**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : PT-22-L36-8FS-SA.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]GEN from BALLABS TEST NO. 20789.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 30-APR-2019
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1-84 LED 22"ARRAY 2x2 LUMINAIRE
[MORE] WHITE REFLECTOR w/FROST SQUARED RIBBED LENS
[MORE] ADVANCE #C1042C092V045CNN1
[LUMCAT] PT-22-L36-8FS-SA-DIM-UNV

**CHARACTERISTICS**

| | |
|---|---|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 3703 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 120 |
| Total Luminaire Watts | 30.9 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.14 |
| Spacing Criterion (Diagonal) | 1.28 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.92 ft |
| Luminous Width (90-270) | 1.98 ft |
| Luminous Height | 0.00 ft |

**LUMINANCE DATA (cd/sq.m)**

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---|---|---|---|
| 45 | 3311 | 3262 | 3216 |
| 55 | 2975 | 3002 | 3085 |
| 65 | 2604 | 2840 | 3189 |
| 75 | 2030 | 2859 | 3696 |
| 85 | 1056 | 2662 | 3586 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 1467.673 | 1467.673 | 1467.673 | 1467.673 | 1467.673 |
| **5** | 1467.673 | 1458.204 | 1452.117 | 1452.793 | 1451.441 |
| **10** | 1436.561 | 1429.121 | 1423.034 | 1420.329 | 1418.300 |
| **15** | 1385.835 | 1380.424 | 1373.661 | 1368.250 | 1366.897 |
| **20** | 1328.346 | 1319.553 | 1303.321 | 1299.939 | 1296.557 |
| **25** | 1244.479 | 1241.097 | 1222.159 | 1212.690 | 1206.603 |
| **30** | 1149.114 | 1143.703 | 1130.852 | 1115.973 | 1105.827 |
| **35** | 1041.574 | 1042.927 | 1026.695 | 1011.815 | 1005.728 |
| **40** | 931.330 | 934.712 | 918.479 | 908.334 | 904.276 |
| **45** | 825.820 | 823.791 | 813.645 | 810.264 | 802.148 |
| **50** | 713.546 | 715.575 | 706.106 | 714.222 | 707.459 |
| **55** | 601.949 | 608.036 | 607.360 | 624.268 | 624.268 |
| **60** | 492.381 | 496.439 | 514.024 | 537.020 | 547.165 |
| **65** | 388.223 | 398.368 | 423.393 | 456.534 | 475.472 |
| **70** | 282.713 | 300.298 | 342.232 | 384.841 | 407.837 |
| **75** | 185.319 | 216.431 | 261.070 | 310.443 | 337.497 |
| **80** | 98.070 | 133.240 | 183.290 | 231.987 | 257.012 |
| **85** | 32.465 | 54.108 | 81.838 | 100.099 | 110.245 |
| **90** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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## ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-20 | 525.23 | N.A. | 14.20 |
| 0-30 | 1089.03 | N.A. | 29.40 |
| 0-40 | 1731.17 | N.A. | 46.70 |
| 0-60 | 2910.28 | N.A. | 78.60 |
| 0-80 | 3612.03 | N.A. | 97.50 |
| 0-90 | 3703.28 | N.A. | 100.00 |
| 10-90 | 3565.28 | N.A. | 96.30 |
| 20-40 | 1205.95 | N.A. | 32.60 |
| 20-50 | 1835.8 | N.A. | 49.60 |
| 40-70 | 1603.82 | N.A. | 43.30 |
| 60-80 | 701.75 | N.A. | 18.90 |
| 70-80 | 277.03 | N.A. | 7.50 |
| 80-90 | 91.25 | N.A. | 2.50 |
| 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 | 3703.28 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

## ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---|---|
| 0-10 | 138.00 |
| 10-20 | 387.23 |
| 20-30 | 563.80 |
| 30-40 | 642.15 |
| 40-50 | 629.85 |
| 50-60 | 549.25 |
| 60-70 | 424.72 |
| 70-80 | 277.03 |
| 80-90 | 91.25 |
| 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 | 81 | 81 | 81 | 81 | 79 | 79 | 79 | 79 | 75 | 75 | 75 | 72 | 72 | 72 | 69 | 69 | 69 | 68 |
| 1 | 73 | 70 | 67 | 65 | 72 | 69 | 66 | 64 | 66 | 64 | 61 | 63 | 61 | 60 | 61 | 59 | 58 | 56 |
| 2 | 67 | 61 | 57 | 53 | 65 | 60 | 56 | 52 | 58 | 54 | 51 | 55 | 52 | 50 | 53 | 51 | 49 | 47 |
| 3 | 61 | 54 | 48 | 44 | 59 | 53 | 48 | 44 | 51 | 46 | 43 | 49 | 45 | 42 | 47 | 44 | 41 | 40 |
| 4 | 56 | 48 | 42 | 37 | 54 | 47 | 41 | 37 | 45 | 40 | 37 | 44 | 40 | 36 | 42 | 39 | 36 | 34 |
| 5 | 52 | 43 | 37 | 32 | 50 | 42 | 36 | 32 | 41 | 36 | 32 | 39 | 35 | 32 | 38 | 34 | 31 | 30 |
| 6 | 48 | 39 | 33 | 28 | 46 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 28 | 35 | 31 | 28 | 26 |
| 7 | 44 | 35 | 29 | 25 | 43 | 35 | 29 | 25 | 34 | 29 | 25 | 33 | 28 | 25 | 32 | 28 | 25 | 23 |
| 8 | 41 | 32 | 27 | 23 | 40 | 32 | 26 | 23 | 31 | 26 | 22 | 30 | 26 | 22 | 29 | 25 | 22 | 21 |
| 9 | 39 | 30 | 24 | 20 | 38 | 29 | 24 | 20 | 28 | 24 | 20 | 28 | 23 | 20 | 27 | 23 | 20 | 19 |
| 10 | 36 | 27 | 22 | 19 | 35 | 27 | 22 | 19 | 26 | 22 | 18 | 26 | 21 | 18 | 25 | 21 | 18 | 17 |

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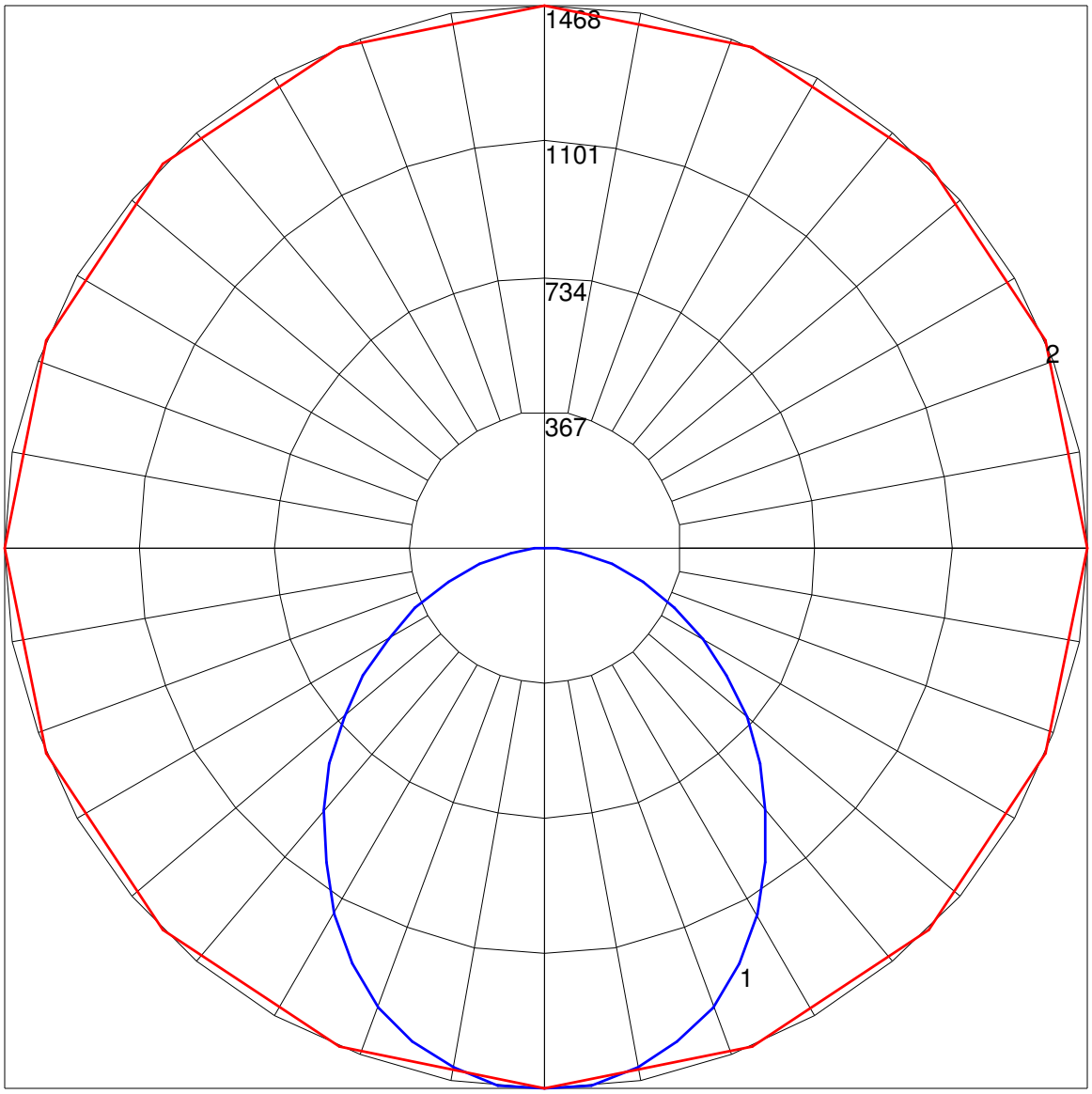
**POLAR GRAPH**




Maximum Candela = 1467.673  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.)