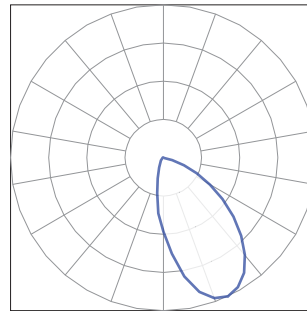


BoxRail® | 107

107-BX-X-4-48-X-X-X-X-X-Z-SO-359-A1-X-BL-X

The performance data in black text is confirmed through third party testing (see the following Light Laboratory report for details). The performance data in grey text is calculated by Vode, for reference only.

Technical Support: (707) 996-9898



Details

| | |
|--------------------|---------------------------|
| Rail Type / Length | BoxRail, 48" |
| LED Type | Zipper Board |
| Lumen Output | Standard Output |
| Color Temperature | 3500K, 90+ CRI |
| Optics | 85° Black Asymmetric Lens |

Performance Summary

| | 2700K | 3000K | 3500K | 4000K |
|-----------------------------------|-------|-------|-------|-------|
| Color Temperature | 2700K | 3000K | 3500K | 4000K |
| Efficacy - Lumens per Watt | 37 | 38 | 39 | 40 |
| Total Lumens, 4' rail (1219mm) | 881 | 908 | 927 | 945 |
| Lumens per foot (305mm) | 220 | 227 | 232 | 236 |
| Input Power (W), 4' rail (1219mm) | 24.1 | 24.1 | 24.1 | 24.1 |
| Watts per foot (305mm) | 6.1 | 6.1 | 6.1 | 6.1 |
| CRI | - | - | 96 | - |

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IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_BX_SO_359_A1-BL.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L071704213 (SOURCE REPORT FOR REFERENCE)
 [TESTLAB] REPORT BASED ON DATA PRODUCED BY NVLAP ACCREDITED LAB
 [ISSUEDATE] 11/1/2017
 [MANUFAC] Vode Lighting
 [LUMCAT] 107-BX-48-Z-SO-359-A1-BL
 [LUMINAIRE] BoxRail LED, 48", 3500K, 90 CRI, zipper board,
 [MORE] 85° black asymmetric lens, standard output
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 927 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 38 |
| Total Luminaire Watts | 24.08 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 2.06 |
| Spacing Criterion (90-270) | 1.12 |
| Spacing Criterion (Diagonal) | 1.38 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.04 ft |
| Luminous Width (90-270) | 3.83 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45 | 55476 | 46546 | 15100 |
| 55 | 44882 | 35273 | 10034 |
| 65 | 31230 | 24084 | 6936 |
| 75 | 12496 | 14037 | 5123 |
| 85 | 0 | 0 | 3204 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_BX_SO_359_A1-BL.IES

CANDELA TABULATION

| | <u>0</u> | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |
|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 |
| 5 | 488.876 | 488.539 | 486.846 | 484.051 | 478.706 | 472.699 | 466.344 | 459.143 | 451.523 | 443.476 |
| 10 | 611.347 | 610.419 | 607.369 | 602.198 | 594.068 | 583.991 | 572.475 | 559.766 | 545.710 | 529.615 |
| 15 | 703.331 | 702.229 | 698.588 | 692.315 | 683.084 | 671.231 | 657.002 | 640.652 | 622.098 | 601.270 |
| 20 | 758.207 | 756.942 | 753.219 | 747.119 | 738.143 | 726.026 | 711.623 | 694.100 | 673.088 | 649.628 |
| 25 | 775.149 | 773.966 | 770.834 | 765.500 | 757.024 | 745.763 | 732.207 | 714.928 | 694.181 | 670.130 |
| 30 | 758.044 | 757.115 | 754.321 | 749.659 | 742.203 | 732.207 | 719.671 | 703.331 | 683.257 | 659.960 |
| 35 | 713.327 | 712.562 | 710.185 | 706.034 | 698.924 | 690.285 | 678.514 | 662.847 | 643.273 | 620.578 |
| 40 | 643.875 | 643.192 | 641.080 | 637.010 | 630.656 | 622.016 | 610.164 | 594.742 | 575.351 | 552.993 |
| 45 | 558.838 | 558.073 | 555.951 | 552.228 | 546.047 | 536.979 | 524.872 | 509.878 | 490.906 | 468.884 |
| 50 | 464.824 | 464.314 | 462.448 | 459.143 | 453.635 | 444.577 | 432.296 | 417.047 | 398.412 | 377.155 |
| 55 | 366.741 | 366.486 | 365.048 | 362.171 | 357.255 | 349.289 | 338.201 | 325.411 | 308.213 | 288.221 |
| 60 | 274.247 | 274.084 | 273.319 | 271.371 | 267.730 | 261.548 | 252.817 | 240.883 | 226.144 | 210.130 |
| 65 | 188.027 | 187.945 | 187.772 | 187.099 | 185.150 | 181.509 | 175.664 | 167.188 | 156.611 | 145.003 |
| 70 | 112.139 | 112.394 | 112.985 | 113.577 | 113.669 | 112.730 | 110.272 | 105.876 | 99.858 | 92.830 |
| 75 | 46.073 | 46.502 | 47.940 | 49.970 | 52.428 | 54.458 | 55.814 | 55.733 | 54.295 | 51.755 |
| 80 | 3.050 | 3.223 | 3.723 | 4.406 | 5.590 | 7.456 | 9.996 | 13.301 | 16.606 | 18.890 |
| 85 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Vert. Horizontal Angles
Angles

| | <u>50</u> | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> | <u>95</u> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 |
| 5 | 434.663 | 425.687 | 416.374 | 407.143 | 398.330 | 389.436 | 380.042 | 371.056 | 362.080 | 352.767 |
| 10 | 512.336 | 494.210 | 474.983 | 455.675 | 436.448 | 416.201 | 395.791 | 376.227 | 356.663 | 336.590 |
| 15 | 576.708 | 551.718 | 524.025 | 495.057 | 466.171 | 435.601 | 404.603 | 375.044 | 345.739 | 316.088 |
| 20 | 622.098 | 592.120 | 558.246 | 522.413 | 485.316 | 447.117 | 406.888 | 367.924 | 330.235 | 292.465 |
| 25 | 641.243 | 607.706 | 571.537 | 532.073 | 488.539 | 443.904 | 396.474 | 352.002 | 306.439 | 262.905 |
| 30 | 631.247 | 597.628 | 560.439 | 519.364 | 472.862 | 423.065 | 371.311 | 324.646 | 275.349 | 229.194 |
| 35 | 593.395 | 560.786 | 523.433 | 481.420 | 436.274 | 376.309 | 337.008 | 286.875 | 237.405 | 193.361 |
| 40 | 526.901 | 495.730 | 460.418 | 420.781 | 375.125 | 333.285 | 286.447 | 238.680 | 193.708 | 155.509 |
| 45 | 442.711 | 413.324 | 381.143 | 346.749 | 309.652 | 269.086 | 227.582 | 188.363 | 152.113 | 119.595 |
| 50 | 347.086 | 327.185 | 298.554 | 268.321 | 237.497 | 204.714 | 171.768 | 141.280 | 113.414 | 88.760 |
| 55 | 266.373 | 244.351 | 220.718 | 196.585 | 172.696 | 148.726 | 123.746 | 101.806 | 81.988 | 64.535 |
| 60 | 192.433 | 174.981 | 157.457 | 139.414 | 121.462 | 104.264 | 87.496 | 72.502 | 58.783 | 46.920 |
| 65 | 132.212 | 119.340 | 106.886 | 94.860 | 82.753 | 71.227 | 60.221 | 50.561 | 41.759 | 34.129 |
| 70 | 84.956 | 76.908 | 69.115 | 61.322 | 54.203 | 47.175 | 40.147 | 34.476 | 29.141 | 24.398 |
| 75 | 48.277 | 44.462 | 40.229 | 36.424 | 32.609 | 28.886 | 24.990 | 21.848 | 18.890 | 16.351 |
| 80 | 19.737 | 19.564 | 18.717 | 17.534 | 16.177 | 14.739 | 13.301 | 11.689 | 10.588 | 9.404 |
| 85 | 0.255 | 0.928 | 2.203 | 3.560 | 4.325 | 4.570 | 4.488 | 4.233 | 3.978 | 3.723 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Vert. Horizontal Angles
Angles

| | <u>100</u> | <u>105</u> | <u>110</u> | <u>115</u> | <u>120</u> | <u>125</u> | <u>130</u> | <u>135</u> | <u>140</u> | <u>145</u> |
|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 |
| 5 | 344.046 | 335.906 | 328.114 | 320.831 | 314.650 | 308.805 | 303.644 | 298.809 | 294.913 | 291.526 |
| 10 | 318.128 | 300.421 | 284.162 | 268.994 | 254.347 | 241.811 | 230.296 | 220.126 | 211.660 | 203.949 |
| 15 | 289.323 | 263.660 | 240.628 | 219.708 | 200.399 | 183.967 | 169.136 | 156.519 | 146.268 | 137.292 |
| 20 | 258.835 | 227.154 | 199.889 | 175.236 | 154.489 | 136.445 | 121.706 | 109.344 | 99.348 | 90.964 |
| 25 | 224.869 | 191.413 | 161.354 | 136.364 | 116.117 | 99.776 | 86.139 | 76.816 | 67.585 | 60.986 |
| 30 | 189.893 | 156.009 | 127.296 | 104.601 | 85.802 | 74.786 | 61.577 | 53.275 | 47.175 | 42.432 |
| 35 | 155.509 | 123.491 | 97.828 | 78.683 | 63.434 | 52.765 | 44.809 | 38.709 | 34.303 | 31.171 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_BX_SO_359_A1-BL.IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|-----------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 40 | 122.553 | 95.033 | 75.970 | 59.038 | 47.348 | 39.382 | 33.711 | 29.305 | 26.428 | 24.225 |
| 45 | 92.993 | 74.450 | 55.896 | 44.635 | 36.169 | 30.580 | 26.591 | 23.715 | 21.593 | 19.992 |
| 50 | 70.890 | 53.356 | 42.269 | 34.384 | 28.631 | 24.562 | 21.767 | 19.819 | 18.380 | 17.360 |
| 55 | 50.908 | 40.321 | 32.691 | 27.275 | 23.297 | 20.665 | 18.635 | 17.279 | 16.259 | 15.504 |
| 60 | 38.026 | 31.079 | 25.837 | 22.022 | 19.482 | 17.534 | 16.177 | 15.249 | 14.566 | 14.056 |
| 65 | 28.285 | 23.715 | 20.329 | 17.952 | 16.177 | 14.902 | 13.974 | 13.382 | 12.964 | 12.536 |
| 70 | 20.747 | 17.870 | 15.759 | 14.229 | 13.127 | 12.362 | 11.863 | 11.434 | 11.098 | 10.924 |
| 75 | 14.147 | 12.617 | 11.434 | 10.669 | 10.078 | 9.659 | 9.313 | 9.149 | 8.976 | 8.813 |
| 80 | 8.384 | 7.711 | 7.283 | 7.028 | 6.691 | 6.691 | 6.518 | 6.518 | 6.436 | 6.355 |
| 85 | 3.641 | 3.641 | 3.560 | 3.560 | 3.478 | 3.223 | 3.050 | 2.713 | 2.621 | 2.458 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Vert. Horizontal Angles

| | <u>150</u> | <u>155</u> | <u>160</u> | <u>165</u> | <u>170</u> | <u>175</u> | <u>180</u> |
|-----------|------------|------------|------------|------------|------------|------------|------------|
| 0 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 | 375.482 |
| 5 | 288.986 | 287.212 | 285.773 | 285.263 | 285.263 | 284.417 | 283.907 |
| 10 | 197.605 | 192.688 | 188.792 | 186.170 | 184.814 | 183.029 | 182.437 |
| 15 | 130.009 | 124.338 | 119.677 | 116.464 | 114.679 | 112.904 | 112.312 |
| 20 | 84.364 | 79.958 | 75.806 | 73.093 | 71.400 | 70.043 | 69.625 |
| 25 | 55.988 | 52.255 | 49.378 | 47.348 | 46.073 | 45.227 | 44.890 |
| 30 | 38.872 | 36.251 | 34.303 | 33.028 | 32.099 | 31.508 | 31.334 |
| 35 | 28.631 | 26.938 | 25.663 | 24.817 | 24.225 | 23.797 | 23.715 |
| 40 | 22.695 | 21.430 | 20.584 | 19.992 | 19.655 | 19.309 | 19.309 |
| 45 | 18.972 | 18.125 | 17.534 | 17.197 | 16.942 | 16.687 | 16.606 |
| 50 | 16.606 | 16.004 | 15.586 | 15.331 | 15.076 | 14.994 | 14.902 |
| 55 | 14.994 | 14.657 | 14.311 | 14.147 | 13.974 | 13.974 | 13.892 |
| 60 | 13.637 | 13.382 | 13.209 | 13.127 | 12.964 | 12.964 | 12.872 |
| 65 | 12.362 | 12.107 | 11.944 | 11.863 | 11.863 | 11.771 | 11.689 |
| 70 | 10.761 | 10.669 | 10.506 | 10.506 | 10.414 | 10.333 | 10.333 |
| 75 | 8.813 | 8.639 | 8.639 | 8.639 | 8.639 | 8.639 | 8.639 |
| 80 | 6.436 | 6.355 | 6.355 | 6.355 | 6.273 | 6.273 | 6.273 |
| 85 | 2.377 | 2.377 | 2.377 | 2.285 | 2.285 | 2.377 | 2.377 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_BX_SO_359_A1-BL.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|-------|--------|
| 0-20 | 142.45 | N.A. | 15.40 |
| 0-30 | 310.17 | N.A. | 33.50 |
| 0-40 | 506.85 | N.A. | 54.70 |
| 0-60 | 817.62 | N.A. | 88.20 |
| 0-80 | 923.11 | N.A. | 99.60 |
| 0-90 | 926.93 | N.A. | 100.00 |
| 10-90 | 891.22 | N.A. | 96.10 |
| 20-40 | 364.40 | N.A. | 39.30 |
| 20-50 | 544.36 | N.A. | 58.70 |
| 40-70 | 386.70 | N.A. | 41.70 |
| 60-80 | 105.48 | N.A. | 11.40 |
| 70-80 | 29.55 | N.A. | 3.20 |
| 80-90 | 3.82 | N.A. | 0.40 |
| 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 | 926.93 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 35.71 |
| 10-20 | 106.74 |
| 20-30 | 167.72 |
| 30-40 | 196.68 |
| 40-50 | 179.96 |
| 50-60 | 130.81 |
| 60-70 | 75.93 |
| 70-80 | 29.55 |
| 80-90 | 3.82 |
| 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 |

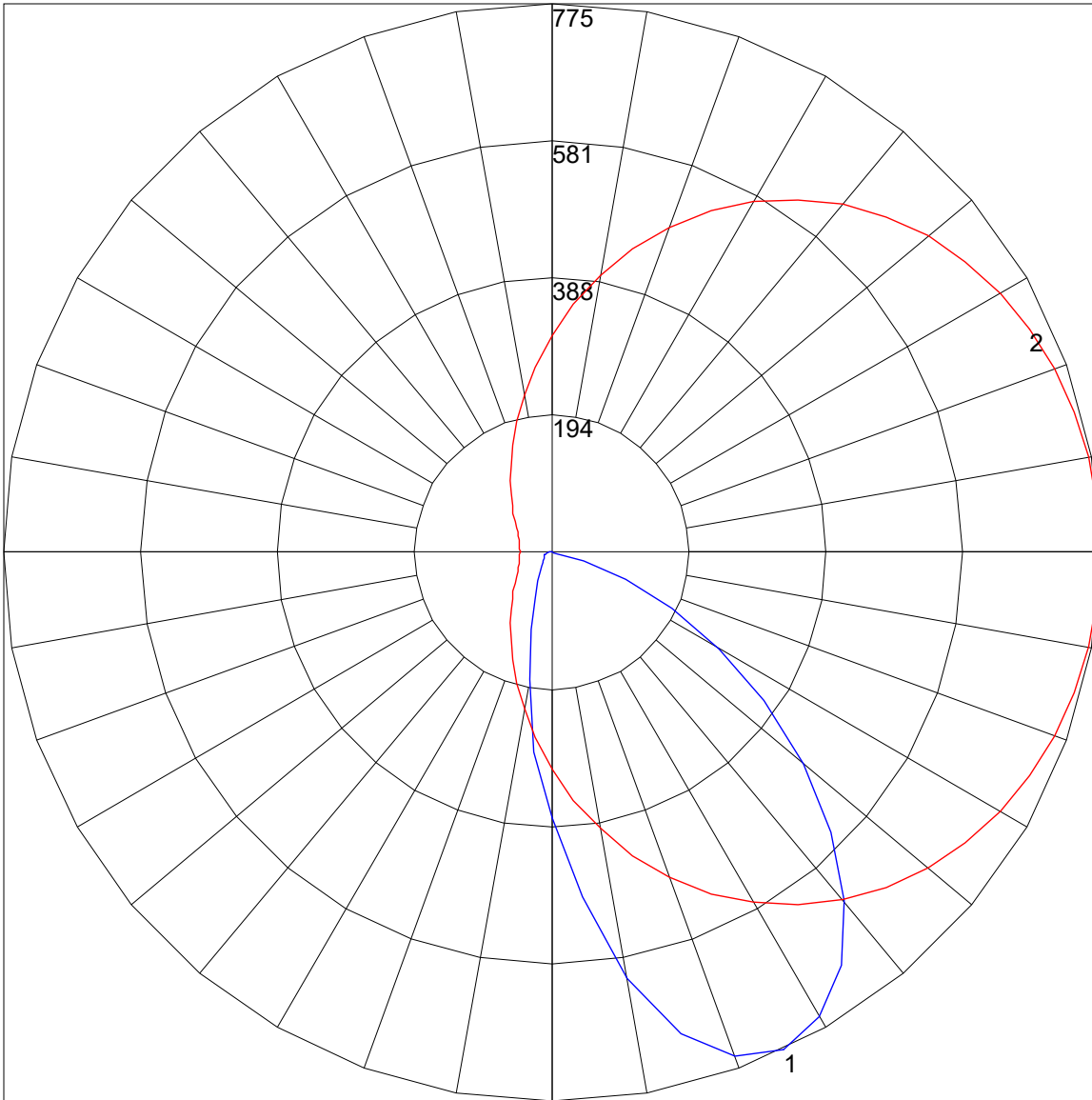
IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_BX_SO_359_A1-BL.IES

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 0 |
| 1 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | 0 |
| 2 | 102 | 94 | 88 | 83 | 99 | 93 | 87 | 83 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | 0 |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 70 | 67 | 65 | 0 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 | 0 |
| 5 | 80 | 68 | 60 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 50 | 0 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 | 0 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 47 | 42 | 54 | 47 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | 0 |
| 8 | 64 | 51 | 43 | 38 | 62 | 51 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | 0 |
| 9 | 60 | 47 | 39 | 34 | 58 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 | 0 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 30 | 29 | 0 |

POLAR GRAPH



Maximum Candela = 775.149 Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)