



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-8-P7-8TW-S-LVRS-POE 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18718.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 14-JUL-2020

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 8' SUSPEND BIDIRECT WHITE REFL LUMINAIRE

[MORE] 46 PER SIDE .125" x 2" SLOTS w/WHT ACRYLIC OVERLAY & 24 CELL

[MORE] 2" OC 1.25" DP WHT BLADE LVRS w/OVERLAY

[LUMCAT] AXA-8-P7-8TW-S-LVRS-PoE 4000k

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5403 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 112 |
| Total Luminaire Watts | 48.1 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.04 |
| Spacing Criterion (90-270) | 1.04 |
| Spacing Criterion (Diagonal) | 1.10 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 8.00 ft |
| Luminous Width (90-270) | 0.31 ft |
| Luminous Height | 0.26 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 8308 | 4371 | 2951 |
| 55 | 6422 | 2537 | 1797 |
| 65 | 4712 | 1619 | 1329 |
| 75 | 3118 | 961 | 728 |
| 85 | 2214 | 344 | 266 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-8-P7-8TW-S-LVRS-POE 4000K_.IES

CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----|------------|-------------|-------------|-------------|-------------|
| 0 | 3002.660 | 3002.660 | 3002.660 | 3002.660 | 3002.660 |
| 5 | 2915.195 | 2915.195 | 2920.164 | 2931.098 | 2935.073 |
| 10 | 2840.650 | 2844.626 | 2859.535 | 2885.377 | 2904.261 |
| 15 | 2668.700 | 2670.688 | 2687.585 | 2717.403 | 2742.251 |
| 20 | 2551.417 | 2553.404 | 2558.374 | 2579.247 | 2612.046 |
| 25 | 2273.116 | 2270.135 | 2253.238 | 2247.274 | 2280.074 |
| 30 | 2022.646 | 2008.731 | 1959.035 | 1907.350 | 1927.229 |
| 35 | 1802.988 | 1773.170 | 1680.734 | 1576.372 | 1554.505 |
| 40 | 1572.396 | 1527.669 | 1390.507 | 1227.503 | 1167.867 |
| 45 | 1412.374 | 1345.780 | 1158.922 | 950.196 | 889.567 |
| 50 | 1139.043 | 1059.529 | 865.712 | 694.757 | 656.987 |
| 55 | 897.518 | 816.016 | 634.127 | 538.710 | 524.795 |
| 60 | 668.914 | 592.382 | 469.135 | 436.335 | 434.347 |
| 65 | 495.971 | 431.365 | 367.754 | 356.821 | 363.778 |
| 70 | 333.960 | 299.173 | 278.300 | 273.331 | 267.367 |
| 75 | 210.713 | 201.768 | 189.841 | 181.889 | 179.901 |
| 80 | 132.193 | 127.223 | 116.290 | 113.308 | 112.314 |
| 85 | 61.624 | 56.654 | 55.660 | 54.666 | 56.654 |
| 90 | 5.964 | 9.939 | 11.927 | 13.915 | 14.909 |
| 95 | 0.994 | 4.970 | 9.939 | 11.927 | 13.915 |
| 100 | 1.988 | 6.958 | 9.939 | 11.927 | 14.909 |
| 105 | 1.988 | 6.958 | 10.933 | 13.915 | 14.909 |
| 110 | 4.970 | 10.933 | 13.915 | 15.903 | 15.903 |
| 115 | 5.964 | 9.939 | 14.909 | 16.897 | 16.897 |
| 120 | 6.958 | 13.915 | 16.897 | 19.879 | 19.879 |
| 125 | 11.927 | 16.897 | 20.873 | 23.854 | 22.860 |
| 130 | 14.909 | 20.873 | 23.854 | 24.848 | 24.848 |
| 135 | 13.915 | 18.885 | 22.860 | 23.854 | 23.854 |
| 140 | 18.885 | 23.854 | 25.842 | 27.830 | 25.842 |
| 145 | 22.860 | 25.842 | 27.830 | 29.818 | 27.830 |
| 150 | 25.842 | 28.824 | 29.818 | 32.800 | 29.818 |
| 155 | 27.830 | 29.818 | 32.800 | 33.794 | 30.812 |
| 160 | 27.830 | 28.824 | 30.812 | 33.794 | 30.812 |
| 165 | 29.818 | 31.806 | 34.788 | 38.763 | 34.788 |
| 170 | 29.818 | 29.818 | 30.812 | 33.794 | 31.806 |
| 175 | 30.812 | 30.812 | 30.812 | 33.794 | 29.818 |
| 180 | 29.818 | 29.818 | 29.818 | 29.818 | 29.818 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AXA-8-P7-8TW-S-LVRS-POE 4000K_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 1041.55 | N.A. | 19.30 |
| 0-30 | 2082.72 | N.A. | 38.50 |
| 0-40 | 3128.61 | N.A. | 57.90 |
| 0-60 | 4619.98 | N.A. | 85.50 |
| 0-80 | 5223.15 | N.A. | 96.70 |
| 0-90 | 5289.7 | N.A. | 97.90 |
| 10-90 | 5011.79 | N.A. | 92.80 |
| 20-40 | 2087.06 | N.A. | 38.60 |
| 20-50 | 2965.97 | N.A. | 54.90 |
| 40-70 | 1885.59 | N.A. | 34.90 |
| 60-80 | 603.17 | N.A. | 11.20 |
| 70-80 | 208.96 | N.A. | 3.90 |
| 80-90 | 66.55 | N.A. | 1.20 |
| 90-110 | 21.53 | N.A. | 0.40 |
| 90-120 | 35.27 | N.A. | 0.70 |
| 90-130 | 52.70 | N.A. | 1.00 |
| 90-150 | 87.12 | N.A. | 1.60 |
| 90-180 | 113.63 | N.A. | 2.10 |
| 110-180 | 92.10 | N.A. | 1.70 |
| 0-180 | 5403.33 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 277.91 |
| 10-20 | 763.65 |
| 20-30 | 1041.17 |
| 30-40 | 1045.89 |
| 40-50 | 878.92 |
| 50-60 | 612.46 |
| 60-70 | 394.21 |
| 70-80 | 208.96 |
| 80-90 | 66.55 |
| 90-100 | 10.37 |
| 100-110 | 11.16 |
| 110-120 | 13.73 |
| 120-130 | 17.43 |
| 130-140 | 17.32 |
| 140-150 | 17.10 |
| 150-160 | 14.27 |
| 160-170 | 9.26 |
| 170-180 | 2.98 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-8-P7-8TW-S-LVRS-POE 4000K_.IES

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 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1 | 110 | 106 | 102 | 99 | 107 | 103 | 100 | 97 | 99 | 96 | 93 | 94 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 101 | 94 | 88 | 83 | 98 | 92 | 87 | 82 | 88 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 |
| 3 | 93 | 84 | 77 | 72 | 91 | 83 | 76 | 71 | 79 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 64 |
| 4 | 87 | 76 | 68 | 62 | 84 | 75 | 67 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 67 | 63 | 59 | 57 |
| 5 | 80 | 69 | 61 | 55 | 78 | 68 | 60 | 55 | 66 | 59 | 54 | 63 | 58 | 53 | 61 | 57 | 53 | 51 |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 45 |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 44 | 54 | 48 | 43 | 52 | 47 | 43 | 41 |
| 8 | 66 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 48 | 43 | 39 | 37 |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 41 | 37 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 |
| 10 | 58 | 46 | 39 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 31 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-8-P7-8TW-S-LVRS-POE 4000K_.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 | 14.8 | 16.2 | 15.2 | 16.6 | 16.9 | 13.6 | 15.0 | 14.0 | 15.4 | 15.8 |
| | 3H | 15.7 | 17.0 | 16.1 | 17.4 | 17.8 | 15.4 | 16.6 | 15.8 | 17.0 | 17.4 |
| | 4H | 16.0 | 17.2 | 16.4 | 17.6 | 18.0 | 15.9 | 17.1 | 16.4 | 17.5 | 17.9 |
| | 6H | 16.1 | 17.2 | 16.6 | 17.6 | 18.1 | 16.3 | 17.4 | 16.8 | 17.9 | 18.3 |
| | 8H | 16.1 | 17.2 | 16.6 | 17.6 | 18.1 | 16.5 | 17.5 | 17.0 | 18.0 | 18.4 |
| | 12H | 16.1 | 17.1 | 16.6 | 17.6 | 18.0 | 16.6 | 17.6 | 17.1 | 18.0 | 18.5 |

UGR Viewed Endwise

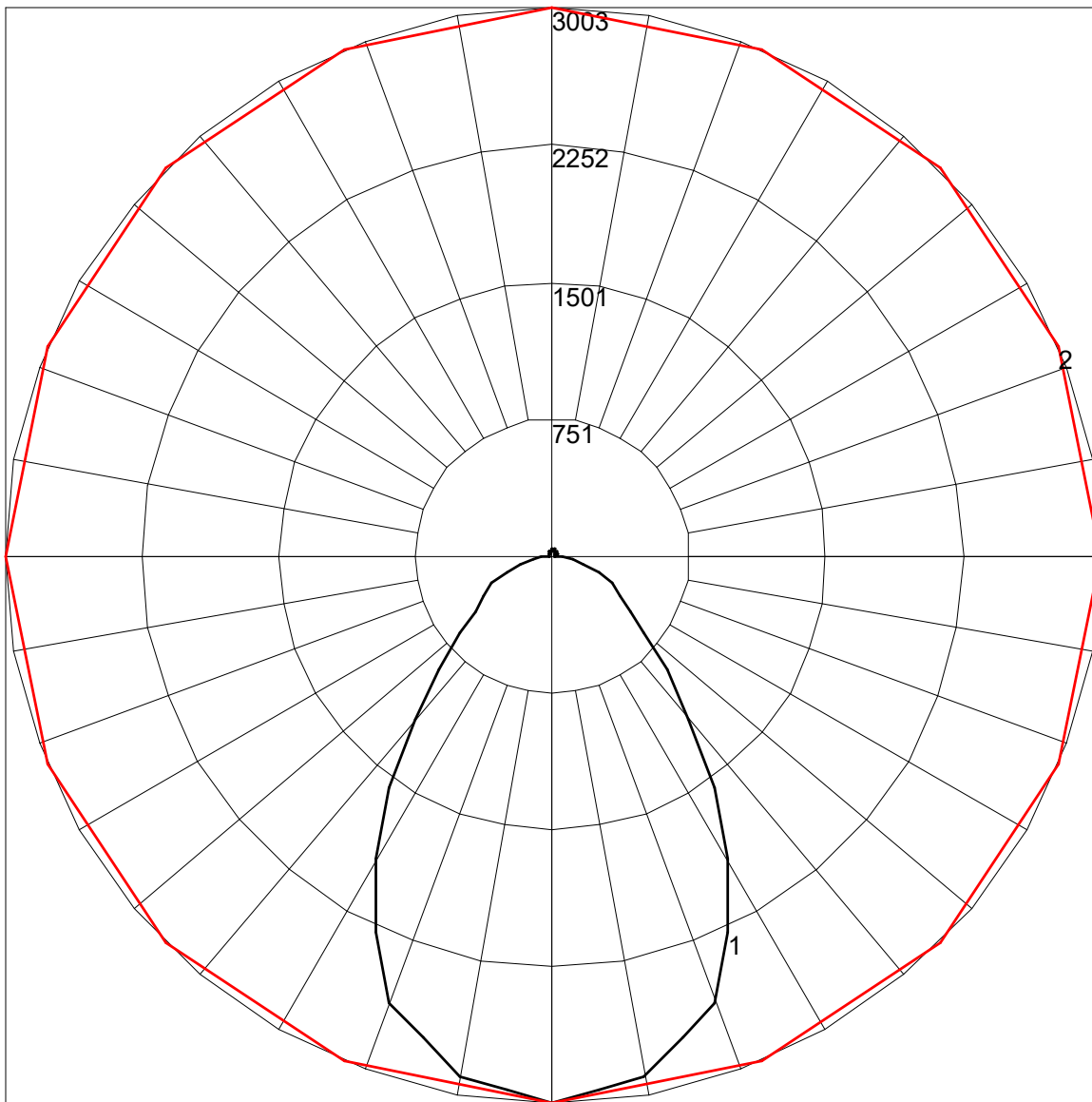
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 15.0 | 16.2 | 15.5 | 16.6 | 17.0 | 14.0 | 15.2 | 14.4 | 15.6 | 16.0 |
| | 3H | 16.1 | 17.1 | 16.6 | 17.5 | 18.0 | 15.9 | 16.8 | 16.3 | 17.3 | 17.7 |
| | 4H | 16.4 | 17.3 | 16.9 | 17.8 | 18.3 | 16.5 | 17.4 | 17.0 | 17.8 | 18.3 |
| | 6H | 16.7 | 17.4 | 17.2 | 17.9 | 18.4 | 17.0 | 17.8 | 17.5 | 18.3 | 18.8 |
| | 8H | 16.7 | 17.4 | 17.2 | 17.9 | 18.4 | 17.2 | 17.9 | 17.7 | 18.4 | 18.9 |
| | 12H | 16.7 | 17.4 | 17.3 | 17.9 | 18.4 | 17.3 | 18.0 | 17.9 | 18.5 | 19.0 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 16.5 | 17.3 | 17.0 | 17.7 | 18.3 | 16.6 | 17.3 | 17.1 | 17.8 | 18.3 |
| | 6H | 16.8 | 17.4 | 17.4 | 17.9 | 18.5 | 17.2 | 17.8 | 17.7 | 18.3 | 18.8 |
| | 8H | 16.9 | 17.4 | 17.4 | 18.0 | 18.5 | 17.4 | 17.9 | 17.9 | 18.5 | 19.0 |
| | 12H | 17.0 | 17.4 | 17.5 | 18.0 | 18.6 | 17.6 | 18.0 | 18.1 | 18.6 | 19.2 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 16.5 | 17.2 | 17.1 | 17.7 | 18.2 | 16.6 | 17.2 | 17.1 | 17.7 | 18.3 |
| | 6H | 16.8 | 17.4 | 17.4 | 17.9 | 18.4 | 17.1 | 17.7 | 17.7 | 18.2 | 18.8 |
| | 8H | 16.9 | 17.4 | 17.5 | 17.9 | 18.5 | 17.4 | 17.9 | 18.0 | 18.4 | 19.0 |

Maximum UGR = 19.2

POLAR GRAPH



Maximum Candela = 3002.66 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.)