



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : EWC-LED-R-UNV-WHT-RC\_SINGLE\_HEAD\_TEST.IES

### DESCRIPTION INFORMATION (From Photometric File)

[IESNA]LM-63-2002

[TEST]ITL86619

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]01/27/16

[ISSUE DATE]04/29/2018

[MANUFAC]LSI INDUSTRIES, INC

[LUMCAT]EWC-LED-R-UNV-WHT-RC\_Single\_Head\_Test

[LUMINAIRE]ONE 12.625" X 8.125" MOLDED WHITE PLASTIC SINGLE FACE EXIT

[MORE]SIGN WITH 2 MOLDED WHITE PLASTIC SWIVEL HEAD ASSEMBLIES, EACH

[MORE]HEAD ASSEMBLY CONSISTS OF: ONE CIRCUIT BOARD WITH 12 LEDS,

[MORE]MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE

[MORE]PER LED, CLEAR PRISMATIC PLASTIC LENS. BOTH SWIVEL HEAD

[MORE]ASSEMBLIES AND ALL 10 INTERIOR LEDS WERE ILLUMINATED FOR THIS

[MORE]TEST. ONLY ONE LIGHT HEAD WAS MEASURED FOR LIGHT OUTPUT.

[LAMP]TWELVE WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR

[MORE]CYLINDRICAL INTEGRAL LENS WITH HEMISPHERICAL END, VERTICAL

[MORE]BASE-UP POSITION.

[OTHER]INPUT ELECTRICAL: 3.60 VOLTS, 2.33 WATTS, 0.646 AMPS

[\_ MOUNTING]SURFACE

[\_ LEDDRIVER]PACE ELECTRONICS PROPRIETARY

[\_ NOTE]DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT CLIENT

[MORE]REQUESTED INPUT VOLTAGE (3.6VDC) TO THE DRIVER. DRIVER

[MORE]INFORMATION PROVIDED BY CLIENT.

[OTHER]TEST PROCEDURE: IESNA LM-79-08

[OTHER]TEST DISTANCE = 20.0 FEET

[\_ SEARCH\_SOURCE TYPE] LED

[\_ SEARCH\_APPLICATION] Indoor

### CHARACTERISTICS

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 85                 |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 37                 |
| Total Luminaire Watts           | 2.33               |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 0.74               |
| Spacing Criterion (90-270)      | 0.74               |
| Spacing Criterion (Diagonal)    | 0.74               |
| Basic Luminous Shape            | Circular w/ Sides  |
| Luminous Length (0-180)         | 0.28 ft (Diameter) |
| Luminous Width (90-270)         | 0.28 ft (Diameter) |
| Luminous Height                 | 0.03 ft            |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : EWC-LED-R-UNV-WHT-RC\_SINGLE\_HEAD\_TEST.IES****LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 1977             | 1977              | 1977              |
| 55                  | 649              | 649               | 649               |
| 65                  | 357              | 357               | 357               |
| 75                  | 271              | 271               | 271               |
| 85                  | 156              | 156               | 156               |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : EWC-LED-R-UNV-WHT-RC\_SINGLE\_HEAD\_TEST.IES****CANDELA TABULATION**

|              | <u>0</u> |
|--------------|----------|
| <b>0.0</b>   | 115.9    |
| <b>2.5</b>   | 117.0    |
| <b>5.0</b>   | 115.7    |
| <b>7.5</b>   | 109.9    |
| <b>10.0</b>  | 105.7    |
| <b>12.5</b>  | 99.6     |
| <b>15.0</b>  | 91.3     |
| <b>17.5</b>  | 82.1     |
| <b>20.0</b>  | 70.6     |
| <b>22.5</b>  | 60.2     |
| <b>25.0</b>  | 51.1     |
| <b>27.5</b>  | 41.8     |
| <b>30.0</b>  | 34.5     |
| <b>32.5</b>  | 28.6     |
| <b>35.0</b>  | 23.1     |
| <b>37.5</b>  | 18.6     |
| <b>40.0</b>  | 15.0     |
| <b>42.5</b>  | 11.8     |
| <b>45.0</b>  | 8.9      |
| <b>47.5</b>  | 6.4      |
| <b>50.0</b>  | 4.7      |
| <b>52.5</b>  | 3.5      |
| <b>55.0</b>  | 2.5      |
| <b>57.5</b>  | 2.0      |
| <b>60.0</b>  | 1.6      |
| <b>62.5</b>  | 1.3      |
| <b>65.0</b>  | 1.1      |
| <b>67.5</b>  | 0.9      |
| <b>70.0</b>  | 0.7      |
| <b>72.5</b>  | 0.6      |
| <b>75.0</b>  | 0.6      |
| <b>77.5</b>  | 0.4      |
| <b>80.0</b>  | 0.4      |
| <b>82.5</b>  | 0.3      |
| <b>85.0</b>  | 0.2      |
| <b>87.5</b>  | 0.3      |
| <b>90.0</b>  | 0.1      |
| <b>92.5</b>  | 0.1      |
| <b>95.0</b>  | 0.1      |
| <b>97.5</b>  | 0.1      |
| <b>100.0</b> | 0.0      |
| <b>102.5</b> | 0.0      |
| <b>105.0</b> | 0.0      |
| <b>107.5</b> | 0.0      |
| <b>110.0</b> | 0.0      |
| <b>112.5</b> | 0.0      |
| <b>115.0</b> | 0.0      |
| <b>117.5</b> | 0.0      |
| <b>120.0</b> | 0.0      |
| <b>122.5</b> | 0.0      |
| <b>125.0</b> | 0.0      |
| <b>127.5</b> | 0.0      |
| <b>130.0</b> | 0.0      |
| <b>132.5</b> | 0.0      |

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**CANDELA TABULATION - (Cont.)**

|       |     |
|-------|-----|
| 135.0 | 0.0 |
| 137.5 | 0.0 |
| 140.0 | 0.0 |
| 142.5 | 0.0 |
| 145.0 | 0.0 |
| 147.5 | 0.0 |
| 150.0 | 0.0 |
| 152.5 | 0.0 |
| 155.0 | 0.0 |
| 157.5 | 0.0 |
| 160.0 | 0.0 |
| 162.5 | 0.0 |
| 165.0 | 0.0 |
| 167.5 | 0.0 |
| 170.0 | 0.0 |
| 172.5 | 0.0 |
| 175.0 | 0.0 |
| 177.5 | 0.0 |
| 180.0 | 0.0 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : EWC-LED-R-UNV-WHT-RC\_SINGLE\_HEAD\_TEST.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens | %Lamp | %Fixt  |
|---------|--------|-------|--------|
| 0-20    | 35.73  | N.A.  | 41.90  |
| 0-30    | 59.04  | N.A.  | 69.20  |
| 0-40    | 73.72  | N.A.  | 86.40  |
| 0-60    | 83.24  | N.A.  | 97.60  |
| 0-80    | 84.91  | N.A.  | 99.60  |
| 0-90    | 85.19  | N.A.  | 99.90  |
| 10-90   | 74.55  | N.A.  | 87.40  |
| 20-40   | 37.99  | N.A.  | 44.50  |
| 20-50   | 45.03  | N.A.  | 52.80  |
| 40-70   | 10.62  | N.A.  | 12.50  |
| 60-80   | 1.67   | N.A.  | 2.00   |
| 70-80   | 0.57   | N.A.  | 0.70   |
| 80-90   | 0.29   | N.A.  | 0.30   |
| 90-110  | 0.10   | N.A.  | 0.10   |
| 90-120  | 0.10   | N.A.  | 0.10   |
| 90-130  | 0.10   | N.A.  | 0.10   |
| 90-150  | 0.10   | N.A.  | 0.10   |
| 90-180  | 0.10   | N.A.  | 0.10   |
| 110-180 | 0.00   | N.A.  | 0.00   |
| 0-180   | 85.29  | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 10.64  |
| 10-20   | 25.09  |
| 20-30   | 23.30  |
| 30-40   | 14.69  |
| 40-50   | 7.04   |
| 50-60   | 2.47   |
| 60-70   | 1.10   |
| 70-80   | 0.57   |
| 80-90   | 0.29   |
| 90-100  | 0.10   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

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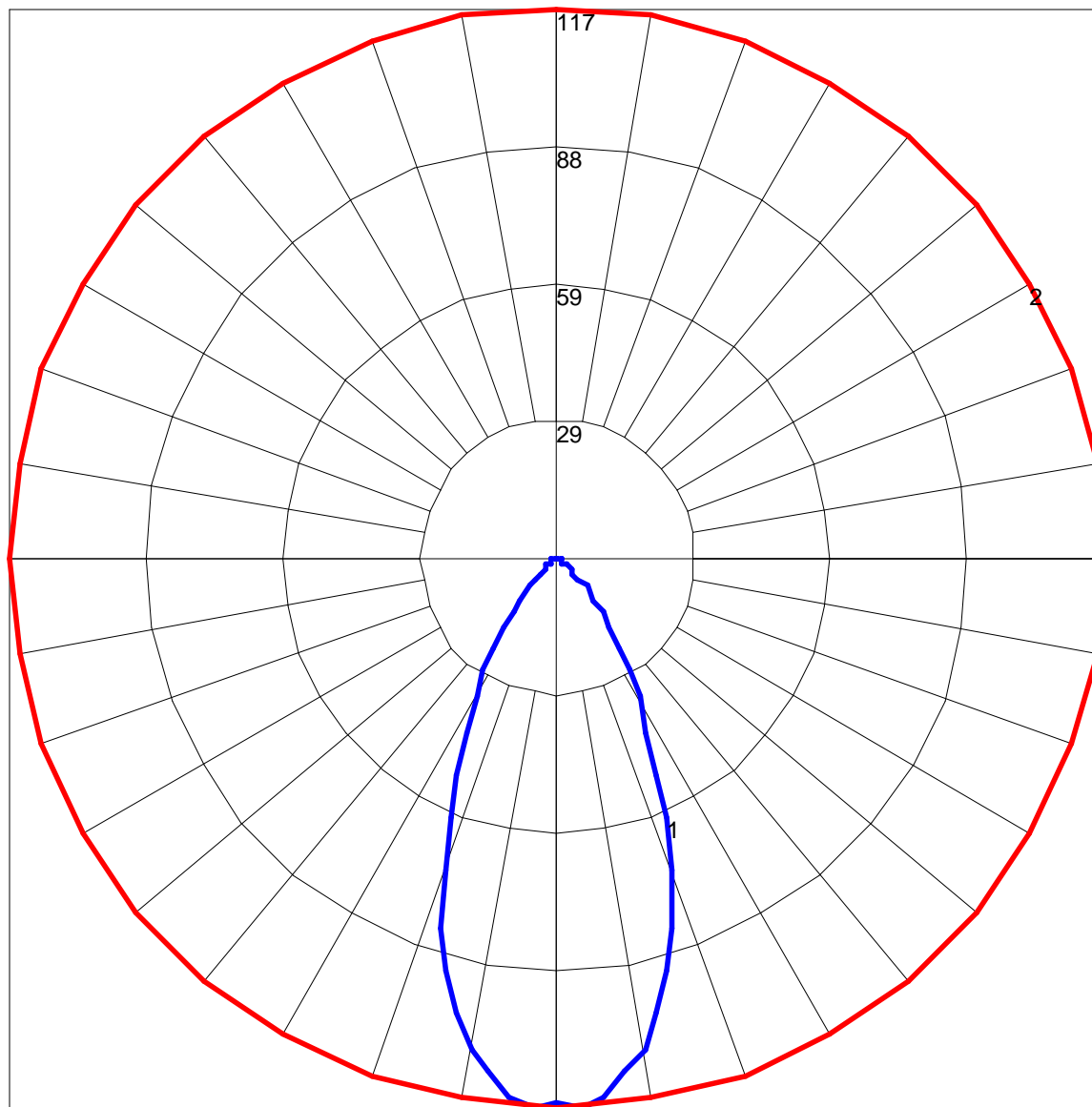
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RW | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| 0  | 119 | 119 | 119 | 119 | 117 | 117 | 117 | 117 | 111 | 111 | 111 | 107 | 107 | 107 | 102 | 102 | 102 | 100 |
| 1  | 114 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |
| 2  | 108 | 103 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 94  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 86  |
| 3  | 102 | 95  | 90  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 84  | 89  | 86  | 83  | 87  | 84  | 81  | 80  |
| 4  | 97  | 89  | 83  | 79  | 95  | 88  | 83  | 79  | 86  | 81  | 78  | 84  | 80  | 77  | 82  | 78  | 76  | 74  |
| 5  | 92  | 83  | 77  | 73  | 90  | 82  | 77  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 74  | 71  | 69  |
| 6  | 87  | 78  | 72  | 68  | 86  | 77  | 72  | 68  | 76  | 71  | 67  | 75  | 70  | 67  | 73  | 69  | 66  | 65  |
| 7  | 83  | 74  | 68  | 63  | 82  | 73  | 67  | 63  | 72  | 67  | 63  | 70  | 66  | 62  | 69  | 65  | 62  | 61  |
| 8  | 79  | 70  | 64  | 59  | 78  | 69  | 63  | 59  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 58  | 57  |
| 9  | 76  | 66  | 60  | 56  | 74  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 55  | 63  | 58  | 55  | 54  |
| 10 | 72  | 62  | 57  | 53  | 71  | 62  | 56  | 53  | 61  | 56  | 52  | 60  | 56  | 52  | 60  | 55  | 52  | 51  |

POLAR GRAPH



Maximum Candela = 117 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)