



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AVX-4-L30-8TW-CPC-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20624.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 15-JUL-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 4' SURFACE MNT LUMINAIRE

[MORE] WHITE FROST INTERIOR LENS w/CLEAR POLYCARB LENS

[LUMCAT] AVX-4-L30-8TW-CPC-DIM-UNV

[_SEARCH_SOURCE] LED

[_SEARCH_APPLICATION] INDOOR, ARCHITECTURAL, COMMERCIAL, DIRECT, LINEAR

[_SEARCH_MOUNTING] SURFACE, SUSPENDED

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 3043 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 105 |
| Total Luminaire Watts | 29 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.14 |
| Spacing Criterion (90-270) | 1.64 |
| Spacing Criterion (Diagonal) | 1.50 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 3.90 ft |
| Luminous Width (90-270) | 0.58 ft |
| Luminous Height | 0.06 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 3133 | 4494 | 5545 |
| 55 | 2759 | 4283 | 5357 |
| 65 | 2264 | 3946 | 4864 |
| 75 | 1215 | 3271 | 4153 |
| 85 | 282 | 2467 | 3475 |

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : AVX-4-L30-8TW-CPC-DIM-UNV_.IES

CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----|------------|-------------|-------------|-------------|-------------|
| 0 | 921.972 | 921.972 | 921.972 | 921.972 | 921.972 |
| 5 | 924.432 | 919.819 | 922.279 | 929.045 | 930.890 |
| 10 | 899.830 | 905.365 | 925.662 | 945.652 | 954.570 |
| 15 | 861.389 | 881.378 | 926.277 | 959.183 | 974.252 |
| 20 | 808.494 | 842.322 | 915.206 | 972.099 | 991.781 |
| 25 | 751.908 | 796.500 | 902.598 | 980.402 | 1012.385 |
| 30 | 686.405 | 740.222 | 876.458 | 985.323 | 1027.762 |
| 35 | 615.673 | 682.099 | 838.939 | 973.022 | 1011.463 |
| 40 | 544.634 | 604.602 | 791.887 | 938.271 | 976.712 |
| 45 | 475.440 | 526.797 | 730.074 | 886.914 | 917.667 |
| 50 | 405.323 | 448.685 | 659.957 | 815.567 | 839.247 |
| 55 | 341.972 | 372.725 | 583.998 | 726.691 | 749.141 |
| 60 | 278.314 | 302.609 | 502.502 | 639.045 | 647.349 |
| 65 | 209.120 | 233.722 | 418.547 | 520.647 | 534.793 |
| 70 | 138.388 | 170.371 | 325.981 | 414.242 | 429.618 |
| 75 | 70.424 | 106.713 | 237.412 | 309.067 | 318.600 |
| 80 | 26.447 | 56.278 | 156.225 | 209.427 | 222.959 |
| 85 | 6.151 | 19.374 | 91.029 | 131.622 | 143.001 |
| 90 | 0.000 | 4.613 | 41.824 | 70.424 | 78.727 |
| 95 | 0.000 | 0.000 | 12.301 | 30.445 | 35.981 |
| 100 | 0.000 | 0.000 | 1.538 | 7.688 | 10.148 |
| 105 | 0.000 | 0.000 | 0.000 | 1.538 | 2.153 |
| 110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AVX-4-L30-8TW-CPC-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 348.55 | N.A. | 11.50 |
| 0-30 | 759.24 | N.A. | 24.90 |
| 0-40 | 1275.42 | N.A. | 41.90 |
| 0-60 | 2320.9 | N.A. | 76.30 |
| 0-80 | 2930.83 | N.A. | 96.30 |
| 0-90 | 3021.83 | N.A. | 99.30 |
| 10-90 | 2933.55 | N.A. | 96.40 |
| 20-40 | 926.87 | N.A. | 30.50 |
| 20-50 | 1473.75 | N.A. | 48.40 |
| 40-70 | 1428.68 | N.A. | 46.90 |
| 60-80 | 609.93 | N.A. | 20.00 |
| 70-80 | 226.73 | N.A. | 7.50 |
| 80-90 | 91.01 | N.A. | 3.00 |
| 90-110 | 21.25 | N.A. | 0.70 |
| 90-120 | 21.25 | N.A. | 0.70 |
| 90-130 | 21.25 | N.A. | 0.70 |
| 90-150 | 21.25 | N.A. | 0.70 |
| 90-180 | 21.25 | N.A. | 0.70 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 3043.09 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 88.28 |
| 10-20 | 260.27 |
| 20-30 | 410.68 |
| 30-40 | 516.19 |
| 40-50 | 546.89 |
| 50-60 | 498.59 |
| 60-70 | 383.20 |
| 70-80 | 226.73 |
| 80-90 | 91.01 |
| 90-100 | 19.95 |
| 100-110 | 1.30 |
| 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 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AVX-4-L30-8TW-CPC-DIM-UNV_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC RW | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 58 | 58 | 58 | 58 | 56 | 56 | 56 | 56 | 54 | 54 | 54 | 51 | 51 | 51 | 49 | 49 | 49 | 48 |
| 1 | 52 | 50 | 48 | 46 | 51 | 49 | 47 | 45 | 47 | 45 | 44 | 45 | 43 | 42 | 43 | 42 | 41 | 40 |
| 2 | 48 | 43 | 40 | 37 | 46 | 42 | 39 | 37 | 41 | 38 | 36 | 39 | 37 | 35 | 37 | 36 | 34 | 33 |
| 3 | 43 | 38 | 34 | 31 | 42 | 37 | 33 | 30 | 36 | 32 | 30 | 34 | 31 | 29 | 33 | 31 | 29 | 27 |
| 4 | 39 | 33 | 29 | 26 | 38 | 33 | 29 | 25 | 32 | 28 | 25 | 30 | 27 | 25 | 29 | 27 | 24 | 23 |
| 5 | 36 | 30 | 25 | 22 | 35 | 29 | 25 | 22 | 28 | 24 | 22 | 27 | 24 | 21 | 26 | 23 | 21 | 20 |
| 6 | 33 | 27 | 22 | 19 | 32 | 26 | 22 | 19 | 25 | 22 | 19 | 24 | 21 | 19 | 24 | 21 | 18 | 17 |
| 7 | 31 | 24 | 20 | 17 | 30 | 24 | 20 | 17 | 23 | 19 | 17 | 22 | 19 | 16 | 22 | 19 | 16 | 15 |
| 8 | 29 | 22 | 18 | 15 | 28 | 22 | 18 | 15 | 21 | 17 | 15 | 20 | 17 | 15 | 20 | 17 | 14 | 14 |
| 9 | 27 | 20 | 16 | 13 | 26 | 20 | 16 | 13 | 19 | 16 | 13 | 19 | 15 | 13 | 18 | 15 | 13 | 12 |
| 10 | 25 | 19 | 15 | 12 | 24 | 18 | 15 | 12 | 18 | 14 | 12 | 17 | 14 | 12 | 17 | 14 | 12 | 11 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AVX-4-L30-8TW-CPC-DIM-UNV_.IES

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 | 16.4 | 18.0 | 16.7 | 18.3 | 18.7 | 21.7 | 23.3 | 22.1 | 23.7 | 24.0 |
| | 3H | 17.6 | 19.1 | 18.0 | 19.5 | 19.8 | 23.7 | 25.2 | 24.1 | 25.5 | 25.9 |
| | 4H | 17.9 | 19.3 | 18.3 | 19.7 | 20.1 | 24.5 | 25.9 | 24.9 | 26.2 | 26.6 |
| | 6H | 18.0 | 19.3 | 18.4 | 19.7 | 20.1 | 25.2 | 26.5 | 25.6 | 26.9 | 27.3 |
| | 8H | 18.0 | 19.2 | 18.4 | 19.6 | 20.1 | 25.5 | 26.7 | 25.9 | 27.1 | 27.5 |
| | 12H | 18.0 | 19.2 | 18.4 | 19.6 | 20.0 | 25.8 | 27.0 | 26.2 | 27.4 | 27.8 |

UGR Viewed Endwise

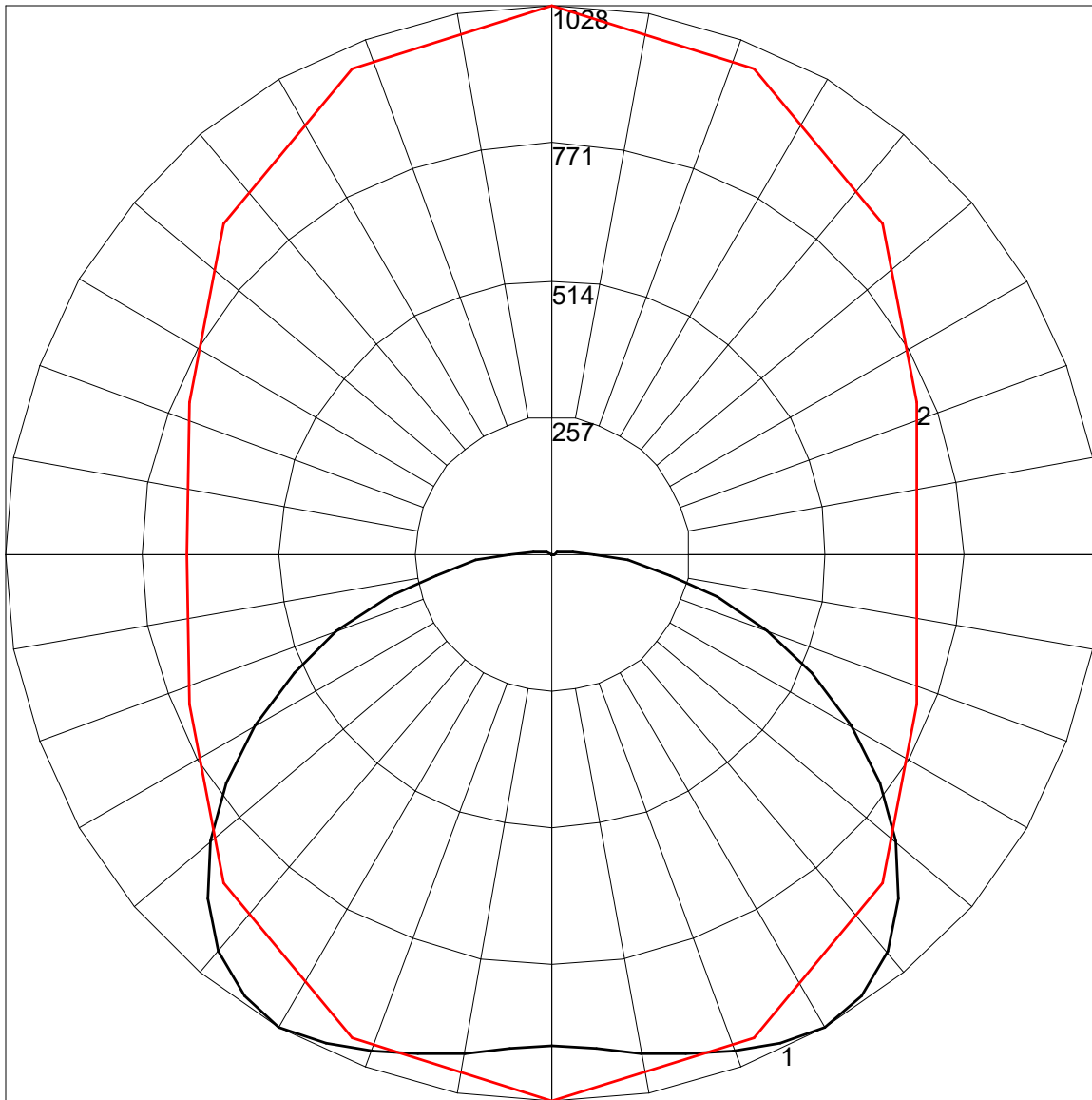
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 18.1 | 19.6 | 18.6 | 19.9 | 20.3 | 22.0 | 23.4 | 22.4 | 23.8 | 24.2 |
| | 3H | 19.5 | 20.7 | 19.9 | 21.1 | 21.5 | 24.3 | 25.4 | 24.7 | 25.9 | 26.3 |
| | 4H | 19.8 | 20.9 | 20.2 | 21.3 | 21.8 | 25.2 | 26.3 | 25.7 | 26.8 | 27.2 |
| | 6H | 19.9 | 20.9 | 20.4 | 21.3 | 21.8 | 26.1 | 27.1 | 26.6 | 27.5 | 28.0 |
| | 8H | 19.9 | 20.8 | 20.4 | 21.3 | 21.8 | 26.5 | 27.4 | 27.0 | 27.8 | 28.3 |
| | 12H | 19.9 | 20.7 | 20.4 | 21.2 | 21.7 | 26.9 | 27.7 | 27.4 | 28.2 | 28.7 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 20.8 | 21.7 | 21.3 | 22.1 | 22.6 | 25.4 | 26.3 | 25.9 | 26.7 | 27.2 |
| | 6H | 21.0 | 21.8 | 21.6 | 22.3 | 22.8 | 26.4 | 27.1 | 26.9 | 27.6 | 28.1 |
| | 8H | 21.1 | 21.7 | 21.6 | 22.3 | 22.8 | 26.9 | 27.6 | 27.4 | 28.1 | 28.6 |
| | 12H | 21.1 | 21.7 | 21.6 | 22.2 | 22.8 | 27.4 | 28.0 | 27.9 | 28.5 | 29.1 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 21.0 | 21.8 | 21.5 | 22.3 | 22.8 | 25.4 | 26.2 | 25.9 | 26.7 | 27.2 |
| | 6H | 21.4 | 22.0 | 21.9 | 22.5 | 23.1 | 26.4 | 27.1 | 26.9 | 27.6 | 28.1 |
| | 8H | 21.5 | 22.1 | 22.0 | 22.6 | 23.2 | 27.0 | 27.6 | 27.5 | 28.1 | 28.6 |

Maximum UGR = 29.1

POLAR GRAPH



Maximum Candela = 1027.762 Located At Horizontal Angle = 90, Vertical Angle = 30
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (30) (Through Max. Cd.)