



IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13052732.16
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 31 JULY 2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO
[LUMCAT] MX2S-4-00-L4-835-D-DIM-UNV
[LUMINAIRE] Formed White aluminum housing, frosted lens enclosure
[LAMP] 144 White LEDs
[BALLAST] One Philips XI040C110V054BST1 Driver
[OTHER] 25 C, 120.136 V, 13.6 W, 0.993665 PF, 60.0001 Hz
[OTHER] This test was performed using the calibrated photodetector met
[MORE] hod of absolute photometry.
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Direct, Direct-Indirect, Indirect, Linear
[_SEARCH_MOUNTING] Suspended

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1627 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 120 |
| Total Luminaire Watts | 13.6 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.16 |
| Spacing Criterion (90-270) | 1.14 |
| Spacing Criterion (Diagonal) | 1.26 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.17 ft |
| Luminous Height | 0.04 ft |

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LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 6669 | 5996 | 5835 |
| 55 | 5768 | 5397 | 5398 |
| 65 | 4873 | 4895 | 5013 |
| 75 | 3860 | 4443 | 4681 |
| 85 | 2541 | 4071 | 4107 |

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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> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0 | 564.855 | 564.855 | 564.855 | 564.855 | 564.855 |
| 0.5 | 561.612 | 567.018 | 563.774 | 565.396 | 564.855 |
| 1.0 | 561.612 | 567.018 | 563.774 | 565.396 | 564.855 |
| 1.5 | 561.612 | 567.018 | 563.774 | 565.396 | 564.855 |
| 2.0 | 561.072 | 566.477 | 563.774 | 565.396 | 564.855 |
| 2.5 | 561.072 | 566.477 | 563.234 | 564.855 | 564.855 |
| 3.0 | 560.531 | 565.937 | 563.234 | 564.855 | 564.855 |
| 3.5 | 559.991 | 565.396 | 562.693 | 564.315 | 563.774 |
| 4.0 | 558.910 | 564.855 | 562.153 | 563.774 | 563.774 |
| 4.5 | 558.910 | 564.315 | 561.612 | 563.234 | 563.234 |
| 5.0 | 557.829 | 563.774 | 561.072 | 562.693 | 562.153 |
| 5.5 | 557.288 | 562.693 | 559.991 | 561.612 | 561.072 |
| 6.0 | 556.207 | 562.153 | 559.450 | 561.072 | 560.531 |
| 6.5 | 555.126 | 561.072 | 558.369 | 559.991 | 559.450 |
| 7.0 | 554.045 | 559.991 | 557.288 | 558.910 | 557.829 |
| 7.5 | 552.964 | 558.910 | 556.207 | 557.288 | 556.748 |
| 8.0 | 551.883 | 557.829 | 555.126 | 556.207 | 555.666 |
| 8.5 | 550.261 | 556.207 | 553.504 | 554.585 | 554.045 |
| 9.0 | 548.640 | 555.126 | 552.423 | 552.964 | 552.423 |
| 9.5 | 547.558 | 553.504 | 550.802 | 551.342 | 550.261 |
| 10.0 | 545.937 | 552.423 | 549.721 | 549.180 | 548.640 |
| 10.5 | 544.315 | 550.802 | 547.558 | 547.558 | 547.018 |
| 11.0 | 542.153 | 549.180 | 545.937 | 545.396 | 544.315 |
| 11.5 | 541.072 | 547.558 | 544.315 | 543.775 | 542.153 |
| 12.0 | 538.910 | 545.937 | 542.153 | 541.613 | 540.261 |
| 12.5 | 536.910 | 543.775 | 540.045 | 539.234 | 537.667 |
| 13.0 | 534.964 | 542.153 | 537.667 | 536.856 | 535.126 |
| 13.5 | 532.748 | 539.991 | 535.559 | 534.424 | 532.910 |
| 14.0 | 530.694 | 537.991 | 533.288 | 531.883 | 530.099 |
| 14.5 | 528.532 | 535.829 | 530.856 | 529.234 | 527.397 |
| 15.0 | 526.153 | 533.613 | 528.478 | 526.424 | 524.964 |
| 15.5 | 523.721 | 531.343 | 525.829 | 523.775 | 522.045 |
| 16.0 | 521.613 | 528.964 | 523.289 | 520.964 | 519.072 |
| 16.5 | 518.748 | 526.532 | 520.586 | 517.829 | 515.991 |
| 17.0 | 516.262 | 524.045 | 517.721 | 514.964 | 513.019 |
| 17.5 | 513.883 | 521.505 | 514.856 | 511.992 | 509.829 |
| 18.0 | 511.181 | 518.802 | 512.046 | 508.802 | 506.694 |
| 18.5 | 508.586 | 516.100 | 508.965 | 505.721 | 503.667 |
| 19.0 | 505.829 | 513.073 | 505.938 | 502.478 | 500.262 |
| 19.5 | 503.019 | 510.208 | 502.911 | 499.181 | 497.019 |
| 20.0 | 500.046 | 507.289 | 499.721 | 495.830 | 493.559 |
| 20.5 | 496.965 | 504.316 | 496.478 | 492.532 | 490.424 |
| 21.0 | 493.992 | 501.235 | 493.181 | 489.073 | 486.695 |
| 21.5 | 490.749 | 498.100 | 490.154 | 485.614 | 483.235 |
| 22.0 | 487.614 | 494.857 | 486.749 | 482.208 | 479.938 |
| 22.5 | 484.316 | 491.722 | 483.451 | 478.749 | 476.316 |
| 23.0 | 480.911 | 488.424 | 479.992 | 475.127 | 472.803 |
| 23.5 | 477.506 | 485.019 | 476.533 | 471.668 | 469.344 |
| 24.0 | 474.154 | 481.668 | 473.127 | 468.100 | 465.722 |
| 24.5 | 470.587 | 478.316 | 469.668 | 464.695 | 461.992 |
| 25.0 | 467.019 | 474.587 | 466.046 | 461.127 | 458.479 |
| 25.5 | 463.182 | 471.235 | 462.479 | 457.506 | 454.911 |
| 26.0 | 459.452 | 467.506 | 458.965 | 453.992 | 451.236 |
| 26.5 | 455.668 | 463.776 | 455.236 | 450.263 | 448.047 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 27.0 | 451.993 | 460.263 | 451.614 | 446.695 | 444.371 |
| 27.5 | 448.263 | 456.209 | 447.884 | 442.966 | 440.695 |
| 28.0 | 444.371 | 452.425 | 444.209 | 439.344 | 437.074 |
| 28.5 | 440.371 | 448.641 | 440.425 | 435.831 | 433.723 |
| 29.0 | 436.479 | 444.641 | 436.371 | 432.155 | 430.155 |
| 29.5 | 432.533 | 440.641 | 432.641 | 428.317 | 426.588 |
| 30.0 | 428.317 | 436.804 | 428.696 | 424.642 | 422.966 |
| 30.5 | 424.263 | 432.479 | 424.696 | 420.966 | 419.453 |
| 31.0 | 420.209 | 428.587 | 420.750 | 417.236 | 415.723 |
| 31.5 | 415.993 | 424.425 | 416.804 | 413.236 | 412.209 |
| 32.0 | 411.453 | 420.101 | 412.912 | 409.615 | 408.750 |
| 32.5 | 407.399 | 415.993 | 409.020 | 406.696 | 406.101 |
| 33.0 | 402.858 | 411.723 | 405.291 | 403.074 | 402.426 |
| 33.5 | 399.777 | 407.831 | 401.777 | 399.291 | 398.750 |
| 34.0 | 396.480 | 403.561 | 397.615 | 395.561 | 395.129 |
| 34.5 | 392.048 | 400.156 | 394.210 | 392.156 | 392.534 |
| 35.0 | 387.561 | 396.102 | 390.156 | 388.967 | 388.858 |
| 35.5 | 383.075 | 391.723 | 386.696 | 385.237 | 385.183 |
| 36.0 | 378.534 | 387.669 | 382.642 | 381.453 | 381.561 |
| 36.5 | 374.048 | 383.507 | 378.642 | 377.778 | 377.886 |
| 37.0 | 369.507 | 379.075 | 374.642 | 374.048 | 374.210 |
| 37.5 | 364.967 | 374.696 | 370.643 | 370.264 | 370.534 |
| 38.0 | 360.372 | 370.264 | 366.589 | 366.589 | 366.859 |
| 38.5 | 355.778 | 365.886 | 362.589 | 362.913 | 363.237 |
| 39.0 | 351.129 | 361.453 | 358.589 | 359.183 | 359.670 |
| 39.5 | 346.481 | 357.075 | 354.589 | 355.508 | 356.102 |
| 40.0 | 341.886 | 352.697 | 350.589 | 351.886 | 352.643 |
| 40.5 | 337.292 | 348.319 | 346.589 | 348.319 | 349.292 |
| 41.0 | 332.643 | 343.940 | 342.643 | 344.751 | 345.886 |
| 41.5 | 327.995 | 339.562 | 338.751 | 341.238 | 342.589 |
| 42.0 | 323.400 | 335.184 | 334.805 | 337.778 | 339.346 |
| 42.5 | 318.751 | 330.805 | 330.913 | 334.373 | 336.157 |
| 43.0 | 314.211 | 326.481 | 327.130 | 331.076 | 333.022 |
| 43.5 | 309.616 | 322.157 | 323.346 | 327.778 | 329.995 |
| 44.0 | 305.076 | 317.833 | 319.562 | 324.481 | 326.859 |
| 44.5 | 300.536 | 313.508 | 315.833 | 321.292 | 323.778 |
| 45.0 | 295.995 | 309.184 | 312.157 | 318.049 | 320.751 |
| 45.5 | 291.455 | 304.914 | 308.481 | 314.914 | 317.779 |
| 46.0 | 286.914 | 300.644 | 304.914 | 311.779 | 314.752 |
| 46.5 | 282.482 | 296.482 | 301.346 | 308.644 | 311.725 |
| 47.0 | 277.995 | 292.265 | 297.779 | 305.508 | 308.752 |
| 47.5 | 273.563 | 288.049 | 294.211 | 302.373 | 305.725 |
| 48.0 | 269.077 | 283.887 | 290.698 | 299.238 | 302.752 |
| 48.5 | 264.644 | 279.725 | 287.184 | 296.157 | 299.725 |
| 49.0 | 260.212 | 275.671 | 283.671 | 293.076 | 296.806 |
| 49.5 | 255.834 | 271.563 | 280.158 | 290.049 | 293.833 |
| 50.0 | 251.455 | 267.563 | 276.698 | 287.022 | 290.914 |
| 50.5 | 247.131 | 263.509 | 273.293 | 283.995 | 287.995 |
| 51.0 | 242.807 | 259.455 | 269.887 | 280.968 | 285.022 |
| 51.5 | 238.428 | 255.455 | 266.482 | 277.941 | 282.049 |
| 52.0 | 234.050 | 251.455 | 263.131 | 274.914 | 279.131 |
| 52.5 | 229.726 | 247.455 | 259.725 | 271.941 | 276.158 |
| 53.0 | 225.456 | 243.564 | 256.428 | 268.969 | 273.293 |
| 53.5 | 221.240 | 239.672 | 253.131 | 265.942 | 270.320 |
| 54.0 | 216.969 | 235.780 | 249.834 | 262.969 | 267.293 |
| 54.5 | 212.807 | 231.888 | 246.482 | 259.942 | 264.320 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 55.0 | 208.591 | 227.996 | 243.185 | 256.915 | 261.401 |
| 55.5 | 204.429 | 224.158 | 239.834 | 253.888 | 258.428 |
| 56.0 | 200.321 | 220.321 | 236.591 | 250.915 | 255.455 |
| 56.5 | 196.267 | 216.537 | 233.293 | 247.888 | 252.482 |
| 57.0 | 192.159 | 212.807 | 230.050 | 244.807 | 249.563 |
| 57.5 | 188.105 | 208.970 | 226.753 | 241.780 | 246.536 |
| 58.0 | 184.051 | 205.240 | 223.456 | 238.699 | 243.455 |
| 58.5 | 180.105 | 201.510 | 220.213 | 235.672 | 240.482 |
| 59.0 | 176.105 | 197.781 | 217.023 | 232.645 | 237.510 |
| 59.5 | 172.213 | 194.159 | 213.834 | 229.618 | 234.537 |
| 60.0 | 168.267 | 190.483 | 210.645 | 226.645 | 231.564 |
| 60.5 | 164.376 | 186.862 | 207.456 | 223.672 | 228.645 |
| 61.0 | 160.484 | 183.240 | 204.267 | 220.645 | 225.672 |
| 61.5 | 156.700 | 179.619 | 201.132 | 217.726 | 222.753 |
| 62.0 | 152.916 | 176.105 | 197.997 | 214.753 | 219.888 |
| 62.5 | 149.187 | 172.538 | 194.916 | 211.888 | 216.969 |
| 63.0 | 145.403 | 169.024 | 191.835 | 208.970 | 214.159 |
| 63.5 | 141.727 | 165.565 | 188.700 | 206.051 | 211.240 |
| 64.0 | 138.052 | 162.105 | 185.619 | 203.132 | 208.375 |
| 64.5 | 134.430 | 158.646 | 182.592 | 200.213 | 205.456 |
| 65.0 | 130.809 | 155.187 | 179.565 | 197.294 | 202.591 |
| 65.5 | 127.241 | 151.781 | 176.538 | 194.429 | 199.726 |
| 66.0 | 123.674 | 148.484 | 173.511 | 191.510 | 197.024 |
| 66.5 | 120.160 | 145.133 | 170.484 | 188.646 | 194.159 |
| 67.0 | 116.647 | 141.781 | 167.511 | 185.727 | 191.294 |
| 67.5 | 113.187 | 138.484 | 164.484 | 182.808 | 188.375 |
| 68.0 | 109.782 | 135.187 | 161.511 | 179.889 | 185.510 |
| 68.5 | 106.323 | 131.944 | 158.538 | 177.024 | 182.700 |
| 69.0 | 102.971 | 128.701 | 155.565 | 174.105 | 179.781 |
| 69.5 | 99.566 | 125.457 | 152.592 | 171.240 | 176.916 |
| 70.0 | 96.215 | 122.268 | 149.619 | 168.322 | 174.051 |
| 70.5 | 92.917 | 119.079 | 146.700 | 165.403 | 171.186 |
| 71.0 | 89.620 | 115.890 | 143.673 | 162.484 | 168.267 |
| 71.5 | 86.377 | 112.809 | 140.754 | 159.619 | 165.403 |
| 72.0 | 83.134 | 109.674 | 137.890 | 156.754 | 162.538 |
| 72.5 | 79.945 | 106.593 | 135.025 | 153.889 | 159.727 |
| 73.0 | 76.755 | 103.512 | 132.160 | 151.025 | 156.862 |
| 73.5 | 73.674 | 100.431 | 129.241 | 148.214 | 154.106 |
| 74.0 | 70.539 | 97.458 | 126.430 | 145.403 | 151.295 |
| 74.5 | 67.458 | 94.431 | 123.620 | 142.592 | 148.592 |
| 75.0 | 64.485 | 91.512 | 120.809 | 139.836 | 145.889 |
| 75.5 | 61.512 | 88.593 | 118.052 | 137.133 | 143.241 |
| 76.0 | 58.594 | 85.728 | 115.295 | 134.430 | 140.592 |
| 76.5 | 55.675 | 82.809 | 112.539 | 131.728 | 137.890 |
| 77.0 | 52.864 | 79.999 | 109.836 | 129.079 | 135.349 |
| 77.5 | 50.053 | 77.242 | 107.187 | 126.430 | 132.809 |
| 78.0 | 47.351 | 74.485 | 104.539 | 123.836 | 130.322 |
| 78.5 | 44.702 | 71.783 | 101.944 | 121.241 | 127.782 |
| 79.0 | 42.053 | 69.134 | 99.350 | 118.701 | 125.349 |
| 79.5 | 39.459 | 66.485 | 96.755 | 116.160 | 122.917 |
| 80.0 | 36.972 | 63.945 | 94.215 | 113.620 | 120.484 |
| 80.5 | 34.540 | 61.404 | 91.674 | 111.133 | 118.052 |
| 81.0 | 32.108 | 58.918 | 89.188 | 108.593 | 115.674 |
| 81.5 | 29.783 | 56.486 | 86.647 | 106.160 | 113.349 |
| 82.0 | 27.513 | 54.053 | 84.215 | 103.728 | 111.025 |
| 82.5 | 25.351 | 51.675 | 81.674 | 101.296 | 108.701 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|--------|--------|--------|--------|---------|
| 83.0 | 23.189 | 49.351 | 79.134 | 98.809 | 106.377 |
| 83.5 | 21.135 | 47.026 | 76.647 | 96.269 | 103.728 |
| 84.0 | 19.135 | 44.702 | 74.161 | 92.809 | 98.269 |
| 84.5 | 17.243 | 42.378 | 71.566 | 87.134 | 92.269 |
| 85.0 | 15.405 | 40.107 | 68.702 | 81.134 | 86.161 |
| 85.5 | 13.567 | 37.729 | 64.810 | 74.593 | 78.593 |
| 86.0 | 11.838 | 35.297 | 59.404 | 66.377 | 69.026 |
| 86.5 | 10.162 | 32.702 | 53.296 | 56.972 | 59.404 |
| 87.0 | 8.594 | 29.837 | 45.837 | 47.621 | 49.945 |
| 87.5 | 7.027 | 26.270 | 37.675 | 38.432 | 40.540 |
| 88.0 | 5.513 | 21.783 | 29.135 | 29.459 | 31.405 |
| 88.5 | 4.054 | 16.378 | 20.756 | 21.135 | 22.702 |
| 89.0 | 2.432 | 11.027 | 14.486 | 16.756 | 18.973 |
| 89.5 | 0.865 | 7.189 | 11.351 | 15.189 | 17.783 |
| 90.0 | 0.000 | 5.459 | 10.594 | 14.000 | 16.486 |
| 90.5 | 0.000 | 6.540 | 12.108 | 14.919 | 16.216 |
| 91.0 | 0.054 | 9.027 | 16.054 | 19.297 | 20.810 |
| 91.5 | 0.162 | 12.540 | 21.621 | 25.243 | 26.756 |
| 92.0 | 0.162 | 15.946 | 27.459 | 31.135 | 32.702 |
| 92.5 | 0.162 | 18.378 | 32.594 | 36.972 | 38.594 |
| 93.0 | 0.162 | 20.000 | 36.486 | 42.594 | 44.324 |
| 93.5 | 0.162 | 20.973 | 39.459 | 47.026 | 49.837 |
| 94.0 | 0.162 | 21.621 | 41.459 | 50.053 | 53.513 |
| 94.5 | 0.162 | 22.054 | 42.486 | 52.810 | 56.269 |
| 95.0 | 0.162 | 22.378 | 42.810 | 54.972 | 58.918 |
| 95.5 | 0.162 | 22.648 | 42.972 | 55.729 | 61.026 |
| 96.0 | 0.162 | 22.864 | 43.026 | 55.783 | 61.567 |
| 96.5 | 0.162 | 23.027 | 43.026 | 55.567 | 61.242 |
| 97.0 | 0.162 | 23.135 | 42.918 | 55.404 | 60.864 |
| 97.5 | 0.162 | 23.243 | 42.810 | 55.242 | 60.485 |
| 98.0 | 0.162 | 23.297 | 42.648 | 55.026 | 60.107 |
| 98.5 | 0.162 | 23.297 | 42.486 | 54.756 | 59.729 |
| 99.0 | 0.162 | 23.297 | 42.270 | 54.486 | 59.350 |
| 99.5 | 0.162 | 23.297 | 42.053 | 54.215 | 59.026 |
| 100.0 | 0.162 | 23.243 | 41.837 | 53.945 | 58.540 |
| 100.5 | 0.216 | 23.189 | 41.621 | 53.621 | 58.161 |
| 101.0 | 0.216 | 23.135 | 41.405 | 53.350 | 57.783 |
| 101.5 | 0.216 | 23.027 | 41.134 | 53.026 | 57.404 |
| 102.0 | 0.216 | 22.919 | 40.918 | 52.756 | 57.026 |
| 102.5 | 0.216 | 22.810 | 40.702 | 52.486 | 56.648 |
| 103.0 | 0.216 | 22.702 | 40.486 | 52.161 | 56.269 |
| 103.5 | 0.216 | 22.594 | 40.216 | 51.891 | 55.945 |
| 104.0 | 0.216 | 22.432 | 39.999 | 51.621 | 55.621 |
| 104.5 | 0.216 | 22.324 | 39.729 | 51.350 | 55.242 |
| 105.0 | 0.216 | 22.162 | 39.513 | 51.026 | 54.918 |
| 105.5 | 0.216 | 22.000 | 39.297 | 50.756 | 54.594 |
| 106.0 | 0.216 | 21.892 | 39.026 | 50.432 | 54.215 |
| 106.5 | 0.216 | 21.729 | 38.810 | 50.161 | 53.891 |
| 107.0 | 0.216 | 21.567 | 38.540 | 49.837 | 53.567 |
| 107.5 | 0.270 | 21.405 | 38.324 | 49.567 | 53.188 |
| 108.0 | 0.270 | 21.243 | 38.053 | 49.242 | 52.864 |
| 108.5 | 0.216 | 21.081 | 37.783 | 48.918 | 52.540 |
| 109.0 | 0.216 | 20.919 | 37.567 | 48.648 | 52.161 |
| 109.5 | 0.216 | 20.756 | 37.297 | 48.324 | 51.783 |
| 110.0 | 0.216 | 20.594 | 37.026 | 47.999 | 51.459 |
| 110.5 | 0.216 | 20.432 | 36.756 | 47.729 | 51.080 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|--------|--------|--------|--------|
| 111.0 | 0.216 | 20.216 | 36.486 | 47.405 | 50.810 |
| 111.5 | 0.216 | 20.054 | 36.216 | 47.080 | 50.432 |
| 112.0 | 0.270 | 19.838 | 35.891 | 46.756 | 50.107 |
| 112.5 | 0.216 | 19.675 | 35.621 | 46.486 | 49.783 |
| 113.0 | 0.216 | 19.459 | 35.351 | 46.161 | 49.405 |
| 113.5 | 0.270 | 19.243 | 35.080 | 45.837 | 49.134 |
| 114.0 | 0.270 | 19.081 | 34.756 | 45.513 | 48.756 |
| 114.5 | 0.270 | 18.865 | 34.486 | 45.188 | 48.432 |
| 115.0 | 0.270 | 18.648 | 34.162 | 44.810 | 48.107 |
| 115.5 | 0.270 | 18.486 | 33.891 | 44.486 | 47.783 |
| 116.0 | 0.270 | 18.270 | 33.621 | 44.107 | 47.405 |
| 116.5 | 0.270 | 18.054 | 33.405 | 43.783 | 47.080 |
| 117.0 | 0.270 | 17.892 | 33.189 | 43.459 | 46.702 |
| 117.5 | 0.270 | 17.675 | 32.972 | 43.080 | 46.324 |
| 118.0 | 0.270 | 17.513 | 32.756 | 42.756 | 45.945 |
| 118.5 | 0.270 | 17.297 | 32.540 | 42.378 | 45.621 |
| 119.0 | 0.270 | 17.135 | 32.378 | 41.999 | 45.188 |
| 119.5 | 0.270 | 16.919 | 32.216 | 41.621 | 44.810 |
| 120.0 | 0.270 | 16.756 | 32.108 | 41.243 | 44.486 |
| 120.5 | 0.270 | 16.540 | 31.945 | 40.864 | 44.107 |
| 121.0 | 0.270 | 16.378 | 31.837 | 40.540 | 43.675 |
| 121.5 | 0.270 | 16.216 | 31.729 | 40.161 | 43.297 |
| 122.0 | 0.270 | 16.000 | 31.621 | 39.783 | 42.918 |
| 122.5 | 0.270 | 15.838 | 31.513 | 39.405 | 42.540 |
| 123.0 | 0.270 | 15.621 | 31.405 | 39.026 | 42.161 |
| 123.5 | 0.270 | 15.351 | 31.243 | 38.648 | 41.783 |
| 124.0 | 0.270 | 15.081 | 31.135 | 38.324 | 41.405 |
| 124.5 | 0.270 | 14.865 | 30.972 | 37.945 | 41.026 |
| 125.0 | 0.216 | 14.594 | 30.756 | 37.621 | 40.702 |
| 125.5 | 0.216 | 14.324 | 30.540 | 37.297 | 40.324 |
| 126.0 | 0.162 | 14.054 | 30.270 | 36.972 | 39.891 |
| 126.5 | 0.108 | 13.838 | 30.000 | 36.756 | 39.567 |
| 127.0 | 0.162 | 13.621 | 29.675 | 36.486 | 39.134 |
| 127.5 | 0.162 | 13.405 | 29.405 | 36.270 | 38.756 |
| 128.0 | 0.162 | 13.243 | 29.081 | 36.108 | 38.378 |
| 128.5 | 0.162 | 13.081 | 28.702 | 35.999 | 38.053 |
| 129.0 | 0.162 | 12.919 | 28.378 | 35.837 | 37.729 |
| 129.5 | 0.162 | 12.702 | 28.000 | 35.783 | 37.459 |
| 130.0 | 0.216 | 12.540 | 27.675 | 35.675 | 37.189 |
| 130.5 | 0.216 | 12.378 | 27.297 | 35.567 | 37.026 |
| 131.0 | 0.270 | 12.162 | 26.973 | 35.459 | 36.810 |
| 131.5 | 0.270 | 12.000 | 26.594 | 35.297 | 36.702 |
| 132.0 | 0.270 | 11.838 | 26.216 | 35.135 | 36.594 |
| 132.5 | 0.270 | 11.675 | 25.891 | 34.918 | 36.486 |
| 133.0 | 0.270 | 11.459 | 25.513 | 34.648 | 36.432 |
| 133.5 | 0.270 | 11.297 | 25.189 | 34.324 | 36.324 |
| 134.0 | 0.270 | 11.135 | 24.810 | 33.999 | 36.216 |
| 134.5 | 0.270 | 10.973 | 24.486 | 33.621 | 36.053 |
| 135.0 | 0.270 | 10.811 | 24.162 | 33.243 | 35.783 |
| 135.5 | 0.216 | 10.648 | 23.837 | 32.810 | 35.513 |
| 136.0 | 0.216 | 10.432 | 23.513 | 32.378 | 35.243 |
| 136.5 | 0.216 | 10.270 | 23.135 | 31.945 | 34.864 |
| 137.0 | 0.270 | 10.000 | 22.810 | 31.513 | 34.486 |
| 137.5 | 0.270 | 9.730 | 22.486 | 31.081 | 34.053 |
| 138.0 | 0.270 | 9.459 | 22.162 | 30.648 | 33.621 |
| 138.5 | 0.270 | 9.243 | 21.837 | 30.216 | 33.135 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|--------|--------|--------|
| 139.0 | 0.270 | 9.081 | 21.513 | 29.729 | 32.648 |
| 139.5 | 0.270 | 8.919 | 21.189 | 29.297 | 32.162 |
| 140.0 | 0.270 | 8.757 | 20.865 | 28.864 | 31.729 |
| 140.5 | 0.270 | 8.594 | 20.540 | 28.378 | 31.243 |
| 141.0 | 0.270 | 8.378 | 20.216 | 27.945 | 30.756 |
| 141.5 | 0.270 | 8.108 | 19.892 | 27.513 | 30.270 |
| 142.0 | 0.270 | 7.892 | 19.567 | 27.081 | 29.837 |
| 142.5 | 0.270 | 7.676 | 19.243 | 26.648 | 29.351 |
| 143.0 | 0.324 | 7.405 | 18.919 | 26.216 | 28.864 |
| 143.5 | 0.324 | 7.135 | 18.540 | 25.783 | 28.378 |
| 144.0 | 0.324 | 6.865 | 18.216 | 25.351 | 27.945 |
| 144.5 | 0.324 | 6.649 | 17.838 | 24.919 | 27.459 |
| 145.0 | 0.324 | 6.432 | 17.459 | 24.486 | 27.027 |
| 145.5 | 0.324 | 6.216 | 17.027 | 24.054 | 26.540 |
| 146.0 | 0.324 | 6.000 | 16.648 | 23.621 | 26.054 |
| 146.5 | 0.324 | 5.838 | 16.270 | 23.189 | 25.567 |
| 147.0 | 0.324 | 5.730 | 15.838 | 22.810 | 25.135 |
| 147.5 | 0.378 | 5.567 | 15.459 | 22.378 | 24.648 |
| 148.0 | 0.378 | 5.459 | 15.081 | 21.946 | 24.216 |
| 148.5 | 0.378 | 5.297 | 14.648 | 21.513 | 23.729 |
| 149.0 | 0.378 | 5.189 | 14.270 | 21.081 | 23.297 |
| 149.5 | 0.432 | 5.081 | 13.892 | 20.648 | 22.810 |
| 150.0 | 0.432 | 4.919 | 13.513 | 20.216 | 22.324 |
| 150.5 | 0.486 | 4.811 | 13.135 | 19.783 | 21.837 |
| 151.0 | 0.486 | 4.703 | 12.757 | 19.351 | 21.351 |
| 151.5 | 0.486 | 4.540 | 12.324 | 18.919 | 20.865 |
| 152.0 | 0.486 | 4.432 | 11.892 | 18.486 | 20.378 |
| 152.5 | 0.486 | 4.324 | 11.405 | 18.054 | 19.946 |
| 153.0 | 0.486 | 4.216 | 10.919 | 17.621 | 19.459 |
| 153.5 | 0.486 | 4.108 | 10.594 | 17.189 | 18.973 |
| 154.0 | 0.486 | 4.000 | 10.324 | 16.756 | 18.486 |
| 154.5 | 0.486 | 3.892 | 10.054 | 16.324 | 18.054 |
| 155.0 | 0.541 | 3.784 | 9.784 | 15.892 | 17.567 |
| 155.5 | 0.541 | 3.676 | 9.459 | 15.459 | 17.081 |
| 156.0 | 0.541 | 3.568 | 9.135 | 15.027 | 16.648 |
| 156.5 | 0.541 | 3.405 | 8.757 | 14.594 | 16.216 |
| 157.0 | 0.541 | 3.297 | 8.378 | 14.108 | 15.729 |
| 157.5 | 0.541 | 3.189 | 7.946 | 13.621 | 15.297 |
| 158.0 | 0.541 | 3.081 | 7.567 | 13.135 | 14.811 |
| 158.5 | 0.541 | 2.919 | 7.189 | 12.648 | 14.378 |
| 159.0 | 0.541 | 2.811 | 6.919 | 12.162 | 13.946 |
| 159.5 | 0.595 | 2.703 | 6.649 | 11.675 | 13.459 |
| 160.0 | 0.595 | 2.595 | 6.432 | 11.189 | 13.027 |
| 160.5 | 0.595 | 2.486 | 6.270 | 10.703 | 12.594 |
| 161.0 | 0.595 | 2.378 | 6.054 | 10.054 | 12.162 |
| 161.5 | 0.595 | 2.270 | 5.892 | 9.351 | 11.675 |
| 162.0 | 0.595 | 2.216 | 5.676 | 8.811 | 11.189 |
| 162.5 | 0.595 | 2.108 | 5.459 | 8.324 | 10.648 |
| 163.0 | 0.595 | 2.054 | 5.297 | 7.784 | 10.054 |
| 163.5 | 0.595 | 1.946 | 5.081 | 7.297 | 9.513 |
| 164.0 | 0.595 | 1.892 | 4.865 | 6.919 | 8.973 |
| 164.5 | 0.649 | 1.784 | 4.649 | 6.540 | 8.432 |
| 165.0 | 0.649 | 1.730 | 4.432 | 6.216 | 8.000 |
| 165.5 | 0.649 | 1.622 | 4.216 | 5.892 | 7.621 |
| 166.0 | 0.649 | 1.568 | 3.946 | 5.622 | 7.243 |
| 166.5 | 0.649 | 1.459 | 3.730 | 5.405 | 6.865 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 167.0 | 0.649 | 1.405 | 3.513 | 5.081 | 6.540 |
| 167.5 | 0.649 | 1.297 | 3.297 | 4.811 | 6.054 |
| 168.0 | 0.703 | 1.243 | 3.081 | 4.540 | 5.676 |
| 168.5 | 0.703 | 1.135 | 2.865 | 4.216 | 5.405 |
| 169.0 | 0.703 | 1.081 | 2.649 | 3.892 | 5.081 |
| 169.5 | 0.703 | 1.027 | 2.432 | 3.568 | 4.757 |
| 170.0 | 0.703 | 0.973 | 2.270 | 3.243 | 4.378 |
| 170.5 | 0.703 | 0.919 | 2.108 | 2.973 | 3.946 |
| 171.0 | 0.703 | 0.865 | 1.946 | 2.649 | 3.622 |
| 171.5 | 0.703 | 0.811 | 1.838 | 2.378 | 3.243 |
| 172.0 | 0.703 | 0.811 | 1.676 | 2.108 | 2.919 |
| 172.5 | 0.703 | 0.811 | 1.513 | 1.892 | 2.540 |
| 173.0 | 0.703 | 0.757 | 1.351 | 1.730 | 2.216 |
| 173.5 | 0.703 | 0.757 | 1.189 | 1.568 | 2.000 |
| 174.0 | 0.703 | 0.757 | 1.027 | 1.351 | 1.676 |
| 174.5 | 0.703 | 0.757 | 0.919 | 1.189 | 1.297 |
| 175.0 | 0.703 | 0.757 | 0.811 | 1.027 | 1.135 |
| 175.5 | 0.703 | 0.703 | 0.757 | 0.865 | 0.865 |
| 176.0 | 0.703 | 0.703 | 0.703 | 0.757 | 0.595 |
| 176.5 | 0.703 | 0.703 | 0.703 | 0.703 | 0.541 |
| 177.0 | 0.703 | 0.703 | 0.703 | 0.649 | 0.541 |
| 177.5 | 0.703 | 0.703 | 0.703 | 0.649 | 0.486 |
| 178.0 | 0.703 | 0.703 | 0.703 | 0.595 | 0.486 |
| 178.5 | 0.703 | 0.703 | 0.703 | 0.595 | 0.486 |
| 179.0 | 0.703 | 0.703 | 0.703 | 0.595 | 0.486 |
| 179.5 | 0.703 | 0.703 | 0.649 | 0.595 | 0.486 |
| 180.0 | 0.649 | 0.649 | 0.649 | 0.649 | 0.649 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 201.93 | N.A. | 12.40 |
| 0-30 | 416.41 | N.A. | 25.60 |
| 0-40 | 660.54 | N.A. | 40.60 |
| 0-60 | 1117.11 | N.A. | 68.70 |
| 0-80 | 1411.55 | N.A. | 86.70 |
| 0-90 | 1469.93 | N.A. | 90.30 |
| 10-90 | 1416.69 | N.A. | 87.10 |
| 20-40 | 458.61 | N.A. | 28.20 |
| 20-50 | 699.66 | N.A. | 43.00 |
| 40-70 | 629.79 | N.A. | 38.70 |
| 60-80 | 294.44 | N.A. | 18.10 |
| 70-80 | 121.23 | N.A. | 7.50 |
| 80-90 | 58.37 | N.A. | 3.60 |
| 90-110 | 71.30 | N.A. | 4.40 |
| 90-120 | 101.59 | N.A. | 6.20 |
| 90-130 | 124.82 | N.A. | 7.70 |
| 90-150 | 151.27 | N.A. | 9.30 |
| 90-180 | 157.22 | N.A. | 9.70 |
| 110-180 | 85.92 | N.A. | 5.30 |
| 0-180 | 1627.15 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 53.24 |
| 10-20 | 148.69 |
| 20-30 | 214.48 |
| 30-40 | 244.13 |
| 40-50 | 241.05 |
| 50-60 | 215.52 |
| 60-70 | 173.21 |
| 70-80 | 121.23 |
| 80-90 | 58.37 |
| 90-100 | 34.21 |
| 100-110 | 37.09 |
| 110-120 | 30.28 |
| 120-130 | 23.23 |
| 130-140 | 16.62 |
| 140-150 | 9.84 |
| 150-160 | 4.53 |
| 160-170 | 1.29 |
| 170-180 | 0.13 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

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 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 99 | 99 | 99 | 93 | 93 | 93 | 90 |
| 1 | 106 | 101 | 96 | 92 | 102 | 97 | 93 | 90 | 91 | 88 | 85 | 86 | 83 | 81 | 81 | 79 | 77 | 74 |
| 2 | 96 | 88 | 81 | 75 | 92 | 85 | 78 | 73 | 80 | 74 | 70 | 75 | 71 | 67 | 71 | 67 | 64 | 61 |
| 3 | 88 | 77 | 69 | 62 | 84 | 75 | 67 | 61 | 70 | 64 | 59 | 66 | 61 | 56 | 62 | 58 | 54 | 52 |
| 4 | 80 | 68 | 59 | 53 | 77 | 66 | 58 | 52 | 63 | 56 | 50 | 59 | 53 | 48 | 56 | 51 | 47 | 44 |
| 5 | 74 | 61 | 52 | 45 | 71 | 59 | 51 | 45 | 56 | 49 | 43 | 53 | 47 | 42 | 50 | 45 | 41 | 38 |
| 6 | 68 | 55 | 46 | 40 | 66 | 54 | 45 | 39 | 51 | 44 | 38 | 48 | 42 | 37 | 46 | 40 | 36 | 34 |
| 7 | 63 | 50 | 41 | 35 | 61 | 49 | 41 | 35 | 46 | 39 | 34 | 44 | 38 | 33 | 42 | 36 | 32 | 30 |
| 8 | 59 | 46 | 37 | 31 | 57 | 45 | 37 | 31 | 42 | 35 | 30 | 40 | 34 | 30 | 39 | 33 | 29 | 27 |
| 9 | 55 | 42 | 34 | 28 | 53 | 41 | 33 | 28 | 39 | 32 | 27 | 37 | 31 | 27 | 36 | 30 | 26 | 24 |
| 10 | 52 | 39 | 31 | 26 | 50 | 38 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 24 | 33 | 28 | 24 | 22 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX2S-4-00-L4-835-D-DIM-UNV_.IES

UGR TABLE - CORRECTED

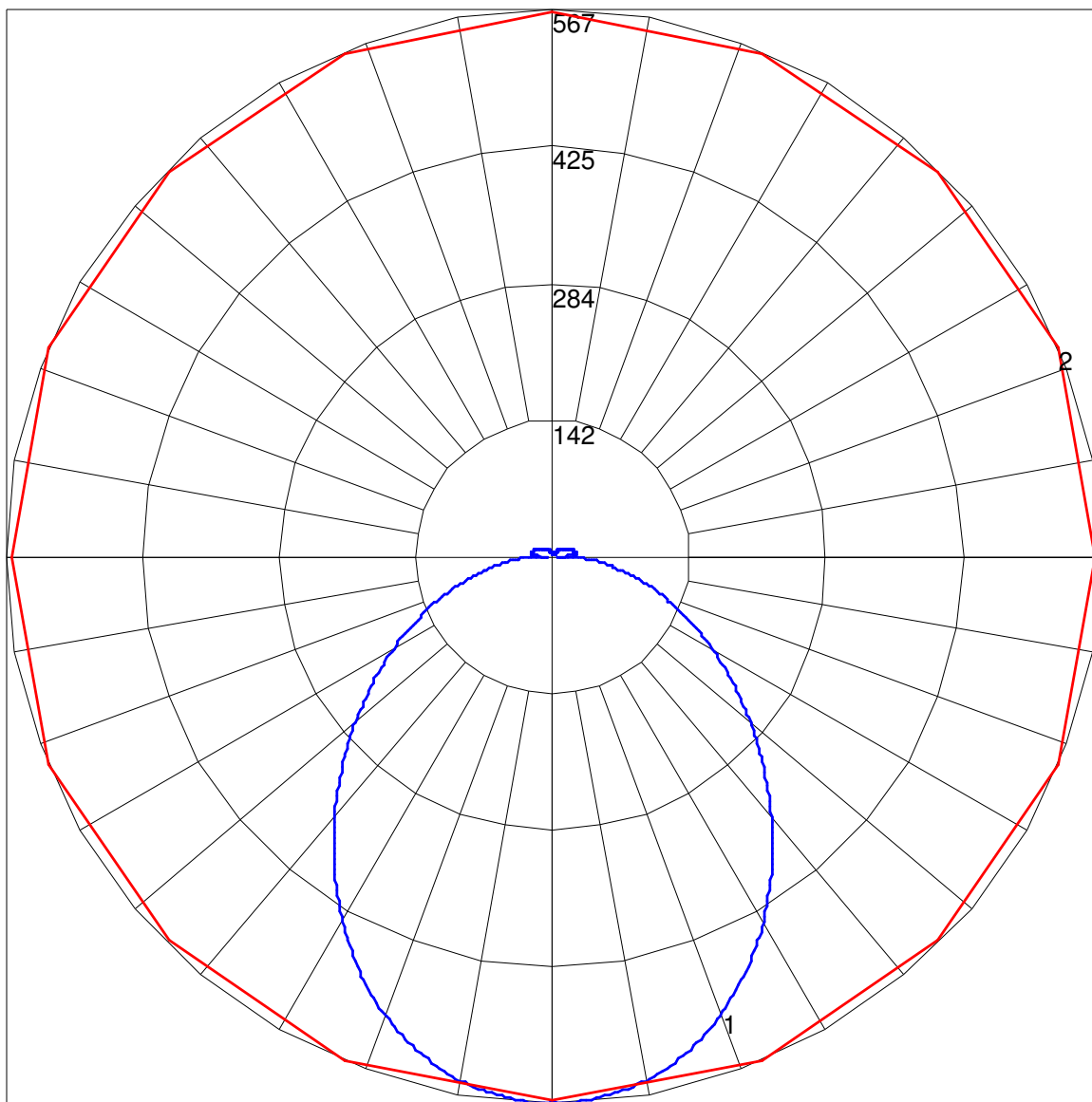
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 16.1 | 17.5 | 16.6 | 18.0 | 18.6 | 17.9 | 19.4 | 18.4 | 19.9 | 20.4 |
| | 3H | 17.5 | 18.8 | 18.0 | 19.3 | 19.9 | 20.3 | 21.6 | 20.8 | 22.1 | 22.7 |
| | 4H | 17.9 | 19.1 | 18.5 | 19.7 | 20.3 | 21.4 | 22.6 | 21.9 | 23.1 | 23.8 |
| | 6H | 18.2 | 19.3 | 18.7 | 19.9 | 20.5 | 22.5 | 23.7 | 23.1 | 24.2 | 24.8 |
| | 8H | 18.2 | 19.3 | 18.8 | 19.9 | 20.5 | 23.1 | 24.2 | 23.7 | 24.8 | 25.4 |
| | 12H | 18.3 | 19.3 | 18.8 | 19.8 | 20.5 | 23.7 | 24.7 | 24.3 | 25.3 | 26.0 |
| 4H | 2H | 17.0 | 18.2 | 17.5 | 18.7 | 19.3 | 18.4 | 19.6 | 18.9 | 20.1 | 20.8 |
| | 3H | 18.6 | 19.7 | 19.2 | 20.2 | 20.9 | 21.0 | 22.0 | 21.5 | 22.6 | 23.2 |
| | 4H | 19.2 | 20.2 | 19.8 | 20.7 | 21.4 | 22.3 | 23.2 | 22.8 | 23.8 | 24.4 |
| | 6H | 19.6 | 20.4 | 20.2 | 21.0 | 21.7 | 23.6 | 24.4 | 24.2 | 25.0 | 25.7 |
| | 8H | 19.7 | 20.5 | 20.3 | 21.1 | 21.8 | 24.2 | 25.0 | 24.9 | 25.6 | 26.3 |
| | 12H | 19.8 | 20.5 | 20.4 | 21.1 | 21.8 | 24.9 | 25.6 | 25.6 | 26.3 | 27.0 |
| 8H | 4H | 19.9 | 20.6 | 20.5 | 21.3 | 21.9 | 22.5 | 23.2 | 23.1 | 23.9 | 24.5 |
| | 6H | 20.5 | 21.1 | 21.1 | 21.8 | 22.5 | 24.0 | 24.6 | 24.6 | 25.3 | 26.0 |
| | 8H | 20.7 | 21.2 | 21.3 | 21.9 | 22.6 | 24.8 | 25.4 | 25.4 | 26.0 | 26.7 |
| | 12H | 20.8 | 21.3 | 21.5 | 22.0 | 22.7 | 25.7 | 26.2 | 26.3 | 26.8 | 27.6 |
| 12H | 4H | 20.0 | 20.7 | 20.7 | 21.4 | 22.1 | 22.5 | 23.2 | 23.1 | 23.8 | 24.5 |
| | 6H | 20.7 | 21.3 | 21.4 | 22.0 | 22.7 | 24.0 | 24.6 | 24.7 | 25.2 | 26.0 |
| | 8H | 21.0 | 21.5 | 21.7 | 22.2 | 23.0 | 24.9 | 25.4 | 25.6 | 26.1 | 26.8 |

Maximum UGR = 27.6

POLAR GRAPH



Maximum Candela = 567.018 Located At Horizontal Angle = 22.5, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)