H.E. WILLIAMS, INC.

**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : GL-8-L300-940-ND-DIM-UNV_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19459.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-07-20
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 96 INCH LOW PROFILE LED HIGHBAY LUMINAIRE
[MORE] WHITE REFL w/CLEAR ACRYLIC ROD DIFFUSERS OVER LED
[MORE] 0-10V UNIVERSAL VOLTAGE 120-277 DRIVERS
[LUMCAT] GL-8-L300-940-ND-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Pendant, Suspended

**CHARACTERISTICS**

| | |
|---|---|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 23732 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 122 |
| Total Luminaire Watts | 194 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.32 |
| Spacing Criterion (90-270) | 0.58 |
| Spacing Criterion (Diagonal) | 0.72 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 8.00 ft |
| Luminous Width (90-270) | 1.04 ft |
| Luminous Height | 0.00 ft |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---|---|---|---|
| 45 | 29225 | 3119 | 2306 |
| 55 | 20028 | 2315 | 1731 |
| 65 | 12120 | 1755 | 1781 |
| 75 | 5935 | 1939 | 1617 |
| 85 | 2275 | 717 | 717 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 23935.168 | 23935.168 | 23935.168 | 23935.168 | 23935.168 |
| **5** | 23400.123 | 23214.132 | 22841.299 | 22533.012 | 22354.663 |
| **10** | 23214.132 | 22452.330 | 20766.516 | 19316.800 | 19049.278 |
| **15** | 22898.201 | 21220.879 | 18012.311 | 15564.696 | 14754.486 |
| **20** | 23287.169 | 19438.247 | 13588.428 | 9917.854 | 8750.948 |
| **25** | 22233.217 | 16756.231 | 9950.127 | 6725.423 | 5769.137 |
| **30** | 21731.294 | 13433.860 | 6044.303 | 3711.340 | 3200.924 |
| **35** | 19818.723 | 9634.196 | 3572.907 | 2341.456 | 2123.192 |
| **40** | 18530.370 | 6603.976 | 2317.676 | 1758.003 | 1645.049 |
| **45** | 16019.059 | 4116.445 | 1709.594 | 1336.762 | 1263.724 |
| **50** | 12356.128 | 2762.697 | 1345.254 | 1093.868 | 1029.323 |
| **55** | 8904.667 | 2050.154 | 1029.323 | 842.483 | 769.445 |
| **60** | 6125.833 | 1458.208 | 802.567 | 704.900 | 656.491 |
| **65** | 3970.369 | 899.384 | 574.960 | 608.082 | 583.453 |
| **70** | 2349.949 | 647.998 | 494.279 | 510.415 | 453.514 |
| **75** | 1190.686 | 485.786 | 388.969 | 348.203 | 324.424 |
| **80** | 574.960 | 356.696 | 242.893 | 153.719 | 129.939 |
| **85** | 153.719 | 113.803 | 48.409 | 48.409 | 48.409 |
| **90** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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## ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-20 | 7190.15 | N.A. | 30.30 |
| 0-30 | 12608.64 | N.A. | 53.10 |
| 0-40 | 16869.93 | N.A. | 71.10 |
| 0-60 | 21958.24 | N.A. | 92.50 |
| 0-80 | 23614.29 | N.A. | 99.50 |
| 0-90 | 23731.91 | N.A. | 100.00 |
| 10-90 | 21606.14 | N.A. | 91.00 |
| 20-40 | 9679.79 | N.A. | 40.80 |
| 20-50 | 12771.9 | N.A. | 53.80 |
| 40-70 | 6208.89 | N.A. | 26.20 |
| 60-80 | 1656.05 | N.A. | 7.00 |
| 70-80 | 535.46 | N.A. | 2.30 |
| 80-90 | 117.62 | N.A. | 0.50 |
| 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 | 23731.91 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

## ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---|---|
| 0-10 | 2125.77 |
| 10-20 | 5064.38 |
| 20-30 | 5418.49 |
| 30-40 | 4261.3 |
| 40-50 | 3092.11 |
| 50-60 | 1996.19 |
| 60-70 | 1120.58 |
| 70-80 | 535.46 |
| 80-90 | 117.62 |
| 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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 98 | 93 | 89 | 102 | 97 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 85 | 82 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 75 | 81 | 77 | 74 | 72 |
| 4 | 92 | 82 | 76 | 70 | 90 | 81 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 63 | 73 | 67 | 63 | 71 | 66 | 62 | 69 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 |
| 7 | 76 | 65 | 58 | 53 | 75 | 65 | 58 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 60 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 48 | 47 |
| 9 | 68 | 57 | 50 | 46 | 67 | 57 | 50 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 44 |
| 10 | 65 | 54 | 47 | 43 | 64 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 51 | 46 | 42 | 41 |

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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 | | | | | UGR Viewed Endwise | | | | |
| X=2H | Y=2H | 17.9 | 19.2 | 18.3 | 19.6 | 19.9 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| | 3H | 19.8 | 21.0 | 20.2 | 21.3 | 21.6 | 11.0 | 12.2 | 11.4 | 12.5 | 12.9 |
| | 4H | 20.3 | 21.4 | 20.7 | 21.7 | 22.1 | 11.8 | 12.8 | 12.2 | 13.2 | 13.6 |
| | 6H | 20.6 | 21.6 | 21.1 | 22.0 | 22.4 | 12.1 | 13.1 | 12.5 | 13.4 | 13.8 |
| | 8H | 20.7 | 21.6 | 21.1 | 22.0 | 22.4 | 12.1 | 13.1 | 12.6 | 13.5 | 13.9 |
| | 12H | 20.7 | 21.6 | 21.2 | 22.0 | 22.4 | 12.1 | 13.0 | 12.6 | 13.4 | 13.8 |
| 4H | 2H | 17.8 | 18.9 | 18.2 | 19.2 | 19.6 | 11.0 | 11.0 | 11.0 | 11.0 | 11.4 |
| | 3H | 19.7 | 20.6 | 20.1 | 21.0 | 21.4 | 11.9 | 12.8 | 12.4 | 13.2 | 13.6 |
| | 4H | 20.3 | 21.0 | 20.7 | 21.5 | 21.9 | 12.8 | 13.6 | 13.2 | 14.0 | 14.4 |
| | 6H | 20.7 | 21.4 | 21.2 | 21.8 | 22.3 | 13.2 | 13.9 | 13.7 | 14.3 | 14.8 |
| | 8H | 20.8 | 21.4 | 21.3 | 21.9 | 22.4 | 13.3 | 13.9 | 13.7 | 14.4 | 14.8 |
| | 12H | 20.9 | 21.4 | 21.3 | 21.9 | 22.4 | 13.3 | 13.9 | 13.8 | 14.3 | 14.8 |
| 8H | 4H | 20.2 | 20.8 | 20.6 | 21.3 | 21.7 | 13.2 | 13.9 | 13.7 | 14.3 | 14.8 |
| | 6H | 20.7 | 21.2 | 21.2 | 21.7 | 22.2 | 13.7 | 14.3 | 14.2 | 14.8 | 15.2 |
| | 8H | 20.8 | 21.3 | 21.3 | 21.8 | 22.3 | 13.9 | 14.3 | 14.4 | 14.8 | 15.3 |
| | 12H | 20.9 | 21.3 | 21.4 | 21.8 | 22.4 | 13.9 | 14.3 | 14.4 | 14.8 | 15.4 |
| 12H | 4H | 20.2 | 20.7 | 20.6 | 21.2 | 21.7 | 13.3 | 13.9 | 13.8 | 14.4 | 14.9 |
| | 6H | 20.6 | 21.1 | 21.2 | 21.6 | 22.1 | 13.9 | 14.3 | 14.4 | 14.8 | 15.4 |
| | 8H | 20.8 | 21.2 | 21.3 | 21.7 | 22.3 | 14.0 | 14.4 | 14.5 | 14.9 | 15.5 |

Maximum UGR = 22.4

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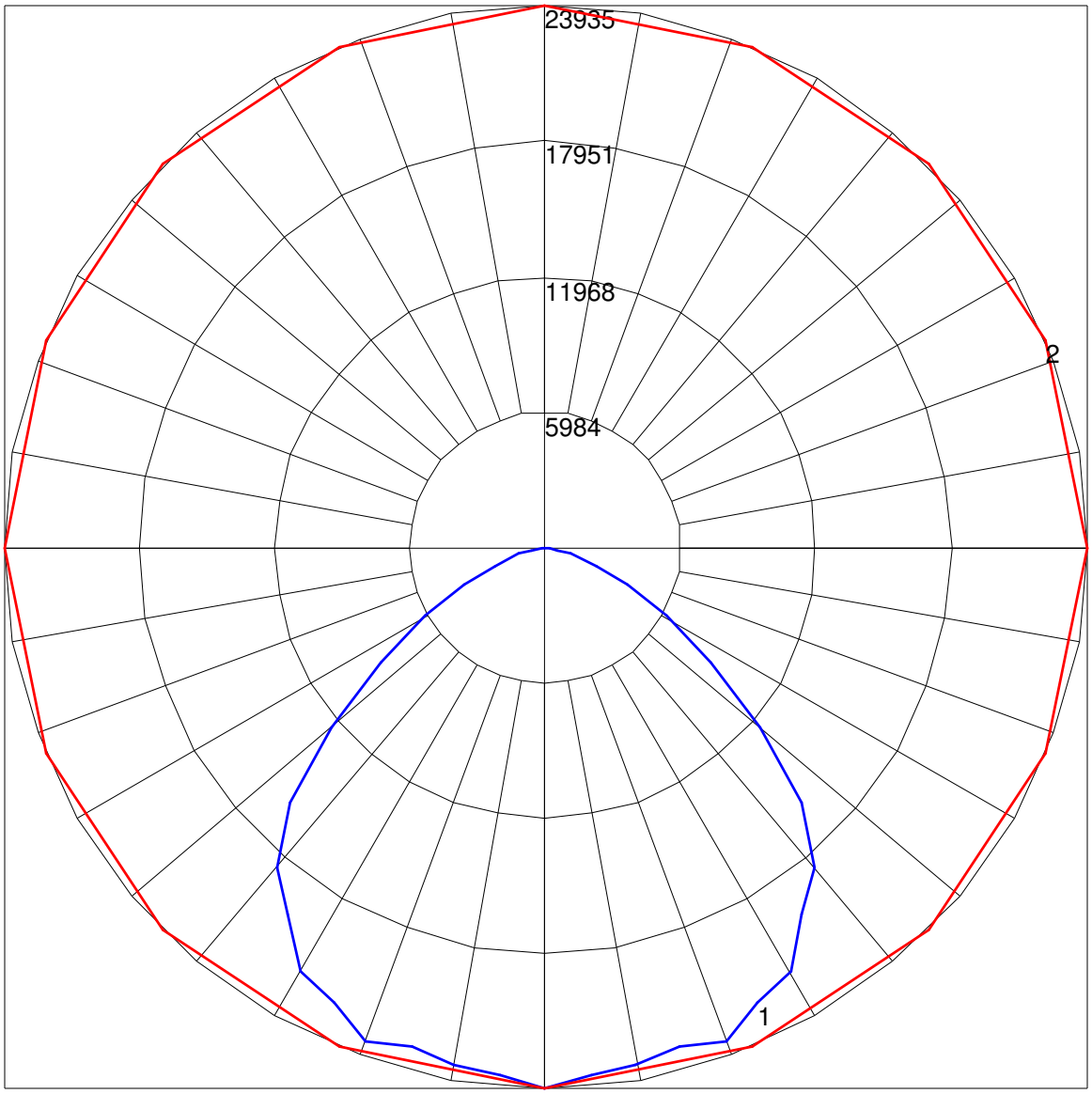
**POLAR GRAPH**




Maximum Candela = 23935.168  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.)

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