



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-14-LS-8CS-DIM-UNV\_40W\_3500K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20531

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2025-09-09

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1x4 ULTRA THIN SEAMLESS FLAT PANEL LIGHT

[MORE] .39" ALUMINUM FRAME w/PS 1mm DIFFUSE LENS PMMA 2mm LIGHT

[MORE] GUIDE PANEL, LED DRIVER

[LUMCAT] BP-14-LS-8CS-DIM-UNV\_40W\_3500K\_

[LAMPCAT] LED

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 4660            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 117             |
| Total Luminaire Watts           | 39.9            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.24            |
| Spacing Criterion (90-270)      | 1.26            |
| Spacing Criterion (Diagonal)    | 1.38            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 3.81 ft         |
| Luminous Width (90-270)         | 0.83 ft         |
| 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                  | 5228             | 5280              | 5301              |
| 55                  | 4939             | 4945              | 4977              |
| 65                  | 4694             | 4694              | 4667              |
| 75                  | 3968             | 3882              | 3911              |
| 85                  | 3318             | 3148              | 3020              |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : BP-14-LS-8CS-DIM-UNV\_40W\_3500K\_.IES****CANDELA TABULATION**

|           | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|
| <b>0</b>  | 1656.744   | 1656.744    | 1656.744    | 1656.744    | 1656.744    |
| <b>5</b>  | 1657.833   | 1657.833    | 1657.833    | 1657.833    | 1657.833    |
| <b>10</b> | 1637.151   | 1638.239    | 1638.239    | 1639.328    | 1639.328    |
| <b>15</b> | 1594.698   | 1594.698    | 1596.875    | 1599.052    | 1601.229    |
| <b>20</b> | 1511.970   | 1511.970    | 1517.412    | 1517.412    | 1520.678    |
| <b>25</b> | 1470.605   | 1473.871    | 1478.225    | 1482.579    | 1482.579    |
| <b>30</b> | 1372.638   | 1372.638    | 1375.903    | 1383.523    | 1384.611    |
| <b>35</b> | 1273.581   | 1273.581    | 1280.112    | 1286.644    | 1288.821    |
| <b>40</b> | 1183.233   | 1186.499    | 1190.853    | 1193.030    | 1198.473    |
| <b>45</b> | 1085.265   | 1087.442    | 1096.151    | 1098.328    | 1100.505    |
| <b>50</b> | 968.793    | 969.881     | 975.324     | 981.855     | 980.766     |
| <b>55</b> | 831.638    | 832.726     | 832.726     | 834.903     | 838.169     |
| <b>60</b> | 694.483    | 695.571     | 694.483     | 692.306     | 696.660     |
| <b>65</b> | 582.364    | 582.364     | 582.364     | 580.187     | 579.099     |
| <b>70</b> | 441.944    | 441.944     | 440.855     | 440.855     | 437.589     |
| <b>75</b> | 301.523    | 298.257     | 294.992     | 294.992     | 297.169     |
| <b>80</b> | 190.493    | 189.404     | 185.050     | 181.785     | 185.050     |
| <b>85</b> | 84.905     | 82.728      | 80.551      | 78.374      | 77.286      |
| <b>90</b> | 5.443      | 6.531       | 6.531       | 5.443       | 5.443       |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : BP-14-LS-8CS-DIM-UNV\_40W\_3500K\_.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 606.03  | N.A.  | 13.00  |
| 0-30    | 1281.37 | N.A.  | 27.50  |
| 0-40    | 2085.00 | N.A.  | 44.70  |
| 0-60    | 3672.67 | N.A.  | 78.80  |
| 0-80    | 4563.73 | N.A.  | 97.90  |
| 0-90    | 4659.93 | N.A.  | 100.00 |
| 10-90   | 4502.38 | N.A.  | 96.60  |
| 20-40   | 1478.97 | N.A.  | 31.70  |
| 20-50   | 2319.98 | N.A.  | 49.80  |
| 40-70   | 2156.68 | N.A.  | 46.30  |
| 60-80   | 891.06  | N.A.  | 19.10  |
| 70-80   | 322.05  | N.A.  | 6.90   |
| 80-90   | 96.20   | N.A.  | 2.10   |
| 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   | 4659.93 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 157.55 |
| 10-20   | 448.49 |
| 20-30   | 675.34 |
| 30-40   | 803.63 |
| 40-50   | 841.01 |
| 50-60   | 746.66 |
| 60-70   | 569.02 |
| 70-80   | 322.05 |
| 80-90   | 96.20  |
| 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 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 84  |
| 2  | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |
| 3  | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 59  |
| 4  | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |
| 5  | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6  | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 50  | 45  | 40  | 38  |
| 7  | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33  |
| 8  | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 32  | 42  | 36  | 32  | 30  |
| 9  | 56  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 27  |
| 10 | 53  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |

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## UGR TABLE - CORRECTED

### Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls          | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity   | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

### Room Size UGR Viewed Crosswise

| X=2H | Y=2H | 17.6 | 19.2 | 17.9 | 19.5 | 19.8 | 17.6 | 19.2 | 17.9 | 19.5 | 19.8 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 3H   | 19.4 | 20.9 | 19.8 | 21.2 | 21.6 | 19.4 | 20.9 | 19.8 | 21.2 | 21.6 |
|      | 4H   | 20.1 | 21.5 | 20.5 | 21.8 | 22.2 | 20.0 | 21.5 | 20.4 | 21.8 | 22.2 |
|      | 6H   | 20.6 | 21.9 | 21.0 | 22.3 | 22.7 | 20.6 | 21.8 | 21.0 | 22.2 | 22.6 |
|      | 8H   | 20.8 | 22.0 | 21.2 | 22.4 | 22.8 | 20.7 | 22.0 | 21.1 | 22.3 | 22.7 |
|      | 12H  | 20.9 | 22.1 | 21.3 | 22.5 | 22.9 | 20.8 | 22.0 | 21.3 | 22.4 | 22.8 |

### UGR Viewed Endwise

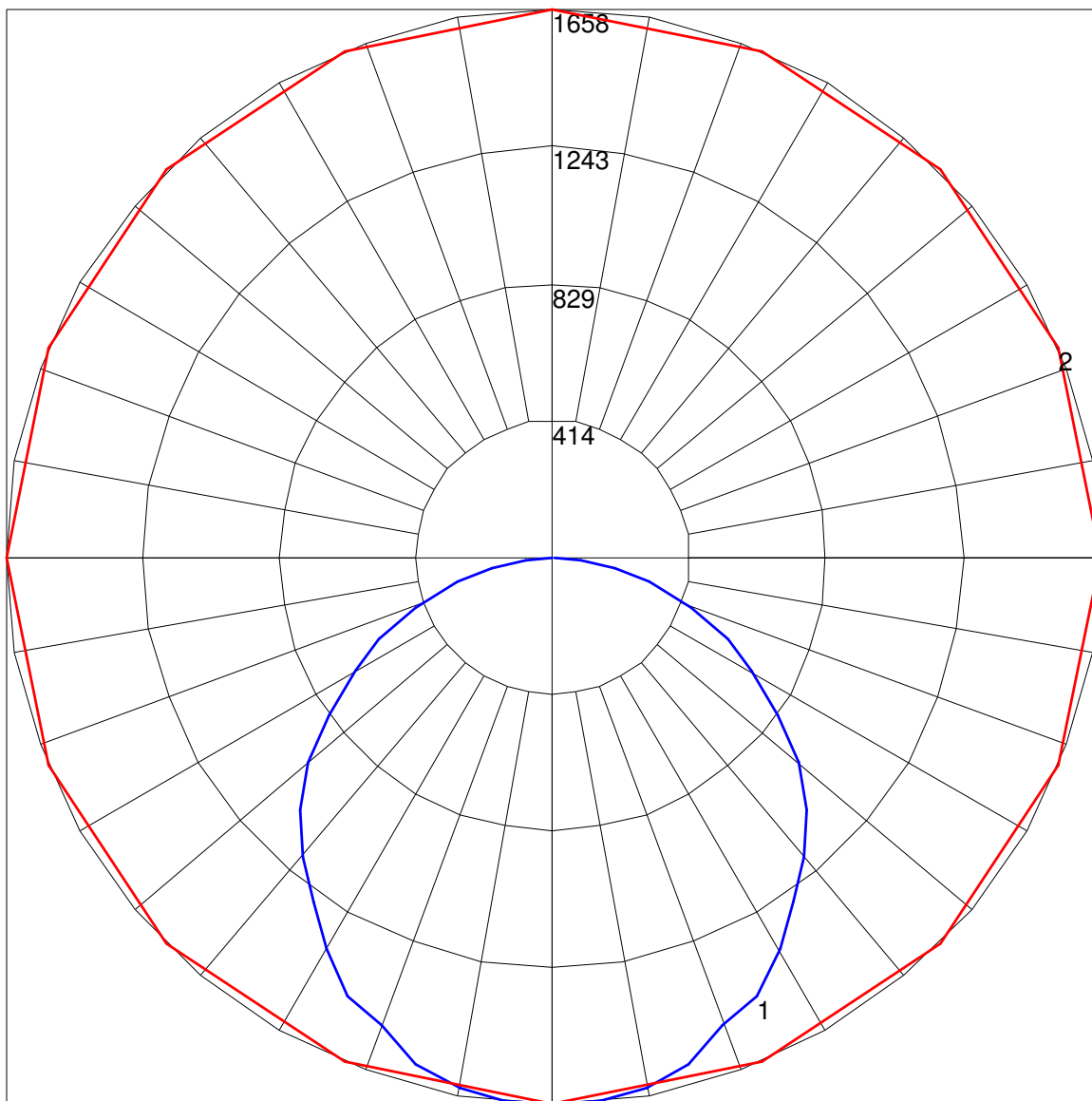
|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H  | 18.2 | 19.6 | 18.6 | 20.0 | 20.4 | 18.2 | 19.6 | 18.6 | 20.0 | 20.4 |
|    | 3H  | 20.3 | 21.5 | 20.7 | 21.9 | 22.3 | 20.3 | 21.5 | 20.7 | 21.9 | 22.3 |
|    | 4H  | 21.1 | 22.1 | 21.5 | 22.6 | 23.0 | 21.1 | 22.1 | 21.5 | 22.5 | 23.0 |
|    | 6H  | 21.7 | 22.6 | 22.2 | 23.1 | 23.5 | 21.7 | 22.6 | 22.1 | 23.0 | 23.5 |
|    | 8H  | 21.9 | 22.8 | 22.4 | 23.3 | 23.7 | 21.9 | 22.7 | 22.3 | 23.2 | 23.7 |
|    | 12H | 22.1 | 22.9 | 22.6 | 23.4 | 23.8 | 22.0 | 22.8 | 22.5 | 23.3 | 23.8 |

|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H  | 21.4 | 22.2 | 21.8 | 22.7 | 23.2 | 21.3 | 22.2 | 21.8 | 22.7 | 23.1 |
|    | 6H  | 22.1 | 22.9 | 22.6 | 23.4 | 23.8 | 22.1 | 22.8 | 22.6 | 23.3 | 23.8 |
|    | 8H  | 22.4 | 23.1 | 23.0 | 23.6 | 24.1 | 22.4 | 23.0 | 22.9 | 23.5 | 24.0 |
|    | 12H | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 | 22.6 | 23.2 | 23.1 | 23.7 | 24.2 |

|     |    |      |      |      |      |      |      |      |      |      |      |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 21.4 | 22.2 | 21.9 | 22.7 | 23.1 | 21.4 | 22.2 | 21.9 | 22.6 | 23.1 |
|     | 6H | 22.2 | 22.9 | 22.7 | 23.3 | 23.9 | 22.2 | 22.8 | 22.7 | 23.3 | 23.8 |
|     | 8H | 22.6 | 23.2 | 23.1 | 23.6 | 24.2 | 22.5 | 23.1 | 23.0 | 23.6 | 24.1 |

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 1657.833 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)