



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V50G-S24-L117-835-FVLF-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 21040.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 23-APR-2020

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

[LUMINAIRE] 4-56 LED 22" ARRAYS 2X4' RECESSED LUMINAIRE w/WHITE REFL

[MORE] CLEAR POLYCARB LENS w/FROSTED PRISMATIC PAT12 OVERLAY

[LUMCAT] V50G-S24-L117/835-FVLF-DIM-UNV

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 11733 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 116 |
| Total Luminaire Watts | 101.2 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.22 |
| Spacing Criterion (90-270) | 1.20 |
| Spacing Criterion (Diagonal) | 1.26 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.76 ft |
| Luminous Width (90-270) | 1.77 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 6746 | 6280 | 6178 |
| 55 | 5000 | 4595 | 4443 |
| 65 | 3660 | 3310 | 3328 |
| 75 | 2578 | 2354 | 2342 |
| 85 | 1174 | 911 | 666 |

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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 | 5497.273 | 5497.273 | 5497.273 | 5497.273 | 5497.273 |
| 5 | 5509.565 | 5491.600 | 5458.506 | 5435.814 | 5444.324 |
| 10 | 5424.468 | 5408.394 | 5379.083 | 5359.227 | 5368.682 |
| 15 | 5283.585 | 5271.293 | 5242.927 | 5221.180 | 5224.017 |
| 20 | 5082.188 | 5069.896 | 5048.149 | 5024.511 | 5020.729 |
| 25 | 4825.006 | 4808.932 | 4779.621 | 4761.656 | 4758.819 |
| 30 | 4491.236 | 4464.761 | 4406.139 | 4399.520 | 4399.520 |
| 35 | 4071.424 | 4034.548 | 3967.416 | 3957.961 | 3945.669 |
| 40 | 3573.133 | 3487.090 | 3414.285 | 3373.627 | 3353.771 |
| 45 | 2953.815 | 2886.683 | 2749.582 | 2700.415 | 2705.142 |
| 50 | 2343.007 | 2291.003 | 2127.428 | 2089.607 | 2096.225 |
| 55 | 1775.693 | 1735.981 | 1631.973 | 1581.861 | 1578.079 |
| 60 | 1327.515 | 1296.313 | 1216.889 | 1178.122 | 1197.033 |
| 65 | 957.815 | 932.286 | 866.099 | 870.827 | 870.827 |
| 70 | 673.213 | 656.193 | 604.189 | 607.972 | 607.026 |
| 75 | 413.194 | 405.630 | 377.264 | 366.863 | 375.373 |
| 80 | 207.070 | 186.268 | 169.249 | 168.303 | 170.194 |
| 85 | 63.350 | 56.731 | 49.167 | 48.222 | 35.930 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V50G-S24-L117-835-FVLF-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 1998.52 | N.A. | 17.00 |
| 0-30 | 4196.03 | N.A. | 35.80 |
| 0-40 | 6675.19 | N.A. | 56.90 |
| 0-60 | 10336.79 | N.A. | 88.10 |
| 0-80 | 11657.03 | N.A. | 99.40 |
| 0-90 | 11733.22 | N.A. | 100.00 |
| 10-90 | 11213.97 | N.A. | 95.60 |
| 20-40 | 4676.66 | N.A. | 39.90 |
| 20-50 | 6834.45 | N.A. | 58.20 |
| 40-70 | 4566.09 | N.A. | 38.90 |
| 60-80 | 1320.24 | N.A. | 11.30 |
| 70-80 | 415.76 | N.A. | 3.50 |
| 80-90 | 76.19 | 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 | 11733.22 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 519.25 |
| 10-20 | 1479.27 |
| 20-30 | 2197.51 |
| 30-40 | 2479.16 |
| 40-50 | 2157.78 |
| 50-60 | 1503.83 |
| 60-70 | 904.48 |
| 70-80 | 415.76 |
| 80-90 | 76.19 |
| 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 | 111 | 106 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 87 | 83 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | 75 |
| 3 | 94 | 85 | 77 | 72 | 92 | 83 | 76 | 71 | 80 | 74 | 70 | 78 | 73 | 69 | 75 | 71 | 67 | 65 |
| 4 | 87 | 76 | 68 | 62 | 85 | 75 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 59 | 57 |
| 5 | 80 | 69 | 60 | 54 | 78 | 68 | 60 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 51 |
| 6 | 75 | 62 | 54 | 48 | 73 | 61 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 49 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 65 | 52 | 44 | 39 | 63 | 52 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 9 | 61 | 48 | 41 | 35 | 59 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 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

| X=2H | Y=2H | 16.8 | 18.3 | 17.2 | 18.6 | 18.9 | UGR Viewed Endwise | 16.2 | 17.6 | 16.5 | 18.0 | 18.3 |
|------|------|------|------|------|------|------|--------------------|------|------|------|------|------|
| | 3H | 18.1 | 19.4 | 18.4 | 19.7 | 20.1 | | 17.4 | 18.7 | 17.8 | 19.0 | 19.4 |
| | 4H | 18.4 | 19.7 | 18.8 | 20.0 | 20.4 | | 17.8 | 19.0 | 18.2 | 19.3 | 19.7 |
| | 6H | 18.6 | 19.8 | 19.0 | 20.1 | 20.5 | | 17.9 | 19.1 | 18.4 | 19.5 | 19.8 |
| | 8H | 18.7 | 19.8 | 19.1 | 20.1 | 20.5 | | 18.0 | 19.1 | 18.4 | 19.4 | 19.9 |
| | 12H | 18.7 | 19.7 | 19.1 | 20.1 | 20.5 | | 18.0 | 19.0 | 18.4 | 19.4 | 19.8 |

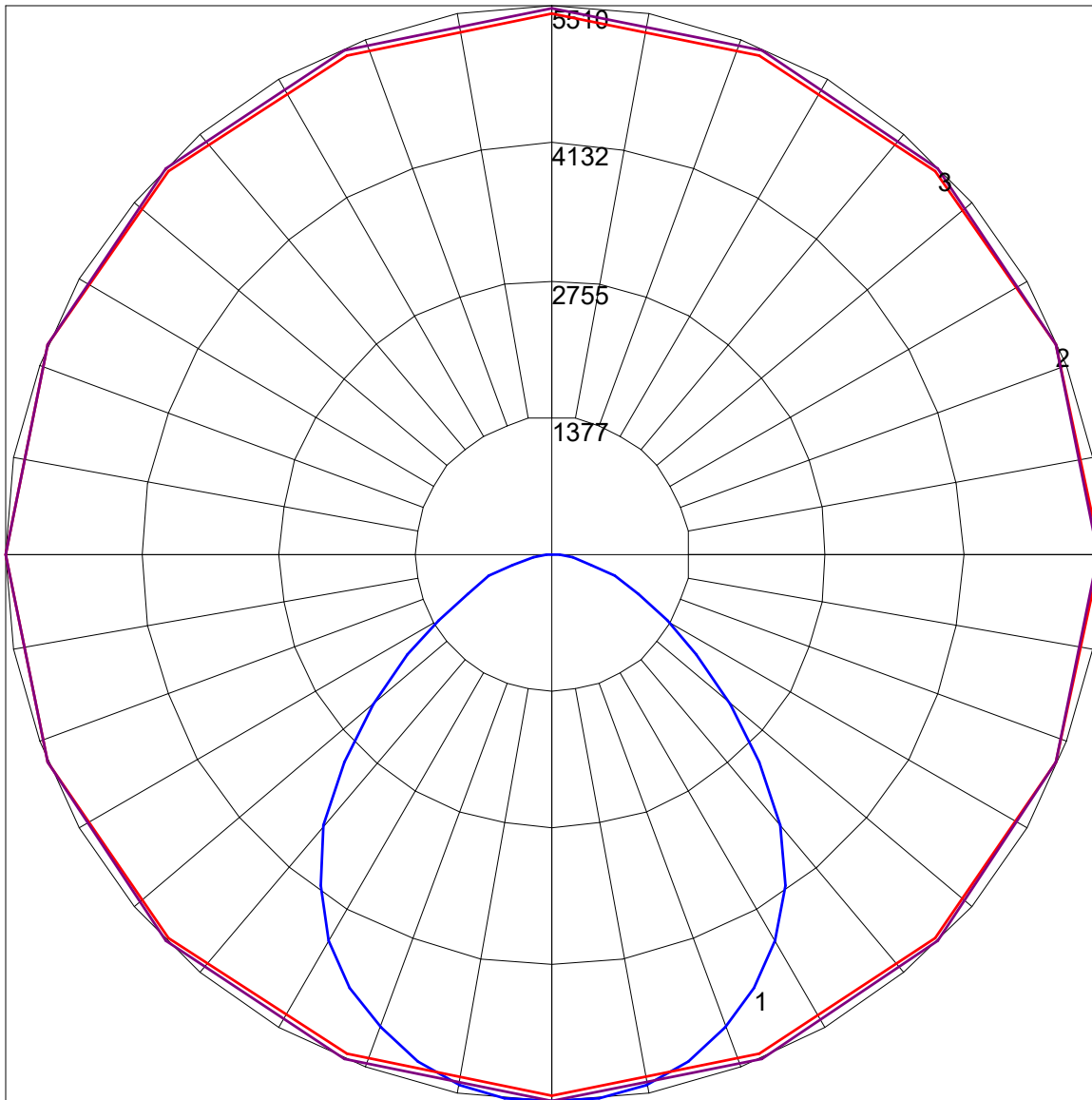
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 17.1 | 18.4 | 17.5 | 18.7 | 19.1 | 16.6 | 17.8 | 17.0 | 18.2 | 18.5 |
| | 3H | 18.6 | 19.6 | 19.0 | 20.0 | 20.4 | 18.0 | 19.0 | 18.4 | 19.4 | 19.8 |
| | 4H | 19.0 | 20.0 | 19.5 | 20.4 | 20.8 | 18.5 | 19.4 | 18.9 | 19.8 | 20.2 |
| | 6H | 19.3 | 20.1 | 19.8 | 20.6 | 21.0 | 18.7 | 19.5 | 19.2 | 20.0 | 20.4 |
| | 8H | 19.4 | 20.1 | 19.9 | 20.6 | 21.1 | 18.8 | 19.5 | 19.2 | 20.0 | 20.4 |
| | 12H | 19.4 | 20.1 | 19.9 | 20.6 | 21.0 | 18.8 | 19.4 | 19.3 | 19.9 | 20.4 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 19.2 | 19.9 | 19.6 | 20.3 | 20.8 | 18.6 | 19.4 | 19.1 | 19.8 | 20.3 |
| | 6H | 19.5 | 20.1 | 20.0 | 20.6 | 21.1 | 18.9 | 19.5 | 19.4 | 20.0 | 20.5 |
| | 8H | 19.6 | 20.1 | 20.1 | 20.6 | 21.1 | 19.0 | 19.5 | 19.5 | 20.1 | 20.5 |
| | 12H | 19.6 | 20.1 | 20.1 | 20.6 | 21.2 | 19.0 | 19.5 | 19.5 | 20.0 | 20.6 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.1 | 19.8 | 19.6 | 20.3 | 20.8 | 18.6 | 19.3 | 19.1 | 19.8 | 20.2 |
| | 6H | 19.5 | 20.0 | 20.0 | 20.5 | 21.0 | 18.9 | 19.5 | 19.5 | 19.9 | 20.5 |
| | 8H | 19.6 | 20.1 | 20.1 | 20.6 | 21.1 | 19.0 | 19.5 | 19.5 | 20.0 | 20.6 |

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 5509.565 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.)
3 - Horizontal Cone Through Vertical Angle (0)