



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 75R-4-L30-835-EM-10WLP-DIM-UNV_EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19750.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 05-02-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22"ARRAYS 4'SURFACE MOUNT STRIP LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC ROUND LENS

[LUMCAT] 75R-4-L30-835-EM-10WLP-DIM-UNV EM MODE ONLY

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Utility, Warehouse, Linear

[_SEARCH_MOUNTING] Surface, Suspended

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1479 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 148 |
| Total Luminaire Watts | 10 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.22 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.36 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 3.72 ft |
| Luminous Width (90-270) | 0.21 ft |
| Luminous Height | 0.10 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 5172 | 4373 | 4365 |
| 55 | 4269 | 3743 | 3843 |
| 65 | 3516 | 3144 | 3238 |
| 75 | 2375 | 2583 | 2653 |
| 85 | 1394 | 2219 | 2175 |

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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> |
|-----|------------|-------------|-------------|-------------|-------------|
| 0 | 473.705 | 473.705 | 473.705 | 473.705 | 473.705 |
| 5 | 478.906 | 471.896 | 472.122 | 470.992 | 466.243 |
| 10 | 470.992 | 465.113 | 466.243 | 465.565 | 461.269 |
| 15 | 457.199 | 452.903 | 456.068 | 457.425 | 452.903 |
| 20 | 436.397 | 435.266 | 440.693 | 442.954 | 440.240 |
| 25 | 411.976 | 413.559 | 421.247 | 426.448 | 424.413 |
| 30 | 383.939 | 386.200 | 399.314 | 407.228 | 406.776 |
| 35 | 349.796 | 353.866 | 372.859 | 383.939 | 385.521 |
| 40 | 313.392 | 316.331 | 340.299 | 357.031 | 360.875 |
| 45 | 270.430 | 277.892 | 305.478 | 327.637 | 333.063 |
| 50 | 225.886 | 237.870 | 271.561 | 295.755 | 302.538 |
| 55 | 183.151 | 198.753 | 236.739 | 262.064 | 271.787 |
| 60 | 147.425 | 161.896 | 203.275 | 228.599 | 238.774 |
| 65 | 113.282 | 129.110 | 172.071 | 195.135 | 203.953 |
| 70 | 79.365 | 100.620 | 142.451 | 162.575 | 171.167 |
| 75 | 48.840 | 75.974 | 115.091 | 134.085 | 141.546 |
| 80 | 27.133 | 52.458 | 91.802 | 109.438 | 114.187 |
| 85 | 11.532 | 36.178 | 73.260 | 88.410 | 91.575 |
| 90 | 1.583 | 24.872 | 56.754 | 70.095 | 74.391 |
| 95 | 0.226 | 16.958 | 45.449 | 55.624 | 60.146 |
| 100 | 0.000 | 11.079 | 35.274 | 45.449 | 49.066 |
| 105 | 0.000 | 7.914 | 27.360 | 37.082 | 40.022 |
| 110 | 0.000 | 5.427 | 21.028 | 30.299 | 32.786 |
| 115 | 0.000 | 4.522 | 17.185 | 25.325 | 27.133 |
| 120 | 0.000 | 3.392 | 13.115 | 20.802 | 22.611 |
| 125 | 0.000 | 2.035 | 9.723 | 16.506 | 18.541 |
| 130 | 0.000 | 1.357 | 7.009 | 12.888 | 14.697 |
| 135 | 0.000 | 0.678 | 5.201 | 10.175 | 11.532 |
| 140 | 0.000 | 0.678 | 3.618 | 7.914 | 9.044 |
| 145 | 0.000 | 0.000 | 2.261 | 4.974 | 6.331 |
| 150 | 0.000 | 0.000 | 1.583 | 3.618 | 4.522 |
| 155 | 0.000 | 0.000 | 1.131 | 1.809 | 2.939 |
| 160 | 0.000 | 0.000 | 0.452 | 1.357 | 1.583 |
| 165 | 0.000 | 0.000 | 0.000 | 0.452 | 0.678 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 75R-4-L30-835-EM-10WLP-DIM-UNV_EM MODE ONLY.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 173.22 | N.A. | 11.70 |
| 0-30 | 366.71 | N.A. | 24.80 |
| 0-40 | 597.60 | N.A. | 40.40 |
| 0-60 | 1038.89 | N.A. | 70.20 |
| 0-80 | 1313.56 | N.A. | 88.80 |
| 0-90 | 1382.59 | N.A. | 93.50 |
| 10-90 | 1337.75 | N.A. | 90.50 |
| 20-40 | 424.38 | N.A. | 28.70 |
| 20-50 | 658.33 | N.A. | 44.50 |
| 40-70 | 603.98 | N.A. | 40.80 |
| 60-80 | 274.67 | N.A. | 18.60 |
| 70-80 | 111.98 | N.A. | 7.60 |
| 80-90 | 69.03 | N.A. | 4.70 |
| 90-110 | 65.88 | N.A. | 4.50 |
| 90-120 | 80.98 | N.A. | 5.50 |
| 90-130 | 89.56 | N.A. | 6.10 |
| 90-150 | 95.68 | N.A. | 6.50 |
| 90-180 | 96.32 | N.A. | 6.50 |
| 110-180 | 30.44 | N.A. | 2.10 |
| 0-180 | 1478.91 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 44.85 |
| 10-20 | 128.37 |
| 20-30 | 193.49 |
| 30-40 | 230.89 |
| 40-50 | 233.95 |
| 50-60 | 207.34 |
| 60-70 | 162.69 |
| 70-80 | 111.98 |
| 80-90 | 69.03 |
| 90-100 | 41.10 |
| 100-110 | 24.78 |
| 110-120 | 15.10 |
| 120-130 | 8.57 |
| 130-140 | 4.33 |
| 140-150 | 1.79 |
| 150-160 | 0.56 |
| 160-170 | 0.08 |
| 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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 102 | 102 | 102 | 96 | 96 | 96 | 93 |
| 1 | 106 | 101 | 96 | 92 | 103 | 98 | 94 | 90 | 92 | 89 | 86 | 87 | 84 | 82 | 83 | 80 | 78 | 76 |
| 2 | 96 | 87 | 80 | 74 | 93 | 85 | 78 | 73 | 80 | 75 | 70 | 76 | 72 | 68 | 72 | 68 | 65 | 62 |
| 3 | 88 | 77 | 68 | 61 | 84 | 75 | 67 | 60 | 71 | 64 | 59 | 67 | 61 | 57 | 64 | 59 | 55 | 52 |
| 4 | 80 | 68 | 59 | 52 | 77 | 66 | 58 | 51 | 63 | 56 | 50 | 60 | 53 | 48 | 57 | 51 | 47 | 45 |
| 5 | 74 | 61 | 51 | 45 | 71 | 59 | 51 | 44 | 56 | 49 | 43 | 54 | 47 | 42 | 51 | 45 | 41 | 39 |
| 6 | 68 | 55 | 46 | 39 | 66 | 53 | 45 | 39 | 51 | 43 | 38 | 48 | 42 | 37 | 46 | 41 | 36 | 34 |
| 7 | 63 | 49 | 41 | 34 | 61 | 48 | 40 | 34 | 46 | 39 | 33 | 44 | 38 | 33 | 42 | 36 | 32 | 30 |
| 8 | 59 | 45 | 37 | 31 | 57 | 44 | 36 | 30 | 42 | 35 | 30 | 41 | 34 | 29 | 39 | 33 | 29 | 27 |
| 9 | 55 | 41 | 33 | 28 | 53 | 41 | 33 | 27 | 39 | 32 | 27 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |
| 10 | 51 | 38 | 30 | 25 | 50 | 37 | 30 | 25 | 36 | 29 | 24 | 35 | 28 | 24 | 33 | 28 | 24 | 22 |

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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 | 14.2 | 15.7 | 14.6 | 16.1 | 16.6 | 17.6 | 19.0 | 18.0 | 19.5 | 20.0 |
|------|------|------|------|------|------|------|------|------|------|------|------|
| | 3H | 15.4 | 16.7 | 15.8 | 17.2 | 17.7 | 19.8 | 21.1 | 20.2 | 21.6 | 22.1 |
| | 4H | 15.7 | 17.0 | 16.2 | 17.5 | 18.0 | 20.8 | 22.1 | 21.3 | 22.6 | 23.1 |
| | 6H | 15.9 | 17.1 | 16.4 | 17.6 | 18.1 | 21.8 | 23.0 | 22.3 | 23.5 | 24.1 |
| | 8H | 15.9 | 17.0 | 16.4 | 17.6 | 18.1 | 22.4 | 23.5 | 22.9 | 24.0 | 24.6 |
| | 12H | 15.9 | 17.0 | 16.4 | 17.5 | 18.1 | 22.9 | 24.0 | 23.5 | 24.5 | 25.1 |

UGR Viewed Endwise

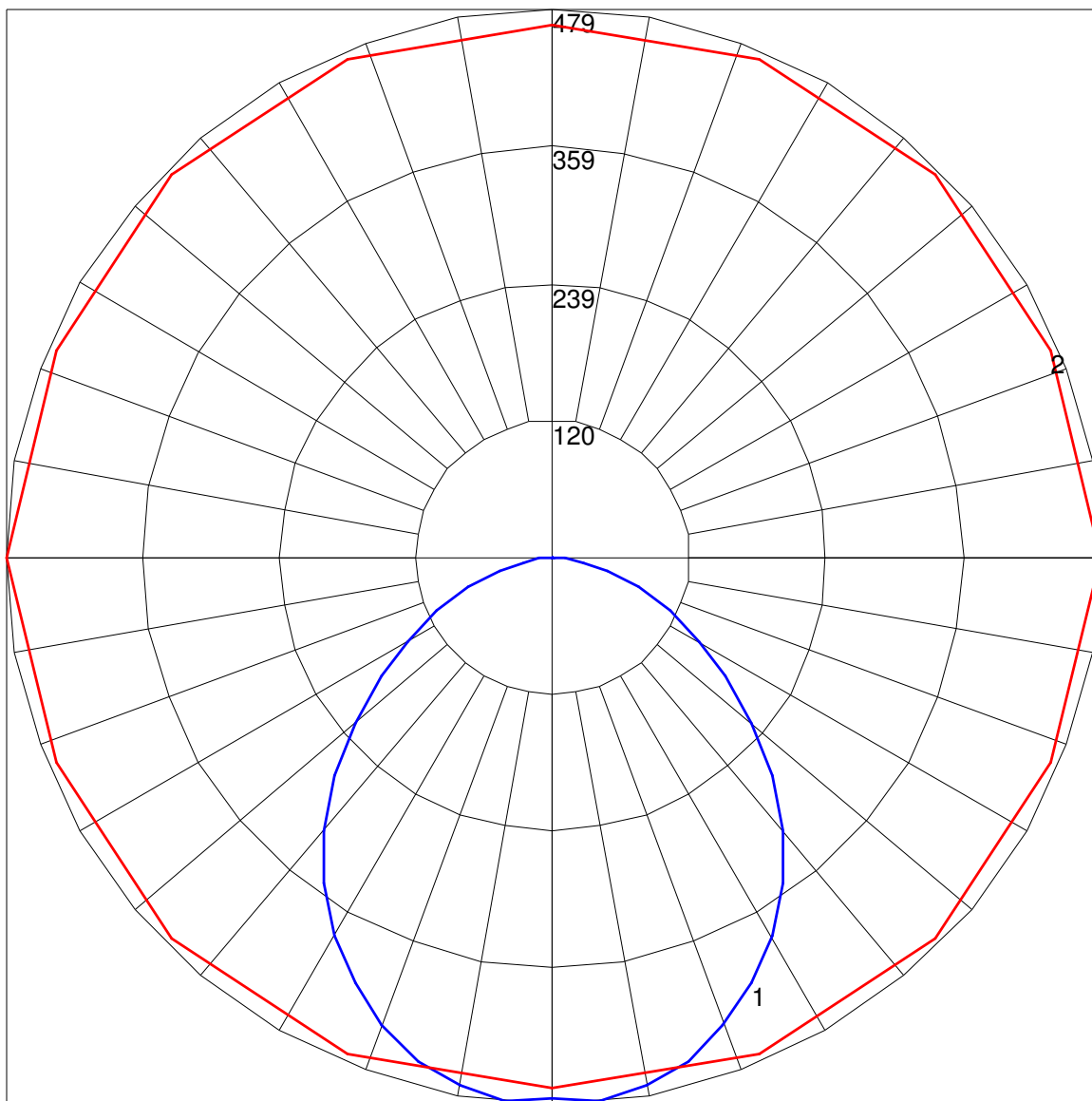
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 15.2 | 16.5 | 15.7 | 17.0 | 17.5 | 17.9 | 19.2 | 18.4 | 19.6 | 20.2 |
| | 3H | 16.7 | 17.8 | 17.2 | 18.3 | 18.8 | 20.3 | 21.4 | 20.8 | 21.9 | 22.5 |
| | 4H | 17.1 | 18.1 | 17.7 | 18.7 | 19.3 | 21.5 | 22.5 | 22.0 | 23.0 | 23.6 |
| | 6H | 17.4 | 18.3 | 18.0 | 18.8 | 19.5 | 22.7 | 23.6 | 23.3 | 24.2 | 24.8 |
| | 8H | 17.5 | 18.3 | 18.0 | 18.9 | 19.5 | 23.3 | 24.2 | 23.9 | 24.7 | 25.3 |
| | 12H | 17.5 | 18.2 | 18.1 | 18.8 | 19.5 | 24.0 | 24.8 | 24.6 | 25.4 | 26.0 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 17.9 | 18.7 | 18.5 | 19.3 | 19.9 | 21.6 | 22.5 | 22.2 | 23.0 | 23.7 |
| | 6H | 18.4 | 19.1 | 19.0 | 19.7 | 20.3 | 23.0 | 23.7 | 23.6 | 24.3 | 24.9 |
| | 8H | 18.5 | 19.1 | 19.1 | 19.8 | 20.4 | 23.8 | 24.4 | 24.4 | 25.0 | 25.7 |
| | 12H | 18.6 | 19.2 | 19.2 | 19.8 | 20.5 | 24.6 | 25.2 | 25.2 | 25.8 | 26.5 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 18.1 | 18.8 | 18.7 | 19.4 | 20.1 | 21.6 | 22.4 | 22.2 | 23.0 | 23.6 |
| | 6H | 18.7 | 19.3 | 19.3 | 19.9 | 20.6 | 23.1 | 23.7 | 23.7 | 24.3 | 24.9 |
| | 8H | 18.9 | 19.5 | 19.5 | 20.1 | 20.8 | 23.8 | 24.4 | 24.5 | 25.0 | 25.7 |

Maximum UGR = 26.5

POLAR GRAPH



Maximum Candela = 478.906 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)