**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : MCTVG-14-L68-830-CS-SAF12125-PC250-DIM-UNV_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19835.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2026-04-29
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 6-42 LED 22" ARRAYS 1x4' RECESSED WHITE REFLECTOR LUMINAIRE
[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR
[LUMCAT] MCTVG-14-L68-830-CS-SAF12125-PC250-DIM-UNV_
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Healthcare, Institutional, Office, Direct, Clean Room
[_SEARCH_MOUNTING] Recessed

**CHARACTERISTICS**

| | |
|---|---|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 6734 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 111 |
| Total Luminaire Watts | 60.5 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.24 |
| Spacing Criterion (90-270) | 1.22 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.98 ft |
| Luminous Width (90-270) | 0.98 ft |
| Luminous Height | 0.00 ft |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---|---|---|---|
| 45 | 6529 | 6494 | 6317 |
| 55 | 5397 | 5291 | 4994 |
| 65 | 3913 | 3867 | 3588 |
| 75 | 2330 | 2398 | 2378 |
| 85 | 509 | 702 | 722 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 2933.583 | 2933.583 | 2933.583 | 2933.583 | 2933.583 |
| **5** | 2948.137 | 2929.701 | 2912.559 | 2905.767 | 2906.414 |
| **10** | 2904.150 | 2884.097 | 2872.776 | 2865.337 | 2866.631 |
| **15** | 2832.670 | 2814.234 | 2809.059 | 2793.210 | 2801.296 |
| **20** | 2729.170 | 2714.292 | 2714.938 | 2692.621 | 2702.001 |
| **25** | 2587.827 | 2579.095 | 2574.566 | 2552.249 | 2564.540 |
| **30** | 2418.346 | 2413.818 | 2398.616 | 2370.154 | 2384.061 |
| **35** | 2207.141 | 2211.669 | 2183.530 | 2138.249 | 2164.124 |
| **40** | 1955.506 | 1977.176 | 1931.895 | 1881.439 | 1912.489 |
| **45** | 1683.818 | 1708.399 | 1674.762 | 1613.632 | 1629.157 |
| **50** | 1408.249 | 1395.635 | 1399.840 | 1331.918 | 1329.977 |
| **55** | 1129.122 | 1101.953 | 1106.805 | 1044.058 | 1044.705 |
| **60** | 852.583 | 833.500 | 828.325 | 771.400 | 781.426 |
| **65** | 603.212 | 591.245 | 596.096 | 552.756 | 553.079 |
| **70** | 394.594 | 382.951 | 396.858 | 379.393 | 370.660 |
| **75** | 219.938 | 217.674 | 226.407 | 234.493 | 224.466 |
| **80** | 93.150 | 89.916 | 101.883 | 116.438 | 104.147 |
| **85** | 16.172 | 18.113 | 22.317 | 32.991 | 22.964 |
| **90** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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**ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-20 | 1069.28 | N.A. | 15.90 |
| 0-30 | 2251.55 | N.A. | 33.40 |
| 0-40 | 3611.23 | N.A. | 53.60 |
| 0-60 | 5863.81 | N.A. | 87.10 |
| 0-80 | 6693.68 | N.A. | 99.40 |
| 0-90 | 6734.00 | N.A. | 100.00 |
| 10-90 | 6456.7 | N.A. | 95.90 |
| 20-40 | 2541.95 | N.A. | 37.70 |
| 20-50 | 3821.25 | N.A. | 56.70 |
| 40-70 | 2835.36 | N.A. | 42.10 |
| 60-80 | 829.86 | N.A. | 12.30 |
| 70-80 | 247.09 | N.A. | 3.70 |
| 80-90 | 40.32 | N.A. | 0.60 |
| 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 | 6734.00 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone | Lumens |
|---|---|
| 0-10 | 277.30 |
| 10-20 | 791.99 |
| 20-30 | 1182.27 |
| 30-40 | 1359.68 |
| 40-50 | 1279.3 |
| 50-60 | 973.28 |
| 60-70 | 582.78 |
| 70-80 | 247.09 |
| 80-90 | 40.32 |
| 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 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 94 | 96 | 94 | 92 | 92 | 91 | 89 | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 75 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 53 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 40 | 34 | 30 | 29 |

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**UGR TABLE - CORRECTED**

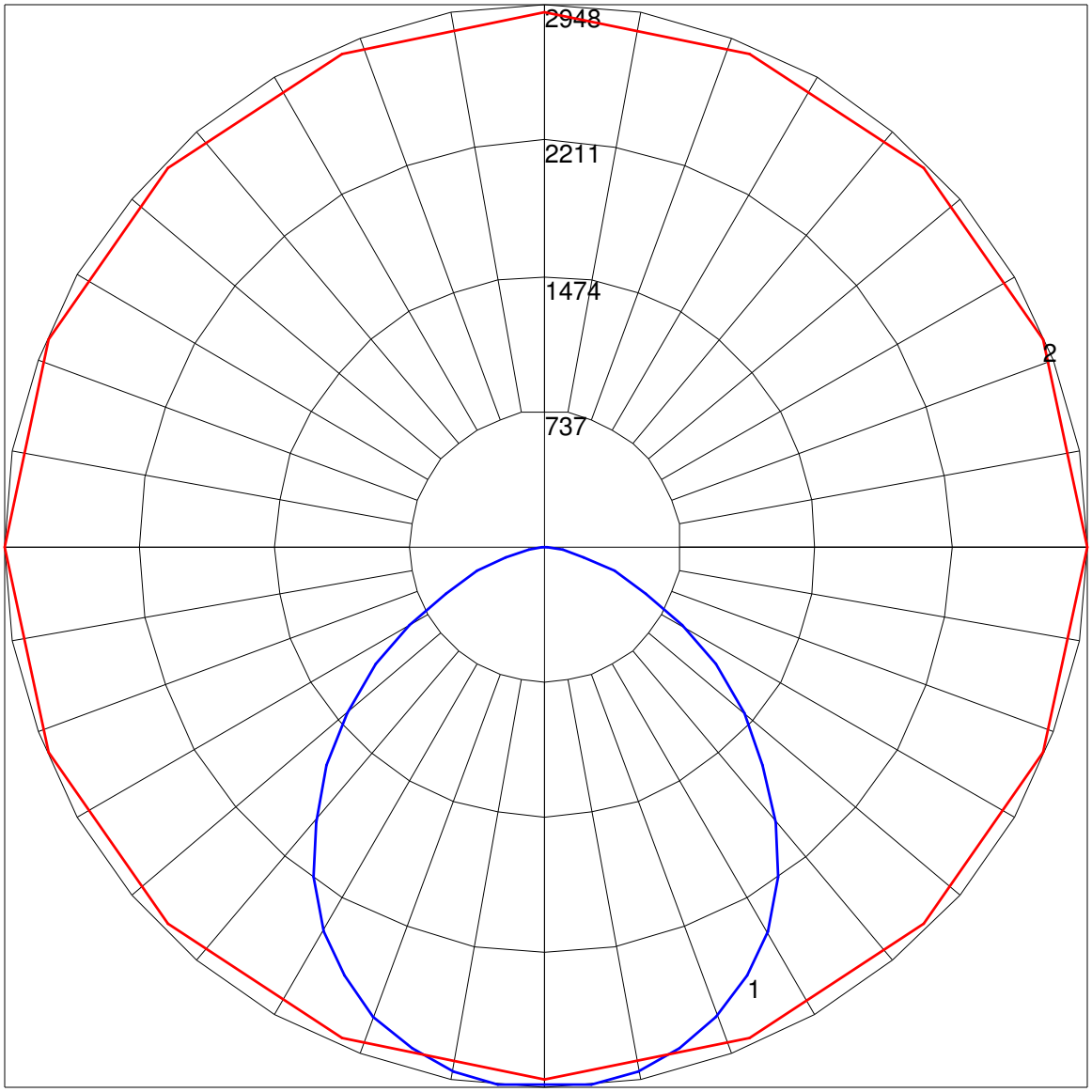
| Reflectances | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling Cavity | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
| X=2H | Y=2H | 17.4 | 18.9 | 17.7 | 19.2 | 19.5 | 16.9 | 18.4 | 17.3 | 18.7 | 19.0 |
| | 3H | 18.4 | 19.8 | 18.8 | 20.1 | 20.5 | 18.0 | 19.4 | 18.4 | 19.7 | 20.1 |
| | 4H | 18.7 | 20.0 | 19.1 | 20.3 | 20.7 | 18.3 | 19.6 | 18.7 | 20.0 | 20.3 |
| | 6H | 18.8 | 20.0 | 19.2 | 20.4 | 20.8 | 18.5 | 19.7 | 18.9 | 20.1 | 20.4 |
| | 8H | 18.8 | 20.0 | 19.3 | 20.3 | 20.7 | 18.5 | 19.7 | 19.0 | 20.0 | 20.4 |
| | 12H | 18.8 | 19.9 | 19.2 | 20.3 | 20.7 | 18.5 | 19.6 | 19.0 | 20.0 | 20.4 |
| 4H | 2H | 17.8 | 19.0 | 18.2 | 19.4 | 19.8 | 17.4 | 18.6 | 17.8 | 19.0 | 19.4 |
| | 3H | 19.0 | 20.1 | 19.4 | 20.5 | 20.9 | 18.7 | 19.7 | 19.1 | 20.1 | 20.5 |
| | 4H | 19.4 | 20.3 | 19.8 | 20.7 | 21.2 | 19.1 | 20.0 | 19.5 | 20.5 | 20.9 |
| | 6H | 19.5 | 20.4 | 20.0 | 20.8 | 21.3 | 19.4 | 20.2 | 19.8 | 20.6 | 21.1 |
| | 8H | 19.5 | 20.3 | 20.0 | 20.7 | 21.2 | 19.4 | 20.2 | 19.8 | 20.6 | 21.1 |
| | 12H | 19.5 | 20.2 | 20.0 | 20.7 | 21.2 | 19.4 | 20.1 | 19.9 | 20.6 | 21.0 |
| 8H | 4H | 19.5 | 20.2 | 19.9 | 20.7 | 21.1 | 19.2 | 20.0 | 19.7 | 20.4 | 20.9 |
| | 6H | 19.7 | 20.3 | 20.2 | 20.8 | 21.3 | 19.5 | 20.2 | 20.0 | 20.7 | 21.1 |
| | 8H | 19.7 | 20.3 | 20.2 | 20.8 | 21.3 | 19.6 | 20.2 | 20.1 | 20.7 | 21.2 |
| | 12H | 19.7 | 20.2 | 20.2 | 20.7 | 21.3 | 19.6 | 20.1 | 20.2 | 20.6 | 21.2 |
| 12H | 4H | 19.5 | 20.1 | 19.9 | 20.6 | 21.1 | 19.2 | 19.9 | 19.7 | 20.4 | 20.8 |
| | 6H | 19.7 | 20.2 | 20.2 | 20.7 | 21.2 | 19.5 | 20.1 | 20.1 | 20.6 | 21.1 |
| | 8H | 19.7 | 20.2 | 20.2 | 20.7 | 21.3 | 19.6 | 20.1 | 20.1 | 20.6 | 21.2 |

Maximum UGR = 21.3

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**POLAR GRAPH**




Maximum Candela = 2948.137 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.)

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