

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: P776721

Luminaire Tested: HCDJBS4050CSD-HCD6TSQC-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776721
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-3000K
Description: 6 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5251.3 lumens
Efficiency: N/A
Efficacy: 109.4 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

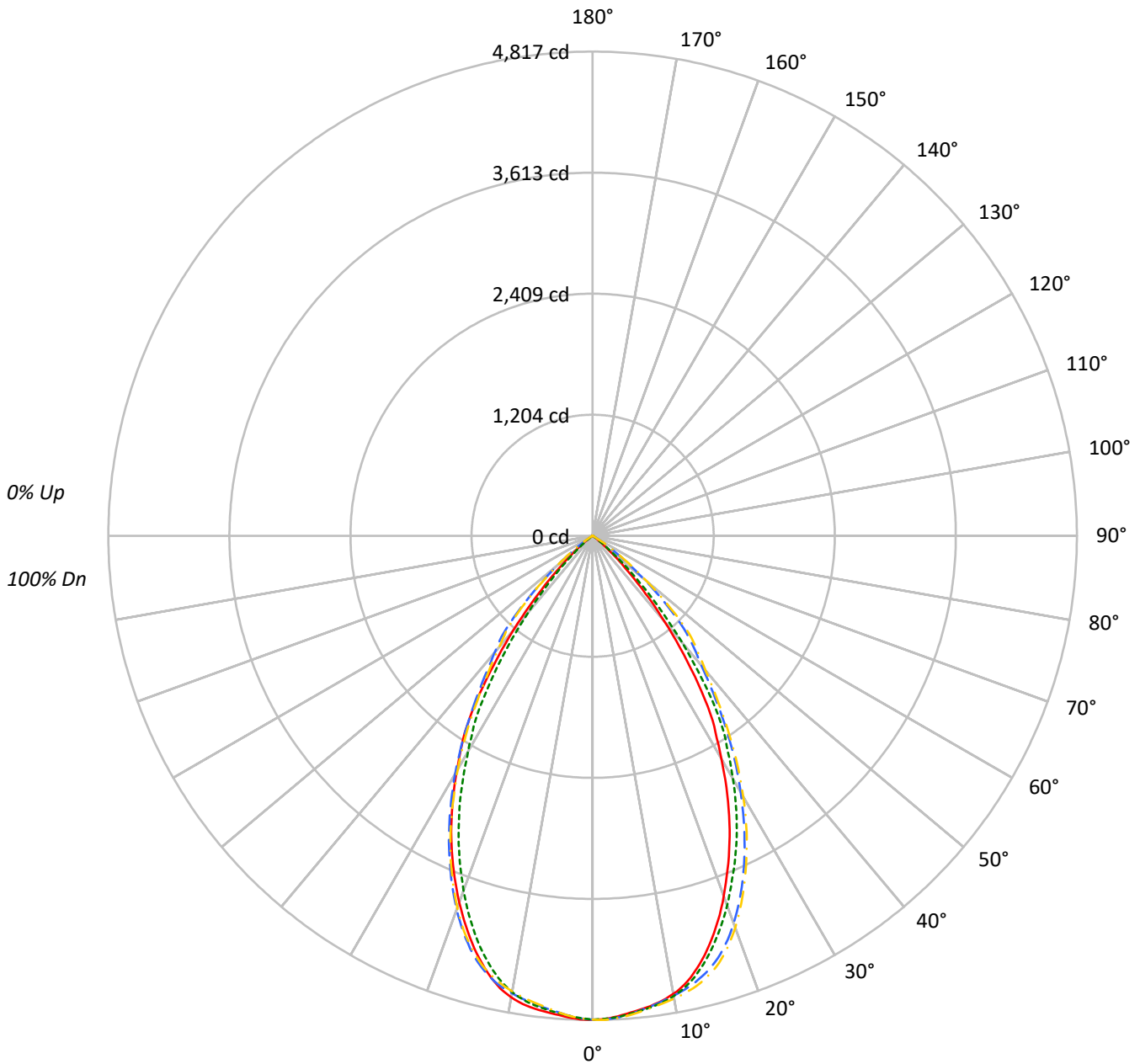
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 207300 | 207300 | 207300 | 207300 |
| 5° | 205360 | 205801 | 206104 | 205079 |
| 10° | 202314 | 203206 | 203813 | 201562 |
| 15° | 192312 | 194465 | 194091 | 190177 |
| 20° | 174717 | 179225 | 177736 | 171949 |
| 25° | 153214 | 160649 | 158112 | 149660 |
| 30° | 127180 | 138724 | 134289 | 123088 |
| 35° | 99152 | 114384 | 106621 | 92976 |
| 40° | 62500 | 77383 | 68767 | 56419 |
| 45° | 30238 | 41326 | 34476 | 25854 |
| 50° | 9177 | 14468 | 10858 | 7375 |
| 55° | 1224 | 1118 | 1081 | 938 |
| 60° | 844 | 878 | 878 | 723 |
| 65° | 713 | 713 | 754 | 611 |
| 70° | 579 | 642 | 642 | 466 |
| 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: 80131 cd/sqm



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 450.2 | 8.6 |
| 10°-20° | 1220.0 | 23.2 |
| 20°-30° | 1542.3 | 29.4 |
| 30°-40° | 1303.1 | 24.8 |
| 40°-50° | 629.0 | 12.0 |
| 50°-60° | 94.3 | 1.8 |
| 60°-70° | 7.9 | 0.2 |
| 70°-80° | 3.5 | 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° | 3212.5 | 61.2 |
| 0°-40° | 4515.7 | 86.0 |
| 0°-60° | 5239.0 | 99.8 |
| 0°-90° | 5251.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5251.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 4815 | 4815 | 4815 | 4815 | 4815 | |
| 5° | 4752 | 4762 | 4769 | 4745 | 4752 | 450 |
| 15° | 4314 | 4363 | 4354 | 4266 | 4314 | 1202 |
| 25° | 3225 | 3382 | 3328 | 3150 | 3225 | 1468 |
| 35° | 1886 | 2176 | 2028 | 1769 | 1886 | 1153 |
| 45° | 497 | 679 | 566 | 425 | 497 | 405 |
| 55° | 16 | 15 | 14 | 12 | 16 | 32 |
| 65° | 7 | 7 | 7 | 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: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 |
| 0.5° | 4815.1 | 4815.6 | 4815.1 | 4815.6 | 4810.5 | 4813.7 | 4817.0 | 4819.8 | 4816.5 | 4813.3 | 4811.9 |
| 1° | 4812.3 | 4814.7 | 4814.7 | 4815.6 | 4810.0 | 4814.7 | 4817.4 | 4818.8 | 4815.6 | 4809.1 | 4807.2 |
| 1.5° | 4807.7 | 4811.9 | 4812.8 | 4814.7 | 4808.2 | 4812.8 | 4817.0 | 4816.5 | 4812.3 | 4804.4 | 4801.7 |
| 2° | 4802.6 | 4808.2 | 4810.0 | 4812.8 | 4804.0 | 4810.5 | 4814.7 | 4811.9 | 4806.8 | 4797.9 | 4794.7 |
| 2.5° | 4795.1 | 4804.0 | 4805.8 | 4809.1 | 4799.3 | 4806.3 | 4810.5 | 4806.8 | 4801.7 | 4790.5 | 4786.8 |
| 3° | 4788.2 | 4797.0 | 4799.8 | 4804.4 | 4793.8 | 4801.2 | 4804.9 | 4799.8 | 4795.1 | 4782.1 | 4777.0 |
| 3.5° | 4778.4 | 4789.6 | 4792.4 | 4797.9 | 4786.8 | 4794.2 | 4797.9 | 4793.8 | 4788.2 | 4773.8 | 4767.7 |
| 4° | 4768.7 | 4780.7 | 4784.0 | 4790.0 | 4778.4 | 4787.7 | 4790.0 | 4785.9 | 4780.7 | 4765.0 | 4756.6 |
| 4.5° | 4759.4 | 4770.5 | 4774.2 | 4781.7 | 4770.5 | 4778.9 | 4782.1 | 4778.9 | 4775.6 | 4756.1 | 4745.9 |
| 5° | 4751.5 | 4760.8 | 4763.1 | 4772.4 | 4761.7 | 4770.1 | 4772.9 | 4772.4 | 4768.7 | 4747.8 | 4735.2 |
| 5.5° | 4742.7 | 4751.5 | 4752.4 | 4762.2 | 4753.8 | 4761.2 | 4763.6 | 4765.0 | 4761.7 | 4738.9 | 4725.5 |
| 6° | 4733.4 | 4742.7 | 4739.9 | 4751.0 | 4745.4 | 4752.4 | 4754.3 | 4757.1 | 4754.3 | 4729.7 | 4716.6 |
| 6.5° | 4723.6 | 4733.8 | 4728.7 | 4740.3 | 4736.6 | 4743.6 | 4744.1 | 4748.7 | 4748.2 | 4720.4 | 4706.0 |
| 7° | 4714.8 | 4723.6 | 4717.6 | 4730.1 | 4727.3 | 4733.8 | 4734.8 | 4740.8 | 4739.9 | 4709.7 | 4695.3 |
| 7.5° | 4702.7 | 4712.9 | 4706.0 | 4719.0 | 4717.6 | 4723.6 | 4725.0 | 4731.5 | 4730.6 | 4698.1 | 4684.1 |
| 8° | 4692.0 | 4702.2 | 4695.3 | 4707.4 | 4706.4 | 4713.4 | 4715.7 | 4722.2 | 4720.4 | 4686.0 | 4673.0 |
| 8.5° | 4678.1 | 4690.2 | 4683.2 | 4695.3 | 4694.8 | 4701.3 | 4706.0 | 4711.5 | 4709.2 | 4673.0 | 4661.8 |
| 9° | 4662.3 | 4677.6 | 4671.1 | 4682.7 | 4680.9 | 4688.8 | 4696.2 | 4699.5 | 4695.7 | 4658.6 | 4649.8 |
| 9.5° | 4645.1 | 4662.8 | 4659.5 | 4668.8 | 4665.5 | 4676.2 | 4686.0 | 4687.4 | 4679.5 | 4642.3 | 4636.3 |
| 10° | 4627.5 | 4646.5 | 4646.5 | 4654.9 | 4647.9 | 4661.4 | 4675.8 | 4671.1 | 4661.8 | 4623.7 | 4621.9 |
| 10.5° | 4608.4 | 4629.8 | 4633.5 | 4639.5 | 4630.2 | 4644.6 | 4664.6 | 4654.4 | 4643.3 | 4605.2 | 4608.9 |
| 11° | 4585.7 | 4612.1 | 4620.0 | 4622.4 | 4610.3 | 4626.5 | 4652.5 | 4634.9 | 4621.0 | 4585.2 | 4593.1 |
| 11.5° | 4559.6 | 4592.6 | 4606.1 | 4605.2 | 4588.4 | 4608.4 | 4639.5 | 4616.3 | 4596.8 | 4561.5 | 4575.4 |
| 12° | 4532.2 | 4571.3 | 4589.8 | 4585.7 | 4563.4 | 4588.9 | 4625.6 | 4594.0 | 4568.5 | 4536.0 | 4555.9 |
| 12.5° | 4502.0 | 4546.6 | 4573.1 | 4565.7 | 4535.0 | 4565.7 | 4612.1 | 4569.9 | 4537.8 | 4507.6 | 4535.5 |
| 13° | 4468.6 | 4519.7 | 4555.0 | 4543.4 | 4504.8 | 4542.0 | 4595.4 | 4542.9 | 4505.3 | 4476.0 | 4511.3 |
| 13.5° | 4432.4 | 4490.9 | 4535.5 | 4520.6 | 4471.8 | 4514.1 | 4577.3 | 4514.1 | 4470.5 | 4443.5 | 4486.7 |
| 14° | 4395.2 | 4460.2 | 4515.0 | 4494.6 | 4437.0 | 4485.3 | 4556.9 | 4482.5 | 4432.8 | 4409.1 | 4458.8 |
| 14.5° | 4356.2 | 4427.3 | 4492.3 | 4465.3 | 4400.8 | 4453.3 | 4535.5 | 4448.6 | 4394.3 | 4372.9 | 4430.0 |
| 15° | 4314.4 | 4391.5 | 4467.7 | 4433.8 | 4362.7 | 4420.3 | 4513.2 | 4414.2 | 4354.3 | 4334.8 | 4397.1 |
| 15.5° | 4270.3 | 4355.3 | 4441.7 | 4401.7 | 4323.7 | 4385.9 | 4488.1 | 4378.5 | 4312.5 | 4297.7 | 4362.7 |
| 16° | 4225.2 | 4316.2 | 4413.8 | 4368.3 | 4282.3 | 4351.1 | 4460.2 | 4341.8 | 4269.3 | 4256.3 | 4325.1 |
| 16.5° | 4178.3 | 4276.3 | 4382.2 | 4332.0 | 4240.5 | 4314.4 | 4429.6 | 4302.3 | 4225.2 | 4214.5 | 4284.7 |
| 17° | 4131.4 | 4234.5 | 4349.7 | 4294.4 | 4197.3 | 4275.4 | 4396.1 | 4260.5 | 4178.7 | 4170.8 | 4241.9 |
| 17.5° | 4080.7 | 4190.8 | 4314.4 | 4255.9 | 4152.7 | 4235.9 | 4359.9 | 4219.2 | 4129.5 | 4127.6 | 4200.1 |
| 18° | 4031.5 | 4147.6 | 4276.3 | 4216.8 | 4105.3 | 4195.5 | 4320.9 | 4176.4 | 4081.7 | 4080.7 | 4152.7 |
| 18.5° | 3980.4 | 4102.1 | 4236.3 | 4175.5 | 4058.4 | 4153.7 | 4280.5 | 4131.8 | 4032.4 | 4033.4 | 4104.4 |
| 19° | 3927.0 | 4055.2 | 4193.1 | 4133.2 | 4011.1 | 4110.5 | 4236.8 | 4085.8 | 3982.3 | 3985.5 | 4055.6 |
| 19.5° | 3870.8 | 4007.3 | 4149.5 | 4088.6 | 3962.7 | 4066.3 | 4192.2 | 4039.9 | 3930.7 | 3938.6 | 4007.8 |
| 20° | 3813.2 | 3957.2 | 4103.0 | 4045.4 | 3911.6 | 4020.8 | 4146.2 | 3992.0 | 3879.1 | 3887.0 | 3953.0 |
| 20.5° | 3755.6 | 3908.4 | 4055.2 | 4000.4 | 3859.2 | 3974.8 | 4097.9 | 3943.2 | 3826.2 | 3835.9 | 3900.0 |
| 21° | 3695.7 | 3856.4 | 4005.9 | 3954.4 | 3806.2 | 3926.0 | 4047.8 | 3894.0 | 3771.8 | 3785.8 | 3845.2 |



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 3527.5 | 3690.1 | 3850.8 | 3809.0 | 3647.3 | 3776.5 | 3893.5 | 3743.0 | 3609.3 | 3625.0 | 3677.5 |
| 23° | 3468.5 | 3633.9 | 3796.4 | 3757.9 | 3597.2 | 3723.1 | 3837.8 | 3691.0 | 3553.0 | 3572.1 | 3618.5 |
| 23.5° | 3407.2 | 3578.6 | 3740.7 | 3706.8 | 3543.3 | 3670.1 | 3783.9 | 3639.0 | 3496.8 | 3515.0 | 3559.5 |
| 24° | 3347.7 | 3525.2 | 3684.0 | 3653.8 | 3489.4 | 3618.1 | 3727.7 | 3585.6 | 3440.6 | 3457.8 | 3500.6 |
| 24.5° | 3286.9 | 3470.4 | 3627.4 | 3600.9 | 3435.5 | 3568.4 | 3670.6 | 3528.9 | 3384.4 | 3400.2 | 3441.6 |
| 25° | 3225.1 | 3413.2 | 3569.3 | 3548.9 | 3381.6 | 3513.1 | 3610.6 | 3472.7 | 3328.2 | 3343.1 | 3382.6 |
| 25.5° | 3161.9 | 3353.8 | 3510.8 | 3497.3 | 3327.8 | 3458.3 | 3552.1 | 3416.0 | 3268.3 | 3288.7 | 3323.6 |
| 26° | 3097.8 | 3294.3 | 3449.5 | 3443.0 | 3271.6 | 3403.0 | 3494.1 | 3359.3 | 3208.8 | 3228.8 | 3256.7 |
| 26.5° | 3033.3 | 3233.0 | 3388.1 | 3386.3 | 3213.0 | 3347.7 | 3435.5 | 3303.1 | 3146.6 | 3168.4 | 3194.0 |
| 27° | 2968.2 | 3173.1 | 3326.8 | 3330.5 | 3154.5 | 3297.1 | 3377.0 | 3243.2 | 3085.3 | 3107.6 | 3128.5 |
| 27.5° | 2900.9 | 3110.4 | 3263.2 | 3274.8 | 3095.5 | 3240.0 | 3318.5 | 3182.8 | 3023.0 | 3046.7 | 3063.9 |
| 28° | 2833.1 | 3049.5 | 3200.9 | 3217.2 | 3036.0 | 3180.5 | 3253.9 | 3122.9 | 2959.9 | 2986.8 | 2996.6 |
| 28.5° | 2764.3 | 2984.9 | 3135.0 | 3160.1 | 2976.6 | 3122.0 | 3191.7 | 3062.1 | 2895.3 | 2925.5 | 2932.9 |
| 29° | 2696.0 | 2923.6 | 3070.4 | 3099.7 | 2915.3 | 3063.0 | 3126.2 | 2999.3 | 2832.1 | 2862.3 | 2867.9 |
| 29.5° | 2627.3 | 2858.6 | 3006.3 | 3039.3 | 2854.0 | 3006.3 | 3059.7 | 2937.1 | 2765.7 | 2801.5 | 2803.3 |
| 30° | 2558.1 | 2796.8 | 2944.5 | 2982.2 | 2790.3 | 2944.5 | 2993.3 | 2874.9 | 2701.1 | 2738.8 | 2735.0 |
| 30.5° | 2494.0 | 2729.9 | 2880.4 | 2921.3 | 2727.1 | 2885.1 | 2931.1 | 2812.6 | 2638.0 | 2676.0 | 2669.5 |
| 31° | 2430.8 | 2665.4 | 2815.4 | 2864.2 | 2665.8 | 2824.2 | 2867.0 | 2749.9 | 2579.0 | 2611.9 | 2600.8 |
| 31.5° | 2362.5 | 2598.9 | 2750.8 | 2803.3 | 2607.8 | 2767.6 | 2801.0 | 2685.8 | 2513.0 | 2550.2 | 2533.0 |
| 32° | 2302.6 | 2533.9 | 2687.7 | 2742.9 | 2544.1 | 2704.4 | 2734.6 | 2624.0 | 2456.8 | 2490.2 | 2463.8 |
| 32.5° | 2252.0 | 2467.5 | 2622.2 | 2680.2 | 2482.3 | 2644.9 | 2668.2 | 2560.8 | 2394.1 | 2433.1 | 2395.5 |
| 33° | 2193.4 | 2407.1 | 2554.8 | 2622.2 | 2433.6 | 2583.1 | 2599.4 | 2503.3 | 2332.3 | 2371.3 | 2327.2 |
| 33.5° | 2121.0 | 2346.2 | 2488.4 | 2562.2 | 2375.5 | 2529.3 | 2533.4 | 2441.5 | 2262.2 | 2316.1 | 2259.4 |
| 34° | 2049.4 | 2282.6 | 2422.9 | 2503.3 | 2312.3 | 2466.6 | 2465.6 | 2381.5 | 2188.3 | 2257.5 | 2193.4 |
| 34.5° | 1967.7 | 2225.9 | 2356.5 | 2444.3 | 2247.3 | 2404.3 | 2398.7 | 2329.1 | 2111.2 | 2198.5 | 2127.5 |
| 35° | 1886.4 | 2177.2 | 2291.4 | 2385.3 | 2176.2 | 2354.1 | 2332.3 | 2265.4 | 2028.5 | 2134.4 | 2062.0 |
| 35.5° | 1806.5 | 2121.9 | 2223.6 | 2324.9 | 2103.3 | 2305.4 | 2267.7 | 2206.4 | 1944.0 | 2066.1 | 1998.8 |
| 36° | 1728.9 | 2053.1 | 2157.7 | 2278.0 | 2022.5 | 2240.8 | 2203.6 | 2140.0 | 1859.0 | 1991.8 | 1936.1 |
| 36.5° | 1643.4 | 1987.2 | 2094.0 | 2219.0 | 1940.7 | 2184.1 | 2141.4 | 2068.5 | 1772.6 | 1917.5 | 1876.2 |
| 37° | 1566.8 | 1909.1 | 2030.4 | 2160.4 | 1854.8 | 2116.8 | 2078.2 | 1994.6 | 1690.4 | 1839.9 | 1817.6 |
| 37.5° | 1490.6 | 1833.9 | 1968.6 | 2100.5 | 1773.5 | 2048.5 | 2018.3 | 1917.5 | 1610.5 | 1761.4 | 1761.4 |
| 38° | 1414.0 | 1759.6 | 1906.4 | 2033.6 | 1689.9 | 1974.2 | 1960.2 | 1838.5 | 1531.0 | 1682.9 | 1705.7 |
| 38.5° | 1337.8 | 1688.0 | 1847.8 | 1964.0 | 1610.5 | 1900.8 | 1904.0 | 1756.8 | 1455.3 | 1604.4 | 1653.7 |
| 39° | 1259.8 | 1615.1 | 1789.3 | 1889.2 | 1532.0 | 1822.3 | 1850.1 | 1678.7 | 1379.1 | 1529.6 | 1604.4 |
| 39.5° | 1184.5 | 1542.2 | 1733.6 | 1812.5 | 1454.8 | 1744.2 | 1796.3 | 1601.2 | 1301.6 | 1457.2 | 1561.2 |
| 40° | 1112.0 | 1469.2 | 1682.9 | 1735.9 | 1376.8 | 1666.2 | 1745.6 | 1526.8 | 1223.5 | 1387.0 | 1517.1 |
| 40.5° | 1040.0 | 1396.3 | 1640.2 | 1656.0 | 1300.6 | 1591.0 | 1697.8 | 1454.8 | 1147.3 | 1318.3 | 1471.6 |
| 41° | 972.7 | 1323.9 | 1597.5 | 1583.1 | 1224.5 | 1515.2 | 1656.4 | 1383.3 | 1072.6 | 1247.2 | 1442.3 |
| 41.5° | 907.2 | 1251.4 | 1554.7 | 1509.7 | 1148.7 | 1443.7 | 1614.6 | 1312.7 | 1000.1 | 1178.0 | 1402.4 |
| 42° | 842.2 | 1179.9 | 1512.0 | 1436.7 | 1073.9 | 1372.2 | 1568.2 | 1242.6 | 930.9 | 1108.3 | 1355.0 |
| 42.5° | 777.6 | 1108.3 | 1469.2 | 1363.8 | 1000.6 | 1303.4 | 1533.4 | 1172.0 | 865.4 | 1040.0 | 1308.5 |
| 43° | 716.3 | 1041.4 | 1427.0 | 1294.6 | 931.8 | 1231.4 | 1504.1 | 1100.9 | 800.8 | 973.2 | 1247.7 |
| 43.5° | 657.3 | 977.3 | 1382.4 | 1225.4 | 864.9 | 1159.9 | 1458.6 | 1030.3 | 739.0 | 908.1 | 1185.9 |



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|--------|--------|-------|--------|--------|--------|-------|--------|-------|
| 45° | 496.6 | 789.7 | 1233.3 | 1019.1 | 678.7 | 956.0 | 1316.0 | 838.4 | 566.2 | 727.9 | 997.8 |
| 45.5° | 446.9 | 730.2 | 1178.9 | 953.6 | 621.1 | 890.9 | 1258.8 | 779.4 | 512.8 | 670.3 | 934.6 |
| 46° | 399.9 | 672.1 | 1120.9 | 889.5 | 565.8 | 828.7 | 1198.4 | 720.0 | 468.2 | 614.5 | 873.3 |
| 46.5° | 355.4 | 615.9 | 1062.8 | 828.7 | 511.4 | 769.7 | 1135.3 | 663.3 | 423.6 | 561.1 | 813.4 |
| 47° | 312.6 | 561.6 | 1003.3 | 769.2 | 466.4 | 709.8 | 1067.9 | 608.5 | 379.0 | 511.9 | 755.8 |
| 47.5° | 272.2 | 510.0 | 943.4 | 712.6 | 420.8 | 653.1 | 1002.0 | 555.6 | 334.4 | 467.8 | 698.2 |
| 48° | 235.5 | 459.9 | 881.2 | 657.3 | 375.8 | 597.8 | 938.8 | 504.5 | 290.3 | 423.6 | 644.3 |
| 48.5° | 203.0 | 414.3 | 819.4 | 602.9 | 330.7 | 545.3 | 877.5 | 461.3 | 254.1 | 379.5 | 591.8 |
| 49° | 174.2 | 368.8 | 758.1 | 550.0 | 285.7 | 492.4 | 818.0 | 418.1 | 221.1 | 335.8 | 541.2 |
| 49.5° | 155.1 | 326.1 | 701.9 | 499.8 | 249.4 | 447.3 | 759.9 | 374.9 | 190.4 | 291.7 | 492.4 |
| 50° | 137.0 | 285.7 | 645.7 | 452.4 | 216.0 | 401.8 | 705.1 | 331.7 | 162.1 | 255.9 | 449.6 |
| 50.5° | 118.5 | 249.4 | 594.1 | 407.4 | 184.9 | 356.7 | 652.2 | 288.5 | 137.5 | 221.6 | 406.9 |
| 51° | 99.9 | 215.1 | 542.1 | 362.8 | 156.5 | 311.7 | 601.5 | 250.8 | 113.8 | 190.9 | 364.2 |
| 51.5° | 81.8 | 184.4 | 494.7 | 321.4 | 131.5 | 273.1 | 550.0 | 218.3 | 93.4 | 161.2 | 321.0 |
| 52° | 67.8 | 157.0 | 447.8 | 283.4 | 108.2 | 236.9 | 499.8 | 186.3 | 78.0 | 135.2 | 285.2 |
| 52.5° | 54.8 | 138.4 | 405.1 | 247.6 | 86.9 | 203.0 | 456.6 | 158.4 | 62.7 | 111.0 | 250.8 |
| 53° | 41.8 | 119.8 | 363.2 | 213.7 | 72.5 | 172.3 | 413.4 | 131.0 | 47.4 | 90.6 | 219.2 |
| 53.5° | 29.3 | 101.3 | 322.8 | 183.0 | 58.1 | 144.0 | 369.8 | 108.2 | 31.6 | 75.3 | 190.0 |
| 54° | 20.0 | 82.7 | 284.7 | 154.2 | 43.2 | 119.4 | 326.6 | 86.9 | 16.7 | 59.9 | 164.0 |
| 54.5° | 17.7 | 69.2 | 251.3 | 131.5 | 28.8 | 96.6 | 283.4 | 72.5 | 15.3 | 44.6 | 139.8 |
| 55° | 16.3 | 55.7 | 218.8 | 108.7 | 14.9 | 80.4 | 249.4 | 57.6 | 14.4 | 29.7 | 118.0 |
| 55.5° | 14.4 | 43.2 | 190.0 | 85.9 | 13.9 | 64.1 | 215.5 | 43.2 | 13.9 | 15.3 | 98.9 |
| 56° | 13.0 | 30.7 | 163.5 | 63.6 | 13.5 | 48.3 | 184.9 | 28.3 | 13.5 | 13.9 | 82.2 |
| 56.5° | 12.5 | 20.4 | 144.0 | 46.0 | 13.0 | 32.5 | 156.5 | 13.9 | 13.0 | 13.5 | 67.8 |
| 57° | 12.1 | 18.6 | 124.5 | 30.7 | 12.5 | 16.3 | 131.5 | 13.0 | 12.5 | 13.0 | 59.0 |
| 57.5° | 11.6 | 16.7 | 105.4 | 18.1 | 12.1 | 13.5 | 108.2 | 13.0 | 12.1 | 12.5 | 50.2 |
| 58° | 11.1 | 14.9 | 85.9 | 16.3 | 11.6 | 13.0 | 88.3 | 12.5 | 12.1 | 12.1 | 41.3 |
| 58.5° | 10.7 | 13.5 | 66.4 | 14.4 | 11.1 | 12.5 | 71.1 | 12.1 | 11.6 | 11.6 | 33.0 |
| 59° | 10.7 | 11.6 | 53.9 | 13.0 | 10.7 | 12.1 | 61.3 | 11.6 | 11.1 | 11.1 | 24.2 |
| 59.5° | 10.2 | 11.1 | 43.7 | 11.1 | 10.7 | 11.6 | 51.6 | 11.1 | 10.7 | 11.1 | 19.5 |
| 60° | 9.8 | 10.7 | 35.3 | 10.7 | 10.2 | 11.1 | 41.8 | 10.7 | 10.2 | 10.7 | 16.3 |
| 60.5° | 9.3 | 10.7 | 28.8 | 10.7 | 9.8 | 10.7 | 32.5 | 10.7 | 10.2 | 10.2 | 13.5 |
| 61° | 9.3 | 10.2 | 23.2 | 10.2 | 9.3 | 10.7 | 22.8 | 10.2 | 9.8 | 9.8 | 11.6 |
| 61.5° | 8.8 | 9.8 | 19.0 | 9.8 | 9.3 | 10.2 | 18.6 | 9.8 | 9.3 | 9.8 | 10.2 |
| 62° | 8.8 | 9.8 | 17.2 | 9.8 | 8.8 | 9.8 | 15.3 | 9.8 | 8.8 | 9.3 | 9.8 |
| 62.5° | 8.4 | 9.3 | 15.3 | 9.3 | 8.4 | 9.8 | 13.0 | 9.3 | 8.8 | 8.8 | 9.3 |
| 63° | 7.9 | 8.8 | 13.0 | 8.8 | 8.4 | 9.3 | 11.1 | 8.8 | 8.4 | 8.8 | 8.8 |
| 63.5° | 7.9 | 8.8 | 11.1 | 8.8 | 7.9 | 8.8 | 10.2 | 8.8 | 8.4 | 8.4 | 8.4 |
| 64° | 7.4 | 8.4 | 9.3 | 8.4 | 7.9 | 8.8 | 9.3 | 8.4 | 7.9 | 7.9 | 8.4 |
| 64.5° | 7.4 | 7.9 | 8.8 | 8.4 | 7.4 | 8.4 | 9.3 | 8.4 | 7.4 | 7.9 | 7.9 |
| 65° | 7.0 | 7.9 | 8.8 | 7.9 | 7.0 | 7.9 | 8.8 | 7.9 | 7.4 | 7.4 | 7.9 |
| 65.5° | 7.0 | 7.4 | 8.4 | 7.4 | 7.0 | 7.9 | 8.4 | 7.4 | 7.0 | 7.4 | 7.4 |
| 66° | 6.5 | 7.4 | 7.9 | 7.4 | 6.5 | 7.4 | 8.4 | 7.4 | 7.0 | 7.0 | 7.4 |



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 67.5° | 6.0 | 6.5 | 7.4 | 6.5 | 6.0 | 7.0 | 7.4 | 6.5 | 6.0 | 6.5 | 6.5 |
| 68° | 5.6 | 6.5 | 7.0 | 6.5 | 5.6 | 6.5 | 7.0 | 6.5 | 6.0 | 6.0 | 6.0 |
| 68.5° | 5.6 | 6.0 | 7.0 | 6.0 | 5.6 | 6.0 | 7.0 | 6.0 | 5.6 | 5.6 | 6.0 |
| 69° | 5.1 | 6.0 | 6.5 | 6.0 | 5.1 | 6.0 | 6.5 | 6.0 | 5.6 | 5.6 | 5.6 |
| 69.5° | 5.1 | 5.6 | 6.5 | 6.0 | 5.1 | 5.6 | 6.5 | 5.6 | 5.1 | 5.1 | 5.6 |
| 70° | 4.6 | 5.6 | 6.0 | 5.6 | 5.1 | 5.6 | 6.0 | 5.6 | 5.1 | 5.1 | 5.1 |
| 70.5° | 4.6 | 5.1 | 6.0 | 5.6 | 4.6 | 5.6 | 6.0 | 5.1 | 4.6 | 5.1 | 5.1 |
| 71° | 4.6 | 5.1 | 5.6 | 5.1 | 4.6 | 5.1 | 5.6 | 5.1 | 4.6 | 4.6 | 4.6 |
| 71.5° | 4.2 | 4.6 | 5.6 | 5.1 | 4.2 | 5.1 | 5.6 | 4.6 | 4.2 | 4.6 | 4.6 |
| 72° | 4.2 | 4.6 | 5.1 | 4.6 | 4.2 | 4.6 | 5.1 | 4.6 | 4.2 | 4.2 | 4.2 |
| 72.5° | 3.7 | 4.2 | 5.1 | 4.6 | 4.2 | 4.6 | 5.1 | 4.6 | 4.2 | 4.2 | 4.2 |
| 73° | 3.7 | 4.2 | 4.6 | 4.6 | 3.7 | 4.2 | 4.6 | 4.2 | 3.7 | 3.7 | 4.2 |
| 73.5° | 3.7 | 4.2 | 4.6 | 4.2 | 3.7 | 4.2 | 4.6 | 4.2 | 3.7 | 3.7 | 3.7 |
| 74° | 3.3 | 3.7 | 4.2 | 4.2 | 3.7 | 4.2 | 4.2 | 3.7 | 3.7 | 3.7 | 3.7 |
| 74.5° | 3.3 | 3.7 | 4.2 | 3.7 | 3.3 | 3.7 | 4.2 | 3.7 | 3.3 | 3.3 | 3.3 |
| 75° | 3.3 | 3.3 | 3.7 | 3.7 | 3.3 | 3.7 | 4.2 | 3.7 | 3.3 | 3.3 | 3.3 |
| 75.5° | 2.8 | 3.3 | 3.7 | 3.7 | 3.3 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 2.8 |
| 76° | 2.8 | 3.3 | 3.7 | 3.3 | 3.3 | 3.3 | 3.7 | 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 | 2.3 |
| 77.5° | 2.3 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.3 | 2.3 | 2.3 |
| 78° | 2.3 | 2.3 | 2.8 | 2.8 | 2.3 | 2.8 | 2.8 | 2.3 | 2.3 | 2.3 | 1.9 |
| 78.5° | 2.3 | 2.3 | 2.3 | 2.8 | 2.3 | 2.8 | 2.8 | 2.3 | 2.3 | 2.3 | 1.9 |
| 79° | 1.9 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 1.9 | 1.9 |
| 79.5° | 1.9 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 1.9 | 1.9 | 1.9 | 1.4 |
| 80° | 1.9 | 1.9 | 1.9 | 2.3 | 1.9 | 2.3 | 2.3 | 1.9 | 1.9 | 1.9 | 1.4 |
| 80.5° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.3 | 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: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

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: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 | 4814.7 |
| 0.5° | 4810.0 | 4807.7 | 4810.0 | 4812.3 | 4817.0 | 4815.1 |
| 1° | 4804.4 | 4804.4 | 4805.8 | 4807.2 | 4813.3 | 4812.3 |
| 1.5° | 4798.9 | 4799.3 | 4800.3 | 4801.7 | 4809.5 | 4807.7 |
| 2° | 4791.9 | 4793.3 | 4792.8 | 4794.7 | 4804.4 | 4802.6 |
| 2.5° | 4784.0 | 4785.9 | 4785.4 | 4785.9 | 4796.1 | 4795.1 |
| 3° | 4775.2 | 4778.0 | 4776.6 | 4776.6 | 4788.6 | 4788.2 |
| 3.5° | 4766.8 | 4768.7 | 4766.3 | 4766.3 | 4778.4 | 4778.4 |
| 4° | 4758.0 | 4761.2 | 4756.6 | 4755.2 | 4767.7 | 4768.7 |
| 4.5° | 4749.6 | 4753.3 | 4746.8 | 4742.2 | 4757.1 | 4759.4 |
| 5° | 4740.3 | 4745.0 | 4737.5 | 4729.2 | 4746.4 | 4751.5 |
| 5.5° | 4730.1 | 4737.1 | 4727.3 | 4717.1 | 4736.2 | 4742.7 |
| 6° | 4719.0 | 4728.3 | 4716.6 | 4705.5 | 4725.9 | 4733.4 |
| 6.5° | 4708.3 | 4718.5 | 4705.5 | 4694.3 | 4714.8 | 4723.6 |
| 7° | 4695.7 | 4707.8 | 4693.9 | 4683.2 | 4703.2 | 4714.8 |
| 7.5° | 4682.7 | 4696.2 | 4680.4 | 4671.1 | 4690.6 | 4702.7 |
| 8° | 4668.3 | 4683.2 | 4666.0 | 4658.1 | 4678.1 | 4692.0 |
| 8.5° | 4652.1 | 4667.9 | 4650.7 | 4645.1 | 4664.2 | 4678.1 |
| 9° | 4633.5 | 4649.3 | 4634.0 | 4631.2 | 4649.3 | 4662.3 |
| 9.5° | 4614.5 | 4630.2 | 4615.8 | 4617.7 | 4632.6 | 4645.1 |
| 10° | 4593.1 | 4610.3 | 4595.9 | 4602.4 | 4615.8 | 4627.5 |
| 10.5° | 4569.4 | 4585.7 | 4573.6 | 4586.6 | 4597.7 | 4608.4 |
| 11° | 4544.3 | 4560.1 | 4550.4 | 4569.9 | 4578.2 | 4585.7 |
| 11.5° | 4517.4 | 4530.8 | 4525.3 | 4551.3 | 4557.3 | 4559.6 |
| 12° | 4488.1 | 4499.3 | 4496.9 | 4531.3 | 4534.1 | 4532.2 |
| 12.5° | 4456.5 | 4465.3 | 4466.7 | 4509.0 | 4507.6 | 4502.0 |
| 13° | 4423.1 | 4430.5 | 4433.8 | 4486.2 | 4479.7 | 4468.6 |
| 13.5° | 4387.8 | 4392.4 | 4399.8 | 4461.6 | 4450.0 | 4432.4 |
| 14° | 4351.1 | 4352.0 | 4364.1 | 4435.2 | 4417.5 | 4395.2 |
| 14.5° | 4313.5 | 4310.2 | 4326.5 | 4406.4 | 4384.1 | 4356.2 |
| 15° | 4273.5 | 4266.5 | 4286.5 | 4374.3 | 4346.9 | 4314.4 |
| 15.5° | 4232.6 | 4221.5 | 4244.7 | 4340.4 | 4308.8 | 4270.3 |
| 16° | 4189.4 | 4175.0 | 4202.0 | 4303.7 | 4268.9 | 4225.2 |
| 16.5° | 4145.3 | 4125.8 | 4157.8 | 4265.1 | 4227.5 | 4178.3 |
| 17° | 4100.2 | 4076.5 | 4113.7 | 4224.7 | 4185.2 | 4131.4 |
| 17.5° | 4054.3 | 4025.9 | 4066.8 | 4180.6 | 4139.7 | 4080.7 |
| 18° | 4005.9 | 3975.3 | 4018.0 | 4136.0 | 4094.2 | 4031.5 |
| 18.5° | 3960.0 | 3921.4 | 3968.8 | 4089.1 | 4047.3 | 3980.4 |
| 19° | 3909.3 | 3866.1 | 3919.5 | 4040.3 | 3999.4 | 3927.0 |
| 19.5° | 3859.2 | 3809.9 | 3868.4 | 3989.7 | 3950.2 | 3870.8 |
| 20° | 3805.3 | 3752.8 | 3816.9 | 3937.7 | 3899.6 | 3813.2 |
| 20.5° | 3753.3 | 3693.3 | 3760.7 | 3880.5 | 3848.5 | 3755.6 |
| 21° | 3698.4 | 3635.7 | 3706.8 | 3827.6 | 3794.1 | 3695.7 |

TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 3533.1 | 3460.6 | 3535.9 | 3652.9 | 3623.7 | 3527.5 |
| 23° | 3477.8 | 3400.7 | 3480.1 | 3596.7 | 3565.1 | 3468.5 |
| 23.5° | 3422.1 | 3340.3 | 3424.4 | 3534.9 | 3508.9 | 3407.2 |
| 24° | 3366.3 | 3277.6 | 3363.5 | 3473.1 | 3454.6 | 3347.7 |
| 24.5° | 3310.6 | 3214.4 | 3302.7 | 3408.1 | 3398.4 | 3286.9 |
| 25° | 3248.8 | 3150.3 | 3241.8 | 3347.7 | 3336.6 | 3225.1 |
| 25.5° | 3185.6 | 3086.2 | 3179.1 | 3282.7 | 3276.2 | 3161.9 |
| 26° | 3122.9 | 3019.8 | 3116.4 | 3216.3 | 3214.0 | 3097.8 |
| 26.5° | 3060.2 | 2954.8 | 3053.7 | 3145.7 | 3153.6 | 3033.3 |
| 27° | 2995.6 | 2886.5 | 2991.0 | 3082.0 | 3088.5 | 2968.2 |
| 27.5° | 2930.1 | 2817.7 | 2924.6 | 3014.2 | 3025.4 | 2900.9 |
| 28° | 2865.1 | 2748.5 | 2859.1 | 2945.0 | 2959.9 | 2833.1 |
| 28.5° | 2798.7 | 2678.8 | 2794.0 | 2878.1 | 2895.3 | 2764.3 |
| 29° | 2731.3 | 2608.7 | 2727.1 | 2812.2 | 2829.3 | 2696.0 |
| 29.5° | 2663.5 | 2540.9 | 2660.3 | 2748.0 | 2765.7 | 2627.3 |
| 30° | 2596.2 | 2475.8 | 2592.4 | 2682.6 | 2698.3 | 2558.1 |
| 30.5° | 2529.7 | 2412.7 | 2525.5 | 2616.1 | 2631.9 | 2494.0 |
| 31° | 2462.8 | 2344.4 | 2459.1 | 2547.8 | 2564.6 | 2430.8 |
| 31.5° | 2400.6 | 2285.4 | 2393.2 | 2478.6 | 2499.1 | 2362.5 |
| 32° | 2338.3 | 2232.0 | 2331.8 | 2409.4 | 2432.2 | 2302.6 |
| 32.5° | 2273.3 | 2161.8 | 2270.5 | 2340.7 | 2366.2 | 2252.0 |
| 33° | 2216.6 | 2094.9 | 2204.1 | 2272.9 | 2306.3 | 2193.4 |
| 33.5° | 2164.2 | 2013.2 | 2151.2 | 2203.2 | 2243.6 | 2121.0 |
| 34° | 2096.8 | 1929.6 | 2097.3 | 2134.4 | 2180.0 | 2049.4 |
| 34.5° | 2034.6 | 1848.8 | 2028.1 | 2066.1 | 2128.4 | 1967.7 |
| 35° | 1957.9 | 1768.9 | 1962.6 | 1999.3 | 2076.8 | 1886.4 |
| 35.5° | 1880.8 | 1693.1 | 1884.5 | 1933.8 | 2012.3 | 1806.5 |
| 36° | 1804.6 | 1614.2 | 1807.9 | 1871.1 | 1949.6 | 1728.9 |
| 36.5° | 1730.3 | 1534.7 | 1734.0 | 1807.9 | 1876.6 | 1643.4 |
| 37° | 1656.4 | 1455.3 | 1658.3 | 1748.4 | 1800.9 | 1566.8 |
| 37.5° | 1584.0 | 1376.3 | 1586.8 | 1690.8 | 1724.3 | 1490.6 |
| 38° | 1511.5 | 1296.9 | 1514.8 | 1641.1 | 1643.0 | 1414.0 |
| 38.5° | 1437.2 | 1219.3 | 1443.2 | 1591.4 | 1575.6 | 1337.8 |
| 39° | 1361.9 | 1143.6 | 1371.7 | 1541.7 | 1507.8 | 1259.8 |
| 39.5° | 1287.2 | 1072.6 | 1299.2 | 1492.0 | 1440.4 | 1184.5 |
| 40° | 1213.3 | 1003.8 | 1224.9 | 1442.3 | 1372.6 | 1112.0 |
| 40.5° | 1143.2 | 937.8 | 1154.3 | 1401.0 | 1300.2 | 1040.0 |
| 41° | 1074.9 | 871.0 | 1084.2 | 1365.2 | 1228.6 | 972.7 |
| 41.5° | 1008.9 | 806.9 | 1019.6 | 1325.7 | 1157.1 | 907.2 |
| 42° | 944.4 | 742.3 | 955.5 | 1289.5 | 1088.8 | 842.2 |
| 42.5° | 881.2 | 685.2 | 895.1 | 1251.4 | 1023.8 | 777.6 |
| 43° | 819.4 | 628.0 | 834.3 | 1193.3 | 961.1 | 716.3 |
| 43.5° | 759.9 | 573.7 | 774.3 | 1138.5 | 899.3 | 657.3 |



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 590.4 | 424.6 | 605.7 | 955.0 | 723.7 | 496.6 |
| 45.5° | 537.4 | 379.0 | 553.2 | 899.3 | 667.0 | 446.9 |
| 46° | 487.3 | 335.8 | 504.0 | 843.6 | 613.2 | 399.9 |
| 46.5° | 442.7 | 294.0 | 457.1 | 788.3 | 560.7 | 355.4 |
| 47° | 398.1 | 255.9 | 412.0 | 733.0 | 511.0 | 312.6 |
| 47.5° | 354.0 | 220.6 | 367.4 | 682.4 | 463.6 | 272.2 |
| 48° | 309.4 | 190.0 | 326.6 | 630.3 | 417.6 | 235.5 |
| 48.5° | 270.8 | 163.0 | 288.5 | 580.6 | 373.0 | 203.0 |
| 49° | 234.6 | 145.4 | 252.2 | 533.3 | 332.6 | 174.2 |
| 49.5° | 201.6 | 127.7 | 219.2 | 487.7 | 293.1 | 155.1 |
| 50° | 173.3 | 110.1 | 188.6 | 444.1 | 255.9 | 137.0 |
| 50.5° | 148.2 | 92.4 | 161.2 | 403.2 | 221.1 | 118.5 |
| 51° | 126.3 | 75.3 | 143.1 | 365.1 | 191.4 | 99.9 |
| 51.5° | 107.3 | 61.8 | 125.0 | 328.9 | 164.4 | 81.8 |
| 52° | 91.0 | 48.8 | 106.8 | 294.5 | 145.9 | 67.8 |
| 52.5° | 76.6 | 36.2 | 88.3 | 262.9 | 127.3 | 54.8 |
| 53° | 64.6 | 24.2 | 70.6 | 232.3 | 109.2 | 41.8 |
| 53.5° | 52.5 | 15.8 | 57.1 | 203.9 | 90.6 | 29.3 |
| 54° | 40.4 | 14.4 | 44.1 | 177.9 | 72.5 | 20.0 |
| 54.5° | 28.3 | 13.5 | 32.1 | 154.2 | 59.0 | 17.7 |
| 55° | 16.7 | 12.5 | 20.9 | 132.4 | 46.0 | 16.3 |
| 55.5° | 12.5 | 11.6 | 18.6 | 116.6 | 33.4 | 14.4 |
| 56° | 12.1 | 11.1 | 16.7 | 100.8 | 22.3 | 13.0 |
| 56.5° | 11.6 | 10.7 | 14.4 | 85.5 | 14.4 | 12.5 |
| 57° | 11.1 | 10.2 | 12.1 | 69.7 | 13.5 | 12.1 |
| 57.5° | 10.7 | 9.8 | 9.8 | 53.9 | 13.0 | 11.6 |
| 58° | 10.2 | 9.8 | 9.8 | 43.2 | 12.1 | 11.1 |
| 58.5° | 10.2 | 9.3 | 9.3 | 34.4 | 11.1 | 10.7 |
| 59° | 9.8 | 8.8 | 9.3 | 27.4 | 10.7 | 10.7 |
| 59.5° | 9.3 | 8.8 | 8.8 | 22.3 | 10.7 | 10.2 |
| 60° | 9.3 | 8.4 | 8.4 | 17.7 | 10.2 | 9.8 |
| 60.5° | 8.8 | 7.9 | 8.4 | 15.8 | 9.8 | 9.3 |
| 61° | 8.4 | 7.9 | 7.9 | 13.5 | 9.8 | 9.3 |
| 61.5° | 8.4 | 7.4 | 7.9 | 11.1 | 9.3 | 8.8 |
| 62° | 7.9 | 7.4 | 7.4 | 8.8 | 8.8 | 8.8 |
| 62.5° | 7.9 | 7.0 | 7.4 | 8.4 | 8.8 | 8.4 |
| 63° | 7.4 | 7.0 | 7.0 | 8.4 | 8.4 | 7.9 |
| 63.5° | 7.0 | 6.5 | 7.0 | 7.9 | 8.4 | 7.9 |
| 64° | 7.0 | 6.5 | 6.5 | 7.9 | 7.9 | 7.4 |
| 64.5° | 6.5 | 6.0 | 6.5 | 7.4 | 7.4 | 7.4 |
| 65° | 6.5 | 6.0 | 6.0 | 7.4 | 7.4 | 7.0 |
| 65.5° | 6.0 | 5.6 | 6.0 | 7.0 | 7.0 | 7.0 |
| 66° | 6.0 | 5.6 | 5.6 | 7.0 | 7.0 | 6.5 |



TEST NUMBER: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 5.6 | 4.6 | 5.1 | 6.0 | 6.0 | 6.0 |
| 68° | 5.1 | 4.6 | 5.1 | 6.0 | 6.0 | 5.6 |
| 68.5° | 5.1 | 4.6 | 4.6 | 5.6 | 5.6 | 5.6 |
| 69° | 4.6 | 4.2 | 4.6 | 5.6 | 5.6 | 5.1 |
| 69.5° | 4.6 | 4.2 | 4.6 | 5.1 | 5.6 | 5.1 |
| 70° | 4.2 | 3.7 | 4.2 | 5.1 | 5.1 | 4.6 |
| 70.5° | 4.2 | 3.7 | 4.2 | 5.1 | 5.1 | 4.6 |
| 71° | 4.2 | 3.7 | 3.7 | 4.6 | 4.6 | 4.6 |
| 71.5° | 3.7 | 3.3 | 3.7 | 4.6 | 4.6 | 4.2 |
| 72° | 3.7 | 3.3 | 3.7 | 4.2 | 4.2 | 4.2 |
| 72.5° | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | 3.7 |
| 73° | 3.3 | 3.3 | 3.3 | 3.7 | 4.2 | 3.7 |
| 73.5° | 3.3 | 2.8 | 3.3 | 3.7 | 3.7 | 3.7 |
| 74° | 2.8 | 2.8 | 3.3 | 3.7 | 3.7 | 3.3 |
| 74.5° | 2.8 | 2.8 | 2.8 | 3.3 | 3.7 | 3.3 |
| 75° | 2.8 | 2.8 | 2.8 | 3.3 | 3.3 | 3.3 |
| 75.5° | 2.8 | 2.3 | 2.8 | 2.8 | 3.3 | 2.8 |
| 76° | 2.3 | 2.3 | 2.3 | 2.8 | 2.8 | 2.8 |
| 76.5° | 2.3 | 2.3 | 2.3 | 2.8 | 2.8 | 2.8 |
| 77° | 2.3 | 2.3 | 2.3 | 2.3 | 2.8 | 2.8 |
| 77.5° | 1.9 | 1.9 | 2.3 | 2.3 | 2.3 | 2.3 |
| 78° | 1.9 | 1.9 | 1.9 | 2.3 | 2.3 | 2.3 |
| 78.5° | 1.9 | 1.9 | 1.9 | 1.9 | 2.3 | 2.3 |
| 79° | 1.9 | 1.9 | 1.9 | 1.9 | 2.3 | 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: P776721

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-3000K

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 |



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° | 3639.0 | 3802.0 | 3954.8 | 3907.5 | 3752.8 | 3876.3 | 3998.0 | 3844.8 | 3718.9 | 3734.7 | 3792.3 |
| 22° | 3583.2 | 3746.7 | 3902.8 | 3858.7 | 3699.4 | 3826.6 | 3946.5 | 3795.1 | 3666.9 | 3678.5 | 3734.7 |



| | | | | | | | | | | | |
|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|-------|--------|
| 44° | 600.6 | 914.6 | 1345.2 | 1156.6 | 799.4 | 1090.2 | 1417.7 | 963.9 | 679.6 | 845.9 | 1124.1 |
| 44.5° | 547.2 | 851.0 | 1289.5 | 1087.0 | 739.0 | 1023.8 | 1369.8 | 900.7 | 621.5 | 786.0 | 1060.9 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 66.5° | 6.5 | 7.0 | 7.9 | 7.0 | 6.5 | 7.4 | 7.9 | 7.0 | 6.5 | 7.0 | 7.0 |
| 67° | 6.0 | 7.0 | 7.4 | 7.0 | 6.0 | 7.0 | 7.9 | 7.0 | 6.5 | 6.5 | 6.5 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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° | 3643.2 | 3579.5 | 3649.7 | 3771.4 | 3738.4 | 3639.0 |
| 22° | 3588.8 | 3521.9 | 3593.9 | 3714.2 | 3679.9 | 3583.2 |



| | | | | | | |
|-------|-------|-------|-------|--------|-------|-------|
| 44° | 701.4 | 520.3 | 714.9 | 1078.1 | 840.8 | 600.6 |
| 44.5° | 643.3 | 471.9 | 659.6 | 1016.8 | 781.3 | 547.2 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 66.5° | 6.0 | 5.1 | 5.6 | 6.5 | 6.5 | 6.5 |
| 67° | 5.6 | 5.1 | 5.6 | 6.5 | 6.5 | 6.0 |

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 |

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Scaled Data Report



(END OF REPORT)