



IES ROAD REPORT

PHOTOMETRIC FILENAME : XMR-2-LED-18-40-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8721_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/22/17
[TEST DATE]03/22/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]XMR-2-LED-18-40-IL
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[OTHER]SCALED FROM ORIGINAL TEST DATA
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

| | |
|---|-----------------------------|
| IES Classification | Type II |
| Longitudinal Classification | Medium |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 13035 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 83 |
| Total Luminaire Watts | 156.2 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 15505 |
| Maximum Candela Angle | 80H 67.5V |
| Maximum Candela (<90 Degrees Vertical) | 15505 |
| Maximum Candela Angle (<90 Degrees Vertical) | 80H 67.5V |
| Maximum Candela At 90 Degrees Vertical | 0 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 645 (4.9% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 1245.9 | N.A. | 9.6 |
| FM - Front-Medium (30-60) | 6238.1 | N.A. | 47.9 |
| FH - Front-High (60-80) | 3917.5 | N.A. | 30.1 |
| FVH - Front-Very High (80-90) | 53.3 | N.A. | 0.4 |
| BL - Back-Low (0-30) | 537.4 | N.A. | 4.1 |
| BM - Back-Medium (30-60) | 778.5 | N.A. | 6.0 |
| BH - Back-High (60-80) | 261.3 | N.A. | 2.0 |
| BVH - Back-Very High (80-90) | 3.1 | N.A. | 0.0 |
| UL - Uplight-Low (90-100) | 0.0 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | 0.0 | N.A. | 0.0 |
| Total | 13035.1 | N.A. | 100.0 |
| BUG Rating | B2-U0-G2 | | |

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CANDELA TABULATION

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-------------------------|--------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | <u>0</u> | <u>5</u> | <u>15</u> | <u>25</u> | <u>35</u> | <u>45</u> | <u>55</u> | <u>65</u> | <u>75</u> | <u>80</u> |
| 0.0 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 |
| 2.5 | 2342 | 2339 | 2343 | 2342 | 2340 | 2322 | 2309 | 2293 | 2275 | 2268 |
| 5.0 | 2482 | 2485 | 2479 | 2473 | 2464 | 2434 | 2406 | 2370 | 2334 | 2313 |
| 7.5 | 2599 | 2602 | 2599 | 2592 | 2583 | 2556 | 2514 | 2464 | 2406 | 2374 |
| 10.0 | 2687 | 2689 | 2689 | 2692 | 2691 | 2669 | 2628 | 2575 | 2495 | 2450 |
| 12.5 | 2742 | 2740 | 2749 | 2770 | 2789 | 2783 | 2758 | 2704 | 2600 | 2545 |
| 15.0 | 2749 | 2750 | 2772 | 2817 | 2867 | 2892 | 2895 | 2843 | 2737 | 2661 |
| 17.5 | 2739 | 2741 | 2777 | 2847 | 2927 | 2996 | 3035 | 3000 | 2890 | 2808 |
| 20.0 | 2720 | 2726 | 2775 | 2870 | 2976 | 3084 | 3172 | 3170 | 3062 | 2972 |
| 22.5 | 2695 | 2700 | 2763 | 2879 | 3017 | 3164 | 3295 | 3350 | 3255 | 3161 |
| 25.0 | 2680 | 2687 | 2758 | 2894 | 3054 | 3231 | 3413 | 3537 | 3474 | 3378 |
| 27.5 | 2678 | 2687 | 2768 | 2921 | 3099 | 3301 | 3531 | 3729 | 3716 | 3623 |
| 30.0 | 2705 | 2714 | 2804 | 2970 | 3166 | 3384 | 3652 | 3923 | 3985 | 3897 |
| 32.5 | 2779 | 2786 | 2881 | 3050 | 3262 | 3490 | 3775 | 4114 | 4271 | 4208 |
| 35.0 | 2914 | 2922 | 3017 | 3171 | 3388 | 3626 | 3913 | 4306 | 4573 | 4535 |
| 37.5 | 3124 | 3131 | 3215 | 3347 | 3555 | 3806 | 4075 | 4496 | 4895 | 4893 |
| 40.0 | 3420 | 3443 | 3497 | 3594 | 3778 | 4049 | 4282 | 4684 | 5247 | 5283 |
| 42.5 | 3862 | 3844 | 3884 | 3936 | 4075 | 4337 | 4519 | 4877 | 5595 | 5705 |
| 45.0 | 4405 | 4382 | 4415 | 4412 | 4482 | 4712 | 4846 | 5078 | 5954 | 6190 |
| 47.5 | 5018 | 5032 | 5059 | 5062 | 5086 | 5244 | 5303 | 5310 | 6390 | 6716 |
| 50.0 | 5509 | 5534 | 5667 | 5752 | 5880 | 6076 | 5961 | 5616 | 6869 | 7346 |
| 52.5 | 5655 | 5689 | 5934 | 6250 | 6662 | 7142 | 6948 | 6048 | 7447 | 8106 |
| 55.0 | 5280 | 5311 | 5653 | 6201 | 7006 | 8169 | 8402 | 6712 | 8180 | 9056 |
| 57.5 | 4310 | 4351 | 4701 | 5410 | 6554 | 8682 | 10200 | 7737 | 9070 | 10293 |
| 60.0 | 2613 | 2562 | 3036 | 3910 | 5220 | 8078 | 11951 | 9283 | 10280 | 11793 |
| 62.5 | 938 | 915 | 1149 | 1858 | 3158 | 6028 | 12780 | 11359 | 11681 | 13461 |
| 65.0 | 437 | 453 | 501 | 677 | 1294 | 2903 | 12061 | 13080 | 13104 | 14903 |
| 67.5 | 310 | 319 | 334 | 396 | 618 | 1121 | 8951 | 13257 | 13908 | 15505 |
| 70.0 | 205 | 208 | 224 | 282 | 443 | 611 | 4373 | 10803 | 12980 | 13721 |
| 72.5 | 118 | 117 | 115 | 167 | 329 | 472 | 1587 | 6706 | 9244 | 8465 |
| 75.0 | 60 | 61 | 60 | 86 | 190 | 375 | 655 | 3332 | 4372 | 2710 |
| 77.5 | 43 | 44 | 43 | 52 | 84 | 251 | 371 | 1263 | 1415 | 731 |
| 80.0 | 44 | 45 | 41 | 45 | 54 | 99 | 205 | 436 | 645 | 407 |
| 82.5 | 42 | 43 | 38 | 40 | 48 | 78 | 112 | 238 | 357 | 270 |
| 85.0 | 28 | 30 | 29 | 34 | 41 | 69 | 117 | 185 | 235 | 176 |
| 87.5 | 11 | 11 | 12 | 16 | 22 | 44 | 108 | 213 | 166 | 104 |
| 90.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-------------------------|--------------------------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|
| | <u>85</u> | <u>90</u> | <u>95</u> | <u>105</u> | <u>115</u> | <u>125</u> | <u>135</u> | <u>145</u> | <u>155</u> | <u>165</u> |
| 0.0 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 | 2251 |
| 2.5 | 2259 | 2247 | 2245 | 2234 | 2224 | 2209 | 2196 | 2185 | 2176 | 2171 |
| 5.0 | 2290 | 2263 | 2247 | 2210 | 2177 | 2140 | 2107 | 2083 | 2063 | 2052 |
| 7.5 | 2337 | 2295 | 2263 | 2195 | 2134 | 2077 | 2031 | 2001 | 1980 | 1969 |
| 10.0 | 2397 | 2337 | 2287 | 2183 | 2091 | 2017 | 1972 | 1944 | 1914 | 1881 |
| 12.5 | 2472 | 2392 | 2321 | 2174 | 2050 | 1961 | 1901 | 1775 | 1613 | 1473 |
| 15.0 | 2566 | 2463 | 2365 | 2166 | 2011 | 1876 | 1656 | 1330 | 1041 | 849 |
| 17.5 | 2682 | 2550 | 2422 | 2166 | 1955 | 1660 | 1194 | 799 | 552 | 453 |
| 20.0 | 2819 | 2656 | 2494 | 2170 | 1849 | 1312 | 745 | 468 | 386 | 357 |
| 22.5 | 2993 | 2783 | 2584 | 2175 | 1666 | 922 | 474 | 377 | 341 | 322 |
| 25.0 | 3187 | 2937 | 2691 | 2163 | 1397 | 607 | 396 | 346 | 317 | 298 |
| 27.5 | 3412 | 3134 | 2815 | 2123 | 1085 | 459 | 367 | 324 | 294 | 274 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|------|-------|------|------|------|-----|-----|-----|-----|-----|-----|
| 30.0 | 3670 | 3344 | 2960 | 2049 | 794 | 410 | 345 | 303 | 271 | 251 |
| 32.5 | 3951 | 3577 | 3117 | 1911 | 585 | 384 | 322 | 277 | 244 | 219 |
| 35.0 | 4279 | 3834 | 3293 | 1708 | 475 | 361 | 296 | 251 | 209 | 172 |
| 37.5 | 4629 | 4119 | 3470 | 1460 | 425 | 334 | 266 | 215 | 157 | 118 |
| 40.0 | 5013 | 4432 | 3655 | 1169 | 393 | 304 | 235 | 165 | 103 | 72 |
| 42.5 | 5435 | 4776 | 3837 | 899 | 362 | 274 | 195 | 111 | 61 | 41 |
| 45.0 | 5905 | 5154 | 4004 | 660 | 332 | 240 | 144 | 67 | 33 | 20 |
| 47.5 | 6447 | 5579 | 4139 | 500 | 301 | 203 | 96 | 37 | 14 | 7 |
| 50.0 | 7078 | 6056 | 4234 | 419 | 269 | 160 | 59 | 18 | 6 | 4 |
| 52.5 | 7875 | 6593 | 4260 | 404 | 235 | 116 | 33 | 7 | 3 | 3 |
| 55.0 | 8785 | 7192 | 4208 | 422 | 205 | 79 | 16 | 4 | 3 | 4 |
| 57.5 | 9886 | 7938 | 3975 | 450 | 185 | 51 | 8 | 3 | 3 | 4 |
| 60.0 | 11258 | 8617 | 3563 | 452 | 179 | 35 | 5 | 4 | 4 | 7 |
| 62.5 | 12584 | 9062 | 2932 | 396 | 159 | 29 | 6 | 4 | 7 | 11 |
| 65.0 | 13304 | 8847 | 2115 | 286 | 111 | 26 | 8 | 5 | 9 | 14 |
| 67.5 | 12618 | 7583 | 1282 | 168 | 59 | 19 | 8 | 6 | 8 | 7 |
| 70.0 | 10058 | 5210 | 628 | 102 | 32 | 14 | 7 | 6 | 5 | 3 |
| 72.5 | 5274 | 2625 | 322 | 62 | 17 | 9 | 6 | 4 | 2 | 1 |
| 75.0 | 1520 | 819 | 209 | 28 | 10 | 6 | 4 | 2 | 0 | 0 |
| 77.5 | 491 | 367 | 146 | 11 | 6 | 4 | 2 | 0 | 0 | 0 |
| 80.0 | 316 | 222 | 90 | 6 | 4 | 3 | 0 | 0 | 0 | 0 |
| 82.5 | 187 | 130 | 49 | 6 | 4 | 1 | 0 | 0 | 0 | 0 |
| 85.0 | 116 | 77 | 20 | 4 | 1 | 1 | 1 | 0 | 0 | 0 |
| 87.5 | 60 | 32 | 5 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 90.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Vert. Horizontal Angles
Angles

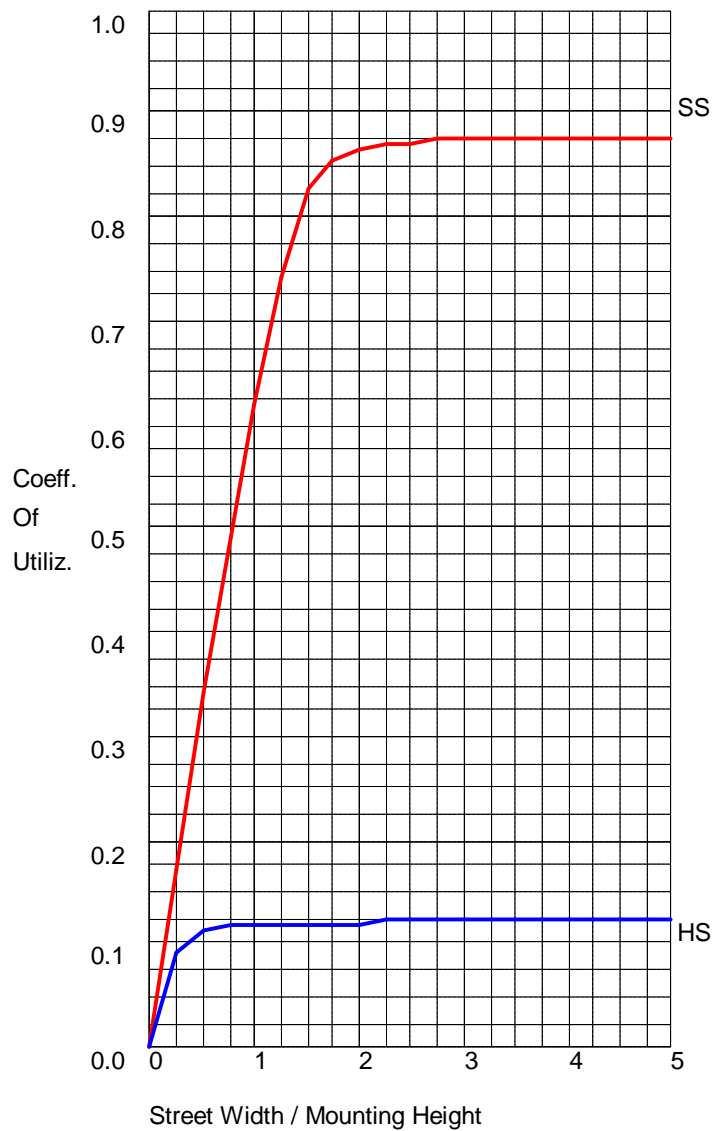
| | 175 | 180 |
|------|------------|------------|
| 0.0 | 2251 | 2251 |
| 2.5 | 2170 | 2167 |
| 5.0 | 2046 | 2041 |
| 7.5 | 1959 | 1957 |
| 10.0 | 1852 | 1855 |
| 12.5 | 1385 | 1398 |
| 15.0 | 751 | 708 |
| 17.5 | 411 | 408 |
| 20.0 | 342 | 342 |
| 22.5 | 313 | 313 |
| 25.0 | 288 | 287 |
| 27.5 | 263 | 262 |
| 30.0 | 238 | 236 |
| 32.5 | 202 | 200 |
| 35.0 | 155 | 151 |
| 37.5 | 103 | 101 |
| 40.0 | 60 | 61 |
| 42.5 | 34 | 32 |
| 45.0 | 15 | 14 |
| 47.5 | 4 | 3 |
| 50.0 | 1 | 0 |
| 52.5 | 1 | 0 |
| 55.0 | 2 | 2 |
| 57.5 | 3 | 2 |
| 60.0 | 6 | 6 |
| 62.5 | 10 | 10 |
| 65.0 | 13 | 13 |

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CANDELA TABULATION - (Cont.)

| | | |
|-------------|----------|----------|
| 67.5 | 4 | 3 |
| 70.0 | 1 | 0 |
| 72.5 | 0 | 0 |
| 75.0 | 0 | 0 |
| 77.5 | 0 | 0 |
| 80.0 | 0 | 0 |
| 82.5 | 0 | 0 |
| 85.0 | 0 | 0 |
| 87.5 | 0 | 0 |
| 90.0 | 0 | 0 |

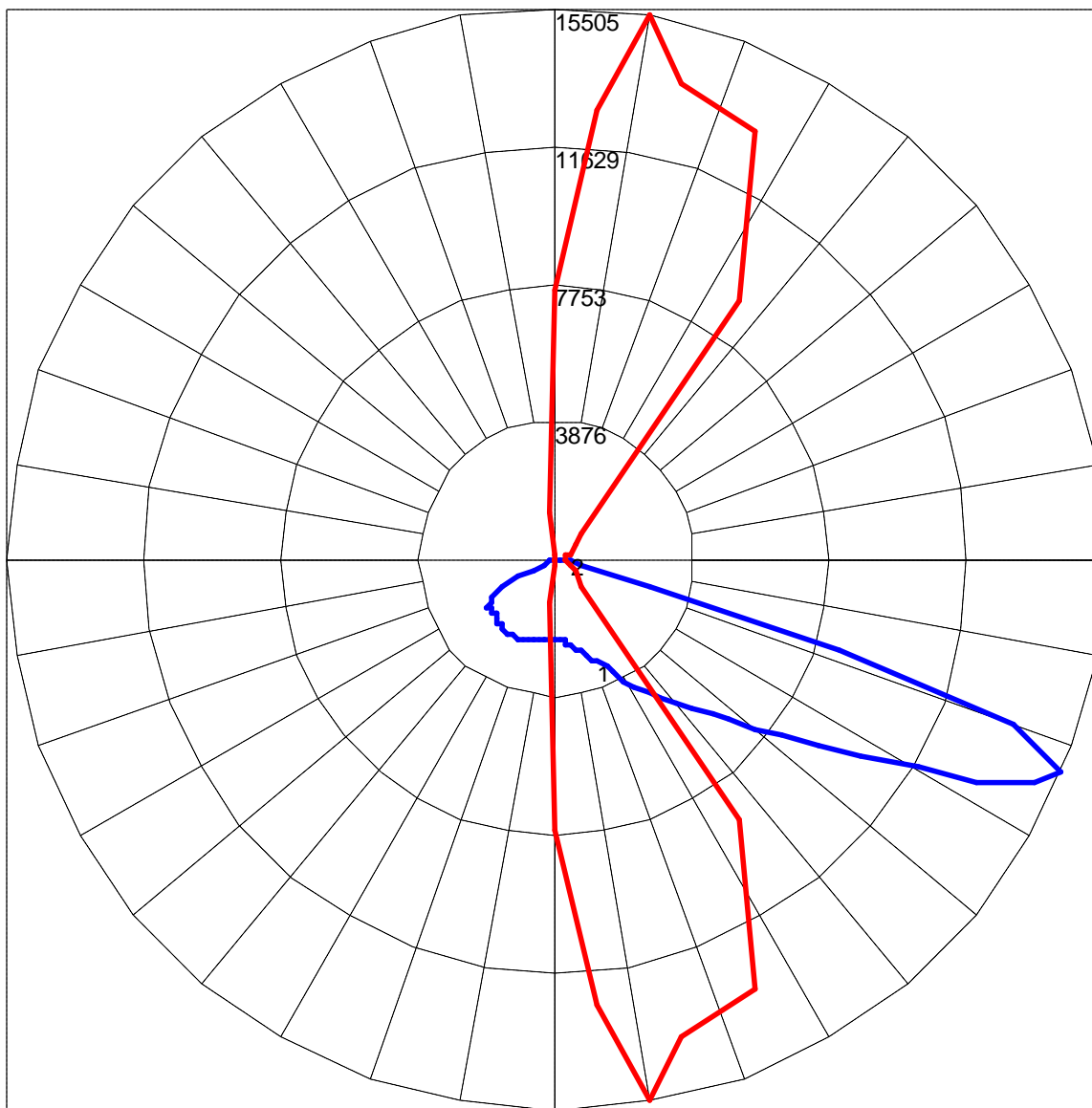
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

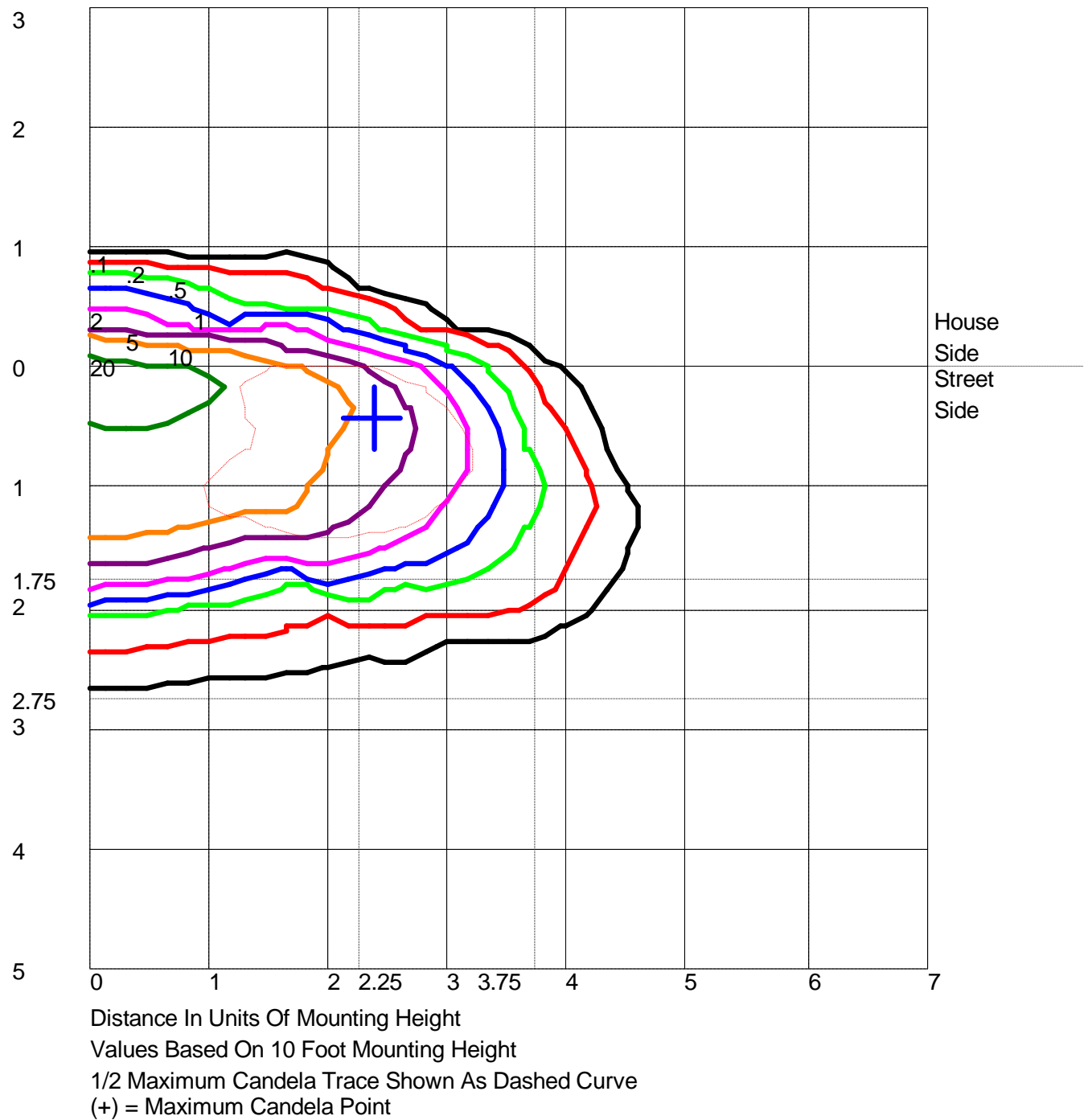
| | Lumens | Percent Of Luminaire |
|----------------------|---------|-------------------------|
| Downward Street Side | 11454.8 | 87.9 |
| Downward House Side | 1580.4 | 12.1 |
| Downward Total | 13035.3 | 100.0 |
| Upward Street Side | 0.0 | 0.0 |
| Upward House Side | 0.0 | 0.0 |
| Upward Total | 0.0 | 0.0 |
| Total Flux | 13035.3 | 100.0 |

POLAR GRAPH

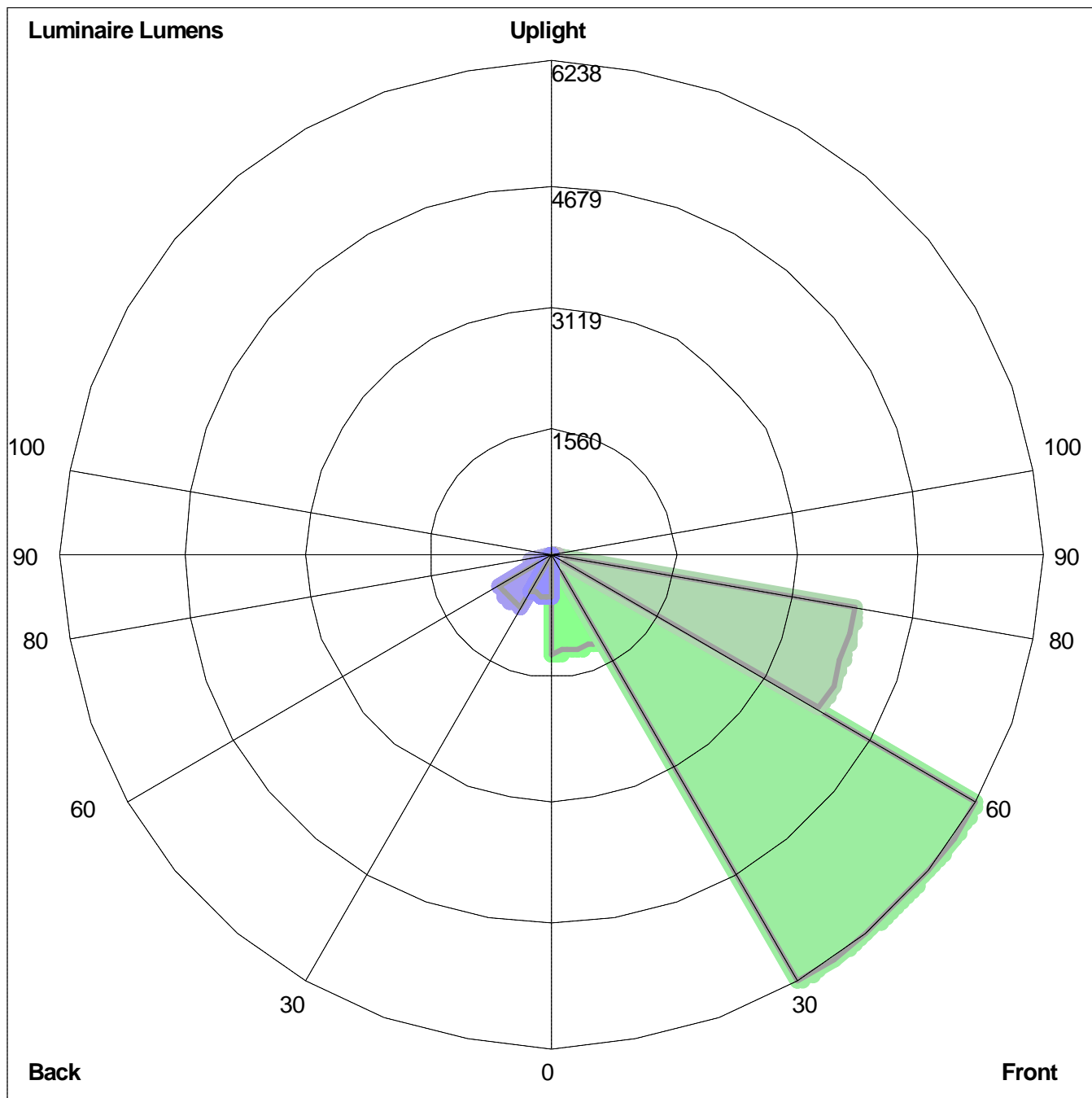


Maximum Candela = 15505 Located At Horizontal Angle = 80, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1245.9, Medium=6238.1, High=3917.5, Very High=53.3
Back: Low=537.4, Medium=778.5, High=261.3, Very High=3.1
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G2