



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L50-840-AD-(L40)-EM10W-DIM-UNV\_(EMER MODE).IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19231.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 06-07-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4'RECESSED WHITE LUMINAIRE w/A-SHAPED

[MORE] CENTER REFL, FROST ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] DIG-S24-L50-840-AD-(L40)-EM10W-DIM-UNV(EMER MODE ONLY)

[LAMPCAT] HLM 80 CRI 4000K CCT

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 1340            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 134             |
| Total Luminaire Watts           | 10              |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.10            |
| Spacing Criterion (90-270)      | 1.18            |
| Spacing Criterion (Diagonal)    | 1.38            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 3.91 ft         |
| Luminous Width (90-270)         | 1.88 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                  | 608              | 673               | 713               |
| 55                  | 528              | 618               | 674               |
| 65                  | 476              | 618               | 739               |
| 75                  | 390              | 529               | 476               |
| 85                  | 326              | 361               | 396               |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : DIG-S24-L50-840-AD-(L40)-EM10W-DIM-UNV\_(EMER MODE).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>  | 487.048    | 487.048     | 487.048     | 487.048     | 487.048     |
| <b>5</b>  | 481.279    | 481.142     | 481.142     | 481.417     | 481.417     |
| <b>10</b> | 476.747    | 477.021     | 477.708     | 478.944     | 479.494     |
| <b>15</b> | 457.930    | 458.616     | 461.226     | 463.286     | 463.973     |
| <b>20</b> | 449.139    | 449.551     | 454.084     | 457.930     | 459.166     |
| <b>25</b> | 403.950    | 406.835     | 413.153     | 418.235     | 420.570     |
| <b>30</b> | 343.104    | 367.827     | 396.533     | 387.606     | 377.991     |
| <b>35</b> | 343.653    | 350.383     | 362.470     | 372.634     | 376.205     |
| <b>40</b> | 313.573    | 321.952     | 338.159     | 350.383     | 354.504     |
| <b>45</b> | 292.696    | 303.821     | 324.012     | 338.846     | 343.516     |
| <b>50</b> | 249.018    | 260.693     | 282.257     | 297.091     | 301.624     |
| <b>55</b> | 206.302    | 219.075     | 241.464     | 257.809     | 263.303     |
| <b>60</b> | 166.195    | 179.381     | 201.632     | 221.548     | 228.415     |
| <b>65</b> | 136.939    | 151.499     | 177.733     | 203.005     | 212.757     |
| <b>70</b> | 102.464    | 117.573     | 146.142     | 155.756     | 143.944     |
| <b>75</b> | 68.676     | 82.823      | 93.262      | 84.608      | 83.922      |
| <b>80</b> | 42.579     | 53.842      | 53.292      | 49.996      | 49.447      |
| <b>85</b> | 19.367     | 22.251      | 21.427      | 22.251      | 23.487      |
| <b>90</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : DIG-S24-L50-840-AD-(L40)-EM10W-DIM-UNV\_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 176.99  | N.A.  | 13.20  |
| 0-30    | 367.95  | N.A.  | 27.50  |
| 0-40    | 593.21  | N.A.  | 44.30  |
| 0-60    | 1049.91 | N.A.  | 78.40  |
| 0-80    | 1314.22 | N.A.  | 98.10  |
| 0-90    | 1339.94 | N.A.  | 100.00 |
| 10-90   | 1294.05 | N.A.  | 96.60  |
| 20-40   | 416.22  | N.A.  | 31.10  |
| 20-50   | 659.18  | N.A.  | 49.20  |
| 40-70   | 627.40  | N.A.  | 46.80  |
| 60-80   | 264.31  | N.A.  | 19.70  |
| 70-80   | 93.61   | N.A.  | 7.00   |
| 80-90   | 25.71   | N.A.  | 1.90   |
| 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   | 1339.94 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 45.89  |
| 10-20   | 131.10 |
| 20-30   | 190.96 |
| 30-40   | 225.26 |
| 40-50   | 242.96 |
| 50-60   | 213.74 |
| 60-70   | 170.70 |
| 70-80   | 93.61  |
| 80-90   | 25.71  |
| 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  | 83  | 78  | 96  | 88  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 69  |
| 3  | 90  | 79  | 71  | 64  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 58  |
| 4  | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |
| 5  | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6  | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |
| 7  | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 35  | 46  | 40  | 35  | 33  |
| 8  | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 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 | 9.6  | 11.2 | 9.9  | 11.5 | 11.8 | 11.0 | 12.6 | 11.3 | 12.9 | 13.3 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 3H   | 11.3 | 12.8 | 11.7 | 13.2 | 13.5 | 13.1 | 14.6 | 13.5 | 15.0 | 15.3 |
|      | 4H   | 11.9 | 13.4 | 12.3 | 13.7 | 14.1 | 13.7 | 15.1 | 14.0 | 15.4 | 15.8 |
|      | 6H   | 12.4 | 13.7 | 12.8 | 14.1 | 14.5 | 14.0 | 15.3 | 14.4 | 15.7 | 16.1 |
|      | 8H   | 12.6 | 13.8 | 13.0 | 14.2 | 14.6 | 14.1 | 15.4 | 14.5 | 15.8 | 16.1 |
|      | 12H  | 12.7 | 13.9 | 13.1 | 14.2 | 14.7 | 14.2 | 15.4 | 14.6 | 15.8 | 16.2 |

### UGR Viewed Endwise

|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H  | 10.5 | 11.9 | 10.9 | 12.3 | 12.7 | 11.6 | 13.0 | 12.0 | 13.4 | 13.7 |
|    | 3H  | 12.5 | 13.7 | 12.9 | 14.1 | 14.5 | 14.0 | 15.2 | 14.4 | 15.6 | 16.0 |
|    | 4H  | 13.2 | 14.3 | 13.7 | 14.7 | 15.2 | 14.6 | 15.6 | 15.0 | 16.1 | 16.5 |
|    | 6H  | 13.9 | 14.8 | 14.3 | 15.2 | 15.7 | 15.0 | 16.0 | 15.5 | 16.4 | 16.9 |
|    | 8H  | 14.0 | 14.9 | 14.5 | 15.4 | 15.8 | 15.2 | 16.1 | 15.7 | 16.5 | 17.0 |
|    | 12H | 14.2 | 15.0 | 14.7 | 15.4 | 15.9 | 15.3 | 16.1 | 15.8 | 16.6 | 17.0 |

|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H  | 13.7 | 14.6 | 14.2 | 15.0 | 15.5 | 14.8 | 15.7 | 15.3 | 16.2 | 16.6 |
|    | 6H  | 14.4 | 15.2 | 14.9 | 15.6 | 16.1 | 15.4 | 16.1 | 15.9 | 16.6 | 17.1 |
|    | 8H  | 14.7 | 15.4 | 15.2 | 15.9 | 16.4 | 15.6 | 16.3 | 16.1 | 16.8 | 17.3 |
|    | 12H | 14.9 | 15.5 | 15.4 | 16.0 | 16.6 | 15.8 | 16.4 | 16.3 | 16.9 | 17.4 |

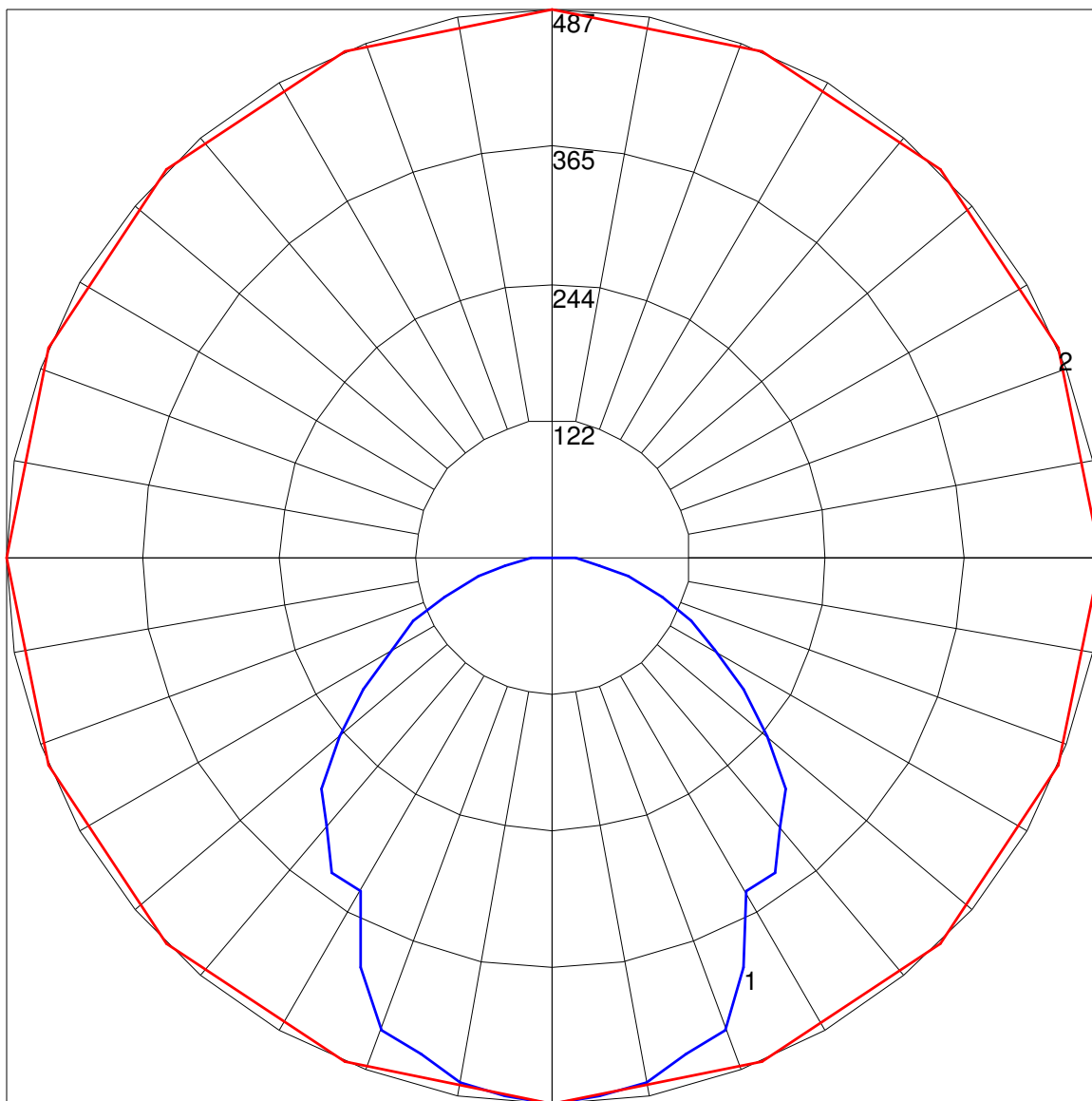
|     |    |      |      |      |      |      |      |      |      |      |      |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 13.7 | 14.5 | 14.2 | 15.0 | 15.5 | 14.9 | 15.7 | 15.3 | 16.1 | 16.6 |
|     | 6H | 14.5 | 15.2 | 15.0 | 15.6 | 16.2 | 15.5 | 16.1 | 16.0 | 16.6 | 17.1 |
|     | 8H | 14.8 | 15.4 | 15.3 | 15.9 | 16.5 | 15.7 | 16.3 | 16.2 | 16.8 | 17.3 |

Maximum UGR = 17.4

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## POLAR GRAPH



Maximum Candela = 487.048 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)