



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LPT-24-L75-935-SAF12095-(L55)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 18561.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 28 JUNE 2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMINAIRE] 4-56 LED 22"ARRAYS 2x4'RECESSED GRID LUMINAIRE  
 [MORE] WHITE INTERNAL REFLECTORS w/.095"PAT12 ACRYLIC LENS  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] LPT-24-L75-935-SAF12095-(L55)-DIM-UNV  
 [LAMPCAT] HLM 90 CRI 3500K CCT  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] INDOOR, OFFICE, DIRECT, CLASSROOM  
 [\_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 4514            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 123             |
| Total Luminaire Watts           | 36.8            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.16            |
| Spacing Criterion (90-270)      | 1.18            |
| Spacing Criterion (Diagonal)    | 1.26            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 3.77 ft         |
| Luminous Width (90-270)         | 1.77 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                  | 2523             | 2493              | 2454              |
| 55                  | 1950             | 1855              | 1779              |
| 65                  | 1528             | 1394              | 1399              |
| 75                  | 1262             | 1196              | 1352              |
| 85                  | 1445             | 1494              | 1775              |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LPT-24-L75-935-SAF12095-(L55)-DIM-UNV\_.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>  | 2026.020   | 2026.020    | 2026.020    | 2026.020    | 2026.020    |
| <b>5</b>  | 2008.202   | 2007.542    | 2006.882    | 2005.562    | 2005.562    |
| <b>10</b> | 1984.444   | 1982.464    | 1981.804    | 1981.804    | 1981.804    |
| <b>15</b> | 1920.430   | 1919.770    | 1919.770    | 1920.430    | 1921.090    |
| <b>20</b> | 1845.856   | 1843.217    | 1843.217    | 1844.536    | 1847.176    |
| <b>25</b> | 1700.669   | 1700.009    | 1700.009    | 1705.289    | 1706.609    |
| <b>30</b> | 1564.721   | 1562.082    | 1564.061    | 1568.681    | 1571.321    |
| <b>35</b> | 1439.992   | 1437.353    | 1437.353    | 1439.992    | 1443.952    |
| <b>40</b> | 1260.488   | 1257.848    | 1255.869    | 1251.249    | 1255.209    |
| <b>45</b> | 1103.422   | 1098.143    | 1090.223    | 1075.045    | 1073.065    |
| <b>50</b> | 884.982    | 882.342     | 862.544     | 838.786     | 832.846     |
| <b>55</b> | 691.619    | 682.380     | 657.962     | 634.204     | 630.904     |
| <b>60</b> | 522.674    | 510.135     | 486.377     | 471.858     | 471.198     |
| <b>65</b> | 399.265    | 384.086     | 364.288     | 362.308     | 365.608     |
| <b>70</b> | 288.394    | 278.495     | 262.657     | 278.495     | 282.455     |
| <b>75</b> | 201.942    | 198.642     | 191.383     | 209.201     | 216.461     |
| <b>80</b> | 143.207    | 139.248     | 143.207     | 155.746     | 164.985     |
| <b>85</b> | 77.873     | 75.893      | 80.513      | 95.032      | 95.692      |
| <b>90</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LPT-24-L75-935-SAF12095-(L55)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 732.65  | N.A.  | 16.20  |
| 0-30    | 1518.19 | N.A.  | 33.60  |
| 0-40    | 2410.3  | N.A.  | 53.40  |
| 0-60    | 3834.27 | N.A.  | 84.90  |
| 0-80    | 4427.66 | N.A.  | 98.10  |
| 0-90    | 4514.03 | N.A.  | 100.00 |
| 10-90   | 4323.12 | N.A.  | 95.80  |
| 20-40   | 1677.64 | N.A.  | 37.20  |
| 20-50   | 2505.32 | N.A.  | 55.50  |
| 40-70   | 1798.63 | N.A.  | 39.80  |
| 60-80   | 593.40  | N.A.  | 13.10  |
| 70-80   | 218.74  | N.A.  | 4.80   |
| 80-90   | 86.36   | 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   | 4514.03 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 190.91 |
| 10-20   | 541.74 |
| 20-30   | 785.54 |
| 30-40   | 892.11 |
| 40-50   | 827.67 |
| 50-60   | 596.29 |
| 60-70   | 374.66 |
| 70-80   | 218.74 |
| 80-90   | 86.36  |
| 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  | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 89  | 88  | 86  |
| 2  | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 75  | 73  |
| 3  | 93  | 83  | 75  | 69  | 90  | 81  | 74  | 69  | 78  | 72  | 67  | 76  | 71  | 66  | 73  | 69  | 65  | 63  |
| 4  | 85  | 74  | 66  | 60  | 83  | 73  | 65  | 59  | 70  | 64  | 59  | 68  | 62  | 58  | 66  | 61  | 57  | 55  |
| 5  | 79  | 67  | 59  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 51  | 60  | 55  | 50  | 48  |
| 6  | 73  | 61  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |
| 7  | 68  | 55  | 47  | 41  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 45  | 41  | 50  | 45  | 40  | 38  |
| 8  | 64  | 51  | 43  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 48  | 41  | 37  | 46  | 41  | 36  | 35  |
| 9  | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 10 | 56  | 43  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 30  | 40  | 34  | 30  | 29  |

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## UGR TABLE - CORRECTED

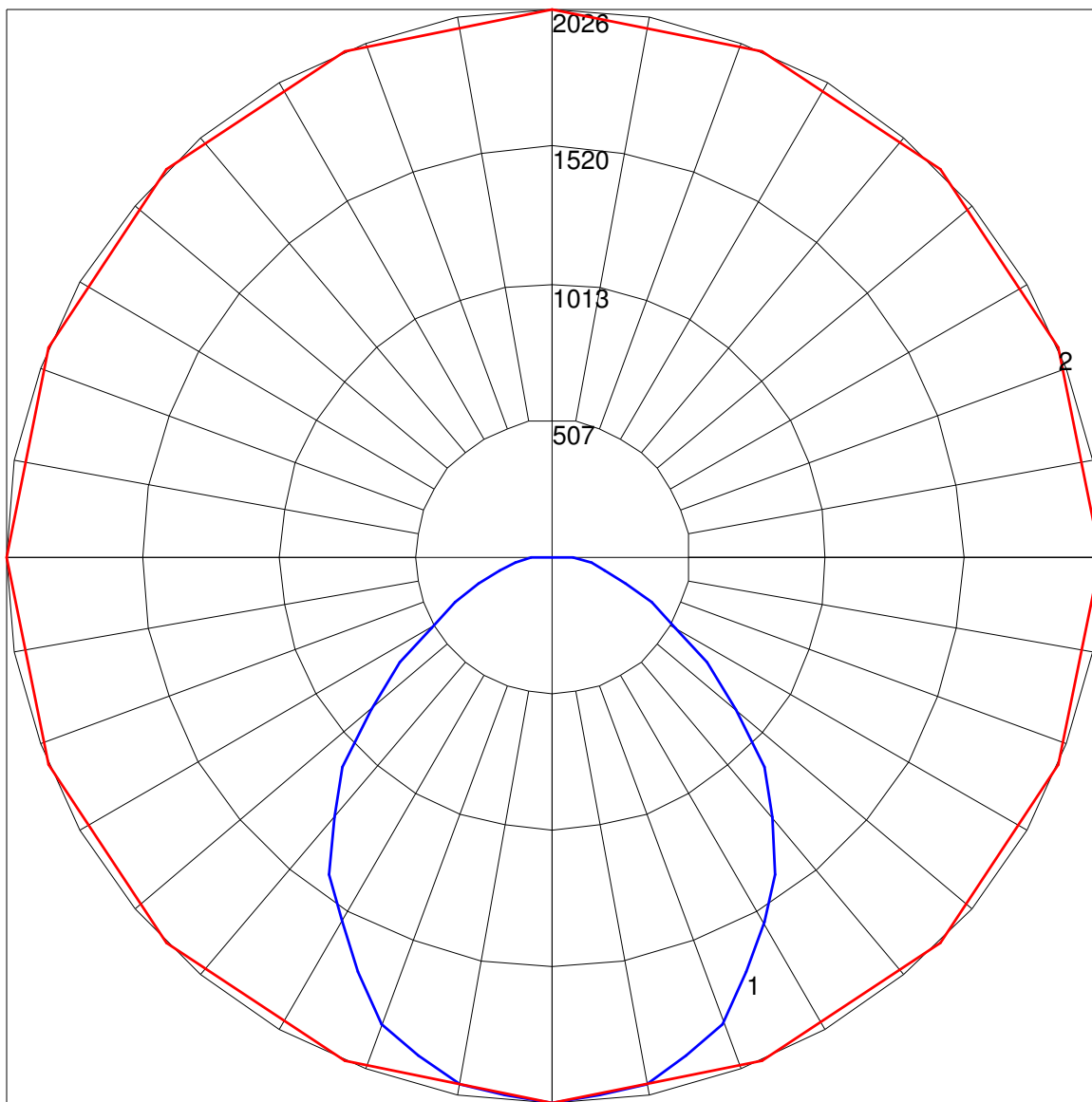
### Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 |      |      |      |      | UGR Viewed Endwise |      |      |      |      |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H      | Y=2H | 13.5                 | 15.1 | 13.9 | 15.4 | 15.7 | 13.0               | 14.5 | 13.3 | 14.8 | 15.1 |
|           | 3H   | 14.9                 | 16.3 | 15.3 | 16.6 | 17.0 | 14.5               | 15.8 | 14.8 | 16.2 | 16.5 |
|           | 4H   | 15.4                 | 16.7 | 15.8 | 17.1 | 17.5 | 15.1               | 16.4 | 15.5 | 16.8 | 17.2 |
|           | 6H   | 15.9                 | 17.1 | 16.3 | 17.5 | 17.9 | 15.8               | 17.0 | 16.2 | 17.4 | 17.8 |
|           | 8H   | 16.2                 | 17.3 | 16.6 | 17.7 | 18.1 | 16.1               | 17.3 | 16.6 | 17.7 | 18.1 |
|           | 12H  | 16.3                 | 17.4 | 16.8 | 17.8 | 18.2 | 16.4               | 17.5 | 16.8 | 17.9 | 18.3 |
| 4H        | 2H   | 13.9                 | 15.2 | 14.3 | 15.5 | 15.9 | 13.5               | 14.7 | 13.9 | 15.1 | 15.5 |
|           | 3H   | 15.5                 | 16.6 | 15.9 | 17.0 | 17.4 | 15.2               | 16.2 | 15.6 | 16.6 | 17.0 |
|           | 4H   | 16.2                 | 17.2 | 16.6 | 17.6 | 18.0 | 16.0               | 17.0 | 16.4 | 17.4 | 17.8 |
|           | 6H   | 16.9                 | 17.7 | 17.3 | 18.1 | 18.6 | 16.9               | 17.7 | 17.3 | 18.2 | 18.6 |
|           | 8H   | 17.1                 | 17.9 | 17.6 | 18.4 | 18.8 | 17.3               | 18.1 | 17.7 | 18.5 | 19.0 |
|           | 12H  | 17.4                 | 18.1 | 17.9 | 18.6 | 19.1 | 17.6               | 18.3 | 18.1 | 18.8 | 19.3 |
| 8H        | 4H   | 16.4                 | 17.2 | 16.9 | 17.7 | 18.1 | 16.3               | 17.1 | 16.7 | 17.5 | 18.0 |
|           | 6H   | 17.3                 | 17.9 | 17.8 | 18.4 | 18.9 | 17.3               | 18.0 | 17.8 | 18.5 | 19.0 |
|           | 8H   | 17.7                 | 18.3 | 18.2 | 18.8 | 19.3 | 17.8               | 18.4 | 18.4 | 18.9 | 19.4 |
|           | 12H  | 18.0                 | 18.6 | 18.6 | 19.1 | 19.6 | 18.4               | 18.9 | 18.9 | 19.4 | 19.9 |
| 12H       | 4H   | 16.5                 | 17.2 | 17.0 | 17.7 | 18.2 | 16.3               | 17.0 | 16.8 | 17.5 | 18.0 |
|           | 6H   | 17.4                 | 18.0 | 17.9 | 18.4 | 19.0 | 17.4               | 18.0 | 17.9 | 18.5 | 19.0 |
|           | 8H   | 17.8                 | 18.4 | 18.3 | 18.8 | 19.4 | 18.0               | 18.5 | 18.5 | 19.0 | 19.6 |

Maximum UGR = 19.9

POLAR GRAPH



Maximum Candela = 2026.02 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.)