

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-LD5-90HL-LN-UNV-L935-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 (P33519)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

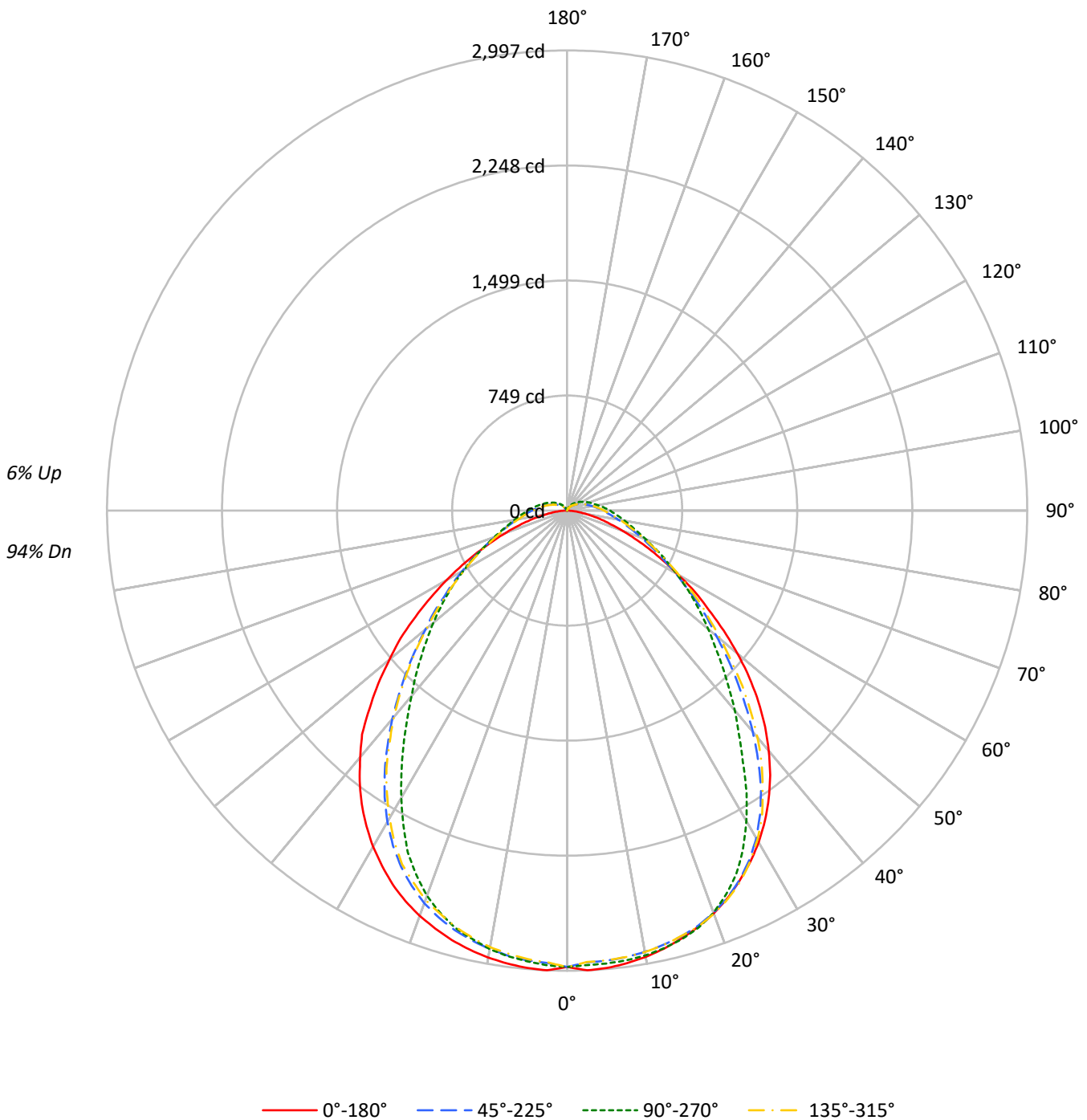
Lumens per Lamp: N/A
Luminaire Lumens: 7522.0 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 79
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#
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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94				
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79				
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67				
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57				
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50				
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44				
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39				
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35				
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31				
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28				
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24019	24019	24019	24019
5°	24190	23254	24190	23151
10°	24082	22636	24122	22322
15°	23927	21960	24036	21388
20°	23744	21090	23883	20200
25°	23363	19800	23621	18634
30°	22868	17904	23167	16575
35°	22097	15581	22522	14509
40°	20991	13627	21545	12643
45°	19531	11846	20165	11167
50°	17537	10409	18310	9884
55°	15170	9192	16273	8727
60°	12759	8070	13912	7606
65°	10460	7136	11514	6616
70°	8325	6332	9319	5858
75°	6537	5847	7359	5379
80°	4716	5641	5558	5155
85°	2903	5673	3908	5216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.8	3.7
10°-20°	808.0	10.7
20°-30°	1197.5	15.9
30°-40°	1330.4	17.7
40°-50°	1206.0	16.0
50°-60°	934.5	12.4
60°-70°	634.6	8.4
70°-80°	403.7	5.4
80°-90°	258.1	3.4
90°-100°	174.0	2.3
100°-110°	119.2	1.6
110°-120°	79.5	1.1
120°-130°	49.5	0.7
130°-140°	27.3	0.4
140°-150°	12.8	0.2
150°-160°	4.7	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2287.3	30.4
0°-40°	3617.7	48.1
0°-60°	5758.2	76.6
0°-90°	7054.6	93.8
90°-120°	372.7	5.0
90°-150°	462.4	6.1
90°-180°	467.0	6.2
0°-180°	7522.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2972	2972	2972	2972	2972	
5°	2990	2961	2990	2948	2990	284
15°	2884	2889	2897	2814	2884	814
25°	2658	2609	2688	2456	2658	1224
35°	2289	1995	2333	1857	2289	1428
45°	1762	1426	1820	1344	1762	1354
55°	1125	1002	1207	952	1125	1013
65°	584	674	642	624	584	585
75°	234	450	263	414	234	252
85°	42	324	57	298	42	51
90°	0	280	3	255	0	2
95°	2	239	0	222	2	1
105°	2	175	0	165	2	2
115°	2	132	0	123	2	2
125°	2	98	2	87	2	1
135°	2	69	2	56	2	1
145°	2	44	2	31	2	1
155°	2	24	2	11	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2996.8	2993.5	2990.2	2985.3	2990.2	3003.3	2995.1	2977.2	2973.9	2944.5	2957.5
5°	2990.2	2985.3	2982.1	2977.2	2983.7	3000.1	2991.9	2975.5	2970.6	2942.8	2957.5
7.5°	2973.9	2970.6	2965.7	2965.7	2972.3	2988.6	2982.1	2964.1	2960.8	2933.0	2949.4
10°	2951.0	2949.4	2946.1	2946.1	2952.6	2972.3	2964.1	2947.7	2944.5	2918.3	2936.3
12.5°	2921.6	2923.2	2918.3	2918.3	2928.1	2947.7	2941.2	2923.2	2919.9	2897.1	2915.0
15°	2884.0	2885.6	2882.3	2884.0	2893.8	2916.7	2908.5	2892.1	2888.9	2870.9	2885.6
17.5°	2841.5	2843.1	2843.1	2841.5	2852.9	2875.8	2869.3	2854.5	2849.6	2834.9	2852.9
20°	2792.4	2792.4	2792.4	2792.4	2805.5	2828.4	2820.2	2808.8	2799.0	2787.5	2802.2
22.5°	2731.9	2730.3	2731.9	2736.8	2749.9	2767.9	2763.0	2749.9	2735.2	2728.7	2740.1
25°	2658.4	2663.3	2664.9	2669.8	2686.1	2700.9	2696.0	2682.9	2660.0	2655.1	2658.4
27.5°	2581.5	2584.8	2589.7	2588.1	2610.9	2625.7	2615.8	2604.4	2571.7	2566.8	2563.5
30°	2494.9	2499.8	2503.0	2501.4	2519.4	2535.7	2525.9	2511.2	2467.1	2463.8	2437.6
32.5°	2396.8	2401.7	2404.9	2404.9	2431.1	2437.6	2419.7	2398.4	2351.0	2339.5	2316.7
35°	2288.9	2293.8	2295.4	2295.4	2321.6	2319.9	2297.0	2267.6	2215.3	2200.6	2161.3
37.5°	2172.8	2176.1	2177.7	2187.5	2198.9	2189.1	2159.7	2122.1	2082.9	2042.0	1999.5
40°	2042.0	2046.9	2050.2	2056.7	2068.2	2056.7	2014.2	1968.4	1925.9	1880.1	1837.6
42.5°	1907.9	1922.6	1919.4	1917.7	1924.3	1893.2	1860.5	1808.2	1765.7	1718.3	1675.8
45°	1762.4	1760.8	1769.0	1772.2	1770.6	1744.4	1698.7	1651.3	1608.7	1559.7	1523.7
47.5°	1608.7	1607.1	1613.7	1616.9	1607.1	1579.3	1543.4	1489.4	1453.4	1410.9	1383.1
50°	1446.9	1446.9	1456.7	1446.9	1442.0	1414.2	1384.8	1330.8	1303.0	1265.4	1249.1
52.5°	1285.0	1299.7	1289.9	1286.7	1281.8	1254.0	1231.1	1186.9	1164.1	1147.7	1128.1
55°	1124.8	1141.2	1134.6	1129.7	1128.1	1105.2	1083.9	1051.2	1036.5	1025.1	1013.6
57.5°	989.1	987.5	984.2	979.3	980.9	963.0	941.7	923.7	917.2	912.3	915.5
60°	832.2	845.2	840.3	842.0	843.6	840.3	822.4	810.9	812.5	814.2	819.1
62.5°	703.0	714.5	722.6	716.1	719.4	724.3	714.5	711.2	717.7	724.3	730.8
65°	583.7	595.1	603.3	601.6	611.5	621.3	619.6	622.9	637.6	645.8	654.0
67.5°	475.8	487.2	498.6	500.3	515.0	529.7	536.2	547.7	564.0	575.5	585.3
70°	382.6	392.4	405.5	413.6	433.2	452.9	464.3	487.2	497.0	513.4	519.9
72.5°	299.2	307.4	325.3	345.0	361.3	385.8	408.7	428.3	443.1	461.0	469.2
75°	233.8	237.1	256.7	279.6	302.5	330.3	354.8	376.0	395.6	413.6	426.7
77.5°	171.7	176.6	194.6	225.6	251.8	281.2	309.0	331.9	353.1	371.1	389.1
80°	119.3	129.2	148.8	179.8	209.3	242.0	268.1	294.3	317.2	335.2	353.1
82.5°	76.8	85.0	112.8	143.9	174.9	207.6	235.4	261.6	286.1	305.7	322.1
85°	42.5	54.0	81.7	114.4	145.5	178.2	207.6	233.8	258.3	276.3	292.6
87.5°	16.3	32.7	58.9	89.9	121.0	152.0	183.1	207.6	232.2	251.8	266.5
90°	0.0	19.6	44.1	75.2	106.3	137.3	166.8	192.9	215.8	233.8	250.1
92.5°	1.6	13.1	34.3	60.5	89.9	119.3	147.1	173.3	196.2	214.2	228.9
95°	1.6	9.8	27.8	52.3	78.5	106.3	132.4	157.0	178.2	196.2	210.9
97.5°	1.6	6.5	22.9	45.8	68.7	96.5	121.0	143.9	163.5	181.5	192.9
100°	1.6	6.5	19.6	39.2	62.1	86.6	109.5	132.4	150.4	165.1	178.2
102.5°	1.6	4.9	16.3	34.3	55.6	76.8	99.7	121.0	137.3	152.0	165.1
105°	1.6	4.9	14.7	29.4	49.0	70.3	89.9	109.5	127.5	140.6	152.0
107.5°	1.6	3.3	13.1	24.5	42.5	63.8	83.4	99.7	116.1	129.2	140.6
110°	1.6	3.3	11.4	22.9	37.6	57.2	75.2	91.6	106.3	119.3	129.2



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CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.6	3.3	9.8	21.3	34.3	50.7	68.7	83.4	98.1	109.5	119.3
115°	1.6	3.3	9.8	19.6	31.1	44.1	60.5	76.8	88.3	101.4	109.5
117.5°	1.6	3.3	8.2	16.3	29.4	40.9	55.6	68.7	81.7	93.2	101.4
120°	1.6	3.3	8.2	14.7	26.2	37.6	49.0	62.1	75.2	83.4	91.6
122.5°	1.6	3.3	6.5	14.7	22.9	34.3	44.1	55.6	67.0	76.8	85.0
125°	1.6	3.3	6.5	13.1	21.3	31.1	40.9	49.0	60.5	68.7	76.8
127.5°	1.6	3.3	6.5	11.4	19.6	27.8	37.6	45.8	54.0	62.1	68.7
130°	1.6	3.3	4.9	9.8	18.0	24.5	32.7	42.5	49.0	55.6	62.1
132.5°	1.6	3.3	4.9	9.8	14.7	21.3	29.4	37.6	44.1	50.7	55.6
135°	1.6	3.3	4.9	8.2	13.1	19.6	24.5	32.7	39.2	45.8	50.7
137.5°	1.6	3.3	4.9	8.2	11.4	16.3	21.3	27.8	34.3	39.2	45.8
140°	1.6	3.3	4.9	6.5	9.8	14.7	19.6	22.9	29.4	34.3	39.2
142.5°	1.6	3.3	4.9	6.5	9.8	13.1	16.3	19.6	24.5	29.4	34.3
145°	1.6	3.3	4.9	6.5	8.2	11.4	14.7	18.0	19.6	24.5	27.8
147.5°	1.6	3.3	4.9	6.5	6.5	9.8	13.1	14.7	18.0	19.6	22.9
150°	1.6	3.3	4.9	4.9	6.5	8.2	11.4	13.1	14.7	18.0	19.6
152.5°	1.6	3.3	4.9	4.9	6.5	8.2	9.8	11.4	13.1	14.7	16.3
155°	1.6	3.3	4.9	4.9	4.9	6.5	8.2	9.8	11.4	13.1	14.7
157.5°	3.3	3.3	3.3	4.9	4.9	6.5	6.5	8.2	9.8	9.8	11.4
160°	3.3	3.3	3.3	4.9	4.9	4.9	6.5	6.5	8.2	8.2	9.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2954.3	2959.2	2973.9	2973.9	2970.6	2967.4	2967.4	2962.4	2965.7	2972.3	2969.0
5°	2954.3	2959.2	2973.9	2973.9	2970.6	2967.4	2965.7	2960.8	2965.7	2972.3	2969.0
7.5°	2944.5	2951.0	2965.7	2965.7	2962.4	2960.8	2957.5	2954.3	2959.2	2965.7	2962.4
10°	2931.4	2937.9	2952.6	2952.6	2949.4	2949.4	2944.5	2941.2	2947.7	2952.6	2951.0
12.5°	2911.8	2919.9	2933.0	2931.4	2928.1	2929.7	2924.8	2918.3	2924.8	2929.7	2931.4
15°	2884.0	2893.8	2906.9	2903.6	2898.7	2902.0	2893.8	2888.9	2893.8	2903.6	2902.0
17.5°	2848.0	2854.5	2864.4	2864.4	2859.4	2856.2	2852.9	2848.0	2851.3	2857.8	2859.4
20°	2797.3	2805.5	2810.4	2805.5	2803.9	2799.0	2792.4	2787.5	2794.1	2803.9	2805.5
22.5°	2730.3	2731.9	2743.4	2731.9	2723.8	2722.1	2715.6	2705.8	2715.6	2723.8	2725.4
25°	2646.9	2655.1	2650.2	2630.6	2630.6	2617.5	2614.2	2609.3	2610.9	2625.7	2632.2
27.5°	2540.6	2543.9	2530.8	2514.5	2499.8	2491.6	2480.2	2481.8	2481.8	2501.4	2507.9
30°	2424.6	2406.6	2395.1	2369.0	2357.5	2337.9	2334.6	2334.6	2331.4	2341.2	2370.6
32.5°	2285.6	2261.1	2243.1	2218.6	2198.9	2179.3	2169.5	2174.4	2172.8	2197.3	2207.1
35°	2133.6	2118.8	2081.2	2050.2	2038.7	2009.3	2009.3	1994.6	2004.4	2032.2	2043.6
37.5°	1973.3	1950.4	1919.4	1885.0	1876.9	1854.0	1845.8	1837.6	1858.9	1863.8	1875.2
40°	1809.8	1788.6	1759.2	1726.5	1726.5	1698.7	1698.7	1698.7	1700.3	1710.1	1731.4
42.5°	1654.5	1631.6	1605.5	1582.6	1579.3	1558.1	1558.1	1556.4	1559.7	1567.9	1587.5
45°	1504.1	1486.1	1458.3	1446.9	1448.5	1425.6	1430.5	1425.6	1432.2	1440.4	1446.9
47.5°	1365.1	1353.7	1342.3	1325.9	1321.0	1319.4	1311.2	1304.7	1316.1	1316.1	1325.9
50°	1236.0	1229.4	1222.9	1213.1	1214.7	1208.2	1198.4	1198.4	1206.6	1208.2	1214.7
52.5°	1123.2	1115.0	1106.8	1108.5	1110.1	1106.8	1101.9	1097.0	1101.9	1105.2	1113.4
55°	1010.4	1003.8	1012.0	1008.7	1012.0	1008.7	1005.5	1002.2	1010.4	1005.5	1013.6
57.5°	909.0	915.5	918.8	912.3	917.2	913.9	915.5	910.6	917.2	920.5	918.8
60°	815.8	825.6	820.7	822.4	828.9	825.6	819.1	824.0	830.5	832.2	830.5
62.5°	730.8	742.2	747.2	743.9	745.5	742.2	747.2	740.6	748.8	752.1	747.2
65°	654.0	667.0	670.3	670.3	670.3	667.0	671.9	673.6	676.9	676.9	673.6
67.5°	588.6	600.0	603.3	606.5	603.3	600.0	600.0	601.6	608.2	611.5	608.2
70°	529.7	541.2	542.8	542.8	544.4	547.7	541.2	544.4	549.3	551.0	549.3
72.5°	479.0	490.5	493.7	492.1	493.7	495.4	495.4	492.1	497.0	500.3	500.3
75°	438.2	444.7	448.0	448.0	449.6	451.2	451.2	449.6	452.9	454.5	456.1
77.5°	400.6	405.5	410.4	410.4	412.0	410.4	413.6	413.6	415.3	416.9	418.5
80°	362.9	369.5	372.8	374.4	377.7	379.3	379.3	379.3	380.9	382.6	382.6
82.5°	333.5	338.4	343.3	348.2	348.2	349.9	349.9	349.9	351.5	351.5	353.1
85°	304.1	310.6	315.5	318.8	320.4	322.1	322.1	323.7	323.7	323.7	325.3
87.5°	277.9	286.1	289.4	292.6	294.3	297.6	297.6	297.6	299.2	299.2	299.2
90°	259.9	268.1	271.4	274.7	276.3	277.9	277.9	279.6	279.6	281.2	281.2
92.5°	238.7	246.9	253.4	253.4	255.0	258.3	256.7	256.7	258.3	259.9	259.9
95°	222.3	228.9	233.8	235.4	237.1	237.1	237.1	238.7	237.1	238.7	238.7
97.5°	202.7	209.3	214.2	217.4	219.1	219.1	219.1	220.7	219.1	220.7	220.7
100°	186.4	192.9	197.8	199.5	202.7	202.7	202.7	202.7	202.7	202.7	204.4
102.5°	173.3	179.8	183.1	184.7	186.4	188.0	188.0	188.0	188.0	189.6	189.6
105°	160.2	166.8	170.0	171.7	173.3	174.9	174.9	174.9	176.6	176.6	174.9
107.5°	148.8	153.7	157.0	160.2	161.9	161.9	163.5	163.5	163.5	163.5	163.5
110°	137.3	142.2	147.1	150.4	150.4	152.0	152.0	153.7	153.7	152.0	153.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	125.9	132.4	135.7	139.0	140.6	142.2	142.2	142.2	142.2	142.2	142.2
115°	116.1	122.6	125.9	129.2	130.8	132.4	132.4	132.4	132.4	132.4	132.4
117.5°	107.9	114.4	117.7	119.3	121.0	122.6	124.3	124.3	124.3	124.3	122.6
120°	99.7	104.6	107.9	111.2	112.8	114.4	114.4	114.4	114.4	114.4	114.4
122.5°	91.6	96.5	99.7	103.0	104.6	106.3	106.3	106.3	106.3	106.3	106.3
125°	83.4	88.3	91.6	94.8	96.5	98.1	98.1	98.1	98.1	98.1	98.1
127.5°	75.2	80.1	85.0	86.6	88.3	89.9	89.9	89.9	91.6	89.9	89.9
130°	67.0	71.9	76.8	78.5	80.1	81.7	83.4	83.4	83.4	83.4	81.7
132.5°	60.5	65.4	68.7	70.3	73.6	73.6	75.2	75.2	75.2	75.2	73.6
135°	55.6	58.9	62.1	63.8	67.0	67.0	67.0	68.7	68.7	67.0	65.4
137.5°	49.0	52.3	55.6	57.2	58.9	60.5	60.5	62.1	60.5	60.5	60.5
140°	45.8	47.4	50.7	52.3	54.0	54.0	54.0	55.6	55.6	54.0	54.0
142.5°	39.2	42.5	45.8	47.4	49.0	49.0	49.0	49.0	49.0	49.0	49.0
145°	32.7	37.6	39.2	42.5	42.5	44.1	44.1	44.1	44.1	44.1	42.5
147.5°	27.8	31.1	36.0	37.6	37.6	39.2	39.2	39.2	39.2	39.2	37.6
150°	21.3	24.5	29.4	32.7	32.7	34.3	34.3	34.3	34.3	34.3	32.7
152.5°	18.0	21.3	22.9	26.2	27.8	27.8	27.8	29.4	27.8	27.8	27.8
155°	16.3	18.0	19.6	21.3	22.9	24.5	24.5	24.5	24.5	22.9	22.9
157.5°	13.1	14.7	16.3	18.0	19.6	21.3	21.3	21.3	21.3	21.3	19.6
160°	9.8	11.4	13.1	13.1	14.7	16.3	18.0	16.3	16.3	16.3	16.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2965.7	2964.1	2969.0	2960.8	2936.3	2942.8	2939.6	2954.3	2957.5	2960.8	2975.5
5°	2965.7	2964.1	2967.4	2960.8	2934.7	2939.6	2936.3	2951.0	2954.3	2955.9	2970.6
7.5°	2959.2	2957.5	2962.4	2954.3	2926.5	2933.0	2928.1	2942.8	2944.5	2946.1	2959.2
10°	2946.1	2944.5	2947.7	2941.2	2913.4	2919.9	2913.4	2928.1	2928.1	2931.4	2941.2
12.5°	2926.5	2923.2	2929.7	2921.6	2890.5	2898.7	2895.4	2905.2	2906.9	2908.5	2918.3
15°	2898.7	2895.4	2900.3	2895.4	2867.6	2869.3	2864.4	2879.1	2880.7	2877.4	2887.2
17.5°	2857.8	2854.5	2864.4	2861.1	2833.3	2839.8	2838.2	2841.5	2846.4	2838.2	2851.3
20°	2807.1	2810.4	2813.7	2815.3	2794.1	2794.1	2792.4	2799.0	2803.9	2797.3	2807.1
22.5°	2731.9	2740.1	2749.9	2753.2	2738.5	2736.8	2746.6	2743.4	2748.3	2745.0	2751.5
25°	2637.1	2653.5	2663.3	2673.1	2664.9	2668.2	2682.9	2686.1	2686.1	2684.5	2691.1
27.5°	2519.4	2540.6	2558.6	2579.9	2571.7	2578.2	2602.8	2606.0	2612.6	2606.0	2619.1
30°	2378.8	2398.4	2432.7	2463.8	2467.1	2476.9	2511.2	2514.5	2532.5	2525.9	2530.8
32.5°	2238.2	2248.0	2287.2	2318.3	2337.9	2362.4	2400.0	2406.6	2431.1	2436.0	2436.0
35°	2061.6	2089.4	2125.4	2169.5	2194.0	2220.2	2270.9	2280.7	2316.7	2328.1	2341.2
37.5°	1912.8	1939.0	1961.9	2007.7	2051.8	2081.2	2122.1	2146.6	2184.2	2205.5	2221.8
40°	1754.3	1775.5	1800.0	1845.8	1883.4	1927.6	1968.4	1997.9	2045.3	2069.8	2091.0
42.5°	1603.8	1620.2	1646.3	1679.0	1718.3	1767.3	1806.6	1840.9	1891.6	1925.9	1950.4
45°	1469.8	1479.6	1502.5	1527.0	1561.3	1612.0	1649.6	1693.8	1734.6	1770.6	1800.0
47.5°	1343.9	1357.0	1368.4	1384.8	1415.8	1446.9	1491.0	1533.5	1574.4	1613.7	1643.1
50°	1227.8	1227.8	1245.8	1257.2	1278.5	1306.3	1340.6	1370.1	1420.7	1448.5	1486.1
52.5°	1115.0	1121.5	1131.4	1137.9	1154.2	1172.2	1200.0	1224.5	1267.1	1293.2	1329.2
55°	1015.3	1021.8	1026.7	1030.0	1039.8	1061.1	1070.9	1090.5	1119.9	1141.2	1172.2
57.5°	920.5	923.7	928.6	930.3	931.9	945.0	953.1	958.1	987.5	1008.7	1034.9
60°	833.8	833.8	838.7	837.1	835.4	842.0	840.3	845.2	863.2	876.3	887.8
62.5°	752.1	752.1	753.7	750.4	748.8	748.8	742.2	747.2	752.1	753.7	761.9
65°	676.9	685.0	678.5	680.1	670.3	667.0	663.8	654.0	652.3	645.8	649.1
67.5°	609.8	616.4	609.8	609.8	601.6	595.1	586.9	570.6	565.7	552.6	549.3
70°	555.9	551.0	554.2	549.3	539.5	531.3	519.9	506.8	490.5	474.1	462.7
72.5°	503.6	503.6	500.3	495.4	490.5	474.1	461.0	446.3	426.7	405.5	389.1
75°	452.9	454.5	454.5	449.6	441.4	426.7	412.0	390.7	369.5	345.0	323.7
77.5°	416.9	416.9	416.9	408.7	400.6	387.5	369.5	346.6	323.7	294.3	269.8
80°	382.6	380.9	380.9	371.1	362.9	348.2	330.3	307.4	282.8	251.8	224.0
82.5°	354.8	353.1	349.9	341.7	330.3	315.5	297.6	273.0	246.9	219.1	184.7
85°	325.3	323.7	320.4	312.3	300.8	287.7	268.1	243.6	217.4	186.4	153.7
87.5°	299.2	297.6	292.6	287.7	274.7	259.9	240.3	217.4	189.6	160.2	127.5
90°	281.2	277.9	274.7	268.1	256.7	240.3	220.7	196.2	168.4	139.0	106.3
92.5°	259.9	258.3	253.4	246.9	237.1	220.7	201.1	178.2	150.4	122.6	91.6
95°	238.7	237.1	233.8	227.3	217.4	202.7	184.7	161.9	135.7	107.9	80.1
97.5°	219.1	219.1	214.2	209.3	197.8	186.4	168.4	147.1	122.6	98.1	71.9
100°	202.7	202.7	197.8	191.3	183.1	171.7	153.7	134.1	111.2	88.3	62.1
102.5°	188.0	186.4	183.1	176.6	168.4	157.0	140.6	122.6	101.4	78.5	55.6
105°	174.9	173.3	170.0	163.5	157.0	143.9	130.8	112.8	91.6	70.3	49.0
107.5°	161.9	160.2	158.6	152.0	143.9	132.4	119.3	101.4	83.4	63.8	44.1
110°	150.4	148.8	145.5	139.0	130.8	121.0	107.9	93.2	75.2	57.2	39.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	140.6	139.0	135.7	129.2	122.6	111.2	99.7	83.4	68.7	52.3	34.3
115°	130.8	129.2	125.9	119.3	111.2	101.4	89.9	76.8	60.5	45.8	31.1
117.5°	121.0	119.3	116.1	111.2	103.0	93.2	81.7	68.7	54.0	42.5	27.8
120°	112.8	109.5	106.3	101.4	93.2	85.0	73.6	62.1	49.0	37.6	24.5
122.5°	104.6	101.4	98.1	93.2	85.0	76.8	65.4	55.6	45.8	34.3	22.9
125°	94.8	93.2	89.9	85.0	76.8	68.7	60.5	50.7	40.9	31.1	19.6
127.5°	86.6	85.0	81.7	75.2	68.7	62.1	54.0	45.8	36.0	26.2	18.0
130°	80.1	76.8	73.6	68.7	63.8	57.2	49.0	40.9	32.7	22.9	16.3
132.5°	71.9	68.7	65.4	62.1	57.2	50.7	44.1	36.0	29.4	21.3	14.7
135°	65.4	62.1	58.9	55.6	50.7	45.8	39.2	32.7	26.2	19.6	13.1
137.5°	57.2	55.6	54.0	50.7	45.8	40.9	36.0	27.8	22.9	18.0	11.4
140°	52.3	50.7	49.0	44.1	40.9	36.0	31.1	24.5	19.6	14.7	9.8
142.5°	47.4	45.8	42.5	39.2	36.0	32.7	26.2	22.9	18.0	13.1	9.8
145°	40.9	39.2	37.6	34.3	31.1	26.2	22.9	19.6	16.3	11.4	8.2
147.5°	37.6	36.0	32.7	29.4	26.2	22.9	21.3	18.0	13.1	9.8	6.5
150°	31.1	29.4	27.8	24.5	22.9	21.3	18.0	14.7	11.4	8.2	6.5
152.5°	26.2	24.5	22.9	22.9	19.6	18.0	14.7	13.1	9.8	8.2	4.9
155°	22.9	22.9	21.3	19.6	16.3	14.7	13.1	9.8	8.2	6.5	4.9
157.5°	19.6	18.0	16.3	16.3	14.7	13.1	9.8	8.2	6.5	6.5	4.9
160°	16.3	14.7	14.7	13.1	11.4	9.8	8.2	8.2	6.5	4.9	4.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2977.2	2959.2	2975.5	2996.8	2996.8	2993.5	2990.2	2996.8	3013.1	3006.6	2987.0
5°	2972.3	2954.3	2969.0	2990.2	2990.2	2985.3	2982.1	2987.0	3005.0	2996.8	2978.8
7.5°	2962.4	2946.1	2955.9	2975.5	2975.5	2970.6	2967.4	2973.9	2988.6	2980.4	2960.8
10°	2944.5	2926.5	2937.9	2955.9	2954.3	2951.0	2946.1	2954.3	2967.4	2955.9	2933.0
12.5°	2921.6	2903.6	2913.4	2929.7	2928.1	2921.6	2918.3	2923.2	2934.7	2928.1	2903.6
15°	2890.5	2872.5	2880.7	2897.1	2892.1	2887.2	2880.7	2882.3	2897.1	2885.6	2859.4
17.5°	2852.9	2833.3	2839.8	2854.5	2849.6	2844.7	2836.6	2838.2	2854.5	2838.2	2810.4
20°	2807.1	2785.9	2790.8	2808.8	2800.6	2792.4	2784.2	2784.2	2800.6	2782.6	2751.5
22.5°	2758.1	2736.8	2740.1	2753.2	2746.6	2731.9	2723.8	2728.7	2736.8	2713.9	2681.2
25°	2697.6	2669.8	2674.7	2687.8	2682.9	2663.3	2655.1	2658.4	2655.1	2637.1	2602.8
27.5°	2627.3	2597.9	2601.1	2609.3	2602.8	2584.8	2575.0	2576.6	2570.1	2547.2	2507.9
30°	2539.0	2524.3	2522.7	2527.6	2517.8	2499.8	2488.3	2485.1	2483.4	2450.7	2403.3
32.5°	2449.1	2436.0	2427.8	2434.4	2422.9	2404.9	2385.3	2385.3	2369.0	2337.9	2297.0
35°	2357.5	2336.3	2328.1	2333.0	2319.9	2297.0	2280.7	2272.5	2248.0	2208.8	2164.6
37.5°	2239.8	2225.1	2215.3	2220.2	2205.5	2189.1	2158.1	2149.9	2123.7	2069.8	2014.2
40°	2112.3	2100.9	2091.0	2095.9	2079.6	2055.1	2027.3	2014.2	1984.8	1924.3	1880.1
42.5°	1975.0	1970.1	1958.6	1976.6	1943.9	1919.4	1891.6	1870.3	1840.9	1775.5	1724.8
45°	1829.5	1840.9	1814.7	1819.6	1798.4	1777.1	1747.7	1716.6	1687.2	1625.1	1567.9
47.5°	1675.8	1684.0	1666.0	1669.2	1646.3	1626.7	1600.6	1561.3	1528.6	1474.7	1424.0
50°	1517.2	1513.9	1513.9	1510.7	1492.7	1468.1	1442.0	1406.0	1373.3	1324.3	1281.8
52.5°	1348.8	1355.3	1358.6	1366.8	1343.9	1329.2	1288.3	1257.2	1232.7	1182.0	1146.1
55°	1186.9	1209.8	1203.3	1206.6	1180.4	1169.0	1136.3	1111.7	1075.8	1046.3	1023.5
57.5°	1039.8	1044.7	1048.0	1052.9	1041.4	1018.5	992.4	972.8	945.0	920.5	904.1
60°	897.6	897.6	899.2	907.4	895.9	876.3	856.7	842.0	822.4	807.6	797.8
62.5°	763.5	774.9	776.6	770.0	755.3	745.5	732.4	724.3	711.2	706.3	703.0
65°	639.2	639.2	639.2	642.5	634.3	627.8	619.6	618.0	622.9	616.4	619.6
67.5°	534.6	529.7	526.4	528.1	524.8	521.5	519.9	524.8	534.6	534.6	542.8
70°	444.7	434.9	428.3	428.3	428.3	430.0	434.9	444.7	461.0	467.6	479.0
72.5°	371.1	349.9	340.1	340.1	341.7	348.2	362.9	380.9	395.6	408.7	423.4
75°	300.8	279.6	264.9	263.2	266.5	276.3	297.6	313.9	338.4	356.4	374.4
77.5°	243.6	217.4	199.5	197.8	202.7	217.4	243.6	264.9	292.6	312.3	331.9
80°	194.6	165.1	150.4	140.6	148.8	166.8	196.2	222.3	248.5	274.7	299.2
82.5°	155.3	127.5	104.6	94.8	104.6	129.2	157.0	188.0	214.2	242.0	266.5
85°	122.6	93.2	67.0	57.2	68.7	94.8	125.9	157.0	186.4	214.2	238.7
87.5°	96.5	67.0	40.9	27.8	42.5	70.3	99.7	130.8	161.9	189.6	214.2
90°	75.2	47.4	22.9	3.3	24.5	50.7	80.1	109.5	140.6	168.4	192.9
92.5°	63.8	36.0	13.1	0.0	14.7	37.6	65.4	94.8	122.6	150.4	174.9
95°	54.0	29.4	9.8	0.0	9.8	29.4	54.0	80.1	107.9	135.7	160.2
97.5°	45.8	22.9	6.5	0.0	6.5	22.9	44.1	70.3	94.8	121.0	143.9
100°	39.2	19.6	4.9	0.0	4.9	18.0	37.6	60.5	85.0	109.5	130.8
102.5°	34.3	16.3	3.3	0.0	3.3	14.7	31.1	52.3	73.6	96.5	117.7
105°	29.4	13.1	3.3	0.0	1.6	11.4	26.2	45.8	65.4	86.6	106.3
107.5°	26.2	11.4	3.3	0.0	1.6	9.8	22.9	39.2	58.9	76.8	94.8
110°	22.9	9.8	3.3	0.0	1.6	6.5	19.6	34.3	50.7	68.7	86.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	19.6	8.2	1.6	0.0	0.0	4.9	16.3	29.4	44.1	62.1	76.8
115°	18.0	8.2	1.6	0.0	0.0	3.3	13.1	26.2	39.2	55.6	68.7
117.5°	16.3	6.5	1.6	0.0	1.6	3.3	11.4	22.9	34.3	47.4	62.1
120°	14.7	6.5	1.6	0.0	1.6	1.6	8.2	19.6	29.4	42.5	54.0
122.5°	13.1	6.5	1.6	0.0	1.6	1.6	6.5	16.3	26.2	37.6	47.4
125°	11.4	4.9	3.3	1.6	1.6	1.6	4.9	13.1	22.9	31.1	42.5
127.5°	11.4	4.9	3.3	1.6	1.6	1.6	3.3	11.4	18.0	27.8	37.6
130°	9.8	4.9	3.3	1.6	1.6	1.6	1.6	8.2	16.3	22.9	31.1
132.5°	8.2	4.9	3.3	1.6	1.6	1.6	1.6	4.9	11.4	19.6	26.2
135°	8.2	4.9	3.3	1.6	1.6	1.6	1.6	3.3	8.2	14.7	21.3
137.5°	6.5	3.3	3.3	1.6	1.6	1.6	1.6	1.6	6.5	11.4	16.3
140°	6.5	3.3	3.3	1.6	1.6	1.6	1.6	1.6	4.9	8.2	13.1
142.5°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	3.3	6.5	9.8
145°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	3.3	6.5
147.5°	4.9	4.9	3.3	1.6	1.6	1.6	1.6	1.6	1.6	3.3	4.9
150°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
152.5°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
155°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	3.3	3.3
157.5°	4.9	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
160°	4.9	3.3	3.3	1.6	3.3	1.6	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2980.4	2949.4	2965.7	2960.8	2967.4	2980.4	2978.8	2975.5	2975.5	2970.6	2964.1
5°	2970.6	2941.2	2955.9	2947.7	2955.9	2967.4	2965.7	2960.8	2964.1	2955.9	2947.7
7.5°	2951.0	2924.8	2937.9	2931.4	2937.9	2949.4	2944.5	2942.8	2946.1	2933.0	2928.1
10°	2928.1	2898.7	2913.4	2905.2	2913.4	2921.6	2918.3	2911.8	2918.3	2905.2	2900.3
12.5°	2892.1	2867.6	2877.4	2874.2	2879.1	2887.2	2880.7	2875.8	2879.1	2867.6	2857.8
15°	2852.9	2828.4	2836.6	2831.7	2834.9	2844.7	2833.3	2831.7	2828.4	2816.9	2813.7
17.5°	2802.2	2779.3	2787.5	2779.3	2784.2	2781.0	2779.3	2771.2	2771.2	2758.1	2748.3
20°	2740.1	2720.5	2715.6	2709.0	2715.6	2709.0	2699.2	2692.7	2691.1	2678.0	2669.8
22.5°	2668.2	2645.3	2648.5	2630.6	2632.2	2622.4	2606.0	2599.5	2593.0	2578.2	2566.8
25°	2581.5	2558.6	2542.3	2530.8	2516.1	2514.5	2493.2	2476.9	2475.2	2457.3	2455.6
27.5°	2483.4	2457.3	2444.2	2416.4	2398.4	2383.7	2365.7	2349.4	2341.2	2321.6	2308.5
30°	2370.6	2341.2	2308.5	2288.9	2261.1	2249.6	2218.6	2198.9	2192.4	2171.2	2161.3
32.5°	2243.1	2212.0	2185.9	2148.3	2117.2	2100.9	2069.8	2050.2	2042.0	2019.1	2006.0
35°	2104.1	2069.8	2038.7	2002.8	1978.2	1950.4	1912.8	1893.2	1875.2	1867.1	1857.3
37.5°	1958.6	1921.0	1885.0	1849.1	1827.8	1795.1	1762.4	1749.3	1728.1	1719.9	1710.1
40°	1808.2	1770.6	1736.3	1701.9	1677.4	1648.0	1618.6	1613.7	1590.8	1582.6	1576.0
42.5°	1659.4	1620.2	1581.0	1556.4	1538.4	1509.0	1489.4	1484.5	1464.9	1460.0	1460.0
45°	1525.4	1476.3	1443.6	1422.4	1407.7	1383.1	1366.8	1363.5	1347.2	1343.9	1343.9
47.5°	1381.5	1335.7	1311.2	1298.1	1285.0	1267.1	1257.2	1257.2	1240.9	1237.6	1236.0
50°	1247.4	1204.9	1186.9	1173.9	1172.2	1159.1	1151.0	1147.7	1147.7	1136.3	1137.9
52.5°	1119.9	1098.7	1083.9	1075.8	1066.0	1057.8	1051.2	1051.2	1046.3	1038.2	1041.4
55°	1002.2	977.7	979.3	972.8	967.9	963.0	964.6	954.8	953.1	946.6	951.5
57.5°	884.5	884.5	881.2	876.3	868.1	871.4	871.4	871.4	863.2	858.3	863.2
60°	784.8	789.7	781.5	786.4	783.1	784.8	781.5	781.5	776.6	774.9	776.6
62.5°	696.5	704.6	701.4	707.9	704.6	706.3	709.5	703.0	699.7	696.5	699.7
65°	618.0	627.8	626.2	631.1	632.7	634.3	636.0	632.7	629.4	626.2	624.5
67.5°	549.3	559.1	565.7	567.3	568.9	573.9	572.2	568.9	565.7	560.8	559.1
70°	487.2	500.3	508.5	511.7	518.3	515.0	515.0	513.4	510.1	505.2	503.6
72.5°	434.9	449.6	457.8	461.0	467.6	467.6	465.9	464.3	461.0	456.1	454.5
75°	389.1	402.2	413.6	420.2	425.1	425.1	423.4	421.8	418.5	415.3	413.6
77.5°	353.1	364.6	374.4	382.6	385.8	387.5	385.8	382.6	382.6	380.9	379.3
80°	317.2	330.3	340.1	348.2	353.1	353.1	351.5	353.1	349.9	348.2	346.6
82.5°	286.1	300.8	312.3	320.4	323.7	325.3	323.7	325.3	322.1	322.1	322.1
85°	258.3	273.0	286.1	292.6	297.6	299.2	299.2	299.2	297.6	297.6	297.6
87.5°	235.4	250.1	263.2	269.8	274.7	276.3	276.3	277.9	274.7	274.7	274.7
90°	214.2	228.9	242.0	248.5	253.4	256.7	256.7	258.3	256.7	255.0	255.0
92.5°	194.6	210.9	224.0	230.5	235.4	240.3	240.3	242.0	238.7	238.7	238.7
95°	178.2	194.6	206.0	214.2	219.1	222.3	224.0	224.0	222.3	222.3	222.3
97.5°	163.5	178.2	189.6	197.8	202.7	204.4	206.0	207.6	206.0	206.0	206.0
100°	148.8	163.5	174.9	181.5	188.0	189.6	191.3	192.9	192.9	191.3	191.3
102.5°	135.7	150.4	160.2	168.4	173.3	176.6	178.2	178.2	178.2	178.2	178.2
105°	122.6	137.3	147.1	155.3	160.2	163.5	165.1	166.8	166.8	165.1	165.1
107.5°	111.2	124.3	135.7	142.2	148.8	152.0	153.7	153.7	155.3	153.7	153.7
110°	99.7	114.4	124.3	130.8	137.3	140.6	142.2	143.9	143.9	143.9	143.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	91.6	103.0	112.8	119.3	125.9	129.2	130.8	132.4	134.1	132.4	132.4
115°	81.7	93.2	103.0	109.5	114.4	117.7	121.0	122.6	122.6	124.3	122.6
117.5°	73.6	83.4	93.2	99.7	104.6	109.5	111.2	112.8	114.4	112.8	112.8
120°	65.4	75.2	83.4	89.9	94.8	99.7	101.4	103.0	104.6	103.0	103.0
122.5°	58.9	67.0	75.2	81.7	86.6	89.9	93.2	93.2	94.8	94.8	94.8
125°	52.3	60.5	67.0	73.6	78.5	81.7	83.4	85.0	85.0	86.6	86.6
127.5°	45.8	52.3	60.5	65.4	70.3	73.6	75.2	76.8	76.8	78.5	78.5
130°	39.2	45.8	52.3	57.2	62.1	65.4	67.0	68.7	70.3	70.3	70.3
132.5°	34.3	40.9	45.8	50.7	54.0	57.2	60.5	62.1	62.1	62.1	62.1
135°	27.8	34.3	39.2	44.1	47.4	50.7	52.3	55.6	55.6	55.6	55.6
137.5°	22.9	29.4	34.3	37.6	40.9	44.1	45.8	47.4	49.0	49.0	49.0
140°	18.0	22.9	27.8	32.7	36.0	37.6	40.9	40.9	42.5	42.5	42.5
142.5°	13.1	18.0	21.3	26.2	29.4	32.7	34.3	36.0	36.0	36.0	36.0
145°	9.8	13.1	16.3	19.6	24.5	26.2	27.8	29.4	31.1	31.1	31.1
147.5°	6.5	9.8	11.4	14.7	18.0	21.3	22.9	24.5	26.2	26.2	26.2
150°	4.9	6.5	9.8	11.4	13.1	16.3	19.6	19.6	21.3	21.3	19.6
152.5°	3.3	4.9	6.5	8.2	9.8	11.4	14.7	14.7	16.3	16.3	16.3
155°	3.3	3.3	3.3	4.9	6.5	8.2	9.8	11.4	11.4	11.4	11.4
157.5°	3.3	3.3	3.3	3.3	3.3	4.9	6.5	8.2	8.2	8.2	8.2
160°	3.3	3.3	1.6	1.6	3.3	3.3	3.3	3.3	4.9	4.9	4.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2969.0	2972.3	2972.3	2969.0	2967.4	2973.9	2965.7	2934.7	2944.5	2947.7	2957.5
5°	2954.3	2957.5	2957.5	2957.5	2954.3	2960.8	2952.6	2921.6	2933.0	2937.9	2944.5
7.5°	2933.0	2934.7	2937.9	2936.3	2933.0	2942.8	2934.7	2903.6	2911.8	2919.9	2928.1
10°	2905.2	2905.2	2906.9	2910.1	2906.9	2915.0	2906.9	2879.1	2887.2	2892.1	2902.0
12.5°	2867.6	2870.9	2872.5	2870.9	2869.3	2875.8	2872.5	2846.4	2849.6	2859.4	2869.3
15°	2816.9	2816.9	2825.1	2821.8	2821.8	2828.4	2831.7	2802.2	2807.1	2821.8	2831.7
17.5°	2754.8	2756.4	2763.0	2766.3	2764.6	2776.1	2777.7	2754.8	2753.2	2771.2	2781.0
20°	2674.7	2678.0	2686.1	2692.7	2692.7	2705.8	2710.7	2696.0	2697.6	2717.2	2720.5
22.5°	2576.6	2576.6	2591.3	2601.1	2609.3	2617.5	2632.2	2619.1	2619.1	2645.3	2660.0
25°	2455.6	2467.1	2472.0	2491.6	2503.0	2525.9	2539.0	2540.6	2542.3	2566.8	2576.6
27.5°	2321.6	2324.8	2339.5	2362.4	2375.5	2396.8	2421.3	2426.2	2434.4	2467.1	2481.8
30°	2169.5	2179.3	2185.9	2218.6	2236.5	2264.3	2295.4	2306.9	2313.4	2357.5	2375.5
32.5°	2014.2	2017.5	2045.3	2063.2	2084.5	2113.9	2149.9	2171.2	2184.2	2230.0	2256.2
35°	1858.9	1865.4	1888.3	1911.2	1932.5	1961.9	1999.5	2028.9	2051.8	2092.7	2127.0
37.5°	1716.6	1733.0	1737.9	1760.8	1777.1	1806.6	1832.7	1875.2	1898.1	1940.6	1984.8
40°	1589.1	1594.0	1597.3	1620.2	1631.6	1659.4	1697.0	1724.8	1755.9	1787.0	1839.3
42.5°	1463.2	1466.5	1471.4	1484.5	1497.6	1517.2	1545.0	1572.8	1605.5	1651.3	1685.6
45°	1347.2	1350.4	1353.7	1361.9	1373.3	1391.3	1409.3	1428.9	1461.6	1500.8	1536.8
47.5°	1239.3	1245.8	1245.8	1247.4	1255.6	1270.3	1283.4	1307.9	1325.9	1347.2	1388.0
50°	1136.3	1141.2	1142.8	1142.8	1147.7	1157.5	1160.8	1177.1	1193.5	1213.1	1242.5
52.5°	1039.8	1039.8	1038.2	1044.7	1044.7	1051.2	1052.9	1062.7	1074.1	1095.4	1108.5
55°	948.2	948.2	953.1	949.9	949.9	953.1	951.5	953.1	963.0	976.0	987.5
57.5°	860.0	858.3	863.2	860.0	858.3	861.6	864.9	858.3	860.0	873.0	873.0
60°	771.7	773.3	778.2	774.9	774.9	774.9	771.7	768.4	765.1	773.3	776.6
62.5°	701.4	696.5	701.4	696.5	699.7	698.1	694.8	688.3	689.9	686.7	683.4
65°	627.8	627.8	629.4	624.5	627.8	627.8	622.9	621.3	611.5	608.2	600.0
67.5°	564.0	564.0	565.7	562.4	562.4	564.0	559.1	554.2	544.4	539.5	528.1
70°	508.5	508.5	508.5	506.8	506.8	506.8	503.6	497.0	487.2	479.0	464.3
72.5°	457.8	459.4	457.8	457.8	462.7	457.8	452.9	446.3	438.2	421.8	408.7
75°	416.9	418.5	416.9	416.9	416.9	415.3	413.6	403.8	394.0	380.9	361.3
77.5°	380.9	380.9	382.6	380.9	380.9	379.3	374.4	366.2	354.8	343.3	320.4
80°	346.6	348.2	349.9	351.5	348.2	346.6	341.7	335.2	320.4	307.4	284.5
82.5°	322.1	320.4	322.1	323.7	320.4	318.8	313.9	305.7	294.3	276.3	253.4
85°	297.6	295.9	295.9	297.6	295.9	292.6	287.7	279.6	268.1	250.1	227.3
87.5°	273.0	274.7	276.3	274.7	273.0	269.8	264.9	256.7	243.6	228.9	204.4
90°	255.0	255.0	255.0	255.0	253.4	250.1	245.2	235.4	224.0	206.0	184.7
92.5°	238.7	238.7	238.7	238.7	237.1	232.2	227.3	219.1	206.0	188.0	168.4
95°	222.3	224.0	222.3	222.3	219.1	217.4	209.3	201.1	189.6	171.7	150.4
97.5°	204.4	206.0	204.4	204.4	202.7	199.5	194.6	184.7	173.3	157.0	137.3
100°	191.3	191.3	189.6	189.6	188.0	184.7	178.2	170.0	158.6	142.2	122.6
102.5°	176.6	178.2	176.6	176.6	173.3	170.0	165.1	157.0	145.5	129.2	111.2
105°	165.1	165.1	163.5	163.5	160.2	157.0	152.0	142.2	132.4	117.7	99.7
107.5°	153.7	153.7	152.0	152.0	148.8	145.5	139.0	130.8	121.0	106.3	89.9
110°	142.2	142.2	142.2	140.6	137.3	132.4	127.5	119.3	109.5	96.5	80.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	134.1	132.4	130.8	129.2	125.9	122.6	116.1	107.9	98.1	86.6	71.9
115°	122.6	122.6	121.0	119.3	116.1	111.2	106.3	99.7	89.9	76.8	63.8
117.5°	112.8	112.8	111.2	109.5	106.3	101.4	96.5	89.9	80.1	68.7	57.2
120°	103.0	103.0	101.4	99.7	96.5	91.6	88.3	80.1	71.9	60.5	50.7
122.5°	94.8	93.2	93.2	89.9	88.3	83.4	78.5	71.9	63.8	54.0	44.1
125°	85.0	85.0	83.4	81.7	80.1	75.2	70.3	63.8	55.6	47.4	39.2
127.5°	76.8	76.8	75.2	73.6	71.9	67.0	62.1	57.2	49.0	40.9	32.7
130°	68.7	68.7	67.0	65.4	63.8	58.9	55.6	49.0	42.5	36.0	27.8
132.5°	62.1	62.1	60.5	58.9	55.6	52.3	49.0	42.5	37.6	31.1	24.5
135°	55.6	54.0	54.0	52.3	49.0	45.8	42.5	37.6	31.1	26.2	19.6
137.5°	49.0	47.4	45.8	44.1	42.5	39.2	36.0	32.7	27.8	21.3	16.3
140°	42.5	40.9	40.9	39.2	36.0	34.3	31.1	26.2	22.9	18.0	13.1
142.5°	36.0	36.0	34.3	32.7	31.1	29.4	26.2	22.9	18.0	14.7	9.8
145°	31.1	29.4	29.4	27.8	26.2	22.9	21.3	18.0	14.7	11.4	8.2
147.5°	24.5	24.5	24.5	22.9	21.3	19.6	18.0	14.7	11.4	8.2	4.9
150°	19.6	19.6	19.6	18.0	16.3	14.7	13.1	11.4	8.2	4.9	3.3
152.5°	16.3	16.3	14.7	14.7	13.1	11.4	9.8	8.2	4.9	3.3	3.3
155°	11.4	11.4	11.4	9.8	9.8	8.2	6.5	4.9	3.3	3.3	3.3
157.5°	8.2	8.2	8.2	6.5	6.5	4.9	4.9	3.3	3.3	3.3	3.3
160°	4.9	4.9	4.9	4.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2952.6	2951.0	2964.1	2964.1	2949.4	2972.3	2996.8
5°	2942.8	2941.2	2954.3	2954.3	2941.2	2964.1	2990.2
7.5°	2923.2	2924.8	2937.9	2941.2	2924.8	2946.1	2973.9
10°	2902.0	2900.3	2915.0	2918.3	2905.2	2924.8	2951.0
12.5°	2867.6	2867.6	2882.3	2887.2	2874.2	2897.1	2921.6
15°	2831.7	2831.7	2841.5	2849.6	2838.2	2859.4	2884.0
17.5°	2785.9	2784.2	2794.1	2803.9	2792.4	2815.3	2841.5
20°	2727.0	2727.0	2738.5	2749.9	2741.7	2763.0	2792.4
22.5°	2664.9	2658.4	2678.0	2686.1	2681.2	2702.5	2731.9
25°	2586.4	2584.8	2604.4	2615.8	2609.3	2632.2	2658.4
27.5°	2501.4	2499.8	2519.4	2534.1	2530.8	2552.1	2581.5
30°	2398.4	2406.6	2424.6	2449.1	2440.9	2463.8	2494.9
32.5°	2290.5	2298.7	2319.9	2346.1	2347.7	2365.7	2396.8
35°	2161.3	2182.6	2197.3	2231.6	2238.2	2256.2	2288.9
37.5°	2025.6	2050.2	2081.2	2107.4	2120.5	2135.2	2172.8
40°	1873.6	1909.6	1943.9	1975.0	1991.3	2006.0	2042.0
42.5°	1736.3	1764.1	1796.8	1827.8	1857.3	1870.3	1907.9
45°	1581.0	1613.7	1643.1	1680.7	1710.1	1724.8	1762.4
47.5°	1428.9	1461.6	1500.8	1527.0	1558.1	1572.8	1608.7
50°	1283.4	1312.8	1345.5	1376.6	1402.7	1415.8	1446.9
52.5°	1139.5	1170.6	1201.7	1221.3	1249.1	1258.9	1285.0
55°	1012.0	1033.3	1061.1	1072.5	1100.3	1106.8	1124.8
57.5°	889.4	904.1	913.9	933.5	953.1	967.9	989.1
60°	778.2	784.8	791.3	802.7	819.1	824.0	832.2
62.5°	678.5	676.9	689.9	693.2	694.8	711.2	703.0
65°	590.2	591.8	580.4	575.5	582.0	586.9	583.7
67.5°	516.6	506.8	497.0	485.6	475.8	480.7	475.8
70°	444.7	436.5	420.2	403.8	397.3	387.5	382.6
72.5°	387.5	367.9	351.5	330.3	318.8	307.4	299.2
75°	343.3	315.5	292.6	269.8	253.4	237.1	233.8
77.5°	297.6	271.4	245.2	220.7	196.2	178.2	171.7
80°	261.6	237.1	206.0	176.6	150.4	127.5	119.3
82.5°	228.9	202.7	171.7	140.6	111.2	86.6	76.8
85°	201.1	173.3	142.2	111.2	81.7	55.6	42.5
87.5°	179.8	148.8	117.7	88.3	57.2	31.1	16.3
90°	160.2	130.8	101.4	70.3	40.9	16.3	0.0
92.5°	142.2	114.4	85.0	57.2	31.1	9.8	1.6
95°	125.9	101.4	71.9	45.8	22.9	6.5	1.6
97.5°	112.8	88.3	62.1	37.6	18.0	4.9	1.6
100°	101.4	76.8	54.0	31.1	14.7	3.3	1.6
102.5°	89.9	68.7	45.8	26.2	11.4	1.6	1.6
105°	80.1	60.5	39.2	22.9	9.8	1.6	1.6
107.5°	71.9	54.0	34.3	19.6	6.5	1.6	1.6
110°	63.8	45.8	29.4	16.3	4.9	1.6	1.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	57.2	40.9	26.2	13.1	3.3	1.6	1.6
115°	50.7	36.0	22.9	11.4	3.3	1.6	1.6
117.5°	44.1	31.1	19.6	8.2	1.6	1.6	1.6
120°	39.2	27.8	16.3	6.5	1.6	1.6	1.6
122.5°	34.3	22.9	13.1	4.9	1.6	1.6	1.6
125°	29.4	19.6	11.4	3.3	1.6	1.6	1.6
127.5°	24.5	16.3	8.2	3.3	1.6	1.6	1.6
130°	21.3	13.1	6.5	1.6	1.6	1.6	1.6
132.5°	18.0	9.8	4.9	1.6	1.6	1.6	1.6
135°	14.7	8.2	3.3	1.6	1.6	1.6	1.6
137.5°	11.4	6.5	3.3	1.6	1.6	1.6	1.6
140°	8.2	4.9	1.6	1.6	1.6	1.6	1.6
142.5°	6.5	3.3	1.6	1.6	1.6	1.6	1.6
145°	4.9	3.3	1.6	1.6	1.6	1.6	1.6
147.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6
150°	3.3	3.3	1.6	1.6	3.3	1.6	1.6
152.5°	3.3	1.6	1.6	1.6	3.3	1.6	1.6
155°	3.3	3.3	3.3	3.3	3.3	3.3	1.6
157.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3
160°	3.3	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)