

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: P776797

Luminaire Tested: HCDJBL54050CSD-HCD8TRC-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776797
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: HCDJBL54050CSD-HCD8TRC-5000lm-3500K
Description: 8 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

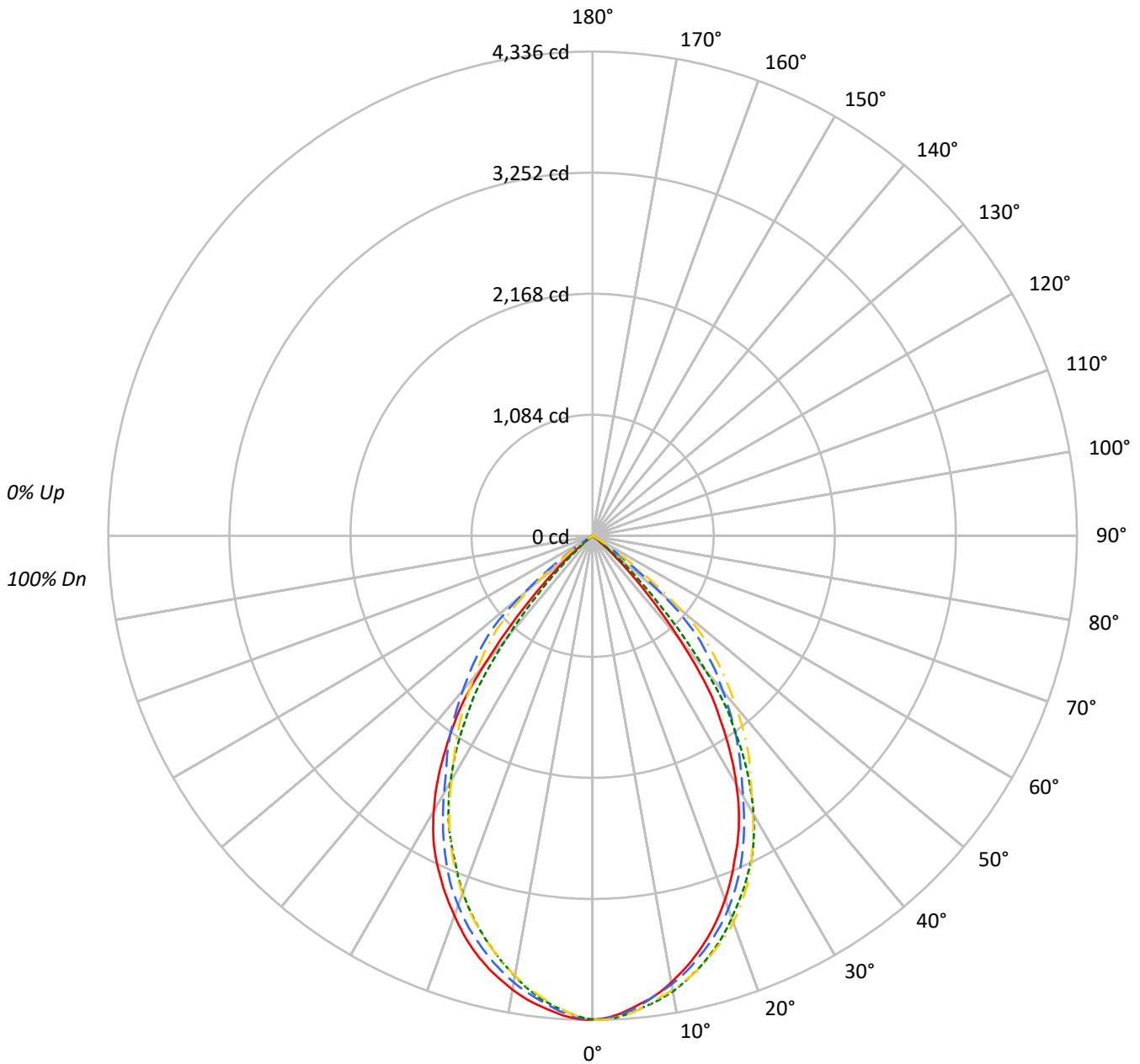
Lumens per Lamp: N/A
Luminaire Lumens: 5142.8 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 1.05
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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					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	111	108	105	103	104	102	100	100	99	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	89	85	82	87	83	80	85	82	79	78								
4	95	86	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71								
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65								
6	84	74	68	63	83	73	67	63	72	66	62	70	66	62	69	65	61	60								
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55								
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	52	51								
9	71	60	54	49	70	60	54	49	59	53	49	58	53	49	57	52	49	47								
10	67	56	50	46	66	56	50	46	55	50	46	54	49	45	54	49	45	44								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	132254	132254	132254	132254
5°	129866	130979	130850	129229
10°	125853	128398	127958	124185
15°	120155	124210	123705	117857
20°	112622	118327	117561	110432
25°	103118	111415	110414	101305
30°	90813	101558	100310	89815
35°	73621	85931	84507	73076
40°	48351	62663	60124	47674
45°	21230	32192	30193	20759
50°	4640	9347	8336	4484
55°	601	905	830	580
60°	488	721	666	464
65°	412	614	549	376
70°	339	509	464	295
75°	283	448	389	283
80°	246	422	334	246
85°	175	315	315	175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 67459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.9	7.8
10°-20°	1076.2	20.9
20°-30°	1447.6	28.1
30°-40°	1367.8	26.6
40°-50°	734.1	14.3
50°-60°	106.2	2.1
60°-70°	7.0	0.1
70°-80°	3.2	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°	2923.7	56.9
0°-40°	4291.6	83.4
0°-60°	5131.9	99.8
0°-90°	5142.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5142.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4332	4332	4332	4332	4332	
5°	4238	4274	4270	4217	4238	399
15°	3802	3930	3914	3729	3802	1065
25°	3061	3307	3278	3007	3061	1398
35°	1975	2306	2267	1961	1975	1210
45°	492	746	699	481	492	408
55°	11	17	16	11	11	19
65°	6	8	8	5	6	6
75°	2	4	3	2	2	3
85°	0	1	1	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°	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9
0.5°	4331.4	4331.9	4331.4	4332.3	4333.3	4334.2	4334.7	4336.1	4335.2	4332.8	4329.0
1°	4327.1	4328.6	4329.0	4331.9	4334.2	4335.2	4336.1	4336.1	4334.2	4330.0	4324.3
1.5°	4320.5	4323.8	4324.8	4328.6	4332.3	4334.2	4334.7	4334.7	4330.9	4325.7	4319.1
2°	4313.0	4317.7	4319.1	4323.8	4329.5	4330.9	4331.4	4331.4	4326.7	4319.6	4311.6
2.5°	4304.0	4309.7	4311.6	4317.7	4324.8	4326.2	4327.1	4326.7	4320.5	4311.6	4302.6
3°	4292.7	4299.3	4302.6	4309.2	4317.7	4320.1	4320.5	4319.6	4313.5	4303.1	4291.8
3.5°	4280.4	4287.5	4291.8	4299.3	4309.2	4312.0	4312.5	4311.1	4304.0	4292.2	4279.5
4°	4265.3	4273.8	4280.0	4288.5	4298.8	4302.1	4303.1	4301.7	4293.2	4280.0	4265.3
4.5°	4252.1	4260.6	4266.3	4274.3	4286.6	4290.8	4292.2	4289.9	4281.4	4266.7	4250.2
5°	4237.5	4247.9	4250.7	4260.1	4273.8	4277.6	4279.5	4277.6	4269.6	4252.6	4234.2
5.5°	4222.9	4232.8	4234.7	4244.1	4261.1	4264.4	4264.9	4264.4	4258.7	4238.4	4218.6
6°	4207.8	4217.2	4218.1	4229.9	4249.8	4251.6	4249.8	4253.1	4246.5	4224.7	4202.6
6.5°	4194.5	4202.6	4200.7	4214.8	4238.4	4239.4	4234.7	4239.8	4235.1	4210.1	4186.1
7°	4179.9	4188.4	4182.8	4199.7	4226.6	4226.6	4218.1	4227.1	4223.3	4196.0	4170.5
7.5°	4162.5	4172.4	4164.8	4185.6	4215.8	4214.4	4202.6	4213.0	4209.2	4180.4	4154.0
8°	4145.0	4155.4	4147.8	4171.0	4203.0	4201.6	4188.4	4197.9	4195.0	4164.3	4136.5
8.5°	4126.6	4137.0	4130.4	4155.4	4189.4	4188.4	4172.8	4181.8	4179.9	4146.9	4119.0
9°	4104.9	4117.2	4113.4	4137.5	4173.3	4172.8	4159.2	4165.8	4162.9	4129.9	4101.6
9.5°	4082.7	4095.9	4095.9	4120.0	4158.2	4157.3	4144.5	4147.4	4145.9	4112.4	4082.7
10°	4059.6	4073.7	4078.5	4101.6	4141.7	4141.2	4129.0	4128.5	4127.5	4093.6	4062.9
10.5°	4035.5	4050.2	4059.6	4083.2	4123.8	4124.2	4113.9	4109.1	4108.2	4074.7	4041.7
11°	4011.5	4024.2	4040.2	4062.4	4105.4	4105.4	4096.9	4089.3	4087.4	4053.5	4020.0
11.5°	3988.3	3998.7	4019.5	4041.7	4084.1	4086.0	4078.9	4067.6	4067.6	4032.2	3997.3
12°	3964.3	3973.7	3996.8	4019.0	4062.4	4064.8	4061.0	4045.9	4048.3	4010.5	3974.2
12.5°	3939.7	3948.7	3973.2	3996.4	4041.7	4042.1	4042.6	4024.2	4028.4	3990.2	3950.1
13°	3914.3	3922.7	3950.6	3972.8	4021.4	4019.5	4024.2	4004.4	4009.1	3969.5	3927.0
13.5°	3886.4	3897.3	3924.6	3950.6	4001.5	3998.7	4004.4	3984.1	3986.4	3949.6	3901.0
14°	3858.6	3870.4	3900.1	3928.4	3979.8	3978.0	3984.1	3964.7	3962.4	3928.4	3874.6
14.5°	3829.8	3842.1	3873.7	3906.2	3954.8	3956.2	3961.9	3943.0	3938.8	3904.8	3848.2
15°	3801.5	3812.8	3848.2	3882.6	3929.8	3933.6	3938.8	3919.9	3913.8	3879.8	3820.8
15.5°	3771.7	3784.5	3820.8	3856.7	3903.9	3908.6	3914.3	3895.8	3888.8	3854.3	3794.4
16°	3741.5	3754.8	3796.3	3830.3	3878.9	3883.6	3889.7	3873.2	3862.3	3827.9	3767.5
16.5°	3709.9	3725.5	3768.9	3803.4	3853.4	3857.2	3865.6	3847.7	3835.4	3801.5	3741.1
17°	3677.4	3694.8	3740.1	3775.5	3826.0	3832.1	3841.6	3822.7	3808.1	3773.2	3711.8
17.5°	3644.3	3665.1	3709.9	3747.2	3798.6	3805.2	3818.0	3796.8	3778.3	3744.4	3684.0
18°	3609.9	3633.0	3682.6	3718.4	3768.9	3778.3	3795.3	3770.3	3746.7	3713.7	3652.4
18.5°	3574.5	3600.0	3651.4	3689.2	3738.7	3749.6	3769.4	3742.5	3715.1	3682.1	3620.3
19°	3539.1	3566.9	3619.8	3658.0	3707.6	3719.8	3742.5	3712.8	3684.0	3649.5	3587.7
19.5°	3503.2	3533.4	3587.2	3625.0	3674.5	3689.6	3713.2	3682.1	3650.5	3617.0	3554.2
20°	3466.4	3498.1	3554.2	3592.0	3642.0	3658.0	3683.5	3650.9	3618.4	3583.5	3520.2
20.5°	3429.2	3462.7	3518.8	3557.5	3609.9	3625.9	3651.4	3618.9	3586.3	3548.5	3486.3
21°	3389.5	3426.8	3482.5	3522.6	3577.3	3592.9	3620.3	3586.8	3553.7	3513.6	3452.3



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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°	3267.8	3312.1	3372.5	3414.1	3479.6	3495.7	3517.4	3488.6	3456.1	3409.3	3341.9
23°	3223.9	3270.6	3332.4	3376.8	3446.6	3463.1	3482.0	3455.6	3423.5	3372.1	3301.8
23.5°	3181.4	3230.0	3293.3	3341.4	3414.1	3430.6	3446.6	3422.6	3384.8	3334.8	3260.7
24°	3139.9	3186.1	3251.7	3304.6	3377.3	3394.2	3411.2	3385.3	3348.0	3297.0	3218.2
24.5°	3100.3	3144.6	3208.8	3268.2	3341.9	3359.3	3370.6	3348.0	3312.1	3258.8	3175.3
25°	3061.1	3104.0	3165.8	3230.5	3307.4	3322.5	3329.1	3310.2	3277.7	3220.1	3130.5
25.5°	3019.1	3064.4	3121.5	3192.3	3274.4	3284.8	3285.7	3270.6	3242.8	3183.3	3086.1
26°	2975.7	3027.6	3076.7	3154.1	3238.0	3248.4	3242.3	3232.4	3206.0	3147.9	3040.8
26.5°	2931.3	2989.4	3031.4	3116.3	3198.4	3213.5	3195.6	3195.1	3166.3	3112.5	2995.0
27°	2884.6	2949.3	2983.7	3080.4	3157.8	3180.5	3148.4	3160.2	3124.8	3076.7	2949.3
27.5°	2836.9	2907.3	2936.5	3045.0	3115.8	3145.1	3102.6	3124.8	3082.3	3038.9	2902.5
28°	2786.5	2862.4	2887.0	3006.8	3071.9	3107.8	3056.8	3088.0	3038.0	2998.8	2855.4
28.5°	2736.4	2818.5	2838.8	2967.7	3026.6	3069.1	3010.6	3047.4	2992.7	2957.7	2808.2
29°	2683.6	2773.2	2789.8	2924.7	2979.0	3028.1	2966.2	3008.2	2945.0	2914.8	2760.0
29.5°	2630.7	2726.5	2740.7	2881.8	2930.4	2986.1	2918.1	2964.8	2895.0	2870.0	2709.5
30°	2576.0	2677.5	2693.0	2836.9	2880.8	2942.2	2872.3	2920.5	2845.4	2823.7	2658.6
30.5°	2520.3	2626.0	2645.8	2790.2	2828.9	2895.9	2824.2	2874.7	2793.1	2774.7	2610.0
31°	2459.9	2574.6	2599.1	2742.1	2776.5	2848.7	2776.5	2828.0	2741.6	2725.6	2563.3
31.5°	2406.1	2523.6	2555.7	2692.6	2721.8	2799.7	2727.9	2778.0	2686.9	2674.6	2518.4
32°	2346.2	2471.2	2512.3	2642.5	2667.1	2749.6	2682.6	2728.9	2632.6	2623.7	2476.9
32.5°	2287.7	2417.0	2469.4	2592.5	2610.9	2698.7	2638.3	2677.5	2573.6	2571.8	2436.3
33°	2224.9	2363.2	2426.4	2542.0	2553.8	2646.8	2597.2	2625.5	2516.1	2519.4	2398.6
33.5°	2166.4	2308.0	2383.0	2490.1	2494.4	2593.9	2557.6	2572.2	2454.7	2463.7	2359.9
34°	2102.2	2251.8	2341.5	2437.3	2433.0	2541.6	2519.4	2518.0	2392.9	2409.4	2321.2
34.5°	2039.9	2194.2	2299.9	2383.0	2368.8	2485.4	2480.7	2463.7	2329.2	2351.4	2280.1
35°	1975.3	2135.7	2257.9	2330.1	2305.6	2428.3	2442.5	2408.0	2267.4	2294.3	2240.5
35.5°	1916.3	2076.7	2215.5	2274.9	2242.8	2370.7	2401.9	2352.3	2202.7	2235.8	2197.5
36°	1855.9	2017.8	2170.2	2218.3	2179.1	2313.2	2359.9	2294.3	2140.0	2176.8	2155.6
36.5°	1797.9	1957.4	2125.4	2161.2	2116.9	2251.8	2316.9	2235.3	2079.6	2116.4	2111.7
37°	1722.4	1899.3	2080.1	2102.7	2056.5	2190.5	2272.6	2176.3	2018.7	2057.4	2067.8
37.5°	1637.9	1842.2	2035.2	2044.7	1998.9	2129.1	2226.3	2117.3	1947.5	1997.0	2023.0
38°	1553.4	1786.1	1989.0	1986.1	1925.7	2068.7	2180.1	2058.8	1872.9	1939.0	1979.5
38.5°	1469.4	1729.0	1943.2	1929.0	1846.5	2010.2	2134.3	1999.8	1788.0	1881.9	1936.1
39°	1385.0	1651.6	1899.8	1875.7	1762.0	1953.6	2088.5	1945.1	1698.8	1825.7	1893.2
39.5°	1300.5	1573.3	1855.4	1820.5	1666.7	1900.3	2041.4	1889.4	1602.5	1761.1	1849.3
40°	1213.2	1494.9	1813.0	1769.1	1572.3	1832.8	1995.6	1832.3	1508.6	1688.9	1806.8
40.5°	1126.4	1416.6	1768.6	1708.2	1478.9	1760.1	1950.8	1771.9	1417.5	1611.0	1764.8
41°	1046.6	1338.3	1726.6	1631.8	1389.2	1681.8	1905.9	1701.1	1329.8	1528.9	1723.3
41.5°	966.9	1255.2	1703.5	1554.8	1303.3	1595.4	1862.5	1626.1	1245.3	1444.0	1683.2
42°	893.7	1175.5	1657.7	1477.9	1217.0	1507.7	1817.7	1545.9	1158.9	1360.4	1642.1
42.5°	822.5	1095.7	1611.5	1401.5	1136.8	1421.3	1775.7	1464.2	1077.8	1281.6	1603.0
43°	753.6	1016.0	1565.7	1324.6	1049.9	1338.7	1733.7	1383.6	994.3	1203.8	1563.8
43.5°	682.3	940.0	1519.5	1246.7	970.2	1259.0	1690.7	1304.3	914.5	1129.7	1523.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	491.7	734.2	1398.2	1029.6	745.6	1024.0	1562.4	1080.6	699.3	905.5	1402.4
45.5°	433.7	667.2	1358.1	957.0	679.5	947.1	1519.0	1005.6	633.7	835.7	1363.3
46°	380.3	603.5	1314.2	889.0	611.1	873.5	1476.5	931.5	570.0	765.9	1323.6
46.5°	327.5	541.2	1262.3	818.7	550.2	803.6	1435.0	860.2	509.6	704.5	1277.9
47°	278.9	483.2	1202.4	753.1	495.5	735.7	1396.3	790.9	456.8	639.4	1233.5
47.5°	233.6	427.1	1141.0	688.0	441.2	668.7	1346.7	724.8	403.9	579.9	1181.6
48°	195.8	373.7	1080.1	628.5	386.9	605.0	1297.7	660.2	350.6	519.5	1130.6
48.5°	162.8	323.2	1021.6	567.2	332.2	543.6	1241.5	598.3	298.2	467.2	1062.2
49°	140.6	276.1	953.7	510.1	278.4	489.3	1174.0	537.5	253.9	414.3	989.1
49.5°	119.4	232.2	884.8	453.5	235.5	436.0	1104.2	485.1	213.8	361.9	910.7
50°	97.7	192.5	809.7	400.2	196.8	382.2	1027.8	432.2	175.5	309.6	834.3
50.5°	76.4	157.6	734.2	347.8	161.4	328.9	952.3	379.9	142.0	265.2	761.6
51°	59.5	136.4	660.6	301.5	129.8	275.1	875.8	327.5	112.3	224.6	691.3
51.5°	42.9	115.1	591.7	257.2	103.3	233.1	801.7	275.1	93.4	187.8	623.4
52°	26.9	93.4	526.6	216.6	86.4	194.4	726.7	232.2	74.1	151.9	556.3
52.5°	16.5	72.2	465.3	179.8	69.4	158.1	657.3	192.5	55.2	120.3	500.7
53°	14.6	55.7	406.3	152.9	51.9	126.9	588.0	157.1	35.9	93.0	444.5
53.5°	13.7	40.1	351.1	126.5	34.9	100.5	522.8	124.6	17.5	76.9	388.8
54°	12.7	24.5	300.6	99.6	18.4	83.1	465.7	96.3	16.5	60.9	332.7
54.5°	11.8	13.7	254.8	72.7	17.5	66.1	408.6	79.7	16.0	44.8	277.0
55°	11.3	12.7	213.3	46.2	17.0	49.1	352.0	63.2	15.6	28.8	234.5
55.5°	10.9	11.8	176.5	26.9	16.0	32.1	294.9	46.2	15.1	13.2	195.8
56°	10.4	11.3	151.5	14.6	15.6	15.1	248.2	29.7	14.6	12.7	160.4
56.5°	10.4	10.4	126.9	13.7	15.1	14.2	205.3	13.7	14.2	12.3	129.8
57°	9.9	9.9	101.9	13.2	14.6	13.7	167.0	13.2	13.7	11.8	102.9
57.5°	9.4	9.9	77.4	12.7	14.2	13.2	133.1	12.7	13.2	11.8	81.2
58°	9.0	9.4	52.9	12.3	13.7	12.7	103.8	12.7	12.7	11.3	68.4
58.5°	9.0	9.0	40.6	11.8	13.2	12.3	79.7	12.3	12.3	10.9	56.2
59°	8.5	9.0	31.1	11.3	12.7	12.3	67.0	11.8	11.8	10.4	43.4
59.5°	8.5	8.5	24.1	10.9	12.3	11.8	54.7	11.3	11.3	10.4	31.1
60°	8.0	8.5	18.4	10.9	11.8	11.3	42.9	10.9	10.9	9.9	18.9
60.5°	7.6	8.0	15.6	10.4	11.3	10.9	30.7	10.9	10.9	9.4	14.2
61°	7.6	8.0	13.2	9.9	11.3	10.4	18.4	10.4	10.4	9.4	10.4
61.5°	7.1	7.6	10.9	9.9	10.9	10.4	13.7	9.9	9.9	9.0	8.5
62°	7.1	7.6	8.0	9.4	10.4	9.9	10.9	9.9	9.4	8.5	7.6
62.5°	6.6	7.1	8.0	9.0	9.9	9.4	9.0	9.4	9.4	8.5	7.6
63°	6.6	7.1	7.6	9.0	9.9	9.4	8.5	9.0	9.0	8.0	7.1
63.5°	6.1	6.6	7.6	8.5	9.4	9.0	8.5	9.0	8.5	8.0	7.1
64°	6.1	6.6	7.1	8.5	9.0	9.0	8.0	8.5	8.5	7.6	6.6
64.5°	5.7	6.1	7.1	8.0	9.0	8.5	8.0	8.0	8.0	7.6	6.6
65°	5.7	6.1	6.6	7.6	8.5	8.0	7.6	8.0	7.6	7.1	6.1
65.5°	5.2	6.1	6.6	7.6	8.0	8.0	7.6	7.6	7.6	7.1	6.1
66°	5.2	5.7	6.1	7.1	8.0	7.6	7.1	7.6	7.1	6.6	5.7



TEST NUMBER: P776797

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	4.7	5.2	5.7	6.6	7.1	7.1	6.6	6.6	6.1	6.1	5.2
68°	4.2	4.7	5.7	6.1	6.6	6.6	6.1	6.1	6.1	5.7	5.2
68.5°	4.2	4.7	5.2	6.1	6.6	6.6	6.1	6.1	5.7	5.7	4.7
69°	4.2	4.2	5.2	5.7	6.1	6.1	5.7	5.7	5.7	5.2	4.7
69.5°	3.8	4.2	4.7	5.7	6.1	6.1	5.7	5.7	5.2	5.2	4.7
70°	3.8	4.2	4.7	5.2	5.7	5.7	5.2	5.2	5.2	4.7	4.2
70.5°	3.8	3.8	4.2	5.2	5.7	5.7	5.2	5.2	5.2	4.7	4.2
71°	3.3	3.8	4.2	4.7	5.7	5.2	4.7	4.7	4.7	4.7	3.8
71.5°	3.3	3.8	4.2	4.7	5.2	5.2	4.7	4.7	4.7	4.2	3.8
72°	3.3	3.3	3.8	4.7	5.2	4.7	4.2	4.7	4.2	4.2	3.8
72.5°	3.3	3.3	3.8	4.2	4.7	4.7	4.2	4.2	4.2	3.8	3.3
73°	2.8	3.3	3.3	4.2	4.7	4.7	3.8	4.2	4.2	3.8	3.3
73.5°	2.8	3.3	3.3	3.8	4.2	4.2	3.8	3.8	3.8	3.8	2.8
74°	2.8	2.8	3.3	3.8	4.2	4.2	3.8	3.8	3.8	3.3	2.8
74.5°	2.8	2.8	2.8	3.8	4.2	4.2	3.3	3.8	3.8	3.3	2.8
75°	2.4	2.8	2.8	3.3	3.8	3.8	3.3	3.3	3.3	3.3	2.4
75.5°	2.4	2.4	2.8	3.3	3.8	3.8	2.8	3.3	3.3	2.8	2.4
76°	2.4	2.4	2.4	3.3	3.8	3.3	2.8	3.3	3.3	2.8	2.4
76.5°	2.4	2.4	2.4	2.8	3.3	3.3	2.8	2.8	2.8	2.8	2.4
77°	1.9	2.4	2.4	2.8	3.3	3.3	2.4	2.8	2.8	2.4	1.9
77.5°	1.9	1.9	1.9	2.8	3.3	2.8	2.4	2.8	2.8	2.4	1.9
78°	1.9	1.9	1.9	2.4	2.8	2.8	2.4	2.4	2.4	2.4	1.9
78.5°	1.9	1.9	1.9	2.4	2.8	2.8	1.9	2.4	2.4	2.4	1.9
79°	1.9	1.9	1.9	2.4	2.8	2.4	1.9	2.4	2.4	1.9	1.4
79.5°	1.4	1.4	1.4	2.4	2.4	2.4	1.9	1.9	2.4	1.9	1.4
80°	1.4	1.4	1.4	1.9	2.4	2.4	1.9	1.9	1.9	1.9	1.4
80.5°	1.4	1.4	1.4	1.9	2.4	1.9	1.4	1.9	1.9	1.4	1.4
81°	1.4	1.4	1.4	1.9	1.9	1.9	1.4	1.4	1.9	1.4	0.9
81.5°	0.9	1.4	0.9	1.4	1.9	1.9	1.4	1.4	1.9	1.4	0.9
82°	0.9	0.9	0.9	1.4	1.9	1.9	1.4	1.4	1.4	1.4	0.9
82.5°	0.9	0.9	0.9	1.4	1.9	1.4	0.9	1.4	1.4	0.9	0.9
83°	0.9	0.9	0.9	0.9	1.4	1.4	0.9	0.9	1.4	0.9	0.9
83.5°	0.9	0.9	0.9	0.9	1.4	1.4	0.9	0.9	1.4	0.9	0.5
84°	0.5	0.5	0.5	0.9	1.4	0.9	0.9	0.9	0.9	0.9	0.5
84.5°	0.5	0.5	0.5	0.9	1.4	0.9	0.9	0.9	0.9	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.9	0.5	0.5
85.5°	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.9	0.5	0.5
86°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.5	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.5	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: P776797
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-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: P776797

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TRC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4331.9	4331.9	4331.9	4331.9	4331.9	4331.9
0.5°	4328.1	4325.3	4326.2	4327.1	4329.5	4331.4
1°	4322.9	4319.1	4318.2	4320.5	4324.3	4327.1
1.5°	4315.4	4309.7	4309.2	4311.6	4316.8	4320.5
2°	4306.4	4299.3	4297.4	4300.7	4306.9	4313.0
2.5°	4296.0	4286.6	4284.7	4288.5	4296.0	4304.0
3°	4283.3	4272.9	4271.5	4274.8	4283.7	4292.7
3.5°	4269.6	4259.2	4255.4	4260.1	4269.1	4280.4
4°	4255.9	4245.5	4241.7	4242.7	4253.5	4265.3
4.5°	4242.7	4231.8	4226.2	4225.2	4236.5	4252.1
5°	4228.5	4216.7	4210.1	4208.2	4220.0	4237.5
5.5°	4213.4	4200.2	4192.7	4189.4	4202.6	4222.9
6°	4196.9	4184.6	4175.2	4170.0	4183.7	4207.8
6.5°	4180.4	4166.2	4157.3	4151.1	4165.8	4194.5
7°	4163.4	4147.8	4136.5	4131.3	4148.8	4179.9
7.5°	4144.1	4126.1	4115.3	4110.6	4129.9	4162.5
8°	4123.3	4104.4	4093.1	4090.7	4110.6	4145.0
8.5°	4100.6	4080.8	4068.6	4068.1	4090.3	4126.6
9°	4077.5	4056.3	4044.0	4046.4	4069.0	4104.9
9.5°	4053.0	4031.7	4017.6	4024.2	4046.8	4082.7
10°	4028.0	4005.8	3992.1	4001.1	4023.3	4059.6
10.5°	4003.0	3979.4	3964.3	3977.5	3998.7	4035.5
11°	3976.5	3953.4	3936.4	3952.9	3973.7	4011.5
11.5°	3950.1	3927.9	3908.6	3927.5	3948.7	3988.3
12°	3924.2	3901.5	3882.6	3901.0	3922.7	3964.3
12.5°	3899.2	3873.2	3855.3	3874.1	3897.7	3939.7
13°	3873.7	3844.9	3828.8	3846.8	3872.3	3914.3
13.5°	3845.8	3816.1	3798.6	3818.5	3847.2	3886.4
14°	3819.4	3786.8	3768.9	3788.7	3821.3	3858.6
14.5°	3790.6	3758.1	3738.7	3759.9	3793.9	3829.8
15°	3762.8	3728.8	3709.9	3731.2	3765.1	3801.5
15.5°	3733.5	3698.6	3679.3	3701.9	3735.4	3771.7
16°	3705.2	3667.5	3649.1	3672.2	3705.7	3741.5
16.5°	3676.0	3637.3	3617.9	3641.5	3675.5	3709.9
17°	3646.2	3605.2	3587.2	3611.8	3644.3	3677.4
17.5°	3615.6	3572.1	3555.6	3579.7	3612.7	3644.3
18°	3584.9	3538.2	3522.6	3547.6	3579.7	3609.9
18.5°	3551.8	3505.1	3490.0	3515.0	3545.7	3574.5
19°	3518.8	3470.2	3455.6	3480.1	3511.3	3539.1
19.5°	3485.8	3434.8	3421.1	3446.1	3475.4	3503.2
20°	3452.8	3399.0	3385.3	3410.8	3437.7	3466.4
20.5°	3419.2	3361.2	3350.4	3374.4	3400.4	3429.2
21°	3383.4	3323.0	3314.5	3337.1	3362.2	3389.5

TEST NUMBER: P776797

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3268.7	3201.7	3199.4	3222.9	3243.7	3267.8
23°	3229.6	3159.7	3159.7	3181.9	3202.2	3223.9
23.5°	3187.6	3122.0	3117.2	3142.3	3160.7	3181.4
24°	3145.6	3083.7	3075.2	3098.8	3118.2	3139.9
24.5°	3101.7	3045.5	3036.1	3056.4	3073.4	3100.3
25°	3060.6	3007.3	2997.4	3012.0	3027.6	3061.1
25.5°	3020.5	2968.6	2961.5	2969.1	2985.1	3019.1
26°	2983.2	2928.5	2923.3	2922.4	2943.1	2975.7
26.5°	2946.9	2886.5	2885.6	2876.1	2904.0	2931.3
27°	2910.6	2842.6	2847.8	2828.5	2863.8	2884.6
27.5°	2872.3	2796.4	2807.7	2779.4	2821.8	2836.9
28°	2833.2	2748.2	2767.1	2729.4	2779.4	2786.5
28.5°	2791.6	2700.1	2724.2	2680.3	2735.5	2736.4
29°	2749.2	2651.0	2679.8	2629.8	2689.7	2683.6
29.5°	2704.3	2599.1	2634.5	2580.2	2642.1	2630.7
30°	2659.5	2547.7	2586.9	2530.2	2593.5	2576.0
30.5°	2612.3	2493.9	2538.2	2483.0	2543.9	2520.3
31°	2565.6	2438.7	2487.8	2435.8	2492.9	2459.9
31.5°	2515.6	2382.5	2437.3	2390.1	2441.0	2406.1
32°	2467.5	2326.4	2385.8	2343.8	2388.2	2346.2
32.5°	2417.0	2266.9	2334.4	2300.9	2334.9	2287.7
33°	2365.5	2207.9	2280.1	2257.9	2281.5	2224.9
33.5°	2314.1	2147.1	2224.0	2216.9	2227.7	2166.4
34°	2261.7	2084.8	2168.8	2175.8	2174.0	2102.2
34.5°	2206.5	2022.5	2109.3	2132.9	2117.3	2039.9
35°	2152.7	1960.7	2050.8	2089.5	2061.6	1975.3
35.5°	2098.0	1902.2	1991.8	2046.1	2006.0	1916.3
36°	2042.8	1845.5	1932.8	2000.3	1949.3	1855.9
36.5°	1985.7	1787.5	1872.9	1955.5	1893.2	1797.9
37°	1929.0	1713.9	1815.8	1911.6	1836.1	1722.4
37.5°	1872.9	1627.5	1759.2	1867.2	1779.5	1637.9
38°	1817.7	1541.2	1709.6	1822.9	1723.3	1553.4
38.5°	1765.8	1455.3	1632.7	1778.0	1662.9	1469.4
39°	1717.6	1368.9	1555.3	1736.0	1602.5	1385.0
39.5°	1665.3	1282.6	1477.9	1687.4	1541.6	1300.5
40°	1598.7	1196.2	1401.0	1648.8	1481.2	1213.2
40.5°	1522.3	1110.8	1324.1	1609.6	1420.4	1126.4
41°	1444.9	1029.2	1246.7	1570.4	1348.2	1046.6
41.5°	1368.0	949.9	1167.4	1531.3	1276.4	966.9
42°	1293.4	877.2	1088.2	1491.6	1205.7	893.7
42.5°	1217.9	807.9	1009.8	1451.5	1131.6	822.5
43°	1141.5	738.0	935.3	1412.3	1058.0	753.6
43.5°	1063.6	668.7	864.5	1372.2	985.3	682.3

TEST NUMBER: P776797

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	848.9	480.8	668.2	1258.5	785.7	491.7
45.5°	782.9	425.2	605.0	1213.7	723.4	433.7
46°	717.3	371.4	546.0	1164.6	662.0	380.3
46.5°	653.6	319.9	487.9	1102.8	598.8	327.5
47°	591.7	271.3	433.7	1043.3	541.2	278.9
47.5°	531.3	228.4	379.4	986.2	483.7	233.6
48°	479.0	191.1	328.9	926.8	429.9	195.8
48.5°	426.6	159.5	281.7	863.1	376.6	162.8
49°	374.7	137.3	238.3	789.5	328.4	140.6
49.5°	322.3	115.6	199.6	716.3	279.8	119.4
50°	269.9	94.4	165.2	649.8	236.4	97.7
50.5°	227.0	73.1	143.5	585.1	196.8	76.4
51°	188.8	56.2	122.2	525.7	163.3	59.5
51.5°	155.7	39.6	100.5	468.1	142.0	42.9
52°	128.4	24.1	79.3	413.8	120.8	26.9
52.5°	105.2	14.2	57.6	362.9	99.6	16.5
53°	85.9	13.2	41.1	315.2	78.3	14.6
53.5°	71.3	12.7	25.5	269.9	57.6	13.7
54°	56.6	11.8	14.2	230.3	41.1	12.7
54.5°	41.5	11.3	13.2	193.9	26.0	11.8
55°	26.9	10.9	11.8	160.9	14.6	11.3
55.5°	12.3	10.4	10.9	136.8	13.2	10.9
56°	9.9	9.9	9.9	112.8	11.8	10.4
56.5°	9.9	9.9	9.4	88.7	10.4	10.4
57°	9.4	9.4	9.0	64.6	9.4	9.9
57.5°	9.0	9.0	9.0	49.1	9.0	9.4
58°	9.0	9.0	8.5	37.3	8.5	9.0
58.5°	8.5	8.5	8.5	27.4	8.5	9.0
59°	8.5	8.0	8.0	20.3	8.0	8.5
59.5°	8.0	8.0	8.0	17.9	8.0	8.5
60°	8.0	7.6	7.6	15.1	7.6	8.0
60.5°	7.6	7.6	7.6	12.3	7.6	7.6
61°	7.6	7.1	7.1	9.4	7.1	7.6
61.5°	7.1	7.1	7.1	7.1	7.1	7.1
62°	7.1	6.6	6.6	6.6	6.6	7.1
62.5°	6.6	6.6	6.6	6.6	6.6	6.6
63°	6.6	6.1	6.1	6.1	6.6	6.6
63.5°	6.1	5.7	6.1	6.1	6.1	6.1
64°	6.1	5.7	5.7	6.1	6.1	6.1
64.5°	5.7	5.2	5.7	5.7	5.7	5.7
65°	5.7	5.2	5.7	5.7	5.7	5.7
65.5°	5.7	5.2	5.2	5.2	5.7	5.2
66°	5.2	4.7	5.2	5.2	5.2	5.2



TEST NUMBER: P776797

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.7	4.2	4.7	4.7	4.7	4.7
68°	4.2	4.2	4.2	4.7	4.7	4.2
68.5°	4.2	3.8	4.2	4.2	4.2	4.2
69°	4.2	3.8	4.2	4.2	4.2	4.2
69.5°	3.8	3.8	3.8	4.2	4.2	3.8
70°	3.8	3.3	3.8	3.8	3.8	3.8
70.5°	3.8	3.3	3.8	3.8	3.8	3.8
71°	3.3	3.3	3.3	3.3	3.8	3.3
71.5°	3.3	3.3	3.3	3.3	3.3	3.3
72°	3.3	2.8	3.3	3.3	3.3	3.3
72.5°	3.3	2.8	2.8	2.8	3.3	3.3
73°	2.8	2.8	2.8	2.8	3.3	2.8
73.5°	2.8	2.8	2.8	2.8	2.8	2.8
74°	2.8	2.4	2.8	2.4	2.8	2.8
74.5°	2.4	2.4	2.4	2.4	2.8	2.8
75°	2.4	2.4	2.4	2.4	2.4	2.4
75.5°	2.4	2.4	2.4	2.4	2.4	2.4
76°	2.4	1.9	2.4	1.9	2.4	2.4
76.5°	2.4	1.9	1.9	1.9	2.4	2.4
77°	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.9	1.9	1.9	1.9	1.9
78°	1.9	1.9	1.9	1.4	1.9	1.9
78.5°	1.9	1.9	1.9	1.4	1.9	1.9
79°	1.4	1.4	1.4	1.4	1.9	1.9
79.5°	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4
80.5°	1.4	1.4	1.4	0.9	1.4	1.4
81°	1.4	1.4	1.4	0.9	1.4	1.4
81.5°	0.9	0.9	0.9	0.9	0.9	0.9
82°	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9
83°	0.9	0.9	0.9	0.5	0.9	0.9
83.5°	0.9	0.9	0.9	0.5	0.5	0.9
84°	0.5	0.9	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.5	0.5
85.5°	0.5	0.5	0.5	0.5	0.5	0.5
86°	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.5	0.5	0.5	0.0	0.0	0.5
87°	0.0	0.5	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: P776797

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-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



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Cooper Lighting Solutions Photometric Lab
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Scaled Data Report





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

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Scaled Data Report





21.5°	3350.4	3389.0	3446.6	3486.3	3544.8	3560.3	3588.2	3554.2	3521.2	3478.7	3418.3
22°	3310.2	3351.3	3409.8	3449.4	3512.2	3527.8	3553.3	3521.2	3488.6	3444.3	3381.0



44°	615.3	870.1	1478.4	1174.0	889.0	1180.6	1648.3	1227.8	837.6	1052.8	1483.6
44.5°	551.2	801.3	1436.9	1100.9	818.2	1103.7	1604.9	1154.7	766.3	979.6	1443.0



66.5°	4.7	5.7	6.1	7.1	7.6	7.6	6.6	7.1	6.6	6.6	5.7
67°	4.7	5.2	6.1	6.6	7.1	7.1	6.6	6.6	6.6	6.1	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°	3346.6	3284.3	3275.8	3300.8	3323.9	3350.4
22°	3307.9	3242.8	3237.1	3262.1	3284.3	3310.2



44°	988.1	604.0	798.9	1332.6	914.5	615.3
44.5°	917.3	539.8	732.8	1293.0	848.9	551.2

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66.5°	5.2	4.7	4.7	5.2	5.2	4.7
67°	4.7	4.2	4.7	4.7	4.7	4.7

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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)