



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 75S-4-L50-835-DIM-UNV_.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] 12-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-L50-835-DIM-UNV

[_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 | 5038 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 161 |
| Total Luminaire Watts | 31.2 |
| 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 | 18143 | 14640 | 13842 |
| 55 | 15382 | 12272 | 12403 |
| 65 | 12078 | 10487 | 11267 |
| 75 | 8318 | 8572 | 9996 |
| 85 | 3716 | 7272 | 8763 |

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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 | 1699.854 | 1699.854 | 1699.854 | 1699.854 | 1699.854 |
| 5 | 1714.474 | 1692.928 | 1692.158 | 1688.311 | 1668.304 |
| 10 | 1685.233 | 1665.995 | 1667.534 | 1662.917 | 1644.449 |
| 15 | 1638.293 | 1619.824 | 1624.441 | 1619.824 | 1604.434 |
| 20 | 1559.802 | 1545.951 | 1559.802 | 1552.877 | 1536.717 |
| 25 | 1462.844 | 1457.457 | 1469.769 | 1469.000 | 1445.145 |
| 30 | 1355.881 | 1358.190 | 1372.041 | 1372.041 | 1342.800 |
| 35 | 1225.064 | 1243.533 | 1250.458 | 1252.767 | 1222.756 |
| 40 | 1082.704 | 1110.407 | 1104.251 | 1116.563 | 1101.173 |
| 45 | 943.423 | 968.047 | 966.508 | 988.824 | 984.976 |
| 50 | 801.063 | 823.379 | 841.077 | 878.784 | 886.479 |
| 55 | 654.855 | 682.558 | 721.803 | 777.977 | 803.371 |
| 60 | 517.113 | 550.971 | 617.919 | 687.175 | 720.264 |
| 65 | 384.756 | 438.622 | 522.499 | 601.759 | 635.618 |
| 70 | 263.943 | 334.738 | 424.771 | 510.956 | 550.971 |
| 75 | 167.754 | 235.471 | 337.047 | 423.232 | 463.247 |
| 80 | 91.572 | 156.981 | 264.712 | 343.203 | 380.139 |
| 85 | 29.241 | 96.189 | 200.843 | 270.868 | 305.497 |
| 90 | 0.000 | 62.331 | 153.133 | 218.542 | 242.397 |
| 95 | 0.000 | 56.944 | 143.129 | 200.073 | 213.925 |
| 100 | 0.000 | 53.866 | 133.126 | 182.375 | 194.687 |
| 105 | 0.000 | 49.249 | 124.661 | 168.523 | 180.835 |
| 110 | 0.000 | 46.171 | 116.196 | 157.750 | 170.062 |
| 115 | 0.000 | 42.323 | 106.193 | 147.746 | 159.289 |
| 120 | 0.000 | 36.167 | 95.420 | 133.895 | 147.746 |
| 125 | 0.000 | 30.011 | 86.185 | 122.353 | 134.665 |
| 130 | 0.000 | 24.624 | 74.643 | 109.271 | 117.735 |
| 135 | 0.000 | 22.316 | 60.022 | 94.650 | 103.115 |
| 140 | 0.000 | 18.468 | 46.940 | 79.260 | 87.724 |
| 145 | 0.000 | 14.621 | 36.167 | 61.561 | 70.026 |
| 150 | 0.000 | 10.773 | 27.702 | 46.940 | 53.866 |
| 155 | 0.000 | 8.465 | 22.316 | 33.859 | 39.245 |
| 160 | 0.000 | 0.000 | 16.160 | 24.624 | 27.702 |
| 165 | 0.000 | 0.000 | 10.773 | 17.699 | 19.238 |
| 170 | 0.000 | 0.000 | 0.000 | 10.773 | 11.543 |
| 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 | 617.08 | N.A. | 12.20 |
| 0-30 | 1290.79 | N.A. | 25.60 |
| 0-40 | 2066.3 | N.A. | 41.00 |
| 0-60 | 3472.11 | N.A. | 68.90 |
| 0-80 | 4335.94 | N.A. | 86.10 |
| 0-90 | 4542.2 | N.A. | 90.20 |
| 10-90 | 4381.59 | N.A. | 87.00 |
| 20-40 | 1449.22 | N.A. | 28.80 |
| 20-50 | 2201.4 | N.A. | 43.70 |
| 40-70 | 1919.65 | N.A. | 38.10 |
| 60-80 | 863.83 | N.A. | 17.10 |
| 70-80 | 349.99 | N.A. | 6.90 |
| 80-90 | 206.27 | N.A. | 4.10 |
| 90-110 | 253.80 | N.A. | 5.00 |
| 90-120 | 346.72 | N.A. | 6.90 |
| 90-130 | 415.17 | N.A. | 8.20 |
| 90-150 | 483.10 | N.A. | 9.60 |
| 90-180 | 495.83 | N.A. | 9.80 |
| 110-180 | 242.02 | N.A. | 4.80 |
| 0-180 | 5038.03 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 160.61 |
| 10-20 | 456.47 |
| 20-30 | 673.71 |
| 30-40 | 775.51 |
| 40-50 | 752.18 |
| 50-60 | 653.63 |
| 60-70 | 513.84 |
| 70-80 | 349.99 |
| 80-90 | 206.27 |
| 90-100 | 138.87 |
| 100-110 | 114.93 |
| 110-120 | 92.91 |
| 120-130 | 68.45 |
| 130-140 | 44.36 |
| 140-150 | 23.57 |
| 150-160 | 9.86 |
| 160-170 | 2.72 |
| 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 | 132 | 132 | 132 | 132 | 128 | 128 | 128 | 128 | 119 | 119 | 119 | 112 | 112 | 112 | 105 | 105 | 105 | 102 |
| 1 | 119 | 114 | 109 | 104 | 115 | 110 | 105 | 101 | 103 | 99 | 96 | 97 | 94 | 91 | 91 | 89 | 86 | 83 |
| 2 | 109 | 99 | 91 | 84 | 105 | 96 | 89 | 83 | 90 | 84 | 79 | 85 | 80 | 76 | 80 | 76 | 72 | 69 |
| 3 | 99 | 87 | 78 | 70 | 95 | 84 | 76 | 69 | 79 | 72 | 66 | 75 | 69 | 64 | 71 | 66 | 61 | 58 |
| 4 | 91 | 77 | 67 | 60 | 87 | 75 | 66 | 59 | 71 | 63 | 57 | 67 | 60 | 55 | 63 | 58 | 53 | 50 |
| 5 | 84 | 69 | 59 | 52 | 80 | 67 | 58 | 51 | 64 | 55 | 49 | 60 | 53 | 48 | 57 | 51 | 46 | 44 |
| 6 | 77 | 62 | 52 | 45 | 74 | 61 | 51 | 45 | 58 | 49 | 43 | 55 | 47 | 42 | 52 | 46 | 41 | 38 |
| 7 | 72 | 57 | 47 | 40 | 69 | 55 | 46 | 39 | 52 | 44 | 38 | 50 | 43 | 37 | 47 | 41 | 36 | 34 |
| 8 | 67 | 52 | 42 | 36 | 64 | 50 | 42 | 35 | 48 | 40 | 34 | 46 | 39 | 34 | 44 | 37 | 33 | 30 |
| 9 | 62 | 48 | 38 | 32 | 60 | 46 | 38 | 32 | 44 | 37 | 31 | 42 | 35 | 30 | 40 | 34 | 30 | 27 |
| 10 | 59 | 44 | 35 | 29 | 57 | 43 | 35 | 29 | 41 | 33 | 28 | 39 | 32 | 28 | 38 | 31 | 27 | 25 |

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UGR TABLE - CORRECTED

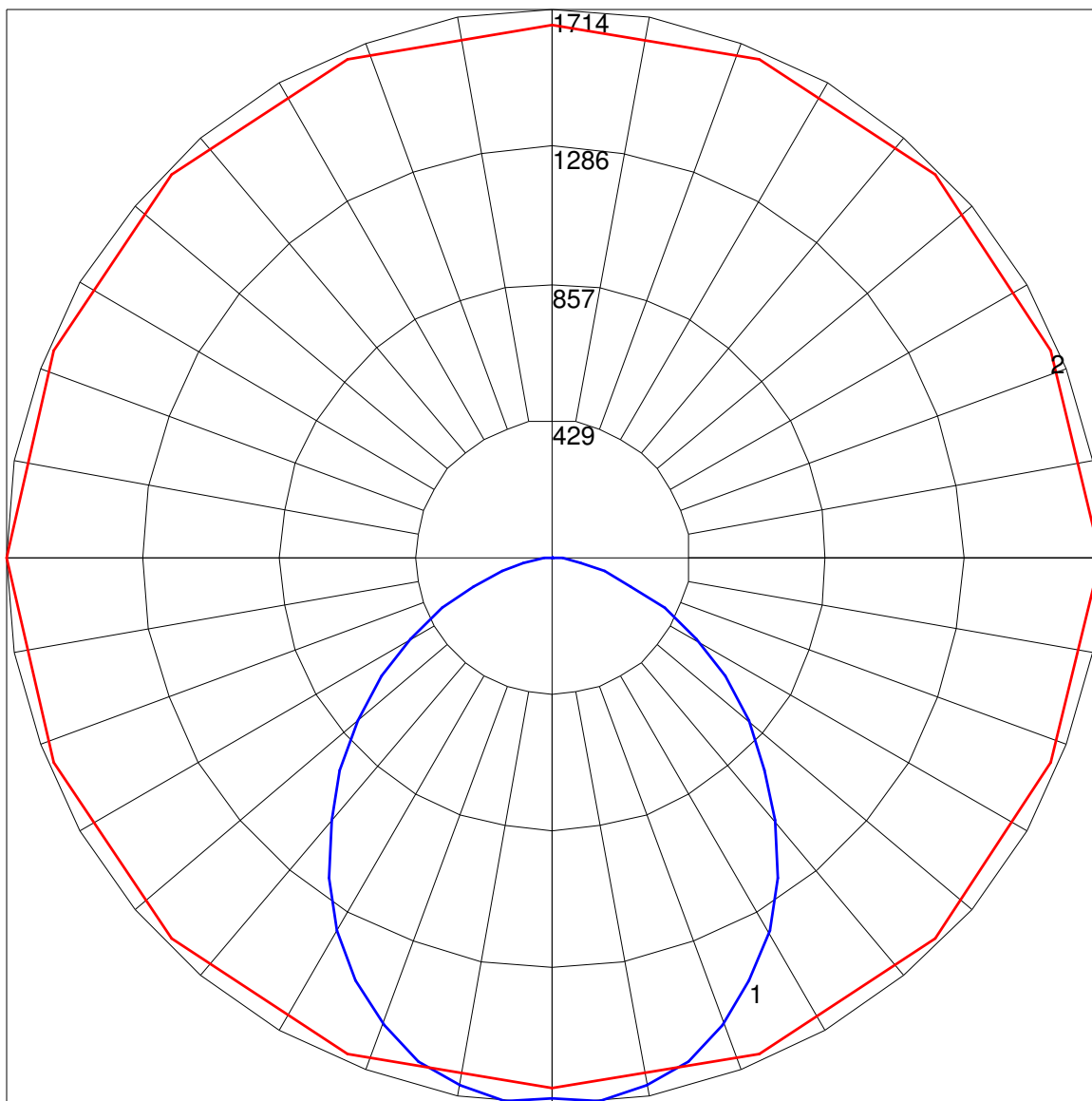
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 19.2 | 20.6 | 19.7 | 21.1 | 21.7 | 20.5 | 22.0 | 21.1 | 22.5 | 23.0 |
| | 3H | 20.6 | 21.9 | 21.2 | 22.4 | 23.0 | 22.9 | 24.2 | 23.5 | 24.7 | 25.3 |
| | 4H | 21.1 | 22.3 | 21.6 | 22.8 | 23.4 | 24.1 | 25.3 | 24.6 | 25.8 | 26.4 |
| | 6H | 21.3 | 22.5 | 21.9 | 23.0 | 23.6 | 25.2 | 26.3 | 25.8 | 26.9 | 27.5 |
| | 8H | 21.4 | 22.5 | 22.0 | 23.1 | 23.7 | 25.8 | 26.9 | 26.4 | 27.4 | 28.1 |
| | 12H | 21.4 | 22.5 | 22.0 | 23.0 | 23.7 | 26.4 | 27.4 | 27.0 | 28.0 | 28.7 |
| 4H | 2H | 19.8 | 21.0 | 20.4 | 21.6 | 22.2 | 20.9 | 22.1 | 21.4 | 22.6 | 23.3 |
| | 3H | 21.4 | 22.5 | 22.0 | 23.1 | 23.7 | 23.5 | 24.5 | 24.1 | 25.1 | 25.7 |
| | 4H | 22.0 | 23.0 | 22.6 | 23.5 | 24.2 | 24.8 | 25.7 | 25.4 | 26.3 | 27.0 |
| | 6H | 22.4 | 23.3 | 23.0 | 23.9 | 24.5 | 26.1 | 26.9 | 26.7 | 27.5 | 28.2 |
| | 8H | 22.5 | 23.3 | 23.2 | 23.9 | 24.6 | 26.8 | 27.6 | 27.4 | 28.2 | 28.9 |
| | 12H | 22.6 | 23.3 | 23.2 | 24.0 | 24.6 | 27.5 | 28.2 | 28.1 | 28.9 | 29.6 |
| 8H | 4H | 22.5 | 23.2 | 23.1 | 23.8 | 24.5 | 24.9 | 25.7 | 25.5 | 26.3 | 27.0 |
| | 6H | 23.0 | 23.7 | 23.7 | 24.3 | 25.0 | 26.4 | 27.1 | 27.1 | 27.7 | 28.4 |
| | 8H | 23.2 | 23.8 | 23.9 | 24.5 | 25.2 | 27.2 | 27.8 | 27.9 | 28.5 | 29.2 |
| | 12H | 23.4 | 23.9 | 24.0 | 24.5 | 25.3 | 28.1 | 28.6 | 28.8 | 29.3 | 30.1 |
| 12H | 4H | 22.5 | 23.2 | 23.2 | 23.9 | 24.6 | 24.9 | 25.6 | 25.5 | 26.3 | 27.0 |
| | 6H | 23.2 | 23.8 | 23.9 | 24.4 | 25.2 | 26.4 | 27.0 | 27.1 | 27.6 | 28.4 |
| | 8H | 23.5 | 24.0 | 24.1 | 24.6 | 25.4 | 27.3 | 27.8 | 27.9 | 28.5 | 29.2 |

Maximum UGR = 30.1

POLAR GRAPH



Maximum Candela = 1714.474 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.)