



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AEG-L27-8TW-A-DALI-UNV 4000K AMBIENT ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18091.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 25-AUG-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' RECESSED LED TROFFER
 [MORE] FROSTED ACRYLIC DIFFUSER
 [LUMCAT] AMD4AEG-L27-8TW-A-DALI-UNV 4000k AMBIENT ONLY
 [_SEARCH_SOURCETYPE]LED
 [_SEARCH_APPLICATION]INDOOR,DIRECT
 [_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2759 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 105 |
| Total Luminaire Watts | 26.2 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.16 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.92 ft |
| Luminous Width (90-270) | 1.92 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 1327 | 1359 | 1352 |
| 55 | 1125 | 1211 | 1192 |
| 65 | 940 | 1034 | 823 |
| 75 | 715 | 651 | 466 |
| 85 | 546 | 409 | 361 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AMD4AEG-L27-8TW-A-DALI-UNV 4000K AMBIENT ONLY_.IES****CANDELA TABULATION**

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|
| 0 | 1165.539 | 1165.539 | 1165.539 | 1165.539 | 1165.539 |
| 5 | 1160.599 | 1160.599 | 1159.748 | 1159.237 | 1159.237 |
| 10 | 1139.476 | 1138.113 | 1136.069 | 1133.514 | 1132.832 |
| 15 | 1092.629 | 1090.074 | 1085.134 | 1080.534 | 1079.342 |
| 20 | 1068.440 | 1066.055 | 1058.900 | 1050.723 | 1048.168 |
| 25 | 987.182 | 985.649 | 978.154 | 970.147 | 964.015 |
| 30 | 911.376 | 908.821 | 900.985 | 890.593 | 883.950 |
| 35 | 837.103 | 836.252 | 830.971 | 820.579 | 817.172 |
| 40 | 748.010 | 749.713 | 750.395 | 743.070 | 740.514 |
| 45 | 655.169 | 663.857 | 670.841 | 670.841 | 667.604 |
| 50 | 547.678 | 557.728 | 572.549 | 579.192 | 575.104 |
| 55 | 450.748 | 463.524 | 485.159 | 489.247 | 477.323 |
| 60 | 356.544 | 370.683 | 395.214 | 368.980 | 352.796 |
| 65 | 277.331 | 294.025 | 305.098 | 266.258 | 242.920 |
| 70 | 201.866 | 220.604 | 209.361 | 166.262 | 148.887 |
| 75 | 129.296 | 141.391 | 117.712 | 91.649 | 84.153 |
| 80 | 76.658 | 78.361 | 61.326 | 50.594 | 48.891 |
| 85 | 33.218 | 29.471 | 24.871 | 22.316 | 21.975 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AMD4AEG-L27-8TW-A-DALI-UNV 4000K AMBIENT ONLY_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 418.39 | N.A. | 15.20 |
| 0-30 | 869.44 | N.A. | 31.50 |
| 0-40 | 1386.81 | N.A. | 50.30 |
| 0-60 | 2320.8 | N.A. | 84.10 |
| 0-80 | 2727.67 | N.A. | 98.90 |
| 0-90 | 2759.08 | N.A. | 100.00 |
| 10-90 | 2649.15 | N.A. | 96.00 |
| 20-40 | 968.42 | N.A. | 35.10 |
| 20-50 | 1479.6 | N.A. | 53.60 |
| 40-70 | 1213.01 | N.A. | 44.00 |
| 60-80 | 406.87 | N.A. | 14.70 |
| 70-80 | 127.85 | N.A. | 4.60 |
| 80-90 | 31.41 | N.A. | 1.10 |
| 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 | 2759.08 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 109.93 |
| 10-20 | 308.46 |
| 20-30 | 451.05 |
| 30-40 | 517.37 |
| 40-50 | 511.18 |
| 50-60 | 422.81 |
| 60-70 | 279.02 |
| 70-80 | 127.85 |
| 80-90 | 31.41 |
| 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 | 105 | 105 | 105 | 105 | 102 | 102 | 102 | 102 | 98 | 98 | 98 | 93 | 93 | 93 | 90 | 90 | 90 | 88 |
| 1 | 96 | 93 | 89 | 86 | 94 | 91 | 87 | 85 | 87 | 84 | 82 | 83 | 81 | 79 | 80 | 79 | 77 | 75 |
| 2 | 88 | 81 | 76 | 71 | 86 | 80 | 75 | 70 | 77 | 72 | 69 | 74 | 70 | 67 | 71 | 68 | 66 | 64 |
| 3 | 81 | 72 | 65 | 60 | 79 | 71 | 65 | 60 | 68 | 63 | 58 | 66 | 61 | 57 | 64 | 60 | 56 | 55 |
| 4 | 74 | 64 | 57 | 51 | 72 | 63 | 56 | 51 | 61 | 55 | 50 | 59 | 54 | 50 | 57 | 53 | 49 | 47 |
| 5 | 69 | 58 | 50 | 45 | 67 | 57 | 50 | 44 | 55 | 49 | 44 | 53 | 48 | 43 | 52 | 47 | 43 | 41 |
| 6 | 63 | 52 | 45 | 39 | 62 | 51 | 44 | 39 | 50 | 43 | 39 | 48 | 43 | 38 | 47 | 42 | 38 | 36 |
| 7 | 59 | 48 | 40 | 35 | 57 | 47 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 34 | 43 | 38 | 34 | 32 |
| 8 | 55 | 43 | 36 | 31 | 54 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 34 | 31 | 29 |
| 9 | 51 | 40 | 33 | 28 | 50 | 39 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 37 | 32 | 28 | 26 |
| 10 | 48 | 37 | 30 | 26 | 47 | 37 | 30 | 26 | 36 | 30 | 26 | 35 | 29 | 25 | 34 | 29 | 25 | 24 |

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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

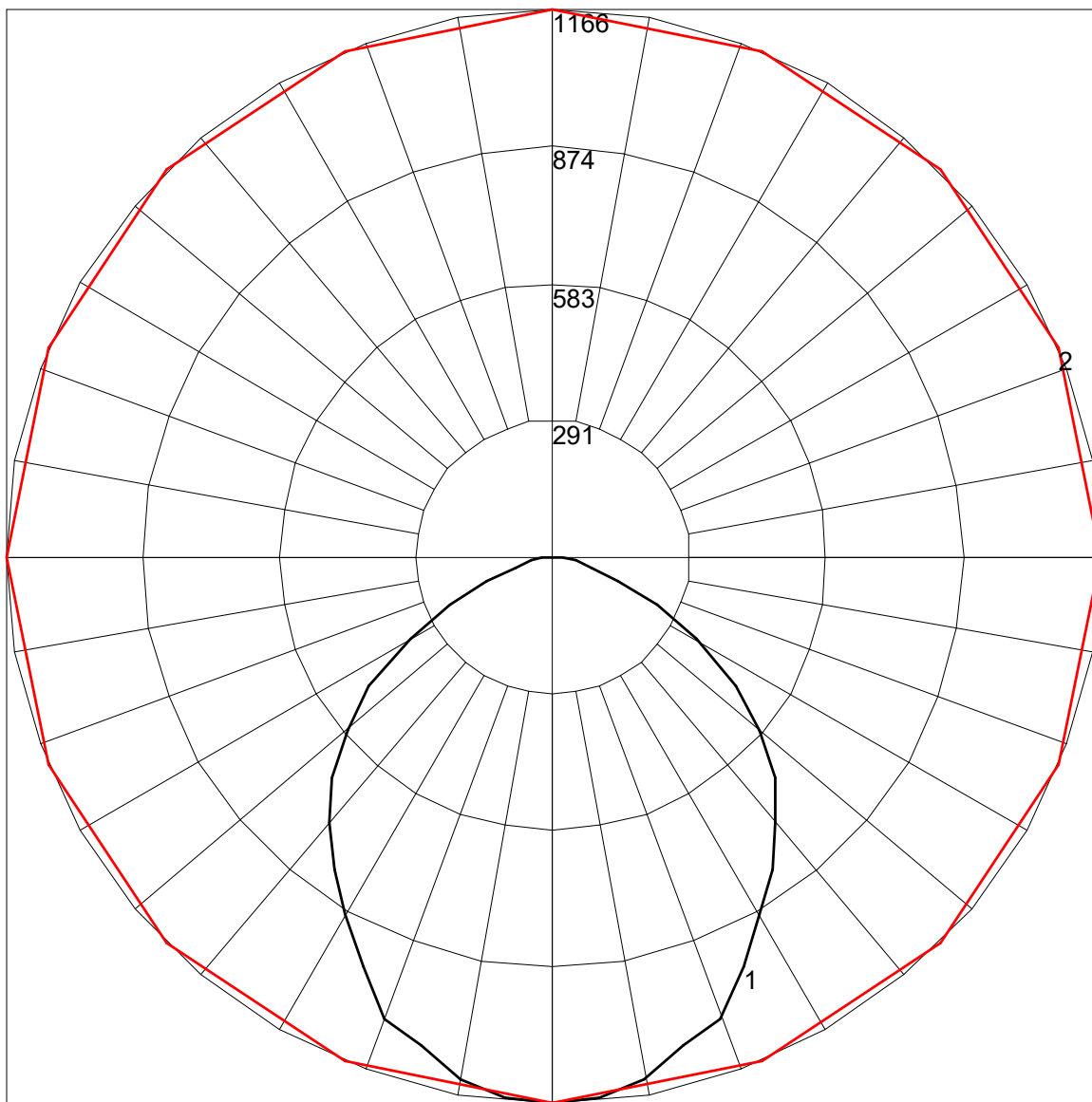
| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| X=2H | Y=2H | 12.7 | 14.3 | 13.1 | 14.6 | 14.9 | 12.9 | 14.5 | 13.3 | 14.8 | 15.1 |
| | 3H | 14.3 | 15.7 | 14.7 | 16.0 | 16.4 | 13.9 | 15.3 | 14.3 | 15.6 | 16.0 |
| | 4H | 14.8 | 16.1 | 15.2 | 16.4 | 16.8 | 14.1 | 15.4 | 14.5 | 15.8 | 16.2 |
| | 6H | 15.1 | 16.3 | 15.5 | 16.7 | 17.1 | 14.3 | 15.5 | 14.7 | 15.9 | 16.2 |
| | 8H | 15.2 | 16.4 | 15.6 | 16.8 | 17.2 | 14.3 | 15.5 | 14.7 | 15.9 | 16.3 |
| | 12H | 15.3 | 16.4 | 15.7 | 16.8 | 17.2 | 14.3 | 15.4 | 14.8 | 15.8 | 16.3 |

UGR Viewed Endwise

| | | | | | | | | | | | |
|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 13.4 | 14.7 | 13.8 | 15.0 | 15.4 | 13.5 | 14.8 | 13.9 | 15.2 | 15.6 |
| | 3H | 15.1 | 16.2 | 15.5 | 16.6 | 17.0 | 14.7 | 15.8 | 15.1 | 16.2 | 16.6 |
| | 4H | 15.7 | 16.7 | 16.2 | 17.1 | 17.6 | 15.0 | 15.9 | 15.4 | 16.4 | 16.8 |
| | 6H | 16.2 | 17.0 | 16.6 | 17.5 | 17.9 | 15.2 | 16.0 | 15.6 | 16.5 | 16.9 |
| | 8H | 16.3 | 17.1 | 16.8 | 17.5 | 18.0 | 15.2 | 16.0 | 15.7 | 16.5 | 16.9 |
| | 12H | 16.4 | 17.1 | 16.9 | 17.6 | 18.1 | 15.3 | 16.0 | 15.7 | 16.5 | 16.9 |
| 8H | 4H | 15.9 | 16.7 | 16.3 | 17.1 | 17.6 | 15.2 | 16.0 | 15.6 | 16.4 | 16.9 |
| | 6H | 16.4 | 17.1 | 16.9 | 17.6 | 18.0 | 15.5 | 16.1 | 15.9 | 16.6 | 17.1 |
| | 8H | 16.6 | 17.2 | 17.1 | 17.7 | 18.2 | 15.5 | 16.1 | 16.1 | 16.6 | 17.1 |
| | 12H | 16.8 | 17.3 | 17.3 | 17.8 | 18.3 | 15.7 | 16.2 | 16.2 | 16.7 | 17.2 |
| 12H | 4H | 15.8 | 16.6 | 16.3 | 17.0 | 17.5 | 15.2 | 15.9 | 15.7 | 16.4 | 16.9 |
| | 6H | 16.4 | 17.0 | 16.9 | 17.5 | 18.0 | 15.5 | 16.1 | 16.0 | 16.5 | 17.1 |
| | 8H | 16.7 | 17.2 | 17.2 | 17.7 | 18.2 | 15.6 | 16.1 | 16.1 | 16.6 | 17.2 |

Maximum UGR = 18.3

POLAR GRAPH



Maximum Candela = 1165.539 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)