

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-54SL-RM-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
METALIC FINISH REFLECTOR  
Light Source: -  
Ballast/Driver: -

**Summary**

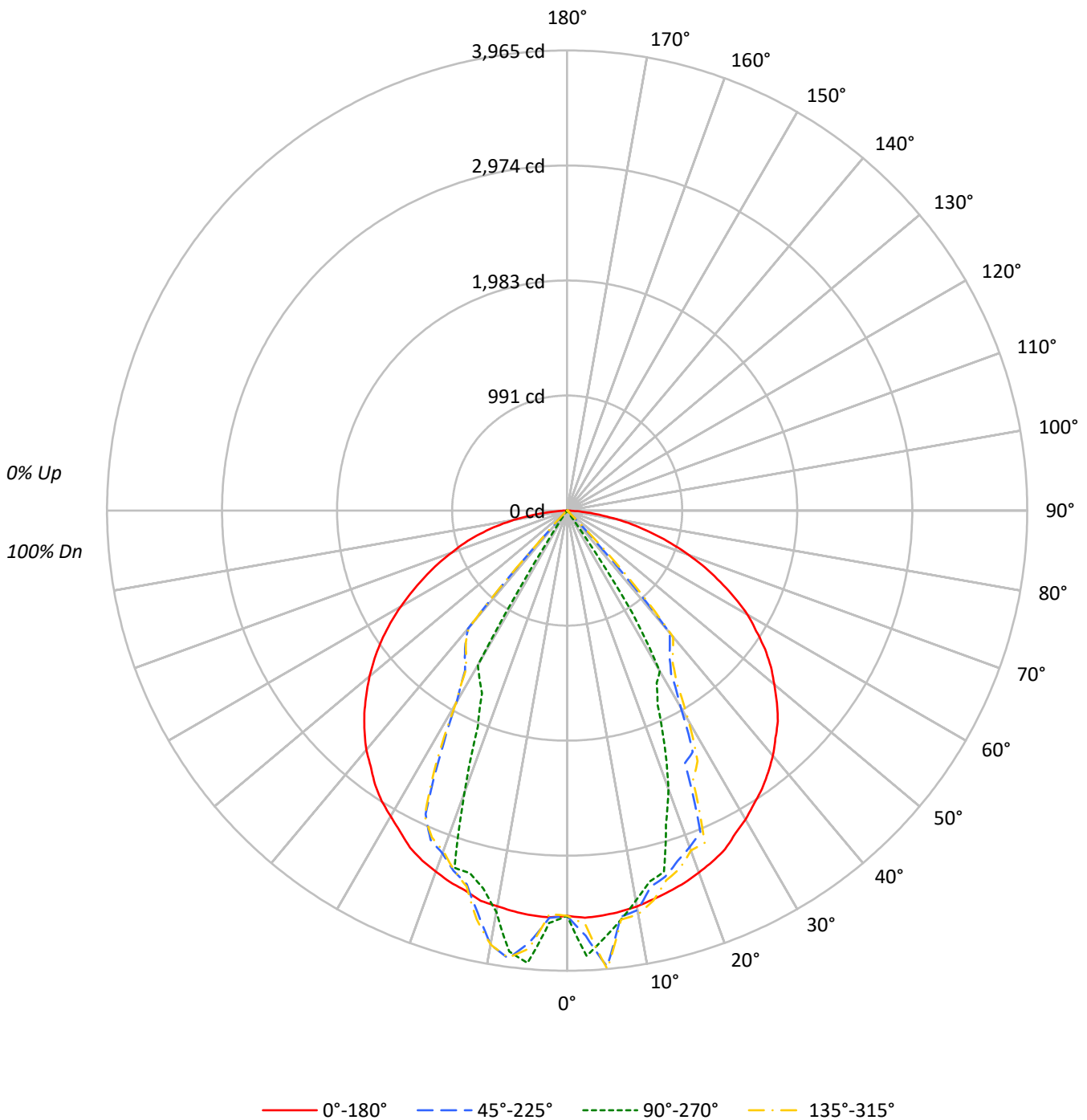
Lumens per Lamp: N/A  
Luminaire Lumens: 4964.9 lumens  
Efficiency: N/A  
Efficacy: 121.1 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 41  
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: 25 FT



TEST NUMBER: P#  
CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					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				100
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65				65
5	85	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54				54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45				45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				39

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	28217	28217	28217	28217
5°	28332	29021	28324	30733
10°	28265	26260	28247	27019
15°	28187	24511	28118	24575
20°	28220	19307	28140	19544
25°	28301	13971	28163	13184
30°	28172	12256	27874	11782
35°	28256	270	27842	327
40°	28353	59	27674	59
45°	28453	35	27385	26
50°	28236	27	26940	27
55°	28069	19	26345	19
60°	27540	21	25387	21
65°	26103	33	24244	22
70°	24216	36	23054	36
75°	21419	40	21771	40
80°	17397	46	18394	46
85°	10241	54	10453	54



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	350.3	7.1
10°-20°	955.5	19.2
20°-30°	1215.9	24.5
30°-40°	1027.1	20.7
40°-50°	671.5	13.5
50°-60°	423.1	8.5
60°-70°	225.2	4.5
70°-80°	82.1	1.7
80°-90°	14.1	0.3
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°	2521.8	50.8
0°-40°	3548.9	71.5
0°-60°	4643.5	93.5
0°-90°	4964.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4964.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3492	3492	3492	3492	3492	
5°	3502	3695	3501	3913	3502	333
15°	3397	3224	3389	3233	3397	960
25°	3220	1841	3205	1738	3220	1481
35°	2927	35	2884	42	2927	1831
45°	2568	4	2471	3	2568	1974
55°	2081	2	1953	2	2081	1854
65°	1457	3	1353	2	1457	1443
75°	766	3	779	3	766	813
85°	150	3	153	3	150	189
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3511.7	3513.8	3514.8	3516.9	3520.1	3521.1	3523.2	3521.1	3521.1	3521.1	3521.1
5°	3502.2	3506.4	3509.6	3513.8	3521.1	3522.1	3530.5	3531.6	3535.8	3544.2	3550.4
7.5°	3486.5	3490.7	3497.0	3507.5	3518.0	3529.5	3544.2	3559.9	3581.9	3602.8	3629.0
10°	3463.5	3468.7	3476.0	3485.5	3536.8	3544.2	3576.6	3621.7	3634.3	3700.3	3749.6
12.5°	3429.9	3447.7	3466.6	3475.0	3524.2	3601.8	3710.8	3688.8	3664.7	3880.5	3877.4
15°	3397.4	3421.5	3412.1	3480.2	3525.3	3660.5	3614.4	3712.9	3893.1	3849.1	3851.2
17.5°	3362.9	3368.1	3420.5	3477.1	3557.8	3626.9	3683.5	3818.7	3854.3	3857.5	3818.7
20°	3318.8	3344.0	3420.5	3471.8	3608.1	3640.6	3763.2	3832.3	3817.7	3782.0	3716.0
22.5°	3273.8	3350.3	3427.8	3500.1	3595.5	3682.5	3743.3	3775.8	3699.3	3558.8	3483.4
25°	3220.3	3265.4	3367.1	3472.9	3592.4	3642.7	3678.3	3625.9	3526.3	3400.6	3273.8
27.5°	3137.6	3209.9	3339.8	3459.3	3567.2	3628.0	3570.4	3444.6	3284.3	3201.5	3143.8
30°	3073.6	3167.9	3274.8	3390.1	3502.2	3537.9	3391.2	3247.6	3137.6	3054.8	3042.2
32.5°	2996.1	3130.2	3231.9	3341.9	3436.2	3389.1	3246.5	3061.1	2969.9	2938.4	2951.0
35°	2926.9	3028.6	3161.7	3269.6	3337.7	3231.9	3006.6	2891.3	2847.3	2865.1	2842.0
37.5°	2844.1	2978.3	3100.9	3194.1	3171.1	3011.8	2821.1	2747.7	2753.0	2738.3	2694.3
40°	2758.2	2886.0	3013.9	3101.9	3021.2	2778.1	2651.3	2635.6	2638.7	2591.6	2528.7
42.5°	2657.6	2773.9	2901.8	2981.4	2807.4	2617.8	2531.8	2533.9	2506.7	2440.7	2407.1
45°	2567.5	2674.4	2807.4	2814.8	2601.0	2442.8	2417.6	2390.4	2329.6	2307.6	2282.4
47.5°	2452.2	2570.6	2680.6	2640.8	2398.8	2300.2	2281.4	2221.6	2191.3	2174.5	2153.5
50°	2329.6	2449.1	2549.7	2436.5	2208.0	2185.0	2123.1	2076.0	2055.0	2037.2	2018.3
52.5°	2213.3	2311.8	2414.5	2219.6	2061.3	2039.3	1969.1	1941.8	1920.9	1901.0	1896.8
55°	2081.2	2168.2	2238.4	2013.1	1920.9	1869.5	1819.2	1800.4	1780.5	1771.0	1786.7
57.5°	1931.4	2029.9	2019.4	1809.8	1768.9	1694.5	1675.7	1663.1	1648.4	1654.7	1523.7
60°	1796.2	1871.6	1820.3	1661.0	1591.8	1541.5	1524.8	1516.4	1524.8	1396.9	1228.2
62.5°	1629.6	1714.4	1610.7	1487.0	1413.7	1389.6	1374.9	1386.4	1263.8	1123.4	1082.5
65°	1456.6	1548.9	1395.9	1300.5	1254.4	1233.4	1232.4	1134.9	1014.4	959.9	959.9
67.5°	1290.0	1385.4	1188.4	1108.7	1090.9	1093.0	1032.2	884.5	850.9	814.3	708.4
70°	1112.9	1196.8	981.9	933.7	923.2	915.9	768.1	728.3	688.5	591.0	582.7
72.5°	936.9	977.7	789.1	777.6	775.5	644.5	615.1	547.0	500.9	489.4	484.2
75°	766.0	753.5	623.5	634.0	534.5	488.3	441.2	401.4	395.1	390.9	97.5
77.5°	604.7	541.8	491.5	427.6	382.5	324.9	315.4	309.1	203.3	73.4	59.7
80°	440.1	351.1	327.0	277.7	236.8	227.4	232.6	71.3	56.6	47.2	40.9
82.5°	279.8	224.3	183.4	160.3	156.1	68.1	50.3	40.9	35.6	30.4	25.2
85°	149.9	99.6	92.2	77.5	46.1	31.4	26.2	19.9	16.8	13.6	12.6
87.5°	47.2	39.8	32.5	26.2	15.7	10.5	8.4	7.3	6.3	5.2	5.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3519.0	3521.1	3520.1	3523.2	3523.2	3527.4	3530.5	3533.7	3540.0	3543.1	3567.2
5°	3564.1	3569.3	3585.0	3599.7	3617.5	3622.8	3653.1	3660.5	3696.1	3700.3	3817.7
7.5°	3664.7	3684.6	3722.3	3760.0	3797.8	3821.9	3863.8	3890.0	3918.3	3943.4	4036.7
10°	3786.2	3819.8	3856.4	3894.2	3916.2	3962.3	3987.4	3991.6	3984.3	3943.4	3792.5
12.5°	3905.7	3939.2	3923.5	3930.8	3957.0	3875.3	3886.8	3828.2	3869.0	3666.8	3516.9
15°	3888.9	3886.8	3848.1	3722.3	3743.3	3587.1	3524.2	3476.0	3514.8	3493.9	3470.8
17.5°	3838.6	3743.3	3676.2	3525.3	3461.4	3417.4	3418.4	3419.5	3400.6	3420.5	3361.8
20°	3625.9	3519.0	3419.5	3366.0	3347.1	3315.7	3331.4	3315.7	3316.8	3323.0	3232.9
22.5°	3343.0	3310.5	3252.8	3269.6	3263.3	3291.6	3270.6	3238.2	3248.6	3201.5	3133.4
25°	3228.7	3191.0	3188.9	3195.2	3185.8	3173.2	3154.3	3105.1	3101.9	3087.3	3055.8
27.5°	3113.5	3115.5	3121.8	3103.0	3069.4	3044.3	3016.0	2991.9	3001.3	2984.6	2941.6
30°	3033.8	3032.8	2995.0	2978.3	2916.4	2917.5	2910.1	2895.5	2886.0	2887.1	2859.8
32.5°	2920.6	2888.1	2845.2	2824.2	2819.0	2800.1	2785.4	2788.6	2795.9	2769.7	2798.0
35°	2804.3	2737.2	2730.9	2713.1	2696.4	2683.8	2689.0	2668.1	2667.0	2663.9	2433.3
37.5°	2648.2	2615.7	2612.5	2593.7	2582.1	2579.0	2559.1	2562.2	2571.7	2588.4	2074.9
40°	2519.3	2489.9	2482.6	2481.5	2456.4	2454.3	2459.5	2479.4	2493.1	2388.3	1977.5
42.5°	2380.9	2383.0	2360.0	2345.3	2348.4	2357.9	2383.0	2313.9	2004.7	1910.4	1807.7
45°	2262.5	2252.0	2239.5	2235.3	2262.5	2243.7	1967.0	1815.0	1778.4	1774.2	1486.0
47.5°	2138.9	2135.7	2130.5	2133.6	1978.5	1763.7	1700.8	1680.9	1687.2	1683.0	1276.4
50°	2014.2	2018.3	2018.3	1762.6	1618.0	1582.4	1587.6	1605.5	1494.4	1394.8	1189.4
52.5°	1906.2	1873.7	1605.5	1513.2	1480.7	1496.5	1458.7	1319.4	1218.8	1160.1	1100.3
55°	1706.1	1467.1	1407.4	1392.7	1404.2	1264.9	1178.9	1088.8	1062.6	1056.3	1021.7
57.5°	1342.4	1294.2	1299.5	1240.8	1107.7	1029.1	994.5	981.9	970.4	962.0	83.8
60°	1187.3	1200.9	1099.3	973.5	920.1	909.6	901.2	889.7	887.6	872.9	53.4
62.5°	1086.7	955.7	867.7	836.3	823.7	820.5	804.8	799.6	679.1	93.3	39.8
65°	819.5	766.0	749.3	741.9	728.3	728.3	604.7	95.4	77.5	67.1	35.6
67.5°	668.6	664.4	656.0	646.6	440.1	92.2	80.7	70.2	60.8	53.4	31.4
70°	565.9	563.8	513.5	94.3	78.6	69.2	60.8	54.5	50.3	45.1	28.3
72.5°	464.2	94.3	79.6	69.2	59.7	54.5	49.3	44.0	39.8	36.7	23.1
75°	72.3	63.9	56.6	51.3	47.2	41.9	37.7	34.6	33.5	29.3	15.7
77.5°	52.4	45.1	40.9	36.7	32.5	29.3	25.2	22.0	19.9	16.8	11.5
80°	36.7	32.5	29.3	24.1	21.0	17.8	15.7	13.6	12.6	10.5	5.2
82.5°	21.0	17.8	15.7	12.6	11.5	9.4	8.4	7.3	7.3	5.2	5.2
85°	9.4	9.4	7.3	6.3	5.2	5.2	5.2	4.2	4.2	3.1	3.1
87.5°	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1	2.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3600.7	3614.4	3640.6	3667.8	3637.4	3746.4	3738.0	3774.7	3794.6	3804.0	3826.1
5°	3921.4	3982.2	4002.1	3942.4	3907.8	3872.2	3791.5	3730.7	3738.0	3718.1	3645.8
7.5°	3915.1	3785.2	3610.2	3530.5	3524.2	3514.8	3540.0	3554.6	3556.7	3555.7	3553.6
10°	3584.0	3516.9	3505.4	3494.9	3499.1	3460.3	3442.5	3392.2	3419.5	3404.8	3410.0
12.5°	3483.4	3467.7	3405.8	3319.9	3371.2	3332.5	3310.5	3325.1	3308.4	3292.6	3287.4
15°	3423.6	3322.0	3287.4	3266.5	3251.8	3243.4	3250.7	3234.0	3228.7	3225.6	3232.9
17.5°	3300.0	3259.1	3221.4	3165.8	3166.9	3163.8	3184.7	3216.1	3218.2	3056.9	2911.2
20°	3202.5	3169.0	3120.8	3086.2	3133.4	3049.5	2725.7	2571.7	2547.6	2547.6	2551.8
22.5°	3125.0	3050.6	3053.7	2999.2	2558.0	2467.9	2470.0	2479.4	2436.5	2289.8	2274.0
25°	3019.1	3007.6	2778.1	2400.8	2404.0	2333.8	2225.8	2073.9	1909.4	1909.4	1882.1
27.5°	2939.5	2695.3	2360.0	2344.3	2108.5	1959.7	1867.4	1728.1	1709.2	1691.4	1693.5
30°	2871.4	2280.3	2288.7	1959.7	1785.7	1662.0	1654.7	1631.7	1620.1	1617.0	1605.5
32.5°	2269.9	2220.6	1915.6	1668.3	1600.2	1580.3	1570.9	1544.7	1543.6	1523.7	1385.4
35°	2128.4	1949.2	1603.4	1536.3	1516.4	1497.5	1481.8	994.5	117.4	47.2	40.9
37.5°	1967.0	1628.5	1482.8	1452.5	1433.6	1059.5	105.8	36.7	26.2	18.9	16.8
40°	1667.3	1454.6	1408.4	1374.9	566.9	36.7	23.1	17.8	10.5	9.4	8.4
42.5°	1406.3	1370.7	1321.5	402.4	41.9	17.8	11.5	8.4	7.3	7.3	6.3
45°	1316.2	1284.8	532.4	39.8	26.2	8.4	7.3	7.3	6.3	4.2	4.2
47.5°	1232.4	1084.6	48.2	25.2	16.8	7.3	6.3	4.2	4.2	4.2	3.1
50°	1143.3	59.7	33.5	18.9	10.5	4.2	4.2	4.2	4.2	3.1	3.1
52.5°	213.8	41.9	27.2	16.8	5.2	4.2	4.2	4.2	3.1	3.1	3.1
55°	50.3	33.5	25.2	14.7	4.2	4.2	4.2	3.1	3.1	3.1	2.1
57.5°	37.7	25.2	19.9	13.6	4.2	3.1	3.1	3.1	3.1	3.1	2.1
60°	31.4	17.8	15.7	12.6	3.1	3.1	3.1	3.1	3.1	3.1	2.1
62.5°	22.0	14.7	11.5	9.4	3.1	3.1	3.1	3.1	3.1	3.1	3.1
65°	17.8	11.5	9.4	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
67.5°	15.7	9.4	6.3	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	12.6	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	10.5	3.1	2.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
75°	10.5	5.2	2.1	2.1	3.1	3.1	4.2	4.2	3.1	3.1	3.1
77.5°	7.3	5.2	2.1	2.1	3.1	3.1	4.2	4.2	3.1	3.1	3.1
80°	4.2	5.2	2.1	3.1	3.1	6.3	7.3	4.2	3.1	3.1	3.1
82.5°	4.2	5.2	6.3	6.3	3.1	5.2	6.3	5.2	4.2	3.1	3.1
85°	4.2	3.1	4.2	5.2	3.1	5.2	5.2	4.2	4.2	3.1	3.1
87.5°	2.1	3.1	3.1	4.2	4.2	4.2	5.2	4.2	4.2	4.2	3.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3836.5	3840.7	3774.7	3751.7	3771.6	3767.4	3749.6	3683.5	3676.2	3632.2	3568.3
5°	3666.8	3695.1	3660.5	3720.2	3691.9	3720.2	3806.1	3846.0	3910.9	3950.8	3965.4
7.5°	3548.3	3554.6	3554.6	3559.9	3565.1	3566.2	3559.9	3555.7	3537.9	3515.9	3555.7
10°	3404.8	3412.1	3424.7	3422.6	3421.5	3443.6	3448.8	3493.9	3491.8	3500.1	3530.5
12.5°	3330.4	3273.8	3325.1	3311.5	3330.4	3301.0	3355.5	3346.1	3349.2	3374.4	3439.4
15°	3206.7	3224.5	3237.1	3237.1	3244.4	3238.2	3231.9	3274.8	3301.0	3302.1	3297.9
17.5°	2968.8	2833.6	2972.0	2936.3	3220.3	3227.7	3203.6	3183.7	3183.7	3199.4	3232.9
20°	2548.6	2551.8	2552.8	2566.4	2583.2	2582.1	2583.2	2996.1	3192.0	3147.0	3116.6
22.5°	2234.2	2195.4	2267.8	2262.5	2352.6	2452.2	2547.6	2538.1	2544.4	2835.7	3097.7
25°	1790.9	1841.2	1800.4	1818.2	1919.8	2038.3	2111.6	2303.4	2511.9	2497.3	2565.4
27.5°	1686.1	1672.5	1691.4	1691.4	1705.0	1720.7	1761.6	1869.5	2055.0	2249.9	2434.4
30°	1586.6	1598.1	1600.2	1619.1	1629.6	1640.0	1646.3	1687.2	1729.1	1864.3	2091.7
32.5°	1191.5	1044.8	1374.9	1464.0	1539.4	1557.2	1569.8	1586.6	1617.0	1636.9	1751.1
35°	34.6	34.6	36.7	41.9	53.4	360.5	1372.8	1513.2	1533.1	1558.3	1579.3
37.5°	16.8	12.6	14.7	15.7	18.9	26.2	37.7	117.4	1306.8	1477.6	1500.7
40°	7.3	7.3	7.3	7.3	8.4	10.5	15.7	26.2	39.8	1051.1	1417.9
42.5°	6.3	6.3	6.3	6.3	6.3	6.3	7.3	9.4	18.9	45.1	744.0
45°	4.2	4.2	3.1	4.2	4.2	5.2	6.3	6.3	8.4	28.3	51.3
47.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	5.2	6.3	18.9	27.2
50°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	14.7	18.9
52.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	6.3	16.8
55°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1	4.2	14.7
57.5°	2.1	2.1	2.1	2.1	2.1	3.1	2.1	2.1	3.1	3.1	13.6
60°	2.1	2.1	2.1	2.1	2.1	3.1	3.1	3.1	3.1	3.1	12.6
62.5°	3.1	3.1	2.1	3.1	2.1	2.1	3.1	3.1	3.1	3.1	8.4
65°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1
67.5°	3.1	3.1	3.1	3.1	2.1	3.1	2.1	3.1	3.1	2.1	2.1
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1	2.1	2.1
72.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1	2.1	2.1
75°	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	2.1	2.1	2.1
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	5.2	6.3	5.2	5.2	2.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	5.2	5.2	5.2	5.2	7.3
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2	4.2	5.2
85°	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2	3.1	4.2
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	3.1	3.1	3.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3573.5	3537.9	3526.3	3502.2	3500.1	3502.2	3497.0	3489.7	3493.9	3486.5	3480.2
5°	3973.8	3878.5	3816.6	3733.8	3619.6	3594.5	3588.2	3552.5	3540.0	3535.8	3519.0
7.5°	3650.0	3824.0	3928.8	3964.4	3830.2	3798.8	3762.1	3732.8	3704.5	3651.0	3618.6
10°	3506.4	3514.8	3615.4	3732.8	3923.5	3949.7	3969.6	3905.7	3887.9	3751.7	3722.3
12.5°	3472.9	3473.9	3485.5	3556.7	3706.6	3723.4	3793.6	3831.3	3877.4	3903.6	3882.6
15°	3319.9	3404.8	3467.7	3473.9	3487.6	3516.9	3537.9	3668.9	3724.4	3873.2	3864.8
17.5°	3248.6	3275.9	3367.1	3441.5	3428.9	3418.4	3435.2	3453.0	3506.4	3655.2	3653.1
20°	3130.2	3217.2	3266.5	3344.0	3414.2	3417.4	3398.5	3388.0	3367.1	3391.2	3413.2
22.5°	3079.9	3093.5	3185.8	3240.3	3319.9	3348.2	3352.4	3353.4	3341.9	3329.3	3323.0
25°	3074.7	3031.7	3078.9	3147.0	3205.7	3236.1	3270.6	3282.2	3278.0	3278.0	3271.7
27.5°	2516.1	3018.1	2992.9	3038.0	3109.3	3130.2	3148.0	3183.7	3205.7	3221.4	3228.7
30°	2396.7	2486.8	2925.9	2932.2	3004.5	3002.4	3022.3	3051.6	3079.9	3116.6	3126.0
32.5°	2120.0	2341.1	2678.6	2826.3	2901.8	2909.1	2919.6	2928.0	2954.2	2995.0	3030.7
35°	1698.7	2132.6	2295.0	2776.0	2789.6	2804.3	2810.6	2830.5	2838.9	2855.7	2887.1
37.5°	1537.3	1762.6	2201.7	2400.8	2660.7	2673.3	2706.8	2715.2	2728.9	2742.5	2766.6
40°	1444.1	1505.9	1832.9	2144.1	2557.0	2565.4	2576.9	2597.9	2598.9	2614.6	2636.6
42.5°	1369.7	1409.5	1504.9	2047.7	2483.6	2482.6	2455.3	2469.0	2475.3	2492.0	2522.4
45°	1094.1	1322.5	1383.3	1672.5	1977.5	2120.0	2393.5	2348.4	2347.4	2353.7	2386.2
47.5°	55.5	1243.9	1286.9	1380.1	1867.4	1872.7	1908.3	2208.0	2254.1	2239.5	2242.6
50°	37.7	85.9	1198.9	1241.8	1609.6	1739.6	1765.8	1779.4	1952.3	2145.1	2113.7
52.5°	29.3	49.3	734.6	1152.7	1307.8	1403.2	1571.9	1668.3	1678.8	1756.4	2019.4
55°	26.2	37.7	79.6	1063.7	1111.9	1132.8	1231.3	1400.1	1536.3	1577.2	1580.3
57.5°	23.1	34.6	54.5	481.0	1011.3	1015.5	1032.2	1090.9	1213.5	1325.7	1452.5
60°	21.0	30.4	43.0	82.8	919.0	929.5	932.7	948.4	963.1	1039.6	1185.2
62.5°	12.6	24.1	37.7	59.7	727.3	835.2	834.2	844.6	858.3	866.7	896.0
65°	10.5	18.9	32.5	50.3	89.1	111.1	674.9	750.3	758.7	770.2	775.5
67.5°	9.4	16.8	24.1	39.8	67.1	76.5	88.0	109.0	595.2	670.7	681.2
70°	8.4	11.5	19.9	33.5	54.5	58.7	66.0	75.5	89.1	110.0	538.6
72.5°	5.2	8.4	13.6	24.1	41.9	47.2	51.3	57.6	63.9	76.5	88.0
75°	2.1	6.3	11.5	17.8	32.5	35.6	38.8	43.0	48.2	56.6	62.9
77.5°	2.1	5.2	9.4	12.6	21.0	24.1	28.3	31.4	35.6	39.8	46.1
80°	7.3	4.2	6.3	9.4	14.7	15.7	17.8	19.9	23.1	26.2	30.4
82.5°	5.2	6.3	7.3	6.3	7.3	9.4	10.5	12.6	13.6	15.7	16.8
85°	4.2	4.2	5.2	5.2	5.2	5.2	5.2	5.2	6.3	7.3	9.4
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3480.2	3478.1	3471.8	3471.8	3470.8	3475.0	3478.1	3481.3	3480.2	3486.5	3480.2
5°	3506.4	3501.2	3491.8	3483.4	3480.2	3482.3	3479.2	3482.3	3478.1	3483.4	3473.9
7.5°	3578.7	3560.9	3524.2	3509.6	3490.7	3489.7	3480.2	3478.1	3471.8	3471.8	3460.3
10°	3706.6	3620.7	3610.2	3566.2	3550.4	3473.9	3490.7	3462.4	3459.3	3445.6	3440.4
12.5°	3811.4	3744.3	3724.4	3685.6	3641.6	3486.5	3521.1	3460.3	3457.2	3429.9	3401.6
15°	3813.5	3852.3	3797.8	3690.9	3681.4	3574.5	3504.3	3483.4	3456.1	3374.4	3388.0
17.5°	3690.9	3779.9	3806.1	3783.1	3716.0	3643.7	3545.2	3503.3	3421.5	3384.9	3359.7
20°	3491.8	3581.9	3694.0	3701.3	3743.3	3691.9	3563.0	3494.9	3396.4	3332.5	3311.5
22.5°	3333.5	3399.5	3528.4	3588.2	3639.5	3657.3	3575.6	3475.0	3352.4	3290.6	3278.0
25°	3249.7	3264.4	3303.1	3373.3	3486.5	3568.3	3579.8	3472.9	3409.0	3273.8	3202.5
27.5°	3219.3	3206.7	3191.0	3226.6	3311.5	3411.1	3477.1	3494.9	3335.6	3206.7	3135.5
30°	3141.7	3149.1	3125.0	3112.4	3167.9	3270.6	3388.0	3417.4	3294.7	3161.7	3079.9
32.5°	3046.4	3059.0	3063.1	3041.1	3029.6	3100.9	3227.7	3297.9	3291.6	3097.7	3006.6
35°	2926.9	2962.5	2972.0	2973.0	2954.2	2942.6	3016.0	3161.7	3217.2	3068.4	2936.3
37.5°	2801.2	2811.6	2863.0	2876.6	2876.6	2842.0	2896.5	3012.8	3090.4	3002.4	2850.4
40°	2644.0	2677.5	2725.7	2749.8	2773.9	2777.1	2746.7	2828.4	2956.3	2934.3	2769.7
42.5°	2529.7	2551.8	2581.1	2613.6	2662.8	2675.4	2644.0	2658.6	2791.7	2849.4	2664.9
45°	2396.7	2426.0	2434.4	2470.0	2521.4	2558.0	2557.0	2526.6	2633.5	2704.8	2588.4
47.5°	2260.4	2288.7	2303.4	2321.2	2358.9	2406.1	2432.3	2418.7	2439.6	2579.0	2486.8
50°	2120.0	2135.7	2165.1	2185.0	2210.1	2237.4	2300.2	2312.8	2283.5	2394.6	2374.6
52.5°	1986.9	1992.1	2012.1	2032.0	2065.5	2085.4	2135.7	2173.4	2171.3	2203.8	2249.9
55°	1883.2	1860.1	1864.3	1880.0	1902.0	1932.4	1960.7	2019.4	2039.3	2045.6	2118.9
57.5°	1471.3	1708.2	1729.1	1728.1	1754.3	1767.9	1794.1	1832.9	1904.1	1888.4	1970.1
60°	1337.2	1363.4	1561.4	1584.5	1593.9	1606.5	1637.9	1673.6	1726.0	1759.5	1795.1
62.5°	1019.7	1178.9	1238.7	1413.7	1440.9	1448.3	1469.2	1486.0	1540.5	1617.0	1602.3
65°	789.1	857.2	1039.6	1110.8	1259.6	1278.5	1307.8	1325.7	1341.4	1429.4	1433.6
67.5°	682.2	692.7	741.9	879.2	973.5	1119.2	1137.0	1152.7	1176.8	1239.7	1278.5
70°	582.7	595.2	608.9	620.4	743.0	839.4	974.6	979.8	995.5	1037.5	1125.5
72.5°	110.0	497.8	506.2	513.5	527.1	591.0	719.9	824.7	831.0	850.9	931.6
75°	74.4	87.0	119.5	410.8	424.4	428.6	450.6	581.6	678.0	682.2	717.8
77.5°	53.4	59.7	72.3	85.9	219.0	329.1	334.3	358.4	458.0	530.3	536.5
80°	36.7	40.9	48.2	54.5	67.1	88.0	243.1	250.5	263.0	362.6	381.5
82.5°	21.0	24.1	28.3	34.6	39.8	50.3	65.0	83.8	170.8	182.3	242.1
85°	10.5	11.5	13.6	16.8	19.9	24.1	32.5	39.8	54.5	98.5	101.7
87.5°	5.2	5.2	5.2	5.2	8.4	9.4	11.5	14.7	18.9	28.3	36.7
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3481.3	3496.0	3508.5	3511.7	3511.7	3513.8	3516.9	3519.0	3521.1	3523.2	3521.1
5°	3475.0	3490.7	3501.2	3504.3	3504.3	3510.6	3515.9	3522.1	3525.3	3525.3	3523.2
7.5°	3459.3	3470.8	3484.4	3492.8	3493.9	3504.3	3513.8	3512.7	3516.9	3519.0	3524.2
10°	3438.3	3438.3	3461.4	3467.7	3472.9	3484.4	3487.6	3493.9	3508.5	3510.6	3524.2
12.5°	3427.8	3417.4	3444.6	3447.7	3465.6	3450.9	3469.8	3476.0	3461.4	3481.3	3455.1
15°	3380.7	3393.3	3389.1	3398.5	3429.9	3413.2	3464.5	3447.7	3485.5	3440.4	3520.1
17.5°	3341.9	3339.8	3356.6	3365.0	3371.2	3406.9	3420.5	3439.4	3454.0	3441.5	3472.9
20°	3313.6	3296.8	3309.4	3318.8	3340.9	3368.1	3376.5	3348.2	3397.4	3481.3	3501.2
22.5°	3260.2	3248.6	3263.3	3263.3	3296.8	3292.6	3324.1	3306.3	3352.4	3449.8	3551.5
25°	3187.9	3188.9	3204.6	3223.5	3229.8	3276.9	3293.7	3316.8	3374.4	3490.7	3552.5
27.5°	3114.5	3108.2	3117.6	3156.4	3188.9	3223.5	3228.7	3307.3	3385.9	3465.6	3520.1
30°	3041.1	3034.9	3041.1	3069.4	3108.2	3131.3	3188.9	3293.7	3367.1	3421.5	3472.9
32.5°	2962.5	2956.3	2970.9	2991.9	3060.0	3063.1	3177.4	3275.9	3333.5	3373.3	3363.9
35°	2878.7	2870.3	2884.0	2916.4	2979.3	3002.4	3121.8	3195.2	3260.2	3279.0	3235.0
37.5°	2778.1	2763.4	2780.2	2825.3	2891.3	2958.4	3057.9	3142.8	3177.4	3127.1	3074.7
40°	2673.3	2662.8	2692.2	2715.2	2792.8	2886.0	3000.3	3060.0	3038.0	2980.4	2922.7
42.5°	2580.0	2558.0	2584.2	2628.3	2716.3	2822.1	2914.3	2947.9	2895.5	2810.6	2743.5
45°	2465.8	2439.6	2471.1	2529.7	2624.1	2744.6	2816.9	2805.4	2716.3	2642.9	2550.7
47.5°	2346.4	2314.9	2346.4	2416.6	2522.4	2650.3	2702.7	2650.3	2538.1	2445.9	2371.5
50°	2229.0	2192.3	2222.7	2328.5	2432.3	2530.8	2529.7	2428.1	2361.0	2260.4	2195.4
52.5°	2112.7	2060.3	2090.7	2205.9	2309.7	2421.8	2339.0	2244.7	2164.0	2076.0	2055.0
55°	1969.1	1912.5	1953.4	2121.0	2200.7	2266.7	2134.7	2051.9	1972.2	1928.2	1902.0
57.5°	1832.9	1771.0	1806.7	2004.7	2063.4	2080.2	1958.6	1841.2	1794.1	1779.4	1741.7
60°	1692.4	1622.2	1655.8	1884.2	1925.1	1857.0	1737.5	1646.3	1636.9	1607.6	1578.2
62.5°	1558.3	1480.7	1501.7	1734.4	1753.2	1629.6	1519.5	1495.4	1472.4	1443.0	1427.3
65°	1404.2	1323.6	1352.9	1575.1	1557.2	1398.0	1336.1	1330.9	1300.5	1276.4	1299.5
67.5°	1262.8	1167.4	1208.3	1401.1	1320.4	1190.5	1165.3	1152.7	1128.6	1142.3	900.2
70°	1107.7	1003.9	1059.5	1213.5	1094.1	1008.1	998.7	979.8	980.9	779.7	657.1
72.5°	934.8	844.6	925.3	1008.1	865.6	840.5	826.8	824.7	665.4	540.7	510.4
75°	782.8	691.6	778.6	810.1	689.5	672.8	671.7	555.4	437.0	417.1	407.7
77.5°	611.0	540.7	623.5	576.4	529.2	510.4	458.0	343.7	329.1	315.4	118.4
80°	411.8	417.1	465.3	397.2	377.3	321.7	253.6	243.1	209.6	83.8	66.0
82.5°	250.5	314.4	296.6	248.4	243.1	175.0	160.3	81.7	60.8	48.2	41.9
85°	129.9	159.3	153.0	135.2	100.6	90.1	50.3	38.8	31.4	24.1	19.9
87.5°	44.0	58.7	56.6	45.1	34.6	27.2	17.8	14.7	10.5	8.4	7.3
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3519.0	3519.0	3516.9	3519.0	3520.1	3518.0	3518.0	3520.1	3521.1	3522.1	3527.4
5°	3524.2	3526.3	3529.5	3535.8	3536.8	3549.4	3554.6	3557.8	3560.9	3562.0	3554.6
7.5°	3535.8	3543.1	3549.4	3548.3	3541.0	3521.1	3514.8	3509.6	3519.0	3543.1	3571.4
10°	3546.3	3512.7	3449.8	3535.8	3509.6	3533.7	3604.9	3620.7	3668.9	3737.0	3756.9
12.5°	3473.9	3566.2	3586.1	3489.7	3667.8	3601.8	3680.4	3749.6	3769.5	3838.6	3796.7
15°	3551.5	3596.6	3626.9	3723.4	3712.9	3769.5	3791.5	3777.8	3781.0	3798.8	3846.0
17.5°	3550.4	3640.6	3660.5	3725.5	3769.5	3770.5	3764.2	3757.9	3774.7	3788.3	3760.0
20°	3611.2	3640.6	3679.3	3705.5	3713.9	3724.4	3744.3	3728.6	3697.2	3666.8	3654.2
22.5°	3580.8	3646.9	3680.4	3684.6	3679.3	3646.9	3617.5	3573.5	3558.8	3543.1	3548.3
25°	3587.1	3617.5	3613.3	3596.6	3574.5	3513.8	3499.1	3480.2	3451.9	3383.8	3322.0
27.5°	3542.1	3526.3	3507.5	3466.6	3426.8	3394.3	3357.6	3296.8	3246.5	3173.2	3145.9
30°	3466.6	3403.7	3357.6	3333.5	3294.7	3240.3	3184.7	3110.3	3046.4	3031.7	3018.1
32.5°	3322.0	3260.2	3222.4	3163.8	3097.7	3032.8	2968.8	2939.5	2925.9	2928.0	2915.4
35°	3174.2	3119.7	3063.1	2975.1	2925.9	2860.9	2837.8	2831.6	2819.0	2805.4	2790.7
37.5°	3017.0	2953.1	2868.2	2815.8	2766.6	2740.4	2728.9	2719.4	2697.4	2673.3	2656.5
40°	2865.1	2749.8	2702.7	2651.3	2636.6	2625.1	2608.3	2585.3	2554.9	2550.7	2543.4
42.5°	2661.8	2579.0	2538.1	2527.6	2509.8	2489.9	2475.3	2450.1	2437.5	2445.9	2452.2
45°	2469.0	2427.0	2413.4	2400.8	2367.3	2339.0	2329.6	2321.2	2331.7	2377.8	2267.8
47.5°	2312.8	2296.1	2279.3	2258.3	2226.9	2205.9	2215.4	2223.7	2233.2	1894.7	1729.1
50°	2177.6	2154.6	2128.4	2105.3	2086.5	2084.4	2133.6	1985.9	1663.1	1654.7	1487.0
52.5°	2029.9	1995.3	1979.6	1965.9	1974.3	2005.8	1659.9	1540.5	1477.6	1283.7	1197.8
55°	1870.6	1840.2	1840.2	1852.8	1807.7	1465.0	1447.2	1251.2	1132.8	1099.3	1085.7
57.5°	1711.3	1708.2	1726.0	1578.2	1329.8	1275.4	1072.0	1029.1	1010.2	1006.0	984.0
60°	1565.6	1595.0	1335.1	1228.2	1067.9	963.1	933.7	928.5	908.6	901.2	881.3
62.5°	1449.3	1202.0	1119.2	913.8	860.4	846.7	831.0	823.7	805.9	711.6	208.5
65°	1046.9	989.3	802.7	768.1	764.0	744.0	737.8	663.4	156.1	104.8	89.1
67.5°	790.2	701.1	677.0	670.7	650.8	611.0	181.3	103.7	89.1	77.5	68.1
70°	606.8	591.0	573.2	558.6	164.5	102.7	89.1	75.5	65.0	57.6	52.4
72.5°	496.7	486.2	282.9	107.9	88.0	74.4	66.0	57.6	50.3	46.1	41.9
75°	388.8	107.9	89.1	74.4	63.9	54.5	48.2	43.0	38.8	35.6	32.5
77.5°	88.0	71.3	60.8	51.3	46.1	40.9	36.7	31.4	28.3	25.2	21.0
80°	54.5	47.2	39.8	36.7	31.4	26.2	23.1	21.0	16.8	15.7	13.6
82.5°	35.6	28.3	25.2	21.0	16.8	15.7	13.6	10.5	9.4	8.4	7.3
85°	15.7	13.6	11.5	9.4	7.3	6.3	5.2	4.2	4.2	4.2	4.2
87.5°	5.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3529.5	3548.3	3566.2	3560.9	3542.1	3512.7	3504.3	3492.8	3501.2	3519.0	3526.3
5°	3554.6	3544.2	3581.9	3637.4	3727.5	3735.9	3798.8	3813.5	3863.8	3895.2	3894.2
7.5°	3590.3	3739.1	3800.9	3868.0	3898.4	3891.0	3900.5	3893.1	3881.6	3876.4	3870.1
10°	3771.6	3884.7	3907.8	3907.8	3860.6	3796.7	3769.5	3722.3	3628.0	3630.1	3614.4
12.5°	3877.4	3917.2	3862.7	3816.6	3626.9	3553.6	3473.9	3436.2	3414.2	3380.7	3393.3
15°	3821.9	3765.3	3732.8	3584.0	3467.7	3335.6	3337.7	3314.7	3290.6	3292.6	3276.9
17.5°	3740.1	3695.1	3464.5	3361.8	3305.2	3253.9	3244.4	3214.1	3198.3	3193.1	3192.0
20°	3628.0	3465.6	3293.7	3268.5	3200.4	3141.7	3132.3	3141.7	3190.0	3104.0	2812.7
22.5°	3497.0	3263.3	3213.0	3141.7	3095.6	3072.6	3130.2	2868.2	2472.1	2520.3	2469.0
25°	3274.8	3173.2	3087.3	3032.8	3027.5	2886.0	2405.0	2354.7	2100.1	1963.9	1810.9
27.5°	3112.4	3068.4	2978.3	2968.8	2900.7	2360.0	2109.5	1832.9	1731.2	1715.5	1682.0
30°	3013.9	2951.0	2896.5	2658.6	2314.9	1899.9	1692.4	1653.7	1635.8	1617.0	1587.6
32.5°	2895.5	2835.7	2861.9	2235.3	1845.4	1635.8	1593.9	1565.6	1533.1	1520.6	1414.7
35°	2775.0	2747.7	2236.3	1879.0	1586.6	1536.3	1504.9	1475.5	1173.7	284.0	96.4
37.5°	2646.1	2639.8	2010.0	1559.3	1486.0	1438.8	1349.8	278.8	66.0	45.1	33.5
40°	2545.5	2011.0	1588.7	1461.9	1402.2	1327.7	186.5	46.1	29.3	17.8	11.5
42.5°	2478.4	1808.8	1422.1	1371.8	1241.8	137.3	47.2	19.9	11.5	9.4	7.3
45°	1910.4	1428.4	1328.8	1276.4	157.2	47.2	27.2	9.4	7.3	6.3	4.2
47.5°	1762.6	1297.4	1238.7	278.8	52.4	25.2	18.9	6.3	4.2	4.2	4.2
50°	1335.1	1198.9	986.1	68.1	33.5	17.8	13.6	4.2	4.2	4.2	3.1
52.5°	1170.6	1106.6	105.8	45.1	26.2	13.6	8.4	3.1	3.1	3.1	3.1
55°	1070.0	702.1	62.9	34.6	22.0	12.6	5.2	3.1	3.1	3.1	2.1
57.5°	978.8	94.3	46.1	29.3	19.9	11.5	3.1	3.1	3.1	3.1	2.1
60°	830.0	68.1	37.7	26.2	18.9	10.5	3.1	3.1	3.1	3.1	3.1
62.5°	107.9	53.4	32.5	23.1	13.6	8.4	2.1	3.1	3.1	3.1	3.1
65°	78.6	41.9	29.3	15.7	8.4	3.1	2.1	3.1	3.1	3.1	3.1
67.5°	60.8	34.6	22.0	13.6	7.3	2.1	2.1	3.1	3.1	3.1	3.1
70°	48.2	29.3	17.8	11.5	6.3	2.1	2.1	3.1	3.1	3.1	3.1
72.5°	37.7	21.0	12.6	6.3	4.2	2.1	2.1	3.1	3.1	3.1	3.1
75°	28.3	16.8	9.4	5.2	2.1	2.1	2.1	3.1	3.1	3.1	3.1
77.5°	18.9	10.5	7.3	4.2	4.2	4.2	5.2	5.2	3.1	3.1	3.1
80°	12.6	7.3	5.2	5.2	5.2	4.2	5.2	5.2	3.1	5.2	3.1
82.5°	6.3	5.2	5.2	4.2	4.2	3.1	4.2	4.2	4.2	4.2	3.1
85°	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	3.1
87.5°	2.1	2.1	2.1	2.1	3.1	3.1	3.1	3.1	4.2	4.2	3.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3516.9	3520.1	3511.7	3556.7	3533.7	3535.8	3545.2	3521.1	3526.3	3509.6	3498.0
5°	3898.4	3904.7	3910.9	3913.0	3917.2	3922.5	3916.2	3913.0	3906.7	3885.8	3863.8
7.5°	3838.6	3831.3	3828.2	3832.3	3839.7	3842.8	3837.6	3844.9	3872.2	3883.7	3891.0
10°	3524.2	3490.7	3513.8	3510.6	3484.4	3572.5	3548.3	3562.0	3571.4	3667.8	3726.5
12.5°	3374.4	3395.3	3355.5	3335.6	3361.8	3379.6	3397.4	3359.7	3412.1	3388.0	3465.6
15°	3248.6	3236.1	3231.9	3232.9	3227.7	3252.8	3259.1	3267.5	3274.8	3307.3	3319.9
17.5°	3192.0	3213.0	3221.4	3227.7	3217.2	3205.7	3194.1	3177.4	3182.6	3174.2	3198.3
20°	2616.7	2546.5	2542.3	2583.2	2538.1	2563.3	2624.1	3030.7	3017.0	3175.3	3121.8
22.5°	2183.9	2117.9	2061.3	2012.1	2082.3	2111.6	2224.8	2352.6	2560.1	2527.6	2753.0
25°	1783.6	1759.5	1744.8	1737.5	1742.7	1740.6	1765.8	1825.5	1919.8	2142.0	2429.1
27.5°	1668.3	1656.8	1651.6	1634.8	1647.4	1643.2	1663.1	1675.7	1704.0	1726.0	1819.2
30°	1577.2	1563.5	1554.1	1536.3	1548.9	1549.9	1556.2	1588.7	1600.2	1619.1	1648.4
32.5°	576.4	339.5	318.6	302.9	331.2	431.8	757.7	1324.6	1511.1	1525.8	1559.3
35°	56.6	47.2	41.9	41.9	43.0	47.2	62.9	165.6	302.9	1170.6	1465.0
37.5°	22.0	18.9	15.7	14.7	15.7	17.8	24.1	31.4	43.0	89.1	397.2
40°	9.4	8.4	7.3	7.3	7.3	7.3	8.4	10.5	15.7	29.3	46.1
42.5°	6.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2	7.3	9.4	18.9
45°	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2	8.4
47.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2
50°	3.1	3.1	3.1	3.1	2.1	3.1	2.1	3.1	3.1	3.1	3.1
52.5°	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1
55°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1
57.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
60°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
62.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1	2.1
65°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	2.1
67.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
70°	3.1	3.1	2.1	3.1	2.1	2.1	3.1	3.1	3.1	2.1	2.1
72.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	6.3	6.3	4.2
75°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	5.2	6.3	5.2
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	5.2	5.2	5.2
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2
85°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3478.1	3477.1	3499.1	3515.9	3509.6	3515.9	3523.2	3524.2	3526.3	3518.0	3514.8
5°	3821.9	3789.4	3726.5	3681.4	3629.0	3533.7	3486.5	3491.8	3492.8	3489.7	3493.9
7.5°	3887.9	3884.7	3862.7	3853.3	3817.7	3749.6	3640.6	3621.7	3575.6	3546.3	3522.1
10°	3722.3	3797.8	3817.7	3851.2	3872.2	3859.6	3767.4	3753.7	3724.4	3690.9	3698.2
12.5°	3543.1	3604.9	3608.1	3790.4	3831.3	3835.5	3799.9	3818.7	3822.9	3747.5	3703.4
15°	3323.0	3352.4	3414.2	3584.0	3707.6	3785.2	3808.2	3818.7	3767.4	3764.2	3746.4
17.5°	3226.6	3245.5	3273.8	3369.1	3556.7	3671.0	3768.4	3761.1	3781.0	3766.3	3721.3
20°	3105.1	3120.8	3171.1	3219.3	3311.5	3463.5	3645.8	3659.4	3685.6	3682.5	3695.1
22.5°	3103.0	3047.4	3055.8	3093.5	3190.0	3326.2	3520.1	3565.1	3581.9	3593.4	3607.0
25°	2461.6	2902.8	2983.5	3007.6	3070.5	3150.1	3378.6	3395.3	3426.8	3478.1	3515.9
27.5°	2132.6	2432.3	2755.1	2922.7	2962.5	3028.6	3164.8	3190.0	3296.8	3309.4	3368.1
30°	1683.0	1914.6	2396.7	2800.1	2866.1	2912.2	3008.7	3059.0	3105.1	3155.4	3217.2
32.5°	1583.4	1620.1	1887.4	2317.0	2830.5	2795.9	2867.2	2897.6	2947.9	2991.9	3037.0
35°	1492.3	1517.4	1574.0	1897.8	2305.5	2700.6	2748.8	2768.7	2797.0	2830.5	2863.0
37.5°	1396.9	1434.6	1473.4	1560.4	2132.6	2625.1	2624.1	2647.1	2663.9	2692.2	2719.4
40°	253.6	1317.3	1380.1	1436.7	1653.7	2093.8	2506.7	2517.2	2528.7	2546.5	2574.8
42.5°	40.9	220.1	1293.2	1347.7	1409.5	1874.8	2453.2	2410.3	2402.9	2415.5	2440.7
45°	21.0	53.4	259.9	1258.6	1314.1	1495.4	2005.8	2335.9	2328.5	2304.4	2309.7
47.5°	15.7	33.5	63.9	434.9	1230.3	1283.7	1850.7	1830.8	1970.1	2237.4	2196.5
50°	13.6	23.1	37.7	89.1	1086.7	1182.1	1425.2	1665.2	1738.5	1748.0	2068.6
52.5°	12.6	15.7	27.2	57.6	228.5	1093.0	1159.0	1242.9	1366.5	1631.7	1625.4
55°	11.5	14.7	23.1	38.8	79.6	985.1	1053.2	1068.9	1095.1	1221.9	1389.6
57.5°	6.3	13.6	22.0	33.5	59.7	180.2	955.7	968.3	989.3	994.5	1054.2
60°	3.1	12.6	19.9	29.3	44.0	83.8	859.3	874.0	886.6	888.7	907.5
62.5°	2.1	11.5	16.8	27.2	36.7	59.7	203.3	415.0	789.1	789.1	811.1
65°	2.1	8.4	10.5	17.8	33.5	49.3	85.9	99.6	193.9	476.8	711.6
67.5°	2.1	3.1	9.4	14.7	25.2	37.7	62.9	73.4	88.0	100.6	186.5
70°	2.1	2.1	8.4	9.4	15.7	28.3	45.1	51.3	59.7	68.1	78.6
72.5°	2.1	2.1	7.3	7.3	10.5	18.9	34.6	37.7	43.0	48.2	55.5
75°	5.2	4.2	6.3	6.3	7.3	14.7	26.2	29.3	31.4	35.6	40.9
77.5°	5.2	5.2	5.2	5.2	5.2	9.4	16.8	18.9	22.0	24.1	28.3
80°	4.2	4.2	4.2	5.2	5.2	6.3	10.5	11.5	12.6	15.7	16.8
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	6.3	7.3	9.4
85°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2	4.2
87.5°	3.1	3.1	3.1	2.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3513.8	3507.5	3502.2	3505.4	3496.0	3491.8	3494.9	3496.0	3498.0	3503.3	3504.3
5°	3504.3	3502.2	3511.7	3516.9	3514.8	3516.9	3516.9	3512.7	3506.4	3510.6	3501.2
7.5°	3498.0	3484.4	3473.9	3476.0	3465.6	3478.1	3489.7	3506.4	3511.7	3511.7	3501.2
10°	3606.0	3591.3	3532.6	3492.8	3466.6	3443.6	3498.0	3442.5	3468.7	3369.1	3483.4
12.5°	3695.1	3715.0	3688.8	3579.8	3560.9	3491.8	3531.6	3463.5	3443.6	3329.3	3366.0
15°	3730.7	3693.0	3684.6	3654.2	3613.3	3593.4	3486.5	3475.0	3442.5	3455.1	3406.9
17.5°	3699.3	3718.1	3693.0	3673.1	3631.1	3584.0	3520.1	3463.5	3418.4	3317.8	3402.7
20°	3668.9	3694.0	3618.6	3631.1	3635.3	3580.8	3547.3	3500.1	3443.6	3349.2	3275.9
22.5°	3618.6	3600.7	3607.0	3588.2	3572.5	3579.8	3533.7	3501.2	3405.8	3362.9	3263.3
25°	3536.8	3530.5	3547.3	3545.2	3507.5	3494.9	3471.8	3437.3	3399.5	3330.4	3248.6
27.5°	3403.7	3436.2	3465.6	3479.2	3459.3	3425.7	3413.2	3393.3	3367.1	3296.8	3236.1
30°	3263.3	3300.0	3333.5	3362.9	3380.7	3366.0	3354.5	3343.0	3303.1	3257.0	3188.9
32.5°	3103.0	3151.2	3197.3	3232.9	3271.7	3283.2	3274.8	3265.4	3231.9	3190.0	3135.5
35°	2917.5	2983.5	3050.6	3114.5	3131.3	3158.5	3185.8	3170.0	3152.2	3110.3	3060.0
37.5°	2760.3	2807.4	2855.7	2936.3	2995.0	3029.6	3077.8	3084.1	3053.7	3033.8	2967.8
40°	2597.9	2640.8	2711.0	2758.2	2838.9	2878.7	2930.1	2953.1	2945.8	2934.3	2876.6
42.5°	2470.0	2491.0	2537.1	2579.0	2658.6	2740.4	2785.4	2810.6	2836.8	2827.4	2798.0
45°	2333.8	2352.6	2368.4	2405.0	2482.6	2554.9	2610.4	2648.2	2695.3	2717.3	2681.7
47.5°	2198.6	2203.8	2222.7	2253.1	2299.2	2354.7	2448.0	2504.6	2548.6	2591.6	2568.5
50°	2094.8	2076.0	2079.1	2098.0	2135.7	2190.2	2257.3	2336.9	2387.2	2439.6	2444.9
52.5°	1830.8	1983.8	1947.1	1957.6	1977.5	2003.7	2073.9	2152.5	2214.3	2259.4	2304.4
55°	1536.3	1566.7	1861.2	1819.2	1831.8	1854.9	1887.4	1965.9	2025.7	2088.6	2151.4
57.5°	1191.5	1417.9	1429.4	1701.9	1695.6	1697.7	1724.9	1770.0	1829.7	1908.3	1961.8
60°	926.4	1021.7	1207.2	1301.6	1540.5	1548.9	1564.6	1590.8	1642.1	1716.5	1801.4
62.5°	817.4	830.0	896.0	1037.5	1192.6	1380.1	1413.7	1417.9	1440.9	1515.3	1613.8
65°	717.8	726.2	746.1	760.8	890.8	1072.0	1233.4	1259.6	1274.3	1318.3	1402.2
67.5°	494.6	625.6	643.4	653.9	666.5	750.3	950.5	1083.6	1100.3	1139.1	1212.5
70°	95.4	198.1	541.8	553.3	559.6	578.5	611.0	822.6	933.7	970.4	1003.9
72.5°	65.0	76.5	92.2	218.0	461.1	471.6	478.9	506.2	693.7	800.6	818.4
75°	47.2	52.4	61.8	76.5	94.3	307.0	380.4	394.0	407.7	562.7	652.9
77.5°	33.5	37.7	41.9	49.3	57.6	74.4	106.9	294.5	308.1	315.4	445.4
80°	18.9	23.1	28.3	32.5	36.7	41.9	54.5	68.1	152.0	222.2	233.7
82.5°	10.5	12.6	14.7	17.8	19.9	25.2	30.4	36.7	48.2	71.3	150.9
85°	5.2	5.2	5.2	7.3	8.4	11.5	13.6	15.7	22.0	30.4	41.9
87.5°	3.1	3.1	4.2	4.2	4.2	5.2	5.2	5.2	6.3	9.4	13.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	356°	357°	358°	359°	360°
0°	3491.8	3491.8	3491.8	3491.8	3491.8
2.5°	3505.4	3502.2	3502.2	3514.8	3511.7
5°	3499.1	3496.0	3494.9	3508.5	3502.2
7.5°	3493.9	3482.3	3479.2	3491.8	3486.5
10°	3472.9	3464.5	3469.8	3465.6	3463.5
12.5°	3437.3	3432.0	3410.0	3412.1	3429.9
15°	3373.3	3394.3	3356.6	3390.1	3397.4
17.5°	3256.0	3303.1	3339.8	3359.7	3362.9
20°	3308.4	3324.1	3305.2	3306.3	3318.8
22.5°	3240.3	3247.6	3252.8	3246.5	3273.8
25°	3131.3	3103.0	3163.8	3176.3	3220.3
27.5°	3097.7	3074.7	3103.0	3100.9	3137.6
30°	3070.5	2996.1	3008.7	3028.6	3073.6
32.5°	3031.7	2914.3	2901.8	2945.8	2996.1
35°	2963.6	2852.5	2823.2	2851.5	2926.9
37.5°	2906.0	2766.6	2707.9	2745.6	2844.1
40°	2820.0	2699.5	2608.3	2641.9	2758.2
42.5°	2717.3	2641.9	2501.4	2524.5	2657.6
45°	2613.6	2546.5	2397.7	2409.2	2567.5
47.5°	2507.7	2445.9	2289.8	2291.9	2452.2
50°	2404.0	2322.3	2193.4	2156.7	2329.6
52.5°	2268.8	2193.4	2095.9	2036.2	2213.3
55°	2141.0	2056.1	1984.8	1892.6	2081.2
57.5°	2016.3	1921.9	1873.7	1755.3	1931.4
60°	1845.4	1800.4	1729.1	1615.9	1796.2
62.5°	1670.4	1655.8	1583.4	1466.1	1629.6
65°	1466.1	1500.7	1426.3	1325.7	1456.6
67.5°	1273.3	1335.1	1253.3	1191.5	1290.0
70°	1067.9	1139.1	1093.0	1071.0	1112.9
72.5°	865.6	934.8	939.0	923.2	936.9
75°	668.6	745.1	787.0	762.9	766.0
77.5°	507.2	543.9	590.0	608.9	604.7
80°	313.3	377.3	415.0	453.8	440.1
82.5°	158.2	211.7	257.8	299.7	279.8
85°	66.0	84.9	118.4	156.1	149.9
87.5°	19.9	33.5	35.6	50.3	47.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)