



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 75S-4-L53-8TW-DIM-UNV 4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19745.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-NOV-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' SURFACE MOUNT STRIP LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC SQUARE LENS

[LUMCAT] 75S-4-L53-8TW-DIM-UNV 4000k

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Utility, Warehouse, Linear

[_SEARCH_MOUNTING] Surface, Suspended

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5104 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 118 |
| Total Luminaire Watts | 43.2 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.20 |
| Spacing Criterion (90-270) | 1.18 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 3.72 ft |
| Luminous Width (90-270) | 0.21 ft |
| Luminous Height | 0.08 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 18381 | 14832 | 14023 |
| 55 | 15583 | 12433 | 12566 |
| 65 | 12237 | 10624 | 11414 |
| 75 | 8427 | 8684 | 10127 |
| 85 | 3765 | 7367 | 8877 |

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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> |
|-----|------------|-------------|-------------|-------------|-------------|
| 0 | 1722.122 | 1722.122 | 1722.122 | 1722.122 | 1722.122 |
| 5 | 1736.935 | 1715.106 | 1714.327 | 1710.429 | 1690.159 |
| 10 | 1707.310 | 1687.820 | 1689.380 | 1684.702 | 1665.992 |
| 15 | 1659.755 | 1641.045 | 1645.722 | 1641.045 | 1625.453 |
| 20 | 1580.236 | 1566.204 | 1580.236 | 1573.220 | 1556.849 |
| 25 | 1482.008 | 1476.550 | 1489.024 | 1488.244 | 1464.077 |
| 30 | 1373.644 | 1375.983 | 1390.016 | 1390.016 | 1360.391 |
| 35 | 1241.113 | 1259.823 | 1266.840 | 1269.179 | 1238.774 |
| 40 | 1096.888 | 1124.954 | 1118.717 | 1131.190 | 1115.599 |
| 45 | 955.782 | 980.729 | 979.170 | 1001.778 | 997.880 |
| 50 | 811.557 | 834.165 | 852.096 | 890.296 | 898.092 |
| 55 | 663.434 | 691.500 | 731.259 | 788.169 | 813.896 |
| 60 | 523.887 | 558.189 | 626.014 | 696.177 | 729.700 |
| 65 | 389.797 | 444.368 | 529.344 | 609.642 | 643.944 |
| 70 | 267.401 | 339.123 | 430.336 | 517.650 | 558.189 |
| 75 | 169.951 | 238.556 | 341.462 | 428.777 | 469.315 |
| 80 | 92.772 | 159.037 | 268.180 | 347.699 | 385.119 |
| 85 | 29.625 | 97.449 | 203.474 | 274.417 | 309.499 |
| 90 | 0.000 | 63.147 | 155.139 | 221.405 | 245.572 |
| 95 | 0.000 | 57.690 | 145.004 | 202.694 | 216.727 |
| 100 | 0.000 | 54.572 | 134.870 | 184.764 | 197.237 |
| 105 | 0.000 | 49.894 | 126.294 | 170.731 | 183.205 |
| 110 | 0.000 | 46.776 | 117.719 | 159.817 | 172.290 |
| 115 | 0.000 | 42.878 | 107.584 | 149.682 | 161.376 |
| 120 | 0.000 | 36.641 | 96.670 | 135.649 | 149.682 |
| 125 | 0.000 | 30.404 | 87.314 | 123.955 | 136.429 |
| 130 | 0.000 | 24.947 | 75.621 | 110.702 | 119.278 |
| 135 | 0.000 | 22.608 | 60.808 | 95.890 | 104.466 |
| 140 | 0.000 | 18.710 | 47.555 | 80.298 | 88.874 |
| 145 | 0.000 | 14.812 | 36.641 | 62.367 | 70.943 |
| 150 | 0.000 | 10.914 | 28.065 | 47.555 | 54.572 |
| 155 | 0.000 | 8.576 | 22.608 | 34.302 | 39.759 |
| 160 | 0.000 | 0.000 | 16.371 | 24.947 | 28.065 |
| 165 | 0.000 | 0.000 | 10.914 | 17.931 | 19.490 |
| 170 | 0.000 | 0.000 | 0.000 | 10.914 | 11.694 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 625.17 | N.A. | 12.20 |
| 0-30 | 1307.7 | N.A. | 25.60 |
| 0-40 | 2093.37 | N.A. | 41.00 |
| 0-60 | 3517.6 | N.A. | 68.90 |
| 0-80 | 4392.74 | N.A. | 86.10 |
| 0-90 | 4601.71 | N.A. | 90.20 |
| 10-90 | 4438.99 | N.A. | 87.00 |
| 20-40 | 1468.2 | N.A. | 28.80 |
| 20-50 | 2230.24 | N.A. | 43.70 |
| 40-70 | 1944.8 | N.A. | 38.10 |
| 60-80 | 875.14 | N.A. | 17.10 |
| 70-80 | 354.57 | N.A. | 6.90 |
| 80-90 | 208.97 | N.A. | 4.10 |
| 90-110 | 257.13 | N.A. | 5.00 |
| 90-120 | 351.26 | N.A. | 6.90 |
| 90-130 | 420.60 | N.A. | 8.20 |
| 90-150 | 489.43 | N.A. | 9.60 |
| 90-180 | 502.32 | N.A. | 9.80 |
| 110-180 | 245.19 | N.A. | 4.80 |
| 0-180 | 5104.03 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 162.72 |
| 10-20 | 462.45 |
| 20-30 | 682.53 |
| 30-40 | 785.67 |
| 40-50 | 762.04 |
| 50-60 | 662.19 |
| 60-70 | 520.57 |
| 70-80 | 354.57 |
| 80-90 | 208.97 |
| 90-100 | 140.69 |
| 100-110 | 116.44 |
| 110-120 | 94.13 |
| 120-130 | 69.35 |
| 130-140 | 44.94 |
| 140-150 | 23.88 |
| 150-160 | 9.99 |
| 160-170 | 2.76 |
| 170-180 | 0.15 |

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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 | 156 | 156 | 156 | 156 | 151 | 151 | 151 | 151 | 142 | 142 | 142 | 133 | 133 | 133 | 125 | 125 | 125 | 121 |
| 1 | 142 | 135 | 129 | 123 | 137 | 130 | 125 | 120 | 122 | 118 | 114 | 115 | 111 | 108 | 108 | 105 | 102 | 99 |
| 2 | 129 | 117 | 108 | 100 | 124 | 114 | 105 | 98 | 107 | 100 | 94 | 100 | 95 | 90 | 95 | 90 | 86 | 82 |
| 3 | 117 | 103 | 92 | 83 | 113 | 100 | 90 | 82 | 94 | 86 | 79 | 89 | 82 | 76 | 84 | 78 | 73 | 69 |
| 4 | 108 | 92 | 80 | 71 | 104 | 89 | 78 | 70 | 84 | 75 | 67 | 79 | 71 | 65 | 75 | 68 | 63 | 59 |
| 5 | 99 | 82 | 70 | 61 | 95 | 80 | 69 | 60 | 75 | 66 | 58 | 71 | 63 | 57 | 68 | 60 | 55 | 52 |
| 6 | 92 | 74 | 62 | 54 | 88 | 72 | 61 | 53 | 68 | 59 | 51 | 65 | 56 | 50 | 61 | 54 | 48 | 45 |
| 7 | 85 | 67 | 56 | 47 | 82 | 65 | 55 | 47 | 62 | 53 | 46 | 59 | 51 | 44 | 56 | 49 | 43 | 40 |
| 8 | 79 | 61 | 50 | 42 | 76 | 60 | 49 | 42 | 57 | 48 | 41 | 54 | 46 | 40 | 52 | 44 | 39 | 36 |
| 9 | 74 | 56 | 45 | 38 | 71 | 55 | 45 | 38 | 53 | 43 | 37 | 50 | 42 | 36 | 48 | 41 | 35 | 33 |
| 10 | 69 | 52 | 42 | 35 | 67 | 51 | 41 | 34 | 49 | 40 | 34 | 47 | 38 | 33 | 45 | 37 | 32 | 30 |

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UGR TABLE - CORRECTED

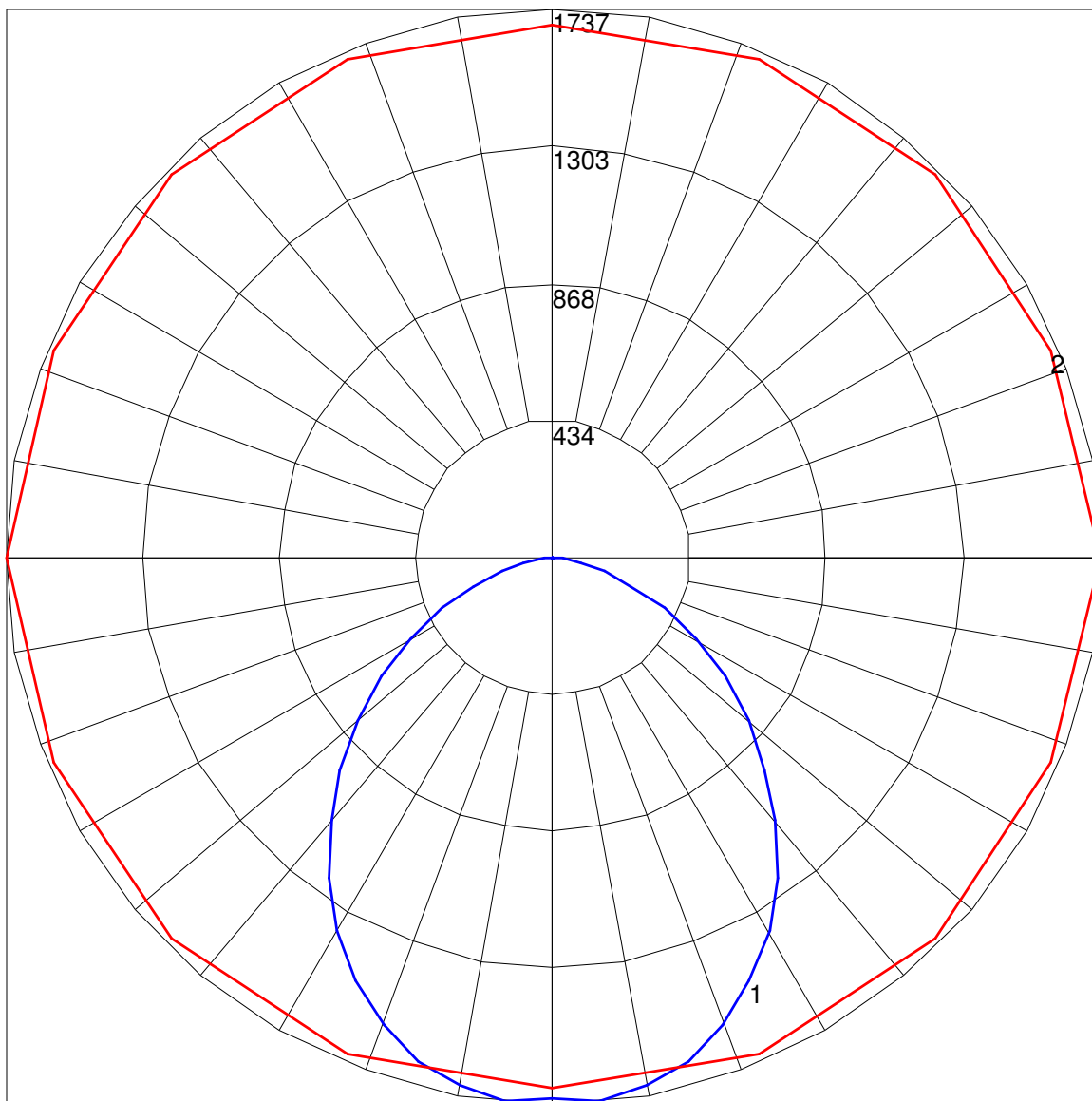
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 18.6 | 20.0 | 19.1 | 20.5 | 21.1 | 19.9 | 21.4 | 20.5 | 21.9 | 22.4 |
| | 3H | 20.0 | 21.3 | 20.6 | 21.8 | 22.4 | 22.3 | 23.6 | 22.9 | 24.1 | 24.7 |
| | 4H | 20.5 | 21.7 | 21.0 | 22.2 | 22.8 | 23.5 | 24.7 | 24.0 | 25.2 | 25.8 |
| | 6H | 20.7 | 21.9 | 21.3 | 22.4 | 23.0 | 24.6 | 25.7 | 25.2 | 26.3 | 26.9 |
| | 8H | 20.8 | 21.9 | 21.4 | 22.5 | 23.1 | 25.2 | 26.3 | 25.8 | 26.8 | 27.5 |
| | 12H | 20.8 | 21.9 | 21.4 | 22.4 | 23.1 | 25.8 | 26.8 | 26.4 | 27.4 | 28.1 |
| 4H | 2H | 19.2 | 20.4 | 19.8 | 21.0 | 21.6 | 20.3 | 21.5 | 20.8 | 22.0 | 22.7 |
| | 3H | 20.8 | 21.9 | 21.4 | 22.5 | 23.1 | 22.9 | 23.9 | 23.5 | 24.5 | 25.1 |
| | 4H | 21.4 | 22.4 | 22.0 | 22.9 | 23.6 | 24.2 | 25.1 | 24.8 | 25.7 | 26.4 |
| | 6H | 21.8 | 22.7 | 22.4 | 23.3 | 23.9 | 25.5 | 26.3 | 26.1 | 26.9 | 27.6 |
| | 8H | 21.9 | 22.7 | 22.6 | 23.3 | 24.0 | 26.2 | 27.0 | 26.8 | 27.6 | 28.3 |
| | 12H | 22.0 | 22.7 | 22.6 | 23.4 | 24.0 | 26.9 | 27.6 | 27.6 | 28.3 | 29.0 |
| 8H | 4H | 21.9 | 22.6 | 22.5 | 23.2 | 23.9 | 24.3 | 25.1 | 24.9 | 25.7 | 26.4 |
| | 6H | 22.4 | 23.1 | 23.1 | 23.7 | 24.4 | 25.8 | 26.5 | 26.5 | 27.1 | 27.8 |
| | 8H | 22.6 | 23.2 | 23.3 | 23.9 | 24.6 | 26.6 | 27.2 | 27.3 | 27.9 | 28.6 |
| | 12H | 22.8 | 23.3 | 23.4 | 23.9 | 24.7 | 27.5 | 28.0 | 28.2 | 28.7 | 29.5 |
| 12H | 4H | 21.9 | 22.6 | 22.6 | 23.3 | 24.0 | 24.3 | 25.0 | 24.9 | 25.7 | 26.4 |
| | 6H | 22.6 | 23.2 | 23.3 | 23.8 | 24.6 | 25.8 | 26.4 | 26.5 | 27.0 | 27.8 |
| | 8H | 22.9 | 23.4 | 23.5 | 24.0 | 24.8 | 26.7 | 27.2 | 27.3 | 27.9 | 28.6 |

Maximum UGR = 29.5

POLAR GRAPH



Maximum Candela = 1736.935 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.)