

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L10-835-WH-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 4792018053.02
[TESTLAB] UL, LLC
[ISSUE DATE] 2025-12-10
[TEST DATE] 11/11/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 4LDR-L10-835-WH-DIM-UNV
[LUMINAIRE] 4" recessed downlight with textured white finish reflector
[MORE] and top diffuser lens
[LAMP] LED
[BALLAST] 0-10V LED DRIVER

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 863 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 93 |
| Total Luminaire Watts | 9.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.04 |
| Spacing Criterion (90-270) | 1.04 |
| Spacing Criterion (Diagonal) | 1.04 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.38 ft (Diameter) |
| Luminous Width (90-270) | 0.38 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 | 20624 | 20624 | 20624 |
| 55 | 13863 | 13863 | 13863 |
| 65 | 10443 | 10443 | 10443 |
| 75 | 7929 | 7929 | 7929 |
| 85 | 5800 | 5800 | 5800 |

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CANDELA TABULATION

| | <u>0</u> |
|------|----------|
| 0.0 | 588.494 |
| 0.5 | 588.805 |
| 1.0 | 588.494 |
| 1.5 | 588.183 |
| 2.0 | 587.872 |
| 2.5 | 587.561 |
| 3.0 | 586.940 |
| 3.5 | 586.318 |
| 4.0 | 585.696 |
| 4.5 | 584.763 |
| 5.0 | 584.142 |
| 5.5 | 582.898 |
| 6.0 | 582.276 |
| 6.5 | 580.722 |
| 7.0 | 579.478 |
| 7.5 | 577.924 |
| 8.0 | 576.681 |
| 8.5 | 575.126 |
| 9.0 | 573.261 |
| 9.5 | 571.396 |
| 10.0 | 569.841 |
| 10.5 | 567.976 |
| 11.0 | 566.111 |
| 11.5 | 563.934 |
| 12.0 | 561.447 |
| 12.5 | 559.271 |
| 13.0 | 557.095 |
| 13.5 | 554.297 |
| 14.0 | 551.810 |
| 14.5 | 549.323 |
| 15.0 | 546.525 |
| 15.5 | 543.727 |
| 16.0 | 540.619 |
| 16.5 | 537.821 |
| 17.0 | 534.712 |
| 17.5 | 531.292 |
| 18.0 | 528.183 |
| 18.5 | 524.764 |
| 19.0 | 521.033 |
| 19.5 | 517.303 |
| 20.0 | 513.261 |
| 20.5 | 509.220 |
| 21.0 | 504.867 |
| 21.5 | 499.893 |
| 22.0 | 494.919 |
| 22.5 | 489.634 |
| 23.0 | 484.039 |
| 23.5 | 477.821 |
| 24.0 | 470.982 |
| 24.5 | 464.453 |
| 25.0 | 456.992 |
| 25.5 | 449.531 |
| 26.0 | 442.381 |
| 26.5 | 434.298 |

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CANDELA TABULATION - (Cont.)

| | |
|------|---------|
| 27.0 | 426.215 |
| 27.5 | 417.510 |
| 28.0 | 409.117 |
| 28.5 | 400.723 |
| 29.0 | 392.329 |
| 29.5 | 384.557 |
| 30.0 | 376.474 |
| 30.5 | 367.770 |
| 31.0 | 359.065 |
| 31.5 | 350.050 |
| 32.0 | 341.345 |
| 32.5 | 332.641 |
| 33.0 | 323.936 |
| 33.5 | 315.542 |
| 34.0 | 306.962 |
| 34.5 | 298.599 |
| 35.0 | 290.361 |
| 35.5 | 282.185 |
| 36.0 | 274.133 |
| 36.5 | 266.144 |
| 37.0 | 258.278 |
| 37.5 | 250.537 |
| 38.0 | 242.921 |
| 38.5 | 235.304 |
| 39.0 | 227.874 |
| 39.5 | 220.506 |
| 40.0 | 213.294 |
| 40.5 | 206.144 |
| 41.0 | 199.180 |
| 41.5 | 192.310 |
| 42.0 | 185.688 |
| 42.5 | 179.160 |
| 43.0 | 172.880 |
| 43.5 | 166.787 |
| 44.0 | 160.880 |
| 44.5 | 155.222 |
| 45.0 | 149.781 |
| 45.5 | 144.559 |
| 46.0 | 139.585 |
| 46.5 | 134.859 |
| 47.0 | 130.352 |
| 47.5 | 126.093 |
| 48.0 | 122.051 |
| 48.5 | 118.196 |
| 49.0 | 114.559 |
| 49.5 | 111.077 |
| 50.0 | 107.813 |
| 50.5 | 104.673 |
| 51.0 | 101.720 |
| 51.5 | 98.891 |
| 52.0 | 96.186 |
| 52.5 | 93.575 |
| 53.0 | 91.056 |
| 53.5 | 88.601 |
| 54.0 | 86.238 |
| 54.5 | 83.937 |

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CANDELA TABULATION - (Cont.)

| | |
|------|--------|
| 55.0 | 81.668 |
| 55.5 | 79.523 |
| 56.0 | 77.471 |
| 56.5 | 75.450 |
| 57.0 | 73.430 |
| 57.5 | 71.440 |
| 58.0 | 69.450 |
| 58.5 | 67.461 |
| 59.0 | 65.533 |
| 59.5 | 63.668 |
| 60.0 | 61.803 |
| 60.5 | 60.000 |
| 61.0 | 58.197 |
| 61.5 | 56.487 |
| 62.0 | 54.777 |
| 62.5 | 53.129 |
| 63.0 | 51.513 |
| 63.5 | 49.927 |
| 64.0 | 48.311 |
| 64.5 | 46.818 |
| 65.0 | 45.326 |
| 65.5 | 43.865 |
| 66.0 | 42.404 |
| 66.5 | 41.005 |
| 67.0 | 39.637 |
| 67.5 | 38.300 |
| 68.0 | 36.995 |
| 68.5 | 35.689 |
| 69.0 | 34.414 |
| 69.5 | 33.171 |
| 70.0 | 31.958 |
| 70.5 | 30.777 |
| 71.0 | 29.596 |
| 71.5 | 28.445 |
| 72.0 | 27.326 |
| 72.5 | 26.238 |
| 73.0 | 25.150 |
| 73.5 | 24.124 |
| 74.0 | 23.098 |
| 74.5 | 22.072 |
| 75.0 | 21.078 |
| 75.5 | 20.114 |
| 76.0 | 19.181 |
| 76.5 | 18.249 |
| 77.0 | 17.347 |
| 77.5 | 16.445 |
| 78.0 | 15.606 |
| 78.5 | 14.736 |
| 79.0 | 13.896 |
| 79.5 | 13.088 |
| 80.0 | 12.280 |
| 80.5 | 11.503 |
| 81.0 | 10.725 |
| 81.5 | 9.979 |
| 82.0 | 9.264 |
| 82.5 | 8.549 |

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CANDELA TABULATION - (Cont.)

| | |
|-------|-------|
| 83.0 | 7.834 |
| 83.5 | 7.150 |
| 84.0 | 6.497 |
| 84.5 | 5.813 |
| 85.0 | 5.192 |
| 85.5 | 4.570 |
| 86.0 | 3.948 |
| 86.5 | 3.357 |
| 87.0 | 2.767 |
| 87.5 | 2.207 |
| 88.0 | 1.679 |
| 88.5 | 1.150 |
| 89.0 | 0.684 |
| 89.5 | 0.311 |
| 90.0 | 0.000 |
| 90.5 | 0.000 |
| 91.0 | 0.000 |
| 91.5 | 0.000 |
| 92.0 | 0.000 |
| 92.5 | 0.000 |
| 93.0 | 0.000 |
| 93.5 | 0.000 |
| 94.0 | 0.000 |
| 94.5 | 0.000 |
| 95.0 | 0.000 |
| 95.5 | 0.000 |
| 96.0 | 0.000 |
| 96.5 | 0.000 |
| 97.0 | 0.000 |
| 97.5 | 0.000 |
| 98.0 | 0.000 |
| 98.5 | 0.000 |
| 99.0 | 0.000 |
| 99.5 | 0.000 |
| 100.0 | 0.000 |
| 100.5 | 0.000 |
| 101.0 | 0.000 |
| 101.5 | 0.000 |
| 102.0 | 0.000 |
| 102.5 | 0.000 |
| 103.0 | 0.000 |
| 103.5 | 0.000 |
| 104.0 | 0.000 |
| 104.5 | 0.000 |
| 105.0 | 0.000 |
| 105.5 | 0.000 |
| 106.0 | 0.000 |
| 106.5 | 0.000 |
| 107.0 | 0.000 |
| 107.5 | 0.000 |
| 108.0 | 0.000 |
| 108.5 | 0.000 |
| 109.0 | 0.000 |
| 109.5 | 0.000 |
| 110.0 | 0.000 |
| 110.5 | 0.000 |

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | |
|-------|-------|
| 111.0 | 0.000 |
| 111.5 | 0.000 |
| 112.0 | 0.000 |
| 112.5 | 0.000 |
| 113.0 | 0.000 |
| 113.5 | 0.000 |
| 114.0 | 0.000 |
| 114.5 | 0.000 |
| 115.0 | 0.000 |
| 115.5 | 0.000 |
| 116.0 | 0.000 |
| 116.5 | 0.000 |
| 117.0 | 0.000 |
| 117.5 | 0.000 |
| 118.0 | 0.000 |
| 118.5 | 0.000 |
| 119.0 | 0.000 |
| 119.5 | 0.000 |
| 120.0 | 0.000 |
| 120.5 | 0.000 |
| 121.0 | 0.000 |
| 121.5 | 0.000 |
| 122.0 | 0.000 |
| 122.5 | 0.000 |
| 123.0 | 0.000 |
| 123.5 | 0.000 |
| 124.0 | 0.000 |
| 124.5 | 0.000 |
| 125.0 | 0.000 |
| 125.5 | 0.000 |
| 126.0 | 0.000 |
| 126.5 | 0.000 |
| 127.0 | 0.000 |
| 127.5 | 0.000 |
| 128.0 | 0.000 |
| 128.5 | 0.000 |
| 129.0 | 0.000 |
| 129.5 | 0.000 |
| 130.0 | 0.000 |
| 130.5 | 0.000 |
| 131.0 | 0.000 |
| 131.5 | 0.000 |
| 132.0 | 0.000 |
| 132.5 | 0.000 |
| 133.0 | 0.000 |
| 133.5 | 0.000 |
| 134.0 | 0.000 |
| 134.5 | 0.000 |
| 135.0 | 0.000 |
| 135.5 | 0.000 |
| 136.0 | 0.000 |
| 136.5 | 0.000 |
| 137.0 | 0.000 |
| 137.5 | 0.000 |
| 138.0 | 0.000 |
| 138.5 | 0.000 |

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | |
|-------|-------|
| 139.0 | 0.000 |
| 139.5 | 0.000 |
| 140.0 | 0.000 |
| 140.5 | 0.000 |
| 141.0 | 0.000 |
| 141.5 | 0.000 |
| 142.0 | 0.000 |
| 142.5 | 0.000 |
| 143.0 | 0.000 |
| 143.5 | 0.000 |
| 144.0 | 0.000 |
| 144.5 | 0.000 |
| 145.0 | 0.000 |
| 145.5 | 0.000 |
| 146.0 | 0.000 |
| 146.5 | 0.000 |
| 147.0 | 0.000 |
| 147.5 | 0.000 |
| 148.0 | 0.000 |
| 148.5 | 0.000 |
| 149.0 | 0.000 |
| 149.5 | 0.000 |
| 150.0 | 0.000 |
| 150.5 | 0.000 |
| 151.0 | 0.000 |
| 151.5 | 0.000 |
| 152.0 | 0.000 |
| 152.5 | 0.000 |
| 153.0 | 0.000 |
| 153.5 | 0.000 |
| 154.0 | 0.000 |
| 154.5 | 0.000 |
| 155.0 | 0.000 |
| 155.5 | 0.000 |
| 156.0 | 0.000 |
| 156.5 | 0.000 |
| 157.0 | 0.000 |
| 157.5 | 0.000 |
| 158.0 | 0.000 |
| 158.5 | 0.000 |
| 159.0 | 0.000 |
| 159.5 | 0.000 |
| 160.0 | 0.000 |
| 160.5 | 0.000 |
| 161.0 | 0.000 |
| 161.5 | 0.000 |
| 162.0 | 0.000 |
| 162.5 | 0.000 |
| 163.0 | 0.000 |
| 163.5 | 0.000 |
| 164.0 | 0.000 |
| 164.5 | 0.000 |
| 165.0 | 0.000 |
| 165.5 | 0.000 |
| 166.0 | 0.000 |
| 166.5 | 0.000 |

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | |
|-------|-------|
| 167.0 | 0.000 |
| 167.5 | 0.000 |
| 168.0 | 0.000 |
| 168.5 | 0.000 |
| 169.0 | 0.000 |
| 169.5 | 0.000 |
| 170.0 | 0.000 |
| 170.5 | 0.000 |
| 171.0 | 0.000 |
| 171.5 | 0.000 |
| 172.0 | 0.000 |
| 172.5 | 0.000 |
| 173.0 | 0.000 |
| 173.5 | 0.000 |
| 174.0 | 0.000 |
| 174.5 | 0.000 |
| 175.0 | 0.000 |
| 175.5 | 0.000 |
| 176.0 | 0.000 |
| 176.5 | 0.000 |
| 177.0 | 0.000 |
| 177.5 | 0.000 |
| 178.0 | 0.000 |
| 178.5 | 0.000 |
| 179.0 | 0.000 |
| 179.5 | 0.000 |
| 180.0 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|-------|--------|
| 0-20 | 208.90 | N.A. | 24.20 |
| 0-30 | 416.43 | N.A. | 48.30 |
| 0-40 | 597.70 | N.A. | 69.30 |
| 0-60 | 789.20 | N.A. | 91.40 |
| 0-80 | 857.09 | N.A. | 99.30 |
| 0-90 | 863.04 | N.A. | 100.00 |
| 10-90 | 807.75 | N.A. | 93.60 |
| 20-40 | 388.79 | N.A. | 45.00 |
| 20-50 | 506.47 | N.A. | 58.70 |
| 40-70 | 236.80 | N.A. | 27.40 |
| 60-80 | 67.90 | N.A. | 7.90 |
| 70-80 | 22.59 | N.A. | 2.60 |
| 80-90 | 5.95 | N.A. | 0.70 |
| 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 | 863.04 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 55.29 |
| 10-20 | 153.61 |
| 20-30 | 207.52 |
| 30-40 | 181.27 |
| 40-50 | 117.68 |
| 50-60 | 73.82 |
| 60-70 | 45.30 |
| 70-80 | 22.59 |
| 80-90 | 5.95 |
| 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 | 111 | 108 | 104 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 |
| 2 | 104 | 97 | 92 | 88 | 101 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 83 | 81 | 79 |
| 3 | 97 | 88 | 82 | 77 | 94 | 87 | 81 | 76 | 84 | 79 | 75 | 81 | 77 | 74 | 79 | 75 | 72 | 71 |
| 4 | 90 | 81 | 73 | 68 | 88 | 79 | 73 | 68 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 5 | 84 | 74 | 66 | 61 | 82 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 60 | 67 | 63 | 59 | 57 |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 55 | 64 | 58 | 54 | 62 | 58 | 54 | 52 |
| 7 | 74 | 63 | 55 | 50 | 73 | 62 | 55 | 50 | 61 | 54 | 50 | 59 | 54 | 49 | 58 | 53 | 49 | 47 |
| 8 | 70 | 58 | 51 | 46 | 68 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 45 | 54 | 49 | 45 | 44 |
| 9 | 66 | 54 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 48 | 42 | 39 | 37 |

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UGR TABLE - CORRECTED

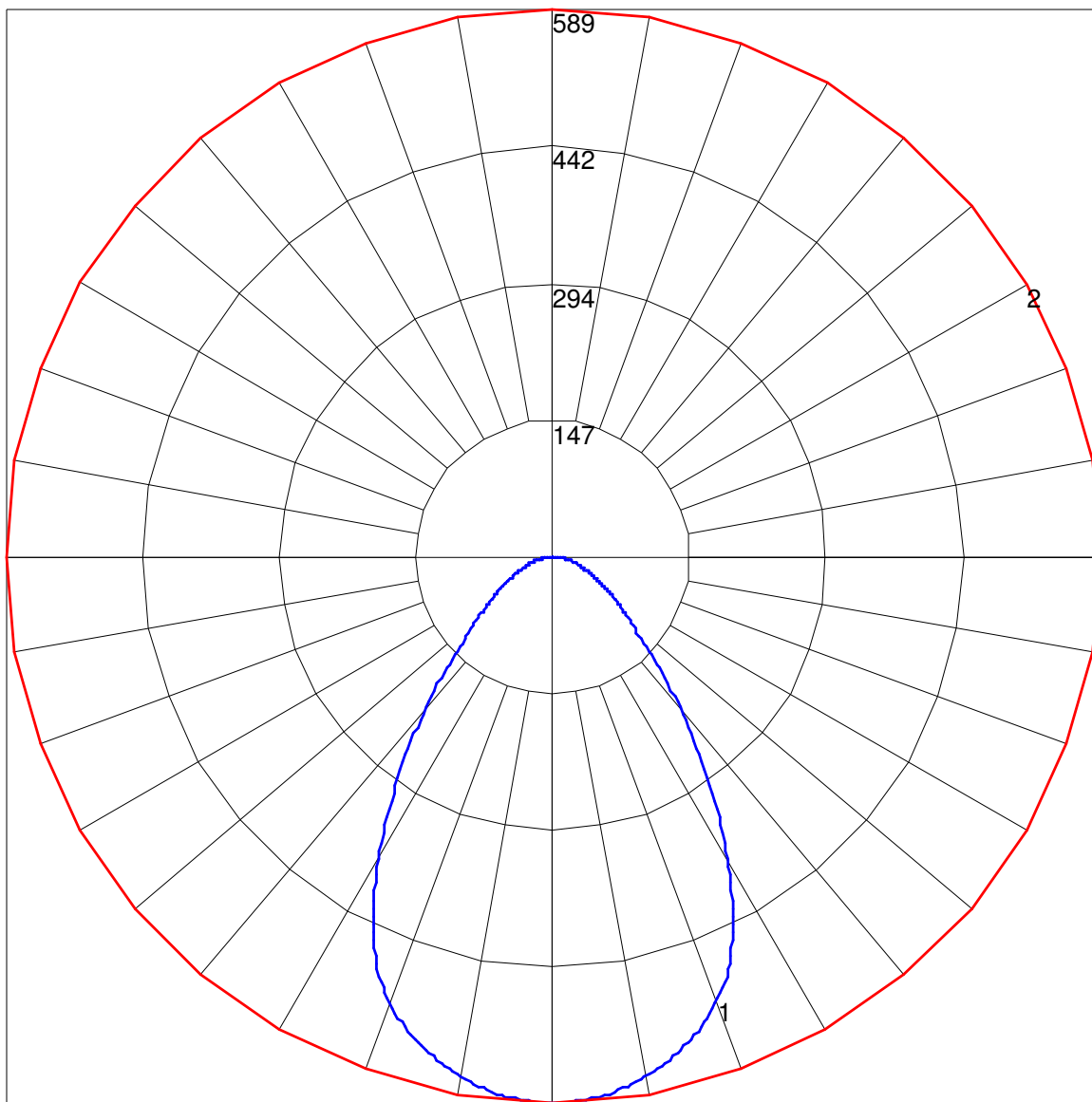
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 18.2 | 19.5 | 18.5 | 19.8 | 20.1 | 18.2 | 19.5 | 18.5 | 19.8 | 20.1 |
| | 3H | 19.4 | 20.6 | 19.8 | 20.9 | 21.3 | 19.4 | 20.6 | 19.8 | 20.9 | 21.3 |
| | 4H | 19.8 | 20.9 | 20.2 | 21.3 | 21.7 | 19.8 | 20.9 | 20.2 | 21.3 | 21.7 |
| | 6H | 20.1 | 21.1 | 20.5 | 21.5 | 21.9 | 20.1 | 21.1 | 20.5 | 21.5 | 21.9 |
| | 8H | 20.2 | 21.2 | 20.7 | 21.6 | 22.0 | 20.2 | 21.2 | 20.7 | 21.6 | 22.0 |
| | 12H | 20.3 | 21.2 | 20.7 | 21.6 | 22.0 | 20.3 | 21.2 | 20.7 | 21.6 | 22.0 |
| 4H | 2H | 18.6 | 19.7 | 19.0 | 20.0 | 20.4 | 18.6 | 19.7 | 19.0 | 20.0 | 20.4 |
| | 3H | 20.0 | 20.9 | 20.4 | 21.3 | 21.7 | 20.0 | 20.9 | 20.4 | 21.3 | 21.7 |
| | 4H | 20.5 | 21.4 | 21.0 | 21.8 | 22.2 | 20.5 | 21.4 | 21.0 | 21.8 | 22.2 |
| | 6H | 21.0 | 21.7 | 21.4 | 22.1 | 22.6 | 21.0 | 21.7 | 21.4 | 22.1 | 22.6 |
| | 8H | 21.1 | 21.7 | 21.5 | 22.2 | 22.6 | 21.1 | 21.7 | 21.5 | 22.2 | 22.6 |
| | 12H | 21.2 | 21.7 | 21.6 | 22.2 | 22.7 | 21.2 | 21.7 | 21.6 | 22.2 | 22.7 |
| 8H | 4H | 20.7 | 21.4 | 21.2 | 21.8 | 22.3 | 20.7 | 21.4 | 21.2 | 21.8 | 22.3 |
| | 6H | 21.2 | 21.8 | 21.7 | 22.2 | 22.7 | 21.2 | 21.8 | 21.7 | 22.2 | 22.7 |
| | 8H | 21.4 | 21.9 | 21.9 | 22.4 | 22.9 | 21.4 | 21.9 | 21.9 | 22.4 | 22.9 |
| | 12H | 21.5 | 22.0 | 22.1 | 22.5 | 23.0 | 21.5 | 22.0 | 22.1 | 22.5 | 23.0 |
| 12H | 4H | 20.7 | 21.3 | 21.2 | 21.8 | 22.2 | 20.7 | 21.3 | 21.2 | 21.8 | 22.2 |
| | 6H | 21.2 | 21.7 | 21.8 | 22.2 | 22.7 | 21.2 | 21.7 | 21.8 | 22.2 | 22.7 |
| | 8H | 21.5 | 21.9 | 22.0 | 22.4 | 23.0 | 21.5 | 21.9 | 22.0 | 22.4 | 23.0 |

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 588.805 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.)