

## IES ROAD REPORT

PHOTOMETRIC FILENAME : W4CR-XX-L15-935-XXX-DIM-UNV-N-XXX\_.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] W4CR\_BARBARA-NARROW  
[TESTLAB] LEDIL Inc  
[TESTDATE] 07/03/2025  
[ISSUEDATE] 2025-07-15  
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMINAIRE] 4 INCH ROUND OUTDOOR LED CYLINDER  
[MORE] NARROW DIST. W/MICROPRISIM LENS  
[LUMCAT] W4CR-xx-L15-935-xxx-DIM-UNV-N-xxx  
[MORE] 0-10V LED DRIVER

### CHARACTERISTICS

|   |                              |
|---|------------------------------|
| IES Classification                              | Type VS                      |
| Longitudinal Classification                     | Very Short                   |
| Lumens Per Lamp                                 | N.A. (absolute)              |
| Total Lamp Lumens                               | N.A. (absolute)              |
| Luminaire Lumens                                | 1581                         |
| Downward Total Efficiency                       | N.A. (absolute)              |
| Total Luminaire Efficiency                      | N.A. (absolute)              |
| Luminaire Efficacy Rating (LER)                 | 116                          |
| Total Luminaire Watts                           | 13.6                         |
| Ballast Factor                                  | 1.00                         |
| Upward Waste Light Ratio                        | 0.00                         |
| Maximum Candela                                 | 4484.07                      |
| Maximum Candela Angle                           | 90H 0V                       |
| Maximum Candela (<90 Degrees Vertical)          | 4484.07                      |
| Maximum Candela Angle (<90 Degrees Vertical)    | 90H 0V                       |
| Maximum Candela At 90 Degrees Vertical          | .145 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | .723 (0.0% Luminaire Lumens) |
| Cutoff Classification (deprecated)              | N.A. (absolute)              |

**IES ROAD REPORT****PHOTOMETRIC FILENAME : W4CR-XX-L15-935-XXX-DIM-UNV-N-XXX\_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

|                               | Lumens   | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30)         | 694.9    | N.A.   | 44.0        |
| FM - Front-Medium (30-60)     | 90.8     | N.A.   | 5.7         |
| FH - Front-High (60-80)       | 4.5      | N.A.   | 0.3         |
| FVH - Front-Very High (80-90) | 0.3      | N.A.   | 0.0         |
| BL - Back-Low (0-30)          | 694.9    | N.A.   | 44.0        |
| BM - Back-Medium (30-60)      | 90.8     | N.A.   | 5.7         |
| BH - Back-High (60-80)        | 4.5      | N.A.   | 0.3         |
| BVH - Back-Very High (80-90)  | 0.3      | N.A.   | 0.0         |
| UL - Uplight-Low (90-100)     | 0.1      | N.A.   | 0.0         |
| UH - Uplight-High (100-180)   | < 0.05   | N.A.   | 0.0         |
| Total                         | 1581.1   | N.A.   | 100.0       |
| BUG Rating                    | B2-U1-G0 |        |             |

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## CANDELA TABULATION

| Vert.<br>Angles | Horizontal Angles |             |             |             |             |
|-----------------|-------------------|-------------|-------------|-------------|-------------|
|                 | <u>0.0</u>        | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
| 0               | 4484.070          | 4484.070    | 4484.070    | 4484.070    | 4484.070    |
| 1               | 4478.748          | 4478.545    | 4477.677    | 4477.458    | 4479.091    |
| 2               | 4456.748          | 4455.441    | 4454.579    | 4447.405    | 4445.911    |
| 3               | 4415.670          | 4408.993    | 4410.118    | 4405.915    | 4408.051    |
| 4               | 4350.113          | 4346.440    | 4342.714    | 4338.173    | 4341.927    |
| 5               | 4259.022          | 4264.612    | 4253.539    | 4246.563    | 4255.777    |
| 6               | 4146.182          | 4150.074    | 4141.936    | 4138.820    | 4145.352    |
| 7               | 4019.694          | 4014.324    | 4008.782    | 4009.805    | 4014.896    |
| 8               | 3865.739          | 3857.916    | 3855.817    | 3854.725    | 3862.291    |
| 9               | 3686.437          | 3681.891    | 3676.237    | 3676.226    | 3690.292    |
| 10              | 3485.761          | 3480.621    | 3476.910    | 3476.626    | 3494.633    |
| 11              | 3260.835          | 3256.531    | 3258.924    | 3262.993    | 3279.168    |
| 12              | 3018.295          | 3015.794    | 3021.673    | 3028.741    | 3049.901    |
| 13              | 2764.344          | 2766.711    | 2776.220    | 2785.932    | 2805.454    |
| 14              | 2507.642          | 2512.150    | 2528.609    | 2540.784    | 2555.690    |
| 15              | 2256.047          | 2264.089    | 2285.452    | 2299.336    | 2313.551    |
| 16              | 2015.900          | 2028.348    | 2052.592    | 2071.482    | 2078.844    |
| 17              | 1799.466          | 1812.215    | 1840.753    | 1855.718    | 1860.156    |
| 18              | 1605.895          | 1611.153    | 1642.791    | 1658.072    | 1662.784    |
| 19              | 1422.551          | 1438.078    | 1470.701    | 1483.241    | 1487.771    |
| 20              | 1268.949          | 1285.001    | 1313.791    | 1332.075    | 1336.246    |
| 21              | 1139.136          | 1152.897    | 1181.311    | 1195.516    | 1194.092    |
| 22              | 1030.221          | 1044.099    | 1068.739    | 1080.374    | 1078.104    |
| 23              | 941.202           | 951.423     | 973.782     | 984.078     | 980.191     |
| 24              | 865.011           | 873.589     | 895.145     | 902.539     | 898.486     |
| 25              | 798.571           | 807.635     | 827.157     | 832.982     | 827.719     |
| 26              | 738.962           | 747.979     | 765.364     | 770.274     | 765.690     |
| 27              | 683.648           | 690.335     | 706.810     | 711.002     | 707.046     |
| 28              | 627.766           | 632.767     | 647.234     | 650.821     | 648.155     |
| 29              | 571.193           | 575.477     | 585.660     | 590.147     | 589.087     |
| 30              | 512.275           | 513.935     | 522.877     | 527.765     | 526.443     |
| 31              | 450.065           | 451.061     | 457.566     | 461.946     | 462.015     |
| 32              | 388.989           | 388.411     | 392.550     | 397.085     | 397.186     |
| 33              | 326.859           | 325.825     | 329.402     | 333.386     | 332.936     |
| 34              | 267.304           | 266.886     | 269.242     | 272.696     | 272.797     |
| 35              | 215.256           | 212.305     | 214.613     | 216.166     | 215.341     |
| 36              | 165.376           | 164.690     | 165.906     | 166.773     | 165.172     |
| 37              | 124.619           | 124.887     | 123.613     | 123.543     | 125.310     |
| 38              | 92.435            | 93.811      | 90.818      | 91.530      | 91.878      |
| 39              | 67.774            | 67.099      | 67.554      | 66.312      | 66.050      |
| 40              | 51.882            | 49.510      | 49.596      | 49.521      | 49.510      |
| 41              | 37.763            | 37.801      | 38.470      | 38.732      | 39.177      |
| 42              | 30.139            | 30.476      | 31.515      | 32.104      | 32.837      |
| 43              | 25.936            | 26.252      | 27.387      | 28.174      | 28.763      |
| 44              | 23.767            | 24.003      | 25.106      | 25.930      | 26.305      |
| 45              | 22.804            | 22.964      | 24.046      | 24.704      | 25.010      |
| 46              | 22.488            | 22.691      | 23.634      | 24.142      | 24.421      |
| 47              | 22.589            | 22.788      | 23.575      | 23.982      | 24.260      |
| 48              | 22.863            | 22.996      | 23.666      | 23.960      | 24.260      |
| 49              | 23.023            | 23.168      | 23.730      | 23.933      | 24.196      |
| 50              | 23.039            | 23.152      | 23.655      | 23.810      | 24.008      |
| 51              | 22.788            | 22.873      | 23.344      | 23.462      | 23.601      |
| 52              | 22.102            | 22.209      | 22.622      | 22.680      | 22.766      |

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|     |        |        |        |        |        |
|-----|--------|--------|--------|--------|--------|
| 53  | 21.074 | 21.165 | 21.556 | 21.551 | 21.604 |
| 54  | 19.762 | 19.869 | 20.201 | 20.148 | 20.212 |
| 55  | 18.295 | 18.360 | 18.659 | 18.579 | 18.617 |
| 56  | 16.705 | 16.737 | 16.946 | 16.893 | 16.903 |
| 57  | 15.013 | 15.051 | 15.179 | 15.147 | 15.126 |
| 58  | 13.396 | 13.423 | 13.487 | 13.460 | 13.439 |
| 59  | 11.897 | 11.886 | 11.902 | 11.870 | 11.860 |
| 60  | 10.532 | 10.510 | 10.484 | 10.478 | 10.473 |
| 61  | 9.354  | 9.316  | 9.284  | 9.263  | 9.274  |
| 62  | 8.347  | 8.294  | 8.267  | 8.245  | 8.256  |
| 63  | 7.512  | 7.469  | 7.416  | 7.400  | 7.421  |
| 64  | 6.805  | 6.773  | 6.730  | 6.703  | 6.741  |
| 65  | 6.243  | 6.211  | 6.173  | 6.136  | 6.179  |
| 66  | 5.740  | 5.724  | 5.681  | 5.654  | 5.702  |
| 67  | 5.322  | 5.306  | 5.258  | 5.242  | 5.290  |
| 68  | 4.931  | 4.921  | 4.883  | 4.856  | 4.915  |
| 69  | 4.578  | 4.573  | 4.524  | 4.503  | 4.556  |
| 70  | 4.251  | 4.241  | 4.192  | 4.160  | 4.203  |
| 71  | 3.925  | 3.925  | 3.860  | 3.823  | 3.850  |
| 72  | 3.614  | 3.609  | 3.539  | 3.491  | 3.523  |
| 73  | 3.298  | 3.293  | 3.213  | 3.154  | 3.180  |
| 74  | 2.966  | 2.961  | 2.875  | 2.806  | 2.832  |
| 75  | 2.618  | 2.591  | 2.516  | 2.436  | 2.458  |
| 76  | 2.217  | 2.185  | 2.093  | 2.029  | 2.051  |
| 77  | 1.762  | 1.740  | 1.622  | 1.574  | 1.574  |
| 78  | 1.231  | 1.221  | 1.103  | 1.039  | 1.049  |
| 79  | 0.798  | 0.808  | 0.776  | 0.782  | 0.782  |
| 80  | 0.723  | 0.723  | 0.712  | 0.712  | 0.712  |
| 81  | 0.675  | 0.675  | 0.675  | 0.680  | 0.675  |
| 82  | 0.643  | 0.637  | 0.637  | 0.643  | 0.643  |
| 83  | 0.600  | 0.594  | 0.594  | 0.594  | 0.600  |
| 84  | 0.551  | 0.546  | 0.546  | 0.551  | 0.551  |
| 85  | 0.498  | 0.498  | 0.498  | 0.498  | 0.498  |
| 86  | 0.439  | 0.434  | 0.434  | 0.434  | 0.439  |
| 87  | 0.364  | 0.364  | 0.364  | 0.364  | 0.364  |
| 88  | 0.284  | 0.284  | 0.284  | 0.278  | 0.278  |
| 89  | 0.198  | 0.193  | 0.193  | 0.193  | 0.193  |
| 90  | 0.145  | 0.134  | 0.134  | 0.129  | 0.123  |
| 91  | 0.134  | 0.129  | 0.123  | 0.118  | 0.118  |
| 92  | 0.134  | 0.129  | 0.123  | 0.123  | 0.118  |
| 93  | 0.134  | 0.129  | 0.129  | 0.123  | 0.123  |
| 94  | 0.134  | 0.129  | 0.129  | 0.123  | 0.123  |
| 95  | 0.134  | 0.129  | 0.129  | 0.123  | 0.129  |
| 96  | 0.139  | 0.129  | 0.129  | 0.123  | 0.123  |
| 97  | 0.139  | 0.134  | 0.129  | 0.129  | 0.129  |
| 98  | 0.139  | 0.134  | 0.134  | 0.134  | 0.134  |
| 99  | 0.150  | 0.134  | 0.134  | 0.134  | 0.134  |
| 100 | 0.150  | 0.139  | 0.134  | 0.134  | 0.134  |
| 101 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 102 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 103 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 104 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 105 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 106 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 107 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 108 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |

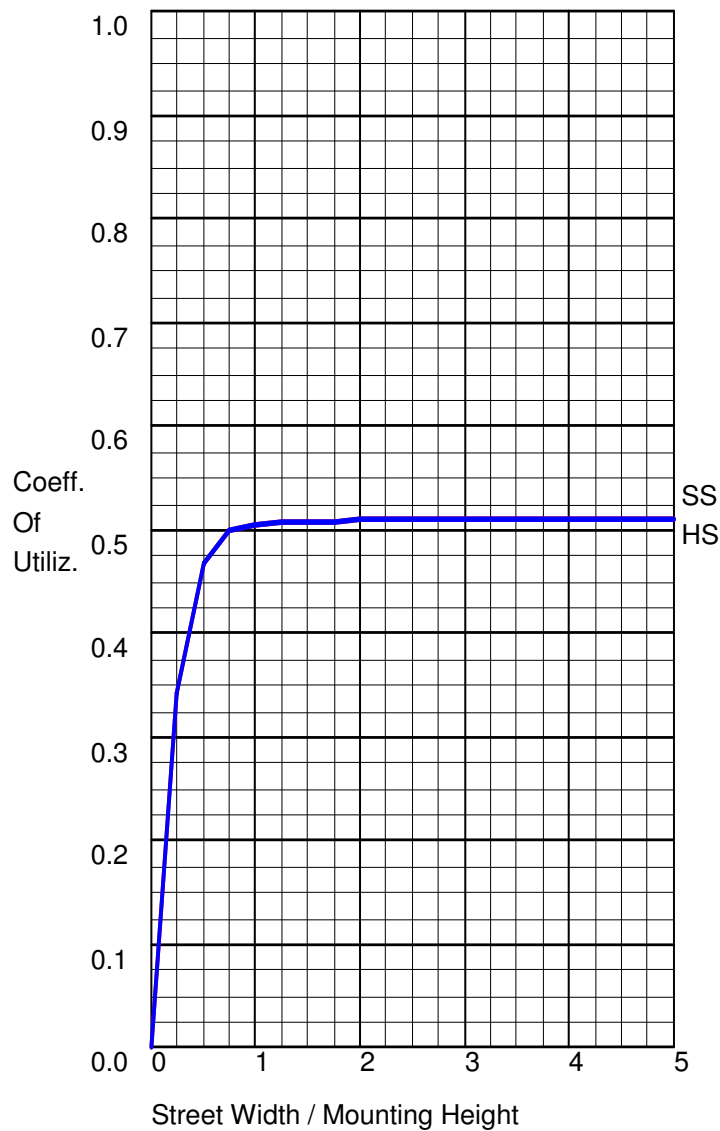
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|     |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|
| 109 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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|     |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

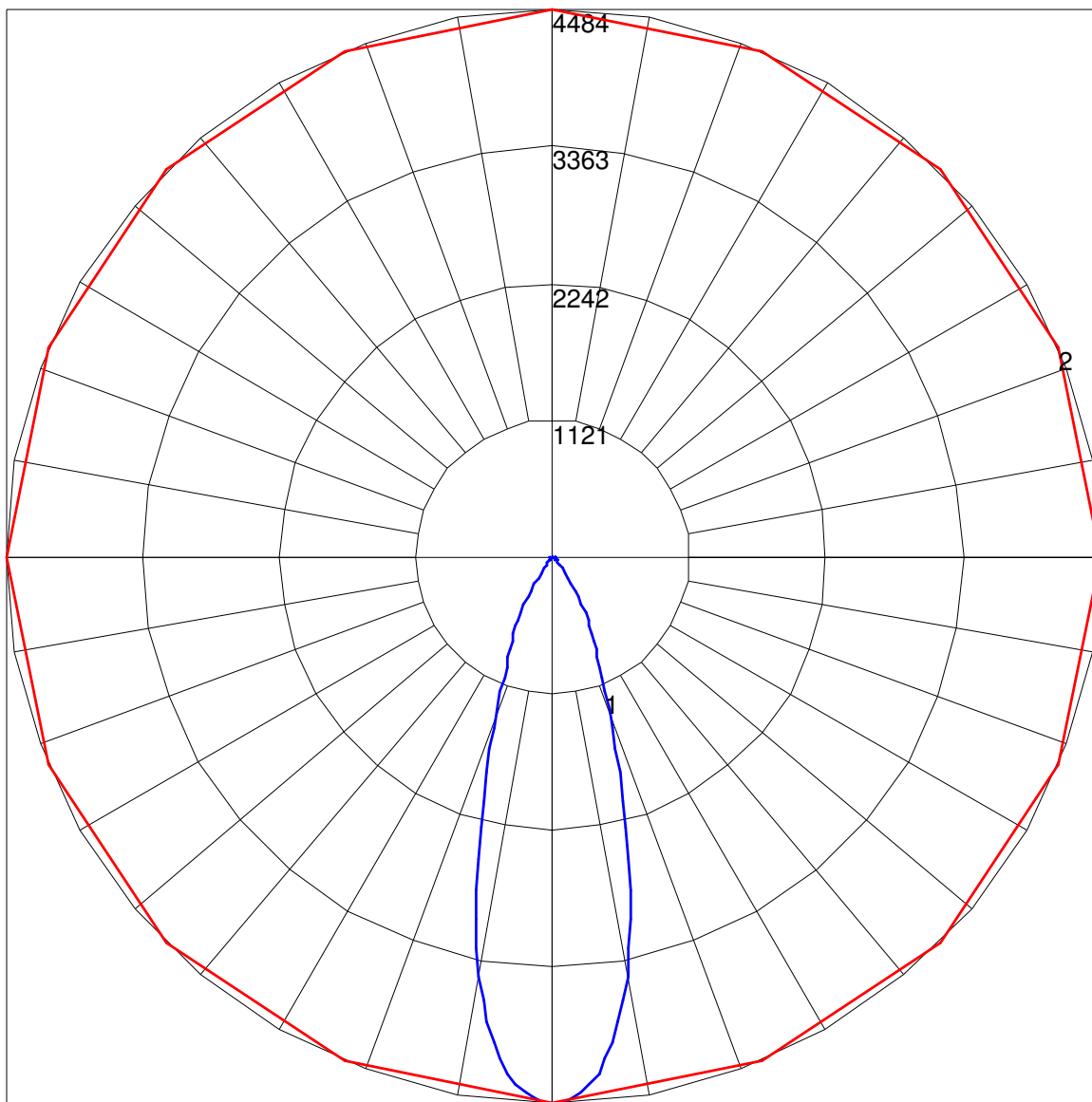
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

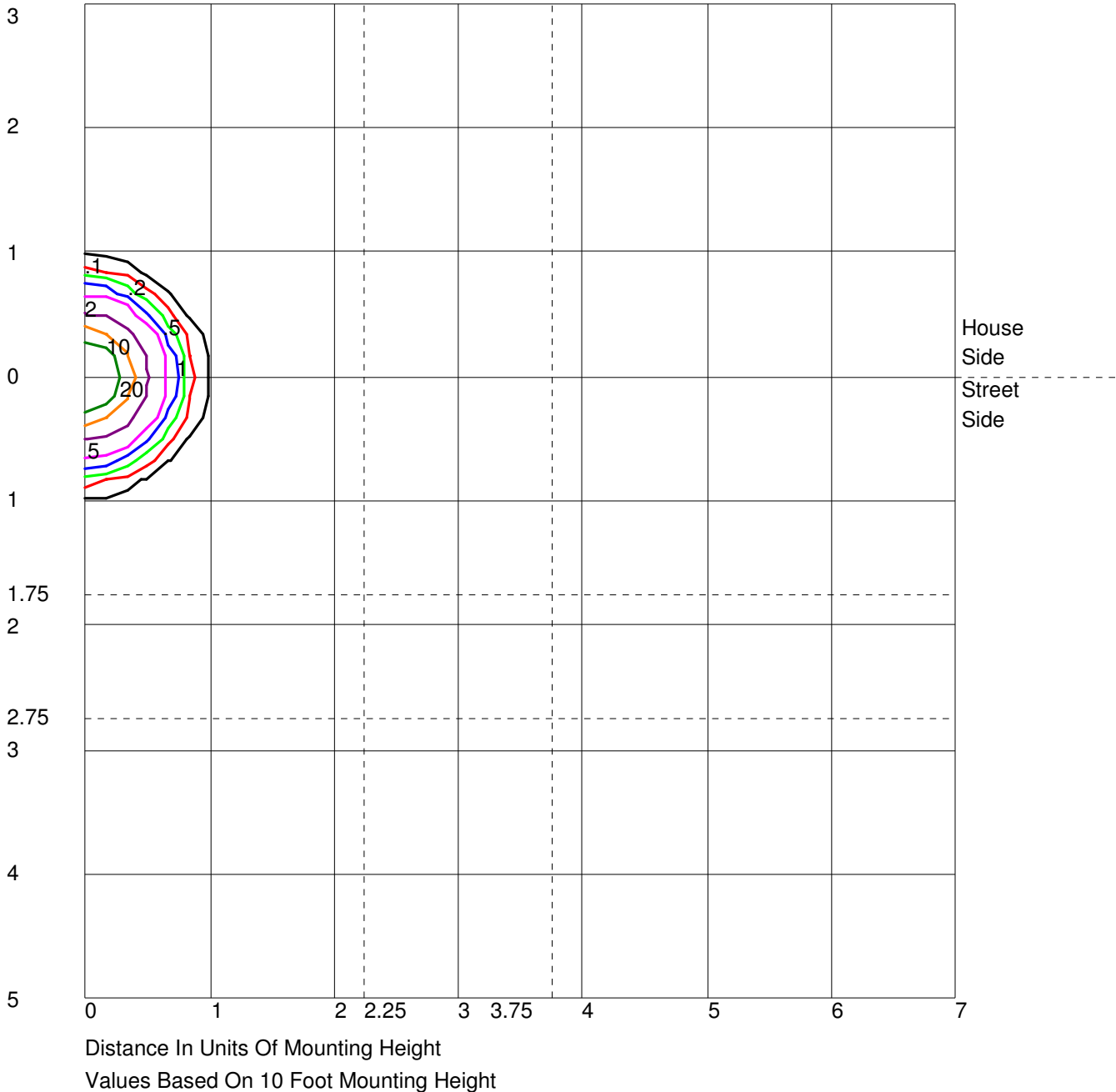
|                      | Lumens | Percent<br>Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 790.5  | 50.0                    |
| Downward House Side  | 790.5  | 50.0                    |
| Downward Total       | 1581.0 | 100.0                   |
| Upward Street Side   | 0.1    | 0.0                     |
| Upward House Side    | 0.1    | 0.0                     |
| Upward Total         | 0.2    | 0.0                     |
| Total Flux           | 1581.2 | 100.0                   |

POLAR GRAPH



Maximum Candela = 4484.07 Located At Horizontal Angle = 90, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



# PHOTO IES R

