



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : XIRR-S-LED-12-50.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]LED-8217  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]10/14/16  
[TEST DATE]10/14/16  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT]XIRR-S-LED-12-50  
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Indoor

**CHARACTERISTICS**

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 12646              |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 112                |
| Total Luminaire Watts           | 112.7              |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 1.22               |
| Spacing Criterion (90-270)      | 1.22               |
| Spacing Criterion (Diagonal)    | 1.32               |
| Basic Luminous Shape            | Circular           |
| Luminous Length (0-180)         | 1.13 ft (Diameter) |
| Luminous Width (90-270)         | 1.13 ft (Diameter) |
| Luminous Height                 | 0.00 ft            |

**LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 44828            | 44996             | 45012             |
| 55                  | 40383            | 40590             | 40779             |
| 65                  | 35685            | 35890             | 35864             |
| 75                  | 29176            | 29385             | 29594             |
| 85                  | 17130            | 17006             | 16137             |

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**CANDELA TABULATION**

|             | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-------------|------------|-------------|-------------|-------------|-------------|
| <b>0.0</b>  | 5005       | 5005        | 5005        | 5005        | 5005        |
| <b>2.5</b>  | 5012       | 5013        | 5013        | 5013        | 5014        |
| <b>5.0</b>  | 5001       | 5002        | 5003        | 5003        | 5003        |
| <b>7.5</b>  | 4974       | 4974        | 4975        | 4976        | 4976        |
| <b>10.0</b> | 4930       | 4932        | 4932        | 4932        | 4934        |
| <b>12.5</b> | 4871       | 4873        | 4875        | 4874        | 4873        |
| <b>15.0</b> | 4796       | 4799        | 4798        | 4800        | 4799        |
| <b>17.5</b> | 4708       | 4710        | 4711        | 4710        | 4711        |
| <b>20.0</b> | 4606       | 4606        | 4607        | 4609        | 4610        |
| <b>22.5</b> | 4491       | 4489        | 4491        | 4495        | 4498        |
| <b>25.0</b> | 4356       | 4356        | 4363        | 4367        | 4370        |
| <b>27.5</b> | 4213       | 4213        | 4220        | 4225        | 4229        |
| <b>30.0</b> | 4056       | 4055        | 4064        | 4069        | 4074        |
| <b>32.5</b> | 3887       | 3882        | 3891        | 3902        | 3906        |
| <b>35.0</b> | 3698       | 3702        | 3712        | 3724        | 3728        |
| <b>37.5</b> | 3510       | 3514        | 3520        | 3532        | 3531        |
| <b>40.0</b> | 3319       | 3323        | 3330        | 3337        | 3341        |
| <b>42.5</b> | 3125       | 3130        | 3136        | 3139        | 3147        |
| <b>45.0</b> | 2930       | 2934        | 2941        | 2944        | 2942        |
| <b>47.5</b> | 2733       | 2738        | 2740        | 2743        | 2746        |
| <b>50.0</b> | 2538       | 2542        | 2539        | 2547        | 2549        |
| <b>52.5</b> | 2333       | 2342        | 2344        | 2352        | 2355        |
| <b>55.0</b> | 2141       | 2136        | 2152        | 2159        | 2162        |
| <b>57.5</b> | 1944       | 1947        | 1953        | 1965        | 1972        |
| <b>60.0</b> | 1758       | 1761        | 1766        | 1778        | 1776        |
| <b>62.5</b> | 1574       | 1577        | 1583        | 1584        | 1591        |
| <b>65.0</b> | 1394       | 1396        | 1402        | 1403        | 1401        |
| <b>67.5</b> | 1216       | 1219        | 1219        | 1219        | 1221        |
| <b>70.0</b> | 1041       | 1044        | 1044        | 1044        | 1045        |
| <b>72.5</b> | 863        | 866         | 869         | 873         | 874         |
| <b>75.0</b> | 698        | 693         | 703         | 707         | 708         |
| <b>77.5</b> | 533        | 535         | 536         | 544         | 549         |
| <b>80.0</b> | 386        | 387         | 387         | 394         | 390         |
| <b>82.5</b> | 252        | 252         | 253         | 251         | 255         |
| <b>85.0</b> | 138        | 138         | 137         | 133         | 130         |
| <b>87.5</b> | 47         | 47          | 44          | 41          | 40          |
| <b>90.0</b> | 0          | 0           | 0           | 0           | 0           |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens   | %Lamp | %Fixt  |
|---------|----------|-------|--------|
| 0-20    | 1827.74  | N.A.  | 14.50  |
| 0-30    | 3834.96  | N.A.  | 30.30  |
| 0-40    | 6154.03  | N.A.  | 48.70  |
| 0-60    | 10344.39 | N.A.  | 81.80  |
| 0-80    | 12475.84 | N.A.  | 98.70  |
| 0-90    | 12646.12 | N.A.  | 100.00 |
| 10-90   | 12170.92 | N.A.  | 96.20  |
| 20-40   | 4326.29  | N.A.  | 34.20  |
| 20-50   | 6593.00  | N.A.  | 52.10  |
| 40-70   | 5576.94  | N.A.  | 44.10  |
| 60-80   | 2131.44  | N.A.  | 16.90  |
| 70-80   | 744.87   | N.A.  | 5.90   |
| 80-90   | 170.28   | N.A.  | 1.30   |
| 90-110  | 0.00     | N.A.  | 0.00   |
| 90-120  | 0.00     | N.A.  | 0.00   |
| 90-130  | 0.00     | N.A.  | 0.00   |
| 90-150  | 0.00     | N.A.  | 0.00   |
| 90-180  | 0.00     | N.A.  | 0.00   |
| 110-180 | 0.00     | N.A.  | 0.00   |
| 0-180   | 12646.12 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 475.20  |
| 10-20   | 1352.54 |
| 20-30   | 2007.22 |
| 30-40   | 2319.07 |
| 40-50   | 2266.71 |
| 50-60   | 1923.65 |
| 60-70   | 1386.57 |
| 70-80   | 744.87  |
| 80-90   | 170.28  |
| 90-100  | 0.00    |
| 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    |

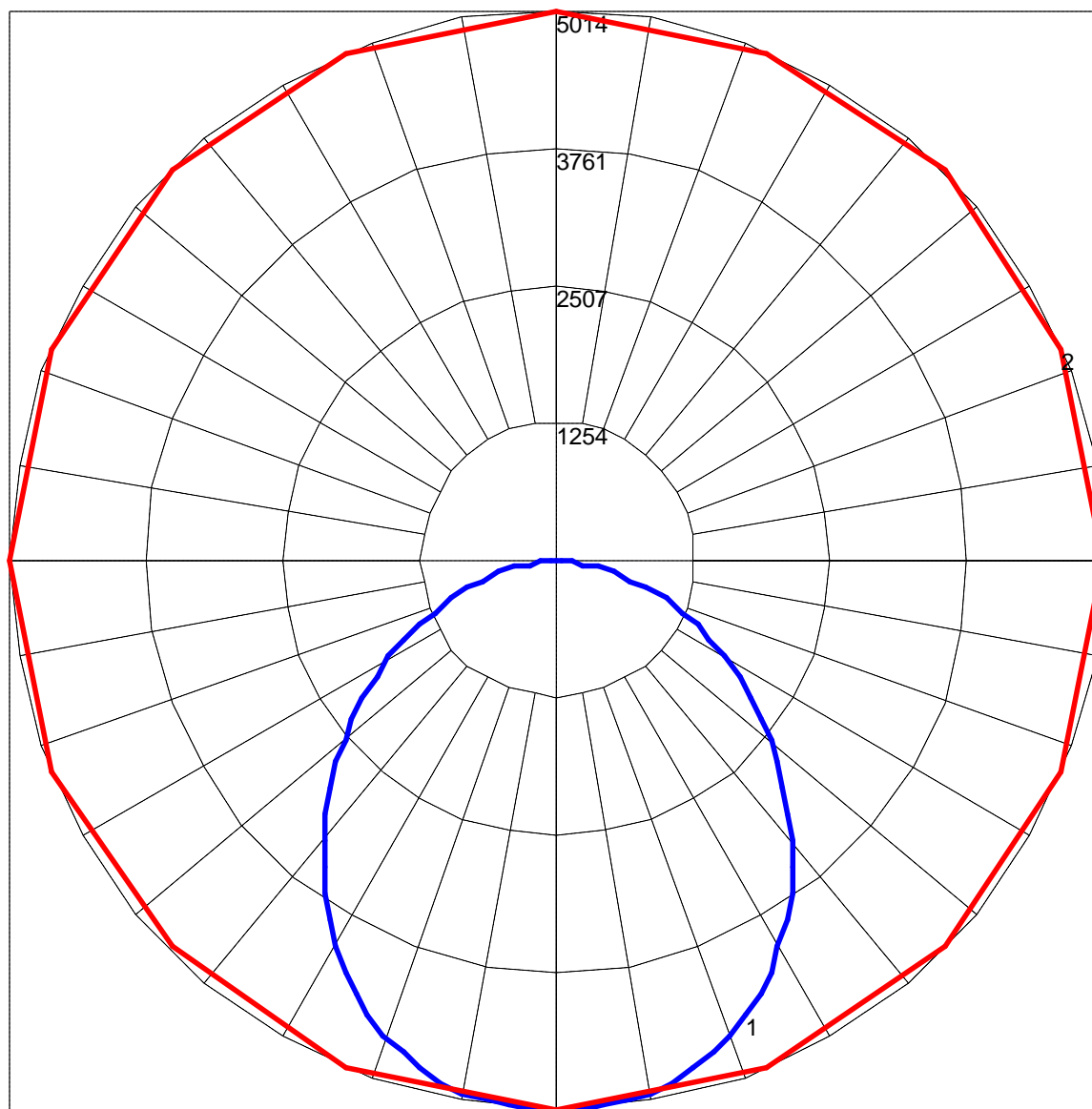
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2  | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |
| 3  | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  | 74  | 69  | 64  | 71  | 67  | 63  | 61  |
| 4  | 84  | 72  | 64  | 57  | 82  | 71  | 63  | 57  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 59  | 54  | 52  |
| 5  | 77  | 65  | 56  | 50  | 75  | 64  | 55  | 49  | 62  | 54  | 49  | 60  | 53  | 48  | 58  | 52  | 48  | 46  |
| 6  | 71  | 58  | 50  | 43  | 70  | 58  | 49  | 43  | 56  | 48  | 43  | 54  | 48  | 43  | 52  | 47  | 42  | 40  |
| 7  | 66  | 53  | 45  | 39  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 8  | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 9  | 58  | 45  | 37  | 31  | 56  | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 29  |
| 10 | 54  | 41  | 34  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |

POLAR GRAPH



Maximum Candela = 5014 Located At Horizontal Angle = 90, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)