



**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : AL4132UNIH.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [ISSUE DATE]03/25/08  
 [TEST]ITL60077  
 [TEST LAB]INDEPENDENT TESTING LABORATORIES, INC.  
 [MANUFACTURER]TECHNICAL CONSUMER PRODUCTS  
 [LUMINAIRE CATEGORY]AL4132UNIH  
 [LUMINAIRE]AISLE LIGHTER 4' 32W T8 1-LAMP HBF  
 [LAMP](1) 32-WATT T-8 LINEAR FLUORESCENT  
 [BALLAST]GE GE-232-MAX-H-42T  
 [MOUNTING]SUSPENDED  
 [OTHER]THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMP.  
 [OTHER]TOTAL INPUT WATTS = 39.2 AT 120.0 VOLTS  
 [OTHER]LUMEN TO CANDELA RATIO USED = 9.17

**CHARACTERISTICS**

|                                 |                     |
|---------------------------------|---------------------|
| Total Rated Lamp Lumens         | 2950                |
| Total Luminaire Efficiency      | 95.8 %              |
| Luminaire Efficacy Rating (LER) | 63                  |
| Total Luminaire Watts           | 45                  |
| Ballast Factor                  | 1.00                |
| CIE Type                        | Direct              |
| Spacing Criteria (0-180)        | 1.26                |
| Spacing Criteria (90-270)       | 0.72                |
| Spacing Criteria (Diagonal)     | 0.92                |
| Basic Luminous Shape            | Rectangular w/Sides |
| Luminous Length (0-180)         | 4.00 ft             |
| Luminous Width (90-270)         | 0.81 ft             |
| Luminous Height                 | 0.21 ft             |



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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 4063          | 1988           | 2539           |
| 55               | 3682          | 2330           | 2746           |
| 65               | 3072          | 2314           | 1615           |
| 75               | 2095          | 915            | 73             |
| 85               | 307           | 74             | 0              |

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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>   | 1420.66    | 1420.66     | 1420.66     | 1420.66     | 1420.66     |
| <b>2.5</b>   | 1422.4     | 1434.58     | 1443.27     | 1438.05     | 1437.18     |
| <b>5.0</b>   | 1418.06    | 1443.27     | 1420.66     | 1401.54     | 1386.76     |
| <b>7.5</b>   | 1408.49    | 1431.97     | 1376.32     | 1297.2      | 1266.77     |
| <b>10.0</b>  | 1398.06    | 1406.75     | 1281.55     | 1235.47     | 1217.22     |
| <b>12.5</b>  | 1383.28    | 1377.19     | 1229.39     | 1176.35     | 1143.31     |
| <b>15.0</b>  | 1365.02    | 1325.9      | 1178.96     | 1069.41     | 1008.55     |
| <b>17.5</b>  | 1343.28    | 1257.21     | 1116.36     | 958.12      | 923.35      |
| <b>20.0</b>  | 1318.94    | 1199.83     | 1013.77     | 892.91      | 845.10      |
| <b>22.5</b>  | 1292.86    | 1157.22     | 919.00      | 801.62      | 726.85      |
| <b>25.0</b>  | 1263.3     | 1113.75     | 859.88      | 686.86      | 627.74      |
| <b>27.5</b>  | 1228.52    | 1064.19     | 787.71      | 607.74      | 597.31      |
| <b>30.0</b>  | 1192.00    | 1009.42     | 691.20      | 586.00      | 589.48      |
| <b>32.5</b>  | 1152.88    | 932.04      | 594.70      | 575.57      | 598.17      |
| <b>35.0</b>  | 1111.14    | 842.49      | 541.66      | 585.13      | 618.17      |
| <b>37.5</b>  | 1063.33    | 761.63      | 525.14      | 600.78      | 638.17      |
| <b>40.0</b>  | 1018.11    | 702.51      | 512.10      | 616.43      | 655.56      |
| <b>42.5</b>  | 965.95     | 646.86      | 513.84      | 630.34      | 671.21      |
| <b>45.0</b>  | 914.65     | 578.18      | 519.93      | 642.52      | 685.12      |
| <b>47.5</b>  | 860.75     | 499.06      | 525.14      | 652.95      | 697.29      |
| <b>50.0</b>  | 804.23     | 425.16      | 529.49      | 660.77      | 705.99      |
| <b>52.5</b>  | 747.72     | 375.60      | 532.10      | 666.86      | 705.99      |
| <b>55.0</b>  | 686.86     | 349.51      | 532.97      | 663.38      | 654.69      |
| <b>57.5</b>  | 623.39     | 329.52      | 532.97      | 608.61      | 572.96      |
| <b>60.0</b>  | 563.40     | 318.22      | 529.49      | 521.66      | 479.06      |
| <b>62.5</b>  | 499.93     | 310.39      | 510.36      | 424.29      | 371.25      |
| <b>65.0</b>  | 437.33     | 302.57      | 437.33      | 331.26      | 322.56      |
| <b>67.5</b>  | 376.47     | 293.87      | 351.25      | 274.74      | 246.92      |
| <b>70.0</b>  | 310.39     | 283.44      | 258.22      | 197.36      | 157.37      |
| <b>72.5</b>  | 254.75     | 273.00      | 202.58      | 117.37      | 80.86       |
| <b>75.0</b>  | 196.49     | 246.92      | 131.29      | 40.86       | 11.30       |
| <b>77.5</b>  | 140.85     | 181.71      | 54.77       | 1.74        | 1.74        |
| <b>80.0</b>  | 88.68      | 119.11      | 8.69        | 1.74        | 0.00        |
| <b>82.5</b>  | 43.47      | 57.38       | 6.96        | 0.87        | 0.00        |
| <b>85.0</b>  | 13.04      | 22.61       | 6.96        | 0.00        | 0.00        |
| <b>87.5</b>  | 3.48       | 16.52       | 5.22        | 0.00        | 0.00        |
| <b>90.0</b>  | 0.00       | 13.04       | 4.35        | 0.00        | 0.00        |
| <b>92.5</b>  | 0.00       | 8.69        | 3.48        | 0.00        | 0.00        |
| <b>95.0</b>  | 0.00       | 4.35        | 2.61        | 0.00        | 0.00        |
| <b>97.5</b>  | 0.00       | 2.61        | 1.74        | 0.00        | 0.00        |
| <b>100.0</b> | 0.00       | 0.87        | 0.87        | 0.00        | 0.00        |
| <b>102.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>105.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>107.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>110.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>112.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>115.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>117.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>120.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>122.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>125.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>127.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>130.0</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>132.5</b> | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        |

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**CANDELA TABULATION - (Cont.)**

|              |      |      |      |      |      |
|--------------|------|------|------|------|------|
| <b>135.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>137.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>140.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>142.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>145.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>147.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>150.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>152.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>155.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>157.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>160.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>162.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>165.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>167.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>170.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>172.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>175.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>177.5</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <b>180.0</b> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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**ZONAL LUMEN SUMMARY**

| Zone   | Lumens  | %Lamp | %Fixt |
|--------|---------|-------|-------|
| 0-30   | 881.03  | 29.9  | 31.2  |
| 0-40   | 1329.95 | 45.1  | 47.1  |
| 0-60   | 2307.08 | 78.2  | 81.6  |
| 0-90   | 2824.06 | 95.7  | 99.9  |
| 90-120 | 2.32    | .1    | .1    |
| 90-130 | 2.32    | .1    | .1    |
| 90-150 | 2.32    | .1    | .1    |
| 90-180 | 2.32    | .1    | .1    |
| 0-180  | 2826.38 | 95.8  | 100   |

Total Luminaire Efficiency = 95.8%

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 131.22 |
| 10-20   | 332.37 |
| 20-30   | 417.44 |
| 30-40   | 448.92 |
| 40-50   | 489.31 |
| 50-60   | 487.82 |
| 60-70   | 358.08 |
| 70-80   | 142.44 |
| 80-90   | 16.46  |
| 90-100  | 2.26   |
| 100-110 | .06    |
| 110-120 | 0      |
| 120-130 | 0      |
| 130-140 | 0      |
| 140-150 | 0      |
| 150-160 | 0      |
| 160-170 | 0      |
| 170-180 | 0      |

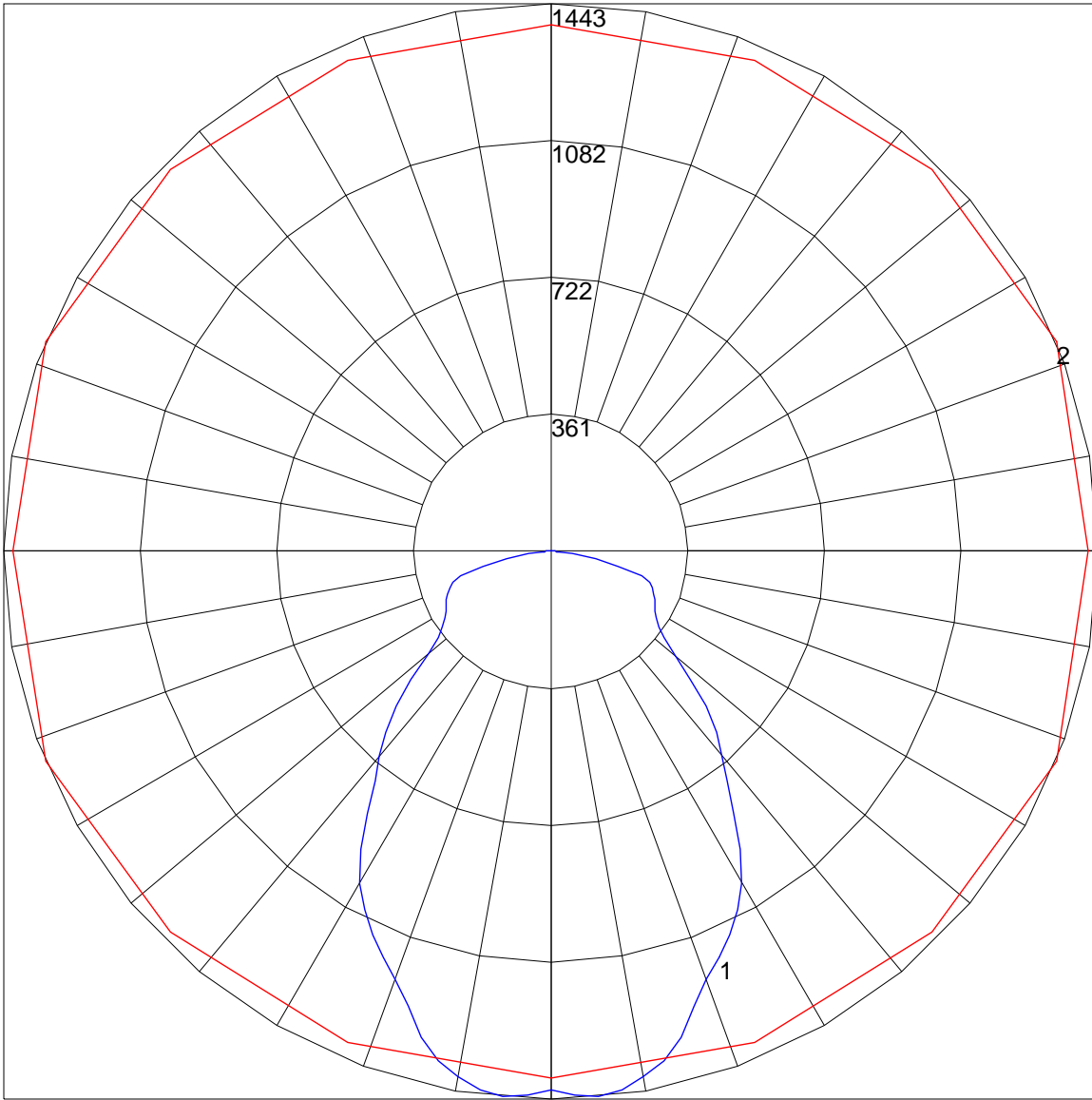
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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  | 114 | 114 | 114 | 114 | 114 | 111 | 111 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 98 | 98 | 98 | 96 |
| 1  | 105 | 101 | 97  | 94  |     | 102 | 99  | 95  | 92  |     | 95  | 92  | 89  | 91  | 89  | 86  | 87 | 86 | 84 | 82 |
| 2  | 96  | 88  | 82  | 77  |     | 93  | 87  | 81  | 76  |     | 83  | 78  | 74  | 80  | 76  | 73  | 77 | 74 | 71 | 69 |
| 3  | 88  | 78  | 70  | 64  |     | 85  | 76  | 69  | 64  |     | 74  | 68  | 63  | 71  | 66  | 62  | 68 | 64 | 61 | 58 |
| 4  | 80  | 69  | 61  | 55  |     | 78  | 68  | 60  | 54  |     | 66  | 59  | 54  | 63  | 58  | 53  | 61 | 56 | 52 | 50 |
| 5  | 74  | 62  | 54  | 48  |     | 72  | 61  | 53  | 47  |     | 59  | 52  | 47  | 57  | 51  | 46  | 55 | 50 | 46 | 44 |
| 6  | 69  | 56  | 48  | 42  |     | 67  | 55  | 47  | 42  |     | 53  | 46  | 41  | 52  | 46  | 41  | 50 | 45 | 40 | 39 |
| 7  | 64  | 51  | 43  | 37  |     | 62  | 50  | 42  | 37  |     | 49  | 42  | 37  | 47  | 41  | 36  | 46 | 40 | 36 | 34 |
| 8  | 59  | 47  | 39  | 33  |     | 58  | 46  | 39  | 33  |     | 45  | 38  | 33  | 44  | 37  | 33  | 43 | 37 | 33 | 31 |
| 9  | 56  | 43  | 35  | 30  |     | 54  | 43  | 35  | 30  |     | 41  | 35  | 30  | 40  | 34  | 30  | 39 | 34 | 30 | 28 |
| 10 | 52  | 40  | 33  | 28  |     | 51  | 39  | 32  | 28  |     | 38  | 32  | 27  | 38  | 32  | 27  | 37 | 31 | 27 | 26 |

POLAR GRAPH



Maximum Candela = 1443.27 Located At Horizontal Angle = 22.5, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)