

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: P776702

Luminaire Tested: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776702
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-3500K
Description: 6 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

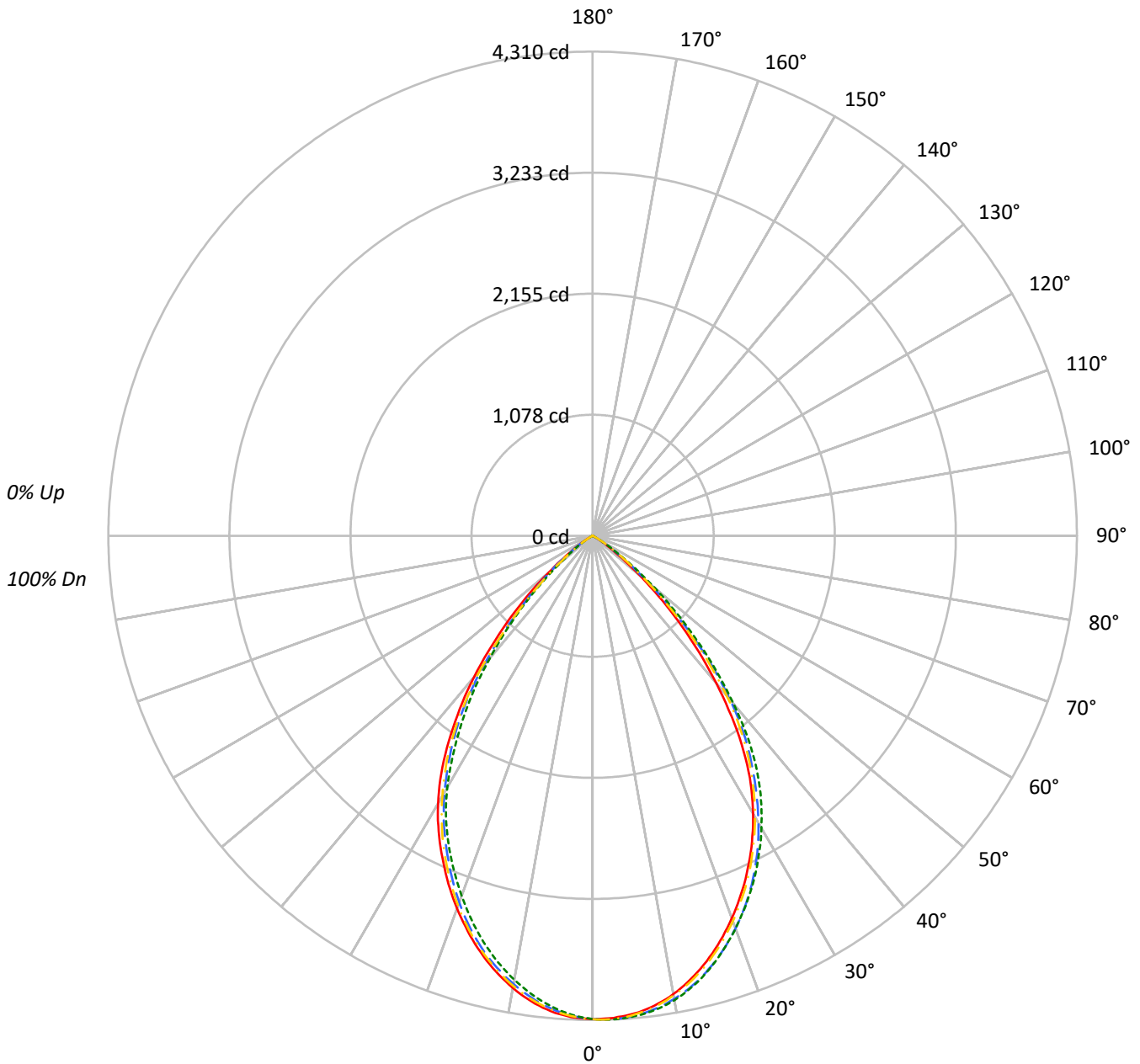
Lumens per Lamp: N/A
Luminaire Lumens: 5411.4 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (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



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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			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°	235891	235891	235891	235891
5°	234844	236269	233782	231416
10°	230601	233646	227529	223459
15°	222504	227027	218032	212572
20°	211354	217025	205876	198864
25°	197685	205107	191358	183452
30°	180794	190194	174166	163804
35°	156988	170560	149192	135680
40°	122379	139418	117620	101927
45°	83908	101204	80691	65518
50°	46216	61175	44203	32178
55°	17672	26866	19115	13706
60°	2324	6874	4605	1809
65°	311	545	428	311
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: 101204 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.7	7.4
10°-20°	1089.0	20.1
20°-30°	1473.1	27.2
30°-40°	1414.3	26.1
40°-50°	823.7	15.2
50°-60°	202.7	3.7
60°-70°	6.5	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°	2963.9	54.8
0°-40°	4378.2	80.9
0°-60°	5404.6	99.9
0°-90°	5411.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5411.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4303	4303	4303	4303	4303	
5°	4268	4294	4248	4205	4268	403
15°	3920	4000	3842	3746	3920	1100
25°	3268	3391	3164	3033	3268	1497
35°	2346	2549	2229	2027	2346	1444
45°	1082	1305	1041	845	1082	836
55°	185	281	200	143	185	191
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°	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0
0.5°	4302.0	4302.5	4305.8	4308.6	4304.4	4306.3	4307.2	4305.3	4301.1	4299.2	4299.7
1°	4301.1	4303.0	4307.7	4311.0	4307.2	4308.1	4308.1	4304.8	4299.2	4295.4	4295.9
1.5°	4299.7	4303.0	4308.1	4312.4	4308.6	4309.6	4307.7	4303.4	4297.3	4291.6	4290.7
2°	4297.3	4302.5	4308.1	4312.4	4309.6	4309.6	4307.2	4301.1	4292.6	4286.9	4284.6
2.5°	4297.3	4300.6	4306.7	4311.4	4308.6	4308.1	4304.8	4297.8	4288.8	4280.8	4277.0
3°	4290.2	4297.8	4305.3	4310.0	4307.7	4306.7	4301.5	4292.6	4282.2	4273.7	4268.5
3.5°	4286.0	4294.5	4302.5	4307.7	4305.3	4303.0	4297.3	4287.4	4275.6	4265.7	4260.5
4°	4280.8	4290.7	4298.7	4304.4	4302.0	4299.7	4292.6	4280.3	4268.1	4257.2	4249.2
4.5°	4274.2	4286.0	4294.0	4300.1	4298.2	4294.9	4286.0	4272.8	4259.6	4246.4	4238.3
5°	4267.6	4279.9	4288.8	4295.4	4293.5	4289.3	4278.9	4264.3	4248.3	4235.0	4226.1
5.5°	4261.5	4272.8	4283.2	4289.3	4288.3	4283.2	4270.4	4254.4	4236.5	4222.8	4212.4
6°	4250.6	4264.8	4276.1	4282.7	4282.2	4275.6	4261.0	4242.6	4224.2	4209.6	4198.3
6.5°	4241.2	4256.7	4268.1	4275.6	4274.7	4267.1	4252.0	4229.9	4210.5	4195.4	4182.2
7°	4230.3	4246.8	4258.6	4267.6	4266.6	4258.6	4240.2	4217.1	4196.4	4179.9	4167.1
7.5°	4218.1	4236.0	4248.7	4257.7	4257.2	4248.7	4228.4	4202.0	4179.9	4162.9	4149.2
8°	4204.9	4224.2	4238.3	4246.8	4247.3	4238.3	4215.7	4186.9	4163.4	4145.4	4131.8
8.5°	4191.2	4211.5	4226.6	4235.5	4236.5	4226.1	4201.6	4170.9	4145.9	4127.5	4112.4
9°	4176.1	4197.3	4214.3	4223.3	4224.2	4213.4	4187.4	4153.9	4127.0	4108.7	4094.0
9.5°	4159.6	4183.2	4200.1	4210.1	4211.5	4200.1	4170.9	4135.5	4108.7	4088.4	4073.3
10°	4142.6	4167.6	4186.5	4195.9	4197.3	4185.1	4154.4	4117.1	4087.4	4068.1	4052.1
10.5°	4124.2	4150.6	4170.9	4180.8	4181.8	4169.5	4137.0	4096.9	4066.7	4046.9	4030.4
11°	4105.4	4133.7	4155.8	4164.8	4165.7	4152.0	4118.6	4076.6	4044.5	4024.7	4008.2
11.5°	4085.5	4115.3	4137.9	4147.3	4148.3	4134.6	4099.7	4055.4	4020.9	4002.1	3985.1
12°	4063.4	4095.9	4120.9	4128.9	4129.9	4115.3	4078.9	4033.2	3997.8	3978.5	3961.0
12.5°	4041.7	4075.6	4101.1	4110.5	4110.5	4095.5	4057.7	4010.6	3973.8	3954.0	3937.0
13°	4019.5	4055.4	4082.2	4091.7	4091.7	4075.2	4037.0	3987.5	3949.3	3929.0	3912.0
13.5°	3995.5	4032.7	4061.5	4070.0	4069.0	4052.5	4013.4	3962.9	3922.8	3903.5	3886.1
14°	3971.9	4010.6	4039.8	4048.8	4046.9	4030.4	3990.3	3937.9	3896.9	3876.6	3859.2
14.5°	3946.4	3986.5	4017.2	4026.6	4022.8	4005.8	3966.2	3911.5	3870.0	3848.3	3831.8
15°	3920.5	3962.9	3993.6	4003.5	4000.2	3981.8	3940.3	3885.1	3841.7	3819.6	3803.5
15.5°	3893.6	3937.5	3969.5	3980.4	3974.7	3956.8	3913.9	3857.8	3813.0	3791.7	3774.3
16°	3866.2	3911.1	3944.5	3954.4	3949.7	3930.9	3887.9	3829.9	3784.2	3762.0	3743.6
16.5°	3838.0	3884.6	3918.1	3929.0	3923.3	3903.5	3860.1	3801.2	3754.5	3730.9	3712.5
17°	3809.2	3857.3	3892.2	3903.0	3895.5	3876.2	3832.3	3771.9	3723.4	3698.8	3680.9
17.5°	3779.0	3829.5	3864.8	3876.6	3868.1	3847.9	3803.1	3740.8	3692.7	3666.8	3647.4
18°	3749.3	3800.2	3837.0	3848.3	3838.9	3819.1	3774.3	3710.6	3659.7	3633.7	3613.5
18.5°	3718.6	3770.5	3807.8	3820.0	3809.7	3789.8	3743.6	3678.5	3627.6	3599.8	3580.0
19°	3687.0	3740.3	3779.5	3791.3	3780.4	3760.1	3712.5	3646.5	3595.1	3566.8	3543.7
19.5°	3655.0	3709.2	3748.8	3761.6	3750.7	3729.0	3680.9	3613.5	3563.0	3530.9	3507.4
20°	3622.9	3678.1	3719.1	3731.4	3720.1	3696.9	3649.8	3581.4	3529.0	3495.6	3471.0
20.5°	3589.4	3645.1	3688.0	3698.8	3687.5	3665.8	3616.8	3547.4	3494.6	3459.7	3434.7
21°	3555.9	3612.1	3656.4	3667.7	3655.9	3633.3	3582.8	3514.0	3460.7	3424.4	3398.4



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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°	3452.6	3509.2	3556.9	3567.7	3561.6	3531.9	3480.0	3413.0	3353.1	3313.1	3280.0
23°	3417.3	3473.4	3522.0	3533.3	3528.1	3496.0	3446.0	3376.7	3314.9	3274.4	3240.4
23.5°	3381.4	3436.6	3486.6	3497.9	3494.6	3460.2	3411.6	3340.4	3277.7	3234.8	3199.4
24°	3344.2	3400.3	3449.3	3461.6	3461.1	3424.4	3374.8	3303.6	3239.5	3195.6	3158.8
24.5°	3306.5	3363.0	3412.6	3425.3	3427.7	3394.2	3336.6	3266.4	3202.7	3156.0	3117.3
25°	3268.2	3325.3	3374.8	3388.0	3390.9	3356.9	3298.0	3229.1	3163.6	3116.4	3077.2
25.5°	3230.0	3285.2	3336.6	3349.4	3354.1	3318.7	3259.3	3190.4	3124.9	3075.8	3035.7
26°	3191.8	3247.0	3297.0	3311.6	3317.8	3281.5	3220.1	3152.7	3086.2	3035.7	2994.7
26.5°	3151.3	3207.9	3256.5	3272.5	3281.0	3241.8	3179.6	3113.6	3047.1	2995.2	2952.7
27°	3111.7	3166.4	3216.4	3232.9	3243.7	3203.6	3140.0	3074.9	3006.0	2954.6	2911.2
27.5°	3070.2	3124.4	3174.4	3192.8	3204.6	3163.6	3099.9	3035.3	2966.9	2913.1	2868.3
28°	3029.1	3082.4	3131.0	3151.3	3165.4	3123.9	3059.3	2994.7	2925.9	2869.3	2824.0
28.5°	2987.2	3040.0	3087.6	3109.8	3126.8	3083.4	3018.3	2954.6	2884.8	2824.9	2778.2
29°	2944.3	2996.6	3043.3	3067.3	3087.2	3042.8	2975.9	2912.7	2841.9	2781.1	2732.5
29.5°	2900.4	2951.3	2997.5	3024.4	3045.7	3002.3	2933.4	2868.8	2797.1	2735.3	2683.9
30°	2856.1	2905.6	2951.8	2980.6	3004.6	2960.8	2890.0	2824.9	2751.4	2689.1	2635.8
30.5°	2810.8	2859.4	2905.6	2934.4	2962.6	2917.8	2846.2	2779.2	2706.1	2640.5	2586.8
31°	2764.6	2812.2	2856.5	2890.0	2921.6	2874.9	2800.9	2733.4	2657.5	2592.0	2536.8
31.5°	2716.9	2764.1	2809.8	2843.3	2877.3	2831.5	2755.1	2686.3	2608.0	2542.9	2486.3
32°	2667.4	2714.1	2760.3	2795.7	2833.4	2787.2	2709.4	2638.2	2557.1	2492.5	2434.4
32.5°	2618.8	2666.5	2711.3	2747.1	2789.1	2741.5	2662.2	2589.1	2505.7	2441.0	2383.5
33°	2567.9	2616.0	2662.7	2699.5	2743.8	2695.2	2614.6	2537.7	2452.8	2387.8	2332.6
33.5°	2515.6	2565.6	2615.1	2650.9	2696.2	2648.6	2566.5	2485.9	2398.6	2334.5	2281.2
34°	2460.4	2513.7	2564.6	2601.9	2649.5	2600.5	2517.4	2433.5	2343.9	2281.6	2228.8
34.5°	2404.3	2462.7	2514.1	2552.3	2598.6	2550.0	2468.9	2379.7	2285.9	2225.1	2175.1
35°	2345.8	2409.4	2462.7	2500.5	2548.6	2500.0	2418.9	2324.6	2229.3	2168.5	2121.8
35.5°	2287.3	2356.2	2413.7	2449.1	2495.8	2449.5	2368.9	2269.9	2173.2	2112.3	2067.1
36°	2224.6	2302.4	2359.9	2397.7	2442.9	2398.1	2317.5	2214.7	2116.6	2055.3	2010.5
36.5°	2161.9	2245.3	2309.5	2346.3	2386.3	2344.8	2264.2	2158.6	2059.0	1997.3	1952.0
37°	2097.2	2187.3	2255.7	2292.0	2328.8	2289.7	2209.5	2102.9	1999.6	1938.8	1890.7
37.5°	2033.1	2127.0	2200.5	2236.4	2269.4	2233.1	2154.3	2045.4	1943.5	1879.4	1830.8
38°	1966.6	2065.2	2143.0	2176.5	2208.1	2173.6	2096.8	1988.3	1884.5	1818.5	1767.6
38.5°	1903.4	2003.4	2085.5	2120.4	2143.5	2113.8	2038.3	1930.8	1826.1	1757.2	1704.9
39°	1837.4	1939.3	2024.6	2059.0	2079.8	2052.0	1977.5	1872.8	1766.2	1695.4	1642.1
39.5°	1773.7	1875.1	1962.8	1997.7	2014.2	1987.8	1915.7	1812.9	1706.8	1633.2	1577.1
40°	1710.1	1807.2	1898.2	1934.1	1948.2	1920.4	1852.5	1751.6	1643.6	1569.0	1512.0
40.5°	1646.9	1741.2	1836.0	1869.0	1883.1	1853.0	1789.3	1690.2	1581.8	1505.8	1445.5
41°	1582.7	1678.9	1772.3	1802.5	1818.1	1784.1	1721.4	1628.5	1518.6	1443.1	1379.5
41.5°	1519.5	1614.3	1707.2	1736.5	1755.3	1716.2	1654.9	1567.6	1455.4	1383.2	1314.4
42°	1455.9	1549.2	1640.3	1697.3	1691.2	1647.8	1587.4	1503.0	1391.7	1320.5	1250.2
42.5°	1392.2	1484.6	1573.3	1625.6	1629.4	1579.9	1520.9	1439.4	1332.8	1259.7	1188.5
43°	1327.6	1419.5	1506.3	1552.5	1566.7	1512.9	1454.9	1374.3	1271.9	1199.3	1129.0
43.5°	1264.4	1356.8	1439.8	1479.9	1500.2	1447.4	1388.9	1311.1	1214.9	1139.9	1070.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1082.3	1168.6	1238.4	1277.1	1305.4	1253.1	1192.7	1122.0	1040.8	966.3	905.0
45.5°	1024.8	1105.9	1172.4	1214.4	1241.3	1188.0	1128.6	1063.0	983.8	911.1	853.1
46°	965.4	1045.1	1106.9	1151.7	1179.5	1125.7	1066.3	1002.2	928.1	856.4	802.7
46.5°	906.9	984.7	1041.8	1089.4	1119.6	1064.4	1003.6	943.2	871.5	806.0	754.1
47°	849.8	924.8	979.5	1026.7	1059.7	1004.5	943.2	883.3	816.8	753.6	706.5
47.5°	794.2	865.9	919.6	965.9	1000.3	946.0	884.3	826.7	764.0	705.5	661.7
48°	740.0	808.8	860.7	906.0	941.8	890.9	827.2	769.7	713.1	658.4	618.8
48.5°	688.1	753.6	802.7	848.0	884.3	837.6	772.5	715.4	663.1	614.5	578.2
49°	637.1	699.4	748.0	790.9	827.2	784.3	718.7	662.1	613.1	570.6	539.0
49.5°	588.1	646.6	694.2	735.7	770.6	732.9	669.2	611.7	565.0	529.1	500.4
50°	541.9	594.2	642.3	680.1	717.3	681.5	620.2	563.6	518.3	490.0	465.0
50.5°	496.1	543.3	591.4	627.2	665.0	632.9	573.9	517.8	474.4	455.6	432.5
51°	453.2	496.1	544.2	576.3	614.0	585.3	530.1	474.9	436.2	421.6	399.9
51.5°	410.8	451.3	498.0	528.2	566.4	540.0	488.1	438.6	398.5	387.2	367.9
52°	371.2	409.4	454.6	482.5	520.2	495.7	453.2	402.3	360.3	353.2	335.3
52.5°	333.4	368.8	412.2	437.7	475.4	457.9	417.8	365.5	322.6	319.3	305.1
53°	298.5	332.0	373.0	395.7	435.3	419.7	382.5	329.2	292.9	290.0	278.2
53.5°	265.5	298.1	334.8	356.5	395.2	382.0	347.1	298.5	266.0	263.6	251.8
54°	236.3	266.5	300.4	320.7	354.6	343.8	311.7	270.7	241.9	238.6	227.8
54.5°	209.4	236.7	266.5	286.7	315.0	306.1	283.0	245.2	220.2	214.6	203.3
55°	184.9	210.3	236.3	256.1	281.1	276.8	255.6	222.6	200.0	192.9	181.1
55.5°	161.3	184.4	207.5	227.3	250.4	246.7	229.7	200.0	180.2	171.2	159.4
56°	142.9	160.8	182.0	200.4	222.1	220.2	204.7	179.7	161.3	151.4	139.6
56.5°	124.0	142.0	159.9	175.0	196.2	194.8	181.1	160.3	143.4	132.5	120.7
57°	105.6	123.6	140.5	154.7	172.1	171.2	159.4	141.5	125.9	115.1	103.8
57.5°	87.2	104.7	120.7	134.9	149.0	148.6	138.7	123.6	109.9	99.0	87.7
58°	69.8	85.8	101.4	114.6	128.3	127.8	119.8	107.1	94.3	82.5	70.3
58.5°	52.8	67.4	82.1	94.8	109.4	108.9	102.3	91.0	77.8	70.3	59.9
59°	38.7	50.9	63.7	75.0	91.0	92.0	84.9	73.6	66.0	58.0	49.0
59.5°	28.3	37.3	46.7	56.1	76.9	79.2	71.7	62.3	54.2	45.3	38.7
60°	21.2	26.9	34.0	41.0	62.7	66.5	59.0	50.9	42.0	33.0	28.3
60.5°	15.6	20.3	24.5	29.2	48.6	53.8	45.7	39.6	30.2	20.8	17.4
61°	13.2	17.4	18.4	21.7	34.4	41.0	32.5	28.3	18.9	16.0	13.7
61.5°	10.8	14.6	15.6	16.0	20.3	28.3	19.8	17.0	14.1	12.7	10.8
62°	8.5	11.8	12.7	13.7	15.1	15.6	15.1	12.7	10.8	9.9	9.0
62.5°	6.1	9.0	9.9	11.3	11.8	11.8	11.3	10.4	8.5	8.0	7.1
63°	5.2	6.6	7.5	9.0	9.4	9.4	9.0	8.0	7.1	6.6	6.1
63.5°	4.2	5.2	6.1	6.6	7.5	7.5	7.1	6.6	5.7	5.7	5.2
64°	3.3	4.2	5.2	5.7	6.1	6.1	6.1	5.7	4.7	4.7	4.2
64.5°	2.8	3.8	4.2	4.7	5.2	5.2	4.7	4.7	3.8	3.8	3.8
65°	2.4	3.3	3.8	3.8	4.2	4.2	4.2	3.8	3.3	3.3	3.3
65.5°	2.4	2.8	2.8	3.3	3.8	3.3	3.3	3.3	2.8	2.8	2.8
66°	1.9	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.4	2.4	2.4



TEST NUMBER: P776702

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

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: P776702
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-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: P776702

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4303.0	4303.0	4303.0	4303.0	4303.0	4303.0
0.5°	4301.5	4296.4	4299.2	4301.5	4303.0	4302.0
1°	4296.8	4290.7	4294.0	4297.8	4300.1	4301.1
1.5°	4290.7	4284.1	4288.3	4292.6	4297.8	4299.7
2°	4283.2	4276.1	4280.8	4286.9	4292.6	4297.3
2.5°	4275.1	4267.1	4271.8	4280.3	4287.9	4297.3
3°	4265.7	4256.7	4262.9	4271.8	4283.2	4290.2
3.5°	4255.3	4245.4	4252.0	4263.8	4276.5	4286.0
4°	4244.5	4233.6	4240.7	4254.4	4269.9	4280.8
4.5°	4232.2	4220.0	4228.4	4244.0	4261.5	4274.2
5°	4218.5	4205.3	4214.8	4232.2	4252.5	4267.6
5.5°	4203.9	4190.7	4200.1	4220.0	4242.1	4261.5
6°	4188.4	4174.7	4185.5	4207.2	4231.7	4250.6
6.5°	4171.9	4156.8	4169.0	4192.6	4220.0	4241.2
7°	4154.9	4139.8	4152.0	4177.5	4207.7	4230.3
7.5°	4136.5	4120.4	4134.1	4162.4	4194.0	4218.1
8°	4118.1	4100.2	4115.7	4145.4	4179.4	4204.9
8.5°	4098.3	4079.4	4095.9	4127.5	4162.9	4191.2
9°	4078.5	4058.7	4075.2	4109.1	4146.4	4176.1
9.5°	4056.3	4036.5	4054.4	4089.3	4128.5	4159.6
10°	4034.6	4014.3	4032.3	4069.5	4110.1	4142.6
10.5°	4011.5	3989.8	4010.1	4048.3	4090.7	4124.2
11°	3987.9	3965.3	3986.5	4025.7	4070.5	4105.4
11.5°	3963.9	3940.8	3962.0	4002.5	4049.2	4085.5
12°	3938.4	3914.4	3937.0	3979.0	4026.6	4063.4
12.5°	3912.9	3888.4	3911.5	3954.0	4003.5	4041.7
13°	3886.1	3861.1	3884.6	3929.0	3980.4	4019.5
13.5°	3858.7	3833.2	3856.8	3902.6	3955.4	3995.5
14°	3829.9	3804.9	3828.5	3876.6	3930.4	3971.9
14.5°	3800.7	3775.7	3799.8	3849.3	3904.0	3946.4
15°	3770.5	3745.5	3770.0	3821.0	3878.5	3920.5
15.5°	3741.3	3713.9	3739.4	3791.7	3849.7	3893.6
16°	3709.7	3683.3	3708.7	3763.0	3821.9	3866.2
16.5°	3678.1	3650.3	3676.7	3733.7	3793.6	3838.0
17°	3645.1	3618.2	3644.6	3703.1	3764.4	3809.2
17.5°	3613.0	3584.2	3611.6	3670.5	3732.8	3779.0
18°	3580.0	3549.8	3578.6	3638.5	3701.7	3749.3
18.5°	3545.6	3514.9	3545.1	3605.5	3670.1	3718.6
19°	3511.6	3480.9	3509.7	3571.5	3637.0	3687.0
19.5°	3477.2	3445.6	3475.8	3538.0	3604.0	3655.0
20°	3442.7	3408.8	3441.3	3502.6	3570.1	3622.9
20.5°	3408.8	3372.9	3406.0	3466.8	3534.7	3589.4
21°	3372.0	3336.6	3370.1	3431.0	3499.3	3555.9



TEST NUMBER: P776702

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3259.3	3226.3	3259.3	3317.3	3388.5	3452.6
23°	3220.6	3188.1	3220.6	3278.6	3350.3	3417.3
23.5°	3182.4	3150.3	3183.8	3240.0	3311.6	3381.4
24°	3142.8	3111.7	3144.2	3200.3	3272.0	3344.2
24.5°	3103.2	3073.0	3106.0	3159.8	3233.4	3306.5
25°	3063.6	3032.9	3065.9	3119.2	3193.7	3268.2
25.5°	3023.0	2993.3	3026.3	3078.7	3153.2	3230.0
26°	2983.4	2953.2	2984.3	3035.7	3113.1	3191.8
26.5°	2941.9	2911.7	2941.9	2994.7	3072.1	3151.3
27°	2899.5	2869.3	2899.0	2949.9	3030.6	3111.7
27.5°	2856.1	2826.8	2854.6	2906.1	2988.1	3070.2
28°	2811.7	2780.1	2808.0	2861.3	2944.7	3029.1
28.5°	2765.5	2733.9	2763.6	2816.0	2900.9	2987.2
29°	2719.3	2686.3	2716.0	2770.2	2856.5	2944.3
29.5°	2672.1	2638.2	2667.4	2722.6	2811.3	2900.4
30°	2623.1	2587.7	2617.9	2675.4	2766.0	2856.1
30.5°	2573.1	2534.0	2567.9	2626.9	2718.4	2810.8
31°	2522.2	2480.2	2515.1	2578.3	2670.7	2764.6
31.5°	2470.3	2425.5	2462.3	2530.2	2622.6	2716.9
32°	2417.9	2369.4	2407.1	2478.3	2574.0	2667.4
32.5°	2363.2	2313.7	2352.4	2428.8	2524.5	2618.8
33°	2307.6	2255.7	2296.3	2377.9	2472.6	2567.9
33.5°	2251.0	2198.6	2240.1	2326.4	2421.2	2515.6
34°	2193.9	2141.6	2184.5	2273.2	2367.9	2460.4
34.5°	2135.4	2084.0	2127.4	2217.0	2314.7	2404.3
35°	2077.9	2027.4	2069.4	2160.9	2258.1	2345.8
35.5°	2019.9	1970.4	2013.8	2103.4	2201.9	2287.3
36°	1960.5	1914.3	1957.2	2044.9	2141.1	2224.6
36.5°	1901.5	1857.2	1900.1	1985.0	2079.3	2161.9
37°	1841.6	1799.2	1842.1	1919.0	2015.7	2097.2
37.5°	1781.3	1739.8	1783.2	1857.2	1953.4	2033.1
38°	1720.4	1681.3	1722.3	1791.6	1885.5	1966.6
38.5°	1657.7	1617.1	1659.1	1728.4	1818.5	1903.4
39°	1596.9	1553.0	1595.9	1692.1	1749.2	1837.4
39.5°	1534.6	1488.4	1532.7	1618.6	1670.9	1773.7
40°	1471.9	1424.3	1469.1	1544.5	1605.8	1710.1
40.5°	1409.6	1362.5	1405.9	1470.9	1540.7	1646.9
41°	1347.9	1303.1	1339.8	1397.4	1476.1	1582.7
41.5°	1288.9	1244.1	1276.2	1332.3	1411.1	1519.5
42°	1226.7	1187.0	1213.9	1266.7	1345.5	1455.9
42.5°	1166.8	1129.0	1154.0	1202.1	1281.4	1392.2
43°	1107.8	1072.0	1094.6	1138.0	1215.8	1327.6
43.5°	1047.9	1014.4	1033.8	1075.3	1152.6	1264.4



TEST NUMBER: P776702

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	881.4	845.1	858.8	893.7	973.9	1082.3
45.5°	828.1	792.3	801.3	837.1	918.7	1024.8
46°	776.3	740.4	746.6	782.9	864.0	965.4
46.5°	728.2	688.1	692.8	730.5	812.1	906.9
47°	678.2	638.6	641.9	679.6	759.3	849.8
47.5°	632.4	590.0	593.3	631.5	710.2	794.2
48°	588.6	543.3	546.1	585.3	660.3	740.0
48.5°	546.1	497.5	502.3	541.4	612.6	688.1
49°	506.0	455.6	460.3	499.9	565.5	637.1
49.5°	467.8	415.0	420.7	459.8	521.6	588.1
50°	433.9	377.3	384.8	422.6	477.7	541.9
50.5°	400.4	343.3	350.4	386.7	437.2	496.1
51°	366.4	312.7	319.8	353.7	399.0	453.2
51.5°	333.0	284.9	291.0	321.6	362.7	410.8
52°	304.2	259.9	265.0	292.9	328.7	371.2
52.5°	276.4	237.2	240.5	265.5	296.6	333.4
53°	250.0	215.5	218.8	239.1	266.0	298.5
53.5°	226.4	195.7	197.6	214.1	237.7	265.5
54°	203.7	176.9	177.8	191.5	211.8	236.3
54.5°	182.0	159.9	160.8	169.8	187.7	209.4
55°	162.2	143.4	143.8	151.9	163.6	184.9
55.5°	142.4	126.9	127.3	133.9	145.3	161.3
56°	124.5	110.4	110.4	116.0	126.9	142.9
56.5°	108.0	93.9	93.4	98.6	108.5	124.0
57°	92.4	76.9	76.4	80.6	90.1	105.6
57.5°	75.5	59.9	59.9	63.2	72.6	87.2
58°	64.1	45.7	45.3	48.1	55.6	69.8
58.5°	52.8	34.4	33.5	35.4	41.5	52.8
59°	41.5	25.5	25.0	26.4	30.7	38.7
59.5°	30.2	19.3	18.9	19.8	22.6	28.3
60°	18.9	16.5	16.0	17.0	17.0	21.2
60.5°	14.6	13.2	13.2	14.1	14.6	15.6
61°	11.8	10.4	9.9	11.8	11.8	13.2
61.5°	9.4	7.5	7.1	9.0	9.4	10.8
62°	7.5	6.1	6.1	6.1	7.1	8.5
62.5°	6.1	5.2	4.7	5.2	5.7	6.1
63°	5.2	4.2	4.2	4.2	4.7	5.2
63.5°	4.2	3.8	3.3	3.3	3.8	4.2
64°	3.8	3.3	2.8	2.8	3.3	3.3
64.5°	3.3	2.8	2.4	2.4	2.8	2.8
65°	2.8	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	1.4	1.4	1.9	1.9



TEST NUMBER: P776702
 CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-5000lm-3500K

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: P776702
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRH-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

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Peachtree City, GA 30269

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°	3521.5	3578.1	3624.3	3635.2	3624.8	3600.3	3548.9	3480.5	3426.7	3389.0	3359.3
22°	3487.5	3544.1	3590.4	3601.7	3592.7	3567.7	3514.4	3446.5	3389.5	3351.3	3320.6



44°	1201.7	1293.6	1372.9	1406.3	1434.6	1382.8	1321.9	1246.0	1154.5	1080.0	1014.0
44.5°	1141.3	1231.4	1305.4	1341.7	1369.6	1318.1	1258.3	1183.7	1099.3	1023.9	960.2



66.5°	1.4	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
67°	1.4	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°	3334.3	3300.3	3333.3	3393.2	3462.6	3521.5
22°	3297.0	3263.1	3296.5	3356.0	3425.8	3487.5



44°	991.3	956.4	974.3	1013.5	1092.2	1201.7
44.5°	936.6	899.8	916.8	953.1	1032.8	1141.3

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Scaled Data Report



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)