

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: P776696

Luminaire Tested: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776696
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-HCD6TRC-5000lm-3000K
Description: 6 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

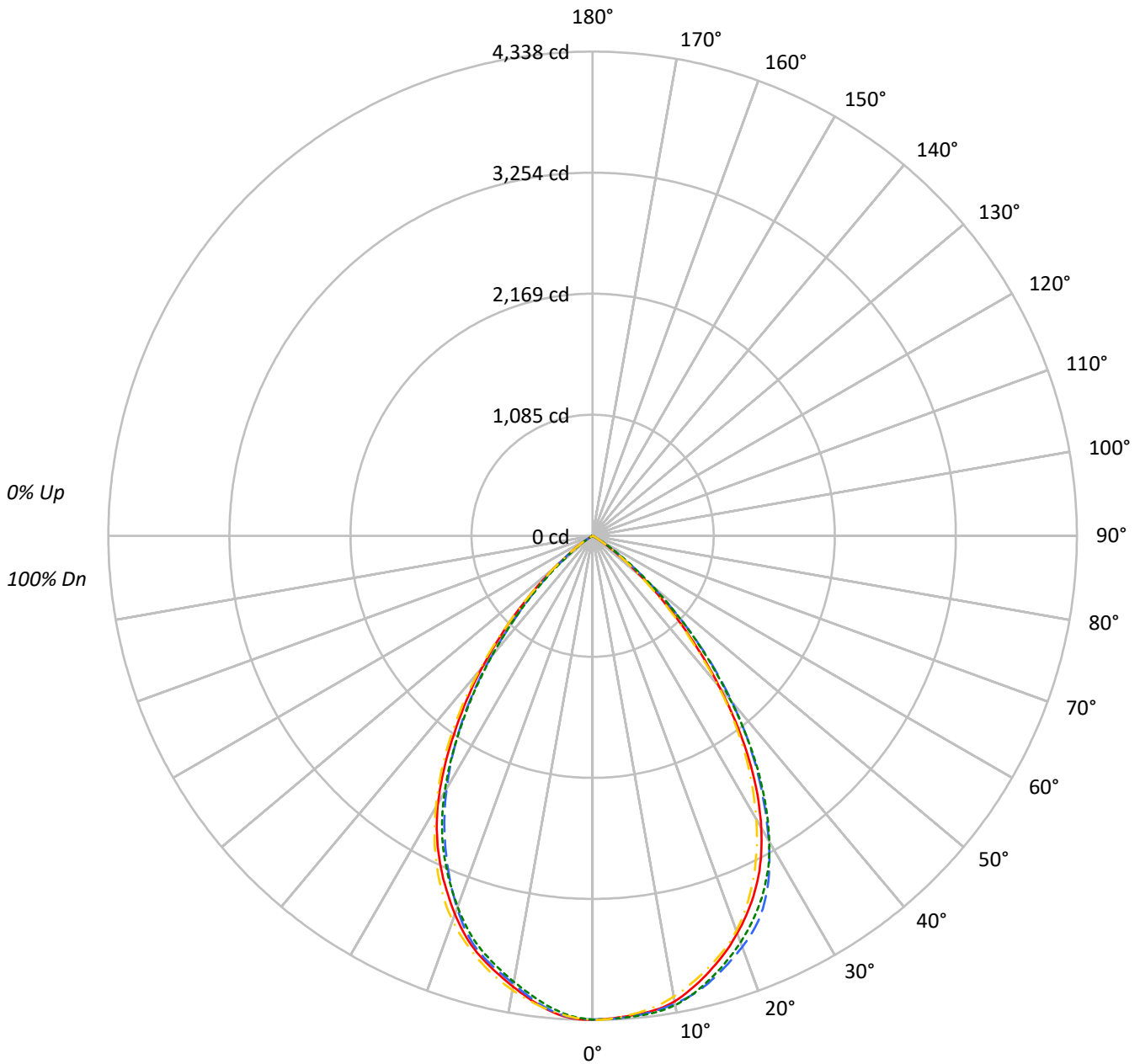
Lumens per Lamp: N/A
Luminaire Lumens: 5478.8 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.05 / 1.05
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	237645	237645	237645	237645
5°	237172	237860	235356	233590
10°	235723	237688	228375	225886
15°	229326	232839	221176	218066
20°	221114	226102	210374	206255
25°	209716	216635	195719	190517
30°	191169	200202	175369	167925
35°	163312	173518	144681	135600
40°	126237	137515	109970	100624
45°	87242	98739	72899	64216
50°	49397	59111	37858	31359
55°	18570	24831	15063	11813
60°	1327	4276	614	713
65°	182	246	182	117
70°	80	80	80	80
75°	0	106	0	0
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 102127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.5	7.4
10°-20°	1117.1	20.4
20°-30°	1535.0	28.0
30°-40°	1427.0	26.0
40°-50°	805.8	14.7
50°-60°	185.9	3.4
60°-70°	2.3	0.0
70°-80°	0.2	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°	3057.5	55.8
0°-40°	4484.5	81.9
0°-60°	5476.2	100.0
0°-90°	5478.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5478.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4335	4335	4335	4335	4335	
5°	4310	4322	4277	4245	4310	409
15°	4041	4103	3897	3842	4041	1136
25°	3467	3582	3236	3150	3467	1584
35°	2440	2593	2162	2026	2440	1505
45°	1125	1274	940	828	1125	870
55°	194	260	158	124	194	201
65°	1	2	1	1	1	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	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°	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0
0.5°	4336.4	4334.0	4334.0	4335.9	4333.6	4335.9	4337.8	4338.7	4337.3	4334.0	4332.2
1°	4334.5	4334.0	4334.0	4335.9	4334.0	4336.4	4337.3	4337.8	4336.8	4334.0	4331.3
1.5°	4331.7	4331.7	4333.1	4335.9	4333.1	4336.4	4335.0	4335.9	4334.5	4331.7	4328.5
2°	4329.4	4330.3	4332.2	4335.9	4332.7	4335.9	4332.2	4332.2	4331.7	4329.4	4324.8
2.5°	4326.6	4328.9	4331.3	4334.5	4331.7	4333.6	4328.5	4327.5	4326.6	4324.8	4320.1
3°	4322.9	4326.6	4328.9	4332.7	4330.3	4331.3	4323.8	4321.5	4319.6	4319.2	4314.1
3.5°	4319.6	4324.3	4326.6	4331.3	4328.9	4328.5	4318.7	4314.1	4310.8	4310.8	4305.7
4°	4316.8	4322.0	4324.3	4328.9	4326.6	4325.7	4313.1	4305.2	4301.5	4300.6	4295.9
4.5°	4313.1	4318.7	4321.5	4326.6	4324.8	4322.9	4306.2	4295.5	4289.9	4289.0	4283.4
5°	4309.9	4315.9	4318.2	4323.4	4322.4	4319.6	4299.6	4284.8	4276.9	4275.9	4269.4
5.5°	4307.1	4312.2	4314.5	4320.1	4320.1	4316.4	4291.7	4272.7	4262.5	4260.6	4254.1
6°	4302.4	4308.0	4309.9	4316.8	4318.2	4312.7	4283.8	4260.6	4248.1	4245.3	4236.9
6.5°	4298.3	4302.9	4305.2	4312.7	4314.5	4309.4	4275.5	4247.1	4231.3	4227.6	4219.7
7°	4292.7	4297.8	4299.6	4308.5	4311.3	4304.8	4267.1	4233.6	4214.6	4210.4	4200.6
7.5°	4286.2	4291.3	4294.1	4303.4	4307.6	4300.6	4256.9	4219.7	4196.9	4191.8	4181.1
8°	4279.2	4283.8	4287.6	4298.3	4302.4	4295.5	4245.7	4203.9	4178.8	4172.8	4160.7
8.5°	4270.8	4275.5	4280.6	4291.3	4295.9	4288.5	4234.1	4188.6	4159.7	4152.8	4140.7
9°	4260.1	4266.2	4273.2	4285.2	4288.0	4281.1	4221.6	4172.8	4141.6	4134.2	4120.2
9.5°	4248.1	4255.0	4265.3	4277.3	4279.2	4271.8	4207.1	4157.4	4122.1	4114.6	4100.2
10°	4234.6	4243.9	4256.4	4269.0	4269.9	4260.6	4191.8	4140.7	4102.6	4094.2	4080.3
10.5°	4219.7	4230.9	4247.6	4259.2	4257.8	4248.1	4176.5	4123.0	4082.6	4074.2	4059.3
11°	4202.5	4216.4	4236.9	4249.0	4244.3	4233.6	4160.2	4105.4	4062.6	4053.8	4038.9
11.5°	4185.8	4200.6	4226.7	4238.3	4229.9	4217.4	4142.1	4088.6	4043.1	4033.3	4018.9
12°	4166.7	4184.8	4214.1	4226.7	4213.7	4199.7	4123.9	4070.5	4023.5	4012.4	3999.8
12.5°	4147.2	4167.6	4202.0	4213.7	4197.4	4180.7	4104.4	4051.4	4003.1	3990.1	3980.3
13°	4126.7	4150.0	4187.6	4200.6	4179.7	4161.6	4086.8	4031.9	3983.1	3968.2	3961.3
13.5°	4106.7	4130.9	4173.7	4187.2	4161.1	4141.6	4066.3	4011.9	3962.2	3944.5	3940.8
14°	4084.4	4111.9	4157.9	4172.8	4142.1	4120.2	4047.7	3991.0	3941.3	3920.4	3920.4
14.5°	4063.5	4093.3	4140.7	4157.4	4122.1	4098.4	4026.8	3968.2	3919.9	3894.8	3898.5
15°	4040.7	4072.8	4122.1	4142.1	4102.6	4076.1	4006.8	3945.5	3897.1	3869.7	3876.2
15.5°	4018.4	4052.4	4103.5	4124.4	4082.1	4054.2	3985.4	3922.2	3874.3	3842.7	3852.5
16°	3995.7	4031.9	4084.0	4106.7	4060.7	4032.4	3965.4	3896.2	3850.2	3815.3	3827.4
16.5°	3972.4	4011.0	4063.5	4087.7	4039.8	4010.1	3943.1	3870.1	3824.1	3787.9	3799.0
17°	3947.8	3989.6	4043.5	4069.1	4017.5	3987.3	3920.8	3844.6	3796.7	3758.1	3769.3
17.5°	3924.5	3968.2	4023.1	4048.6	3994.7	3964.5	3898.5	3816.7	3767.9	3726.5	3737.2
18°	3899.0	3946.8	4002.6	4029.1	3971.5	3940.8	3873.9	3789.3	3739.1	3696.8	3702.8
18.5°	3873.4	3925.5	3982.2	4008.7	3948.7	3917.6	3849.7	3759.5	3707.0	3664.7	3666.1
19°	3846.0	3903.2	3961.7	3987.8	3924.5	3894.3	3823.2	3730.7	3674.9	3632.6	3628.4
19.5°	3818.1	3879.9	3940.8	3965.9	3900.8	3869.2	3794.4	3701.0	3641.0	3598.2	3589.9
20°	3790.2	3856.2	3919.0	3942.2	3875.7	3844.1	3765.1	3669.3	3606.1	3565.2	3549.9
20.5°	3760.9	3831.1	3897.6	3918.5	3848.8	3816.2	3734.0	3636.3	3570.8	3530.4	3508.0
21°	3732.1	3805.1	3874.8	3893.9	3822.3	3787.9	3701.9	3604.3	3535.5	3494.6	3466.2



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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°	3638.7	3719.5	3800.0	3812.0	3738.6	3696.8	3596.8	3502.5	3426.2	3386.7	3340.2
23°	3607.1	3687.9	3771.1	3780.9	3707.9	3663.3	3559.6	3466.7	3390.0	3350.5	3295.6
23.5°	3573.1	3655.4	3741.9	3749.8	3678.2	3630.3	3520.6	3431.4	3353.7	3310.0	3250.1
24°	3538.7	3621.5	3708.4	3715.8	3647.0	3595.0	3481.6	3396.0	3314.7	3269.6	3204.5
24.5°	3502.9	3587.1	3673.5	3679.6	3614.5	3559.2	3442.5	3360.7	3275.2	3228.7	3158.5
25°	3467.1	3550.8	3636.8	3643.3	3581.5	3522.9	3403.0	3322.1	3235.7	3186.4	3112.9
25.5°	3429.5	3511.8	3597.8	3604.7	3547.1	3484.3	3364.0	3282.6	3194.3	3143.6	3066.5
26°	3389.5	3472.3	3555.9	3564.3	3509.0	3445.8	3316.5	3241.2	3152.5	3101.3	3020.0
26.5°	3349.1	3432.3	3513.2	3522.5	3470.9	3407.2	3271.5	3198.5	3109.7	3056.2	2973.5
27°	3307.2	3389.5	3467.6	3478.8	3432.7	3369.1	3227.3	3155.7	3065.1	3011.1	2926.1
27.5°	3263.6	3343.5	3420.7	3434.1	3394.6	3328.6	3179.4	3110.6	3020.4	2964.2	2876.3
28°	3216.6	3297.0	3369.5	3386.7	3356.1	3283.1	3132.9	3063.7	2974.9	2914.9	2826.6
28.5°	3171.0	3248.2	3318.9	3338.4	3310.5	3239.8	3083.7	3014.9	2926.1	2863.3	2774.1
29°	3121.8	3197.5	3264.9	3287.3	3263.1	3191.5	3034.4	2965.6	2875.9	2811.3	2723.0
29.5°	3071.1	3148.3	3211.5	3235.7	3213.3	3144.6	2982.8	2914.0	2822.9	2758.3	2668.1
30°	3020.0	3093.4	3155.2	3182.7	3162.7	3095.3	2932.1	2861.9	2770.4	2703.9	2613.3
30.5°	2967.9	3041.4	3099.9	3130.1	3110.6	3045.5	2879.1	2807.6	2714.6	2648.1	2557.9
31°	2913.5	2987.0	3041.8	3073.0	3058.1	2993.0	2825.2	2751.8	2657.9	2591.4	2503.6
31.5°	2856.8	2931.2	2983.7	3017.2	3003.2	2941.4	2770.8	2696.0	2599.8	2533.8	2447.8
32°	2802.0	2873.6	2924.7	2958.2	2947.5	2887.5	2716.9	2639.3	2539.3	2475.7	2392.5
32.5°	2745.3	2815.9	2866.1	2899.6	2891.2	2834.1	2660.7	2580.7	2478.0	2414.3	2335.8
33°	2687.6	2757.8	2804.8	2840.1	2833.6	2775.9	2604.9	2521.2	2416.2	2352.5	2280.0
33.5°	2627.2	2698.8	2747.6	2781.1	2775.9	2719.2	2548.2	2461.3	2353.4	2291.1	2224.2
34°	2568.2	2637.4	2686.7	2720.2	2714.6	2660.7	2491.9	2399.9	2289.7	2227.5	2167.0
34.5°	2505.0	2576.5	2627.2	2660.7	2654.2	2601.2	2433.8	2339.5	2224.7	2165.6	2108.5
35°	2440.3	2512.4	2566.8	2599.8	2592.8	2538.9	2376.7	2277.2	2161.9	2102.9	2048.5
35.5°	2375.3	2449.2	2506.8	2539.3	2530.5	2478.0	2318.6	2215.4	2099.2	2039.2	1988.5
36°	2310.7	2385.5	2446.8	2478.9	2467.3	2414.3	2258.1	2152.6	2037.3	1977.4	1927.2
36.5°	2243.3	2320.4	2384.6	2417.6	2400.8	2350.6	2195.4	2090.3	1975.0	1914.2	1864.4
37°	2175.4	2257.2	2325.1	2355.3	2334.4	2286.9	2133.6	2028.5	1913.2	1851.9	1799.8
37.5°	2105.7	2190.3	2264.6	2292.1	2267.0	2221.4	2069.4	1966.2	1851.9	1789.6	1736.6
38°	2036.4	2124.3	2201.9	2228.8	2199.1	2154.0	2005.7	1902.5	1791.0	1725.4	1672.0
38.5°	1966.7	2057.8	2138.2	2163.3	2129.8	2086.6	1940.7	1839.8	1729.6	1663.2	1608.8
39°	1896.5	1991.3	2074.1	2100.1	2061.0	2019.2	1873.7	1776.6	1665.5	1599.9	1544.2
39.5°	1830.5	1924.8	2010.4	2034.5	1990.9	1950.4	1808.2	1713.4	1601.3	1537.2	1477.7
40°	1764.0	1855.6	1944.4	1970.4	1921.6	1880.2	1741.7	1649.2	1536.7	1473.0	1414.5
40.5°	1698.9	1787.7	1879.3	1903.9	1854.7	1811.9	1674.3	1586.0	1472.1	1410.7	1348.9
41°	1634.3	1720.3	1812.8	1837.5	1786.8	1743.1	1605.0	1522.8	1408.4	1348.9	1284.8
41.5°	1569.7	1645.0	1747.3	1770.1	1721.3	1674.8	1536.3	1459.1	1344.7	1286.6	1221.1
42°	1505.6	1584.6	1683.1	1703.6	1655.2	1607.8	1467.9	1394.9	1284.8	1226.2	1159.3
42.5°	1441.0	1524.2	1617.1	1637.1	1593.0	1540.9	1401.9	1332.2	1227.6	1166.3	1101.6
43°	1376.4	1463.7	1551.1	1571.6	1529.3	1476.3	1334.5	1265.3	1169.5	1106.8	1042.6
43.5°	1312.2	1403.3	1485.1	1530.2	1464.2	1411.2	1268.5	1202.0	1112.8	1049.1	987.8



TEST NUMBER: P776696

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1125.3	1216.0	1288.5	1317.3	1273.6	1217.8	1083.0	1017.0	940.3	884.1	827.9
45.5°	1064.9	1153.7	1222.5	1246.7	1209.5	1155.6	1023.1	955.7	885.0	829.3	779.1
46°	1007.7	1092.3	1156.5	1183.9	1148.1	1093.7	963.1	897.1	830.2	777.7	730.2
46.5°	949.2	1031.9	1092.8	1122.1	1090.0	1033.8	905.9	839.9	776.3	727.9	684.2
47°	891.1	973.8	1030.1	1059.8	1029.6	975.2	848.3	782.8	723.3	679.1	639.1
47.5°	833.9	914.8	969.2	998.4	971.5	919.4	793.5	730.2	674.9	631.7	597.8
48°	780.4	857.1	908.7	938.0	915.2	864.1	740.5	675.9	624.3	586.1	555.9
48.5°	726.5	800.0	849.2	879.0	858.5	810.7	689.3	626.1	575.5	542.9	517.4
49°	676.3	746.0	792.5	821.8	801.4	759.1	639.1	577.3	527.6	501.5	479.2
49.5°	626.1	691.7	736.3	764.2	745.6	708.9	593.1	532.7	483.4	462.0	446.2
50°	579.2	638.2	683.8	710.3	693.1	659.6	546.6	489.0	443.9	427.2	413.2
50.5°	531.3	586.6	632.2	656.8	640.5	611.2	504.3	452.7	404.9	392.3	380.2
51°	487.6	536.4	581.5	605.2	591.3	565.2	463.9	416.9	365.8	357.9	347.2
51.5°	444.4	487.6	533.2	555.0	542.9	520.1	428.1	380.7	326.8	323.1	314.2
52°	402.1	442.5	486.7	506.7	496.4	476.9	392.3	344.4	295.2	291.9	284.9
52.5°	361.2	399.8	442.1	462.5	455.5	437.4	356.5	308.2	266.8	263.6	257.5
53°	323.5	359.8	399.8	418.3	415.1	397.9	320.7	278.4	241.7	237.1	231.0
53.5°	287.3	321.2	357.9	375.6	374.2	358.8	290.1	251.9	219.4	212.4	205.9
54°	252.9	286.3	320.3	336.1	333.7	319.3	260.3	226.4	197.1	188.7	180.8
54.5°	222.2	252.4	283.1	299.8	293.3	285.9	233.3	202.7	177.1	167.3	158.0
55°	194.3	221.7	249.6	265.4	259.8	254.3	206.4	180.4	157.6	146.4	135.7
55.5°	168.3	193.4	218.0	232.9	228.2	223.6	181.3	159.0	138.5	126.0	115.3
56°	147.4	165.9	187.8	202.2	199.4	196.2	158.0	138.5	120.4	107.4	95.8
56.5°	126.9	145.0	159.9	175.2	172.5	170.1	135.3	119.5	102.7	89.7	78.6
57°	106.0	124.1	139.0	153.9	147.4	146.0	114.3	100.9	86.0	73.9	64.6
57.5°	85.5	103.2	118.1	132.5	124.6	123.2	94.8	83.7	71.1	58.6	50.2
58°	64.6	82.3	97.1	111.6	103.2	102.3	78.1	68.8	55.8	43.2	35.8
58.5°	46.0	61.4	76.2	90.2	85.1	84.1	63.7	53.9	40.9	27.4	21.8
59°	28.4	43.2	57.6	69.3	69.7	68.8	49.3	39.0	26.0	12.1	7.4
59.5°	15.3	26.5	39.0	50.2	54.4	53.9	35.3	24.2	11.2	6.5	5.1
60°	12.1	13.9	23.2	32.1	39.0	38.6	20.9	9.3	5.6	4.6	4.2
60.5°	9.3	11.2	12.1	18.1	23.7	23.7	6.5	5.1	4.2	3.7	3.7
61°	6.0	8.8	9.8	14.4	8.8	8.4	4.2	3.7	3.7	3.3	3.3
61.5°	3.3	6.0	7.4	10.7	5.1	4.6	3.3	3.3	3.3	2.8	2.8
62°	2.8	3.7	5.6	7.4	3.7	3.7	2.8	2.8	2.8	2.8	2.3
62.5°	2.3	3.3	3.7	3.7	3.3	3.3	2.3	2.3	2.3	2.3	2.3
63°	2.3	2.8	3.3	3.3	2.8	2.8	2.3	2.3	1.9	1.9	1.9
63.5°	1.9	2.3	2.8	2.8	2.3	2.3	1.9	1.9	1.9	1.9	1.9
64°	1.4	1.9	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.4
64.5°	1.4	1.9	1.9	2.3	1.9	1.9	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4	1.4
65.5°	0.9	1.4	1.4	1.9	1.4	1.4	1.4	1.4	1.4	1.4	0.9
66°	0.9	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P776696
 CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
68°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
68.5°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5
69°	0.5	0.5	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	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	0.5	0.5	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°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.0	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5
75.5°	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	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	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: P776696
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-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: P776696

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4335.0	4335.0	4335.0	4335.0	4335.0	4335.0
0.5°	4332.2	4329.9	4331.3	4335.0	4336.4	4336.4
1°	4329.4	4326.6	4326.6	4332.2	4334.0	4334.5
1.5°	4325.7	4321.5	4321.0	4328.5	4330.3	4331.7
2°	4320.1	4315.0	4313.6	4322.9	4326.6	4329.4
2.5°	4313.6	4307.1	4305.2	4316.4	4322.0	4326.6
3°	4304.8	4297.8	4295.5	4308.9	4316.8	4322.9
3.5°	4295.0	4286.6	4284.8	4300.1	4311.3	4319.6
4°	4283.4	4274.1	4272.7	4291.7	4305.7	4316.8
4.5°	4269.9	4260.1	4259.7	4282.0	4299.6	4313.1
5°	4255.0	4244.8	4244.8	4271.8	4293.1	4309.9
5.5°	4237.8	4229.0	4229.9	4260.6	4286.6	4307.1
6°	4221.6	4211.8	4214.1	4249.0	4279.2	4302.4
6.5°	4203.0	4193.7	4197.9	4236.9	4270.4	4298.3
7°	4184.8	4175.1	4180.7	4224.3	4262.5	4292.7
7.5°	4165.8	4156.9	4163.5	4209.9	4252.2	4286.2
8°	4145.3	4137.0	4145.8	4196.5	4242.9	4279.2
8.5°	4125.3	4117.9	4127.7	4181.6	4230.4	4270.8
9°	4105.8	4097.9	4108.6	4166.2	4217.8	4260.1
9.5°	4085.8	4077.9	4089.1	4150.0	4203.9	4248.1
10°	4065.4	4057.9	4071.0	4134.2	4189.0	4234.6
10.5°	4044.5	4038.0	4052.4	4116.5	4173.2	4219.7
11°	4024.9	4018.0	4033.3	4099.8	4156.0	4202.5
11.5°	4003.1	3997.5	4013.3	4082.1	4138.4	4185.8
12°	3982.6	3976.1	3993.3	4063.1	4120.2	4166.7
12.5°	3960.8	3955.7	3973.3	4043.5	4101.2	4147.2
13°	3938.9	3933.8	3952.9	4023.5	4083.0	4126.7
13.5°	3914.8	3912.0	3931.0	4002.6	4063.5	4106.7
14°	3891.5	3888.7	3909.2	3981.2	4044.0	4084.4
14.5°	3866.9	3866.4	3886.4	3958.0	4024.9	4063.5
15°	3842.3	3842.3	3862.7	3935.2	4004.9	4040.7
15.5°	3815.8	3817.2	3839.0	3910.6	3983.6	4018.4
16°	3788.8	3791.1	3813.4	3887.3	3962.7	3995.7
16.5°	3760.5	3764.2	3786.5	3862.7	3940.8	3972.4
17°	3731.6	3735.3	3758.6	3837.1	3918.5	3947.8
17.5°	3699.6	3704.7	3728.8	3811.1	3894.8	3924.5
18°	3668.9	3673.1	3698.2	3784.6	3869.2	3899.0
18.5°	3634.9	3640.1	3666.1	3757.7	3841.8	3873.4
19°	3600.5	3606.6	3633.1	3728.8	3813.0	3846.0
19.5°	3565.2	3571.3	3599.6	3699.6	3783.2	3818.1
20°	3529.0	3535.5	3565.2	3669.3	3751.6	3790.2
20.5°	3490.9	3499.2	3529.4	3636.8	3719.5	3760.9
21°	3451.8	3462.5	3493.2	3604.7	3685.1	3732.1

TEST NUMBER: P776696

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3336.1	3348.6	3383.0	3495.5	3574.1	3638.7
23°	3295.2	3311.0	3346.3	3457.4	3533.6	3607.1
23.5°	3251.5	3271.9	3307.2	3418.3	3492.7	3573.1
24°	3208.2	3232.4	3268.7	3377.0	3452.7	3538.7
24.5°	3164.1	3190.6	3227.3	3337.0	3410.9	3502.9
25°	3120.4	3149.7	3187.3	3293.8	3367.7	3467.1
25.5°	3074.4	3107.4	3144.1	3250.5	3323.5	3429.5
26°	3027.4	3063.2	3102.3	3205.9	3279.4	3389.5
26.5°	2979.5	3017.7	3057.6	3161.8	3234.3	3349.1
27°	2930.7	2970.7	3010.7	3114.8	3188.7	3307.2
27.5°	2880.1	2921.9	2961.9	3066.5	3142.7	3263.6
28°	2828.9	2871.7	2911.7	3015.8	3093.0	3216.6
28.5°	2775.9	2818.7	2860.5	2965.6	3044.6	3171.0
29°	2722.5	2765.7	2807.1	2913.1	2994.0	3121.8
29.5°	2667.2	2709.5	2750.8	2862.4	2943.3	3071.1
30°	2611.4	2652.8	2695.1	2807.1	2889.8	3020.0
30.5°	2555.6	2593.3	2637.4	2753.6	2837.8	2967.9
31°	2498.4	2534.2	2577.9	2697.4	2783.8	2913.5
31.5°	2440.3	2472.4	2514.7	2641.6	2729.5	2856.8
32°	2382.2	2409.7	2452.9	2587.2	2672.8	2802.0
32.5°	2324.1	2345.5	2391.1	2529.1	2617.4	2745.3
33°	2263.2	2283.2	2327.9	2472.4	2559.3	2687.6
33.5°	2203.7	2219.1	2263.7	2412.9	2503.6	2627.2
34°	2141.5	2155.9	2201.4	2353.9	2445.9	2568.2
34.5°	2081.5	2089.4	2137.3	2293.9	2386.9	2505.0
35°	2021.1	2026.2	2074.5	2231.6	2325.1	2440.3
35.5°	1959.2	1963.0	2012.7	2170.7	2264.6	2375.3
36°	1897.9	1901.1	1949.5	2108.5	2201.4	2310.7
36.5°	1833.7	1840.7	1888.6	2046.2	2138.2	2243.3
37°	1770.1	1778.0	1826.8	1980.6	2072.2	2175.4
37.5°	1706.4	1716.6	1764.5	1915.6	2006.2	2105.7
38°	1642.2	1649.2	1701.7	1850.5	1939.7	2036.4
38.5°	1578.6	1588.3	1638.5	1783.1	1872.3	1966.7
39°	1513.5	1527.4	1574.8	1718.9	1804.0	1896.5
39.5°	1450.3	1466.5	1511.2	1646.9	1735.7	1830.5
40°	1388.0	1406.1	1447.5	1583.7	1663.2	1764.0
40.5°	1326.2	1343.8	1383.8	1520.0	1595.3	1698.9
41°	1265.3	1282.0	1320.1	1456.8	1527.4	1634.3
41.5°	1204.4	1223.0	1256.9	1393.1	1460.0	1569.7
42°	1143.5	1164.4	1196.5	1328.0	1392.2	1505.6
42.5°	1084.9	1106.8	1137.4	1263.9	1324.8	1441.0
43°	1025.9	1049.1	1077.5	1199.3	1260.6	1376.4
43.5°	968.7	994.3	1018.9	1134.6	1196.5	1312.2



TEST NUMBER: P776696

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	806.9	828.3	846.0	945.0	1013.8	1125.3
45.5°	757.2	775.3	789.3	886.0	956.6	1064.9
46°	707.5	722.3	734.9	828.8	901.3	1007.7
46.5°	661.9	673.1	681.9	773.0	847.8	949.2
47°	616.8	623.8	631.2	720.9	794.9	891.1
47.5°	574.5	575.5	581.5	670.3	741.4	833.9
48°	532.7	529.0	533.6	620.1	691.7	780.4
48.5°	492.7	486.7	489.0	574.1	642.4	726.5
49°	455.5	444.4	446.2	529.4	595.4	676.3
49.5°	422.1	406.3	407.2	489.0	549.0	626.1
50°	389.1	367.7	368.6	449.0	505.7	579.2
50.5°	355.6	334.2	334.2	410.0	462.0	531.3
51°	322.1	301.7	302.1	373.3	422.1	487.6
51.5°	292.4	273.8	273.3	341.2	383.5	444.4
52°	264.0	247.3	247.8	309.1	348.2	402.1
52.5°	237.5	223.6	223.6	278.9	313.8	361.2
53°	212.0	200.3	200.8	250.1	281.7	323.5
53.5°	187.8	179.9	179.9	224.0	251.0	287.3
54°	165.0	160.4	159.4	198.9	223.1	252.9
54.5°	144.1	142.2	141.3	175.2	195.2	222.2
55°	123.2	123.6	122.7	154.8	170.6	194.3
55.5°	104.1	105.5	104.6	134.8	149.7	168.3
56°	86.0	87.4	86.0	114.8	129.2	147.4
56.5°	70.7	71.1	69.7	94.8	108.3	126.9
57°	55.8	53.5	52.1	74.8	87.9	106.0
57.5°	40.4	36.3	34.4	57.2	67.4	85.5
58°	25.6	21.4	19.5	38.1	48.3	64.6
58.5°	10.2	17.2	15.3	22.8	31.1	46.0
59°	5.6	13.5	11.2	11.6	17.7	28.4
59.5°	4.2	10.2	7.4	9.3	13.9	15.3
60°	3.7	6.5	3.3	7.0	10.2	12.1
60.5°	3.3	2.8	2.8	5.1	6.5	9.3
61°	2.8	2.3	2.3	2.8	3.3	6.0
61.5°	2.3	2.3	1.9	2.3	2.8	3.3
62°	1.9	1.9	1.9	2.3	2.3	2.8
62.5°	1.9	1.9	1.4	1.9	1.9	2.3
63°	1.9	1.4	1.4	1.9	1.9	2.3
63.5°	1.4	1.4	1.4	1.4	1.4	1.9
64°	1.4	1.4	1.4	1.4	1.4	1.4
64.5°	1.4	0.9	0.9	1.4	1.4	1.4
65°	0.9	0.9	0.9	0.9	0.9	1.4
65.5°	0.9	0.9	0.9	0.9	0.9	0.9
66°	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P776696

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.9	0.5	0.5	0.5	0.5	0.9
68°	0.5	0.5	0.5	0.5	0.5	0.9
68.5°	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	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	0.0	0.5	0.5	0.5
73.5°	0.5	0.0	0.0	0.0	0.0	0.5
74°	0.5	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	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: P776696

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRC-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



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Cooper Lighting Solutions Photometric Lab
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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°	3701.4	3777.6	3851.1	3868.3	3794.8	3758.6	3668.9	3570.8	3499.2	3458.3	3423.9
22°	3670.3	3749.3	3826.0	3840.4	3767.0	3728.4	3634.0	3537.8	3462.5	3422.5	3382.1



44°	1247.6	1341.0	1419.1	1459.1	1399.1	1346.1	1206.7	1140.2	1054.7	993.8	933.4
44.5°	1185.3	1277.3	1353.1	1388.0	1338.2	1282.5	1146.3	1078.4	998.9	938.0	880.8



66.5°	0.9	0.9	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9
67°	0.9	0.9	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9



89°	0.0	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	0.0

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21.5°	3413.2	3424.8	3457.4	3569.9	3649.4	3701.4
22°	3374.6	3386.7	3420.7	3532.2	3612.6	3670.3



44°	912.0	937.1	959.9	1070.0	1134.2	1247.6
44.5°	859.0	882.7	903.2	1005.9	1073.3	1185.3

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66.5°	0.9	0.9	0.9	0.9	0.9	0.9
67°	0.9	0.9	0.5	0.9	0.9	0.9

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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)