

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: P776701

Luminaire Tested: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776701
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-3000K
Description: 6 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

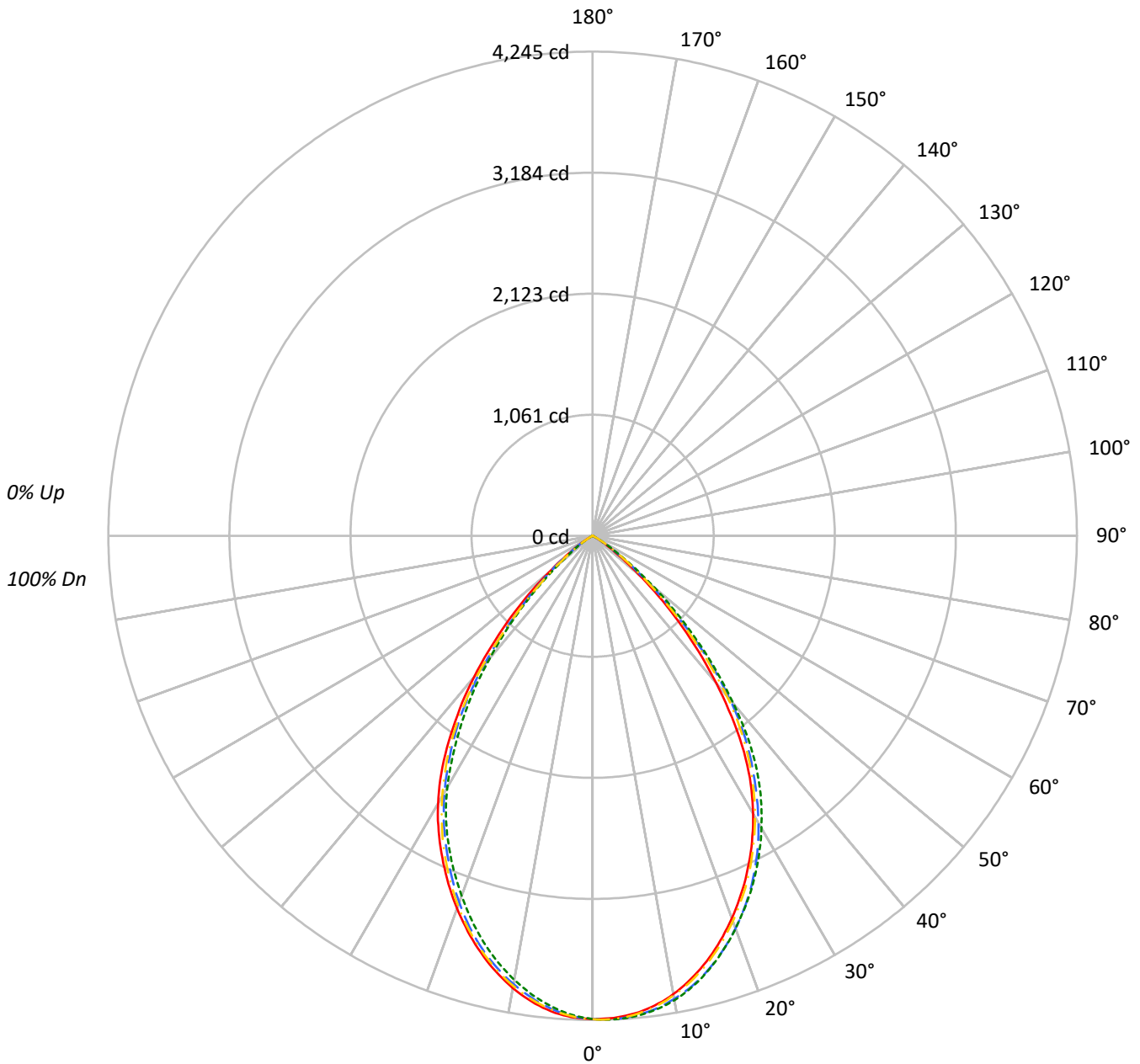
Lumens per Lamp: N/A
Luminaire Lumens: 5330.2 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77					77			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72	70					70			
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64					64			
6	83	73	67	62	82	73	66	62	71	65	61	69	64	61	68	64	60	59					59			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	54					54			
8	74	63	57	52	73	63	56	52	62	56	52	61	55	51	59	55	51	50					50			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46					46			
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	232350	232350	232350	232350
5°	231317	232726	230271	227943
10°	227139	230139	224116	220108
15°	219161	223616	214757	209383
20°	208181	213764	202790	195877
25°	194721	202028	188485	180700
30°	178078	187339	171552	161348
35°	154632	167997	146950	133645
40°	120540	137329	115853	100395
45°	82652	99685	79481	64534
50°	45517	60254	43538	31692
55°	17404	26465	18828	13495
60°	2291	6776	4528	1787
65°	298	545	428	298
70°	80	144	144	144
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: 99685 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.7	7.4
10°-20°	1072.7	20.1
20°-30°	1451.0	27.2
30°-40°	1393.1	26.1
40°-50°	811.3	15.2
50°-60°	199.7	3.7
60°-70°	6.4	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°	2919.4	54.8
0°-40°	4312.5	80.9
0°-60°	5323.4	99.9
0°-90°	5330.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5330.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4238	4238	4238	4238	4238	
5°	4204	4229	4184	4142	4204	397
15°	3862	3940	3784	3689	3862	1083
25°	3219	3340	3116	2987	3219	1475
35°	2311	2510	2196	1997	2311	1422
45°	1066	1286	1025	832	1066	824
55°	182	277	197	141	182	188
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°	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4
0.5°	4237.4	4237.9	4241.1	4243.9	4239.7	4241.6	4242.5	4240.7	4236.5	4234.6	4235.1
1°	4236.5	4238.4	4243.0	4246.2	4242.5	4243.5	4243.5	4240.2	4234.6	4230.9	4231.4
1.5°	4235.1	4238.4	4243.5	4247.6	4243.9	4244.9	4243.0	4238.8	4232.8	4227.2	4226.3
2°	4232.8	4237.9	4243.5	4247.6	4244.9	4244.9	4242.5	4236.5	4228.1	4222.6	4220.2
2.5°	4232.8	4236.0	4242.1	4246.7	4243.9	4243.5	4240.2	4233.2	4224.4	4216.5	4212.8
3°	4225.8	4233.2	4240.7	4245.3	4243.0	4242.1	4237.0	4228.1	4217.9	4209.5	4204.4
3.5°	4221.6	4230.0	4237.9	4243.0	4240.7	4238.4	4232.8	4223.0	4211.4	4201.7	4196.5
4°	4216.5	4226.3	4234.2	4239.7	4237.4	4235.1	4228.1	4216.1	4204.0	4193.3	4185.4
4.5°	4210.0	4221.6	4229.5	4235.6	4233.7	4230.5	4221.6	4208.6	4195.6	4182.6	4174.7
5°	4203.5	4215.6	4224.4	4230.9	4229.1	4224.9	4214.7	4200.3	4184.5	4171.5	4162.6
5.5°	4197.5	4208.6	4218.8	4224.9	4224.0	4218.8	4206.3	4190.5	4172.9	4159.4	4149.2
6°	4186.8	4200.7	4211.9	4218.4	4217.9	4211.4	4197.0	4178.9	4160.8	4146.4	4135.2
6.5°	4177.5	4192.8	4204.0	4211.4	4210.5	4203.0	4188.2	4166.3	4147.3	4132.4	4119.4
7°	4166.8	4183.1	4194.7	4203.5	4202.6	4194.7	4176.6	4153.8	4133.4	4117.1	4104.6
7.5°	4154.7	4172.4	4184.9	4193.8	4193.3	4184.9	4165.0	4138.9	4117.1	4100.4	4086.9
8°	4141.7	4160.8	4174.7	4183.1	4183.5	4174.7	4152.4	4124.1	4100.9	4083.2	4069.7
8.5°	4128.3	4148.2	4163.1	4171.9	4172.9	4162.6	4138.5	4108.3	4083.7	4065.5	4050.7
9°	4113.4	4134.3	4151.0	4159.8	4160.8	4150.1	4124.5	4091.6	4065.1	4047.0	4032.6
9.5°	4097.1	4120.4	4137.1	4146.8	4148.2	4137.1	4108.3	4073.4	4047.0	4027.0	4012.1
10°	4080.4	4105.0	4123.6	4132.9	4134.3	4122.2	4092.0	4055.3	4026.1	4007.0	3991.2
10.5°	4062.3	4088.3	4108.3	4118.0	4119.0	4106.9	4074.8	4035.4	4005.6	3986.1	3969.9
11°	4043.7	4071.6	4093.4	4102.2	4103.2	4089.7	4056.7	4015.4	3983.8	3964.3	3948.0
11.5°	4024.2	4053.5	4075.8	4085.1	4086.0	4072.5	4038.1	3994.5	3960.6	3942.0	3925.3
12°	4002.4	4034.4	4059.0	4066.9	4067.9	4053.5	4017.7	3972.6	3937.8	3918.8	3901.6
12.5°	3981.0	4014.4	4039.5	4048.8	4048.8	4034.0	3996.8	3950.3	3914.1	3894.6	3877.9
13°	3959.2	3994.5	4021.0	4030.2	4030.2	4014.0	3976.4	3927.6	3890.0	3870.0	3853.3
13.5°	3935.5	3972.2	4000.5	4008.9	4007.9	3991.7	3953.1	3903.4	3863.9	3844.9	3827.7
14°	3912.3	3950.3	3979.1	3988.0	3986.1	3969.9	3930.4	3878.8	3838.4	3818.4	3801.2
14.5°	3887.2	3926.7	3956.8	3966.1	3962.4	3945.7	3906.7	3852.8	3811.9	3790.5	3774.3
15°	3861.6	3903.4	3933.6	3943.4	3940.1	3922.0	3881.1	3826.8	3784.0	3762.2	3746.4
15.5°	3835.1	3878.3	3909.9	3920.6	3915.0	3897.4	3855.1	3799.8	3755.7	3734.8	3717.6
16°	3808.2	3852.3	3885.3	3895.1	3890.4	3871.8	3829.6	3772.4	3727.4	3705.5	3687.4
16.5°	3780.3	3826.3	3859.3	3870.0	3864.4	3844.9	3802.2	3744.1	3698.1	3674.9	3656.8
17°	3752.0	3799.4	3833.7	3844.4	3837.0	3818.0	3774.8	3715.3	3667.4	3643.3	3625.6
17.5°	3722.3	3772.0	3806.8	3818.4	3810.1	3790.1	3746.0	3684.6	3637.3	3611.7	3592.7
18°	3693.0	3743.2	3779.4	3790.5	3781.3	3761.7	3717.6	3654.9	3604.7	3579.2	3559.2
18.5°	3662.8	3713.9	3750.6	3762.7	3752.5	3732.9	3687.4	3623.3	3573.1	3545.7	3526.2
19°	3631.7	3684.2	3722.7	3734.3	3723.7	3703.7	3656.8	3591.7	3541.1	3513.2	3490.5
19.5°	3600.1	3653.5	3692.5	3705.1	3694.4	3673.0	3625.6	3559.2	3509.5	3477.9	3454.7
20°	3568.5	3622.9	3663.3	3675.3	3664.2	3641.4	3595.0	3527.6	3476.1	3443.1	3418.9
20.5°	3535.5	3590.3	3632.6	3643.3	3632.1	3610.8	3562.5	3494.2	3442.2	3407.8	3383.2
21°	3502.5	3557.8	3601.5	3612.6	3601.0	3578.7	3529.0	3461.2	3408.7	3372.9	3347.4



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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°	3400.8	3456.6	3503.5	3514.2	3508.1	3478.8	3427.7	3361.8	3302.8	3263.3	3230.8
23°	3366.0	3421.2	3469.1	3480.2	3475.1	3443.5	3394.3	3326.0	3265.2	3225.2	3191.8
23.5°	3330.7	3385.0	3434.3	3445.4	3442.2	3408.2	3360.4	3290.2	3228.5	3186.2	3151.4
24°	3294.0	3349.2	3397.6	3409.6	3409.2	3372.9	3324.2	3254.0	3190.8	3147.6	3111.4
24.5°	3256.8	3312.5	3361.3	3373.9	3376.2	3343.2	3286.5	3217.3	3154.6	3108.6	3070.5
25°	3219.2	3275.4	3324.2	3337.2	3340.0	3306.5	3248.4	3180.6	3116.1	3069.6	3031.0
25.5°	3181.6	3235.9	3286.5	3299.1	3303.7	3268.9	3210.4	3142.5	3078.0	3029.6	2990.2
26°	3143.9	3198.3	3247.5	3261.9	3268.0	3232.2	3171.8	3105.4	3039.9	2990.2	2949.8
26.5°	3104.0	3159.7	3207.6	3223.4	3231.7	3193.2	3131.8	3066.8	3001.3	2950.2	2908.4
27°	3065.0	3118.8	3168.1	3184.3	3195.0	3155.5	3092.8	3028.7	2960.9	2910.3	2867.5
27.5°	3024.1	3077.5	3126.7	3144.9	3156.5	3116.1	3053.3	2989.7	2922.3	2869.4	2825.3
28°	2983.7	3036.2	3084.0	3104.0	3117.9	3077.0	3013.4	2949.8	2881.9	2826.2	2781.6
28.5°	2942.3	2994.3	3041.3	3063.1	3079.8	3037.1	2973.0	2910.3	2841.5	2782.5	2736.5
29°	2900.0	2951.6	2997.6	3021.3	3040.8	2997.1	2931.2	2868.9	2799.2	2739.3	2691.5
29.5°	2856.8	2907.0	2952.5	2979.0	2999.9	2957.2	2889.4	2825.7	2755.1	2694.3	2643.6
30°	2813.2	2862.0	2907.5	2935.8	2959.5	2916.3	2846.6	2782.5	2710.1	2648.7	2596.2
30.5°	2768.6	2816.4	2862.0	2890.3	2918.2	2874.0	2803.4	2737.5	2665.5	2600.9	2547.9
31°	2723.1	2770.0	2813.6	2846.6	2877.7	2831.8	2758.8	2692.4	2617.6	2553.0	2498.7
31.5°	2676.1	2722.6	2767.7	2800.6	2834.1	2789.0	2713.8	2645.9	2568.8	2504.7	2449.0
32°	2627.4	2673.4	2718.9	2753.7	2790.9	2745.4	2668.7	2598.6	2518.7	2455.0	2397.9
32.5°	2579.5	2626.4	2670.6	2705.9	2747.2	2700.3	2622.3	2550.3	2468.0	2404.4	2347.7
33°	2529.4	2576.7	2622.7	2659.0	2702.6	2654.8	2575.3	2499.6	2416.0	2351.9	2297.6
33.5°	2477.8	2527.0	2575.8	2611.1	2655.7	2608.8	2528.0	2448.5	2362.6	2299.4	2246.9
34°	2423.4	2475.9	2526.1	2562.8	2609.7	2561.4	2479.6	2397.0	2308.7	2247.4	2195.4
34.5°	2368.2	2425.8	2476.4	2514.0	2559.5	2511.7	2431.8	2344.0	2251.6	2191.6	2142.4
35°	2310.6	2373.3	2425.8	2462.9	2510.3	2462.5	2382.6	2289.7	2195.8	2135.9	2089.9
35.5°	2253.0	2320.8	2377.5	2412.3	2458.3	2412.8	2333.3	2235.8	2140.5	2080.6	2036.0
36°	2191.2	2267.8	2324.5	2361.7	2406.3	2362.1	2282.7	2181.4	2084.8	2024.4	1980.3
36.5°	2129.4	2211.6	2274.8	2311.0	2350.5	2309.6	2230.2	2126.1	2028.1	1967.3	1922.7
37°	2065.8	2154.5	2221.8	2257.6	2293.8	2255.3	2176.3	2071.3	1969.6	1909.7	1862.3
37.5°	2002.6	2095.0	2167.5	2202.8	2235.3	2199.5	2122.0	2014.7	1914.3	1851.1	1803.3
38°	1937.1	2034.2	2110.8	2143.8	2174.9	2141.0	2065.3	1958.4	1856.3	1791.2	1741.0
38.5°	1874.8	1973.3	2054.1	2088.5	2111.3	2082.0	2007.7	1901.8	1798.7	1730.8	1679.3
39°	1809.8	1910.1	1994.2	2028.1	2048.6	2021.2	1947.8	1844.6	1739.7	1670.0	1617.5
39.5°	1747.1	1847.0	1933.4	1967.7	1984.0	1958.0	1886.9	1785.6	1681.1	1608.7	1553.4
40°	1684.4	1780.1	1869.7	1905.0	1919.0	1891.6	1824.7	1725.3	1618.9	1545.5	1489.3
40.5°	1622.1	1715.0	1808.4	1840.9	1854.9	1825.1	1762.4	1664.9	1558.0	1483.2	1423.8
41°	1559.0	1653.7	1745.7	1775.4	1790.8	1757.3	1695.5	1604.0	1495.8	1421.5	1358.7
41.5°	1496.7	1590.1	1681.6	1710.4	1729.0	1690.4	1630.0	1544.1	1433.5	1362.5	1294.6
42°	1434.0	1526.0	1615.6	1671.8	1665.8	1623.1	1563.6	1480.4	1370.8	1300.7	1231.5
42.5°	1371.3	1462.3	1549.7	1601.2	1604.9	1556.2	1498.1	1417.7	1312.8	1240.8	1170.6
43°	1307.6	1398.2	1483.7	1529.2	1543.2	1490.2	1433.1	1353.6	1252.8	1181.3	1112.1
43.5°	1245.4	1336.4	1418.2	1457.7	1477.7	1425.6	1368.0	1291.4	1196.6	1122.8	1054.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1066.1	1151.1	1219.8	1257.9	1285.8	1234.3	1174.8	1105.1	1025.2	951.8	891.4
45.5°	1009.4	1089.3	1154.8	1196.2	1222.6	1170.1	1111.6	1047.0	969.0	897.5	840.3
46°	950.9	1029.4	1090.2	1134.4	1161.8	1108.8	1050.3	987.1	914.2	843.6	790.6
46.5°	893.3	969.9	1026.1	1073.1	1102.8	1048.4	988.5	929.1	858.4	793.9	742.8
47°	837.1	910.9	964.8	1011.3	1043.8	989.4	929.1	870.1	804.6	742.3	695.9
47.5°	782.3	852.9	905.8	951.4	985.3	931.8	871.0	814.3	752.5	694.9	651.7
48°	728.8	796.7	847.8	892.4	927.7	877.5	814.8	758.1	702.4	648.5	609.5
48.5°	677.7	742.3	790.6	835.2	871.0	825.0	760.9	704.7	653.1	605.3	569.5
49°	627.6	688.9	736.7	779.0	814.8	772.5	707.9	652.2	603.9	562.1	531.0
49.5°	579.3	636.9	683.8	724.7	759.0	721.9	659.2	602.5	556.5	521.2	492.9
50°	533.7	585.3	632.7	669.8	706.5	671.2	610.9	555.1	510.5	482.6	458.0
50.5°	488.7	535.1	582.5	617.8	655.0	623.4	565.3	510.1	467.3	448.7	426.0
51°	446.4	488.7	536.1	567.7	604.8	576.5	522.1	467.8	429.7	415.3	393.9
51.5°	404.6	444.6	490.5	520.3	557.9	531.9	480.8	432.0	392.5	381.4	362.3
52°	365.6	403.2	447.8	475.2	512.4	488.2	446.4	396.2	354.9	347.9	330.3
52.5°	328.4	363.3	406.0	431.1	468.2	451.1	411.6	360.0	317.7	314.5	300.5
53°	294.0	327.0	367.4	389.7	428.8	413.4	376.7	324.2	288.5	285.7	274.1
53.5°	261.5	293.6	329.8	351.2	389.3	376.3	341.9	294.0	262.0	259.7	248.1
54°	232.7	262.5	295.9	315.9	349.3	338.6	307.1	266.6	238.3	235.1	224.4
54.5°	206.3	233.2	262.5	282.4	310.3	301.5	278.7	241.6	216.9	211.4	200.2
55°	182.1	207.2	232.7	252.2	276.9	272.7	251.8	219.3	197.0	190.0	178.4
55.5°	158.9	181.6	204.4	223.9	246.7	242.9	226.2	197.0	177.4	168.6	157.0
56°	140.8	158.4	179.3	197.4	218.8	216.9	201.6	177.0	158.9	149.1	137.5
56.5°	122.2	139.8	157.5	172.3	193.2	191.8	178.4	157.9	141.2	130.5	118.9
57°	104.1	121.7	138.4	152.4	169.6	168.6	157.0	139.4	124.0	113.3	102.2
57.5°	85.9	103.1	118.9	132.9	146.8	146.3	136.6	121.7	108.2	97.6	86.4
58°	68.8	84.5	99.9	112.9	126.4	125.9	118.0	105.4	92.9	81.3	69.2
58.5°	52.0	66.4	80.8	93.4	107.8	107.3	100.8	89.7	76.6	69.2	59.0
59°	38.1	50.2	62.7	73.9	89.7	90.6	83.6	72.5	65.0	57.1	48.3
59.5°	27.9	36.7	46.0	55.3	75.7	78.0	70.6	61.3	53.4	44.6	38.1
60°	20.9	26.5	33.4	40.4	61.8	65.5	58.1	50.2	41.3	32.5	27.9
60.5°	15.3	20.0	24.2	28.8	47.8	53.0	45.1	39.0	29.7	20.4	17.2
61°	13.0	17.2	18.1	21.4	33.9	40.4	32.1	27.9	18.6	15.8	13.5
61.5°	10.7	14.4	15.3	15.8	20.0	27.9	19.5	16.7	13.9	12.5	10.7
62°	8.4	11.6	12.5	13.5	14.9	15.3	14.9	12.5	10.7	9.8	8.8
62.5°	6.0	8.8	9.8	11.1	11.6	11.6	11.1	10.2	8.4	7.9	7.0
63°	5.1	6.5	7.4	8.8	9.3	9.3	8.8	7.9	7.0	6.5	6.0
63.5°	4.2	5.1	6.0	6.5	7.4	7.4	7.0	6.5	5.6	5.6	5.1
64°	3.3	4.2	5.1	5.6	6.0	6.0	6.0	5.6	4.6	4.6	4.2
64.5°	2.8	3.7	4.2	4.6	5.1	5.1	4.6	4.6	3.7	3.7	3.7
65°	2.3	3.3	3.7	3.7	4.2	4.2	4.2	3.7	3.3	3.3	3.3
65.5°	2.3	2.8	2.8	3.3	3.7	3.3	3.3	3.3	2.8	2.8	2.8
66°	1.9	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.3	2.3	2.3



TEST NUMBER: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4
68°	0.9	1.4	1.4	1.4	1.9	1.4	1.9	1.4	1.4	1.4	1.4
68.5°	0.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
69°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9
69.5°	0.9	0.9	0.9	0.9	1.4	0.9	0.9	0.9	0.9	0.9	0.9
70°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70.5°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
71°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
71.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	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: P776701
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-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: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4238.4	4238.4	4238.4	4238.4	4238.4	4238.4
0.5°	4237.0	4231.8	4234.6	4237.0	4238.4	4237.4
1°	4232.3	4226.3	4229.5	4233.2	4235.6	4236.5
1.5°	4226.3	4219.8	4224.0	4228.1	4233.2	4235.1
2°	4218.8	4211.9	4216.5	4222.6	4228.1	4232.8
2.5°	4210.9	4203.0	4207.7	4216.1	4223.5	4232.8
3°	4201.7	4192.8	4198.9	4207.7	4218.8	4225.8
3.5°	4191.4	4181.7	4188.2	4199.8	4212.3	4221.6
4°	4180.7	4170.1	4177.0	4190.5	4205.8	4216.5
4.5°	4168.7	4156.6	4165.0	4180.3	4197.5	4210.0
5°	4155.2	4142.2	4151.5	4168.7	4188.6	4203.5
5.5°	4140.8	4127.8	4137.1	4156.6	4178.4	4197.5
6°	4125.5	4112.0	4122.7	4144.1	4168.2	4186.8
6.5°	4109.2	4094.3	4106.4	4129.7	4156.6	4177.5
7°	4092.5	4077.6	4089.7	4114.8	4144.5	4166.8
7.5°	4074.4	4058.6	4072.0	4099.9	4131.0	4154.7
8°	4056.3	4038.6	4053.9	4083.2	4116.6	4141.7
8.5°	4036.7	4018.2	4034.4	4065.5	4100.4	4128.3
9°	4017.2	3997.7	4014.0	4047.4	4084.1	4113.4
9.5°	3995.4	3975.9	3993.5	4027.9	4066.5	4097.1
10°	3974.0	3954.1	3971.7	4008.4	4048.4	4080.4
10.5°	3951.3	3929.9	3949.9	3987.5	4029.3	4062.3
11°	3928.0	3905.7	3926.7	3965.2	4009.3	4043.7
11.5°	3904.4	3881.6	3902.5	3942.4	3988.4	4024.2
12°	3879.3	3855.6	3877.9	3919.2	3966.1	4002.4
12.5°	3854.2	3830.0	3852.8	3894.6	3943.4	3981.0
13°	3827.7	3803.1	3826.3	3870.0	3920.6	3959.2
13.5°	3800.8	3775.7	3798.9	3844.0	3896.0	3935.5
14°	3772.4	3747.8	3771.0	3818.4	3871.4	3912.3
14.5°	3743.6	3719.0	3742.7	3791.5	3845.4	3887.2
15°	3713.9	3689.3	3713.4	3763.6	3820.3	3861.6
15.5°	3685.1	3658.2	3683.2	3734.8	3791.9	3835.1
16°	3654.0	3628.0	3653.0	3706.5	3764.5	3808.2
16.5°	3622.9	3595.4	3621.5	3677.7	3736.7	3780.3
17°	3590.3	3563.9	3589.9	3647.5	3707.9	3752.0
17.5°	3558.7	3530.4	3557.4	3615.4	3676.7	3722.3
18°	3526.2	3496.5	3524.8	3583.8	3646.1	3693.0
18.5°	3492.3	3462.1	3491.9	3551.3	3615.0	3662.8
19°	3458.9	3428.7	3457.0	3517.9	3582.4	3631.7
19.5°	3425.0	3393.8	3423.6	3484.9	3549.9	3600.1
20°	3391.1	3357.6	3389.7	3450.0	3516.5	3568.5
20.5°	3357.6	3322.3	3354.8	3414.7	3481.6	3535.5
21°	3321.4	3286.5	3319.5	3379.4	3446.8	3502.5



TEST NUMBER: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3210.4	3177.8	3210.4	3267.5	3337.6	3400.8
23°	3172.3	3140.2	3172.3	3229.4	3300.0	3366.0
23.5°	3134.6	3103.0	3136.0	3191.3	3261.9	3330.7
24°	3095.6	3065.0	3097.0	3152.3	3222.9	3294.0
24.5°	3056.6	3026.9	3059.4	3112.3	3184.8	3256.8
25°	3017.6	2987.4	3019.9	3072.4	3145.8	3219.2
25.5°	2977.6	2948.4	2980.9	3032.4	3105.8	3181.6
26°	2938.6	2908.9	2939.5	2990.2	3066.3	3143.9
26.5°	2897.7	2868.0	2897.7	2949.8	3025.9	3104.0
27°	2855.9	2826.2	2855.5	2905.6	2985.1	3065.0
27.5°	2813.2	2784.4	2811.8	2862.4	2943.2	3024.1
28°	2769.5	2738.4	2765.8	2818.3	2900.5	2983.7
28.5°	2724.0	2692.9	2722.1	2773.7	2857.3	2942.3
29°	2678.5	2645.9	2675.2	2728.6	2813.6	2900.0
29.5°	2632.0	2598.6	2627.4	2681.7	2769.0	2856.8
30°	2583.7	2548.9	2578.6	2635.3	2724.5	2813.2
30.5°	2534.5	2495.9	2529.4	2587.4	2677.5	2768.6
31°	2484.3	2443.0	2477.3	2539.6	2630.6	2723.1
31.5°	2433.2	2389.1	2425.3	2492.2	2583.2	2676.1
32°	2381.6	2333.8	2370.9	2441.1	2535.4	2627.4
32.5°	2327.7	2279.0	2317.1	2392.3	2486.6	2579.5
33°	2272.9	2221.8	2261.8	2342.1	2435.5	2529.4
33.5°	2217.2	2165.6	2206.5	2291.5	2384.9	2477.8
34°	2161.0	2109.4	2151.7	2239.0	2332.4	2423.4
34.5°	2103.4	2052.7	2095.5	2183.7	2279.9	2368.2
35°	2046.7	1997.0	2038.3	2128.5	2224.2	2310.6
35.5°	1989.6	1940.8	1983.5	2071.8	2168.9	2253.0
36°	1931.0	1885.5	1927.8	2014.2	2109.0	2191.2
36.5°	1873.0	1829.3	1871.6	1955.2	2048.1	2129.4
37°	1814.0	1772.2	1814.4	1890.2	1985.4	2065.8
37.5°	1754.5	1713.6	1756.4	1829.3	1924.1	2002.6
38°	1694.6	1656.0	1696.5	1764.7	1857.2	1937.1
38.5°	1632.8	1592.9	1634.2	1702.5	1791.2	1874.8
39°	1572.9	1529.7	1572.0	1666.7	1722.9	1809.8
39.5°	1511.6	1466.0	1509.7	1594.3	1645.8	1747.1
40°	1449.8	1402.9	1447.0	1521.3	1581.7	1684.4
40.5°	1388.5	1342.0	1384.8	1448.9	1517.6	1622.1
41°	1327.6	1283.5	1319.7	1376.4	1454.0	1559.0
41.5°	1269.6	1225.4	1257.0	1312.3	1389.9	1496.7
42°	1208.2	1169.2	1195.7	1247.7	1325.3	1434.0
42.5°	1149.2	1112.1	1136.7	1184.1	1262.1	1371.3
43°	1091.2	1055.9	1078.2	1120.9	1197.6	1307.6
43.5°	1032.2	999.2	1018.2	1059.1	1135.3	1245.4



TEST NUMBER: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	868.2	832.4	845.9	880.3	959.2	1066.1
45.5°	815.7	780.4	789.2	824.5	904.9	1009.4
46°	764.6	729.3	735.3	771.1	851.0	950.9
46.5°	717.2	677.7	682.4	719.6	799.9	893.3
47°	668.0	629.0	632.2	669.4	747.9	837.1
47.5°	622.9	581.1	584.4	622.0	699.6	782.3
48°	579.7	535.1	537.9	576.5	650.3	728.8
48.5°	537.9	490.1	494.7	533.3	603.4	677.7
49°	498.4	448.7	453.4	492.4	557.0	627.6
49.5°	460.8	408.8	414.4	452.9	513.8	579.3
50°	427.4	371.6	379.1	416.2	470.6	533.7
50.5°	394.4	338.2	345.1	380.9	430.6	488.7
51°	360.9	308.0	314.9	348.4	393.0	446.4
51.5°	328.0	280.6	286.6	316.8	357.2	404.6
52°	299.6	256.0	261.1	288.5	323.8	365.6
52.5°	272.2	233.7	236.9	261.5	292.2	328.4
53°	246.2	212.3	215.5	235.5	262.0	294.0
53.5°	223.0	192.8	194.6	210.9	234.1	261.5
54°	200.7	174.2	175.1	188.6	208.6	232.7
54.5°	179.3	157.5	158.4	167.2	184.9	206.3
55°	159.8	141.2	141.7	149.6	161.2	182.1
55.5°	140.3	125.0	125.4	131.9	143.1	158.9
56°	122.6	108.7	108.7	114.3	125.0	140.8
56.5°	106.4	92.4	92.0	97.1	106.8	122.2
57°	91.0	75.7	75.3	79.4	88.7	104.1
57.5°	74.3	59.0	59.0	62.2	71.5	85.9
58°	63.2	45.1	44.6	47.4	54.8	68.8
58.5°	52.0	33.9	33.0	34.8	40.9	52.0
59°	40.9	25.1	24.6	26.0	30.2	38.1
59.5°	29.7	19.0	18.6	19.5	22.3	27.9
60°	18.6	16.3	15.8	16.7	16.7	20.9
60.5°	14.4	13.0	13.0	13.9	14.4	15.3
61°	11.6	10.2	9.8	11.6	11.6	13.0
61.5°	9.3	7.4	7.0	8.8	9.3	10.7
62°	7.4	6.0	6.0	6.0	7.0	8.4
62.5°	6.0	5.1	4.6	5.1	5.6	6.0
63°	5.1	4.2	4.2	4.2	4.6	5.1
63.5°	4.2	3.7	3.3	3.3	3.7	4.2
64°	3.7	3.3	2.8	2.8	3.3	3.3
64.5°	3.3	2.8	2.3	2.3	2.8	2.8
65°	2.8	2.3	1.9	2.3	2.3	2.3
65.5°	2.3	1.9	1.9	1.9	1.9	2.3
66°	1.9	1.9	1.4	1.4	1.9	1.9



TEST NUMBER: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.4	1.4	0.9	0.9	1.4	1.4
68°	1.4	0.9	0.9	0.9	0.9	0.9
68.5°	0.9	0.9	0.9	0.9	0.9	0.9
69°	0.9	0.9	0.9	0.9	0.9	0.9
69.5°	0.9	0.9	0.9	0.9	0.9	0.9
70°	0.9	0.9	0.5	0.5	0.5	0.5
70.5°	0.9	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: P776701

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-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

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

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Scaled Data Report





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

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Scaled Data Report



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Scaled Data Report





21.5°	3468.6	3524.4	3569.9	3580.6	3570.4	3546.2	3495.6	3428.2	3375.3	3338.1	3308.8
22°	3435.2	3490.9	3536.4	3547.6	3538.8	3514.2	3461.7	3394.8	3338.6	3300.9	3270.7



44°	1183.6	1274.2	1352.2	1385.2	1413.1	1362.0	1302.1	1227.3	1137.2	1063.8	998.7
44.5°	1124.2	1212.9	1285.8	1321.6	1349.0	1298.4	1239.4	1166.0	1082.8	1008.5	945.8



66.5°	1.4	1.9	2.3	2.3	2.3	2.3	2.3	2.3	1.9	1.9	1.9
67°	1.4	1.9	1.9	1.9	2.3	2.3	2.3	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°	3284.2	3250.8	3283.3	3342.3	3410.6	3468.6
22°	3247.5	3214.1	3247.0	3305.6	3374.3	3435.2



44°	976.4	942.1	959.7	998.3	1075.8	1183.6
44.5°	922.6	886.3	903.0	938.8	1017.3	1124.2

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66.5°	1.9	1.4	1.4	1.4	1.4	1.4
67°	1.4	1.4	1.4	1.4	1.4	1.4

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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)