

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P776132

Luminaire Tested: HCDJBL51525CSD-HCD81TRH-2500lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776132
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B043-HCD81TRH)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD81TRH-2500lm-3500K
Description: 8 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3047.3 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.42 / 1.43
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

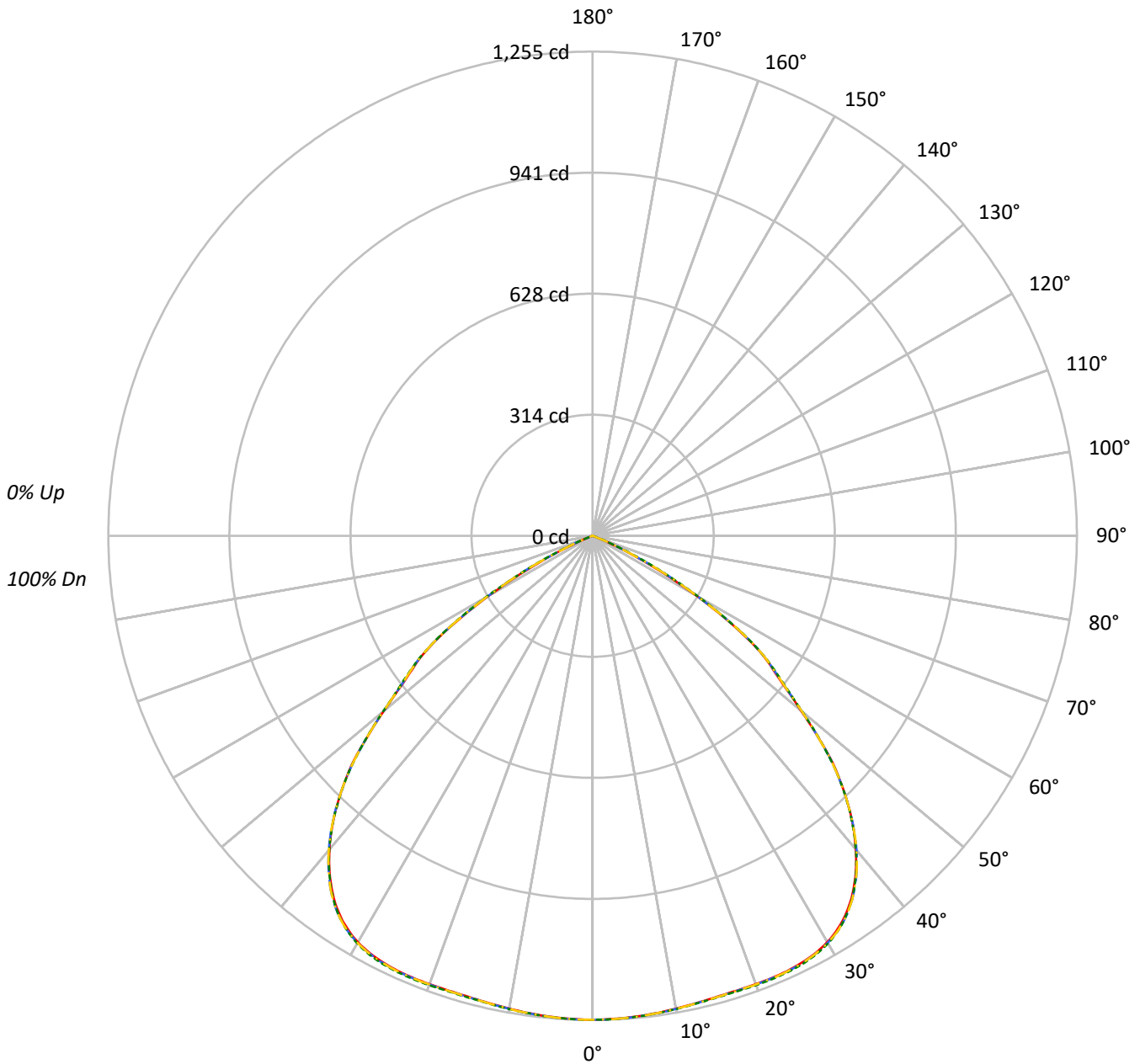
Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBL51525CSD-HCD81TRH-2500lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|---|--|---|
| RF | 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 | | | | | | | | |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | | | | |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 92 | 87 | 84 | 88 | 85 | 82 | 86 | 83 | 80 | 78 | | | | | | | | |
| 3 | 96 | 87 | 80 | 75 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 74 | 70 | 68 | | | | | | | | |
| 4 | 88 | 78 | 70 | 65 | 86 | 77 | 70 | 64 | 74 | 68 | 63 | 72 | 67 | 63 | 70 | 66 | 62 | 60 | | | | | | | | |
| 5 | 82 | 70 | 62 | 57 | 80 | 69 | 62 | 56 | 67 | 61 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 53 | | | | | | | | |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 48 | 47 | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 43 | 41 | | | | | | | | |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | | | | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 42 | 36 | 32 | 30 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 38303 | 38303 | 38303 | 38303 |
| 5° | 38358 | 38373 | 38358 | 38373 |
| 10° | 38584 | 38615 | 38584 | 38615 |
| 15° | 39123 | 39180 | 39123 | 39180 |
| 20° | 40177 | 40264 | 40177 | 40264 |
| 25° | 41579 | 41697 | 41579 | 41697 |
| 30° | 42879 | 43002 | 42879 | 43002 |
| 35° | 43331 | 43424 | 43331 | 43424 |
| 40° | 42274 | 42294 | 42274 | 42294 |
| 45° | 39429 | 39372 | 39429 | 39372 |
| 50° | 33461 | 33699 | 33461 | 33699 |
| 55° | 28605 | 28764 | 28605 | 28764 |
| 60° | 18813 | 19545 | 18813 | 19545 |
| 65° | 6632 | 7990 | 6632 | 7990 |
| 70° | 116 | 607 | 116 | 607 |
| 75° | 35 | 35 | 35 | 35 |
| 80° | 0 | 53 | 0 | 53 |
| 85° | 0 | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39429 cd/sqm



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.3 | 3.9 |
| 10°-20° | 351.3 | 11.5 |
| 20°-30° | 570.7 | 18.7 |
| 30°-40° | 724.6 | 23.8 |
| 40°-50° | 694.9 | 22.8 |
| 50°-60° | 467.7 | 15.3 |
| 60°-70° | 118.3 | 3.9 |
| 70°-80° | 0.5 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 1041.3 | 34.2 |
| 0°-40° | 1765.9 | 57.9 |
| 0°-60° | 2928.5 | 96.1 |
| 0°-90° | 3047.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3047.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1255 | 1255 | 1255 | 1255 | 1255 | |
| 5° | 1252 | 1252 | 1252 | 1252 | 1252 | 119 |
| 15° | 1238 | 1240 | 1238 | 1240 | 1238 | 351 |
| 25° | 1234 | 1238 | 1234 | 1238 | 1234 | 570 |
| 35° | 1163 | 1165 | 1163 | 1165 | 1163 | 723 |
| 45° | 913 | 912 | 913 | 912 | 913 | 695 |
| 55° | 537 | 540 | 537 | 540 | 537 | 465 |
| 65° | 92 | 111 | 92 | 111 | 92 | 110 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBL5125CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 |
| 0.5° | 1254.4 | 1254.4 | 1254.6 | 1254.9 | 1254.6 | 1254.9 | 1254.6 | 1254.4 | 1254.4 | 1254.4 | 1254.6 |
| 1° | 1254.4 | 1254.4 | 1254.6 | 1254.9 | 1254.4 | 1254.9 | 1254.6 | 1254.4 | 1254.4 | 1254.4 | 1254.6 |
| 1.5° | 1254.1 | 1254.1 | 1254.4 | 1254.6 | 1254.4 | 1254.6 | 1254.4 | 1254.1 | 1254.1 | 1254.1 | 1254.4 |
| 2° | 1253.9 | 1253.9 | 1254.4 | 1254.4 | 1254.1 | 1254.4 | 1254.4 | 1253.9 | 1253.9 | 1253.9 | 1254.4 |
| 2.5° | 1253.6 | 1253.9 | 1254.1 | 1254.4 | 1253.9 | 1254.4 | 1254.1 | 1253.9 | 1253.6 | 1253.9 | 1254.1 |
| 3° | 1253.4 | 1253.4 | 1253.9 | 1253.9 | 1253.6 | 1253.9 | 1253.9 | 1253.4 | 1253.4 | 1253.4 | 1253.9 |
| 3.5° | 1252.9 | 1253.1 | 1253.4 | 1253.6 | 1253.4 | 1253.6 | 1253.4 | 1253.1 | 1252.9 | 1253.1 | 1253.4 |
| 4° | 1252.6 | 1252.6 | 1252.9 | 1253.4 | 1252.9 | 1253.4 | 1252.9 | 1252.6 | 1252.6 | 1252.6 | 1252.9 |
| 4.5° | 1252.1 | 1252.4 | 1252.6 | 1252.9 | 1252.6 | 1252.9 | 1252.6 | 1252.4 | 1252.1 | 1252.4 | 1252.6 |
| 5° | 1251.6 | 1251.9 | 1252.1 | 1252.4 | 1252.1 | 1252.4 | 1252.1 | 1251.9 | 1251.6 | 1251.9 | 1252.1 |
| 5.5° | 1251.1 | 1251.1 | 1251.6 | 1251.9 | 1251.6 | 1251.9 | 1251.6 | 1251.1 | 1251.1 | 1251.1 | 1251.6 |
| 6° | 1250.4 | 1250.6 | 1250.9 | 1251.4 | 1251.1 | 1251.4 | 1250.9 | 1250.6 | 1250.4 | 1250.6 | 1250.9 |
| 6.5° | 1249.9 | 1250.1 | 1250.4 | 1250.9 | 1250.4 | 1250.9 | 1250.4 | 1250.1 | 1249.9 | 1250.1 | 1250.4 |
| 7° | 1249.1 | 1249.4 | 1249.9 | 1250.1 | 1249.9 | 1250.1 | 1249.9 | 1249.4 | 1249.1 | 1249.4 | 1249.9 |
| 7.5° | 1248.4 | 1248.6 | 1249.1 | 1249.4 | 1249.1 | 1249.4 | 1249.1 | 1248.6 | 1248.4 | 1248.6 | 1249.1 |
| 8° | 1247.9 | 1247.9 | 1248.4 | 1248.9 | 1248.6 | 1248.9 | 1248.4 | 1247.9 | 1247.9 | 1247.9 | 1248.4 |
| 8.5° | 1247.1 | 1247.1 | 1247.6 | 1247.9 | 1247.9 | 1247.9 | 1247.6 | 1247.1 | 1247.1 | 1247.1 | 1247.6 |
| 9° | 1246.1 | 1246.4 | 1246.9 | 1247.4 | 1247.1 | 1247.4 | 1246.9 | 1246.4 | 1246.1 | 1246.4 | 1246.9 |
| 9.5° | 1245.4 | 1245.6 | 1246.1 | 1246.6 | 1246.4 | 1246.6 | 1246.1 | 1245.6 | 1245.4 | 1245.6 | 1246.1 |
| 10° | 1244.6 | 1244.9 | 1245.4 | 1245.9 | 1245.6 | 1245.9 | 1245.4 | 1244.9 | 1244.6 | 1244.9 | 1245.4 |
| 10.5° | 1243.9 | 1244.1 | 1244.4 | 1245.1 | 1244.9 | 1245.1 | 1244.4 | 1244.1 | 1243.9 | 1244.1 | 1244.4 |
| 11° | 1243.1 | 1243.1 | 1243.6 | 1244.4 | 1244.1 | 1244.4 | 1243.6 | 1243.1 | 1243.1 | 1243.1 | 1243.6 |
| 11.5° | 1242.4 | 1242.4 | 1242.9 | 1243.6 | 1243.4 | 1243.6 | 1242.9 | 1242.4 | 1242.4 | 1242.4 | 1242.9 |
| 12° | 1241.6 | 1241.6 | 1242.1 | 1242.9 | 1242.9 | 1242.9 | 1242.1 | 1241.6 | 1241.6 | 1241.6 | 1242.1 |
| 12.5° | 1240.8 | 1240.8 | 1241.6 | 1242.1 | 1242.1 | 1242.1 | 1241.6 | 1240.8 | 1240.8 | 1240.8 | 1241.6 |
| 13° | 1240.1 | 1240.3 | 1240.8 | 1241.4 | 1241.6 | 1241.4 | 1240.8 | 1240.3 | 1240.1 | 1240.3 | 1240.8 |
| 13.5° | 1239.3 | 1239.6 | 1240.3 | 1240.8 | 1240.8 | 1240.8 | 1240.3 | 1239.6 | 1239.3 | 1239.6 | 1240.3 |
| 14° | 1238.8 | 1239.1 | 1239.6 | 1240.3 | 1240.3 | 1240.3 | 1239.6 | 1239.1 | 1238.8 | 1239.1 | 1239.6 |
| 14.5° | 1238.3 | 1238.6 | 1239.1 | 1239.8 | 1240.1 | 1239.8 | 1239.1 | 1238.6 | 1238.3 | 1238.6 | 1239.1 |
| 15° | 1237.8 | 1238.1 | 1238.6 | 1239.6 | 1239.6 | 1239.6 | 1238.6 | 1238.1 | 1237.8 | 1238.1 | 1238.6 |
| 15.5° | 1237.3 | 1237.6 | 1238.3 | 1239.1 | 1239.3 | 1239.1 | 1238.3 | 1237.6 | 1237.3 | 1237.6 | 1238.3 |
| 16° | 1237.1 | 1237.3 | 1237.8 | 1238.8 | 1239.1 | 1238.8 | 1237.8 | 1237.3 | 1237.1 | 1237.3 | 1237.8 |
| 16.5° | 1236.8 | 1237.1 | 1237.6 | 1238.6 | 1238.8 | 1238.6 | 1237.6 | 1237.1 | 1236.8 | 1237.1 | 1237.6 |
| 17° | 1236.6 | 1236.8 | 1237.6 | 1238.6 | 1238.8 | 1238.6 | 1237.6 | 1236.8 | 1236.6 | 1236.8 | 1237.6 |
| 17.5° | 1236.6 | 1236.8 | 1237.3 | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.8 | 1236.6 | 1236.8 | 1237.3 |
| 18° | 1236.3 | 1236.6 | 1237.3 | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.6 | 1236.3 | 1236.6 | 1237.3 |
| 18.5° | 1236.3 | 1236.6 | 1237.3 | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.6 | 1236.3 | 1236.6 | 1237.3 |
| 19° | 1236.6 | 1236.6 | 1237.3 | 1238.8 | 1239.1 | 1238.8 | 1237.3 | 1236.6 | 1236.6 | 1236.6 | 1237.3 |
| 19.5° | 1236.6 | 1236.8 | 1237.6 | 1238.8 | 1239.3 | 1238.8 | 1237.6 | 1236.8 | 1236.6 | 1236.8 | 1237.6 |
| 20° | 1236.6 | 1236.8 | 1237.6 | 1239.1 | 1239.3 | 1239.1 | 1237.6 | 1236.8 | 1236.6 | 1236.8 | 1237.6 |
| 20.5° | 1236.8 | 1236.8 | 1237.8 | 1239.1 | 1239.6 | 1239.1 | 1237.8 | 1236.8 | 1236.8 | 1236.8 | 1237.8 |
| 21° | 1236.8 | 1237.1 | 1237.8 | 1239.3 | 1239.6 | 1239.3 | 1237.8 | 1237.1 | 1236.8 | 1237.1 | 1237.8 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBL51525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1236.6 | 1236.8 | 1237.8 | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1236.8 | 1236.6 | 1236.8 | 1237.8 |
| 23° | 1236.3 | 1236.6 | 1237.6 | 1239.1 | 1239.6 | 1239.1 | 1237.6 | 1236.6 | 1236.3 | 1236.6 | 1237.6 |
| 23.5° | 1236.1 | 1236.3 | 1237.3 | 1238.8 | 1239.3 | 1238.8 | 1237.3 | 1236.3 | 1236.1 | 1236.3 | 1237.3 |
| 24° | 1235.8 | 1235.8 | 1236.8 | 1238.6 | 1239.1 | 1238.6 | 1236.8 | 1235.8 | 1235.8 | 1235.8 | 1236.8 |
| 24.5° | 1235.1 | 1235.3 | 1236.3 | 1238.1 | 1238.6 | 1238.1 | 1236.3 | 1235.3 | 1235.1 | 1235.3 | 1236.3 |
| 25° | 1234.3 | 1234.6 | 1235.8 | 1237.6 | 1237.8 | 1237.6 | 1235.8 | 1234.6 | 1234.3 | 1234.6 | 1235.8 |
| 25.5° | 1233.6 | 1233.8 | 1235.1 | 1236.8 | 1237.1 | 1236.8 | 1235.1 | 1233.8 | 1233.6 | 1233.8 | 1235.1 |
| 26° | 1232.6 | 1232.8 | 1234.1 | 1235.8 | 1236.3 | 1235.8 | 1234.1 | 1232.8 | 1232.6 | 1232.8 | 1234.1 |
| 26.5° | 1231.3 | 1231.6 | 1233.1 | 1234.8 | 1235.1 | 1234.8 | 1233.1 | 1231.6 | 1231.3 | 1231.6 | 1233.1 |
| 27° | 1230.1 | 1230.3 | 1231.6 | 1233.3 | 1233.6 | 1233.3 | 1231.6 | 1230.3 | 1230.1 | 1230.3 | 1231.6 |
| 27.5° | 1228.3 | 1228.8 | 1230.1 | 1231.8 | 1232.1 | 1231.8 | 1230.1 | 1228.8 | 1228.3 | 1228.8 | 1230.1 |
| 28° | 1226.5 | 1226.8 | 1228.3 | 1230.1 | 1230.3 | 1230.1 | 1228.3 | 1226.8 | 1226.5 | 1226.8 | 1228.3 |
| 28.5° | 1224.5 | 1224.8 | 1226.3 | 1228.1 | 1228.1 | 1228.1 | 1226.3 | 1224.8 | 1224.5 | 1224.8 | 1226.3 |
| 29° | 1222.0 | 1222.5 | 1224.0 | 1225.5 | 1225.8 | 1225.5 | 1224.0 | 1222.5 | 1222.0 | 1222.5 | 1224.0 |
| 29.5° | 1219.3 | 1219.8 | 1221.5 | 1223.0 | 1223.0 | 1223.0 | 1221.5 | 1219.8 | 1219.3 | 1219.8 | 1221.5 |
| 30° | 1216.3 | 1216.8 | 1218.5 | 1220.0 | 1219.8 | 1220.0 | 1218.5 | 1216.8 | 1216.3 | 1216.8 | 1218.5 |
| 30.5° | 1213.0 | 1213.5 | 1215.3 | 1216.8 | 1216.5 | 1216.8 | 1215.3 | 1213.5 | 1213.0 | 1213.5 | 1215.3 |
| 31° | 1209.2 | 1209.7 | 1211.7 | 1213.0 | 1212.5 | 1213.0 | 1211.7 | 1209.7 | 1209.2 | 1209.7 | 1211.7 |
| 31.5° | 1205.0 | 1205.7 | 1207.7 | 1208.7 | 1208.2 | 1208.7 | 1207.7 | 1205.7 | 1205.0 | 1205.7 | 1207.7 |
| 32° | 1200.2 | 1201.2 | 1203.2 | 1204.2 | 1203.7 | 1204.2 | 1203.2 | 1201.2 | 1200.2 | 1201.2 | 1203.2 |
| 32.5° | 1195.2 | 1196.2 | 1198.2 | 1199.0 | 1198.5 | 1199.0 | 1198.2 | 1196.2 | 1195.2 | 1196.2 | 1198.2 |
| 33° | 1189.7 | 1190.7 | 1192.9 | 1193.4 | 1192.7 | 1193.4 | 1192.9 | 1190.7 | 1189.7 | 1190.7 | 1192.9 |
| 33.5° | 1183.4 | 1184.7 | 1186.9 | 1187.4 | 1186.7 | 1187.4 | 1186.9 | 1184.7 | 1183.4 | 1184.7 | 1186.9 |
| 34° | 1177.1 | 1178.4 | 1180.6 | 1180.9 | 1179.9 | 1180.9 | 1180.6 | 1178.4 | 1177.1 | 1178.4 | 1180.6 |
| 34.5° | 1169.9 | 1171.4 | 1173.6 | 1173.6 | 1172.6 | 1173.6 | 1173.6 | 1171.4 | 1169.9 | 1171.4 | 1173.6 |
| 35° | 1162.6 | 1163.8 | 1166.3 | 1166.1 | 1165.1 | 1166.1 | 1166.3 | 1163.8 | 1162.6 | 1163.8 | 1166.3 |
| 35.5° | 1154.5 | 1155.8 | 1158.3 | 1158.1 | 1157.1 | 1158.1 | 1158.3 | 1155.8 | 1154.5 | 1155.8 | 1158.3 |
| 36° | 1146.0 | 1147.5 | 1150.0 | 1149.5 | 1148.3 | 1149.5 | 1150.0 | 1147.5 | 1146.0 | 1147.5 | 1150.0 |
| 36.5° | 1137.2 | 1138.5 | 1141.0 | 1140.5 | 1139.0 | 1140.5 | 1141.0 | 1138.5 | 1137.2 | 1138.5 | 1141.0 |
| 37° | 1127.5 | 1129.0 | 1131.2 | 1131.0 | 1129.5 | 1131.0 | 1131.2 | 1129.0 | 1127.5 | 1129.0 | 1131.2 |
| 37.5° | 1117.7 | 1118.9 | 1121.4 | 1120.7 | 1119.2 | 1120.7 | 1121.4 | 1118.9 | 1117.7 | 1118.9 | 1121.4 |
| 38° | 1107.1 | 1108.6 | 1110.9 | 1110.1 | 1108.4 | 1110.1 | 1110.9 | 1108.6 | 1107.1 | 1108.6 | 1110.9 |
| 38.5° | 1096.1 | 1097.6 | 1099.9 | 1098.9 | 1097.3 | 1098.9 | 1099.9 | 1097.6 | 1096.1 | 1097.6 | 1099.9 |
| 39° | 1085.1 | 1086.3 | 1088.3 | 1087.6 | 1085.8 | 1087.6 | 1088.3 | 1086.3 | 1085.1 | 1086.3 | 1088.3 |
| 39.5° | 1073.3 | 1074.3 | 1076.3 | 1075.5 | 1073.8 | 1075.5 | 1076.3 | 1074.3 | 1073.3 | 1074.3 | 1076.3 |
| 40° | 1060.7 | 1061.7 | 1063.7 | 1063.0 | 1061.2 | 1063.0 | 1063.7 | 1061.7 | 1060.7 | 1061.7 | 1063.7 |
| 40.5° | 1048.2 | 1048.9 | 1050.7 | 1049.9 | 1048.2 | 1049.9 | 1050.7 | 1048.9 | 1048.2 | 1048.9 | 1050.7 |
| 41° | 1034.9 | 1035.6 | 1037.1 | 1036.6 | 1034.9 | 1036.6 | 1037.1 | 1035.6 | 1034.9 | 1035.6 | 1037.1 |
| 41.5° | 1021.3 | 1021.8 | 1023.3 | 1022.3 | 1021.1 | 1022.3 | 1023.3 | 1021.8 | 1021.3 | 1021.8 | 1023.3 |
| 42° | 1007.3 | 1007.8 | 1008.8 | 1008.3 | 1007.0 | 1008.3 | 1008.8 | 1007.8 | 1007.3 | 1007.8 | 1008.8 |
| 42.5° | 993.0 | 993.0 | 994.0 | 993.5 | 992.2 | 993.5 | 994.0 | 993.0 | 993.0 | 993.0 | 994.0 |
| 43° | 977.9 | 977.9 | 978.7 | 978.2 | 976.9 | 978.2 | 978.7 | 977.9 | 977.9 | 977.9 | 978.7 |
| 43.5° | 962.4 | 962.4 | 962.6 | 962.1 | 961.4 | 962.1 | 962.6 | 962.4 | 962.4 | 962.4 | 962.6 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 913.2 | 912.4 | 912.4 | 912.2 | 911.9 | 912.2 | 912.4 | 912.4 | 913.2 | 912.4 | 912.4 |
| 45.5° | 895.6 | 894.9 | 894.6 | 894.4 | 894.1 | 894.4 | 894.6 | 894.9 | 895.6 | 894.9 | 894.6 |
| 46° | 877.6 | 876.6 | 876.3 | 876.3 | 876.1 | 876.3 | 876.3 | 876.6 | 877.6 | 876.6 | 876.3 |
| 46.5° | 858.8 | 857.8 | 857.5 | 857.3 | 857.0 | 857.3 | 857.5 | 857.8 | 858.8 | 857.8 | 857.5 |
| 47° | 838.7 | 837.7 | 836.9 | 836.4 | 835.9 | 836.4 | 836.9 | 837.7 | 838.7 | 837.7 | 836.9 |
| 47.5° | 816.9 | 815.9 | 814.9 | 815.1 | 814.9 | 815.1 | 814.9 | 815.9 | 816.9 | 815.9 | 814.9 |
| 48° | 793.8 | 793.5 | 794.0 | 794.3 | 794.5 | 794.3 | 794.0 | 793.5 | 793.8 | 793.5 | 794.0 |
| 48.5° | 771.7 | 771.7 | 772.7 | 773.0 | 773.0 | 773.0 | 772.7 | 771.7 | 771.7 | 771.7 | 772.7 |
| 49° | 750.4 | 750.1 | 750.9 | 751.1 | 751.4 | 751.1 | 750.9 | 750.1 | 750.4 | 750.1 | 750.9 |
| 49.5° | 727.3 | 727.6 | 729.1 | 730.1 | 730.3 | 730.1 | 729.1 | 727.6 | 727.3 | 727.6 | 729.1 |
| 50° | 704.5 | 705.5 | 707.5 | 708.7 | 709.5 | 708.7 | 707.5 | 705.5 | 704.5 | 705.5 | 707.5 |
| 50.5° | 683.4 | 684.6 | 686.7 | 687.9 | 688.4 | 687.9 | 686.7 | 684.6 | 683.4 | 684.6 | 686.7 |
| 51° | 664.1 | 664.8 | 666.8 | 667.8 | 668.3 | 667.8 | 666.8 | 664.8 | 664.1 | 664.8 | 666.8 |
| 51.5° | 645.5 | 646.0 | 648.3 | 650.0 | 650.8 | 650.0 | 648.3 | 646.0 | 645.5 | 646.0 | 648.3 |
| 52° | 627.2 | 628.2 | 630.5 | 632.7 | 633.7 | 632.7 | 630.5 | 628.2 | 627.2 | 628.2 | 630.5 |
| 52.5° | 610.6 | 611.6 | 614.2 | 616.4 | 617.9 | 616.4 | 614.2 | 611.6 | 610.6 | 611.6 | 614.2 |
| 53° | 595.3 | 596.3 | 599.1 | 601.4 | 602.4 | 601.4 | 599.1 | 596.3 | 595.3 | 596.3 | 599.1 |
| 53.5° | 581.0 | 582.0 | 584.5 | 586.6 | 587.6 | 586.6 | 584.5 | 582.0 | 581.0 | 582.0 | 584.5 |
| 54° | 567.5 | 568.2 | 570.5 | 571.8 | 572.3 | 571.8 | 570.5 | 568.2 | 567.5 | 568.2 | 570.5 |
| 54.5° | 553.2 | 553.9 | 555.7 | 557.2 | 557.5 | 557.2 | 555.7 | 553.9 | 553.2 | 553.9 | 555.7 |
| 55° | 537.4 | 538.1 | 539.9 | 540.9 | 540.4 | 540.9 | 539.9 | 538.1 | 537.4 | 538.1 | 539.9 |
| 55.5° | 519.1 | 519.8 | 521.8 | 522.8 | 522.6 | 522.8 | 521.8 | 519.8 | 519.1 | 519.8 | 521.8 |
| 56° | 498.7 | 499.8 | 502.3 | 503.5 | 503.3 | 503.5 | 502.3 | 499.8 | 498.7 | 499.8 | 502.3 |
| 56.5° | 477.2 | 478.7 | 480.9 | 482.9 | 482.7 | 482.9 | 480.9 | 478.7 | 477.2 | 478.7 | 480.9 |
| 57° | 454.6 | 455.8 | 459.1 | 460.4 | 460.6 | 460.4 | 459.1 | 455.8 | 454.6 | 455.8 | 459.1 |
| 57.5° | 431.0 | 432.5 | 436.0 | 437.5 | 437.8 | 437.5 | 436.0 | 432.5 | 431.0 | 432.5 | 436.0 |
| 58° | 407.2 | 408.7 | 412.2 | 414.5 | 415.0 | 414.5 | 412.2 | 408.7 | 407.2 | 408.7 | 412.2 |
| 58.5° | 382.8 | 384.1 | 387.9 | 390.6 | 391.4 | 390.6 | 387.9 | 384.1 | 382.8 | 384.1 | 387.9 |
| 59° | 358.3 | 359.5 | 363.0 | 366.8 | 367.8 | 366.8 | 363.0 | 359.5 | 358.3 | 359.5 | 363.0 |
| 59.5° | 333.2 | 334.7 | 338.7 | 343.0 | 344.0 | 343.0 | 338.7 | 334.7 | 333.2 | 334.7 | 338.7 |
| 60° | 308.1 | 310.3 | 314.4 | 319.6 | 320.1 | 319.6 | 314.4 | 310.3 | 308.1 | 310.3 | 314.4 |
| 60.5° | 283.5 | 285.5 | 291.0 | 295.8 | 296.8 | 295.8 | 291.0 | 285.5 | 283.5 | 285.5 | 291.0 |
| 61° | 259.4 | 261.9 | 267.9 | 272.5 | 273.7 | 272.5 | 267.9 | 261.9 | 259.4 | 261.9 | 267.9 |
| 61.5° | 236.3 | 238.6 | 245.1 | 249.1 | 251.4 | 249.1 | 245.1 | 238.6 | 236.3 | 238.6 | 245.1 |
| 62° | 213.5 | 215.8 | 222.5 | 226.5 | 229.1 | 226.5 | 222.5 | 215.8 | 213.5 | 215.8 | 222.5 |
| 62.5° | 190.7 | 193.7 | 200.7 | 204.7 | 207.5 | 204.7 | 200.7 | 193.7 | 190.7 | 193.7 | 200.7 |
| 63° | 168.3 | 172.1 | 179.4 | 183.6 | 186.9 | 183.6 | 179.4 | 172.1 | 168.3 | 172.1 | 179.4 |
| 63.5° | 147.8 | 151.0 | 158.8 | 163.3 | 166.6 | 163.3 | 158.8 | 151.0 | 147.8 | 151.0 | 158.8 |
| 64° | 128.2 | 131.7 | 138.7 | 144.0 | 147.0 | 144.0 | 138.7 | 131.7 | 128.2 | 131.7 | 138.7 |
| 64.5° | 109.6 | 112.9 | 119.7 | 125.7 | 128.7 | 125.7 | 119.7 | 112.9 | 109.6 | 112.9 | 119.7 |
| 65° | 91.8 | 96.3 | 102.1 | 107.9 | 110.6 | 107.9 | 102.1 | 96.3 | 91.8 | 96.3 | 102.1 |
| 65.5° | 76.3 | 80.5 | 85.5 | 91.3 | 93.8 | 91.3 | 85.5 | 80.5 | 76.3 | 80.5 | 85.5 |
| 66° | 61.5 | 65.7 | 70.7 | 76.3 | 77.5 | 76.3 | 70.7 | 65.7 | 61.5 | 65.7 | 70.7 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBL51525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 24.6 | 31.4 | 33.9 | 38.6 | 38.9 | 38.6 | 33.9 | 31.4 | 24.6 | 31.4 | 33.9 |
| 68° | 15.1 | 22.1 | 24.6 | 29.4 | 28.9 | 29.4 | 24.6 | 22.1 | 15.1 | 22.1 | 24.6 |
| 68.5° | 6.5 | 14.3 | 17.3 | 20.8 | 23.1 | 20.8 | 17.3 | 14.3 | 6.5 | 14.3 | 17.3 |
| 69° | 3.5 | 8.8 | 11.3 | 13.5 | 17.8 | 13.5 | 11.3 | 8.8 | 3.5 | 8.8 | 11.3 |
| 69.5° | 2.3 | 4.3 | 6.3 | 8.0 | 12.3 | 8.0 | 6.3 | 4.3 | 2.3 | 4.3 | 6.3 |
| 70° | 1.3 | 2.5 | 3.0 | 3.5 | 6.8 | 3.5 | 3.0 | 2.5 | 1.3 | 2.5 | 3.0 |
| 70.5° | 0.5 | 1.3 | 1.8 | 1.5 | 2.0 | 1.5 | 1.8 | 1.3 | 0.5 | 1.3 | 1.8 |
| 71° | 0.5 | 0.8 | 1.0 | 0.8 | 0.8 | 0.8 | 1.0 | 0.8 | 0.5 | 0.8 | 1.0 |
| 71.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 72° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 72.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 73° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.5 | 0.5 |
| 73.5° | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.5 |
| 74° | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 74.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 75° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 75.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 76° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 76.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 77° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 77.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 78° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 78.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 79° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 79.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 80° | 0.0 | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 |
| 80.5° | 0.0 | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 |
| 81° | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 81.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 83° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 83.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 84° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 84.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776132
CATALOG NUMBER: HCDJBL51525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 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: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 | 1254.6 |
| 0.5° | 1254.9 | 1254.6 | 1254.9 | 1254.6 | 1254.4 | 1254.4 |
| 1° | 1254.9 | 1254.4 | 1254.9 | 1254.6 | 1254.4 | 1254.4 |
| 1.5° | 1254.6 | 1254.4 | 1254.6 | 1254.4 | 1254.1 | 1254.1 |
| 2° | 1254.4 | 1254.1 | 1254.4 | 1254.4 | 1253.9 | 1253.9 |
| 2.5° | 1254.4 | 1253.9 | 1254.4 | 1254.1 | 1253.9 | 1253.6 |
| 3° | 1253.9 | 1253.6 | 1253.9 | 1253.9 | 1253.4 | 1253.4 |
| 3.5° | 1253.6 | 1253.4 | 1253.6 | 1253.4 | 1253.1 | 1252.9 |
| 4° | 1253.4 | 1252.9 | 1253.4 | 1252.9 | 1252.6 | 1252.6 |
| 4.5° | 1252.9 | 1252.6 | 1252.9 | 1252.6 | 1252.4 | 1252.1 |
| 5° | 1252.4 | 1252.1 | 1252.4 | 1252.1 | 1251.9 | 1251.6 |
| 5.5° | 1251.9 | 1251.6 | 1251.9 | 1251.6 | 1251.1 | 1251.1 |
| 6° | 1251.4 | 1251.1 | 1251.4 | 1250.9 | 1250.6 | 1250.4 |
| 6.5° | 1250.9 | 1250.4 | 1250.9 | 1250.4 | 1250.1 | 1249.9 |
| 7° | 1250.1 | 1249.9 | 1250.1 | 1249.9 | 1249.4 | 1249.1 |
| 7.5° | 1249.4 | 1249.1 | 1249.4 | 1249.1 | 1248.6 | 1248.4 |
| 8° | 1248.9 | 1248.6 | 1248.9 | 1248.4 | 1247.9 | 1247.9 |
| 8.5° | 1247.9 | 1247.9 | 1247.9 | 1247.6 | 1247.1 | 1247.1 |
| 9° | 1247.4 | 1247.1 | 1247.4 | 1246.9 | 1246.4 | 1246.1 |
| 9.5° | 1246.6 | 1246.4 | 1246.6 | 1246.1 | 1245.6 | 1245.4 |
| 10° | 1245.9 | 1245.6 | 1245.9 | 1245.4 | 1244.9 | 1244.6 |
| 10.5° | 1245.1 | 1244.9 | 1245.1 | 1244.4 | 1244.1 | 1243.9 |
| 11° | 1244.4 | 1244.1 | 1244.4 | 1243.6 | 1243.1 | 1243.1 |
| 11.5° | 1243.6 | 1243.4 | 1243.6 | 1242.9 | 1242.4 | 1242.4 |
| 12° | 1242.9 | 1242.9 | 1242.9 | 1242.1 | 1241.6 | 1241.6 |
| 12.5° | 1242.1 | 1242.1 | 1242.1 | 1241.6 | 1240.8 | 1240.8 |
| 13° | 1241.4 | 1241.6 | 1241.4 | 1240.8 | 1240.3 | 1240.1 |
| 13.5° | 1240.8 | 1240.8 | 1240.8 | 1240.3 | 1239.6 | 1239.3 |
| 14° | 1240.3 | 1240.3 | 1240.3 | 1239.6 | 1239.1 | 1238.8 |
| 14.5° | 1239.8 | 1240.1 | 1239.8 | 1239.1 | 1238.6 | 1238.3 |
| 15° | 1239.6 | 1239.6 | 1239.6 | 1238.6 | 1238.1 | 1237.8 |
| 15.5° | 1239.1 | 1239.3 | 1239.1 | 1238.3 | 1237.6 | 1237.3 |
| 16° | 1238.8 | 1239.1 | 1238.8 | 1237.8 | 1237.3 | 1237.1 |
| 16.5° | 1238.6 | 1238.8 | 1238.6 | 1237.6 | 1237.1 | 1236.8 |
| 17° | 1238.6 | 1238.8 | 1238.6 | 1237.6 | 1236.8 | 1236.6 |
| 17.5° | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.8 | 1236.6 |
| 18° | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.6 | 1236.3 |
| 18.5° | 1238.6 | 1238.8 | 1238.6 | 1237.3 | 1236.6 | 1236.3 |
| 19° | 1238.8 | 1239.1 | 1238.8 | 1237.3 | 1236.6 | 1236.6 |
| 19.5° | 1238.8 | 1239.3 | 1238.8 | 1237.6 | 1236.8 | 1236.6 |
| 20° | 1239.1 | 1239.3 | 1239.1 | 1237.6 | 1236.8 | 1236.6 |
| 20.5° | 1239.1 | 1239.6 | 1239.1 | 1237.8 | 1236.8 | 1236.8 |
| 21° | 1239.3 | 1239.6 | 1239.3 | 1237.8 | 1237.1 | 1236.8 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1236.8 | 1236.6 |
| 23° | 1239.1 | 1239.6 | 1239.1 | 1237.6 | 1236.6 | 1236.3 |
| 23.5° | 1238.8 | 1239.3 | 1238.8 | 1237.3 | 1236.3 | 1236.1 |
| 24° | 1238.6 | 1239.1 | 1238.6 | 1236.8 | 1235.8 | 1235.8 |
| 24.5° | 1238.1 | 1238.6 | 1238.1 | 1236.3 | 1235.3 | 1235.1 |
| 25° | 1237.6 | 1237.8 | 1237.6 | 1235.8 | 1234.6 | 1234.3 |
| 25.5° | 1236.8 | 1237.1 | 1236.8 | 1235.1 | 1233.8 | 1233.6 |
| 26° | 1235.8 | 1236.3 | 1235.8 | 1234.1 | 1232.8 | 1232.6 |
| 26.5° | 1234.8 | 1235.1 | 1234.8 | 1233.1 | 1231.6 | 1231.3 |
| 27° | 1233.3 | 1233.6 | 1233.3 | 1231.6 | 1230.3 | 1230.1 |
| 27.5° | 1231.8 | 1232.1 | 1231.8 | 1230.1 | 1228.8 | 1228.3 |
| 28° | 1230.1 | 1230.3 | 1230.1 | 1228.3 | 1226.8 | 1226.5 |
| 28.5° | 1228.1 | 1228.1 | 1228.1 | 1226.3 | 1224.8 | 1224.5 |
| 29° | 1225.5 | 1225.8 | 1225.5 | 1224.0 | 1222.5 | 1222.0 |
| 29.5° | 1223.0 | 1223.0 | 1223.0 | 1221.5 | 1219.8 | 1219.3 |
| 30° | 1220.0 | 1219.8 | 1220.0 | 1218.5 | 1216.8 | 1216.3 |
| 30.5° | 1216.8 | 1216.5 | 1216.8 | 1215.3 | 1213.5 | 1213.0 |
| 31° | 1213.0 | 1212.5 | 1213.0 | 1211.7 | 1209.7 | 1209.2 |
| 31.5° | 1208.7 | 1208.2 | 1208.7 | 1207.7 | 1205.7 | 1205.0 |
| 32° | 1204.2 | 1203.7 | 1204.2 | 1203.2 | 1201.2 | 1200.2 |
| 32.5° | 1199.0 | 1198.5 | 1199.0 | 1198.2 | 1196.2 | 1195.2 |
| 33° | 1193.4 | 1192.7 | 1193.4 | 1192.9 | 1190.7 | 1189.7 |
| 33.5° | 1187.4 | 1186.7 | 1187.4 | 1186.9 | 1184.7 | 1183.4 |
| 34° | 1180.9 | 1179.9 | 1180.9 | 1180.6 | 1178.4 | 1177.1 |
| 34.5° | 1173.6 | 1172.6 | 1173.6 | 1173.6 | 1171.4 | 1169.9 |
| 35° | 1166.1 | 1165.1 | 1166.1 | 1166.3 | 1163.8 | 1162.6 |
| 35.5° | 1158.1 | 1157.1 | 1158.1 | 1158.3 | 1155.8 | 1154.5 |
| 36° | 1149.5 | 1148.3 | 1149.5 | 1150.0 | 1147.5 | 1146.0 |
| 36.5° | 1140.5 | 1139.0 | 1140.5 | 1141.0 | 1138.5 | 1137.2 |
| 37° | 1131.0 | 1129.5 | 1131.0 | 1131.2 | 1129.0 | 1127.5 |
| 37.5° | 1120.7 | 1119.2 | 1120.7 | 1121.4 | 1118.9 | 1117.7 |
| 38° | 1110.1 | 1108.4 | 1110.1 | 1110.9 | 1108.6 | 1107.1 |
| 38.5° | 1098.9 | 1097.3 | 1098.9 | 1099.9 | 1097.6 | 1096.1 |
| 39° | 1087.6 | 1085.8 | 1087.6 | 1088.3 | 1086.3 | 1085.1 |
| 39.5° | 1075.5 | 1073.8 | 1075.5 | 1076.3 | 1074.3 | 1073.3 |
| 40° | 1063.0 | 1061.2 | 1063.0 | 1063.7 | 1061.7 | 1060.7 |
| 40.5° | 1049.9 | 1048.2 | 1049.9 | 1050.7 | 1048.9 | 1048.2 |
| 41° | 1036.6 | 1034.9 | 1036.6 | 1037.1 | 1035.6 | 1034.9 |
| 41.5° | 1022.3 | 1021.1 | 1022.3 | 1023.3 | 1021.8 | 1021.3 |
| 42° | 1008.3 | 1007.0 | 1008.3 | 1008.8 | 1007.8 | 1007.3 |
| 42.5° | 993.5 | 992.2 | 993.5 | 994.0 | 993.0 | 993.0 |
| 43° | 978.2 | 976.9 | 978.2 | 978.7 | 977.9 | 977.9 |
| 43.5° | 962.1 | 961.4 | 962.1 | 962.6 | 962.4 | 962.4 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 912.2 | 911.9 | 912.2 | 912.4 | 912.4 | 913.2 |
| 45.5° | 894.4 | 894.1 | 894.4 | 894.6 | 894.9 | 895.6 |
| 46° | 876.3 | 876.1 | 876.3 | 876.3 | 876.6 | 877.6 |
| 46.5° | 857.3 | 857.0 | 857.3 | 857.5 | 857.8 | 858.8 |
| 47° | 836.4 | 835.9 | 836.4 | 836.9 | 837.7 | 838.7 |
| 47.5° | 815.1 | 814.9 | 815.1 | 814.9 | 815.9 | 816.9 |
| 48° | 794.3 | 794.5 | 794.3 | 794.0 | 793.5 | 793.8 |
| 48.5° | 773.0 | 773.0 | 773.0 | 772.7 | 771.7 | 771.7 |
| 49° | 751.1 | 751.4 | 751.1 | 750.9 | 750.1 | 750.4 |
| 49.5° | 730.1 | 730.3 | 730.1 | 729.1 | 727.6 | 727.3 |
| 50° | 708.7 | 709.5 | 708.7 | 707.5 | 705.5 | 704.5 |
| 50.5° | 687.9 | 688.4 | 687.9 | 686.7 | 684.6 | 683.4 |
| 51° | 667.8 | 668.3 | 667.8 | 666.8 | 664.8 | 664.1 |
| 51.5° | 650.0 | 650.8 | 650.0 | 648.3 | 646.0 | 645.5 |
| 52° | 632.7 | 633.7 | 632.7 | 630.5 | 628.2 | 627.2 |
| 52.5° | 616.4 | 617.9 | 616.4 | 614.2 | 611.6 | 610.6 |
| 53° | 601.4 | 602.4 | 601.4 | 599.1 | 596.3 | 595.3 |
| 53.5° | 586.6 | 587.6 | 586.6 | 584.5 | 582.0 | 581.0 |
| 54° | 571.8 | 572.3 | 571.8 | 570.5 | 568.2 | 567.5 |
| 54.5° | 557.2 | 557.5 | 557.2 | 555.7 | 553.9 | 553.2 |
| 55° | 540.9 | 540.4 | 540.9 | 539.9 | 538.1 | 537.4 |
| 55.5° | 522.8 | 522.6 | 522.8 | 521.8 | 519.8 | 519.1 |
| 56° | 503.5 | 503.3 | 503.5 | 502.3 | 499.8 | 498.7 |
| 56.5° | 482.9 | 482.7 | 482.9 | 480.9 | 478.7 | 477.2 |
| 57° | 460.4 | 460.6 | 460.4 | 459.1 | 455.8 | 454.6 |
| 57.5° | 437.5 | 437.8 | 437.5 | 436.0 | 432.5 | 431.0 |
| 58° | 414.5 | 415.0 | 414.5 | 412.2 | 408.7 | 407.2 |
| 58.5° | 390.6 | 391.4 | 390.6 | 387.9 | 384.1 | 382.8 |
| 59° | 366.8 | 367.8 | 366.8 | 363.0 | 359.5 | 358.3 |
| 59.5° | 343.0 | 344.0 | 343.0 | 338.7 | 334.7 | 333.2 |
| 60° | 319.6 | 320.1 | 319.6 | 314.4 | 310.3 | 308.1 |
| 60.5° | 295.8 | 296.8 | 295.8 | 291.0 | 285.5 | 283.5 |
| 61° | 272.5 | 273.7 | 272.5 | 267.9 | 261.9 | 259.4 |
| 61.5° | 249.1 | 251.4 | 249.1 | 245.1 | 238.6 | 236.3 |
| 62° | 226.5 | 229.1 | 226.5 | 222.5 | 215.8 | 213.5 |
| 62.5° | 204.7 | 207.5 | 204.7 | 200.7 | 193.7 | 190.7 |
| 63° | 183.6 | 186.9 | 183.6 | 179.4 | 172.1 | 168.3 |
| 63.5° | 163.3 | 166.6 | 163.3 | 158.8 | 151.0 | 147.8 |
| 64° | 144.0 | 147.0 | 144.0 | 138.7 | 131.7 | 128.2 |
| 64.5° | 125.7 | 128.7 | 125.7 | 119.7 | 112.9 | 109.6 |
| 65° | 107.9 | 110.6 | 107.9 | 102.1 | 96.3 | 91.8 |
| 65.5° | 91.3 | 93.8 | 91.3 | 85.5 | 80.5 | 76.3 |
| 66° | 76.3 | 77.5 | 76.3 | 70.7 | 65.7 | 61.5 |



TEST NUMBER: P776132

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 38.6 | 38.9 | 38.6 | 33.9 | 31.4 | 24.6 |
| 68° | 29.4 | 28.9 | 29.4 | 24.6 | 22.1 | 15.1 |
| 68.5° | 20.8 | 23.1 | 20.8 | 17.3 | 14.3 | 6.5 |
| 69° | 13.5 | 17.8 | 13.5 | 11.3 | 8.8 | 3.5 |
| 69.5° | 8.0 | 12.3 | 8.0 | 6.3 | 4.3 | 2.3 |
| 70° | 3.5 | 6.8 | 3.5 | 3.0 | 2.5 | 1.3 |
| 70.5° | 1.5 | 2.0 | 1.5 | 1.8 | 1.3 | 0.5 |
| 71° | 0.8 | 0.8 | 0.8 | 1.0 | 0.8 | 0.5 |
| 71.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 72° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 72.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 73° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |
| 73.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 |
| 74° | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 |
| 74.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 75° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 75.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 76° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 76.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 77° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 77.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 78° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 78.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 79° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 79.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 80° | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 |
| 80.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 |
| 81° | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 81.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 83° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 83.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 84° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 84.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776132
CATALOG NUMBER: HCDJBL1525CSD-HCD81TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1236.8 | 1237.1 | 1237.8 | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1237.1 | 1236.8 | 1237.1 | 1237.8 |
| 22° | 1236.8 | 1236.8 | 1237.8 | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1236.8 | 1236.8 | 1236.8 | 1237.8 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44° | 946.6 | 946.1 | 946.3 | 945.8 | 945.3 | 945.8 | 946.3 | 946.1 | 946.6 | 946.1 | 946.3 |
| 44.5° | 930.3 | 929.5 | 929.8 | 929.5 | 928.8 | 929.5 | 929.8 | 929.5 | 930.3 | 929.5 | 929.8 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 49.2 | 53.2 | 56.7 | 62.0 | 63.5 | 62.0 | 56.7 | 53.2 | 49.2 | 53.2 | 56.7 |
| 67° | 36.9 | 41.1 | 44.9 | 49.9 | 50.4 | 49.9 | 44.9 | 41.1 | 36.9 | 41.1 | 44.9 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Scaled Data Report





| | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1237.1 | 1236.8 |
| 22° | 1239.3 | 1239.8 | 1239.3 | 1237.8 | 1236.8 | 1236.8 |

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

Scaled Data Report



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 44° | 945.8 | 945.3 | 945.8 | 946.3 | 946.1 | 946.6 |
| 44.5° | 929.5 | 928.8 | 929.5 | 929.8 | 929.5 | 930.3 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 62.0 | 63.5 | 62.0 | 56.7 | 53.2 | 49.2 |
| 67° | 49.9 | 50.4 | 49.9 | 44.9 | 41.1 | 36.9 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)