 28  | 22  | 47  | 35  | 27  | 22  | 33  | 26  | 22  | 31  | 25  | 21  | 30  | 24  | 20  | 18  |

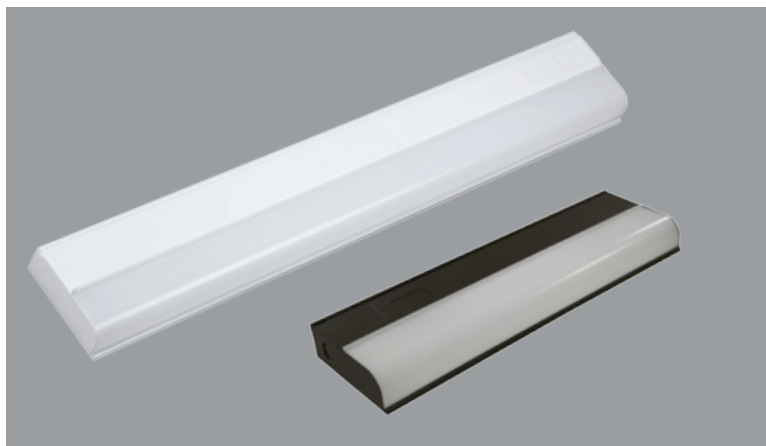
RC - Ceiling Cavity Reflectance      RW - Wall Reflectance

LED  
EU

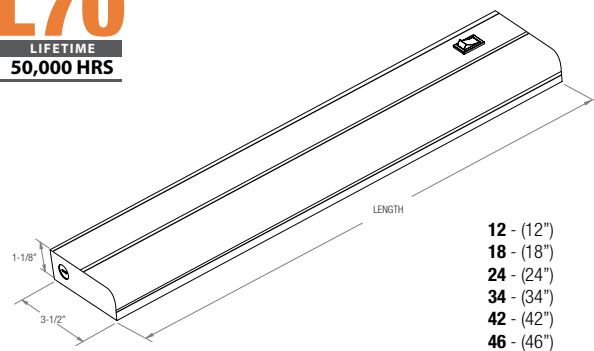
LED Undercabinet Fixture



# EU-LED SERIES



CALCULATED  
**L70**  
LIFETIME  
50,000 HRS



- 12 - (12")
- 18 - (18")
- 24 - (24")
- 34 - (34")
- 42 - (42")
- 46 - (46")

**APPLICATION:**

Suitable for retail displays, gondolas, coves and undercabinet applications.

**PRODUCT FEATURES:**

- Life tested to ensure light output up to 50,000 hours of operation to L70
- Tested to LM-79 and LM-80 standards
- Easy-fit cover channel attachment
- Tool-less wireway access
- Detachable channel cover for quick installation
- Romex/BX conduit connector included with every fixture
- Soft-lumens, linear prismatic diffuser gives better visual comfort

- Knockouts available at the back, side, and rear for easy installation
- Available keyhole mounting slots on the back finish

**FINISH:**

UV coated rust resistance. Painted parts finished with polyester powder coating. 22-gauge die-formed steel housing.

**PERFORMANCE** - The light engines found in the EU-LED are rated at 90+ CRI and are available in CCTs 4100K. Rated and tested to LM-79 and LM-80 standards. The LEDs are also binned to a 3-step MacAdam ellipses to achieve consistent color from fixture to fixture.

**QUALITY CONTROL** - Every fixture is turned on and rigorously tested by our QC Department before shipping.

**ELECTRICAL** - Powered by high-quality constant-current power LED drivers which are rated for 50 to 60Hz at 120V input, produce less than 20% THD, and have a power factor of .90 to 1.00.

**WARRANTY** - Limited 5 Year Warranty

**DIMMING** - The EU-LED can be ordered with TRIAC dimming system. Consult factory for more information. Dimmable with INC (Incandescent), ELV (Electronic Low Voltage) or MLV (Magnetic Low Voltage) Dimmers.

**LISTING** - ETL listed



Example: **EU-LED-24-900L-DIMTR-40K**

| TYPE   | LENGTH / LUMENS   | DIMMING                  | COLOR OPTION   | FINISH                                  | ACCESSORIES                 |
|--------|---|--------------------------|--|---|-----------------------------|
| EU-LED | <b>9-300L</b> - (9", 4 Watts, 300 lumens)<br><b>12-450L</b> - (12", 5 Watts, 450 lumens)<br><b>18-600L</b> - (18", 7 Watts, 600 lumens)<br><b>24-900L</b> - (24", 10 Watts, 900 lumens)<br><b>34-1300L</b> - (34", 14 Watts, 1300 lumens)<br><b>42-1600L</b> - (42", 18 Watts, 1600 lumens)<br><b>46-1800L</b> - (46", 18 Watts, 1800 lumens) | <b>DIMTR</b> - 120V only | <b>30K</b> - (3000K)<br><b>35K</b> - (3500K)<br><b>40K</b> - (4100K) | <b>WH</b> - White<br><b>BZ</b> - Bronze | <b>RC</b> - Grounded outlet |

# PHOTOMETRY DATA

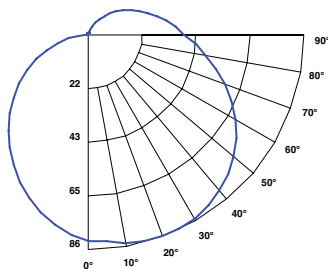
## EU-LED-12-450L-120-30K-WH

WATTAGE: 4.6

LUMENS: 313

TOTAL LUMINAIRE EFFICACY: 68

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone   | Lumens | %Lamp  | %Fixt  |
|--------|--------|--------|--------|
| 0-30°  | 64.90  | 20.80  | 20.80  |
| 0-40°  | 107.28 | 34.40  | 34.30  |
| 0-60°  | 196.14 | 62.80  | 62.70  |
| 0-90°  | 277.43 | 88.80  | 88.80  |
| 0-180° | 312.59 | 100.10 | 100.00 |

### Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 265        | 222         | 218         |
| 55°              | 249        | 206         | 203         |
| 65°              | 233        | 188         | 188         |
| 75°              | 195        | 164         | 171         |
| 85°              | 115        | 135         | 160         |

### Candela Tabulation

|    | 0      | 45     | 90     |
|----|--------|--------|--------|
| 0  | 83.005 | 83.005 | 83.005 |
| 5  | 83.000 | 81.390 | 80.800 |
| 15 | 79.610 | 75.420 | 74.150 |
| 25 | 73.230 | 67.120 | 65.500 |
| 35 | 64.510 | 56.990 | 55.530 |
| 45 | 54.810 | 45.930 | 45.010 |
| 55 | 41.750 | 34.550 | 34.090 |
| 65 | 28.720 | 23.150 | 23.250 |
| 75 | 14.740 | 12.370 | 12.920 |
| 85 | 2.940  | 3.440  | 4.070  |
| 90 | 0.300  | 1.100  | 1.600  |

### Spacing Criteria

|          |        |
|----------|--------|
| 0-180    | : 1.24 |
| 90-270   | : 1.12 |
| Diagonal | : 1.42 |

**EFFICACY: 68 LM/W**

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |     |     |     | 0% |  |  |  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|--|--|
|          | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0% |  |  |  |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 92  | 92  | 92  | 89 |  |  |  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 87  | 89  | 85  | 82  | 83  | 80  | 77  | 78  | 75  | 73  | 70  | 70  | 70  | 70 |  |  |  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 77  | 71  | 66  | 72  | 67  | 63  | 67  | 63  | 60  | 57  | 57  | 57  | 57 |  |  |  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 63  | 57  | 52  | 59  | 54  | 50  | 47  | 47  | 47  | 47 |  |  |  |
| 4        | 78  | 65  | 56  | 49  | 75  | 63  | 54  | 48  | 59  | 52  | 46  | 55  | 49  | 44  | 52  | 47  | 42  | 40  | 40  | 40  | 40 |  |  |  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 53  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  | 34  | 34  | 34 |  |  |  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 45  | 38  | 33  | 42  | 36  | 32  | 30  | 30  | 30  | 30 |  |  |  |
| 7        | 61  | 47  | 38  | 32  | 58  | 46  | 37  | 31  | 43  | 36  | 30  | 41  | 34  | 29  | 38  | 33  | 28  | 26  | 26  | 26  | 26 |  |  |  |
| 8        | 57  | 43  | 34  | 28  | 54  | 42  | 33  | 28  | 39  | 32  | 27  | 37  | 31  | 26  | 35  | 29  | 25  | 23  | 23  | 23  | 23 |  |  |  |
| 9        | 53  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 36  | 29  | 24  | 34  | 28  | 23  | 32  | 27  | 23  | 21  | 21  | 21  | 21 |  |  |  |
| 10       | 49  | 36  | 28  | 23  | 48  | 35  | 27  | 22  | 33  | 26  | 22  | 32  | 25  | 21  | 30  | 24  | 20  | 19  | 19  | 19  | 19 |  |  |  |

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

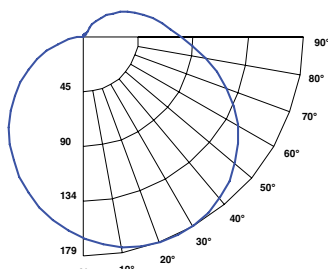
## EU-LED-24-900L-120-30K-WH

WATTAGE: 9.2

LUMENS: 636

TOTAL LUMINAIRE EFFICACY: 69

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone   | Lumens | %Lamp  | %Fixt  |
|--------|--------|--------|--------|
| 0-30°  | 130.22 | 20.50  | 20.50  |
| 0-40°  | 215.55 | 33.90  | 33.90  |
| 0-60°  | 395.70 | 62.30  | 62.20  |
| 0-90°  | 562.25 | 88.50  | 88.40  |
| 0-180° | 635.79 | 100.10 | 100.00 |

### Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 516        | 428         | 417         |
| 55°              | 491        | 391         | 384         |
| 65°              | 452        | 350         | 350         |
| 75°              | 383        | 295         | 306         |
| 85°              | 206        | 213         | 260         |

### Candela Tabulation

|    | 0       | 45      | 90      |
|----|---------|---------|---------|
| 0  | 165.575 | 165.575 | 165.575 |
| 5  | 164.260 | 160.370 | 159.180 |
| 15 | 157.310 | 147.340 | 144.660 |
| 25 | 144.860 | 130.280 | 126.820 |
| 35 | 127.690 | 110.080 | 107.070 |
| 45 | 106.610 | 88.390  | 86.090  |
| 55 | 82.330  | 65.590  | 64.330  |
| 65 | 55.770  | 43.270  | 43.180  |
| 75 | 28.970  | 22.280  | 23.110  |
| 85 | 5.240   | 5.420   | 6.630   |
| 90 | 0.580   | 2.260   | 3.240   |

### Spacing Criteria

|          |        |
|----------|--------|
| 0-180    | : 1.24 |
| 90-270   | : 1.08 |
| Diagonal | : 1.44 |

**EFFICACY: 69 LM/W**

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |     |     |     | 0% |  |  |  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|--|--|
|          | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0% |  |  |  |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 92  | 92  | 92  | 89 |  |  |  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 86  | 89  | 85  | 82  | 83  | 80  | 77  | 77  | 75  | 73  | 70  | 70  | 70  | 70 |  |  |  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 76  | 71  | 66  | 71  | 67  | 62  | 67  | 63  | 59  | 56  | 56  | 56  | 56 |  |  |  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 62  | 57  | 52  | 58  | 54  | 49  | 47  | 47  | 47  | 47 |  |  |  |
| 4        | 78  | 65  | 56  | 49  | 74  | 63  | 54  | 48  | 59  | 51  | 46  | 55  | 49  | 44  | 52  | 46  | 42  | 39  | 39  | 39  | 39 |  |  |  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 52  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  | 34  | 34  | 34 |  |  |  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 44  | 38  | 33  | 42  | 36  | 32  | 29  | 29  | 29  | 29 |  |  |  |
| 7        | 61  | 47  | 38  | 31  | 58  | 45  | 37  | 31  | 43  | 35  | 30  | 40  | 34  | 29  | 38  | 32  | 28  | 26  | 26  | 26  | 26 |  |  |  |
| 8        | 56  | 43  | 34  | 28  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 37  | 30  | 26  | 35  | 29  | 25  | 23  | 23  | 23  | 23 |  |  |  |
| 9        | 53  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 36  | 29  | 24  | 34  | 28  | 23  | 32  | 27  | 22  | 20  | 20  | 20  | 20 |  |  |  |
| 10       | 49  | 36  | 28  | 22  | 47  | 35  | 27  | 22  | 33  | 26  | 22  | 31  | 25  | 21  | 30  | 24  | 20  | 18  | 18  | 18  | 18 |  |  |  |

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

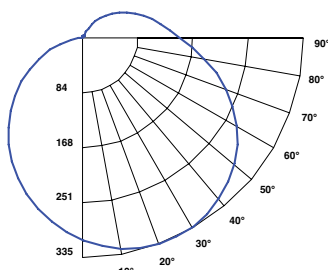
## EU-LED-46-1800L-120-30K-WH

WATTAGE: 17.5

LUMENS: 1183

TOTAL LUMINAIRE EFFICACY: 68

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone   | Lumens  | %Lamp  | %Fixt  |
|--------|---------|--------|--------|
| 0-30°  | 243.38  | 20.60  | 20.60  |
| 0-40°  | 403.20  | 34.10  | 34.10  |
| 0-60°  | 739.52  | 62.60  | 62.50  |
| 0-90°  | 1046.64 | 88.50  | 88.50  |
| 0-180° | 1183.13 | 100.10 | 100.00 |

### Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45°              | 257        | 343         | 377         |
| 55°              | 250        | 376         | 425         |
| 65°              | 236        | 430         | 507         |
| 75°              | 205        | 550         | 690         |
| 85°              | 137        | 1178        | 1626        |

### Candela Tabulation

|    | 0       | 45      | 90      |
|----|---------|---------|---------|
| 0  | 308.709 | 308.709 | 308.709 |
| 5  | 308.860 | 316.170 | 319.010 |
| 15 | 299.280 | 322.810 | 331.960 |
| 25 | 279.330 | 319.360 | 335.080 |
| 35 | 249.960 | 306.000 | 327.970 |
| 45 | 212.170 | 283.220 | 311.130 |
| 55 | 167.270 | 251.690 | 285.130 |
| 65 | 116.360 | 212.180 | 250.370 |
| 75 | 62.030  | 166.300 | 208.580 |
| 85 | 13.920  | 120.010 | 165.610 |
| 90 | 1.040   | 101.240 | 146.620 |

### Spacing Criteria

|          |        |
|----------|--------|
| 0-180    | : 1.28 |
| 90-270   | : 1.60 |
| Diagonal | : 1.44 |

**EFFICACY: 68 LM/W**

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

| RC<br>RW | 80% |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |     |     |     | 0% |  |  |  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|--|--|
|          | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0% |  |  |  |
| 0        | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 92  | 92  | 92  | 89 |  |  |  |
| 1        | 104 | 99  | 94  | 89  | 100 | 95  | 91  | 87  | 89  | 85  | 82  | 83  | 80  | 77  | 77  | 75  | 73  | 70  | 70  | 70  | 70 |  |  |  |
| 2        | 94  | 85  | 77  | 71  | 90  | 82  | 75  | 69  | 76  | 71  | 66  | 71  | 67  | 62  | 67  | 63  | 59  | 56  | 56  | 56  | 56 |  |  |  |
| 3        | 85  | 74  | 65  | 58  | 82  | 71  | 63  | 57  | 67  | 60  | 54  | 62  | 57  | 52  | 58  | 54  | 49  | 47  | 47  | 47  | 47 |  |  |  |
| 4        | 78  | 65  | 56  | 49  | 74  | 63  | 54  | 48  | 59  | 52  | 46  | 55  | 49  | 44  | 52  | 46  | 42  | 39  | 39  | 39  | 39 |  |  |  |
| 5        | 71  | 58  | 49  | 42  | 68  | 56  | 47  | 41  | 53  | 45  | 39  | 49  | 43  | 38  | 46  | 41  | 36  | 34  | 34  | 34  | 34 |  |  |  |
| 6        | 66  | 52  | 43  | 36  | 63  | 50  | 42  | 35  | 47  | 40  | 34  | 44  | 38  | 33  | 42  | 36  | 32  | 29  | 29  | 29  | 29 |  |  |  |
| 7        | 61  | 47  | 38  | 31  | 58  | 45  | 37  | 31  | 43  | 35  | 30  | 40  | 34  | 29  | 38  | 32  | 28  | 26  | 26  | 26  | 26 |  |  |  |
| 8        | 56  | 43  | 34  | 28  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 37  | 30  | 26  | 35  | 29  | 25  | 23  | 23  | 2   |    |  |  |  |