



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6AR-L30-835-DIM-UNV-LM-OF-WH_0 DEGREE TILT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20401.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 24-JUL-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V13 LED 6"SHORT HEATSINK 6"RND ADJ DOWNLIGHT @ 0 TILT

[MORE] ACRYLIC MED TIR OPTIC & 6"WHITE ASYM FLUSH TRIM w/SOLITE

[MORE] LENS ADVANCE #XI025C070V054DSM5 @ 530mA

[LUMCAT] 6AR-L30-835-DIM-UNV-LM-OF-WH_0 DEG TILT

[LAMPCAT] BXRE-35E2000

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Industrial, Office, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1912 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 61 |
| Total Luminaire Watts | 31.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.58 |
| Spacing Criterion (90-270) | 0.56 |
| Spacing Criterion (Diagonal) | 0.52 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.50 ft (Diameter) |
| Luminous Width (90-270) | 0.50 ft (Diameter) |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 4105 | 4028 | 4337 |
| 55 | 2292 | 2387 | 2483 |
| 65 | 1944 | 1814 | 1944 |
| 75 | 1693 | 1481 | 1270 |
| 85 | 0 | 0 | 0 |

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CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 0 | 5379 | 5379 | 5379 | 5379 | 5379 | 5379 | 5379 | 5379 | 5379 |
| 5 | 5342 | 5300 | 5253 | 5173 | 5103 | 5053 | 4975 | 4972 | 4952 |
| 10 | 4662 | 4612 | 4562 | 4467 | 4384 | 4233 | 4130 | 4064 | 4028 |
| 15 | 3337 | 3350 | 3254 | 3176 | 3066 | 2897 | 2789 | 2678 | 2536 |
| 20 | 1876 | 1898 | 1822 | 1749 | 1695 | 1537 | 1471 | 1382 | 1291 |
| 25 | 954 | 935 | 890 | 847 | 824 | 782 | 709 | 634 | 583 |
| 30 | 433 | 440 | 415 | 406 | 389 | 374 | 353 | 305 | 278 |
| 35 | 207 | 202 | 194 | 197 | 187 | 189 | 172 | 152 | 138 |
| 40 | 97 | 94 | 96 | 97 | 97 | 95 | 91 | 82 | 78 |
| 45 | 53 | 51 | 52 | 54 | 56 | 58 | 57 | 51 | 51 |
| 50 | 33 | 34 | 34 | 36 | 39 | 39 | 39 | 37 | 36 |
| 55 | 24 | 24 | 25 | 25 | 26 | 29 | 27 | 26 | 25 |
| 60 | 20 | 18 | 20 | 20 | 21 | 21 | 21 | 20 | 18 |
| 65 | 15 | 16 | 14 | 15 | 15 | 15 | 16 | 14 | 13 |
| 70 | 11 | 11 | 11 | 11 | 10 | 11 | 10 | 11 | 10 |
| 75 | 8 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 6 |
| 80 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6AR-L30-835-DIM-UNV-LM-OF-WH_0 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 1285.52 | N.A. | 67.20 |
| 0-30 | 1690.64 | N.A. | 88.40 |
| 0-40 | 1819.52 | N.A. | 95.20 |
| 0-60 | 1889.04 | N.A. | 98.80 |
| 0-80 | 1911.1 | N.A. | 100.00 |
| 0-90 | 1911.94 | N.A. | 100.00 |
| 10-90 | 1447.57 | N.A. | 75.70 |
| 20-40 | 534.00 | N.A. | 27.90 |
| 20-50 | 579.37 | N.A. | 30.30 |
| 40-70 | 84.47 | N.A. | 4.40 |
| 60-80 | 22.07 | N.A. | 1.20 |
| 70-80 | 7.12 | N.A. | 0.40 |
| 80-90 | 0.83 | N.A. | 0.00 |
| 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 | 1911.94 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 464.37 |
| 10-20 | 821.15 |
| 20-30 | 405.13 |
| 30-40 | 128.87 |
| 40-50 | 45.37 |
| 50-60 | 24.15 |
| 60-70 | 14.95 |
| 70-80 | 7.12 |
| 80-90 | 0.83 |
| 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 | 238 | 238 | 238 | 238 | 233 | 233 | 233 | 233 | 222 | 222 | 222 | 213 | 213 | 213 | 204 | 204 | 204 | 200 |
| 1 | 229 | 224 | 220 | 216 | 224 | 220 | 216 | 212 | 212 | 209 | 206 | 204 | 202 | 200 | 197 | 196 | 194 | 191 |
| 2 | 220 | 211 | 205 | 199 | 215 | 208 | 202 | 197 | 202 | 197 | 192 | 196 | 192 | 188 | 190 | 187 | 184 | 181 |
| 3 | 211 | 200 | 192 | 185 | 207 | 198 | 190 | 184 | 193 | 186 | 181 | 188 | 183 | 178 | 184 | 179 | 176 | 173 |
| 4 | 203 | 191 | 182 | 175 | 200 | 189 | 180 | 174 | 184 | 177 | 172 | 181 | 175 | 170 | 177 | 172 | 168 | 165 |
| 5 | 196 | 182 | 172 | 165 | 193 | 180 | 171 | 165 | 177 | 169 | 163 | 174 | 167 | 162 | 171 | 165 | 161 | 158 |
| 6 | 189 | 174 | 164 | 158 | 186 | 173 | 164 | 157 | 170 | 162 | 156 | 167 | 160 | 155 | 165 | 159 | 154 | 152 |
| 7 | 182 | 167 | 157 | 151 | 180 | 166 | 157 | 150 | 163 | 155 | 149 | 161 | 154 | 149 | 159 | 153 | 148 | 146 |
| 8 | 176 | 161 | 151 | 144 | 174 | 159 | 150 | 144 | 158 | 149 | 143 | 156 | 148 | 143 | 154 | 147 | 142 | 140 |
| 9 | 170 | 155 | 145 | 139 | 168 | 154 | 145 | 138 | 152 | 144 | 138 | 150 | 143 | 138 | 149 | 142 | 137 | 135 |
| 10 | 165 | 149 | 140 | 134 | 163 | 148 | 139 | 133 | 147 | 139 | 133 | 145 | 138 | 133 | 144 | 137 | 132 | 130 |

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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

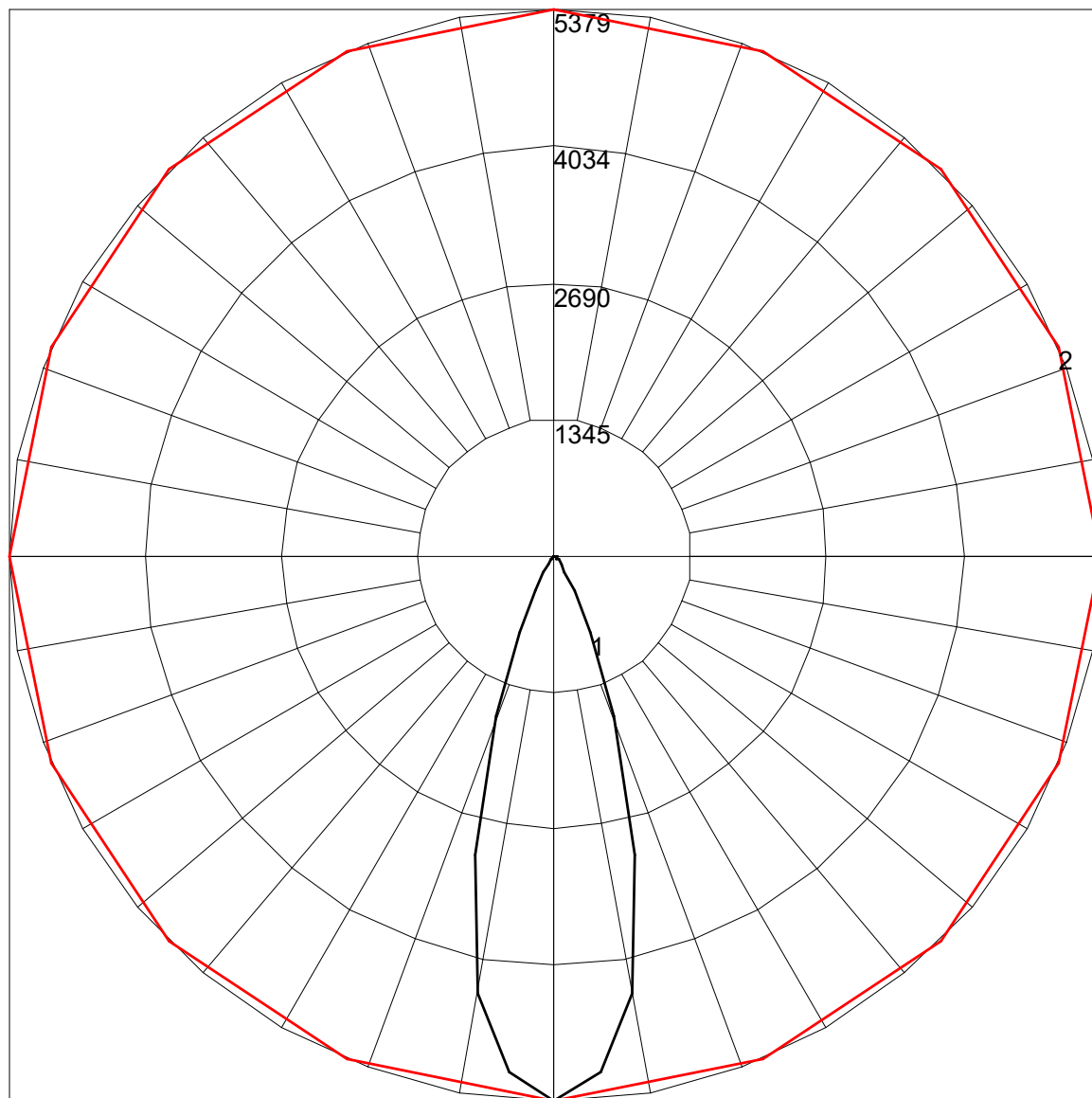
| X=2H | Y=2H | 3.0 | 4.0 | 3.4 | 4.3 | 4.6 | 3.8 | 4.8 | 4.2 | 5.1 | 5.4 |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 3H | 4.6 | 5.4 | 5.0 | 5.7 | 6.1 | 5.0 | 5.8 | 5.4 | 6.1 | 6.5 |
| | 4H | 5.1 | 5.9 | 5.5 | 6.2 | 6.6 | 5.3 | 6.1 | 5.7 | 6.4 | 6.8 |
| | 6H | 5.4 | 6.1 | 5.8 | 6.5 | 6.9 | 5.4 | 6.1 | 5.8 | 6.5 | 6.9 |
| | 8H | 5.5 | 6.1 | 5.9 | 6.5 | 6.9 | 5.4 | 6.1 | 5.9 | 6.5 | 6.9 |
| | 12H | 5.4 | 6.1 | 5.9 | 6.4 | 6.9 | 5.4 | 6.0 | 5.8 | 6.4 | 6.8 |

UGR Viewed Endwise

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4H | 2H | 3.4 | 4.2 | 3.8 | 4.5 | 4.9 | 4.1 | 4.9 | 4.5 | 5.2 | 5.6 |
| | 3H | 5.2 | 5.8 | 5.6 | 6.2 | 6.6 | 5.5 | 6.1 | 5.9 | 6.5 | 6.9 |
| | 4H | 5.8 | 6.3 | 6.2 | 6.8 | 7.2 | 5.9 | 6.5 | 6.4 | 6.9 | 7.4 |
| | 6H | 6.2 | 6.7 | 6.7 | 7.1 | 7.6 | 6.2 | 6.6 | 6.6 | 7.1 | 7.6 |
| | 8H | 6.2 | 6.7 | 6.7 | 7.1 | 7.6 | 6.1 | 6.6 | 6.6 | 7.0 | 7.5 |
| | 12H | 6.2 | 6.6 | 6.7 | 7.1 | 7.5 | 6.1 | 6.5 | 6.6 | 7.0 | 7.4 |
| 8H | 4H | 5.9 | 6.3 | 6.4 | 6.8 | 7.3 | 6.0 | 6.4 | 6.5 | 6.9 | 7.4 |
| | 6H | 6.4 | 6.7 | 6.9 | 7.2 | 7.7 | 6.3 | 6.6 | 6.8 | 7.1 | 7.6 |
| | 8H | 6.5 | 6.8 | 7.0 | 7.3 | 7.8 | 6.3 | 6.6 | 6.8 | 7.1 | 7.6 |
| | 12H | 6.4 | 6.7 | 6.9 | 7.2 | 7.8 | 6.2 | 6.5 | 6.8 | 7.0 | 7.6 |
| 12H | 4H | 5.8 | 6.2 | 6.3 | 6.7 | 7.2 | 6.0 | 6.3 | 6.4 | 6.8 | 7.3 |
| | 6H | 6.3 | 6.7 | 6.9 | 7.1 | 7.7 | 6.2 | 6.5 | 6.8 | 7.0 | 7.6 |
| | 8H | 6.4 | 6.7 | 7.0 | 7.2 | 7.8 | 6.3 | 6.5 | 6.8 | 7.0 | 7.6 |

Maximum UGR = 7.8

POLAR GRAPH



Maximum Candela = 5379 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.)