

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: P776704

Luminaire Tested: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776704
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-HCD6TRH-5000lm-5000K
Description: 6 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

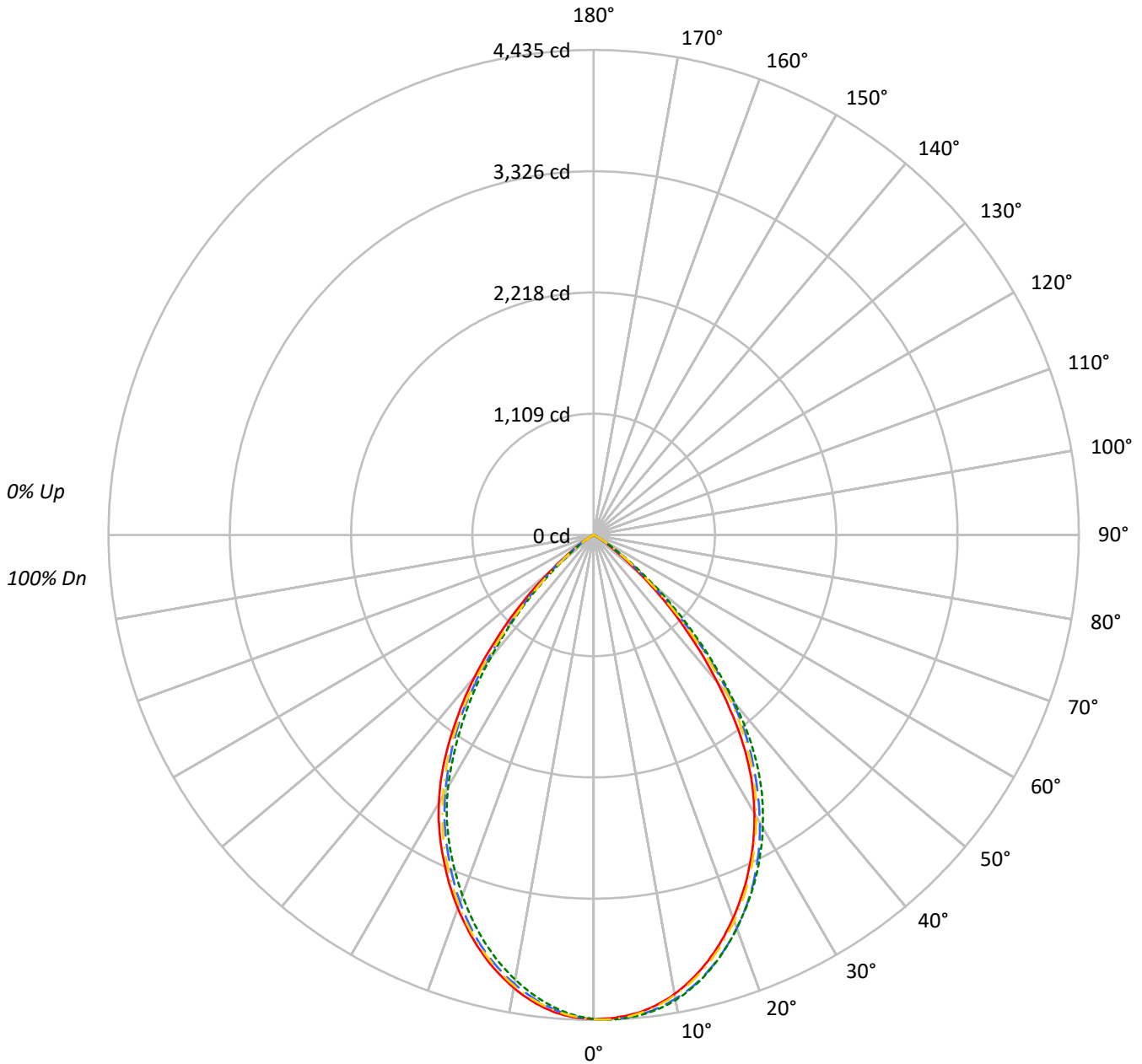
Lumens per Lamp: N/A
Luminaire Lumens: 5568.5 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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



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Luminous Intensity Polar Plot





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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	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92																			
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84																			
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77																			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72	70																			
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64																			
6	83	73	67	62	82	73	66	62	71	65	61	69	64	61	68	64	60	59																			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	54																			
8	74	63	57	52	73	63	56	52	62	56	52	61	55	51	59	55	51	50																			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46																			
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	242738	242738	242738	242738
5°	241662	243132	240567	238135
10°	237298	240432	234136	229950
15°	228963	233617	224360	218741
20°	217491	223319	211856	204634
25°	203425	211059	196911	188781
30°	186041	195714	179217	168558
35°	161546	175512	153522	139622
40°	125929	143469	121034	104882
45°	86350	104143	83040	67426
50°	47555	62949	45483	33108
55°	18179	27641	19670	14097
60°	2390	7072	4736	1864
65°	311	571	441	311
70°	80	160	160	160
75°	106	106	106	106
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 104143 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.4	7.4
10°-20°	1120.6	20.1
20°-30°	1515.9	27.2
30°-40°	1455.4	26.1
40°-50°	847.6	15.2
50°-60°	208.6	3.7
60°-70°	6.7	0.1
70°-80°	0.4	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°	3049.9	54.8
0°-40°	4505.3	80.9
0°-60°	5561.5	99.9
0°-90°	5568.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5568.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4428	4428	4428	4428	4428	
5°	4392	4418	4372	4327	4392	415
15°	4034	4116	3953	3854	4034	1132
25°	3363	3489	3255	3121	3363	1541
35°	2414	2623	2294	2086	2414	1486
45°	1114	1343	1071	870	1114	860
55°	190	289	206	148	190	196
65°	2	4	3	2	2	5
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9
0.5°	4426.9	4427.4	4430.8	4433.7	4429.3	4431.3	4432.2	4430.3	4425.9	4424.0	4424.5
1°	4425.9	4427.9	4432.7	4436.1	4432.2	4433.2	4433.2	4429.8	4424.0	4420.1	4420.6
1.5°	4424.5	4427.9	4433.2	4437.6	4433.7	4434.7	4432.7	4428.4	4422.0	4416.2	4415.3
2°	4422.0	4427.4	4433.2	4437.6	4434.7	4434.7	4432.2	4425.9	4417.2	4411.4	4408.9
2.5°	4422.0	4425.4	4431.8	4436.6	4433.7	4433.2	4429.8	4422.5	4413.3	4405.1	4401.2
3°	4414.8	4422.5	4430.3	4435.1	4432.7	4431.8	4426.4	4417.2	4406.5	4397.8	4392.4
3.5°	4410.4	4419.1	4427.4	4432.7	4430.3	4427.9	4422.0	4411.9	4399.7	4389.5	4384.2
4°	4405.1	4415.3	4423.5	4429.3	4426.9	4424.5	4417.2	4404.6	4392.0	4380.8	4372.5
4.5°	4398.3	4410.4	4418.6	4425.0	4423.0	4419.6	4410.4	4396.8	4383.2	4369.6	4361.4
5°	4391.5	4404.1	4413.3	4420.1	4418.2	4413.8	4403.1	4388.1	4371.6	4358.0	4348.8
5.5°	4385.2	4396.8	4407.5	4413.8	4412.8	4407.5	4394.4	4377.9	4359.4	4345.4	4334.7
6°	4374.0	4388.6	4400.2	4407.0	4406.5	4399.7	4384.7	4365.8	4346.8	4331.8	4320.1
6.5°	4364.3	4380.3	4392.0	4399.7	4398.8	4391.0	4375.5	4352.6	4332.8	4317.2	4303.6
7°	4353.1	4370.1	4382.3	4391.5	4390.5	4382.3	4363.3	4339.5	4318.2	4301.2	4288.1
7.5°	4340.5	4359.0	4372.1	4381.3	4380.8	4372.1	4351.2	4324.0	4301.2	4283.7	4269.7
8°	4326.9	4346.8	4361.4	4370.1	4370.6	4361.4	4338.1	4308.5	4284.2	4265.8	4251.7
8.5°	4312.9	4333.7	4349.3	4358.5	4359.4	4348.8	4323.5	4292.0	4266.3	4247.3	4231.8
9°	4297.3	4319.2	4336.6	4345.9	4346.8	4335.7	4309.0	4274.5	4246.9	4227.9	4212.9
9.5°	4280.3	4304.6	4322.1	4332.3	4333.7	4322.1	4292.0	4255.6	4227.9	4207.1	4191.5
10°	4262.9	4288.6	4308.0	4317.7	4319.2	4306.5	4275.0	4236.7	4206.1	4186.2	4169.7
10.5°	4243.9	4271.1	4292.0	4302.2	4303.1	4290.5	4257.0	4215.8	4184.7	4164.4	4147.4
11°	4224.5	4253.6	4276.5	4285.7	4286.6	4272.6	4238.1	4194.9	4161.9	4141.5	4124.6
11.5°	4204.1	4234.7	4258.0	4267.7	4268.7	4254.6	4218.7	4173.1	4137.7	4118.2	4100.8
12°	4181.3	4214.8	4240.5	4248.8	4249.8	4234.7	4197.4	4150.3	4113.9	4094.0	4076.0
12.5°	4159.0	4194.0	4220.2	4229.9	4229.9	4214.3	4175.5	4127.0	4089.1	4068.7	4051.3
13°	4136.2	4173.1	4200.8	4210.5	4210.5	4193.5	4154.2	4103.2	4063.9	4043.0	4025.6
13.5°	4111.5	4149.8	4179.4	4188.1	4187.2	4170.2	4129.9	4078.0	4036.7	4016.8	3998.9
14°	4087.2	4127.0	4157.1	4166.3	4164.4	4147.4	4106.1	4052.2	4010.0	3989.2	3971.2
14.5°	4061.0	4102.2	4133.8	4143.5	4139.6	4122.1	4081.4	4025.1	3982.4	3960.0	3943.1
15°	4034.3	4078.0	4109.5	4119.7	4116.3	4097.4	4054.7	3997.9	3953.2	3930.4	3913.9
15.5°	4006.6	4051.8	4084.8	4095.9	4090.1	4071.7	4027.5	3969.7	3923.6	3901.8	3883.8
16°	3978.5	4024.6	4059.0	4069.2	4064.4	4045.0	4000.8	3941.1	3894.0	3871.2	3852.3
16.5°	3949.4	3997.4	4031.9	4043.0	4037.2	4016.8	3972.2	3911.5	3863.5	3839.2	3820.3
17°	3919.8	3969.3	4005.2	4016.3	4008.6	3988.7	3943.5	3881.4	3831.4	3806.2	3787.8
17.5°	3888.7	3940.6	3977.0	3989.2	3980.4	3959.6	3913.5	3849.4	3799.9	3773.2	3753.3
18°	3858.1	3910.5	3948.4	3960.0	3950.3	3930.0	3883.8	3818.3	3765.9	3739.2	3718.4
18.5°	3826.6	3880.0	3918.3	3930.9	3920.2	3899.9	3852.3	3785.3	3732.9	3704.3	3683.9
19°	3794.1	3848.9	3889.2	3901.3	3890.2	3869.3	3820.3	3752.3	3699.4	3670.3	3646.5
19.5°	3761.1	3816.9	3857.6	3870.7	3859.6	3837.3	3787.8	3718.4	3666.4	3633.4	3609.2
20°	3728.1	3784.8	3827.1	3839.7	3828.0	3804.3	3755.7	3685.4	3631.5	3597.0	3571.8
20.5°	3693.6	3750.9	3795.0	3806.2	3794.6	3772.2	3721.8	3650.4	3596.1	3560.2	3534.4
21°	3659.2	3716.9	3762.5	3774.2	3762.0	3738.7	3686.8	3616.0	3561.1	3523.8	3497.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3552.9	3611.1	3660.1	3671.3	3665.0	3634.4	3581.0	3512.1	3450.5	3409.2	3375.3
23°	3516.5	3574.2	3624.2	3635.9	3630.5	3597.5	3546.1	3474.7	3411.2	3369.4	3334.5
23.5°	3479.6	3536.4	3587.8	3599.5	3596.1	3560.6	3510.7	3437.4	3372.8	3328.7	3292.3
24°	3441.3	3499.0	3549.5	3562.1	3561.6	3523.8	3472.8	3399.5	3333.5	3288.4	3250.5
24.5°	3402.4	3460.7	3511.6	3524.7	3527.2	3492.7	3433.5	3361.2	3295.7	3247.6	3207.8
25°	3363.1	3421.8	3472.8	3486.4	3489.3	3454.4	3393.7	3322.8	3255.4	3206.9	3166.6
25.5°	3323.8	3380.6	3433.5	3446.6	3451.4	3415.1	3353.9	3283.0	3215.6	3165.1	3123.9
26°	3284.5	3341.3	3392.7	3407.8	3414.1	3376.7	3313.6	3244.2	3175.8	3123.9	3081.7
26.5°	3242.8	3301.0	3351.0	3367.5	3376.2	3335.9	3271.9	3203.9	3135.5	3082.1	3038.5
27°	3202.0	3258.3	3309.7	3326.7	3337.9	3296.6	3231.1	3164.2	3093.3	3040.4	2995.8
27.5°	3159.3	3215.1	3266.5	3285.5	3297.6	3255.4	3189.9	3123.4	3053.0	2997.7	2951.6
28°	3117.1	3171.9	3221.9	3242.8	3257.3	3214.6	3148.1	3081.7	3010.8	2952.6	2906.0
28.5°	3073.9	3128.2	3177.3	3200.1	3217.5	3172.9	3105.9	3040.4	2968.6	2906.9	2858.9
29°	3029.7	3083.6	3131.6	3156.4	3176.8	3131.2	3062.2	2997.2	2924.4	2861.8	2811.8
29.5°	2984.6	3037.0	3084.6	3112.2	3134.1	3089.4	3018.6	2952.1	2878.3	2814.7	2761.8
30°	2939.0	2989.9	3037.5	3067.1	3091.8	3046.7	2973.9	2906.9	2831.2	2767.2	2712.3
30.5°	2892.4	2942.4	2989.9	3019.5	3048.6	3002.5	2928.8	2859.9	2784.6	2717.2	2661.9
31°	2844.8	2893.8	2939.5	2973.9	3006.4	2958.4	2882.2	2812.8	2734.7	2667.2	2610.4
31.5°	2795.8	2844.3	2891.4	2925.9	2960.8	2913.7	2835.1	2764.3	2683.7	2616.7	2558.5
32°	2744.9	2792.9	2840.5	2876.9	2915.7	2868.1	2788.0	2714.8	2631.3	2564.8	2505.1
32.5°	2694.9	2743.9	2790.0	2826.9	2870.1	2821.0	2739.5	2664.3	2578.4	2511.9	2452.7
33°	2642.5	2692.0	2740.0	2777.9	2823.5	2773.5	2690.5	2611.4	2524.0	2457.1	2400.3
33.5°	2588.6	2640.0	2691.0	2727.9	2774.5	2725.4	2641.0	2558.0	2468.2	2402.2	2347.4
34°	2531.8	2586.6	2639.1	2677.4	2726.4	2675.9	2590.5	2504.1	2411.9	2347.9	2293.5
34.5°	2474.1	2534.2	2587.1	2626.4	2674.0	2624.0	2540.5	2448.8	2352.2	2289.6	2238.2
35°	2413.9	2479.4	2534.2	2573.1	2622.6	2572.6	2489.1	2392.0	2294.0	2231.4	2183.4
35.5°	2353.7	2424.6	2483.8	2520.2	2568.2	2520.6	2437.7	2335.7	2236.3	2173.7	2127.1
36°	2289.2	2369.2	2428.4	2467.3	2513.9	2467.7	2384.8	2279.0	2178.0	2114.9	2068.8
36.5°	2224.6	2310.5	2376.5	2414.4	2455.6	2412.9	2329.9	2221.2	2118.8	2055.2	2008.7
37°	2158.1	2250.8	2321.2	2358.6	2396.4	2356.1	2273.6	2163.9	2057.7	1995.1	1945.6
37.5°	2092.1	2188.7	2264.4	2301.3	2335.3	2297.9	2216.8	2104.7	1999.9	1933.9	1883.9
38°	2023.7	2125.1	2205.2	2239.7	2272.2	2236.7	2157.6	2046.0	1939.3	1871.3	1818.9
38.5°	1958.7	2061.6	2146.0	2181.9	2205.7	2175.1	2097.5	1986.8	1879.1	1808.2	1754.4
39°	1890.7	1995.6	2083.4	2118.8	2140.2	2111.5	2034.9	1927.1	1817.4	1744.7	1689.8
39.5°	1825.2	1929.5	2019.8	2055.7	2072.7	2045.5	1971.3	1865.5	1756.3	1680.6	1622.8
40°	1759.7	1859.7	1953.3	1990.2	2004.8	1976.1	1906.3	1802.4	1691.3	1614.6	1555.9
40.5°	1694.7	1791.7	1889.3	1923.2	1937.8	1906.7	1841.2	1739.3	1627.7	1549.6	1487.4
41°	1628.7	1727.7	1823.8	1854.8	1870.8	1835.9	1771.3	1675.7	1562.7	1485.0	1419.5
41.5°	1563.6	1661.2	1756.8	1786.9	1806.3	1766.0	1702.9	1613.1	1497.6	1423.4	1352.5
42°	1498.1	1594.2	1687.9	1746.6	1740.3	1695.6	1633.5	1546.6	1432.1	1358.8	1286.5
42.5°	1432.6	1527.7	1619.0	1672.8	1676.7	1625.8	1565.1	1481.1	1371.5	1296.2	1223.0
43°	1366.1	1460.8	1550.0	1597.6	1612.2	1556.8	1497.1	1414.2	1308.9	1234.1	1161.8
43.5°	1301.1	1396.2	1481.6	1522.9	1543.7	1489.4	1429.2	1349.1	1250.1	1173.0	1101.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1113.8	1202.6	1274.4	1314.2	1343.3	1289.4	1227.3	1154.5	1071.1	994.4	931.3
45.5°	1054.6	1138.0	1206.5	1249.6	1277.3	1222.5	1161.3	1093.9	1012.3	937.6	877.9
46°	993.4	1075.4	1139.0	1185.1	1213.7	1158.4	1097.3	1031.3	955.1	881.3	826.0
46.5°	933.2	1013.3	1072.0	1121.0	1152.1	1095.3	1032.7	970.6	896.8	829.4	776.0
47°	874.5	951.7	1008.0	1056.5	1090.5	1033.7	970.6	909.0	840.5	775.5	727.0
47.5°	817.2	891.0	946.3	993.9	1029.3	973.5	909.9	850.7	786.2	726.0	680.9
48°	761.4	832.3	885.7	932.3	969.1	916.7	851.2	792.0	733.8	677.5	636.7
48.5°	708.1	775.5	826.0	872.6	909.9	861.9	794.9	736.2	682.3	632.3	595.0
49°	655.6	719.7	769.7	813.8	851.2	807.1	739.6	681.4	630.9	587.2	554.7
49.5°	605.2	665.3	714.4	757.1	793.0	754.2	688.6	629.4	581.4	544.5	514.9
50°	557.6	611.5	661.0	699.8	738.1	701.3	638.2	579.9	533.3	504.2	478.5
50.5°	510.5	559.1	608.6	645.4	684.3	651.3	590.6	532.9	488.2	468.8	445.0
51°	466.4	510.5	560.0	593.0	631.9	602.3	545.5	488.7	448.9	433.9	411.5
51.5°	422.7	464.4	512.5	543.5	582.8	555.7	502.3	451.3	410.1	398.4	378.5
52°	381.9	421.2	467.8	496.5	535.3	510.0	466.4	414.0	370.8	363.5	345.0
52.5°	343.1	379.5	424.2	450.4	489.2	471.2	430.0	376.1	331.9	328.5	314.0
53°	307.2	341.7	383.9	407.2	447.9	431.9	393.6	338.7	301.4	298.5	286.3
53.5°	273.2	306.7	344.6	366.9	406.7	393.1	357.2	307.2	273.7	271.3	259.1
54°	243.1	274.2	309.1	330.0	364.9	353.8	320.8	278.6	249.0	245.6	234.4
54.5°	215.5	243.6	274.2	295.1	324.2	315.0	291.2	252.4	226.6	220.8	209.2
55°	190.2	216.4	243.1	263.5	289.2	284.9	263.0	229.1	205.8	198.5	186.4
55.5°	166.0	189.8	213.5	233.9	257.7	253.8	236.3	205.8	185.4	176.2	164.0
56°	147.0	165.5	187.3	206.3	228.6	226.6	210.6	184.9	166.0	155.8	143.6
56.5°	127.6	146.1	164.5	180.0	201.9	200.4	186.4	165.0	147.5	136.4	124.2
57°	108.7	127.1	144.6	159.2	177.1	176.2	164.0	145.6	129.6	118.4	106.8
57.5°	89.8	107.7	124.2	138.8	153.4	152.9	142.7	127.1	113.1	101.9	90.3
58°	71.8	88.3	104.3	117.9	132.0	131.5	123.3	110.2	97.1	84.9	72.3
58.5°	54.4	69.4	84.4	97.5	112.6	112.1	105.3	93.7	80.1	72.3	61.6
59°	39.8	52.4	65.5	77.2	93.7	94.6	87.4	75.7	67.9	59.7	50.5
59.5°	29.1	38.3	48.0	57.8	79.1	81.5	73.8	64.1	55.8	46.6	39.8
60°	21.8	27.7	34.9	42.2	64.5	68.4	60.7	52.4	43.2	34.0	29.1
60.5°	16.0	20.9	25.2	30.1	50.0	55.3	47.1	40.8	31.1	21.4	18.0
61°	13.6	18.0	18.9	22.3	35.4	42.2	33.5	29.1	19.4	16.5	14.1
61.5°	11.2	15.0	16.0	16.5	20.9	29.1	20.4	17.5	14.6	13.1	11.2
62°	8.7	12.1	13.1	14.1	15.5	16.0	15.5	13.1	11.2	10.2	9.2
62.5°	6.3	9.2	10.2	11.6	12.1	12.1	11.6	10.7	8.7	8.3	7.3
63°	5.3	6.8	7.8	9.2	9.7	9.7	9.2	8.3	7.3	6.8	6.3
63.5°	4.4	5.3	6.3	6.8	7.8	7.8	7.3	6.8	5.8	5.8	5.3
64°	3.4	4.4	5.3	5.8	6.3	6.3	6.3	5.8	4.9	4.9	4.4
64.5°	2.9	3.9	4.4	4.9	5.3	5.3	4.9	4.9	3.9	3.9	3.9
65°	2.4	3.4	3.9	3.9	4.4	4.4	4.4	3.9	3.4	3.4	3.4
65.5°	2.4	2.9	2.9	3.4	3.9	3.4	3.4	3.4	2.9	2.9	2.9
66°	1.9	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4



TEST NUMBER: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9	1.5	1.5	1.5
68°	1.0	1.5	1.5	1.5	1.9	1.5	1.9	1.5	1.5	1.5	1.5
68.5°	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
69°	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0
69.5°	1.0	1.0	1.0	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0
70°	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70.5°	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
71°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
71.5°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	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°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5
77°	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	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: P776704
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

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: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4427.9	4427.9	4427.9	4427.9	4427.9	4427.9
0.5°	4426.4	4421.1	4424.0	4426.4	4427.9	4426.9
1°	4421.6	4415.3	4418.6	4422.5	4425.0	4425.9
1.5°	4415.3	4408.5	4412.8	4417.2	4422.5	4424.5
2°	4407.5	4400.2	4405.1	4411.4	4417.2	4422.0
2.5°	4399.2	4391.0	4395.8	4404.6	4412.3	4422.0
3°	4389.5	4380.3	4386.6	4395.8	4407.5	4414.8
3.5°	4378.9	4368.7	4375.5	4387.6	4400.7	4410.4
4°	4367.7	4356.5	4363.8	4377.9	4393.9	4405.1
4.5°	4355.1	4342.5	4351.2	4367.2	4385.2	4398.3
5°	4341.0	4327.4	4337.1	4355.1	4375.9	4391.5
5.5°	4326.0	4312.4	4322.1	4342.5	4365.3	4385.2
6°	4309.9	4295.9	4307.0	4329.4	4354.6	4374.0
6.5°	4293.0	4277.4	4290.0	4314.3	4342.5	4364.3
7°	4275.5	4260.0	4272.6	4298.8	4329.8	4353.1
7.5°	4256.6	4240.1	4254.1	4283.3	4315.8	4340.5
8°	4237.6	4219.2	4235.2	4265.8	4300.7	4326.9
8.5°	4217.3	4197.8	4214.8	4247.3	4283.7	4312.9
9°	4196.9	4176.5	4193.5	4228.4	4266.8	4297.3
9.5°	4174.1	4153.7	4172.1	4208.0	4248.3	4280.3
10°	4151.7	4130.9	4149.3	4187.6	4229.4	4262.9
10.5°	4128.0	4105.6	4126.5	4165.8	4209.5	4243.9
11°	4103.7	4080.4	4102.2	4142.5	4188.6	4224.5
11.5°	4078.9	4055.2	4077.0	4118.7	4166.8	4204.1
12°	4052.7	4028.0	4051.3	4094.5	4143.5	4181.3
12.5°	4026.5	4001.3	4025.1	4068.7	4119.7	4159.0
13°	3998.9	3973.1	3997.4	4043.0	4095.9	4136.2
13.5°	3970.7	3944.5	3968.8	4015.9	4070.2	4111.5
14°	3941.1	3915.4	3939.7	3989.2	4044.5	4087.2
14.5°	3911.0	3885.3	3910.1	3961.0	4017.3	4061.0
15°	3880.0	3854.2	3879.5	3931.9	3991.1	4034.3
15.5°	3849.9	3821.7	3847.9	3901.8	3961.5	4006.6
16°	3817.4	3790.2	3816.4	3872.2	3932.9	3978.5
16.5°	3784.8	3756.2	3783.4	3842.1	3903.7	3949.4
17°	3750.9	3723.2	3750.4	3810.6	3873.7	3919.8
17.5°	3717.9	3688.3	3716.4	3777.1	3841.1	3888.7
18°	3683.9	3652.8	3682.5	3744.1	3809.1	3858.1
18.5°	3648.5	3616.9	3648.0	3710.1	3776.6	3826.6
19°	3613.5	3582.0	3611.6	3675.2	3742.6	3794.1
19.5°	3578.1	3545.6	3576.7	3640.7	3708.7	3761.1
20°	3542.7	3507.7	3541.2	3604.3	3673.7	3728.1
20.5°	3507.7	3470.9	3504.8	3567.4	3637.3	3693.6
21°	3469.9	3433.5	3467.9	3530.6	3600.9	3659.2

TEST NUMBER: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3353.9	3319.9	3353.9	3413.6	3486.9	3552.9
23°	3314.1	3280.6	3314.1	3373.8	3447.6	3516.5
23.5°	3274.8	3241.8	3276.3	3334.0	3407.8	3479.6
24°	3234.0	3202.0	3235.5	3293.2	3367.0	3441.3
24.5°	3193.3	3162.2	3196.2	3251.5	3327.2	3402.4
25°	3152.5	3121.0	3154.9	3209.8	3286.4	3363.1
25.5°	3110.8	3080.2	3114.2	3168.0	3244.7	3323.8
26°	3070.0	3038.9	3071.0	3123.9	3203.5	3284.5
26.5°	3027.3	2996.2	3027.3	3081.7	3161.2	3242.8
27°	2983.6	2952.6	2983.1	3035.5	3118.5	3202.0
27.5°	2939.0	2908.9	2937.5	2990.4	3074.9	3159.3
28°	2893.4	2860.8	2889.5	2944.3	3030.2	3117.1
28.5°	2845.8	2813.3	2843.9	2897.7	2985.1	3073.9
29°	2798.2	2764.3	2794.8	2850.6	2939.5	3029.7
29.5°	2749.7	2714.8	2744.9	2801.6	2892.9	2984.6
30°	2699.2	2662.8	2693.9	2753.1	2846.3	2939.0
30.5°	2647.8	2607.5	2642.5	2703.1	2797.3	2892.4
31°	2595.4	2552.2	2588.1	2653.1	2748.2	2844.8
31.5°	2542.0	2495.9	2533.7	2603.6	2698.7	2795.8
32°	2488.1	2438.1	2477.0	2550.2	2648.8	2744.9
32.5°	2431.8	2380.9	2420.7	2499.3	2597.8	2694.9
33°	2374.6	2321.2	2362.9	2446.9	2544.4	2642.5
33.5°	2316.3	2262.5	2305.2	2394.0	2491.5	2588.6
34°	2257.6	2203.7	2247.9	2339.1	2436.7	2531.8
34.5°	2197.4	2144.5	2189.2	2281.4	2381.8	2474.1
35°	2138.2	2086.3	2129.5	2223.6	2323.6	2413.9
35.5°	2078.5	2027.6	2072.2	2164.4	2265.9	2353.7
36°	2017.4	1969.8	2014.0	2104.3	2203.3	2289.2
36.5°	1956.7	1911.1	1955.3	2042.6	2139.7	2224.6
37°	1895.1	1851.4	1895.6	1974.7	2074.2	2158.1
37.5°	1833.0	1790.3	1834.9	1911.1	2010.1	2092.1
38°	1770.4	1730.1	1772.3	1843.7	1940.2	2023.7
38.5°	1705.8	1664.1	1707.3	1778.6	1871.3	1958.7
39°	1643.2	1598.1	1642.3	1714.3	1800.0	1890.7
39.5°	1579.2	1531.6	1577.2	1655.5	1719.4	1825.2
40°	1514.6	1465.6	1511.7	1589.4	1652.4	1759.7
40.5°	1450.6	1402.0	1446.7	1513.6	1585.5	1694.7
41°	1387.0	1340.9	1378.7	1437.9	1519.0	1628.7
41.5°	1326.3	1280.2	1313.2	1371.0	1452.0	1563.6
42°	1262.3	1221.5	1249.2	1303.5	1384.6	1498.1
42.5°	1200.6	1161.8	1187.5	1237.0	1318.6	1432.6
43°	1140.0	1103.1	1126.4	1171.0	1251.1	1366.1
43.5°	1078.3	1043.9	1063.8	1106.5	1186.1	1301.1



TEST NUMBER: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	907.0	869.7	883.7	919.6	1002.1	1113.8
45.5°	852.2	815.3	824.5	861.4	945.4	1054.6
46°	798.8	761.9	768.2	805.6	889.1	993.4
46.5°	749.3	708.1	712.9	751.7	835.7	933.2
47°	697.9	657.1	660.5	699.3	781.3	874.5
47.5°	650.8	607.1	610.5	649.8	730.9	817.2
48°	605.7	559.1	562.0	602.3	679.4	761.4
48.5°	562.0	512.0	516.8	557.1	630.4	708.1
49°	520.7	468.8	473.7	514.4	581.9	655.6
49.5°	481.4	427.1	432.9	473.2	536.7	605.2
50°	446.5	388.2	396.0	434.8	491.6	557.6
50.5°	412.0	353.3	360.6	397.9	449.9	510.5
51°	377.1	321.8	329.0	364.0	410.6	466.4
51.5°	342.6	293.1	299.4	331.0	373.2	422.7
52°	313.0	267.4	272.7	301.4	338.3	381.9
52.5°	284.4	244.1	247.5	273.2	305.3	343.1
53°	257.2	221.8	225.2	246.0	273.7	307.2
53.5°	232.9	201.4	203.3	220.3	244.6	273.2
54°	209.6	182.0	183.0	197.0	217.9	243.1
54.5°	187.3	164.5	165.5	174.7	193.1	215.5
55°	166.9	147.5	148.0	156.3	168.4	190.2
55.5°	146.6	130.5	131.0	137.8	149.5	166.0
56°	128.1	113.6	113.6	119.4	130.5	147.0
56.5°	111.1	96.6	96.1	101.4	111.6	127.6
57°	95.1	79.1	78.6	83.0	92.7	108.7
57.5°	77.6	61.6	61.6	65.0	74.7	89.8
58°	66.0	47.1	46.6	49.5	57.3	71.8
58.5°	54.4	35.4	34.5	36.4	42.7	54.4
59°	42.7	26.2	25.7	27.2	31.5	39.8
59.5°	31.1	19.9	19.4	20.4	23.3	29.1
60°	19.4	17.0	16.5	17.5	17.5	21.8
60.5°	15.0	13.6	13.6	14.6	15.0	16.0
61°	12.1	10.7	10.2	12.1	12.1	13.6
61.5°	9.7	7.8	7.3	9.2	9.7	11.2
62°	7.8	6.3	6.3	6.3	7.3	8.7
62.5°	6.3	5.3	4.9	5.3	5.8	6.3
63°	5.3	4.4	4.4	4.4	4.9	5.3
63.5°	4.4	3.9	3.4	3.4	3.9	4.4
64°	3.9	3.4	2.9	2.9	3.4	3.4
64.5°	3.4	2.9	2.4	2.4	2.9	2.9
65°	2.9	2.4	1.9	2.4	2.4	2.4
65.5°	2.4	1.9	1.9	1.9	1.9	2.4
66°	1.9	1.9	1.5	1.5	1.9	1.9



TEST NUMBER: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.5	1.5	1.0	1.0	1.5	1.5
68°	1.5	1.0	1.0	1.0	1.0	1.0
68.5°	1.0	1.0	1.0	1.0	1.0	1.0
69°	1.0	1.0	1.0	1.0	1.0	1.0
69.5°	1.0	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	0.5	0.5	0.5	0.5
70.5°	1.0	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	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	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.0	0.0	0.5
75.5°	0.5	0.0	0.0	0.0	0.0	0.0
76°	0.5	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	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
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: P776704

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-5000K

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



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

Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	3623.7	3682.0	3729.5	3740.7	3730.0	3704.8	3651.9	3581.5	3526.2	3487.4	3456.8
22°	3588.8	3647.0	3694.6	3706.2	3697.0	3671.3	3616.5	3546.6	3487.8	3448.5	3417.0



44°	1236.5	1331.2	1412.7	1447.2	1476.3	1422.9	1360.3	1282.2	1188.0	1111.3	1043.4
44.5°	1174.4	1267.1	1343.3	1380.7	1409.3	1356.4	1294.8	1218.1	1131.2	1053.6	988.1



66.5°	1.5	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
67°	1.5	1.9	1.9	1.9	2.4	2.4	2.4	1.9	1.9	1.9	1.9



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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21.5°	3431.1	3396.1	3430.1	3491.7	3563.1	3623.7
22°	3392.7	3357.8	3392.2	3453.4	3525.2	3588.8



44°	1020.1	984.2	1002.6	1042.9	1124.0	1236.5
44.5°	963.8	926.0	943.4	980.8	1062.8	1174.4



66.5°	1.9	1.5	1.5	1.5	1.5	1.5
67°	1.5	1.5	1.5	1.5	1.5	1.5

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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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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)