

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242480

Luminaire Tested: S123DRP-S1165D930-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DRP-S1165D930-X4F0-XX-UDD-A-W
Description: DEFINE 3 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

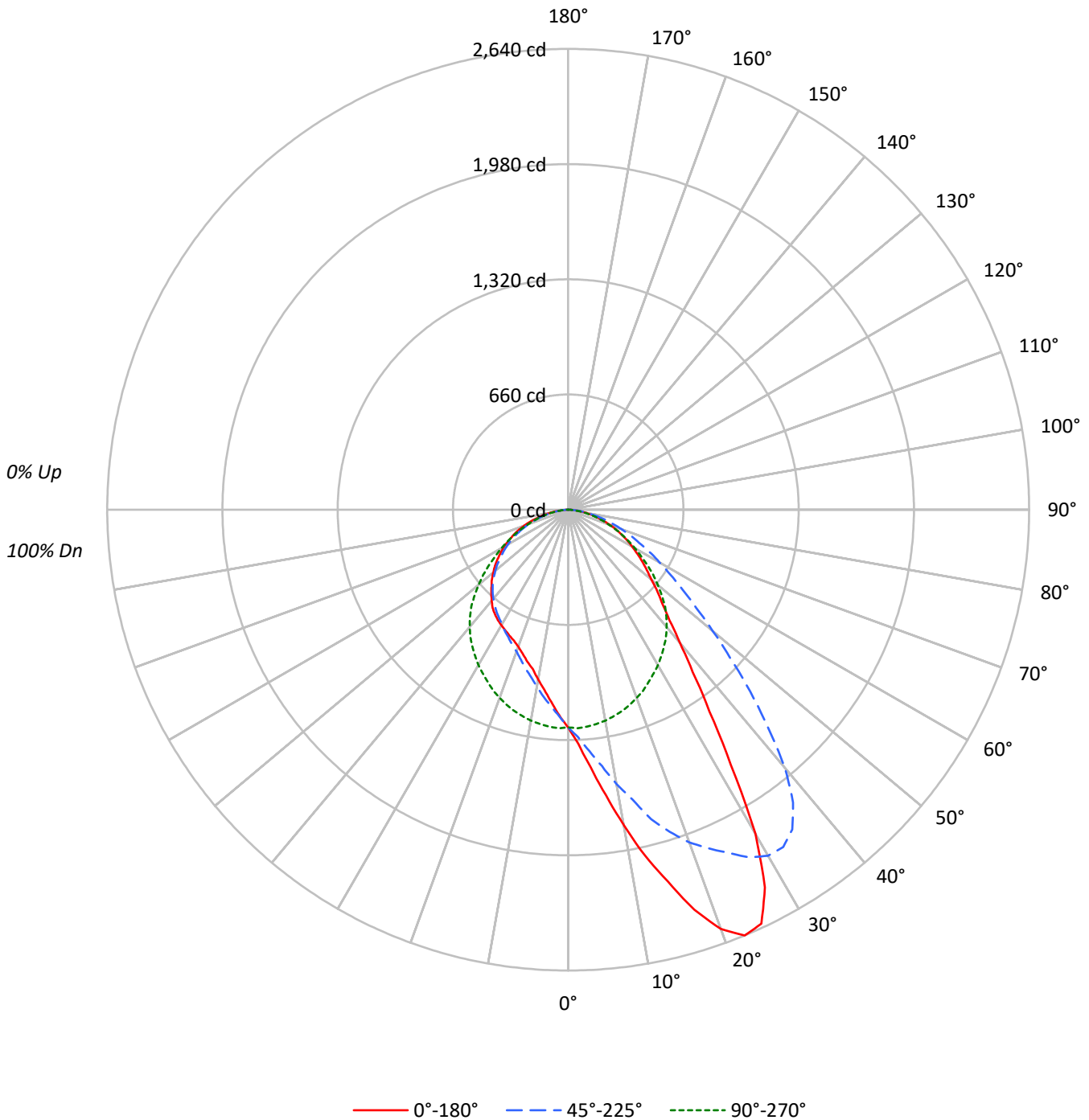
Lumens per Lamp: N/A
Luminaire Lumens: 3763.6 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 74 | 72 | | | | | 72 | | | |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 84 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 53 | | | | | 53 | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 64 | 56 | 50 | 62 | 55 | 50 | 60 | 54 | 49 | 59 | 53 | 49 | 47 | | | | | 47 | | | |
| 6 | 72 | 59 | 51 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 44 | 55 | 48 | 43 | 53 | 48 | 43 | 41 | | | | | 41 | | | |
| 7 | 67 | 54 | 45 | 39 | 65 | 53 | 45 | 39 | 52 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 38 | 36 | | | | | 36 | | | |
| 8 | 62 | 49 | 41 | 35 | 61 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 | | | | | 33 | | | |
| 9 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 31 | 41 | 36 | 31 | 29 | | | | | 29 | | | |
| 10 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 38 | 33 | 28 | 27 | | | | | 27 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|-------|-------|
| 0° | 15115 | 15115 | 15115 | 15115 | 15115 |
| 5° | 18025 | 16892 | 15180 | 13746 | 13452 |
| 10° | 22561 | 19638 | 15102 | 12664 | 12151 |
| 15° | 27671 | 23032 | 14981 | 11812 | 11312 |
| 20° | 32964 | 26153 | 14791 | 11144 | 10769 |
| 25° | 35003 | 29007 | 14561 | 10818 | 10650 |
| 30° | 30001 | 32031 | 14392 | 10612 | 10704 |
| 35° | 20866 | 33094 | 14152 | 10576 | 10817 |
| 40° | 15716 | 30551 | 13871 | 10554 | 10783 |
| 45° | 13048 | 25269 | 13453 | 10481 | 10647 |
| 50° | 11690 | 20392 | 12600 | 10275 | 10549 |
| 55° | 10928 | 16917 | 11682 | 9983 | 10418 |
| 60° | 10252 | 14630 | 10720 | 9695 | 10310 |
| 65° | 9634 | 12875 | 9772 | 9201 | 9981 |
| 70° | 9034 | 11497 | 8693 | 8456 | 9505 |
| 75° | 8093 | 9961 | 7610 | 7554 | 8716 |
| 80° | 7085 | 8181 | 6240 | 6115 | 7504 |
| 85° | 5549 | 6384 | 4534 | 4450 | 5035 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 29868 cd/sqm



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 122.6 | 3.3 |
| 10°-20° | 393.9 | 10.5 |
| 20°-30° | 662.8 | 17.6 |
| 30°-40° | 749.0 | 19.9 |
| 40°-50° | 670.9 | 17.8 |
| 50°-60° | 541.5 | 14.4 |
| 60°-70° | 377.3 | 10.0 |
| 70°-80° | 198.1 | 5.3 |
| 80°-90° | 47.5 | 1.3 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1179.3 | 31.3 |
| 0°-40° | 1928.3 | 51.2 |
| 0°-60° | 3140.8 | 83.5 |
| 0°-90° | 3763.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3763.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1247 | 1247 | 1247 | 1247 | 1247 | |
| 5° | 1481 | 1388 | 1248 | 1130 | 1106 | 152 |
| 15° | 2205 | 1835 | 1194 | 941 | 901 | 637 |
| 25° | 2617 | 2169 | 1089 | 809 | 796 | 1157 |
| 35° | 1410 | 2236 | 956 | 715 | 731 | 910 |
| 45° | 761 | 1474 | 785 | 611 | 621 | 600 |
| 55° | 517 | 800 | 553 | 472 | 493 | 464 |
| 65° | 336 | 449 | 341 | 321 | 348 | 335 |
| 75° | 173 | 213 | 162 | 161 | 186 | 185 |
| 85° | 40 | 46 | 33 | 32 | 36 | 48 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 |
| 2.5° | 1342.4 | 1341.2 | 1338.2 | 1340.6 | 1335.8 | 1329.1 | 1328.5 | 1322.5 | 1305.0 | 1303.7 | 1298.9 |
| 5° | 1481.4 | 1476.5 | 1475.9 | 1475.3 | 1466.9 | 1455.4 | 1433.6 | 1431.8 | 1402.8 | 1388.3 | 1370.8 |
| 7.5° | 1649.3 | 1647.5 | 1642.7 | 1637.2 | 1608.8 | 1594.9 | 1574.4 | 1547.8 | 1514.0 | 1481.4 | 1460.8 |
| 10° | 1833.0 | 1852.9 | 1828.1 | 1811.2 | 1795.5 | 1765.9 | 1731.5 | 1688.6 | 1645.7 | 1595.5 | 1557.5 |
| 12.5° | 2029.9 | 2037.2 | 2037.2 | 2021.5 | 1994.9 | 1945.9 | 1878.3 | 1830.0 | 1791.3 | 1699.5 | 1666.8 |
| 15° | 2205.1 | 2242.0 | 2218.4 | 2164.0 | 2165.3 | 2122.4 | 2042.6 | 1955.0 | 1908.5 | 1835.4 | 1735.7 |
| 17.5° | 2403.3 | 2409.9 | 2402.7 | 2351.9 | 2327.2 | 2264.9 | 2193.0 | 2111.5 | 2023.9 | 1935.1 | 1831.8 |
| 20° | 2555.5 | 2551.9 | 2530.8 | 2507.2 | 2455.2 | 2409.3 | 2329.0 | 2235.3 | 2114.5 | 2027.5 | 1912.1 |
| 22.5° | 2640.1 | 2633.5 | 2626.2 | 2607.5 | 2566.4 | 2516.3 | 2446.2 | 2341.7 | 2228.1 | 2100.0 | 1962.3 |
| 25° | 2617.2 | 2625.0 | 2626.2 | 2620.8 | 2605.7 | 2576.1 | 2519.3 | 2437.7 | 2322.9 | 2168.9 | 2029.9 |
| 27.5° | 2439.5 | 2459.5 | 2484.8 | 2501.8 | 2528.9 | 2547.1 | 2528.9 | 2477.6 | 2383.3 | 2245.6 | 2074.6 |
| 30° | 2143.5 | 2119.3 | 2179.1 | 2254.7 | 2306.0 | 2396.6 | 2447.4 | 2450.4 | 2402.7 | 2288.5 | 2123.0 |
| 32.5° | 1732.7 | 1772.0 | 1790.1 | 1887.3 | 2014.8 | 2119.3 | 2232.9 | 2333.8 | 2357.4 | 2290.9 | 2151.4 |
| 35° | 1410.1 | 1443.3 | 1491.6 | 1540.0 | 1660.8 | 1764.7 | 1942.3 | 2097.0 | 2220.2 | 2236.5 | 2147.7 |
| 37.5° | 1172.0 | 1191.4 | 1221.0 | 1272.3 | 1355.1 | 1483.8 | 1624.5 | 1825.7 | 1995.5 | 2115.1 | 2103.0 |
| 40° | 993.2 | 998.0 | 1032.5 | 1069.3 | 1133.4 | 1234.9 | 1358.7 | 1531.5 | 1745.4 | 1930.8 | 2008.2 |
| 42.5° | 859.1 | 871.2 | 880.8 | 915.9 | 963.6 | 1033.7 | 1146.7 | 1282.0 | 1473.5 | 1694.0 | 1863.8 |
| 45° | 761.2 | 773.3 | 782.4 | 805.9 | 842.2 | 893.5 | 973.9 | 1104.4 | 1253.6 | 1474.1 | 1677.7 |
| 47.5° | 693.6 | 692.3 | 700.2 | 718.9 | 744.9 | 786.0 | 845.2 | 932.2 | 1075.4 | 1259.6 | 1472.9 |
| 50° | 619.9 | 629.5 | 631.9 | 645.8 | 665.2 | 693.6 | 740.7 | 812.0 | 924.3 | 1081.4 | 1273.5 |
| 52.5° | 567.9 | 569.1 | 577.0 | 586.0 | 602.3 | 622.9 | 662.1 | 714.1 | 796.3 | 924.3 | 1097.1 |
| 55° | 517.1 | 517.1 | 523.8 | 531.6 | 541.3 | 561.2 | 588.4 | 629.5 | 696.6 | 800.5 | 946.7 |
| 57.5° | 470.0 | 472.4 | 478.5 | 480.3 | 488.8 | 502.6 | 526.2 | 558.8 | 610.2 | 694.2 | 815.0 |
| 60° | 422.9 | 428.3 | 427.7 | 432.6 | 439.8 | 450.1 | 469.4 | 494.8 | 539.5 | 603.5 | 701.4 |
| 62.5° | 381.8 | 380.0 | 380.0 | 386.0 | 393.3 | 403.0 | 413.8 | 435.0 | 471.2 | 526.2 | 606.0 |
| 65° | 335.9 | 334.7 | 338.9 | 342.5 | 345.0 | 352.2 | 361.9 | 381.2 | 406.6 | 448.9 | 513.5 |
| 67.5° | 296.0 | 292.4 | 295.4 | 296.6 | 300.9 | 306.9 | 316.6 | 328.7 | 349.2 | 384.8 | 436.8 |
| 70° | 254.9 | 251.9 | 251.3 | 252.5 | 256.2 | 260.4 | 267.0 | 278.5 | 297.2 | 324.4 | 360.1 |
| 72.5° | 212.7 | 210.8 | 210.8 | 213.9 | 215.1 | 217.5 | 221.7 | 232.0 | 245.9 | 264.6 | 297.2 |
| 75° | 172.8 | 172.8 | 172.8 | 173.4 | 175.2 | 177.6 | 181.2 | 186.7 | 198.2 | 212.7 | 235.0 |
| 77.5° | 136.5 | 137.1 | 135.9 | 135.3 | 138.3 | 139.6 | 140.2 | 146.2 | 152.8 | 163.7 | 181.2 |
| 80° | 101.5 | 98.5 | 99.7 | 101.5 | 102.7 | 103.3 | 105.1 | 106.3 | 111.8 | 117.2 | 128.7 |
| 82.5° | 68.9 | 66.5 | 66.5 | 69.5 | 69.5 | 70.1 | 71.9 | 73.7 | 74.9 | 79.7 | 84.6 |
| 85° | 39.9 | 39.9 | 40.5 | 40.5 | 41.1 | 40.5 | 42.3 | 42.9 | 42.9 | 45.9 | 49.5 |
| 87.5° | 18.1 | 16.9 | 17.5 | 18.1 | 17.5 | 18.1 | 18.7 | 19.3 | 19.9 | 20.5 | 21.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 |
| 2.5° | 1295.3 | 1290.5 | 1285.6 | 1277.2 | 1269.9 | 1259.6 | 1256.6 | 1253.0 | 1242.1 | 1232.5 | 1225.2 |
| 5° | 1364.2 | 1349.7 | 1328.5 | 1309.2 | 1293.5 | 1272.3 | 1260.2 | 1247.6 | 1229.4 | 1213.1 | 1199.8 |
| 7.5° | 1430.0 | 1404.6 | 1375.0 | 1343.0 | 1312.2 | 1282.6 | 1259.0 | 1237.9 | 1214.3 | 1191.4 | 1173.9 |
| 10° | 1511.6 | 1470.5 | 1424.6 | 1375.0 | 1332.7 | 1291.7 | 1257.2 | 1227.0 | 1194.4 | 1166.0 | 1142.4 |
| 12.5° | 1604.6 | 1538.8 | 1471.1 | 1408.3 | 1356.3 | 1295.3 | 1251.8 | 1211.3 | 1173.2 | 1137.6 | 1110.4 |
| 15° | 1674.1 | 1596.8 | 1521.8 | 1439.1 | 1362.9 | 1291.7 | 1242.1 | 1193.8 | 1150.9 | 1115.9 | 1082.0 |
| 17.5° | 1743.0 | 1658.4 | 1562.9 | 1463.2 | 1373.8 | 1291.7 | 1224.0 | 1172.0 | 1119.5 | 1077.2 | 1044.6 |
| 20° | 1799.7 | 1700.1 | 1588.3 | 1483.8 | 1382.3 | 1288.0 | 1211.9 | 1146.7 | 1088.7 | 1043.4 | 1005.3 |
| 22.5° | 1848.7 | 1727.9 | 1611.3 | 1497.7 | 1381.7 | 1278.4 | 1189.6 | 1121.9 | 1057.9 | 1013.8 | 972.7 |
| 25° | 1879.5 | 1739.9 | 1623.9 | 1492.8 | 1366.6 | 1261.5 | 1164.8 | 1088.7 | 1025.8 | 973.9 | 932.2 |
| 27.5° | 1908.5 | 1738.1 | 1607.0 | 1465.7 | 1348.4 | 1243.9 | 1140.0 | 1058.5 | 992.6 | 936.4 | 893.5 |
| 30° | 1937.5 | 1741.1 | 1577.4 | 1437.9 | 1319.4 | 1210.7 | 1110.4 | 1028.3 | 958.2 | 900.8 | 860.9 |
| 32.5° | 1955.6 | 1739.3 | 1550.2 | 1399.2 | 1273.5 | 1180.5 | 1078.4 | 992.6 | 920.1 | 863.9 | 825.9 |
| 35° | 1960.4 | 1729.1 | 1518.2 | 1343.0 | 1223.4 | 1129.7 | 1044.6 | 956.4 | 880.8 | 828.3 | 784.8 |
| 37.5° | 1950.2 | 1710.3 | 1483.2 | 1292.3 | 1163.0 | 1069.9 | 995.6 | 920.1 | 847.6 | 789.0 | 751.0 |
| 40° | 1916.9 | 1692.2 | 1440.9 | 1237.9 | 1100.1 | 1011.3 | 950.3 | 876.6 | 805.3 | 750.3 | 715.3 |
| 42.5° | 1853.5 | 1655.4 | 1394.4 | 1177.5 | 1034.9 | 946.1 | 891.1 | 832.5 | 766.1 | 715.3 | 680.3 |
| 45° | 1742.4 | 1598.6 | 1347.8 | 1117.1 | 970.9 | 879.0 | 829.5 | 784.8 | 723.8 | 673.6 | 643.4 |
| 47.5° | 1600.4 | 1521.8 | 1280.8 | 1053.6 | 903.8 | 815.0 | 763.0 | 726.2 | 678.5 | 638.0 | 608.4 |
| 50° | 1451.2 | 1422.8 | 1212.5 | 988.4 | 836.7 | 750.3 | 700.8 | 668.2 | 636.2 | 595.7 | 569.1 |
| 52.5° | 1279.0 | 1308.0 | 1132.8 | 920.7 | 768.5 | 683.9 | 638.0 | 613.8 | 585.4 | 554.0 | 531.6 |
| 55° | 1119.5 | 1182.9 | 1038.5 | 843.4 | 700.8 | 619.9 | 575.7 | 552.8 | 535.9 | 511.1 | 491.2 |
| 57.5° | 964.8 | 1045.8 | 940.7 | 765.5 | 634.4 | 563.7 | 520.2 | 494.2 | 483.3 | 469.4 | 453.1 |
| 60° | 830.1 | 909.8 | 834.3 | 686.9 | 567.3 | 500.8 | 463.4 | 442.2 | 431.4 | 422.3 | 409.0 |
| 62.5° | 709.9 | 790.8 | 730.4 | 607.2 | 501.4 | 441.0 | 409.6 | 389.1 | 381.2 | 377.6 | 366.7 |
| 65° | 601.7 | 671.2 | 628.9 | 523.8 | 439.2 | 384.8 | 355.2 | 340.7 | 332.9 | 331.1 | 323.8 |
| 67.5° | 508.1 | 561.9 | 529.2 | 450.1 | 381.2 | 331.7 | 305.7 | 293.0 | 286.4 | 285.8 | 279.7 |
| 70° | 416.3 | 465.8 | 442.2 | 372.2 | 314.8 | 277.9 | 256.2 | 245.3 | 241.7 | 241.1 | 238.0 |
| 72.5° | 345.0 | 375.8 | 358.3 | 302.7 | 261.6 | 229.0 | 214.5 | 203.0 | 198.8 | 200.0 | 198.2 |
| 75° | 265.8 | 291.8 | 280.9 | 240.4 | 204.8 | 183.1 | 169.8 | 162.5 | 158.9 | 160.7 | 158.3 |
| 77.5° | 203.0 | 221.1 | 210.2 | 179.4 | 156.5 | 140.2 | 129.9 | 125.1 | 121.4 | 121.4 | 120.2 |
| 80° | 144.4 | 154.1 | 148.6 | 131.7 | 113.6 | 100.3 | 92.4 | 89.4 | 87.6 | 87.0 | 86.4 |
| 82.5° | 92.4 | 100.3 | 93.6 | 83.4 | 72.5 | 65.9 | 62.2 | 58.0 | 56.8 | 57.4 | 56.8 |
| 85° | 52.0 | 55.0 | 52.6 | 45.3 | 40.5 | 36.9 | 34.4 | 32.6 | 31.4 | 32.0 | 30.8 |
| 87.5° | 22.4 | 23.0 | 21.1 | 18.7 | 17.5 | 15.7 | 15.7 | 14.5 | 13.3 | 13.3 | 12.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 | 1247.0 |
| 2.5° | 1221.0 | 1216.7 | 1210.7 | 1201.6 | 1194.4 | 1182.9 | 1182.9 | 1184.7 | 1184.7 | 1184.1 | 1182.9 |
| 5° | 1189.0 | 1179.9 | 1169.0 | 1156.3 | 1143.0 | 1129.7 | 1127.3 | 1122.5 | 1118.9 | 1116.5 | 1113.4 |
| 7.5° | 1156.3 | 1141.2 | 1126.1 | 1108.6 | 1093.5 | 1080.8 | 1071.8 | 1063.9 | 1059.1 | 1053.6 | 1049.4 |
| 10° | 1123.1 | 1103.2 | 1084.4 | 1065.7 | 1045.2 | 1028.9 | 1018.6 | 1011.3 | 1005.9 | 1001.1 | 998.6 |
| 12.5° | 1083.8 | 1060.3 | 1039.1 | 1021.6 | 998.6 | 981.7 | 972.1 | 969.7 | 963.0 | 951.5 | 945.5 |
| 15° | 1045.8 | 1024.6 | 999.9 | 972.7 | 961.8 | 941.3 | 929.8 | 924.3 | 920.7 | 912.9 | 910.4 |
| 17.5° | 1014.4 | 986.0 | 957.6 | 937.6 | 917.7 | 901.4 | 894.7 | 887.5 | 882.7 | 875.4 | 873.6 |
| 20° | 975.1 | 950.3 | 924.9 | 903.2 | 882.0 | 863.9 | 858.5 | 853.7 | 848.8 | 845.8 | 843.4 |
| 22.5° | 935.2 | 910.4 | 890.5 | 870.6 | 847.6 | 837.3 | 831.3 | 825.9 | 822.8 | 821.0 | 818.6 |
| 25° | 898.4 | 876.6 | 853.1 | 834.9 | 816.8 | 808.9 | 805.3 | 802.3 | 799.9 | 796.9 | 796.3 |
| 27.5° | 865.7 | 841.6 | 821.6 | 804.1 | 790.8 | 784.2 | 779.9 | 778.1 | 778.1 | 779.3 | 779.9 |
| 30° | 828.3 | 806.5 | 790.8 | 776.3 | 764.2 | 758.2 | 757.6 | 757.6 | 760.0 | 760.6 | 761.8 |
| 32.5° | 793.8 | 776.9 | 761.2 | 747.3 | 738.9 | 735.2 | 738.3 | 738.3 | 740.1 | 741.9 | 744.3 |
| 35° | 760.6 | 744.9 | 732.8 | 720.7 | 712.9 | 714.7 | 715.9 | 717.1 | 720.1 | 723.8 | 726.2 |
| 37.5° | 729.2 | 714.7 | 702.0 | 692.3 | 687.5 | 691.1 | 694.2 | 696.6 | 700.2 | 703.2 | 705.6 |
| 40° | 694.8 | 684.5 | 672.4 | 664.0 | 665.2 | 667.0 | 669.4 | 672.4 | 675.4 | 677.2 | 679.7 |
| 42.5° | 662.7 | 651.9 | 643.4 | 636.8 | 638.6 | 641.0 | 642.2 | 643.4 | 647.0 | 650.7 | 651.9 |
| 45° | 630.1 | 621.7 | 613.2 | 609.0 | 610.2 | 611.4 | 612.6 | 614.4 | 617.4 | 619.9 | 620.5 |
| 47.5° | 593.3 | 587.2 | 581.8 | 577.0 | 579.4 | 578.8 | 580.6 | 584.2 | 585.4 | 586.6 | 590.2 |
| 50° | 558.2 | 552.8 | 546.1 | 544.9 | 544.9 | 544.9 | 545.5 | 550.4 | 550.4 | 552.8 | 555.2 |
| 52.5° | 519.6 | 516.5 | 512.9 | 510.5 | 509.3 | 509.3 | 512.3 | 514.1 | 515.3 | 519.0 | 521.4 |
| 55° | 481.5 | 477.9 | 474.3 | 472.4 | 471.2 | 472.4 | 477.3 | 478.5 | 481.5 | 483.3 | 485.1 |
| 57.5° | 441.6 | 439.2 | 436.2 | 435.0 | 435.0 | 435.6 | 439.2 | 442.2 | 442.8 | 448.9 | 451.3 |
| 60° | 402.4 | 398.1 | 395.7 | 395.7 | 394.5 | 399.9 | 398.7 | 404.8 | 406.0 | 409.6 | 413.8 |
| 62.5° | 361.9 | 355.8 | 355.2 | 355.2 | 357.7 | 358.3 | 360.7 | 362.5 | 366.1 | 370.9 | 374.0 |
| 65° | 317.8 | 314.8 | 319.0 | 318.4 | 317.2 | 320.8 | 320.8 | 323.8 | 327.4 | 331.7 | 338.3 |
| 67.5° | 276.7 | 274.3 | 275.5 | 274.9 | 276.7 | 279.1 | 280.9 | 283.3 | 287.6 | 292.4 | 296.6 |
| 70° | 235.0 | 236.8 | 233.8 | 236.2 | 238.0 | 238.6 | 239.8 | 243.5 | 248.3 | 251.3 | 256.2 |
| 72.5° | 194.5 | 193.9 | 195.1 | 195.7 | 197.6 | 198.8 | 200.0 | 204.2 | 209.6 | 212.1 | 215.7 |
| 75° | 155.9 | 155.3 | 157.1 | 157.1 | 160.1 | 161.3 | 162.5 | 164.3 | 169.2 | 172.8 | 175.8 |
| 77.5° | 120.8 | 121.4 | 120.8 | 123.2 | 122.0 | 122.6 | 126.3 | 128.1 | 128.7 | 136.5 | 137.7 |
| 80° | 85.8 | 87.0 | 87.6 | 88.2 | 88.8 | 87.6 | 91.8 | 93.6 | 93.6 | 97.9 | 100.9 |
| 82.5° | 55.6 | 56.2 | 58.0 | 58.6 | 58.6 | 60.4 | 59.8 | 61.0 | 62.8 | 64.0 | 68.3 |
| 85° | 30.8 | 32.6 | 33.2 | 32.6 | 33.2 | 32.0 | 33.8 | 34.4 | 35.0 | 35.0 | 35.0 |
| 87.5° | 12.1 | 12.7 | 12.1 | 12.7 | 12.1 | 12.7 | 12.7 | 11.5 | 11.5 | 13.3 | 10.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P242480

CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|
| 0° | 1247.0 | 1247.0 | 1247.0 | 1247.0 |
| 2.5° | 1178.7 | 1178.1 | 1182.3 | 1179.3 |
| 5° | 1109.8 | 1111.6 | 1105.6 | 1105.6 |
| 7.5° | 1047.6 | 1045.2 | 1045.8 | 1041.5 |
| 10° | 991.4 | 987.8 | 986.6 | 987.2 |
| 12.5° | 944.9 | 944.9 | 935.2 | 935.2 |
| 15° | 910.4 | 899.0 | 897.8 | 901.4 |
| 17.5° | 872.4 | 865.7 | 866.3 | 865.1 |
| 20° | 843.4 | 839.8 | 839.2 | 834.9 |
| 22.5° | 816.8 | 816.2 | 816.8 | 812.0 |
| 25° | 795.7 | 798.7 | 796.3 | 796.3 |
| 27.5° | 781.2 | 781.2 | 779.3 | 779.3 |
| 30° | 764.2 | 763.6 | 764.8 | 764.8 |
| 32.5° | 747.3 | 748.5 | 748.5 | 749.1 |
| 35° | 729.8 | 730.4 | 732.2 | 731.0 |
| 37.5° | 706.8 | 709.9 | 709.3 | 710.5 |
| 40° | 680.3 | 682.1 | 681.5 | 681.5 |
| 42.5° | 653.1 | 654.3 | 652.5 | 651.3 |
| 45° | 622.9 | 621.7 | 623.5 | 621.1 |
| 47.5° | 589.6 | 590.2 | 590.9 | 593.3 |
| 50° | 556.4 | 560.0 | 560.0 | 559.4 |
| 52.5° | 523.8 | 525.0 | 528.0 | 528.0 |
| 55° | 490.0 | 491.2 | 492.4 | 493.0 |
| 57.5° | 455.5 | 454.9 | 457.3 | 457.9 |
| 60° | 418.7 | 418.7 | 423.5 | 425.3 |
| 62.5° | 379.4 | 381.8 | 386.7 | 383.0 |
| 65° | 341.3 | 346.2 | 345.6 | 348.0 |
| 67.5° | 301.5 | 304.5 | 309.3 | 309.3 |
| 70° | 261.0 | 264.0 | 266.4 | 268.2 |
| 72.5° | 221.7 | 222.9 | 229.6 | 225.9 |
| 75° | 180.0 | 184.3 | 187.9 | 186.1 |
| 77.5° | 140.2 | 145.6 | 146.8 | 145.0 |
| 80° | 105.1 | 104.5 | 108.1 | 107.5 |
| 82.5° | 70.1 | 69.5 | 70.7 | 71.3 |
| 85° | 37.5 | 39.3 | 36.9 | 36.2 |
| 87.5° | 10.9 | 10.9 | 10.3 | 9.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P242480
 CATALOG NUMBER: S123DRP-S1165D930-X4F0-XX-UDD-A-W

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 19.82 | 21.37 | 20.18 | 21.69 | 22.00 | 20.37 | 21.93 | 20.74 | 22.24 | 22.56 |
| | 3H | 21.37 | 22.77 | 21.74 | 23.09 | 23.45 | 21.71 | 23.10 | 22.08 | 23.43 | 23.79 |
| | 4H | 21.93 | 23.25 | 22.33 | 23.59 | 23.97 | 22.17 | 23.48 | 22.57 | 23.83 | 24.21 |
| | 6H | 22.33 | 23.55 | 22.74 | 23.91 | 24.30 | 22.46 | 23.67 | 22.87 | 24.04 | 24.43 |
| | 8H | 22.44 | 23.60 | 22.87 | 23.99 | 24.39 | 22.53 | 23.69 | 22.96 | 24.08 | 24.48 |
| | 12H | 22.51 | 23.62 | 22.94 | 24.00 | 24.43 | 22.57 | 23.68 | 23.00 | 24.06 | 24.49 |
| 4H | 2H | 20.97 | 22.29 | 21.37 | 22.63 | 23.01 | 21.13 | 22.45 | 21.53 | 22.80 | 23.17 |
| | 3H | 22.57 | 23.66 | 22.98 | 24.06 | 24.46 | 22.94 | 24.03 | 23.35 | 24.43 | 24.83 |
| | 4H | 23.19 | 24.17 | 23.62 | 24.59 | 25.03 | 23.51 | 24.49 | 23.94 | 24.91 | 25.35 |
| | 6H | 23.66 | 24.52 | 24.12 | 24.96 | 25.42 | 23.87 | 24.73 | 24.33 | 25.17 | 25.63 |
| | 8H | 23.80 | 24.60 | 24.26 | 25.04 | 25.51 | 23.96 | 24.76 | 24.42 | 25.21 | 25.67 |
| | 12H | 23.89 | 24.61 | 24.37 | 25.09 | 25.56 | 24.01 | 24.73 | 24.50 | 25.21 | 25.68 |
| 8H | 4H | 23.67 | 24.47 | 24.13 | 24.92 | 25.38 | 23.81 | 24.61 | 24.27 | 25.06 | 25.52 |
| | 6H | 24.22 | 24.88 | 24.72 | 25.37 | 25.85 | 24.32 | 24.99 | 24.82 | 25.48 | 25.95 |
| | 8H | 24.41 | 25.00 | 24.92 | 25.51 | 26.00 | 24.47 | 25.06 | 24.98 | 25.57 | 26.06 |
| | 12H | 24.55 | 25.08 | 25.06 | 25.57 | 26.13 | 24.56 | 25.09 | 25.07 | 25.58 | 26.14 |
| 12H | 4H | 23.72 | 24.44 | 24.21 | 24.92 | 25.39 | 23.82 | 24.54 | 24.31 | 25.02 | 25.49 |
| | 6H | 24.30 | 24.89 | 24.81 | 25.40 | 25.89 | 24.36 | 24.95 | 24.87 | 25.46 | 25.95 |
| | 8H | 24.53 | 25.06 | 25.04 | 25.55 | 26.11 | 24.56 | 25.09 | 25.07 | 25.58 | 26.14 |