

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: P776722

Luminaire Tested: HCDJBS4050CSD-HCD6TSQC-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD6TSQC-5000lm-3500K
Description: 6 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

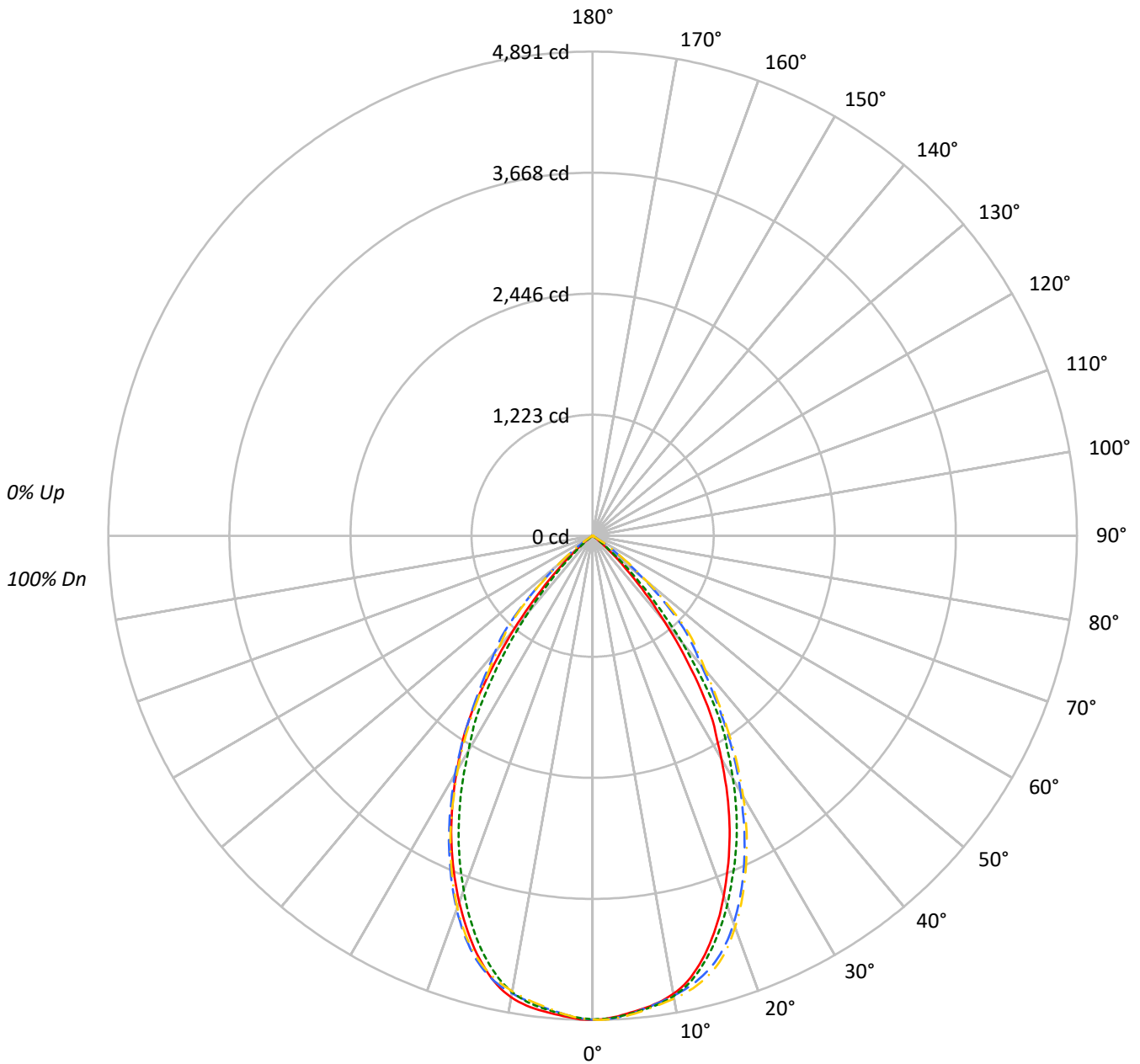
Lumens per Lamp: N/A
Luminaire Lumens: 5331.3 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 0.99
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 48
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: P776722
CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | 100 | | | | | | | | | | | | | | | | |
| 1 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 | | | 93 | | | | | | | | | | | | | | | | |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 | | | 85 | | | | | | | | | | | | | | | | |
| 3 | 101 | 94 | 89 | 85 | 99 | 93 | 88 | 84 | 90 | 86 | 83 | 88 | 84 | 81 | 86 | 83 | 80 | 79 | | | 79 | | | | | | | | | | | | | | | | |
| 4 | 96 | 87 | 82 | 77 | 94 | 86 | 81 | 77 | 84 | 79 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 72 | | | 72 | | | | | | | | | | | | | | | | |
| 5 | 90 | 81 | 75 | 70 | 89 | 80 | 74 | 70 | 78 | 73 | 69 | 77 | 72 | 69 | 75 | 71 | 68 | 67 | | | 67 | | | | | | | | | | | | | | | | |
| 6 | 85 | 76 | 69 | 65 | 84 | 75 | 69 | 64 | 73 | 68 | 64 | 72 | 67 | 64 | 71 | 66 | 63 | 62 | | | 62 | | | | | | | | | | | | | | | | |
| 7 | 81 | 71 | 64 | 60 | 79 | 70 | 64 | 60 | 69 | 63 | 59 | 67 | 63 | 59 | 66 | 62 | 59 | 57 | | | 57 | | | | | | | | | | | | | | | | |
| 8 | 76 | 66 | 60 | 55 | 75 | 65 | 59 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 62 | 58 | 54 | 53 | | | 53 | | | | | | | | | | | | | | | | |
| 9 | 72 | 62 | 56 | 51 | 71 | 61 | 55 | 51 | 60 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 | | | 49 | | | | | | | | | | | | | | | | |
| 10 | 69 | 58 | 52 | 48 | 68 | 58 | 52 | 48 | 57 | 51 | 48 | 56 | 51 | 48 | 55 | 51 | 47 | 46 | | | 46 | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 210460 | 210460 | 210460 | 210460 |
| 5° | 208490 | 208939 | 209246 | 208204 |
| 10° | 205396 | 206305 | 206922 | 204635 |
| 15° | 195241 | 197429 | 197050 | 193079 |
| 20° | 177379 | 181961 | 180448 | 174570 |
| 25° | 155551 | 163100 | 160525 | 151941 |
| 30° | 129118 | 140842 | 136337 | 124967 |
| 35° | 100660 | 116129 | 108245 | 94390 |
| 40° | 63456 | 78564 | 69818 | 57279 |
| 45° | 30695 | 41953 | 35006 | 26244 |
| 50° | 9317 | 14689 | 11025 | 7489 |
| 55° | 1239 | 1133 | 1096 | 953 |
| 60° | 853 | 896 | 896 | 732 |
| 65° | 723 | 723 | 764 | 621 |
| 70° | 592 | 655 | 655 | 478 |
| 75° | 549 | 549 | 549 | 466 |
| 80° | 471 | 471 | 471 | 347 |
| 85° | 247 | 445 | 247 | 247 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 81349 cd/sqm



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL4050CSD-HCD6TSQC-5000lm-3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 457.1 | 8.6 |
| 10°-20° | 1238.6 | 23.2 |
| 20°-30° | 1565.8 | 29.4 |
| 30°-40° | 1323.0 | 24.8 |
| 40°-50° | 638.6 | 12.0 |
| 50°-60° | 95.7 | 1.8 |
| 60°-70° | 8.0 | 0.2 |
| 70°-80° | 3.6 | 0.1 |
| 80°-90° | 0.8 | 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° | 3261.5 | 61.2 |
| 0°-40° | 4584.5 | 86.0 |
| 0°-60° | 5318.9 | 99.8 |
| 0°-90° | 5331.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5331.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 4888 | 4888 | 4888 | 4888 | 4888 | |
| 5° | 4824 | 4834 | 4841 | 4817 | 4824 | 457 |
| 15° | 4380 | 4429 | 4421 | 4332 | 4380 | 1220 |
| 25° | 3274 | 3433 | 3379 | 3198 | 3274 | 1490 |
| 35° | 1915 | 2209 | 2059 | 1796 | 1915 | 1171 |
| 45° | 504 | 689 | 575 | 431 | 504 | 411 |
| 55° | 16 | 15 | 15 | 13 | 16 | 32 |
| 65° | 7 | 7 | 8 | 6 | 7 | 7 |
| 75° | 3 | 3 | 3 | 3 | 3 | 3 |
| 85° | 0 | 1 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 |
| 0.5° | 4888.5 | 4889.0 | 4888.5 | 4889.0 | 4883.8 | 4887.1 | 4890.4 | 4893.2 | 4889.9 | 4886.6 | 4885.2 |
| 1° | 4885.7 | 4888.1 | 4888.1 | 4889.0 | 4883.3 | 4888.1 | 4890.9 | 4892.3 | 4889.0 | 4882.4 | 4880.5 |
| 1.5° | 4881.0 | 4885.2 | 4886.2 | 4888.1 | 4881.4 | 4886.2 | 4890.4 | 4889.9 | 4885.7 | 4877.7 | 4874.8 |
| 2° | 4875.8 | 4881.4 | 4883.3 | 4886.2 | 4877.2 | 4883.8 | 4888.1 | 4885.2 | 4880.0 | 4871.1 | 4867.8 |
| 2.5° | 4868.2 | 4877.2 | 4879.1 | 4882.4 | 4872.5 | 4879.6 | 4883.8 | 4880.0 | 4874.8 | 4863.5 | 4859.8 |
| 3° | 4861.2 | 4870.1 | 4873.0 | 4877.7 | 4866.8 | 4874.4 | 4878.1 | 4873.0 | 4868.2 | 4855.0 | 4849.9 |
| 3.5° | 4851.3 | 4862.6 | 4865.4 | 4871.1 | 4859.8 | 4867.3 | 4871.1 | 4866.8 | 4861.2 | 4846.6 | 4840.4 |
| 4° | 4841.4 | 4853.6 | 4856.9 | 4863.1 | 4851.3 | 4860.7 | 4863.1 | 4858.8 | 4853.6 | 4837.6 | 4829.1 |
| 4.5° | 4831.9 | 4843.3 | 4847.0 | 4854.6 | 4843.3 | 4851.7 | 4855.0 | 4851.7 | 4848.4 | 4828.6 | 4818.3 |
| 5° | 4823.9 | 4833.3 | 4835.7 | 4845.1 | 4834.3 | 4842.8 | 4845.6 | 4845.1 | 4841.4 | 4820.1 | 4807.4 |
| 5.5° | 4815.0 | 4823.9 | 4824.9 | 4834.8 | 4826.3 | 4833.8 | 4836.2 | 4837.6 | 4834.3 | 4811.2 | 4797.5 |
| 6° | 4805.5 | 4815.0 | 4812.1 | 4823.4 | 4817.8 | 4824.9 | 4826.7 | 4829.6 | 4826.7 | 4801.8 | 4788.5 |
| 6.5° | 4795.6 | 4806.0 | 4800.8 | 4812.6 | 4808.8 | 4815.9 | 4816.4 | 4821.1 | 4820.6 | 4792.3 | 4777.7 |
| 7° | 4786.7 | 4795.6 | 4789.5 | 4802.2 | 4799.4 | 4806.0 | 4806.9 | 4813.1 | 4812.1 | 4781.5 | 4766.9 |
| 7.5° | 4774.4 | 4784.8 | 4777.7 | 4790.9 | 4789.5 | 4795.6 | 4797.0 | 4803.6 | 4802.7 | 4769.7 | 4755.5 |
| 8° | 4763.6 | 4773.9 | 4766.9 | 4779.1 | 4778.2 | 4785.2 | 4787.6 | 4794.2 | 4792.3 | 4757.4 | 4744.2 |
| 8.5° | 4749.4 | 4761.7 | 4754.6 | 4766.9 | 4766.4 | 4773.0 | 4777.7 | 4783.4 | 4781.0 | 4744.2 | 4732.9 |
| 9° | 4733.4 | 4748.9 | 4742.3 | 4754.1 | 4752.2 | 4760.3 | 4767.8 | 4771.1 | 4767.3 | 4729.6 | 4720.6 |
| 9.5° | 4715.9 | 4733.8 | 4730.5 | 4740.0 | 4736.7 | 4747.5 | 4757.4 | 4758.8 | 4750.8 | 4713.1 | 4707.0 |
| 10° | 4698.0 | 4717.3 | 4717.3 | 4725.8 | 4718.8 | 4732.4 | 4747.0 | 4742.3 | 4732.9 | 4694.2 | 4692.3 |
| 10.5° | 4678.7 | 4700.4 | 4704.1 | 4710.3 | 4700.8 | 4715.4 | 4735.7 | 4725.4 | 4714.0 | 4675.4 | 4679.1 |
| 11° | 4655.6 | 4682.4 | 4690.5 | 4692.8 | 4680.6 | 4697.1 | 4723.5 | 4705.5 | 4691.4 | 4655.1 | 4663.1 |
| 11.5° | 4629.1 | 4662.6 | 4676.3 | 4675.4 | 4658.4 | 4678.7 | 4710.3 | 4686.7 | 4666.9 | 4631.0 | 4645.2 |
| 12° | 4601.3 | 4640.9 | 4659.8 | 4655.6 | 4632.9 | 4658.9 | 4696.1 | 4664.0 | 4638.1 | 4605.1 | 4625.4 |
| 12.5° | 4570.7 | 4615.9 | 4642.8 | 4635.3 | 4604.2 | 4635.3 | 4682.4 | 4639.5 | 4607.0 | 4576.3 | 4604.6 |
| 13° | 4536.7 | 4588.6 | 4624.4 | 4612.6 | 4573.5 | 4611.2 | 4665.5 | 4612.2 | 4574.0 | 4544.3 | 4580.1 |
| 13.5° | 4499.9 | 4559.4 | 4604.6 | 4589.5 | 4540.0 | 4582.9 | 4647.1 | 4582.9 | 4538.6 | 4511.3 | 4555.1 |
| 14° | 4462.2 | 4528.2 | 4583.9 | 4563.1 | 4504.6 | 4553.7 | 4626.3 | 4550.9 | 4500.4 | 4476.4 | 4526.8 |
| 14.5° | 4422.6 | 4494.7 | 4560.8 | 4533.4 | 4467.9 | 4521.2 | 4604.6 | 4516.4 | 4461.3 | 4439.6 | 4497.6 |
| 15° | 4380.1 | 4458.4 | 4535.8 | 4501.3 | 4429.2 | 4487.7 | 4582.0 | 4481.5 | 4420.7 | 4400.9 | 4464.1 |
| 15.5° | 4335.3 | 4421.6 | 4509.4 | 4468.8 | 4389.6 | 4452.8 | 4556.5 | 4445.2 | 4378.3 | 4363.2 | 4429.2 |
| 16° | 4289.6 | 4382.0 | 4481.1 | 4434.9 | 4347.6 | 4417.4 | 4528.2 | 4408.0 | 4334.4 | 4321.2 | 4391.0 |
| 16.5° | 4242.0 | 4341.5 | 4449.0 | 4398.1 | 4305.2 | 4380.1 | 4497.1 | 4367.9 | 4289.6 | 4278.8 | 4350.0 |
| 17° | 4194.3 | 4299.0 | 4416.0 | 4359.9 | 4261.3 | 4340.5 | 4463.1 | 4325.4 | 4242.4 | 4234.4 | 4306.6 |
| 17.5° | 4142.9 | 4254.7 | 4380.1 | 4320.7 | 4216.0 | 4300.4 | 4426.4 | 4283.5 | 4192.5 | 4190.6 | 4264.1 |
| 18° | 4092.9 | 4210.8 | 4341.5 | 4281.1 | 4167.9 | 4259.4 | 4386.7 | 4240.1 | 4143.9 | 4142.9 | 4216.0 |
| 18.5° | 4041.1 | 4164.6 | 4300.9 | 4239.1 | 4120.3 | 4217.0 | 4345.7 | 4194.8 | 4093.9 | 4094.8 | 4167.0 |
| 19° | 3986.8 | 4117.0 | 4257.1 | 4196.2 | 4072.2 | 4173.1 | 4301.4 | 4148.1 | 4043.0 | 4046.3 | 4117.5 |
| 19.5° | 3929.8 | 4068.4 | 4212.7 | 4151.0 | 4023.2 | 4128.3 | 4256.1 | 4101.4 | 3990.6 | 3998.6 | 4068.9 |
| 20° | 3871.3 | 4017.5 | 4165.6 | 4107.1 | 3971.3 | 4082.1 | 4209.4 | 4052.9 | 3938.3 | 3946.3 | 4013.2 |
| 20.5° | 3812.8 | 3968.0 | 4117.0 | 4061.4 | 3918.0 | 4035.4 | 4160.4 | 4003.3 | 3884.5 | 3894.4 | 3959.5 |
| 21° | 3752.0 | 3915.2 | 4067.0 | 4014.7 | 3864.2 | 3985.9 | 4109.5 | 3953.4 | 3829.3 | 3843.5 | 3903.8 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL4050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 3581.3 | 3746.3 | 3909.5 | 3867.1 | 3702.9 | 3834.0 | 3952.9 | 3800.1 | 3664.3 | 3680.3 | 3733.6 |
| 23° | 3521.4 | 3689.3 | 3854.3 | 3815.2 | 3652.0 | 3779.8 | 3896.3 | 3747.3 | 3607.2 | 3626.5 | 3673.7 |
| 23.5° | 3459.1 | 3633.1 | 3797.7 | 3763.3 | 3597.3 | 3726.0 | 3841.6 | 3694.5 | 3550.1 | 3568.5 | 3613.8 |
| 24° | 3398.8 | 3578.9 | 3740.2 | 3709.5 | 3542.6 | 3673.2 | 3784.5 | 3640.2 | 3493.1 | 3510.5 | 3553.9 |
| 24.5° | 3337.0 | 3523.3 | 3682.7 | 3655.8 | 3487.9 | 3622.8 | 3726.5 | 3582.7 | 3436.0 | 3452.1 | 3494.0 |
| 25° | 3274.3 | 3465.3 | 3623.7 | 3603.0 | 3433.2 | 3566.7 | 3665.7 | 3525.6 | 3379.0 | 3394.0 | 3434.1 |
| 25.5° | 3210.1 | 3404.9 | 3564.3 | 3550.6 | 3378.5 | 3511.0 | 3606.3 | 3468.1 | 3318.1 | 3338.9 | 3374.2 |
| 26° | 3145.0 | 3344.5 | 3502.0 | 3495.4 | 3321.4 | 3454.9 | 3547.3 | 3410.6 | 3257.8 | 3278.0 | 3306.3 |
| 26.5° | 3079.5 | 3282.3 | 3439.8 | 3437.9 | 3262.0 | 3398.8 | 3487.9 | 3353.5 | 3194.6 | 3216.7 | 3242.7 |
| 27° | 3013.5 | 3221.4 | 3377.5 | 3381.3 | 3202.6 | 3347.4 | 3428.5 | 3292.7 | 3132.3 | 3155.0 | 3176.2 |
| 27.5° | 2945.1 | 3157.8 | 3312.9 | 3324.7 | 3142.7 | 3289.4 | 3369.1 | 3231.3 | 3069.1 | 3093.2 | 3110.6 |
| 28° | 2876.2 | 3096.0 | 3249.7 | 3266.2 | 3082.3 | 3229.0 | 3303.5 | 3170.5 | 3005.0 | 3032.3 | 3042.2 |
| 28.5° | 2806.4 | 3030.5 | 3182.8 | 3208.2 | 3022.0 | 3169.6 | 3240.3 | 3108.7 | 2939.4 | 2970.1 | 2977.6 |
| 29° | 2737.1 | 2968.2 | 3117.2 | 3146.9 | 2959.7 | 3109.7 | 3173.8 | 3045.1 | 2875.3 | 2906.0 | 2911.6 |
| 29.5° | 2667.3 | 2902.2 | 3052.1 | 3085.6 | 2897.5 | 3052.1 | 3106.4 | 2981.9 | 2807.9 | 2844.2 | 2846.1 |
| 30° | 2597.1 | 2839.5 | 2989.4 | 3027.6 | 2832.9 | 2989.4 | 3038.9 | 2918.7 | 2742.3 | 2780.5 | 2776.7 |
| 30.5° | 2532.0 | 2771.5 | 2924.3 | 2965.8 | 2768.7 | 2929.1 | 2975.7 | 2855.5 | 2678.2 | 2716.8 | 2710.2 |
| 31° | 2467.8 | 2706.0 | 2858.3 | 2907.8 | 2706.5 | 2867.3 | 2910.7 | 2791.8 | 2618.3 | 2651.8 | 2640.4 |
| 31.5° | 2398.5 | 2638.6 | 2792.8 | 2846.1 | 2647.5 | 2809.7 | 2843.7 | 2726.7 | 2551.3 | 2589.0 | 2571.6 |
| 32° | 2337.7 | 2572.5 | 2728.6 | 2784.8 | 2582.9 | 2745.6 | 2776.3 | 2664.0 | 2494.3 | 2528.2 | 2501.3 |
| 32.5° | 2286.3 | 2505.1 | 2662.1 | 2721.1 | 2520.2 | 2685.2 | 2708.8 | 2599.9 | 2430.6 | 2470.2 | 2432.0 |
| 33° | 2226.9 | 2443.8 | 2593.8 | 2662.1 | 2470.7 | 2622.5 | 2639.0 | 2541.4 | 2367.9 | 2407.5 | 2362.7 |
| 33.5° | 2153.3 | 2382.0 | 2526.3 | 2601.3 | 2411.7 | 2567.8 | 2572.1 | 2478.7 | 2296.7 | 2351.4 | 2293.8 |
| 34° | 2080.7 | 2317.4 | 2459.8 | 2541.4 | 2347.6 | 2504.2 | 2503.2 | 2417.9 | 2221.7 | 2291.9 | 2226.9 |
| 34.5° | 1997.7 | 2259.9 | 2392.4 | 2481.5 | 2281.6 | 2441.0 | 2435.3 | 2364.6 | 2143.4 | 2232.0 | 2159.9 |
| 35° | 1915.1 | 2210.4 | 2326.4 | 2421.6 | 2209.4 | 2390.0 | 2367.9 | 2300.0 | 2059.4 | 2167.0 | 2093.4 |
| 35.5° | 1834.0 | 2154.2 | 2257.5 | 2360.3 | 2135.4 | 2340.5 | 2302.3 | 2240.1 | 1973.6 | 2097.6 | 2029.3 |
| 36° | 1755.3 | 2084.4 | 2190.5 | 2312.7 | 2053.3 | 2275.0 | 2237.2 | 2172.6 | 1887.3 | 2022.2 | 1965.6 |
| 36.5° | 1668.5 | 2017.5 | 2125.9 | 2252.8 | 1970.3 | 2217.4 | 2174.0 | 2100.0 | 1799.6 | 1946.7 | 1904.8 |
| 37° | 1590.7 | 1938.2 | 2061.3 | 2193.4 | 1883.1 | 2149.0 | 2109.9 | 2025.0 | 1716.1 | 1868.0 | 1845.3 |
| 37.5° | 1513.3 | 1861.8 | 1998.6 | 2132.5 | 1800.5 | 2079.7 | 2049.1 | 1946.7 | 1635.0 | 1788.3 | 1788.3 |
| 38° | 1435.5 | 1786.4 | 1935.4 | 2064.6 | 1715.7 | 2004.3 | 1990.1 | 1866.6 | 1554.4 | 1708.6 | 1731.7 |
| 38.5° | 1358.2 | 1713.8 | 1876.0 | 1993.9 | 1635.0 | 1929.8 | 1933.1 | 1783.6 | 1477.5 | 1628.9 | 1678.9 |
| 39° | 1279.0 | 1639.7 | 1816.6 | 1918.0 | 1555.3 | 1850.1 | 1878.4 | 1704.3 | 1400.2 | 1553.0 | 1628.9 |
| 39.5° | 1202.6 | 1565.7 | 1760.0 | 1840.2 | 1477.0 | 1770.8 | 1823.6 | 1625.6 | 1321.4 | 1479.4 | 1585.0 |
| 40° | 1129.0 | 1491.6 | 1708.6 | 1762.3 | 1397.8 | 1691.6 | 1772.2 | 1550.1 | 1242.2 | 1408.2 | 1540.2 |
| 40.5° | 1055.9 | 1417.6 | 1665.2 | 1681.2 | 1320.5 | 1615.2 | 1723.7 | 1477.0 | 1164.8 | 1338.4 | 1494.0 |
| 41° | 987.5 | 1344.0 | 1621.8 | 1607.2 | 1243.1 | 1538.3 | 1681.7 | 1404.4 | 1088.9 | 1266.2 | 1464.3 |
| 41.5° | 921.0 | 1270.5 | 1578.4 | 1532.7 | 1166.2 | 1465.7 | 1639.3 | 1332.7 | 1015.3 | 1196.0 | 1423.7 |
| 42° | 855.0 | 1197.8 | 1535.0 | 1458.6 | 1090.3 | 1393.1 | 1592.1 | 1261.5 | 945.1 | 1125.2 | 1375.6 |
| 42.5° | 789.4 | 1125.2 | 1491.6 | 1384.6 | 1015.8 | 1323.3 | 1556.7 | 1189.8 | 878.6 | 1055.9 | 1328.5 |
| 43° | 727.2 | 1057.3 | 1448.7 | 1314.3 | 946.0 | 1250.2 | 1527.0 | 1117.7 | 813.0 | 988.0 | 1266.7 |
| 43.5° | 667.3 | 992.2 | 1403.5 | 1244.1 | 878.1 | 1177.6 | 1480.8 | 1046.0 | 750.3 | 922.0 | 1204.0 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|--------|--------|-------|--------|--------|--------|-------|--------|--------|
| 45° | 504.1 | 801.7 | 1252.1 | 1034.7 | 689.0 | 970.5 | 1336.0 | 851.2 | 574.9 | 739.0 | 1013.0 |
| 45.5° | 453.7 | 741.3 | 1196.9 | 968.2 | 630.5 | 904.5 | 1278.0 | 791.3 | 520.6 | 680.5 | 948.8 |
| 46° | 406.0 | 682.4 | 1138.0 | 903.1 | 574.4 | 841.3 | 1216.7 | 731.0 | 475.4 | 623.9 | 886.6 |
| 46.5° | 360.8 | 625.3 | 1079.0 | 841.3 | 519.2 | 781.4 | 1152.6 | 673.4 | 430.1 | 569.7 | 825.8 |
| 47° | 317.4 | 570.2 | 1018.6 | 781.0 | 473.5 | 720.6 | 1084.2 | 617.8 | 384.8 | 519.7 | 767.3 |
| 47.5° | 276.4 | 517.8 | 957.8 | 723.4 | 427.3 | 663.1 | 1017.2 | 564.0 | 339.5 | 474.9 | 708.8 |
| 48° | 239.1 | 466.9 | 894.6 | 667.3 | 381.5 | 606.9 | 953.1 | 512.1 | 294.7 | 430.1 | 654.1 |
| 48.5° | 206.1 | 420.7 | 831.9 | 612.1 | 335.8 | 553.6 | 890.8 | 468.3 | 258.0 | 385.3 | 600.8 |
| 49° | 176.8 | 374.4 | 769.6 | 558.4 | 290.0 | 499.9 | 830.5 | 424.4 | 224.5 | 341.0 | 549.4 |
| 49.5° | 157.5 | 331.1 | 712.6 | 507.4 | 253.2 | 454.1 | 771.5 | 380.6 | 193.4 | 296.2 | 499.9 |
| 50° | 139.1 | 290.0 | 655.5 | 459.3 | 219.3 | 407.9 | 715.9 | 336.7 | 164.6 | 259.8 | 456.5 |
| 50.5° | 120.3 | 253.2 | 603.2 | 413.6 | 187.7 | 362.2 | 662.1 | 292.9 | 139.6 | 224.9 | 413.1 |
| 51° | 101.4 | 218.3 | 550.3 | 368.3 | 158.9 | 316.4 | 610.7 | 254.7 | 115.5 | 193.8 | 369.7 |
| 51.5° | 83.0 | 187.2 | 502.2 | 326.3 | 133.5 | 277.3 | 558.4 | 221.6 | 94.8 | 163.6 | 325.9 |
| 52° | 68.9 | 159.4 | 454.6 | 287.7 | 109.9 | 240.5 | 507.4 | 189.1 | 79.2 | 137.2 | 289.6 |
| 52.5° | 55.6 | 140.5 | 411.2 | 251.4 | 88.2 | 206.1 | 463.6 | 160.8 | 63.7 | 112.7 | 254.7 |
| 53° | 42.4 | 121.7 | 368.8 | 216.9 | 73.6 | 175.0 | 419.7 | 133.0 | 48.1 | 92.0 | 222.6 |
| 53.5° | 29.7 | 102.8 | 327.8 | 185.8 | 58.9 | 146.2 | 375.4 | 109.9 | 32.1 | 76.4 | 192.9 |
| 54° | 20.3 | 83.9 | 289.1 | 156.6 | 43.9 | 121.2 | 331.5 | 88.2 | 17.0 | 60.8 | 166.5 |
| 54.5° | 17.9 | 70.3 | 255.1 | 133.5 | 29.2 | 98.1 | 287.7 | 73.6 | 15.6 | 45.3 | 141.9 |
| 55° | 16.5 | 56.6 | 222.1 | 110.4 | 15.1 | 81.6 | 253.2 | 58.5 | 14.6 | 30.2 | 119.8 |
| 55.5° | 14.6 | 43.9 | 192.9 | 87.2 | 14.1 | 65.1 | 218.8 | 43.9 | 14.1 | 15.6 | 100.4 |
| 56° | 13.2 | 31.1 | 166.0 | 64.6 | 13.7 | 49.0 | 187.7 | 28.8 | 13.7 | 14.1 | 83.5 |
| 56.5° | 12.7 | 20.8 | 146.2 | 46.7 | 13.2 | 33.0 | 158.9 | 14.1 | 13.2 | 13.7 | 68.9 |
| 57° | 12.3 | 18.9 | 126.4 | 31.1 | 12.7 | 16.5 | 133.5 | 13.2 | 12.7 | 13.2 | 59.9 |
| 57.5° | 11.8 | 17.0 | 107.1 | 18.4 | 12.3 | 13.7 | 109.9 | 13.2 | 12.3 | 12.7 | 50.9 |
| 58° | 11.3 | 15.1 | 87.2 | 16.5 | 11.8 | 13.2 | 89.6 | 12.7 | 12.3 | 12.3 | 42.0 |
| 58.5° | 10.8 | 13.7 | 67.4 | 14.6 | 11.3 | 12.7 | 72.2 | 12.3 | 11.8 | 11.8 | 33.5 |
| 59° | 10.8 | 11.8 | 54.7 | 13.2 | 10.8 | 12.3 | 62.3 | 11.8 | 11.3 | 11.3 | 24.5 |
| 59.5° | 10.4 | 11.3 | 44.3 | 11.3 | 10.8 | 11.8 | 52.3 | 11.3 | 10.8 | 11.3 | 19.8 |
| 60° | 9.9 | 10.8 | 35.8 | 10.8 | 10.4 | 11.3 | 42.4 | 10.8 | 10.4 | 10.8 | 16.5 |
| 60.5° | 9.4 | 10.8 | 29.2 | 10.8 | 9.9 | 10.8 | 33.0 | 10.8 | 10.4 | 10.4 | 13.7 |
| 61° | 9.4 | 10.4 | 23.6 | 10.4 | 9.4 | 10.8 | 23.1 | 10.4 | 9.9 | 9.9 | 11.8 |
| 61.5° | 9.0 | 9.9 | 19.3 | 9.9 | 9.4 | 10.4 | 18.9 | 9.9 | 9.4 | 9.9 | 10.4 |
| 62° | 9.0 | 9.9 | 17.4 | 9.9 | 9.0 | 9.9 | 15.6 | 9.9 | 9.0 | 9.4 | 9.9 |
| 62.5° | 8.5 | 9.4 | 15.6 | 9.4 | 8.5 | 9.9 | 13.2 | 9.4 | 9.0 | 9.0 | 9.4 |
| 63° | 8.0 | 9.0 | 13.2 | 9.0 | 8.5 | 9.4 | 11.3 | 9.0 | 8.5 | 9.0 | 9.0 |
| 63.5° | 8.0 | 9.0 | 11.3 | 9.0 | 8.0 | 9.0 | 10.4 | 9.0 | 8.5 | 8.5 | 8.5 |
| 64° | 7.5 | 8.5 | 9.4 | 8.5 | 8.0 | 9.0 | 9.4 | 8.5 | 8.0 | 8.0 | 8.5 |
| 64.5° | 7.5 | 8.0 | 9.0 | 8.5 | 7.5 | 8.5 | 9.4 | 8.5 | 7.5 | 8.0 | 8.0 |
| 65° | 7.1 | 8.0 | 9.0 | 8.0 | 7.1 | 8.0 | 9.0 | 8.0 | 7.5 | 7.5 | 8.0 |
| 65.5° | 7.1 | 7.5 | 8.5 | 7.5 | 7.1 | 8.0 | 8.5 | 7.5 | 7.1 | 7.5 | 7.5 |
| 66° | 6.6 | 7.5 | 8.0 | 7.5 | 6.6 | 7.5 | 8.5 | 7.5 | 7.1 | 7.1 | 7.5 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 67.5° | 6.1 | 6.6 | 7.5 | 6.6 | 6.1 | 7.1 | 7.5 | 6.6 | 6.1 | 6.6 | 6.6 |
| 68° | 5.7 | 6.6 | 7.1 | 6.6 | 5.7 | 6.6 | 7.1 | 6.6 | 6.1 | 6.1 | 6.1 |
| 68.5° | 5.7 | 6.1 | 7.1 | 6.1 | 5.7 | 6.1 | 7.1 | 6.1 | 5.7 | 5.7 | 6.1 |
| 69° | 5.2 | 6.1 | 6.6 | 6.1 | 5.2 | 6.1 | 6.6 | 6.1 | 5.7 | 5.7 | 5.7 |
| 69.5° | 5.2 | 5.7 | 6.6 | 6.1 | 5.2 | 5.7 | 6.6 | 5.7 | 5.2 | 5.2 | 5.7 |
| 70° | 4.7 | 5.7 | 6.1 | 5.7 | 5.2 | 5.7 | 6.1 | 5.7 | 5.2 | 5.2 | 5.2 |
| 70.5° | 4.7 | 5.2 | 6.1 | 5.7 | 4.7 | 5.7 | 6.1 | 5.2 | 4.7 | 5.2 | 5.2 |
| 71° | 4.7 | 5.2 | 5.7 | 5.2 | 4.7 | 5.2 | 5.7 | 5.2 | 4.7 | 4.7 | 4.7 |
| 71.5° | 4.2 | 4.7 | 5.7 | 5.2 | 4.2 | 5.2 | 5.7 | 4.7 | 4.2 | 4.7 | 4.7 |
| 72° | 4.2 | 4.7 | 5.2 | 4.7 | 4.2 | 4.7 | 5.2 | 4.7 | 4.2 | 4.2 | 4.2 |
| 72.5° | 3.8 | 4.2 | 5.2 | 4.7 | 4.2 | 4.7 | 5.2 | 4.7 | 4.2 | 4.2 | 4.2 |
| 73° | 3.8 | 4.2 | 4.7 | 4.7 | 3.8 | 4.2 | 4.7 | 4.2 | 3.8 | 3.8 | 4.2 |
| 73.5° | 3.8 | 4.2 | 4.7 | 4.2 | 3.8 | 4.2 | 4.7 | 4.2 | 3.8 | 3.8 | 3.8 |
| 74° | 3.3 | 3.8 | 4.2 | 4.2 | 3.8 | 4.2 | 4.2 | 3.8 | 3.8 | 3.8 | 3.8 |
| 74.5° | 3.3 | 3.8 | 4.2 | 3.8 | 3.3 | 3.8 | 4.2 | 3.8 | 3.3 | 3.3 | 3.3 |
| 75° | 3.3 | 3.3 | 3.8 | 3.8 | 3.3 | 3.8 | 4.2 | 3.8 | 3.3 | 3.3 | 3.3 |
| 75.5° | 2.8 | 3.3 | 3.8 | 3.8 | 3.3 | 3.8 | 3.8 | 3.3 | 3.3 | 3.3 | 2.8 |
| 76° | 2.8 | 3.3 | 3.8 | 3.3 | 3.3 | 3.3 | 3.8 | 3.3 | 2.8 | 2.8 | 2.8 |
| 76.5° | 2.8 | 2.8 | 3.3 | 3.3 | 2.8 | 3.3 | 3.3 | 3.3 | 2.8 | 2.8 | 2.8 |
| 77° | 2.8 | 2.8 | 3.3 | 3.3 | 2.8 | 3.3 | 3.3 | 2.8 | 2.8 | 2.8 | 2.4 |
| 77.5° | 2.4 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.4 | 2.4 | 2.4 |
| 78° | 2.4 | 2.4 | 2.8 | 2.8 | 2.4 | 2.8 | 2.8 | 2.4 | 2.4 | 2.4 | 1.9 |
| 78.5° | 2.4 | 2.4 | 2.4 | 2.8 | 2.4 | 2.8 | 2.8 | 2.4 | 2.4 | 2.4 | 1.9 |
| 79° | 1.9 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 1.9 | 1.9 |
| 79.5° | 1.9 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 1.9 | 1.9 | 1.9 | 1.4 |
| 80° | 1.9 | 1.9 | 1.9 | 2.4 | 1.9 | 2.4 | 2.4 | 1.9 | 1.9 | 1.9 | 1.4 |
| 80.5° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.4 | 1.9 | 1.9 | 1.9 | 1.4 | 1.4 |
| 81° | 1.4 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.4 | 1.4 | 1.4 |
| 81.5° | 1.4 | 1.4 | 1.4 | 1.9 | 1.9 | 1.9 | 1.9 | 1.4 | 1.4 | 1.4 | 0.9 |
| 82° | 1.4 | 1.4 | 1.4 | 1.9 | 1.4 | 1.9 | 1.4 | 1.4 | 1.4 | 0.9 | 0.9 |
| 82.5° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 0.9 | 0.9 |
| 83° | 0.9 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 0.9 | 0.9 | 0.9 | 0.9 |
| 83.5° | 0.9 | 0.9 | 0.9 | 1.4 | 1.4 | 1.4 | 0.9 | 0.9 | 0.9 | 0.5 | 0.9 |
| 84° | 0.9 | 0.9 | 0.9 | 1.4 | 0.9 | 1.4 | 0.9 | 0.9 | 0.9 | 0.5 | 0.5 |
| 84.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.5 | 0.9 | 0.5 | 0.5 |
| 85° | 0.5 | 0.5 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.5 | 0.5 | 0.5 | 0.5 |
| 85.5° | 0.5 | 0.5 | 0.5 | 0.9 | 0.9 | 0.9 | 0.9 | 0.5 | 0.5 | 0.5 | 0.5 |
| 86° | 0.5 | 0.5 | 0.5 | 0.9 | 0.9 | 0.9 | 0.5 | 0.5 | 0.5 | 0.0 | 0.5 |
| 86.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 |
| 87° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88° | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-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: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 | 4888.1 |
| 0.5° | 4883.3 | 4881.0 | 4883.3 | 4885.7 | 4890.4 | 4888.5 |
| 1° | 4877.7 | 4877.7 | 4879.1 | 4880.5 | 4886.6 | 4885.7 |
| 1.5° | 4872.0 | 4872.5 | 4873.4 | 4874.8 | 4882.9 | 4881.0 |
| 2° | 4864.9 | 4866.4 | 4865.9 | 4867.8 | 4877.7 | 4875.8 |
| 2.5° | 4856.9 | 4858.8 | 4858.3 | 4858.8 | 4869.2 | 4868.2 |
| 3° | 4848.0 | 4850.8 | 4849.4 | 4849.4 | 4861.6 | 4861.2 |
| 3.5° | 4839.5 | 4841.4 | 4839.0 | 4839.0 | 4851.3 | 4851.3 |
| 4° | 4830.5 | 4833.8 | 4829.1 | 4827.7 | 4840.4 | 4841.4 |
| 4.5° | 4822.0 | 4825.8 | 4819.2 | 4814.5 | 4829.6 | 4831.9 |
| 5° | 4812.6 | 4817.3 | 4809.8 | 4801.3 | 4818.7 | 4823.9 |
| 5.5° | 4802.2 | 4809.3 | 4799.4 | 4789.0 | 4808.4 | 4815.0 |
| 6° | 4790.9 | 4800.3 | 4788.5 | 4777.2 | 4798.0 | 4805.5 |
| 6.5° | 4780.1 | 4790.4 | 4777.2 | 4765.9 | 4786.7 | 4795.6 |
| 7° | 4767.3 | 4779.6 | 4765.4 | 4754.6 | 4774.9 | 4786.7 |
| 7.5° | 4754.1 | 4767.8 | 4751.8 | 4742.3 | 4762.1 | 4774.4 |
| 8° | 4739.5 | 4754.6 | 4737.1 | 4729.1 | 4749.4 | 4763.6 |
| 8.5° | 4723.0 | 4739.0 | 4721.6 | 4715.9 | 4735.3 | 4749.4 |
| 9° | 4704.1 | 4720.2 | 4704.6 | 4701.8 | 4720.2 | 4733.4 |
| 9.5° | 4684.8 | 4700.8 | 4686.2 | 4688.1 | 4703.2 | 4715.9 |
| 10° | 4663.1 | 4680.6 | 4665.9 | 4672.5 | 4686.2 | 4698.0 |
| 10.5° | 4639.1 | 4655.6 | 4643.3 | 4656.5 | 4667.8 | 4678.7 |
| 11° | 4613.6 | 4629.6 | 4619.7 | 4639.5 | 4648.0 | 4655.6 |
| 11.5° | 4586.2 | 4599.9 | 4594.3 | 4620.7 | 4626.8 | 4629.1 |
| 12° | 4556.5 | 4567.8 | 4565.5 | 4600.4 | 4603.2 | 4601.3 |
| 12.5° | 4524.5 | 4533.4 | 4534.8 | 4577.7 | 4576.3 | 4570.7 |
| 13° | 4490.5 | 4498.0 | 4501.3 | 4554.6 | 4548.0 | 4536.7 |
| 13.5° | 4454.7 | 4459.4 | 4466.9 | 4529.6 | 4517.9 | 4499.9 |
| 14° | 4417.4 | 4418.3 | 4430.6 | 4502.8 | 4484.8 | 4462.2 |
| 14.5° | 4379.2 | 4375.9 | 4392.4 | 4473.5 | 4450.9 | 4422.6 |
| 15° | 4338.6 | 4331.6 | 4351.9 | 4441.0 | 4413.2 | 4380.1 |
| 15.5° | 4297.1 | 4285.8 | 4309.4 | 4406.6 | 4374.5 | 4335.3 |
| 16° | 4253.3 | 4238.7 | 4266.0 | 4369.3 | 4333.9 | 4289.6 |
| 16.5° | 4208.5 | 4188.7 | 4221.2 | 4330.2 | 4292.0 | 4242.0 |
| 17° | 4162.7 | 4138.7 | 4176.4 | 4289.1 | 4249.0 | 4194.3 |
| 17.5° | 4116.1 | 4087.3 | 4128.8 | 4244.3 | 4202.8 | 4142.9 |
| 18° | 4067.0 | 4035.9 | 4079.3 | 4199.1 | 4156.6 | 4092.9 |
| 18.5° | 4020.3 | 3981.2 | 4029.3 | 4151.4 | 4109.0 | 4041.1 |
| 19° | 3968.9 | 3925.1 | 3979.3 | 4101.9 | 4060.4 | 3986.8 |
| 19.5° | 3918.0 | 3868.0 | 3927.4 | 4050.5 | 4010.4 | 3929.8 |
| 20° | 3863.3 | 3810.0 | 3875.1 | 3997.7 | 3959.0 | 3871.3 |
| 20.5° | 3810.5 | 3749.6 | 3818.0 | 3939.7 | 3907.1 | 3812.8 |
| 21° | 3754.8 | 3691.2 | 3763.3 | 3885.9 | 3852.0 | 3752.0 |

TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 3586.9 | 3513.4 | 3589.8 | 3708.6 | 3678.9 | 3581.3 |
| 23° | 3530.8 | 3452.5 | 3533.2 | 3651.5 | 3619.5 | 3521.4 |
| 23.5° | 3474.2 | 3391.2 | 3476.6 | 3588.8 | 3562.4 | 3459.1 |
| 24° | 3417.6 | 3327.6 | 3414.8 | 3526.1 | 3507.2 | 3398.8 |
| 24.5° | 3361.0 | 3263.4 | 3353.0 | 3460.1 | 3450.2 | 3337.0 |
| 25° | 3298.3 | 3198.3 | 3291.2 | 3398.8 | 3387.4 | 3274.3 |
| 25.5° | 3234.2 | 3133.3 | 3227.6 | 3332.7 | 3326.1 | 3210.1 |
| 26° | 3170.5 | 3065.8 | 3163.9 | 3265.3 | 3262.9 | 3145.0 |
| 26.5° | 3106.8 | 2999.8 | 3100.2 | 3193.6 | 3201.6 | 3079.5 |
| 27° | 3041.3 | 2930.5 | 3036.6 | 3129.0 | 3135.6 | 3013.5 |
| 27.5° | 2974.8 | 2860.7 | 2969.1 | 3060.2 | 3071.5 | 2945.1 |
| 28° | 2908.8 | 2790.4 | 2902.6 | 2989.9 | 3005.0 | 2876.2 |
| 28.5° | 2841.3 | 2719.7 | 2836.6 | 2922.0 | 2939.4 | 2806.4 |
| 29° | 2773.0 | 2648.5 | 2768.7 | 2855.0 | 2872.5 | 2737.1 |
| 29.5° | 2704.1 | 2579.6 | 2700.8 | 2789.9 | 2807.9 | 2667.3 |
| 30° | 2635.7 | 2513.6 | 2632.0 | 2723.4 | 2739.5 | 2597.1 |
| 30.5° | 2568.3 | 2449.4 | 2564.0 | 2656.0 | 2672.0 | 2532.0 |
| 31° | 2500.4 | 2380.1 | 2496.6 | 2586.7 | 2603.7 | 2467.8 |
| 31.5° | 2437.2 | 2320.2 | 2429.6 | 2516.4 | 2537.2 | 2398.5 |
| 32° | 2374.0 | 2266.0 | 2367.4 | 2446.1 | 2469.3 | 2337.7 |
| 32.5° | 2308.0 | 2194.8 | 2305.1 | 2376.4 | 2402.3 | 2286.3 |
| 33° | 2250.4 | 2126.9 | 2237.7 | 2307.5 | 2341.5 | 2226.9 |
| 33.5° | 2197.1 | 2043.9 | 2183.9 | 2236.8 | 2277.8 | 2153.3 |
| 34° | 2128.8 | 1959.0 | 2129.2 | 2167.0 | 2213.2 | 2080.7 |
| 34.5° | 2065.6 | 1876.9 | 2059.0 | 2097.6 | 2160.8 | 1997.7 |
| 35° | 1987.8 | 1795.8 | 1992.5 | 2029.7 | 2108.5 | 1915.1 |
| 35.5° | 1909.5 | 1719.0 | 1913.2 | 1963.2 | 2042.9 | 1834.0 |
| 36° | 1832.1 | 1638.8 | 1835.4 | 1899.6 | 1979.3 | 1755.3 |
| 36.5° | 1756.7 | 1558.1 | 1760.5 | 1835.4 | 1905.2 | 1668.5 |
| 37° | 1681.7 | 1477.5 | 1683.6 | 1775.1 | 1828.4 | 1590.7 |
| 37.5° | 1608.1 | 1397.3 | 1611.0 | 1716.6 | 1750.5 | 1513.3 |
| 38° | 1534.6 | 1316.7 | 1537.9 | 1666.1 | 1668.0 | 1435.5 |
| 38.5° | 1459.1 | 1237.9 | 1465.2 | 1615.7 | 1599.6 | 1358.2 |
| 39° | 1382.7 | 1161.1 | 1392.6 | 1565.2 | 1530.8 | 1279.0 |
| 39.5° | 1306.8 | 1088.9 | 1319.0 | 1514.8 | 1462.4 | 1202.6 |
| 40° | 1231.8 | 1019.1 | 1243.6 | 1464.3 | 1393.6 | 1129.0 |
| 40.5° | 1160.6 | 952.1 | 1171.9 | 1422.3 | 1320.0 | 1055.9 |
| 41° | 1091.3 | 884.2 | 1100.7 | 1386.0 | 1247.4 | 987.5 |
| 41.5° | 1024.3 | 819.2 | 1035.1 | 1345.9 | 1174.7 | 921.0 |
| 42° | 958.7 | 753.6 | 970.1 | 1309.1 | 1105.4 | 855.0 |
| 42.5° | 894.6 | 695.6 | 908.8 | 1270.5 | 1039.4 | 789.4 |
| 43° | 831.9 | 637.6 | 847.0 | 1211.5 | 975.7 | 727.2 |
| 43.5° | 771.5 | 582.4 | 786.1 | 1155.9 | 913.0 | 667.3 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 599.4 | 431.0 | 615.0 | 969.6 | 734.7 | 504.1 |
| 45.5° | 545.6 | 384.8 | 561.7 | 913.0 | 677.2 | 453.7 |
| 46° | 494.7 | 341.0 | 511.7 | 856.4 | 622.5 | 406.0 |
| 46.5° | 449.4 | 298.5 | 464.0 | 800.3 | 569.2 | 360.8 |
| 47° | 404.2 | 259.8 | 418.3 | 744.2 | 518.8 | 317.4 |
| 47.5° | 359.4 | 224.0 | 373.0 | 692.8 | 470.6 | 276.4 |
| 48° | 314.1 | 192.9 | 331.5 | 640.0 | 424.0 | 239.1 |
| 48.5° | 274.9 | 165.5 | 292.9 | 589.5 | 378.7 | 206.1 |
| 49° | 238.2 | 147.6 | 256.1 | 541.4 | 337.7 | 176.8 |
| 49.5° | 204.7 | 129.7 | 222.6 | 495.2 | 297.6 | 157.5 |
| 50° | 175.9 | 111.8 | 191.5 | 450.8 | 259.8 | 139.1 |
| 50.5° | 150.4 | 93.8 | 163.6 | 409.3 | 224.5 | 120.3 |
| 51° | 128.3 | 76.4 | 145.3 | 370.7 | 194.3 | 101.4 |
| 51.5° | 108.9 | 62.7 | 126.9 | 333.9 | 166.9 | 83.0 |
| 52° | 92.4 | 49.5 | 108.5 | 299.0 | 148.1 | 68.9 |
| 52.5° | 77.8 | 36.8 | 89.6 | 266.9 | 129.2 | 55.6 |
| 53° | 65.6 | 24.5 | 71.7 | 235.8 | 110.8 | 42.4 |
| 53.5° | 53.3 | 16.0 | 58.0 | 207.0 | 92.0 | 29.7 |
| 54° | 41.0 | 14.6 | 44.8 | 180.6 | 73.6 | 20.3 |
| 54.5° | 28.8 | 13.7 | 32.5 | 156.6 | 59.9 | 17.9 |
| 55° | 17.0 | 12.7 | 21.2 | 134.4 | 46.7 | 16.5 |
| 55.5° | 12.7 | 11.8 | 18.9 | 118.4 | 34.0 | 14.6 |
| 56° | 12.3 | 11.3 | 17.0 | 102.3 | 22.6 | 13.2 |
| 56.5° | 11.8 | 10.8 | 14.6 | 86.8 | 14.6 | 12.7 |
| 57° | 11.3 | 10.4 | 12.3 | 70.7 | 13.7 | 12.3 |
| 57.5° | 10.8 | 9.9 | 9.9 | 54.7 | 13.2 | 11.8 |
| 58° | 10.4 | 9.9 | 9.9 | 43.9 | 12.3 | 11.3 |
| 58.5° | 10.4 | 9.4 | 9.4 | 34.9 | 11.3 | 10.8 |
| 59° | 9.9 | 9.0 | 9.4 | 27.8 | 10.8 | 10.8 |
| 59.5° | 9.4 | 9.0 | 9.0 | 22.6 | 10.8 | 10.4 |
| 60° | 9.4 | 8.5 | 8.5 | 17.9 | 10.4 | 9.9 |
| 60.5° | 9.0 | 8.0 | 8.5 | 16.0 | 9.9 | 9.4 |
| 61° | 8.5 | 8.0 | 8.0 | 13.7 | 9.9 | 9.4 |
| 61.5° | 8.5 | 7.5 | 8.0 | 11.3 | 9.4 | 9.0 |
| 62° | 8.0 | 7.5 | 7.5 | 9.0 | 9.0 | 9.0 |
| 62.5° | 8.0 | 7.1 | 7.5 | 8.5 | 9.0 | 8.5 |
| 63° | 7.5 | 7.1 | 7.1 | 8.5 | 8.5 | 8.0 |
| 63.5° | 7.1 | 6.6 | 7.1 | 8.0 | 8.5 | 8.0 |
| 64° | 7.1 | 6.6 | 6.6 | 8.0 | 8.0 | 7.5 |
| 64.5° | 6.6 | 6.1 | 6.6 | 7.5 | 7.5 | 7.5 |
| 65° | 6.6 | 6.1 | 6.1 | 7.5 | 7.5 | 7.1 |
| 65.5° | 6.1 | 5.7 | 6.1 | 7.1 | 7.1 | 7.1 |
| 66° | 6.1 | 5.7 | 5.7 | 7.1 | 7.1 | 6.6 |



TEST NUMBER: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 5.7 | 4.7 | 5.2 | 6.1 | 6.1 | 6.1 |
| 68° | 5.2 | 4.7 | 5.2 | 6.1 | 6.1 | 5.7 |
| 68.5° | 5.2 | 4.7 | 4.7 | 5.7 | 5.7 | 5.7 |
| 69° | 4.7 | 4.2 | 4.7 | 5.7 | 5.7 | 5.2 |
| 69.5° | 4.7 | 4.2 | 4.7 | 5.2 | 5.7 | 5.2 |
| 70° | 4.2 | 3.8 | 4.2 | 5.2 | 5.2 | 4.7 |
| 70.5° | 4.2 | 3.8 | 4.2 | 5.2 | 5.2 | 4.7 |
| 71° | 4.2 | 3.8 | 3.8 | 4.7 | 4.7 | 4.7 |
| 71.5° | 3.8 | 3.3 | 3.8 | 4.7 | 4.7 | 4.2 |
| 72° | 3.8 | 3.3 | 3.8 | 4.2 | 4.2 | 4.2 |
| 72.5° | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | 3.8 |
| 73° | 3.3 | 3.3 | 3.3 | 3.8 | 4.2 | 3.8 |
| 73.5° | 3.3 | 2.8 | 3.3 | 3.8 | 3.8 | 3.8 |
| 74° | 2.8 | 2.8 | 3.3 | 3.8 | 3.8 | 3.3 |
| 74.5° | 2.8 | 2.8 | 2.8 | 3.3 | 3.8 | 3.3 |
| 75° | 2.8 | 2.8 | 2.8 | 3.3 | 3.3 | 3.3 |
| 75.5° | 2.8 | 2.4 | 2.8 | 2.8 | 3.3 | 2.8 |
| 76° | 2.4 | 2.4 | 2.4 | 2.8 | 2.8 | 2.8 |
| 76.5° | 2.4 | 2.4 | 2.4 | 2.8 | 2.8 | 2.8 |
| 77° | 2.4 | 2.4 | 2.4 | 2.4 | 2.8 | 2.8 |
| 77.5° | 1.9 | 1.9 | 2.4 | 2.4 | 2.4 | 2.4 |
| 78° | 1.9 | 1.9 | 1.9 | 2.4 | 2.4 | 2.4 |
| 78.5° | 1.9 | 1.9 | 1.9 | 1.9 | 2.4 | 2.4 |
| 79° | 1.9 | 1.9 | 1.9 | 1.9 | 2.4 | 1.9 |
| 79.5° | 1.4 | 1.4 | 1.9 | 1.9 | 1.9 | 1.9 |
| 80° | 1.4 | 1.4 | 1.4 | 1.4 | 1.9 | 1.9 |
| 80.5° | 1.4 | 1.4 | 1.4 | 1.4 | 1.9 | 1.9 |
| 81° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 81.5° | 0.9 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 82° | 0.9 | 0.9 | 0.9 | 0.9 | 1.4 | 1.4 |
| 82.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.4 |
| 83° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 83.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 84° | 0.5 | 0.9 | 0.9 | 0.5 | 0.9 | 0.9 |
| 84.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.9 |
| 85° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 85.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 86° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 86.5° | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 87° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 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: P776722

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-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° | 3694.5 | 3860.0 | 4015.1 | 3967.0 | 3810.0 | 3935.4 | 4059.0 | 3903.4 | 3775.6 | 3791.6 | 3850.1 |
| 22° | 3637.9 | 3803.9 | 3962.3 | 3917.5 | 3755.8 | 3885.0 | 4006.6 | 3852.9 | 3722.7 | 3734.5 | 3791.6 |



| | | | | | | | | | | | |
|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|-------|--------|
| 44° | 609.8 | 928.6 | 1365.7 | 1174.3 | 811.6 | 1106.8 | 1439.3 | 978.6 | 689.9 | 858.8 | 1141.3 |
| 44.5° | 555.5 | 864.0 | 1309.1 | 1103.5 | 750.3 | 1039.4 | 1390.7 | 914.4 | 631.0 | 797.9 | 1077.1 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 66.5° | 6.6 | 7.1 | 8.0 | 7.1 | 6.6 | 7.5 | 8.0 | 7.1 | 6.6 | 7.1 | 7.1 |
| 67° | 6.1 | 7.1 | 7.5 | 7.1 | 6.1 | 7.1 | 8.0 | 7.1 | 6.6 | 6.6 | 6.6 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 3698.7 | 3634.1 | 3705.3 | 3828.9 | 3795.4 | 3694.5 |
| 22° | 3643.5 | 3575.6 | 3648.7 | 3770.9 | 3736.0 | 3637.9 |



| | | | | | | |
|-------|-------|-------|-------|--------|-------|-------|
| 44° | 712.1 | 528.2 | 725.8 | 1094.6 | 853.6 | 609.8 |
| 44.5° | 653.2 | 479.1 | 669.7 | 1032.3 | 793.2 | 555.5 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 66.5° | 6.1 | 5.2 | 5.7 | 6.6 | 6.6 | 6.6 |
| 67° | 5.7 | 5.2 | 5.7 | 6.6 | 6.6 | 6.1 |

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)