



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SL-8-L10-940-RD-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 21002.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2023-10-03

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 96 INCH LED SLIMLINE ARCHITECTURAL LUMINAIRE

[MORE] 1.5x24"ALUM CHANNEL w/1"WIDE WHITE RADIAL ACRYLIC LENS

[MORE] 0-10V REMOTE DRIVER ENCLOSURE

[LUMCAT] SL-8-L10-940-RD-DIM-UNV

[LAMPCAT] 22 INCH LED ARRAY

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 6909 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 98 |
| Total Luminaire Watts | 70.8 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.26 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.38 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 8.00 ft |
| Luminous Width (90-270) | 0.13 ft |
| Luminous Height | 0.05 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 21479 | 17268 | 16371 |
| 55 | 20323 | 15465 | 14767 |
| 65 | 18163 | 13311 | 13141 |
| 75 | 15345 | 10979 | 11696 |
| 85 | 8645 | 9138 | 10532 |

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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 | 2175.475 | 2175.475 | 2175.475 | 2175.475 | 2175.475 |
| 5 | 2182.596 | 2171.914 | 2157.672 | 2154.112 | 2157.672 |
| 10 | 2150.551 | 2139.869 | 2125.627 | 2125.627 | 2132.748 |
| 15 | 2104.264 | 2093.583 | 2079.341 | 2082.901 | 2082.901 |
| 20 | 2033.054 | 2022.372 | 2004.570 | 2018.812 | 2022.372 |
| 25 | 1944.041 | 1933.360 | 1929.799 | 1940.481 | 1947.602 |
| 30 | 1833.665 | 1833.665 | 1833.665 | 1847.907 | 1844.347 |
| 35 | 1716.168 | 1716.168 | 1716.168 | 1730.410 | 1741.092 |
| 40 | 1573.748 | 1577.308 | 1580.869 | 1605.792 | 1620.034 |
| 45 | 1420.645 | 1431.327 | 1442.009 | 1470.493 | 1481.174 |
| 50 | 1253.301 | 1263.983 | 1288.906 | 1331.633 | 1352.996 |
| 55 | 1093.078 | 1096.639 | 1142.925 | 1178.530 | 1210.575 |
| 60 | 907.931 | 925.734 | 989.823 | 1057.473 | 1078.836 |
| 65 | 722.785 | 751.269 | 826.039 | 900.810 | 932.855 |
| 70 | 551.880 | 580.364 | 672.937 | 765.511 | 793.995 |
| 75 | 377.415 | 427.262 | 530.517 | 633.772 | 676.498 |
| 80 | 220.752 | 274.160 | 413.020 | 516.275 | 562.561 |
| 85 | 74.771 | 174.465 | 302.644 | 405.899 | 452.185 |
| 90 | 0.000 | 96.134 | 224.312 | 316.886 | 352.491 |
| 95 | 0.000 | 49.847 | 153.102 | 245.676 | 277.720 |
| 100 | 0.000 | 24.924 | 106.815 | 181.586 | 213.631 |
| 105 | 0.000 | 14.242 | 74.771 | 131.739 | 160.223 |
| 110 | 0.000 | 10.682 | 49.847 | 96.134 | 113.936 |
| 115 | 0.000 | 7.121 | 32.045 | 67.650 | 85.452 |
| 120 | 0.000 | 0.000 | 17.803 | 42.726 | 53.408 |
| 125 | 0.000 | 0.000 | 14.242 | 28.484 | 35.605 |
| 130 | 0.000 | 0.000 | 0.000 | 17.803 | 21.363 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 14.242 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 | 794.30 | N.A. | 11.50 |
| 0-30 | 1687.03 | N.A. | 24.40 |
| 0-40 | 2764.23 | N.A. | 40.00 |
| 0-60 | 4905.39 | N.A. | 71.00 |
| 0-80 | 6289.78 | N.A. | 91.00 |
| 0-90 | 6610.19 | N.A. | 95.70 |
| 10-90 | 6404.62 | N.A. | 92.70 |
| 20-40 | 1969.93 | N.A. | 28.50 |
| 20-50 | 3087.4 | N.A. | 44.70 |
| 40-70 | 2962.8 | N.A. | 42.90 |
| 60-80 | 1384.39 | N.A. | 20.00 |
| 70-80 | 562.75 | N.A. | 8.10 |
| 80-90 | 320.41 | N.A. | 4.60 |
| 90-110 | 246.20 | N.A. | 3.60 |
| 90-120 | 283.58 | N.A. | 4.10 |
| 90-130 | 296.96 | N.A. | 4.30 |
| 90-150 | 299.09 | N.A. | 4.30 |
| 90-180 | 299.09 | N.A. | 4.30 |
| 110-180 | 52.89 | N.A. | 0.80 |
| 0-180 | 6909.28 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 205.58 |
| 10-20 | 588.73 |
| 20-30 | 892.73 |
| 30-40 | 1077.2 |
| 40-50 | 1117.47 |
| 50-60 | 1023.69 |
| 60-70 | 821.64 |
| 70-80 | 562.75 |
| 80-90 | 320.41 |
| 90-100 | 164.35 |
| 100-110 | 81.85 |
| 110-120 | 37.38 |
| 120-130 | 13.38 |
| 130-140 | 2.13 |
| 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 103 | 103 | 103 | 98 | 98 | 98 | 96 |
| 1 | 106 | 101 | 96 | 92 | 103 | 98 | 94 | 90 | 93 | 90 | 86 | 89 | 86 | 83 | 84 | 82 | 80 | 77 |
| 2 | 96 | 87 | 80 | 74 | 93 | 85 | 78 | 73 | 81 | 75 | 70 | 77 | 72 | 68 | 73 | 69 | 66 | 63 |
| 3 | 88 | 76 | 68 | 61 | 85 | 75 | 67 | 60 | 71 | 64 | 59 | 68 | 62 | 57 | 64 | 60 | 55 | 53 |
| 4 | 80 | 68 | 58 | 51 | 77 | 66 | 57 | 51 | 63 | 55 | 50 | 60 | 54 | 49 | 57 | 52 | 47 | 45 |
| 5 | 74 | 60 | 51 | 44 | 71 | 59 | 50 | 44 | 56 | 49 | 43 | 54 | 47 | 42 | 51 | 46 | 41 | 39 |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 44 | 38 | 51 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 34 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 46 | 39 | 33 | 44 | 38 | 32 | 43 | 37 | 32 | 30 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 42 | 35 | 29 | 41 | 34 | 29 | 39 | 33 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |
| 10 | 51 | 38 | 30 | 25 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 28 | 24 | 33 | 28 | 23 | 22 |

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UGR TABLE - CORRECTED

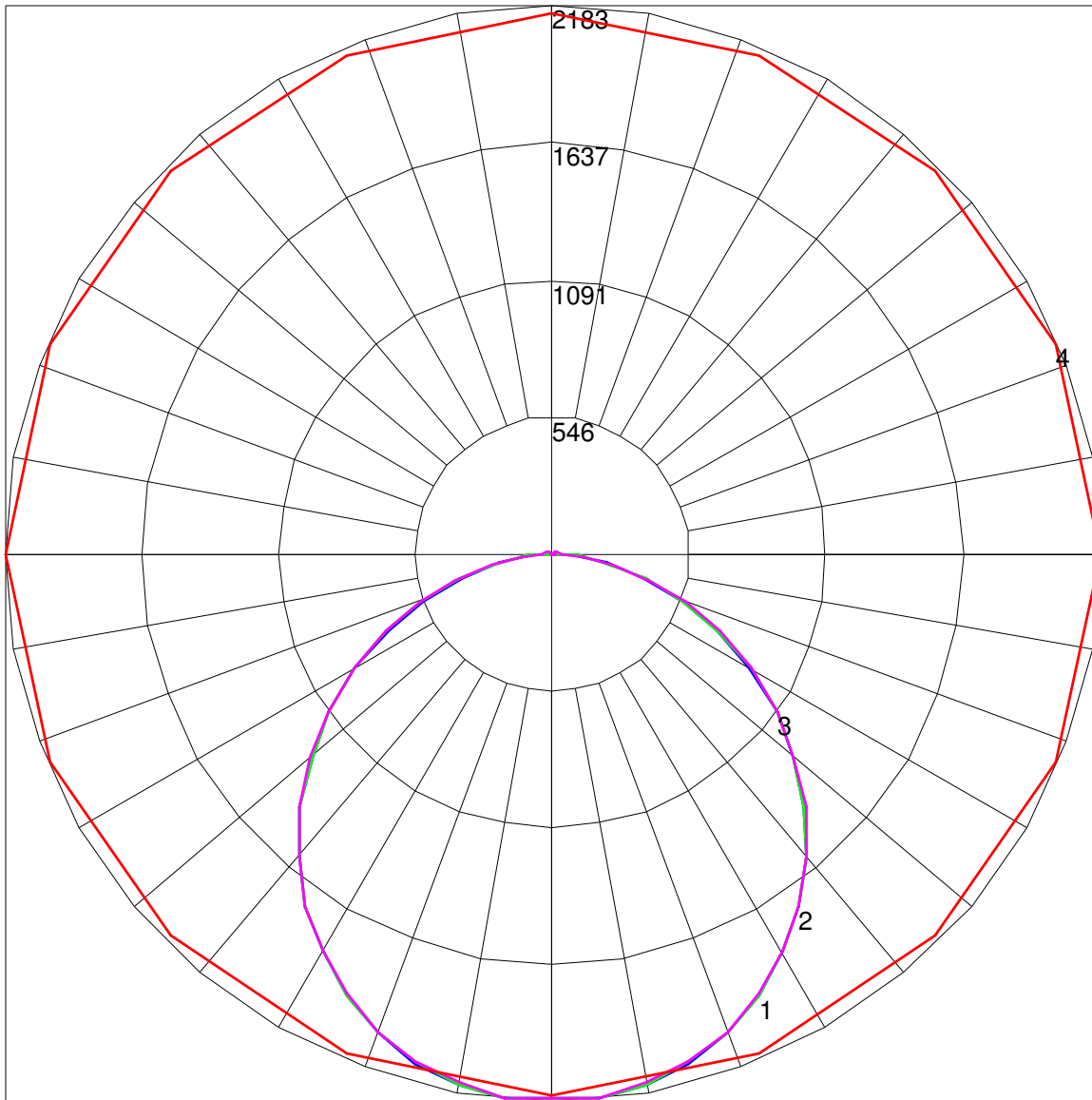
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 20.4 | 22.0 | 20.8 | 22.4 | 22.8 | 22.1 | 23.7 | 22.5 | 24.1 | 24.5 |
| | 3H | 21.9 | 23.3 | 22.3 | 23.7 | 24.2 | 24.4 | 25.9 | 24.9 | 26.3 | 26.7 |
| | 4H | 22.3 | 23.7 | 22.8 | 24.1 | 24.6 | 25.5 | 26.9 | 26.0 | 27.3 | 27.8 |
| | 6H | 22.6 | 23.9 | 23.1 | 24.3 | 24.8 | 26.7 | 28.0 | 27.2 | 28.4 | 28.9 |
| | 8H | 22.7 | 23.9 | 23.2 | 24.4 | 24.9 | 27.3 | 28.5 | 27.8 | 29.0 | 29.5 |
| | 12H | 22.7 | 23.9 | 23.2 | 24.3 | 24.9 | 28.0 | 29.2 | 28.5 | 29.6 | 30.1 |
| 4H | 2H | 21.2 | 22.6 | 21.6 | 23.0 | 23.5 | 22.5 | 23.9 | 23.0 | 24.3 | 24.8 |
| | 3H | 22.9 | 24.0 | 23.3 | 24.5 | 25.0 | 25.1 | 26.2 | 25.5 | 26.7 | 27.2 |
| | 4H | 23.4 | 24.5 | 23.9 | 25.0 | 25.5 | 26.3 | 27.4 | 26.8 | 27.9 | 28.4 |
| | 6H | 23.8 | 24.8 | 24.4 | 25.3 | 25.8 | 27.7 | 28.6 | 28.2 | 29.1 | 29.7 |
| | 8H | 23.9 | 24.8 | 24.5 | 25.3 | 25.9 | 28.4 | 29.3 | 28.9 | 29.8 | 30.3 |
| | 12H | 24.0 | 24.8 | 24.5 | 25.3 | 25.9 | 29.2 | 30.0 | 29.7 | 30.5 | 31.1 |
| 8H | 4H | 24.0 | 24.9 | 24.5 | 25.4 | 25.9 | 26.5 | 27.4 | 27.0 | 27.9 | 28.5 |
| | 6H | 24.5 | 25.3 | 25.1 | 25.8 | 26.4 | 28.0 | 28.8 | 28.5 | 29.3 | 29.9 |
| | 8H | 24.7 | 25.4 | 25.2 | 25.9 | 26.5 | 28.8 | 29.5 | 29.4 | 30.1 | 30.7 |
| | 12H | 24.8 | 25.4 | 25.4 | 26.0 | 26.6 | 29.8 | 30.4 | 30.4 | 30.9 | 31.6 |
| 12H | 4H | 24.1 | 24.9 | 24.7 | 25.5 | 26.0 | 26.5 | 27.3 | 27.1 | 27.9 | 28.4 |
| | 6H | 24.8 | 25.4 | 25.3 | 26.0 | 26.6 | 28.0 | 28.7 | 28.6 | 29.3 | 29.9 |
| | 8H | 25.0 | 25.6 | 25.6 | 26.1 | 26.8 | 28.9 | 29.5 | 29.5 | 30.1 | 30.7 |

Maximum UGR = 31.6

POLAR GRAPH



Maximum Candela = 2182.596 Located At Horizontal Angle = 0, Vertical Angle = 5

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

2 - Vertical Plane Through Horizontal Angles (5 - 185)

3 - Vertical Plane Through Horizontal Angles (10 - 190)

4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)