**IES ROAD REPORT**
**PHOTOMETRIC FILENAME : MPP-LED-10L-SIL-5W-50-70CRI.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] LED-12507
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 02/19/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-10L-SIL-5W-50-70CRI
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor
[_SEARCH_COLORTEMP] 5000

**CHARACTERISTICS**

| | |
|---|---|
| IES Classification | Type VS |
| Longitudinal Classification | Short |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 10387 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 155 |
| Total Luminaire Watts | 67 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.04 |
| Maximum Candela | 4626 |
| Maximum Candela Angle | 45H 72.5V |
| Maximum Candela (<90 Degrees Vertical) | 4626 |
| Maximum Candela Angle (<90 Degrees Vertical) | 45H 72.5V |
| Maximum Candela At 90 Degrees Vertical | 147 (1.4% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 1143 (11.0% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

| | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| FL - Front-Low (0-30) | 414.5 | N.A. | 4.0 |
| FM - Front-Medium (30-60) | 2090.9 | N.A. | 20.1 |
| FH - Front-High (60-80) | 2368.5 | N.A. | 22.8 |
| FVH - Front-Very High (80-90) | 116.9 | N.A. | 1.1 |
| BL - Back-Low (0-30) | 414.5 | N.A. | 4.0 |
| BM - Back-Medium (30-60) | 2090.9 | N.A. | 20.1 |
| BH - Back-High (60-80) | 2368.5 | N.A. | 22.8 |
| BVH - Back-Very High (80-90) | 116.9 | N.A. | 1.1 |
| UL - Uplight-Low (90-100) | 121.0 | N.A. | 1.2 |
| UH - Uplight-High (100-180) | 284.8 | N.A. | 2.7 |
| Total | 10387.4 | N.A. | 100.0 |
| BUG Rating | B3-U3-G2 | | |

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**CANDELA TABULATION**

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 5 | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 |
| 0.0 | 641 | 641 | 641 | 641 | 641 | 641 | 641 | 641 | 641 | 641 |
| 2.5 | 643 | 643 | 647 | 645 | 647 | 646 | 645 | 643 | 642 | 638 |
| 5.0 | 652 | 650 | 655 | 661 | 671 | 672 | 673 | 670 | 652 | 642 |
| 7.5 | 658 | 655 | 657 | 661 | 665 | 666 | 673 | 676 | 668 | 659 |
| 10.0 | 688 | 692 | 688 | 698 | 697 | 687 | 679 | 684 | 689 | 678 |
| 12.5 | 752 | 750 | 748 | 736 | 740 | 723 | 716 | 720 | 746 | 732 |
| 15.0 | 794 | 816 | 811 | 804 | 806 | 772 | 779 | 778 | 781 | 768 |
| 17.5 | 915 | 893 | 901 | 875 | 879 | 882 | 840 | 838 | 835 | 834 |
| 20.0 | 970 | 984 | 985 | 970 | 974 | 943 | 952 | 922 | 882 | 894 |
| 22.5 | 1101 | 1109 | 1107 | 1071 | 1087 | 1045 | 1035 | 998 | 975 | 978 |
| 25.0 | 1195 | 1200 | 1202 | 1190 | 1182 | 1151 | 1117 | 1103 | 1044 | 1044 |
| 27.5 | 1334 | 1328 | 1331 | 1303 | 1300 | 1270 | 1226 | 1177 | 1122 | 1149 |
| 30.0 | 1440 | 1452 | 1446 | 1426 | 1417 | 1389 | 1336 | 1262 | 1234 | 1207 |
| 32.5 | 1523 | 1527 | 1558 | 1577 | 1543 | 1494 | 1444 | 1352 | 1301 | 1264 |
| 35.0 | 1574 | 1574 | 1615 | 1681 | 1700 | 1615 | 1528 | 1428 | 1356 | 1290 |
| 37.5 | 1625 | 1617 | 1668 | 1752 | 1810 | 1752 | 1591 | 1476 | 1386 | 1319 |
| 40.0 | 1658 | 1657 | 1716 | 1820 | 1891 | 1874 | 1658 | 1540 | 1403 | 1352 |
| 42.5 | 1707 | 1697 | 1764 | 1879 | 1962 | 1956 | 1747 | 1569 | 1432 | 1388 |
| 45.0 | 1759 | 1743 | 1811 | 1938 | 2026 | 2033 | 1880 | 1604 | 1478 | 1418 |
| 47.5 | 1809 | 1803 | 1854 | 1997 | 2090 | 2091 | 1975 | 1657 | 1536 | 1455 |
| 50.0 | 1868 | 1868 | 1909 | 2055 | 2158 | 2157 | 2042 | 1707 | 1629 | 1492 |
| 52.5 | 1935 | 1935 | 1975 | 2117 | 2232 | 2239 | 2109 | 1847 | 1695 | 1574 |
| 55.0 | 2014 | 2012 | 2056 | 2193 | 2310 | 2333 | 2186 | 1968 | 1715 | 1647 |
| 57.5 | 2104 | 2109 | 2150 | 2286 | 2407 | 2434 | 2278 | 2095 | 1803 | 1714 |
| 60.0 | 2210 | 2218 | 2265 | 2389 | 2539 | 2573 | 2401 | 2233 | 1891 | 1831 |
| 62.5 | 2333 | 2340 | 2406 | 2530 | 2715 | 2772 | 2556 | 2343 | 2065 | 1915 |
| 65.0 | 2440 | 2454 | 2532 | 2694 | 2965 | 3004 | 2724 | 2501 | 2271 | 2092 |
| 67.5 | 2500 | 2517 | 2624 | 2859 | 3271 | 3333 | 3051 | 2732 | 2523 | 2347 |
| 70.0 | 2496 | 2527 | 2624 | 2979 | 3680 | 3961 | 3566 | 3045 | 2768 | 2531 |
| 72.5 | 2124 | 2159 | 2384 | 2862 | 3860 | 4626 | 3945 | 2897 | 2367 | 2077 |
| 75.0 | 939 | 984 | 1349 | 2054 | 3365 | 4275 | 3176 | 2044 | 1487 | 1246 |
| 77.5 | 267 | 288 | 367 | 681 | 1901 | 2929 | 2075 | 943 | 578 | 423 |
| 80.0 | 191 | 211 | 245 | 291 | 518 | 1143 | 676 | 344 | 297 | 263 |
| 82.5 | 144 | 166 | 194 | 219 | 276 | 352 | 288 | 251 | 239 | 214 |
| 85.0 | 105 | 128 | 157 | 172 | 201 | 238 | 210 | 201 | 203 | 182 |
| 87.5 | 76 | 96 | 129 | 140 | 155 | 173 | 160 | 166 | 173 | 155 |
| 90.0 | 51 | 69 | 103 | 114 | 124 | 130 | 128 | 138 | 147 | 125 |
| 92.5 | 52 | 66 | 100 | 111 | 120 | 127 | 124 | 136 | 143 | 110 |
| 95.0 | 58 | 66 | 99 | 110 | 118 | 124 | 119 | 132 | 136 | 104 |
| 97.5 | 64 | 65 | 95 | 106 | 114 | 120 | 114 | 124 | 119 | 104 |
| 100.0 | 68 | 64 | 91 | 104 | 110 | 116 | 108 | 114 | 100 | 102 |
| 102.5 | 70 | 64 | 87 | 102 | 107 | 110 | 103 | 102 | 85 | 96 |
| 105.0 | 70 | 64 | 82 | 99 | 104 | 106 | 96 | 90 | 77 | 89 |
| 107.5 | 69 | 64 | 77 | 97 | 102 | 101 | 88 | 80 | 72 | 82 |
| 110.0 | 69 | 65 | 73 | 95 | 100 | 95 | 81 | 73 | 69 | 77 |
| 112.5 | 68 | 65 | 69 | 91 | 95 | 88 | 76 | 68 | 66 | 72 |
| 115.0 | 66 | 65 | 66 | 86 | 90 | 82 | 72 | 64 | 64 | 68 |
| 117.5 | 66 | 65 | 64 | 80 | 84 | 78 | 69 | 62 | 63 | 64 |
| 120.0 | 65 | 64 | 61 | 73 | 78 | 74 | 67 | 60 | 61 | 62 |
| 122.5 | 64 | 63 | 59 | 67 | 73 | 71 | 65 | 60 | 60 | 59 |
| 125.0 | 61 | 61 | 57 | 61 | 69 | 68 | 64 | 59 | 58 | 57 |
| 127.5 | 59 | 58 | 55 | 57 | 64 | 66 | 64 | 59 | 58 | 56 |
| 130.0 | 57 | 56 | 54 | 54 | 60 | 64 | 63 | 59 | 58 | 57 |

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**CANDELA TABULATION - (Cont.)**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **132.5** | 55 | 55 | 54 | 52 | 57 | 61 | 60 | 58 | 59 | 57 |
| **135.0** | 54 | 54 | 53 | 52 | 53 | 54 | 54 | 57 | 58 | 58 |
| **137.5** | 54 | 54 | 52 | 48 | 45 | 45 | 47 | 52 | 56 | 58 |
| **140.0** | 48 | 48 | 46 | 41 | 36 | 35 | 39 | 44 | 49 | 53 |
| **142.5** | 40 | 40 | 38 | 32 | 27 | 25 | 29 | 34 | 40 | 44 |
| **145.0** | 31 | 30 | 28 | 24 | 19 | 18 | 20 | 25 | 30 | 34 |
| **147.5** | 22 | 21 | 20 | 16 | 13 | 10 | 12 | 17 | 20 | 23 |
| **150.0** | 15 | 15 | 14 | 11 | 7 | 4 | 6 | 10 | 12 | 14 |
| **152.5** | 10 | 10 | 8 | 5 | 3 | 2 | 3 | 4 | 6 | 7 |
| **155.0** | 4 | 4 | 3 | 2 | 1 | 1 | 1 | 2 | 3 | 3 |
| **157.5** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **160.0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **162.5** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **165.0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **167.5** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **170.0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **172.5** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **175.0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **177.5** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **180.0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| **Vert. Angles** | **Horizontal Angles** |
|---|---|
| | **90** |
| **0.0** | 641 |
| **2.5** | 637 |
| **5.0** | 640 |
| **7.5** | 652 |
| **10.0** | 670 |
| **12.5** | 716 |
| **15.0** | 767 |
| **17.5** | 819 |
| **20.0** | 868 |
| **22.5** | 955 |
| **25.0** | 1044 |
| **27.5** | 1114 |
| **30.0** | 1198 |
| **32.5** | 1226 |
| **35.0** | 1265 |
| **37.5** | 1307 |
| **40.0** | 1346 |
| **42.5** | 1373 |
| **45.0** | 1394 |
| **47.5** | 1447 |
| **50.0** | 1481 |
| **52.5** | 1571 |
| **55.0** | 1615 |
| **57.5** | 1723 |
| **60.0** | 1797 |
| **62.5** | 1904 |
| **65.0** | 2092 |
| **67.5** | 2319 |
| **70.0** | 2507 |
| **72.5** | 2025 |
| **75.0** | 1198 |
| **77.5** | 426 |

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**CANDELA TABULATION - (Cont.)**

| | |
|---|---|
| **80.0** | 273 |
| **82.5** | 218 |
| **85.0** | 161 |
| **87.5** | 103 |
| **90.0** | 74 |
| **92.5** | 96 |
| **95.0** | 120 |
| **97.5** | 120 |
| **100.0** | 112 |
| **102.5** | 103 |
| **105.0** | 94 |
| **107.5** | 86 |
| **110.0** | 79 |
| **112.5** | 73 |
| **115.0** | 68 |
| **117.5** | 65 |
| **120.0** | 62 |
| **122.5** | 59 |
| **125.0** | 57 |
| **127.5** | 56 |
| **130.0** | 56 |
| **132.5** | 57 |
| **135.0** | 58 |
| **137.5** | 58 |
| **140.0** | 53 |
| **142.5** | 45 |
| **145.0** | 35 |
| **147.5** | 23 |
| **150.0** | 13 |
| **152.5** | 7 |
| **155.0** | 3 |
| **157.5** | 2 |
| **160.0** | 2 |
| **162.5** | 2 |
| **165.0** | 1 |
| **167.5** | 2 |
| **170.0** | 2 |
| **172.5** | 1 |
| **175.0** | 1 |
| **177.5** | 1 |
| **180.0** | 1 |

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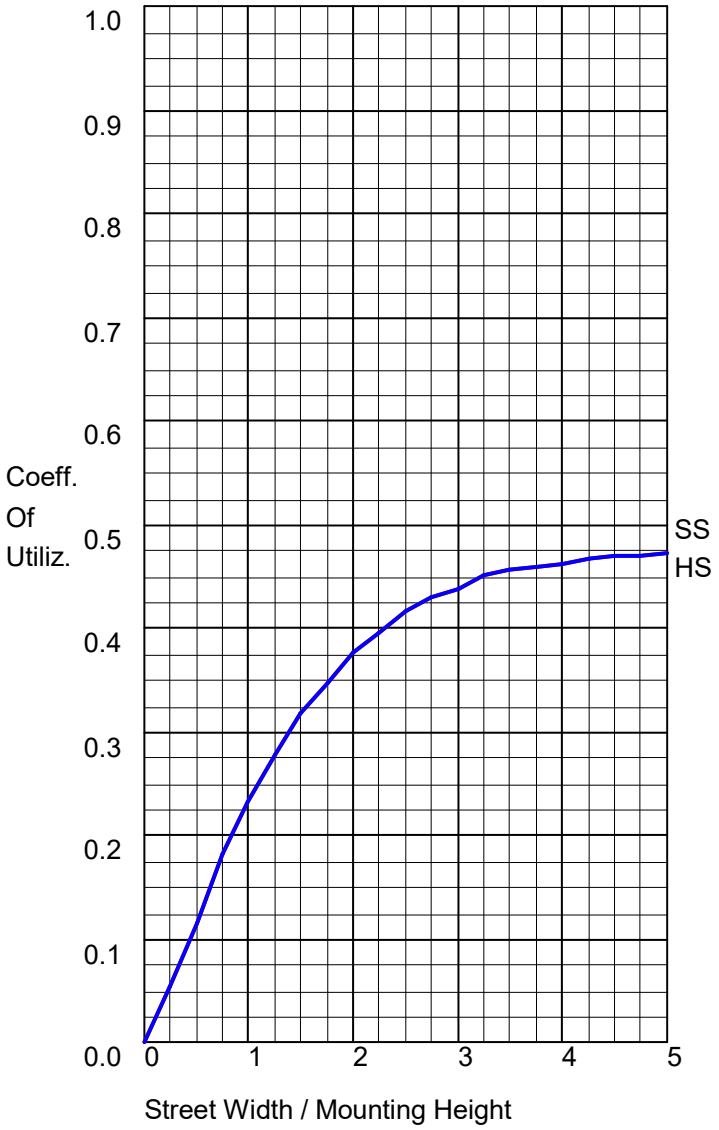
**COEFFICIENTS OF UTILIZATION**




**FLUX DISTRIBUTION**

| | Lumens | Percent Of Luminaire |
|---|---|---|
| Downward Street Side | 4990.8 | 48.0 |
| Downward House Side | 4990.8 | 48.0 |
| Downward Total | 9981.6 | 96.1 |
| Upward Street Side | 202.9 | 2.0 |
| Upward House Side | 202.9 | 2.0 |
| Upward Total | 405.8 | 3.9 |
| Total Flux | 10387.4 | 100.0 |

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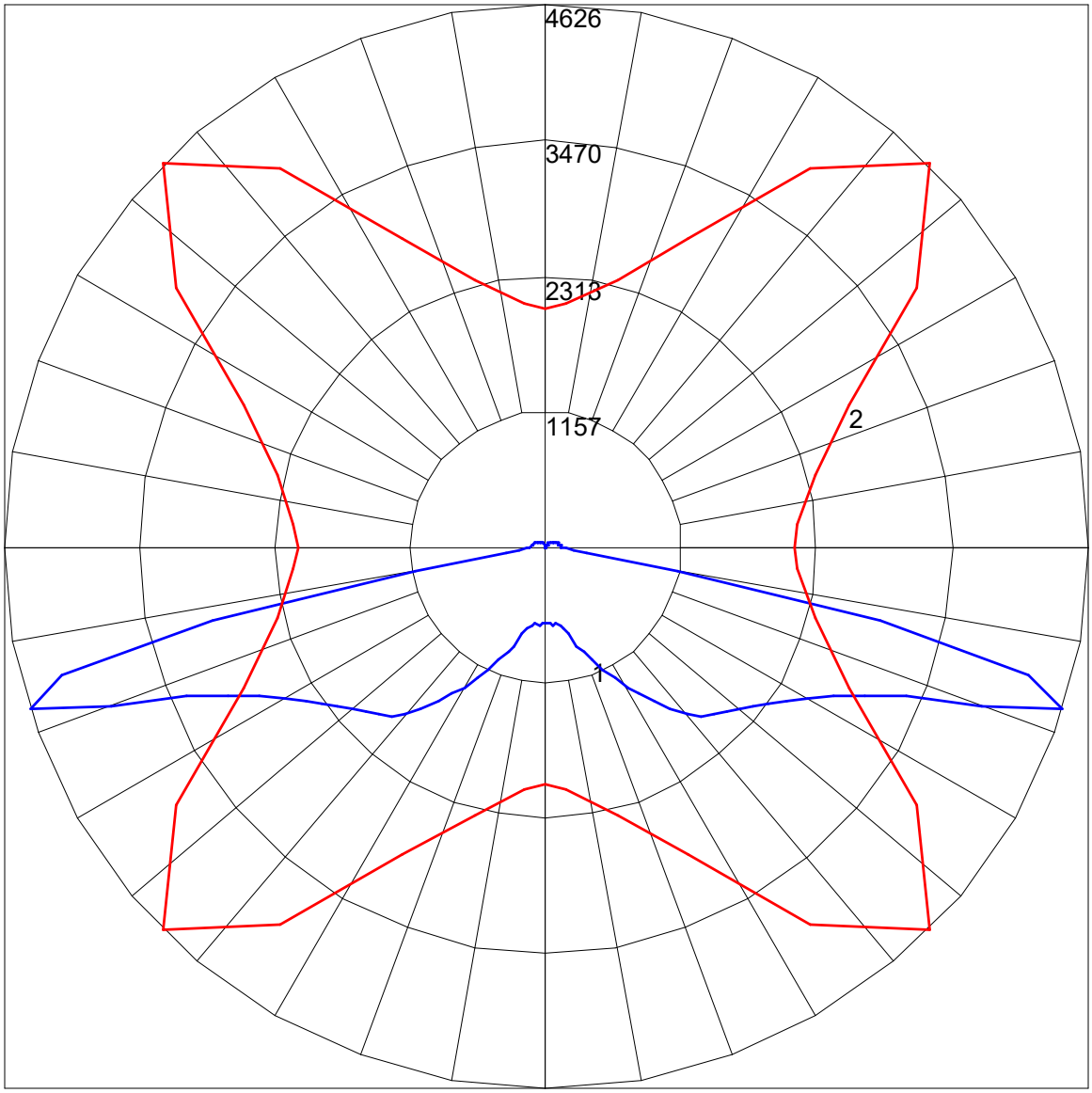
**POLAR GRAPH**




Maximum Candela = 4626  Located At Horizontal Angle = 45, Vertical Angle = 72.5
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
# 2 - Horizontal Cone Through Vertical Angle (72.5) (Through Max. Cd.)

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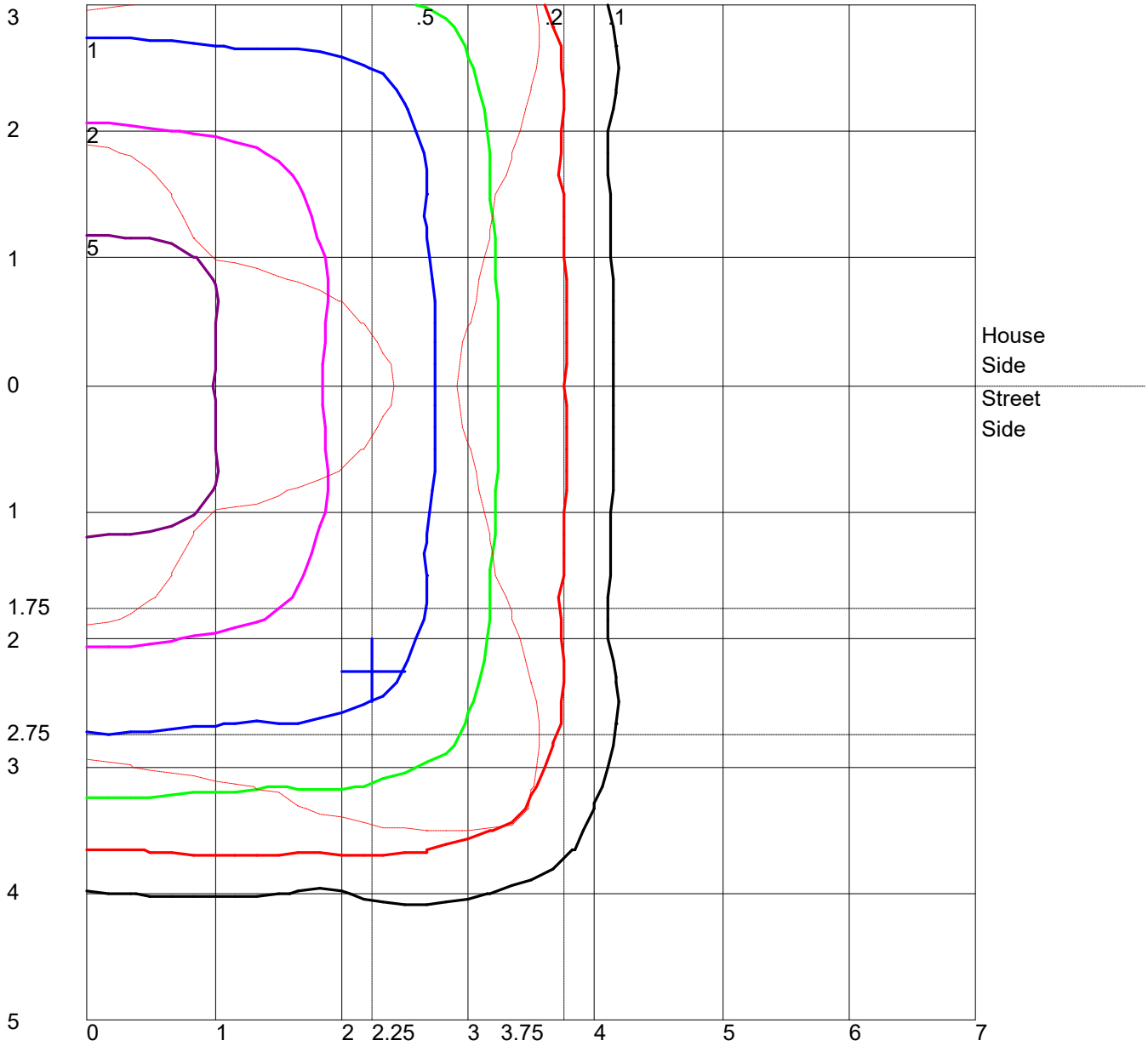
**ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE**




Distance In Units Of Mounting Height
Values Based On 10 Foot Mounting Height
1/2 Maximum Candela Trace Shown As Dashed Curve
(+) = Maximum Candela Point

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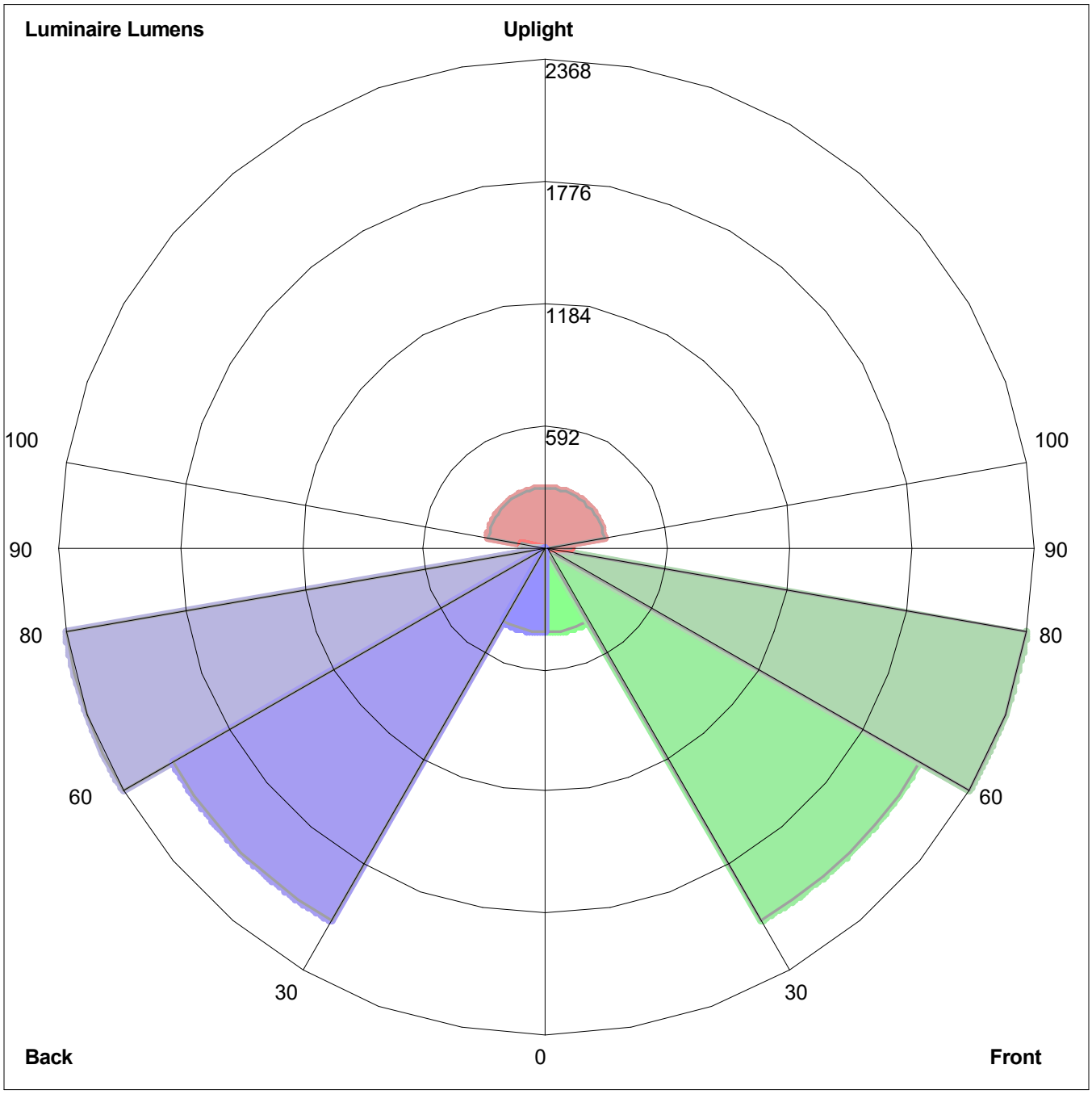
**LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH**




Luminaire Lumens:
Front: Low=414.5, Medium=2090.9, High=2368.5, Very High=116.9
Back: Low=414.5, Medium=2090.9, High=2368.5, Very High=116.9
Uplight: Low=121.0, High=284.8

BUG Rating : B3-U3-G2

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