

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: P776414

Luminaire Tested: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776414
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: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K
Description: 6 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

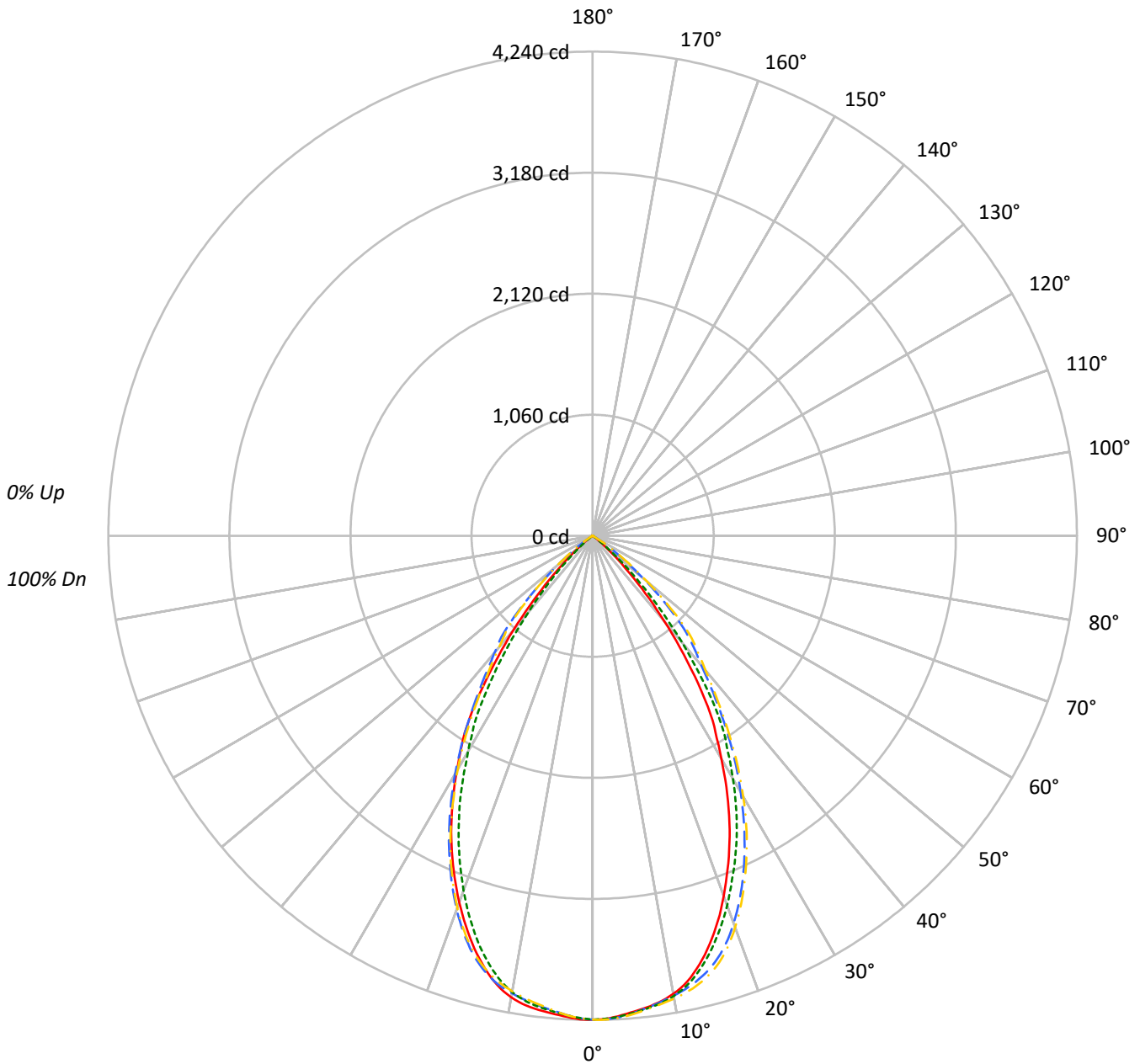
Lumens per Lamp: N/A
Luminaire Lumens: 4622.1 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 0.99
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')

CIE Type: Direct
Input Watts (W): 38.5
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	99	97	97	96	95	93
	1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	92	91	90	89	88	87
	2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	84	83	82	81	80	79
	3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79	79	78	77	76	75	74	72
	4	96	87	82	77	94	86	81	77	84	79	76	82	78	75	80	77	74	72	72	71	70	69	68	67	67
	5	90	81	75	70	89	80	74	70	78	73	69	77	72	69	75	71	68	67	67	66	65	64	63	62	62
	6	85	76	69	65	84	75	69	64	73	68	64	72	67	64	71	66	63	62	62	61	60	59	58	57	57
	7	81	71	64	60	79	70	64	60	69	63	59	67	63	59	66	62	59	57	57	56	55	54	53	52	52
	8	76	66	60	55	75	65	59	55	64	59	55	63	58	55	62	58	54	53	53	52	51	50	49	49	49
	9	72	62	56	51	71	61	55	51	60	55	51	60	55	51	59	54	51	49	49	48	47	46	45	45	45
	10	69	58	52	48	68	58	52	48	57	51	48	56	51	48	55	51	47	46	46	45	44	43	42	42	42

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	182461	182461	182461	182461
5°	180755	181144	181408	180509
10°	178071	178858	179396	177411
15°	169272	171166	170836	167391
20°	153782	157754	156444	151344
25°	134857	141404	139171	131731
30°	111941	122103	118201	108342
35°	87273	100681	93848	81833
40°	55014	68109	60527	49657
45°	26615	36370	30348	22755
50°	8078	12733	9558	6491
55°	1073	983	953	826
60°	741	775	775	637
65°	621	621	662	540
70°	516	566	566	415
75°	482	482	482	416
80°	397	397	397	298
85°	198	395	198	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 70529 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	396.3	8.6
10°-20°	1073.8	23.2
20°-30°	1357.5	29.4
30°-40°	1147.0	24.8
40°-50°	553.7	12.0
50°-60°	83.0	1.8
60°-70°	7.0	0.2
70°-80°	3.1	0.1
80°-90°	0.7	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°	2827.6	61.2
0°-40°	3974.6	86.0
0°-60°	4611.3	99.8
0°-90°	4622.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4622.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4238	4238	4238	4238	4238	
5°	4182	4191	4197	4176	4182	396
15°	3798	3840	3833	3755	3798	1058
25°	2839	2976	2930	2773	2839	1292
35°	1660	1916	1786	1557	1660	1015
45°	437	597	498	374	437	356
55°	14	13	13	11	14	28
65°	6	6	6	5	6	6
75°	3	3	3	2	3	3
85°	0	1	0	0	0	1
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°	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8
0.5°	4238.2	4238.6	4238.2	4238.6	4234.1	4237.0	4239.8	4242.3	4239.4	4236.6	4235.3
1°	4235.7	4237.8	4237.8	4238.6	4233.7	4237.8	4240.2	4241.5	4238.6	4232.9	4231.3
1.5°	4231.7	4235.3	4236.2	4237.8	4232.1	4236.2	4239.8	4239.4	4235.7	4228.8	4226.3
2°	4227.2	4232.1	4233.7	4236.2	4228.4	4234.1	4237.8	4235.3	4230.8	4223.1	4220.2
2.5°	4220.6	4228.4	4230.0	4232.9	4224.3	4230.4	4234.1	4230.8	4226.3	4216.5	4213.3
3°	4214.5	4222.3	4224.7	4228.8	4219.4	4225.9	4229.2	4224.7	4220.6	4209.2	4204.7
3.5°	4205.9	4215.7	4218.2	4223.1	4213.3	4219.8	4223.1	4219.4	4214.5	4201.8	4196.5
4°	4197.3	4207.9	4210.8	4216.1	4205.9	4214.1	4216.1	4212.4	4207.9	4194.0	4186.7
4.5°	4189.1	4199.0	4202.2	4208.8	4199.0	4206.3	4209.2	4206.3	4203.4	4186.3	4177.3
5°	4182.2	4190.4	4192.4	4200.6	4191.2	4198.5	4201.0	4200.6	4197.3	4178.9	4167.9
5.5°	4174.4	4182.2	4183.0	4191.6	4184.2	4190.8	4192.8	4194.0	4191.2	4171.2	4159.3
6°	4166.2	4174.4	4172.0	4181.8	4176.9	4183.0	4184.6	4187.1	4184.6	4163.0	4151.5
6.5°	4157.7	4166.7	4162.2	4172.4	4169.1	4175.2	4175.6	4179.7	4179.3	4154.8	4142.1
7°	4149.9	4157.7	4152.3	4163.4	4160.9	4166.7	4167.5	4172.8	4172.0	4145.4	4132.7
7.5°	4139.3	4148.3	4142.1	4153.6	4152.3	4157.7	4158.9	4164.6	4163.8	4135.2	4122.9
8°	4129.9	4138.9	4132.7	4143.3	4142.5	4148.7	4150.7	4156.4	4154.8	4124.5	4113.1
8.5°	4117.6	4128.2	4122.1	4132.7	4132.3	4138.0	4142.1	4147.0	4145.0	4113.1	4103.3
9°	4103.7	4117.2	4111.5	4121.7	4120.0	4127.0	4133.5	4136.4	4133.1	4100.4	4092.6
9.5°	4088.6	4104.1	4101.2	4109.4	4106.6	4116.0	4124.5	4125.8	4118.8	4086.1	4080.8
10°	4073.0	4089.8	4089.8	4097.1	4091.0	4102.9	4115.5	4111.5	4103.3	4069.8	4068.1
10.5°	4056.3	4075.1	4078.3	4083.7	4075.5	4088.2	4105.7	4096.7	4086.9	4053.4	4056.7
11°	4036.2	4059.5	4066.5	4068.5	4057.9	4072.2	4095.1	4079.6	4067.3	4035.8	4042.8
11.5°	4013.3	4042.4	4054.2	4053.4	4038.7	4056.3	4083.7	4063.2	4046.0	4015.0	4027.2
12°	3989.2	4023.6	4039.9	4036.2	4016.6	4039.1	4071.4	4043.6	4021.1	3992.5	4010.1
12.5°	3962.6	4001.9	4025.2	4018.6	3991.7	4018.6	4059.5	4022.3	3994.1	3967.5	3992.1
13°	3933.2	3978.2	4009.2	3999.0	3965.1	3997.8	4044.8	3998.6	3965.5	3939.7	3970.8
13.5°	3901.3	3952.8	3992.1	3979.0	3936.1	3973.3	4028.9	3973.3	3934.8	3911.1	3949.1
14°	3868.6	3925.8	3974.1	3956.1	3905.4	3947.9	4010.9	3945.5	3901.7	3880.9	3924.6
14.5°	3834.3	3896.8	3954.0	3930.3	3873.5	3919.7	3992.1	3915.6	3867.8	3849.0	3899.3
15°	3797.5	3865.3	3932.4	3902.5	3840.0	3890.7	3972.4	3885.4	3832.6	3815.4	3870.2
15.5°	3758.6	3833.4	3909.5	3874.3	3805.6	3860.4	3950.4	3853.9	3795.8	3782.7	3840.0
16°	3719.0	3799.1	3885.0	3844.9	3769.2	3829.8	3925.8	3821.6	3757.8	3746.3	3806.9
16.5°	3677.7	3763.9	3857.1	3813.0	3732.4	3797.5	3898.9	3786.8	3719.0	3709.6	3771.3
17°	3636.4	3727.1	3828.5	3779.9	3694.4	3763.1	3869.4	3750.0	3678.1	3671.1	3733.7
17.5°	3591.8	3688.7	3797.5	3745.9	3655.2	3728.4	3837.5	3713.6	3634.7	3633.1	3696.9
18°	3548.5	3650.7	3763.9	3711.6	3613.5	3692.8	3803.2	3676.0	3592.6	3591.8	3655.2
18.5°	3503.5	3610.6	3728.8	3675.2	3572.2	3656.0	3767.6	3636.8	3549.3	3550.1	3612.7
19°	3456.5	3569.3	3690.7	3638.0	3530.5	3618.0	3729.2	3596.3	3505.1	3508.0	3569.7
19.5°	3407.0	3527.2	3652.3	3598.8	3488.0	3579.1	3689.9	3555.8	3459.7	3466.7	3527.6
20°	3356.3	3483.0	3611.4	3560.7	3443.0	3539.1	3649.4	3513.7	3414.4	3421.3	3479.4
20.5°	3305.6	3440.1	3569.3	3521.1	3396.8	3498.6	3606.9	3470.8	3367.7	3376.3	3432.8
21°	3252.9	3394.3	3526.0	3480.6	3350.2	3455.7	3562.8	3427.4	3319.9	3332.2	3384.5



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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°	3104.9	3248.0	3389.4	3352.6	3210.3	3324.0	3427.0	3294.6	3176.8	3190.7	3236.9
23°	3052.9	3198.5	3341.6	3307.6	3166.2	3277.0	3378.0	3248.8	3127.3	3144.1	3185.0
23.5°	2999.0	3149.8	3292.5	3262.7	3118.8	3230.4	3330.5	3203.0	3077.9	3093.8	3133.1
24°	2946.6	3102.8	3242.6	3216.1	3071.3	3184.6	3281.1	3156.0	3028.4	3043.5	3081.1
24.5°	2893.1	3054.6	3192.8	3169.5	3023.9	3140.8	3230.8	3106.1	2978.9	2992.8	3029.2
25°	2838.7	3004.3	3141.7	3123.7	2976.5	3092.2	3178.0	3056.6	2929.5	2942.5	2977.3
25.5°	2783.1	2951.9	3090.1	3078.3	2929.0	3043.9	3126.5	3006.7	2876.7	2894.7	2925.4
26°	2726.7	2899.6	3036.2	3030.4	2879.6	2995.3	3075.4	2956.8	2824.4	2842.0	2866.5
26.5°	2669.8	2845.6	2982.2	2980.6	2828.1	2946.6	3023.9	2907.4	2769.6	2788.8	2811.3
27°	2612.6	2792.9	2928.2	2931.5	2776.5	2902.1	2972.4	2854.6	2715.6	2735.2	2753.6
27.5°	2553.3	2737.7	2872.2	2882.4	2724.6	2851.8	2920.9	2801.5	2660.8	2681.7	2696.8
28°	2493.6	2684.1	2817.4	2831.7	2672.3	2799.4	2864.0	2748.7	2605.2	2628.9	2637.5
28.5°	2433.1	2627.3	2759.4	2781.4	2620.0	2747.9	2809.3	2695.2	2548.4	2575.0	2581.5
29°	2373.0	2573.3	2702.5	2728.3	2566.0	2696.0	2751.6	2640.0	2492.8	2519.4	2524.3
29.5°	2312.5	2516.1	2646.1	2675.1	2512.0	2646.1	2693.1	2585.2	2434.3	2465.8	2467.4
30°	2251.6	2461.7	2591.7	2624.9	2456.0	2591.7	2634.7	2530.4	2377.5	2410.6	2407.3
30.5°	2195.1	2402.8	2535.3	2571.3	2400.4	2539.4	2579.9	2475.6	2321.9	2355.4	2349.7
31°	2139.5	2346.0	2478.1	2521.0	2346.4	2485.8	2523.5	2420.4	2270.0	2299.0	2289.2
31.5°	2079.4	2287.6	2421.2	2467.4	2295.3	2436.0	2465.4	2364.0	2211.9	2244.6	2229.5
32°	2026.7	2230.3	2365.6	2414.3	2239.3	2380.4	2406.9	2309.6	2162.4	2191.9	2168.6
32.5°	1982.1	2171.8	2308.0	2359.1	2184.9	2328.0	2348.5	2254.0	2107.2	2141.6	2108.5
33°	1930.6	2118.7	2248.7	2308.0	2142.0	2273.6	2288.0	2203.3	2052.9	2087.2	2048.4
33.5°	1866.8	2065.1	2190.2	2255.3	2090.9	2226.2	2229.9	2148.9	1991.1	2038.6	1988.7
34°	1803.9	2009.1	2132.6	2203.3	2035.3	2171.0	2170.2	2096.2	1926.1	1987.0	1930.6
34.5°	1731.9	1959.2	2074.1	2151.4	1978.0	2116.2	2111.3	2050.0	1858.3	1935.1	1872.6
35°	1660.4	1916.3	2016.9	2099.5	1915.5	2072.1	2052.9	1994.0	1785.5	1878.7	1814.9
35.5°	1590.0	1867.7	1957.2	2046.3	1851.3	2029.2	1996.0	1942.1	1711.1	1818.6	1759.3
36°	1521.8	1807.1	1899.1	2005.0	1780.2	1972.3	1939.6	1883.6	1636.2	1753.2	1704.1
36.5°	1446.5	1749.1	1843.1	1953.1	1708.2	1922.4	1884.8	1820.6	1560.2	1687.8	1651.4
37°	1379.1	1680.4	1787.1	1901.6	1632.6	1863.2	1829.2	1755.6	1487.8	1619.5	1599.9
37.5°	1312.0	1614.2	1732.7	1848.8	1561.0	1803.1	1776.5	1687.8	1417.5	1550.4	1550.4
38°	1244.6	1548.7	1677.9	1790.0	1487.4	1737.6	1725.4	1618.3	1347.6	1481.3	1501.3
38.5°	1177.5	1485.8	1626.4	1728.6	1417.5	1673.0	1675.9	1546.3	1280.9	1412.2	1455.5
39°	1108.8	1421.6	1574.9	1662.8	1348.4	1603.9	1628.5	1477.6	1213.9	1346.4	1412.2
39.5°	1042.6	1357.4	1525.9	1595.4	1280.5	1535.3	1581.0	1409.3	1145.6	1282.6	1374.2
40°	978.8	1293.2	1481.3	1527.9	1211.8	1466.6	1536.5	1343.9	1076.9	1220.8	1335.3
40.5°	915.4	1229.0	1443.7	1457.6	1144.8	1400.3	1494.4	1280.5	1009.9	1160.3	1295.3
41°	856.1	1165.2	1406.1	1393.4	1077.7	1333.7	1458.0	1217.6	944.0	1097.8	1269.5
41.5°	798.5	1101.5	1368.4	1328.8	1011.1	1270.7	1421.2	1155.4	880.3	1036.9	1234.3
42°	741.3	1038.5	1330.8	1264.6	945.3	1207.8	1380.3	1093.7	819.3	975.5	1192.6
42.5°	684.4	975.5	1293.2	1200.4	880.7	1147.3	1349.6	1031.5	761.7	915.4	1151.7
43°	630.5	916.7	1256.0	1139.5	820.2	1083.9	1323.9	969.0	704.9	856.6	1098.2
43.5°	578.5	860.2	1216.8	1078.6	761.3	1020.9	1283.8	906.8	650.5	799.3	1043.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	437.1	695.1	1085.5	897.0	597.3	841.4	1158.3	738.0	498.4	640.7	878.2
45.5°	393.3	642.7	1037.7	839.4	546.6	784.2	1108.0	686.1	451.4	590.0	822.6
46°	352.0	591.6	986.6	783.0	498.0	729.4	1054.8	633.7	412.1	540.9	768.6
46.5°	312.8	542.1	935.5	729.4	450.2	677.5	999.2	583.8	372.9	493.9	715.9
47°	275.2	494.3	883.1	677.1	410.5	624.7	940.0	535.6	333.6	450.6	665.2
47.5°	239.6	448.9	830.4	627.2	370.4	574.9	881.9	489.0	294.4	411.7	614.5
48°	207.3	404.8	775.6	578.5	330.8	526.2	826.3	444.0	255.5	372.9	567.1
48.5°	178.7	364.7	721.2	530.7	291.1	480.0	772.3	406.0	223.6	334.0	520.9
49°	153.3	324.6	667.3	484.1	251.4	433.4	720.0	368.0	194.6	295.6	476.3
49.5°	136.6	287.0	617.8	439.9	219.6	393.7	668.9	329.9	167.6	256.8	433.4
50°	120.6	251.4	568.3	398.2	190.1	353.7	620.6	291.9	142.7	225.3	395.8
50.5°	104.3	219.6	522.9	358.6	162.7	314.0	574.0	253.9	121.0	195.0	358.2
51°	87.9	189.3	477.1	319.3	137.8	274.3	529.5	220.8	100.2	168.0	320.5
51.5°	72.0	162.3	435.4	282.9	115.7	240.4	484.1	192.2	82.2	141.9	282.5
52°	59.7	138.2	394.1	249.4	95.3	208.5	439.9	164.0	68.7	119.0	251.0
52.5°	48.2	121.8	356.5	217.9	76.5	178.7	401.9	139.4	55.2	97.7	220.8
53°	36.8	105.5	319.7	188.1	63.8	151.7	363.9	115.3	41.7	79.7	193.0
53.5°	25.8	89.1	284.2	161.1	51.1	126.7	325.4	95.3	27.8	66.2	167.2
54°	17.6	72.8	250.6	135.7	38.0	105.1	287.4	76.5	14.7	52.7	144.3
54.5°	15.5	60.9	221.2	115.7	25.3	85.0	249.4	63.8	13.5	39.3	123.1
55°	14.3	49.1	192.6	95.7	13.1	70.7	219.6	50.7	12.7	26.2	103.8
55.5°	12.7	38.0	167.2	75.6	12.3	56.4	189.7	38.0	12.3	13.5	87.1
56°	11.4	27.0	143.9	56.0	11.9	42.5	162.7	24.9	11.9	12.3	72.4
56.5°	11.0	18.0	126.7	40.5	11.4	28.6	137.8	12.3	11.4	11.9	59.7
57°	10.6	16.4	109.6	27.0	11.0	14.3	115.7	11.4	11.0	11.4	51.9
57.5°	10.2	14.7	92.8	15.9	10.6	11.9	95.3	11.4	10.6	11.0	44.2
58°	9.8	13.1	75.6	14.3	10.2	11.4	77.7	11.0	10.6	10.6	36.4
58.5°	9.4	11.9	58.5	12.7	9.8	11.0	62.6	10.6	10.2	10.2	29.0
59°	9.4	10.2	47.4	11.4	9.4	10.6	54.0	10.2	9.8	9.8	21.3
59.5°	9.0	9.8	38.4	9.8	9.4	10.2	45.4	9.8	9.4	9.8	17.2
60°	8.6	9.4	31.1	9.4	9.0	9.8	36.8	9.4	9.0	9.4	14.3
60.5°	8.2	9.4	25.3	9.4	8.6	9.4	28.6	9.4	9.0	9.0	11.9
61°	8.2	9.0	20.4	9.0	8.2	9.4	20.0	9.0	8.6	8.6	10.2
61.5°	7.8	8.6	16.8	8.6	8.2	9.0	16.4	8.6	8.2	8.6	9.0
62°	7.8	8.6	15.1	8.6	7.8	8.6	13.5	8.6	7.8	8.2	8.6
62.5°	7.4	8.2	13.5	8.2	7.4	8.6	11.4	8.2	7.8	7.8	8.2
63°	7.0	7.8	11.4	7.8	7.4	8.2	9.8	7.8	7.4	7.8	7.8
63.5°	7.0	7.8	9.8	7.8	7.0	7.8	9.0	7.8	7.4	7.4	7.4
64°	6.5	7.4	8.2	7.4	7.0	7.8	8.2	7.4	7.0	7.0	7.4
64.5°	6.5	7.0	7.8	7.4	6.5	7.4	8.2	7.4	6.5	7.0	7.0
65°	6.1	7.0	7.8	7.0	6.1	7.0	7.8	7.0	6.5	6.5	7.0
65.5°	6.1	6.5	7.4	6.5	6.1	7.0	7.4	6.5	6.1	6.5	6.5
66°	5.7	6.5	7.0	6.5	5.7	6.5	7.4	6.5	6.1	6.1	6.5



TEST NUMBER: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	5.3	5.7	6.5	5.7	5.3	6.1	6.5	5.7	5.3	5.7	5.7
68°	4.9	5.7	6.1	5.7	4.9	5.7	6.1	5.7	5.3	5.3	5.3
68.5°	4.9	5.3	6.1	5.3	4.9	5.3	6.1	5.3	4.9	4.9	5.3
69°	4.5	5.3	5.7	5.3	4.5	5.3	5.7	5.3	4.9	4.9	4.9
69.5°	4.5	4.9	5.7	5.3	4.5	4.9	5.7	4.9	4.5	4.5	4.9
70°	4.1	4.9	5.3	4.9	4.5	4.9	5.3	4.9	4.5	4.5	4.5
70.5°	4.1	4.5	5.3	4.9	4.1	4.9	5.3	4.5	4.1	4.5	4.5
71°	4.1	4.5	4.9	4.5	4.1	4.5	4.9	4.5	4.1	4.1	4.1
71.5°	3.7	4.1	4.9	4.5	3.7	4.5	4.9	4.1	3.7	4.1	4.1
72°	3.7	4.1	4.5	4.1	3.7	4.1	4.5	4.1	3.7	3.7	3.7
72.5°	3.3	3.7	4.5	4.1	3.7	4.1	4.5	4.1	3.7	3.7	3.7
73°	3.3	3.7	4.1	4.1	3.3	3.7	4.1	3.7	3.3	3.3	3.7
73.5°	3.3	3.7	4.1	3.7	3.3	3.7	4.1	3.7	3.3	3.3	3.3
74°	2.9	3.3	3.7	3.7	3.3	3.7	3.7	3.3	3.3	3.3	3.3
74.5°	2.9	3.3	3.7	3.3	2.9	3.3	3.7	3.3	2.9	2.9	2.9
75°	2.9	2.9	3.3	3.3	2.9	3.3	3.7	3.3	2.9	2.9	2.9
75.5°	2.5	2.9	3.3	3.3	2.9	3.3	3.3	2.9	2.9	2.9	2.5
76°	2.5	2.9	3.3	2.9	2.9	2.9	3.3	2.9	2.5	2.5	2.5
76.5°	2.5	2.5	2.9	2.9	2.5	2.9	2.9	2.9	2.5	2.5	2.5
77°	2.5	2.5	2.9	2.9	2.5	2.9	2.9	2.5	2.5	2.5	2.0
77.5°	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0	2.0
78°	2.0	2.0	2.5	2.5	2.0	2.5	2.5	2.0	2.0	2.0	1.6
78.5°	2.0	2.0	2.0	2.5	2.0	2.5	2.5	2.0	2.0	2.0	1.6
79°	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6
79.5°	1.6	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.2
80°	1.6	1.6	1.6	2.0	1.6	2.0	2.0	1.6	1.6	1.6	1.2
80.5°	1.6	1.6	1.6	1.6	1.6	2.0	1.6	1.6	1.6	1.2	1.2
81°	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.2	1.2
81.5°	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.2	1.2	1.2	0.8
82°	1.2	1.2	1.2	1.6	1.2	1.6	1.2	1.2	1.2	0.8	0.8
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8
83°	0.8	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.8
83.5°	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.8
84°	0.8	0.8	0.8	1.2	0.8	1.2	0.8	0.8	0.8	0.4	0.4
84.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.4
85°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
85.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
86°	0.4	0.4	0.4	0.8	0.8	0.8	0.4	0.4	0.4	0.0	0.4
86.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0
87°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-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: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4237.8	4237.8	4237.8	4237.8	4237.8	4237.8
0.5°	4233.7	4231.7	4233.7	4235.7	4239.8	4238.2
1°	4228.8	4228.8	4230.0	4231.3	4236.6	4235.7
1.5°	4223.9	4224.3	4225.1	4226.3	4233.3	4231.7
2°	4217.8	4219.0	4218.6	4220.2	4228.8	4227.2
2.5°	4210.8	4212.4	4212.0	4212.4	4221.4	4220.6
3°	4203.0	4205.5	4204.3	4204.3	4214.9	4214.5
3.5°	4195.7	4197.3	4195.3	4195.3	4205.9	4205.9
4°	4187.9	4190.8	4186.7	4185.5	4196.5	4197.3
4.5°	4180.6	4183.8	4178.1	4174.0	4187.1	4189.1
5°	4172.4	4176.5	4169.9	4162.6	4177.7	4182.2
5.5°	4163.4	4169.5	4160.9	4151.9	4168.7	4174.4
6°	4153.6	4161.7	4151.5	4141.7	4159.7	4166.2
6.5°	4144.2	4153.2	4141.7	4131.9	4149.9	4157.7
7°	4133.1	4143.8	4131.5	4122.1	4139.7	4149.9
7.5°	4121.7	4133.5	4119.6	4111.5	4128.6	4139.3
8°	4109.0	4122.1	4107.0	4100.0	4117.6	4129.9
8.5°	4094.7	4108.6	4093.5	4088.6	4105.3	4117.6
9°	4078.3	4092.2	4078.7	4076.3	4092.2	4103.7
9.5°	4061.6	4075.5	4062.8	4064.4	4077.5	4088.6
10°	4042.8	4057.9	4045.2	4050.9	4062.8	4073.0
10.5°	4021.9	4036.2	4025.6	4037.0	4046.9	4056.3
11°	3999.8	4013.7	4005.2	4022.3	4029.7	4036.2
11.5°	3976.1	3988.0	3983.1	4006.0	4011.3	4013.3
12°	3950.4	3960.2	3958.1	3988.4	3990.8	3989.2
12.5°	3922.6	3930.3	3931.6	3968.8	3967.5	3962.6
13°	3893.1	3899.7	3902.5	3948.7	3943.0	3933.2
13.5°	3862.1	3866.1	3872.7	3927.1	3916.8	3901.3
14°	3829.8	3830.6	3841.2	3903.8	3888.2	3868.6
14.5°	3796.6	3793.8	3808.1	3878.4	3858.8	3834.3
15°	3761.5	3755.3	3772.9	3850.2	3826.1	3797.5
15.5°	3725.5	3715.7	3736.1	3820.4	3792.5	3758.6
16°	3687.5	3674.8	3698.5	3788.1	3757.4	3719.0
16.5°	3648.6	3631.5	3659.7	3754.1	3721.0	3677.7
17°	3609.0	3588.1	3620.8	3718.5	3683.8	3636.4
17.5°	3568.5	3543.6	3579.5	3679.7	3643.7	3591.8
18°	3526.0	3499.0	3536.6	3640.5	3603.7	3548.5
18.5°	3485.5	3451.6	3493.3	3599.2	3562.4	3503.5
19°	3440.9	3402.9	3449.9	3556.2	3520.3	3456.5
19.5°	3396.8	3353.4	3405.0	3511.7	3476.9	3407.0
20°	3349.3	3303.1	3359.6	3465.9	3432.3	3356.3
20.5°	3303.6	3250.8	3310.1	3415.6	3387.4	3305.6
21°	3255.3	3200.1	3262.7	3369.0	3339.5	3252.9

TEST NUMBER: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3109.8	3046.0	3112.2	3215.2	3189.5	3104.9
23°	3061.1	2993.2	3063.2	3165.8	3138.0	3052.9
23.5°	3012.0	2940.1	3014.1	3111.4	3088.5	2999.0
24°	2963.0	2884.9	2960.5	3057.0	3040.7	2946.6
24.5°	2913.9	2829.3	2907.0	2999.8	2991.2	2893.1
25°	2859.5	2772.9	2853.4	2946.6	2936.8	2838.7
25.5°	2803.9	2716.4	2798.2	2889.4	2883.7	2783.1
26°	2748.7	2658.0	2743.0	2830.9	2828.9	2726.7
26.5°	2693.5	2600.7	2687.8	2768.8	2775.7	2669.8
27°	2636.7	2540.6	2632.6	2712.8	2718.5	2612.6
27.5°	2579.1	2480.1	2574.2	2653.1	2662.9	2553.3
28°	2521.8	2419.2	2516.5	2592.1	2605.2	2493.6
28.5°	2463.4	2357.9	2459.3	2533.3	2548.4	2433.1
29°	2404.1	2296.1	2400.4	2475.2	2490.3	2373.0
29.5°	2344.4	2236.4	2341.5	2418.8	2434.3	2312.5
30°	2285.1	2179.2	2281.8	2361.1	2375.0	2251.6
30.5°	2226.6	2123.6	2223.0	2302.7	2316.6	2195.1
31°	2167.8	2063.5	2164.5	2242.6	2257.3	2139.5
31.5°	2113.0	2011.6	2106.4	2181.7	2199.6	2079.4
32°	2058.2	1964.6	2052.5	2120.7	2140.8	2026.7
32.5°	2000.9	1902.8	1998.5	2060.2	2082.7	1982.1
33°	1951.1	1843.9	1940.0	2000.5	2030.0	1930.6
33.5°	1904.9	1772.0	1893.4	1939.2	1974.8	1866.8
34°	1845.6	1698.4	1846.0	1878.7	1918.8	1803.9
34.5°	1790.8	1627.2	1785.1	1818.6	1873.4	1731.9
35°	1723.3	1556.9	1727.4	1759.7	1828.0	1660.4
35.5°	1655.5	1490.3	1658.7	1702.1	1771.2	1590.0
36°	1588.4	1420.8	1591.3	1646.9	1716.0	1521.8
36.5°	1523.0	1350.9	1526.3	1591.3	1651.8	1446.5
37°	1458.0	1280.9	1459.6	1538.9	1585.1	1379.1
37.5°	1394.2	1211.4	1396.7	1488.2	1517.7	1312.0
38°	1330.4	1141.5	1333.3	1444.5	1446.1	1244.6
38.5°	1265.0	1073.2	1270.3	1400.7	1386.8	1177.5
39°	1198.8	1006.6	1207.4	1357.0	1327.1	1108.8
39.5°	1132.9	944.0	1143.6	1313.2	1267.9	1042.6
40°	1067.9	883.5	1078.2	1269.5	1208.2	978.8
40.5°	1006.2	825.5	1016.0	1233.1	1144.4	915.4
41°	946.1	766.6	954.3	1201.6	1081.4	856.1
41.5°	888.0	710.2	897.4	1166.9	1018.5	798.5
42°	831.2	653.4	841.0	1135.0	958.4	741.3
42.5°	775.6	603.1	787.9	1101.5	901.1	684.4
43°	721.2	552.8	734.3	1050.4	845.9	630.5
43.5°	668.9	504.9	681.6	1002.1	791.5	578.5

TEST NUMBER: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	519.7	373.7	533.1	840.6	637.0	437.1
45.5°	473.0	333.6	486.9	791.5	587.1	393.3
46°	428.9	295.6	443.6	742.5	539.7	352.0
46.5°	389.6	258.8	402.3	693.8	493.5	312.8
47°	350.4	225.3	362.7	645.2	449.7	275.2
47.5°	311.5	194.2	323.4	600.6	408.0	239.6
48°	272.3	167.2	287.4	554.8	367.6	207.3
48.5°	238.4	143.5	253.9	511.1	328.3	178.7
49°	206.5	128.0	222.0	469.4	292.7	153.3
49.5°	177.4	112.4	193.0	429.3	258.0	136.6
50°	152.5	96.9	166.0	390.9	225.3	120.6
50.5°	130.4	81.4	141.9	354.9	194.6	104.3
51°	111.2	66.2	125.9	321.4	168.4	87.9
51.5°	94.4	54.4	110.0	289.5	144.7	72.0
52°	80.1	42.9	94.0	259.2	128.4	59.7
52.5°	67.5	31.9	77.7	231.4	112.0	48.2
53°	56.8	21.3	62.1	204.4	96.1	36.8
53.5°	46.2	13.9	50.3	179.5	79.7	25.8
54°	35.6	12.7	38.8	156.6	63.8	17.6
54.5°	24.9	11.9	28.2	135.7	51.9	15.5
55°	14.7	11.0	18.4	116.5	40.5	14.3
55.5°	11.0	10.2	16.4	102.6	29.4	12.7
56°	10.6	9.8	14.7	88.7	19.6	11.4
56.5°	10.2	9.4	12.7	75.2	12.7	11.0
57°	9.8	9.0	10.6	61.3	11.9	10.6
57.5°	9.4	8.6	8.6	47.4	11.4	10.2
58°	9.0	8.6	8.6	38.0	10.6	9.8
58.5°	9.0	8.2	8.2	30.3	9.8	9.4
59°	8.6	7.8	8.2	24.1	9.4	9.4
59.5°	8.2	7.8	7.8	19.6	9.4	9.0
60°	8.2	7.4	7.4	15.5	9.0	8.6
60.5°	7.8	7.0	7.4	13.9	8.6	8.2
61°	7.4	7.0	7.0	11.9	8.6	8.2
61.5°	7.4	6.5	7.0	9.8	8.2	7.8
62°	7.0	6.5	6.5	7.8	7.8	7.8
62.5°	7.0	6.1	6.5	7.4	7.8	7.4
63°	6.5	6.1	6.1	7.4	7.4	7.0
63.5°	6.1	5.7	6.1	7.0	7.4	7.0
64°	6.1	5.7	5.7	7.0	7.0	6.5
64.5°	5.7	5.3	5.7	6.5	6.5	6.5
65°	5.7	5.3	5.3	6.5	6.5	6.1
65.5°	5.3	4.9	5.3	6.1	6.1	6.1
66°	5.3	4.9	4.9	6.1	6.1	5.7



TEST NUMBER: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.9	4.1	4.5	5.3	5.3	5.3
68°	4.5	4.1	4.5	5.3	5.3	4.9
68.5°	4.5	4.1	4.1	4.9	4.9	4.9
69°	4.1	3.7	4.1	4.9	4.9	4.5
69.5°	4.1	3.7	4.1	4.5	4.9	4.5
70°	3.7	3.3	3.7	4.5	4.5	4.1
70.5°	3.7	3.3	3.7	4.5	4.5	4.1
71°	3.7	3.3	3.3	4.1	4.1	4.1
71.5°	3.3	2.9	3.3	4.1	4.1	3.7
72°	3.3	2.9	3.3	3.7	3.7	3.7
72.5°	2.9	2.9	2.9	3.7	3.7	3.3
73°	2.9	2.9	2.9	3.3	3.7	3.3
73.5°	2.9	2.5	2.9	3.3	3.3	3.3
74°	2.5	2.5	2.9	3.3	3.3	2.9
74.5°	2.5	2.5	2.5	2.9	3.3	2.9
75°	2.5	2.5	2.5	2.9	2.9	2.9
75.5°	2.5	2.0	2.5	2.5	2.9	2.5
76°	2.0	2.0	2.0	2.5	2.5	2.5
76.5°	2.0	2.0	2.0	2.5	2.5	2.5
77°	2.0	2.0	2.0	2.0	2.5	2.5
77.5°	1.6	1.6	2.0	2.0	2.0	2.0
78°	1.6	1.6	1.6	2.0	2.0	2.0
78.5°	1.6	1.6	1.6	1.6	2.0	2.0
79°	1.6	1.6	1.6	1.6	2.0	1.6
79.5°	1.2	1.2	1.6	1.6	1.6	1.6
80°	1.2	1.2	1.2	1.2	1.6	1.6
80.5°	1.2	1.2	1.2	1.2	1.6	1.6
81°	1.2	1.2	1.2	1.2	1.2	1.2
81.5°	0.8	1.2	1.2	1.2	1.2	1.2
82°	0.8	0.8	0.8	0.8	1.2	1.2
82.5°	0.8	0.8	0.8	0.8	0.8	1.2
83°	0.8	0.8	0.8	0.8	0.8	0.8
83.5°	0.8	0.8	0.8	0.8	0.8	0.8
84°	0.4	0.8	0.8	0.4	0.8	0.8
84.5°	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.4	0.4	0.4
85.5°	0.4	0.4	0.4	0.4	0.4	0.4
86°	0.4	0.4	0.4	0.4	0.4	0.4
86.5°	0.0	0.4	0.4	0.4	0.4	0.4
87°	0.0	0.0	0.0	0.0	0.0	0.4
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: P776414

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQC-4000lm-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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Scaled Data Report



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Scaled Data Report





21.5°	3203.0	3346.5	3481.0	3439.3	3303.1	3411.9	3519.0	3384.1	3273.3	3287.2	3337.9
22°	3153.9	3297.8	3435.2	3396.4	3256.1	3368.2	3473.6	3340.4	3227.5	3237.7	3287.2



44°	528.7	805.0	1184.0	1018.1	703.6	959.6	1247.8	848.4	598.2	744.5	989.4
44.5°	481.6	749.0	1135.0	956.7	650.5	901.1	1205.7	792.8	547.0	691.8	933.8



66.5°	5.7	6.1	7.0	6.1	5.7	6.5	7.0	6.1	5.7	6.1	6.1
67°	5.3	6.1	6.5	6.1	5.3	6.1	7.0	6.1	5.7	5.7	5.7



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°	3206.7	3150.6	3212.4	3319.5	3290.5	3203.0
22°	3158.8	3099.9	3163.3	3269.2	3239.0	3153.9



44°	617.4	457.9	629.2	949.0	740.0	528.7
44.5°	566.3	415.4	580.6	895.0	687.7	481.6



66.5°	5.3	4.5	4.9	5.7	5.7	5.7
67°	4.9	4.5	4.9	5.7	5.7	5.3

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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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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)