



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETLG-S14-L48-835-FA-DIM-UNV.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 18751.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 19-MAR-2019
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2-22" LED ARRAYS 1x4'RECESSED WHITE REFL LUMINAIRE
 [MORE] ARRAYS ON INTERNAL WHITE REFLS w/FROSTED ACRYLIC LENS &
 [MORE] CLEAR ACRYLIC LENS IN DOOR
 [LUMCAT] HETLG-S14-L48-835-FA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3500K CCT
 [_SEARCH_APPLICATION] INDOOR
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4812 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 117 |
| Total Luminaire Watts | 41.1 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.20 |
| Spacing Criterion (Diagonal) | 1.32 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.77 ft |
| Luminous Width (90-270) | 0.77 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 6354 | 6646 | 6728 |
| 55 | 5209 | 5543 | 4910 |
| 65 | 4099 | 3985 | 2808 |
| 75 | 2478 | 1935 | 1405 |
| 85 | 945 | 787 | 826 |

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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 | 2092.093 | 2092.093 | 2092.093 | 2092.093 | 2092.093 |
| 5 | 2056.854 | 2055.927 | 2055.927 | 2055.927 | 2055.927 |
| 10 | 2035.525 | 2034.598 | 2035.525 | 2036.452 | 2036.452 |
| 15 | 1950.209 | 1952.991 | 1956.701 | 1958.555 | 1969.684 |
| 20 | 1903.842 | 1903.842 | 1910.333 | 1916.825 | 1919.607 |
| 25 | 1749.902 | 1754.539 | 1765.667 | 1774.941 | 1774.941 |
| 30 | 1645.112 | 1652.531 | 1668.296 | 1678.497 | 1682.206 |
| 35 | 1488.391 | 1498.592 | 1518.993 | 1531.976 | 1538.467 |
| 40 | 1340.943 | 1354.853 | 1385.455 | 1404.002 | 1408.639 |
| 45 | 1214.824 | 1234.298 | 1270.464 | 1290.866 | 1286.229 |
| 50 | 998.752 | 1023.790 | 1058.102 | 1052.538 | 1031.209 |
| 55 | 807.719 | 832.757 | 859.650 | 801.227 | 761.351 |
| 60 | 616.685 | 638.942 | 640.796 | 548.062 | 504.476 |
| 65 | 468.310 | 483.147 | 455.327 | 360.738 | 320.862 |
| 70 | 307.879 | 316.225 | 270.785 | 204.016 | 183.615 |
| 75 | 173.414 | 173.414 | 135.393 | 103.863 | 98.299 |
| 80 | 77.897 | 76.042 | 56.568 | 49.149 | 48.222 |
| 85 | 22.256 | 19.474 | 18.547 | 19.474 | 19.474 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 751.56 | N.A. | 15.60 |
| 0-30 | 1571.1 | N.A. | 32.60 |
| 0-40 | 2522.69 | N.A. | 52.40 |
| 0-60 | 4207.48 | N.A. | 87.40 |
| 0-80 | 4785.08 | N.A. | 99.40 |
| 0-90 | 4812.4 | N.A. | 100.00 |
| 10-90 | 4616.44 | N.A. | 95.90 |
| 20-40 | 1771.13 | N.A. | 36.80 |
| 20-50 | 2724.71 | N.A. | 56.60 |
| 40-70 | 2105.73 | N.A. | 43.80 |
| 60-80 | 577.61 | N.A. | 12.00 |
| 70-80 | 156.66 | N.A. | 3.30 |
| 80-90 | 27.32 | N.A. | 0.60 |
| 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 | 4812.4 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 195.96 |
| 10-20 | 555.60 |
| 20-30 | 819.53 |
| 30-40 | 951.59 |
| 40-50 | 953.59 |
| 50-60 | 731.20 |
| 60-70 | 420.95 |
| 70-80 | 156.66 |
| 80-90 | 27.32 |
| 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 |

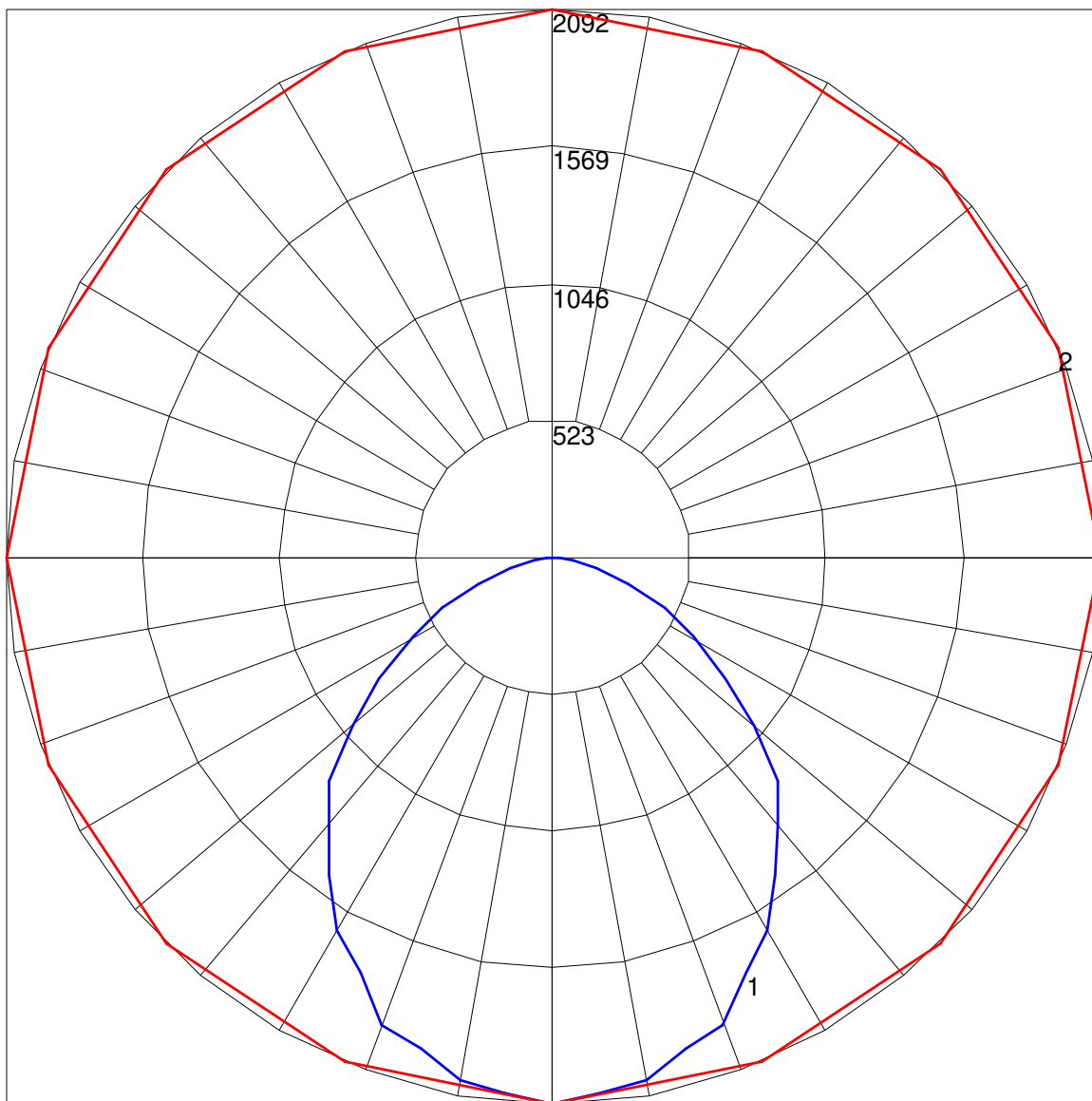
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 92 | 91 | 89 | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 75 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 60 | 84 | 73 | 66 | 60 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 56 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 43 |
| 7 | 68 | 55 | 47 | 41 | 66 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 45 | 40 | 50 | 45 | 40 | 38 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 41 | 36 | 34 |
| 9 | 59 | 47 | 39 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 |

POLAR GRAPH



Maximum Candela = 2092.093 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.)