

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-LD5-63SL-LC-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 (P33518)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
CLEAR LENSED  
Light Source: -  
Ballast/Driver: -

**Summary**

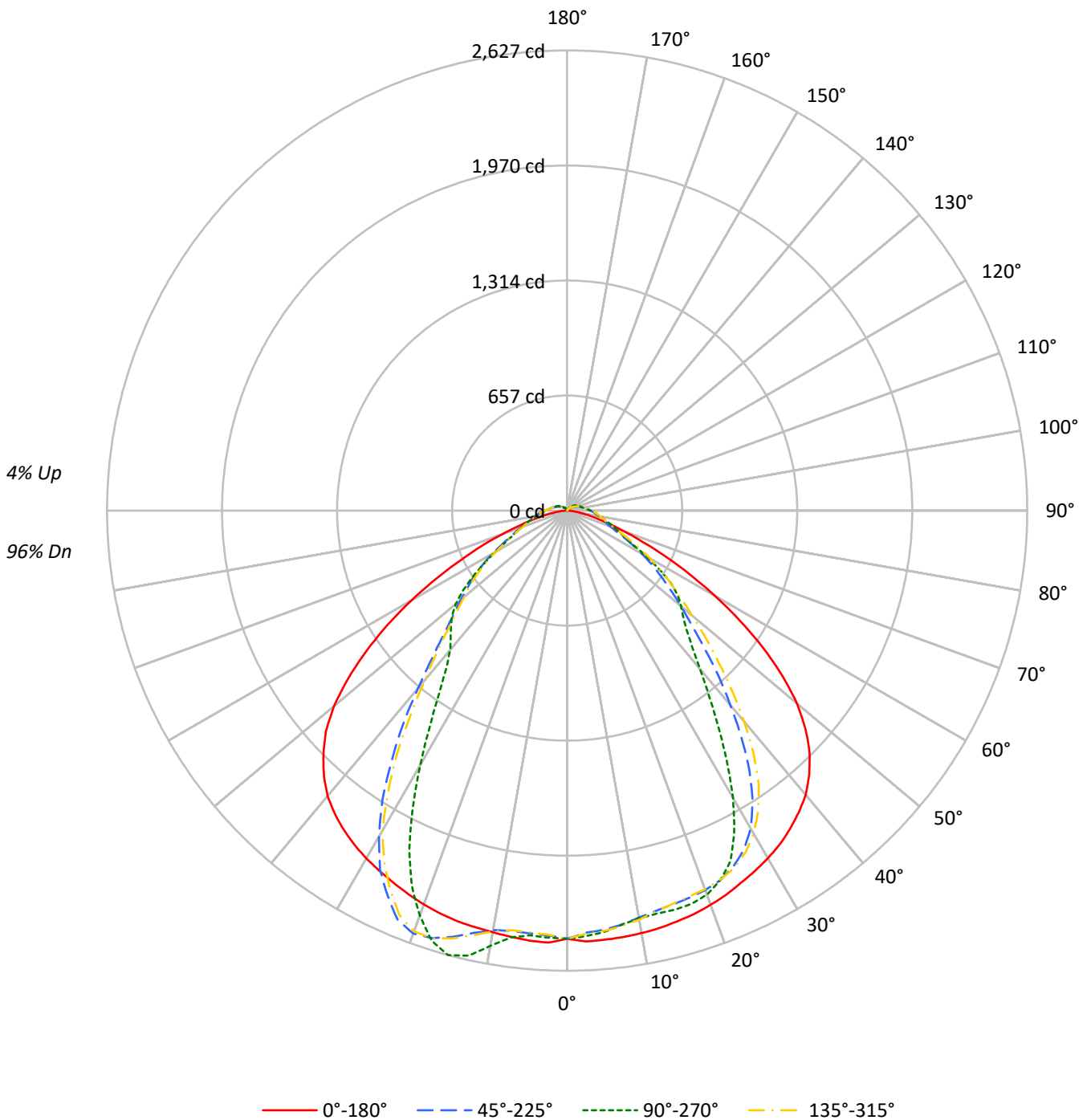
Lumens per Lamp: N/A  
Luminaire Lumens: 5827.0 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 52  
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



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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	115	115	115	115	109	109	109	103	103	103	98	98	98	96				
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	82				
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	71				
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	61				
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	54				
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	47				
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	42				
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	38				
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	34				
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	31				
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	28				

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

	0°	90°	180°	270°
0°	19752	19752	19752	19752
5°	19896	18969	19937	19118
10°	19988	18180	19947	19415
15°	20143	17937	20133	19971
20°	20365	17653	20343	18608
25°	20616	16746	20604	16181
30°	21003	14514	21015	12859
35°	21415	11736	21476	9932
40°	21777	9450	21869	8325
45°	21701	8004	21813	7795
50°	20766	7369	21057	7205
55°	18424	6624	18884	6021
60°	14944	5069	15737	4649
65°	11109	3878	11969	3678
70°	7555	3349	8517	3201
75°	4944	3021	5754	2857
80°	3194	2817	3744	2591
85°	1640	2809	2159	2567



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.2	4.0
10°-20°	690.8	11.9
20°-30°	1050.2	18.0
30°-40°	1126.6	19.3
40°-50°	977.8	16.8
50°-60°	724.6	12.4
60°-70°	415.2	7.1
70°-80°	229.9	3.9
80°-90°	140.0	2.4
90°-100°	91.0	1.6
100°-110°	61.0	1.0
110°-120°	41.2	0.7
120°-130°	25.3	0.4
130°-140°	13.3	0.2
140°-150°	6.1	0.1
150°-160°	1.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1973.2	33.9
0°-40°	3099.8	53.2
0°-60°	4802.3	82.4
0°-90°	5587.4	95.9
90°-120°	193.2	3.3
90°-150°	237.8	4.1
90°-180°	240.0	4.1
0°-180°	5827.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2444	2444	2444	2444	2444	
5°	2459	2415	2464	2434	2459	234
15°	2428	2360	2427	2627	2428	687
25°	2346	2207	2344	2132	2346	1084
35°	2218	1502	2225	1271	2218	1389
45°	1958	963	1968	938	1958	1499
55°	1366	722	1400	656	1366	1211
65°	620	366	668	347	620	625
75°	177	232	206	220	177	202
85°	24	160	32	146	24	32
90°	0	134	2	124	0	1
95°	1	110	0	105	1	1
105°	1	82	1	78	1	1
115°	1	67	1	61	1	1
125°	1	50	1	42	1	1
135°	1	32	1	26	1	1
145°	1	19	2	15	1	1
155°	2	9	2	8	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#

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2462.0	2455.6	2453.1	2448.1	2451.9	2467.0	2456.9	2440.5	2441.8	2412.7	2427.9
5°	2459.4	2451.9	2448.1	2443.0	2445.5	2459.4	2449.3	2432.9	2431.7	2402.6	2416.5
7.5°	2455.6	2448.1	2441.8	2438.0	2439.2	2450.6	2438.0	2419.0	2415.2	2383.7	2396.3
10°	2449.3	2444.3	2435.4	2429.1	2427.9	2440.5	2420.3	2401.4	2392.5	2359.7	2372.3
12.5°	2440.5	2432.9	2424.1	2412.7	2411.5	2419.0	2402.6	2376.1	2367.3	2340.8	2354.6
15°	2427.9	2419.0	2408.9	2396.3	2390.0	2395.0	2374.8	2350.9	2349.6	2326.9	2345.8
17.5°	2414.0	2401.4	2390.0	2372.3	2363.5	2367.3	2350.9	2329.4	2331.9	2318.0	2339.5
20°	2395.0	2381.2	2363.5	2345.8	2333.2	2339.5	2328.1	2311.7	2315.5	2305.4	2324.3
22.5°	2373.6	2354.6	2333.2	2313.0	2302.9	2311.7	2302.9	2289.0	2290.2	2283.9	2295.3
25°	2345.8	2324.3	2299.1	2273.8	2268.8	2275.1	2270.0	2258.7	2253.6	2243.5	2248.6
27.5°	2320.5	2296.6	2265.0	2238.5	2229.6	2242.3	2230.9	2212.0	2198.1	2184.2	2174.1
30°	2291.5	2262.5	2227.1	2196.8	2189.2	2194.3	2177.9	2148.8	2112.2	2094.6	2066.8
32.5°	2259.9	2222.1	2177.9	2143.8	2138.7	2135.0	2104.7	2063.0	2006.2	1970.8	1927.9
35°	2218.3	2176.6	2123.6	2081.9	2074.4	2052.9	2003.7	1948.1	1874.9	1814.3	1741.0
37.5°	2171.6	2122.3	2066.8	2011.2	1989.8	1946.8	1877.4	1819.3	1708.2	1635.0	1546.6
40°	2118.5	2059.2	1991.0	1924.1	1888.8	1819.3	1739.8	1653.9	1546.6	1448.1	1373.6
42.5°	2045.3	1982.2	1901.4	1826.9	1766.3	1674.1	1580.7	1459.5	1361.0	1277.7	1201.9
45°	1958.2	1882.4	1789.0	1699.4	1622.4	1512.5	1402.7	1281.5	1199.4	1102.2	1050.4
47.5°	1845.8	1763.8	1664.0	1564.3	1463.3	1342.1	1227.2	1111.0	1029.0	959.5	921.7
50°	1713.3	1637.5	1527.7	1409.0	1297.9	1171.6	1056.7	969.6	890.1	847.2	818.1
52.5°	1549.1	1478.4	1366.1	1237.3	1130.0	1006.2	901.5	830.8	773.9	742.4	732.3
55°	1366.1	1304.2	1193.1	1073.2	963.3	849.7	770.1	708.3	671.7	652.7	654.0
57.5°	1170.4	1122.4	1017.6	910.3	806.8	720.9	648.9	599.7	571.9	570.7	574.5
60°	974.7	939.3	848.4	756.3	665.4	595.9	542.9	508.8	491.1	492.4	491.1
62.5°	787.8	755.0	689.3	613.6	541.6	494.9	446.9	433.1	417.9	416.6	416.6
65°	619.9	594.7	541.6	487.3	433.1	402.8	378.8	362.3	351.0	348.5	349.7
67.5°	465.9	455.8	419.2	382.5	348.5	329.5	309.3	305.5	296.7	296.7	299.2
70°	347.2	339.6	319.4	298.0	284.1	271.4	261.3	261.3	260.1	258.8	265.1
72.5°	251.2	252.5	246.2	229.8	228.5	226.0	223.5	227.3	228.5	232.3	239.9
75°	176.8	180.5	180.5	178.0	183.1	189.4	193.2	199.5	207.1	212.1	220.9
77.5°	125.0	125.0	131.3	138.9	149.0	160.3	170.4	179.3	189.4	195.7	203.3
80°	80.8	84.6	94.7	108.6	122.5	137.6	151.5	162.9	173.0	183.1	188.1
82.5°	48.0	54.3	66.9	84.6	102.3	121.2	135.1	149.0	160.3	170.4	174.2
85°	24.0	32.8	48.0	66.9	85.9	106.1	123.7	136.4	149.0	157.8	162.9
87.5°	7.6	17.7	34.1	51.8	72.0	92.2	111.1	125.0	136.4	143.9	149.0
90°	0.0	8.8	24.0	42.9	61.9	82.1	99.7	114.9	126.3	132.6	136.4
92.5°	0.0	5.1	18.9	35.4	53.0	73.2	90.9	104.8	114.9	121.2	123.7
95°	1.3	3.8	13.9	29.0	46.7	65.7	82.1	94.7	104.8	111.1	112.4
97.5°	1.3	2.5	11.4	24.0	40.4	58.1	74.5	87.1	94.7	101.0	102.3
100°	1.3	2.5	8.8	21.5	35.4	51.8	66.9	78.3	87.1	92.2	93.4
102.5°	1.3	1.3	7.6	17.7	31.6	45.5	59.3	70.7	78.3	83.3	85.9
105°	1.3	1.3	6.3	15.2	27.8	40.4	53.0	64.4	70.7	75.8	78.3
107.5°	1.3	1.3	5.1	12.6	24.0	35.4	48.0	56.8	64.4	69.4	72.0
110°	1.3	1.3	3.8	11.4	20.2	31.6	41.7	50.5	58.1	63.1	65.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.3	1.3	3.8	10.1	17.7	27.8	36.6	45.5	51.8	56.8	60.6
115°	1.3	1.3	3.8	8.8	16.4	24.0	32.8	40.4	46.7	51.8	55.6
117.5°	1.3	1.3	3.8	7.6	13.9	21.5	29.0	36.6	41.7	46.7	50.5
120°	1.3	1.3	2.5	6.3	12.6	18.9	25.3	31.6	37.9	42.9	46.7
122.5°	1.3	1.3	2.5	6.3	10.1	16.4	22.7	27.8	34.1	37.9	41.7
125°	1.3	1.3	2.5	5.1	8.8	15.2	20.2	25.3	29.0	34.1	37.9
127.5°	1.3	1.3	2.5	5.1	7.6	12.6	17.7	22.7	26.5	30.3	32.8
130°	1.3	1.3	2.5	3.8	6.3	10.1	15.2	18.9	24.0	26.5	29.0
132.5°	1.3	1.3	1.3	3.8	5.1	7.6	11.4	16.4	20.2	24.0	25.3
135°	1.3	1.3	1.3	2.5	5.1	6.3	8.8	12.6	16.4	20.2	22.7
137.5°	1.3	1.3	1.3	2.5	3.8	6.3	7.6	10.1	13.9	16.4	20.2
140°	1.3	1.3	1.3	2.5	3.8	5.1	6.3	8.8	11.4	13.9	16.4
142.5°	1.3	1.3	1.3	2.5	2.5	3.8	5.1	7.6	8.8	11.4	13.9
145°	1.3	1.3	1.3	2.5	2.5	3.8	5.1	6.3	7.6	8.8	11.4
147.5°	1.3	1.3	1.3	2.5	2.5	2.5	3.8	5.1	6.3	7.6	8.8
150°	2.5	2.5	2.5	2.5	2.5	2.5	3.8	3.8	5.1	6.3	7.6
152.5°	2.5	2.5	2.5	2.5	2.5	2.5	3.8	3.8	3.8	5.1	6.3
155°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.8	3.8	5.1	5.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2422.8	2425.3	2440.5	2439.2	2436.7	2434.2	2434.2	2431.7	2434.2	2440.5	2438.0
5°	2410.2	2414.0	2425.3	2424.1	2421.6	2420.3	2419.0	2415.2	2417.8	2426.6	2424.1
7.5°	2387.5	2391.3	2401.4	2396.3	2392.5	2395.0	2388.7	2384.9	2390.0	2398.8	2397.6
10°	2363.5	2366.0	2378.6	2376.1	2369.8	2371.1	2364.7	2362.2	2368.5	2373.6	2374.8
12.5°	2347.1	2355.9	2367.3	2366.0	2364.7	2366.0	2359.7	2357.2	2361.0	2366.0	2364.7
15°	2343.3	2354.6	2367.3	2367.3	2368.5	2369.8	2363.5	2359.7	2363.5	2367.3	2366.0
17.5°	2339.5	2353.4	2364.7	2363.5	2364.7	2367.3	2357.2	2354.6	2359.7	2364.7	2362.2
20°	2326.9	2339.5	2347.1	2344.5	2344.5	2345.8	2333.2	2333.2	2340.8	2344.5	2345.8
22.5°	2291.5	2306.7	2306.7	2300.3	2300.3	2295.3	2291.5	2283.9	2292.8	2299.1	2304.1
25°	2238.5	2244.8	2237.2	2223.3	2215.8	2209.4	2191.8	2206.9	2206.9	2225.9	2232.2
27.5°	2164.0	2150.1	2128.6	2099.6	2093.3	2073.1	2061.7	2065.5	2071.8	2098.3	2118.5
30°	2041.5	1999.9	1963.3	1950.6	1922.8	1902.6	1882.4	1892.5	1903.9	1919.1	1960.7
32.5°	1879.9	1839.5	1780.2	1758.7	1729.7	1704.4	1680.4	1695.6	1715.8	1725.9	1771.3
35°	1694.3	1646.4	1592.1	1555.5	1525.1	1511.3	1481.0	1502.4	1523.9	1531.5	1570.6
37.5°	1497.4	1448.1	1400.2	1368.6	1339.6	1330.7	1310.5	1325.7	1342.1	1353.4	1386.3
40°	1310.5	1265.1	1228.5	1207.0	1186.8	1179.2	1171.6	1178.0	1190.6	1199.4	1224.7
42.5°	1150.2	1113.6	1088.3	1075.7	1061.8	1051.7	1053.0	1055.5	1061.8	1080.7	1092.1
45°	1010.0	988.6	972.2	969.6	960.8	959.5	958.3	963.3	967.1	978.5	987.3
47.5°	897.7	888.8	885.0	890.1	893.9	888.8	891.4	897.7	905.2	905.2	904.0
50°	809.3	811.8	816.9	828.2	835.8	838.3	840.9	848.4	849.7	852.2	848.4
52.5°	737.3	739.8	753.7	771.4	780.3	784.0	789.1	796.7	796.7	799.2	794.1
55°	664.1	667.9	681.8	699.4	707.0	712.1	717.1	722.2	726.0	731.0	727.2
57.5°	583.3	594.7	603.5	608.5	613.6	617.4	621.2	622.4	630.0	631.3	637.6
60°	497.4	500.0	508.8	507.5	503.8	513.9	508.8	517.6	526.5	537.8	539.1
62.5°	415.4	416.6	423.0	420.4	425.5	424.2	428.0	428.0	434.3	439.4	445.7
65°	351.0	352.2	357.3	357.3	356.0	359.8	363.6	366.1	366.1	369.9	375.0
67.5°	303.0	306.8	311.8	314.4	316.9	316.9	320.7	321.9	324.5	325.7	328.3
70°	270.2	275.2	280.3	282.8	284.1	286.6	287.9	287.9	290.4	291.6	294.2
72.5°	246.2	251.2	255.0	255.0	257.6	258.8	258.8	260.1	261.3	263.9	266.4
75°	226.0	229.8	232.3	231.0	231.0	231.0	232.3	232.3	234.8	237.4	239.9
77.5°	207.1	210.8	210.8	208.3	208.3	208.3	208.3	209.6	210.8	213.4	215.9
80°	193.2	193.2	191.9	191.9	189.4	188.1	188.1	189.4	189.4	191.9	195.7
82.5°	178.0	178.0	176.8	175.5	174.2	173.0	173.0	174.2	175.5	176.8	179.3
85°	164.1	164.1	161.6	161.6	160.3	160.3	160.3	160.3	161.6	162.9	165.4
87.5°	150.2	149.0	147.7	146.5	146.5	146.5	146.5	146.5	147.7	150.2	151.5
90°	136.4	135.1	133.8	133.8	132.6	132.6	133.8	133.8	135.1	136.4	137.6
92.5°	123.7	122.5	121.2	121.2	119.9	119.9	121.2	119.9	122.5	122.5	123.7
95°	112.4	111.1	109.8	109.8	109.8	109.8	109.8	109.8	111.1	111.1	112.4
97.5°	102.3	101.0	99.7	99.7	101.0	99.7	101.0	101.0	101.0	102.3	103.5
100°	93.4	92.2	92.2	93.4	92.2	92.2	93.4	93.4	93.4	93.4	94.7
102.5°	85.9	85.9	85.9	85.9	85.9	85.9	87.1	87.1	87.1	87.1	88.4
105°	78.3	79.5	79.5	79.5	80.8	80.8	80.8	82.1	82.1	82.1	82.1
107.5°	73.2	74.5	74.5	75.8	75.8	77.0	77.0	77.0	77.0	78.3	78.3
110°	68.2	69.4	70.7	72.0	72.0	73.2	73.2	73.2	73.2	73.2	73.2





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	63.1	64.4	65.7	68.2	69.4	69.4	69.4	69.4	70.7	70.7	69.4
115°	58.1	60.6	61.9	64.4	65.7	65.7	66.9	66.9	66.9	66.9	65.7
117.5°	53.0	56.8	58.1	60.6	61.9	61.9	63.1	63.1	63.1	63.1	61.9
120°	49.2	51.8	54.3	55.6	56.8	58.1	58.1	59.3	59.3	59.3	58.1
122.5°	45.5	48.0	50.5	51.8	53.0	54.3	54.3	54.3	54.3	54.3	54.3
125°	40.4	42.9	45.5	46.7	48.0	49.2	49.2	50.5	50.5	50.5	49.2
127.5°	36.6	39.1	40.4	42.9	44.2	44.2	45.5	45.5	45.5	45.5	44.2
130°	31.6	34.1	36.6	37.9	39.1	39.1	40.4	40.4	40.4	40.4	40.4
132.5°	27.8	30.3	31.6	34.1	34.1	35.4	35.4	36.6	36.6	36.6	35.4
135°	25.3	26.5	27.8	30.3	30.3	31.6	31.6	31.6	31.6	31.6	31.6
137.5°	22.7	24.0	25.3	26.5	26.5	27.8	27.8	27.8	27.8	29.0	27.8
140°	18.9	21.5	22.7	22.7	24.0	24.0	24.0	25.3	25.3	25.3	24.0
142.5°	16.4	17.7	18.9	20.2	21.5	21.5	21.5	21.5	22.7	21.5	21.5
145°	12.6	15.2	16.4	17.7	18.9	18.9	18.9	18.9	18.9	18.9	18.9
147.5°	10.1	11.4	13.9	15.2	15.2	16.4	16.4	16.4	16.4	16.4	16.4
150°	8.8	8.8	11.4	12.6	13.9	13.9	13.9	13.9	13.9	13.9	13.9
152.5°	6.3	7.6	8.8	10.1	11.4	11.4	11.4	11.4	11.4	11.4	11.4
155°	6.3	6.3	7.6	7.6	8.8	8.8	8.8	8.8	10.1	8.8	8.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2434.2	2432.9	2438.0	2432.9	2407.7	2417.8	2414.0	2427.9	2429.1	2432.9	2445.5
5°	2421.6	2421.6	2427.9	2422.8	2398.8	2408.9	2407.7	2421.6	2424.1	2426.6	2440.5
7.5°	2396.3	2397.6	2406.4	2402.6	2377.4	2392.5	2391.3	2407.7	2412.7	2417.8	2430.4
10°	2372.3	2371.1	2381.2	2377.4	2353.4	2371.1	2369.8	2386.2	2393.8	2402.6	2417.8
12.5°	2359.7	2355.9	2359.7	2355.9	2329.4	2343.3	2344.5	2363.5	2372.3	2383.7	2401.4
15°	2359.7	2353.4	2353.4	2345.8	2315.5	2324.3	2325.6	2338.2	2349.6	2361.0	2382.4
17.5°	2357.2	2350.9	2349.6	2343.3	2310.4	2310.4	2309.2	2318.0	2324.3	2335.7	2358.4
20°	2343.3	2340.8	2339.5	2335.7	2305.4	2300.3	2297.8	2297.8	2301.6	2305.4	2328.1
22.5°	2306.7	2309.2	2311.7	2314.2	2290.2	2281.4	2282.7	2280.1	2276.4	2276.4	2295.3
25°	2238.5	2251.1	2261.2	2272.6	2258.7	2252.4	2259.9	2256.2	2249.8	2244.8	2261.2
27.5°	2129.9	2156.4	2177.9	2205.7	2206.9	2201.9	2222.1	2219.5	2218.3	2210.7	2223.3
30°	1979.7	2021.3	2050.4	2090.8	2124.9	2129.9	2164.0	2169.0	2174.1	2170.3	2182.9
32.5°	1797.9	1854.7	1903.9	1967.0	1999.9	2028.9	2076.9	2097.1	2117.3	2123.6	2137.5
35°	1599.6	1664.0	1722.1	1791.5	1843.3	1906.4	1964.5	1994.8	2040.3	2057.9	2078.1
37.5°	1411.5	1472.1	1528.9	1598.4	1681.7	1747.4	1819.3	1887.5	1949.4	1974.6	2004.9
40°	1244.9	1294.1	1348.4	1409.0	1484.7	1570.6	1648.9	1743.6	1816.8	1867.3	1911.5
42.5°	1118.6	1142.6	1189.3	1243.6	1304.2	1391.3	1470.9	1576.9	1665.3	1737.3	1810.5
45°	1006.2	1017.6	1051.7	1080.7	1142.6	1219.6	1304.2	1407.7	1499.9	1592.1	1680.4
47.5°	910.3	924.2	940.6	958.3	1002.5	1066.8	1140.1	1233.5	1325.7	1433.0	1534.0
50°	845.9	849.7	852.2	859.8	886.3	930.5	989.8	1069.4	1157.7	1272.6	1380.0
52.5°	789.1	789.1	781.5	777.7	787.8	815.6	849.7	906.5	997.4	1103.5	1217.1
55°	728.5	717.1	714.6	702.0	704.5	717.1	733.5	777.7	852.2	943.1	1053.0
57.5°	643.9	638.8	638.8	633.8	623.7	630.0	633.8	665.4	718.4	796.7	892.6
60°	546.7	544.2	550.5	551.7	542.9	546.7	545.4	564.4	602.2	665.4	744.9
62.5°	449.5	460.8	462.1	467.1	462.1	460.8	467.1	483.6	502.5	550.5	612.3
65°	377.5	383.8	385.1	391.4	388.9	388.9	393.9	406.5	417.9	450.7	498.7
67.5°	330.8	328.3	329.5	333.3	329.5	328.3	332.0	339.6	348.5	368.7	402.8
70°	294.2	291.6	291.6	291.6	286.6	282.8	284.1	286.6	290.4	301.7	323.2
72.5°	266.4	266.4	262.6	258.8	255.0	252.5	250.0	247.5	246.2	250.0	261.3
75°	241.1	242.4	241.1	237.4	232.3	227.3	222.2	217.2	210.8	208.3	209.6
77.5°	218.4	219.7	220.9	219.7	214.6	208.3	200.7	193.2	184.3	175.5	170.4
80°	198.2	200.7	202.0	200.7	197.0	191.9	183.1	174.2	161.6	150.2	137.6
82.5°	180.5	184.3	185.6	185.6	183.1	178.0	167.9	157.8	143.9	128.8	112.4
85°	166.7	169.2	171.7	171.7	170.4	165.4	155.3	143.9	130.0	112.4	94.7
87.5°	152.8	154.0	156.6	159.1	156.6	151.5	142.7	130.0	116.2	98.5	78.3
90°	138.9	140.1	142.7	145.2	143.9	138.9	131.3	119.9	104.8	85.9	65.7
92.5°	125.0	127.5	128.8	130.0	131.3	127.5	121.2	109.8	94.7	75.8	56.8
95°	114.9	114.9	117.4	118.7	119.9	116.2	111.1	99.7	85.9	68.2	49.2
97.5°	104.8	104.8	107.3	107.3	108.6	106.1	101.0	90.9	77.0	60.6	41.7
100°	94.7	96.0	97.2	98.5	98.5	97.2	92.2	82.1	69.4	54.3	36.6
102.5°	88.4	88.4	89.6	89.6	90.9	88.4	83.3	74.5	61.9	48.0	31.6
105°	82.1	82.1	83.3	83.3	82.1	79.5	74.5	66.9	55.6	41.7	27.8
107.5°	77.0	77.0	77.0	77.0	75.8	73.2	68.2	59.3	49.2	37.9	25.3
110°	73.2	72.0	72.0	70.7	69.4	65.7	60.6	53.0	44.2	32.8	21.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	69.4	68.2	66.9	65.7	63.1	59.3	54.3	48.0	39.1	29.0	18.9
115°	65.7	64.4	63.1	60.6	58.1	54.3	49.2	42.9	34.1	25.3	16.4
117.5°	61.9	60.6	58.1	55.6	53.0	49.2	44.2	37.9	30.3	22.7	15.2
120°	56.8	55.6	54.3	51.8	49.2	44.2	39.1	34.1	26.5	20.2	12.6
122.5°	53.0	51.8	49.2	48.0	44.2	40.4	35.4	30.3	24.0	17.7	11.4
125°	48.0	46.7	45.5	42.9	40.4	35.4	31.6	26.5	21.5	15.2	8.8
127.5°	44.2	42.9	40.4	37.9	35.4	31.6	27.8	24.0	18.9	12.6	8.8
130°	39.1	37.9	36.6	34.1	31.6	27.8	25.3	20.2	16.4	11.4	7.6
132.5°	34.1	34.1	32.8	30.3	27.8	25.3	21.5	17.7	13.9	10.1	6.3
135°	31.6	30.3	29.0	26.5	25.3	21.5	18.9	15.2	11.4	8.8	5.1
137.5°	27.8	26.5	25.3	24.0	21.5	18.9	16.4	12.6	10.1	7.6	5.1
140°	24.0	22.7	22.7	20.2	18.9	16.4	13.9	11.4	8.8	6.3	3.8
142.5°	21.5	20.2	18.9	17.7	16.4	13.9	11.4	8.8	7.6	5.1	3.8
145°	18.9	17.7	16.4	15.2	13.9	11.4	10.1	7.6	6.3	5.1	3.8
147.5°	15.2	15.2	13.9	12.6	11.4	10.1	8.8	7.6	5.1	3.8	2.5
150°	12.6	12.6	11.4	10.1	10.1	8.8	7.6	6.3	5.1	3.8	2.5
152.5°	11.4	10.1	10.1	8.8	8.8	7.6	6.3	5.1	3.8	3.8	2.5
155°	8.8	8.8	8.8	7.6	7.6	6.3	5.1	5.1	3.8	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2448.1	2432.9	2445.5	2468.3	2465.7	2463.2	2460.7	2465.7	2482.2	2473.3	2459.4
5°	2444.3	2429.1	2443.0	2464.5	2463.2	2459.4	2456.9	2462.0	2478.4	2469.5	2454.4
7.5°	2436.7	2422.8	2432.9	2454.4	2454.4	2451.9	2449.3	2454.4	2469.5	2462.0	2446.8
10°	2424.1	2414.0	2424.1	2444.3	2445.5	2440.5	2438.0	2444.3	2459.4	2455.6	2443.0
12.5°	2414.0	2403.9	2415.2	2435.4	2436.7	2431.7	2427.9	2435.4	2455.6	2458.2	2454.4
15°	2400.1	2391.3	2405.1	2426.6	2426.6	2422.8	2422.8	2432.9	2460.7	2472.1	2478.4
17.5°	2379.9	2373.6	2390.0	2411.5	2412.7	2410.2	2411.5	2431.7	2468.3	2496.0	2513.7
20°	2354.6	2352.1	2369.8	2392.5	2396.3	2397.6	2403.9	2434.2	2484.7	2522.6	2540.2
22.5°	2324.3	2325.6	2345.8	2369.8	2374.8	2378.6	2391.3	2434.2	2497.3	2537.7	2545.3
25°	2290.2	2294.0	2315.5	2344.5	2350.9	2358.4	2379.9	2435.4	2501.1	2527.6	2515.0
27.5°	2253.6	2261.2	2289.0	2319.3	2326.9	2339.5	2367.3	2427.9	2483.4	2484.7	2438.0
30°	2215.8	2224.6	2257.4	2292.8	2305.4	2318.0	2352.1	2410.2	2440.5	2400.1	2318.0
32.5°	2172.8	2185.5	2218.3	2261.2	2276.4	2292.8	2326.9	2376.1	2364.7	2277.6	2160.2
35°	2118.5	2136.2	2174.1	2224.6	2238.5	2259.9	2283.9	2295.3	2244.8	2121.1	1988.5
37.5°	2051.6	2078.1	2122.3	2180.4	2195.6	2209.4	2215.8	2184.2	2083.2	1949.4	1811.7
40°	1974.6	2015.0	2063.0	2127.4	2142.5	2142.5	2119.8	2052.9	1925.4	1749.9	1597.1
42.5°	1881.2	1930.4	1991.0	2055.4	2070.6	2052.9	1998.6	1881.2	1736.0	1540.3	1378.7
45°	1767.6	1833.2	1901.4	1968.3	1975.9	1936.7	1839.5	1690.5	1511.3	1329.5	1175.4
47.5°	1632.5	1718.3	1792.8	1868.6	1858.5	1792.8	1662.8	1493.6	1304.2	1132.5	1008.8
50°	1481.0	1582.0	1665.3	1737.3	1715.8	1624.9	1472.1	1295.4	1107.2	960.8	858.5
52.5°	1319.4	1435.5	1518.8	1576.9	1547.9	1439.3	1271.4	1102.2	948.2	814.3	746.2
55°	1151.4	1268.9	1354.7	1400.2	1362.3	1244.9	1079.5	925.4	780.3	693.1	652.7
57.5°	988.6	1098.4	1179.2	1215.8	1167.9	1050.4	897.7	767.6	662.8	589.6	569.4
60°	832.0	921.7	998.7	1026.4	974.7	866.1	734.8	631.3	554.3	503.8	493.7
62.5°	686.8	760.0	820.7	842.1	791.6	707.0	593.4	516.4	462.1	436.8	424.2
65°	566.9	609.8	671.7	667.9	637.6	559.3	476.0	421.7	386.3	369.9	362.3
67.5°	445.7	484.8	524.0	529.0	491.1	436.8	382.5	343.4	324.5	315.6	311.8
70°	344.7	373.7	397.7	391.4	371.2	337.1	303.0	281.5	274.0	270.2	270.2
72.5°	267.7	282.8	294.2	286.6	274.0	256.3	239.9	231.0	232.3	234.8	237.4
75°	207.1	210.8	213.4	205.8	203.3	191.9	190.6	191.9	199.5	207.1	210.8
77.5°	159.1	154.0	150.2	142.7	143.9	142.7	149.0	159.1	170.4	181.8	191.9
80°	122.5	111.1	102.3	94.7	98.5	104.8	117.4	132.6	147.7	160.3	173.0
82.5°	94.7	78.3	65.7	58.1	65.7	75.8	92.2	111.1	128.8	142.7	156.6
85°	73.2	54.3	39.1	31.6	39.1	54.3	72.0	93.4	112.4	127.5	141.4
87.5°	56.8	39.1	21.5	12.6	21.5	37.9	58.1	78.3	97.2	114.9	128.8
90°	45.5	26.5	10.1	2.5	11.4	26.5	45.5	65.7	84.6	103.5	117.4
92.5°	36.6	18.9	5.1	0.0	6.3	20.2	37.9	56.8	75.8	93.4	107.3
95°	30.3	15.2	3.8	0.0	5.1	15.2	30.3	49.2	66.9	84.6	96.0
97.5°	25.3	11.4	2.5	0.0	2.5	12.6	25.3	41.7	59.3	75.8	87.1
100°	21.5	10.1	2.5	0.0	2.5	10.1	21.5	36.6	51.8	66.9	78.3
102.5°	17.7	7.6	1.3	1.3	1.3	7.6	18.9	31.6	45.5	59.3	70.7
105°	16.4	6.3	1.3	1.3	1.3	6.3	16.4	27.8	40.4	53.0	63.1
107.5°	13.9	5.1	1.3	1.3	1.3	5.1	13.9	24.0	36.6	48.0	56.8
110°	11.4	5.1	1.3	1.3	1.3	5.1	11.4	21.5	31.6	41.7	50.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	10.1	3.8	1.3	1.3	1.3	3.8	10.1	18.9	27.8	37.9	45.5
115°	8.8	3.8	1.3	1.3	1.3	3.8	8.8	16.4	24.0	32.8	40.4
117.5°	7.6	3.8	1.3	1.3	1.3	2.5	7.6	13.9	21.5	29.0	36.6
120°	6.3	2.5	1.3	1.3	1.3	2.5	6.3	12.6	18.9	25.3	31.6
122.5°	6.3	2.5	1.3	1.3	1.3	2.5	5.1	10.1	16.4	21.5	27.8
125°	5.1	2.5	1.3	1.3	1.3	1.3	5.1	8.8	13.9	18.9	24.0
127.5°	5.1	2.5	1.3	1.3	1.3	1.3	3.8	7.6	11.4	16.4	21.5
130°	3.8	2.5	1.3	1.3	1.3	1.3	2.5	6.3	10.1	13.9	17.7
132.5°	3.8	2.5	1.3	1.3	1.3	1.3	2.5	5.1	7.6	11.4	15.2
135°	3.8	1.3	1.3	1.3	1.3	1.3	1.3	3.8	6.3	8.8	11.4
137.5°	2.5	1.3	1.3	1.3	1.3	1.3	1.3	2.5	5.1	6.3	10.1
140°	2.5	1.3	1.3	1.3	1.3	1.3	1.3	2.5	3.8	5.1	7.6
142.5°	2.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.5	3.8	6.3
145°	2.5	1.3	1.3	2.5	2.5	1.3	1.3	2.5	2.5	3.8	5.1
147.5°	2.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.5	2.5	3.8
150°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.8
152.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
155°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2456.9	2427.9	2443.0	2438.0	2443.0	2455.6	2454.4	2450.6	2453.1	2446.8	2440.5
5°	2451.9	2422.8	2438.0	2431.7	2438.0	2450.6	2448.1	2444.3	2448.1	2440.5	2434.2
7.5°	2445.5	2419.0	2436.7	2435.4	2446.8	2463.2	2464.5	2464.5	2473.3	2462.0	2456.9
10°	2445.5	2431.7	2455.6	2464.5	2493.5	2515.0	2517.5	2522.6	2537.7	2535.2	2522.6
12.5°	2472.1	2469.5	2504.9	2526.3	2552.9	2583.2	2599.6	2604.6	2614.7	2607.1	2602.1
15°	2506.1	2518.8	2557.9	2581.9	2610.9	2633.7	2637.4	2640.0	2647.5	2636.2	2627.3
17.5°	2551.6	2559.2	2590.7	2600.8	2619.8	2623.6	2618.5	2605.9	2605.9	2580.6	2573.1
20°	2573.1	2569.3	2581.9	2565.5	2557.9	2535.2	2513.7	2489.7	2488.5	2462.0	2459.4
22.5°	2554.1	2528.9	2502.4	2462.0	2444.3	2411.5	2382.4	2368.5	2359.7	2325.6	2316.8
25°	2487.2	2425.3	2386.2	2338.2	2295.3	2257.4	2229.6	2200.6	2172.8	2145.1	2132.4
27.5°	2371.1	2313.0	2249.8	2182.9	2123.6	2065.5	2018.8	1989.8	1963.3	1926.6	1907.7
30°	2228.4	2147.6	2078.1	2013.8	1916.5	1845.8	1806.7	1748.6	1728.4	1712.0	1676.7
32.5°	2060.5	1963.3	1868.6	1781.4	1681.7	1616.1	1564.3	1521.4	1508.7	1465.8	1455.7
35°	1874.9	1747.4	1640.0	1554.2	1482.2	1402.7	1359.8	1330.7	1305.5	1276.4	1271.4
37.5°	1656.5	1541.6	1420.4	1344.6	1287.8	1219.6	1186.8	1166.6	1155.2	1133.8	1130.0
40°	1436.8	1321.9	1238.6	1162.8	1127.4	1090.8	1066.8	1058.0	1053.0	1045.4	1037.8
42.5°	1237.3	1136.3	1076.9	1026.4	1011.3	993.6	987.3	992.4	987.3	984.8	983.5
45°	1068.1	991.1	949.4	934.3	930.5	925.4	930.5	939.3	940.6	938.1	938.1
47.5°	914.1	877.5	859.8	862.3	868.6	872.4	881.3	892.6	895.1	888.8	891.4
50°	813.1	791.6	787.8	797.9	811.8	816.9	827.0	835.8	834.5	832.0	829.5
52.5°	718.4	712.1	722.2	732.3	747.4	749.9	753.7	757.5	756.3	751.2	748.7
55°	638.8	643.9	652.7	656.5	667.9	666.6	667.9	667.9	662.8	660.3	656.5
57.5°	566.9	568.1	573.2	574.5	580.8	578.2	577.0	574.5	566.9	565.6	561.8
60°	493.7	491.1	502.5	493.7	498.7	493.7	492.4	486.1	478.5	477.2	474.7
62.5°	424.2	419.2	426.7	423.0	425.5	420.4	417.9	410.3	404.0	402.8	401.5
65°	362.3	359.8	367.4	366.1	368.7	362.3	359.8	354.8	349.7	348.5	347.2
67.5°	310.6	316.9	320.7	320.7	323.2	321.9	315.6	314.4	313.1	308.1	308.1
70°	272.7	276.5	284.1	285.3	284.1	286.6	281.5	280.3	279.0	276.5	275.2
72.5°	242.4	247.5	255.0	256.3	255.0	255.0	252.5	251.2	251.2	247.5	247.5
75°	218.4	224.7	231.0	231.0	231.0	228.5	226.0	226.0	223.5	222.2	219.7
77.5°	198.2	205.8	210.8	209.6	208.3	205.8	205.8	202.0	198.2	198.2	195.7
80°	183.1	188.1	191.9	190.6	189.4	185.6	184.3	180.5	178.0	174.2	174.2
82.5°	166.7	173.0	175.5	174.2	171.7	167.9	166.7	164.1	161.6	160.3	157.8
85°	152.8	159.1	160.3	157.8	155.3	152.8	151.5	150.2	149.0	146.5	146.5
87.5°	138.9	145.2	145.2	143.9	141.4	140.1	138.9	137.6	136.4	135.1	133.8
90°	127.5	132.6	132.6	131.3	130.0	128.8	127.5	126.3	125.0	123.7	123.7
92.5°	116.2	121.2	121.2	119.9	118.7	117.4	117.4	116.2	114.9	113.6	112.4
95°	106.1	111.1	111.1	111.1	109.8	108.6	108.6	107.3	106.1	106.1	104.8
97.5°	96.0	101.0	101.0	101.0	99.7	98.5	98.5	97.2	97.2	97.2	96.0
100°	87.1	90.9	92.2	92.2	90.9	90.9	90.9	89.6	89.6	89.6	88.4
102.5°	78.3	82.1	84.6	84.6	84.6	83.3	83.3	83.3	83.3	83.3	82.1
105°	70.7	74.5	77.0	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
107.5°	64.4	68.2	70.7	72.0	73.2	73.2	74.5	74.5	74.5	74.5	74.5
110°	58.1	61.9	65.7	66.9	68.2	69.4	69.4	70.7	69.4	69.4	69.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	51.8	56.8	59.3	61.9	63.1	64.4	65.7	65.7	65.7	65.7	65.7
115°	46.7	51.8	54.3	56.8	59.3	60.6	60.6	61.9	61.9	61.9	60.6
117.5°	41.7	46.7	49.2	51.8	53.0	55.6	56.8	56.8	56.8	56.8	55.6
120°	37.9	41.7	44.2	46.7	49.2	50.5	51.8	51.8	51.8	51.8	51.8
122.5°	32.8	36.6	40.4	42.9	44.2	45.5	46.7	46.7	46.7	46.7	46.7
125°	29.0	32.8	35.4	37.9	39.1	41.7	41.7	41.7	41.7	41.7	41.7
127.5°	25.3	29.0	31.6	34.1	35.4	36.6	37.9	37.9	37.9	37.9	37.9
130°	21.5	25.3	27.8	30.3	31.6	32.8	32.8	34.1	34.1	34.1	34.1
132.5°	18.9	21.5	24.0	26.5	27.8	29.0	29.0	30.3	30.3	30.3	30.3
135°	15.2	18.9	20.2	22.7	24.0	25.3	25.3	26.5	26.5	26.5	26.5
137.5°	12.6	15.2	17.7	20.2	21.5	21.5	22.7	22.7	24.0	24.0	24.0
140°	10.1	11.4	15.2	16.4	17.7	18.9	20.2	20.2	20.2	20.2	20.2
142.5°	7.6	10.1	11.4	13.9	15.2	16.4	17.7	17.7	17.7	17.7	17.7
145°	6.3	7.6	8.8	11.4	12.6	13.9	15.2	15.2	15.2	15.2	15.2
147.5°	5.1	6.3	7.6	8.8	10.1	11.4	12.6	12.6	12.6	12.6	12.6
150°	3.8	5.1	6.3	6.3	7.6	8.8	10.1	11.4	11.4	11.4	11.4
152.5°	3.8	3.8	5.1	5.1	6.3	7.6	8.8	8.8	8.8	8.8	8.8
155°	2.5	3.8	3.8	3.8	5.1	5.1	6.3	7.6	7.6	7.6	7.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2444.3	2449.3	2446.8	2443.0	2441.8	2448.1	2441.8	2412.7	2424.1	2425.3	2434.2
5°	2440.5	2444.3	2441.8	2439.2	2435.4	2443.0	2435.4	2405.1	2416.5	2417.8	2426.6
7.5°	2465.7	2467.0	2467.0	2460.7	2450.6	2454.4	2444.3	2410.2	2416.5	2416.5	2422.8
10°	2528.9	2531.4	2535.2	2518.8	2506.1	2496.0	2482.2	2440.5	2439.2	2429.1	2429.1
12.5°	2610.9	2604.6	2598.3	2590.7	2580.6	2568.0	2547.8	2498.6	2482.2	2465.7	2449.3
15°	2634.9	2632.4	2631.1	2627.3	2621.0	2617.2	2602.1	2552.9	2528.9	2508.7	2479.6
17.5°	2571.8	2576.8	2593.3	2594.5	2602.1	2617.2	2614.7	2580.6	2559.2	2550.3	2515.0
20°	2458.2	2459.4	2479.6	2488.5	2521.3	2546.5	2565.5	2561.7	2556.6	2566.7	2540.2
22.5°	2321.8	2330.7	2352.1	2366.0	2397.6	2426.6	2456.9	2473.3	2499.8	2541.5	2536.4
25°	2136.2	2147.6	2177.9	2200.6	2244.8	2289.0	2329.4	2358.4	2390.0	2469.5	2496.0
27.5°	1914.0	1931.7	1970.8	1993.6	2055.4	2100.9	2158.9	2215.8	2259.9	2350.9	2405.1
30°	1680.4	1695.6	1737.3	1768.8	1821.8	1883.7	1956.9	2037.7	2111.0	2203.1	2271.3
32.5°	1462.0	1478.4	1512.5	1540.3	1599.6	1651.4	1732.2	1831.9	1900.1	2027.6	2118.5
35°	1271.4	1286.5	1310.5	1334.5	1383.7	1436.8	1506.2	1603.4	1690.5	1823.1	1938.0
37.5°	1137.5	1140.1	1154.0	1167.9	1204.5	1244.9	1299.2	1385.0	1465.8	1608.5	1734.7
40°	1041.6	1041.6	1049.2	1053.0	1069.4	1093.4	1127.4	1194.4	1261.3	1369.9	1523.9
42.5°	982.3	979.7	979.7	981.0	979.7	991.1	1011.3	1042.9	1102.2	1191.8	1311.8
45°	938.1	933.0	929.2	920.4	915.3	915.3	916.6	928.0	962.1	1020.1	1117.3
47.5°	888.8	887.6	881.3	871.2	862.3	856.0	845.9	842.1	852.2	885.0	950.7
50°	832.0	825.7	819.4	811.8	801.7	795.4	776.5	777.7	768.9	784.0	818.1
52.5°	748.7	743.6	741.1	734.8	731.0	728.5	713.3	698.2	694.4	696.9	709.5
55°	656.5	659.0	648.9	654.0	652.7	641.4	635.1	623.7	619.9	618.6	625.0
57.5°	560.6	563.1	556.8	561.8	561.8	555.5	551.7	551.7	542.9	535.3	544.2
60°	473.5	468.4	472.2	478.5	478.5	474.7	472.2	472.2	465.9	463.4	469.7
62.5°	402.8	397.7	401.5	407.8	409.1	406.5	404.0	404.0	396.4	396.4	401.5
65°	348.5	349.7	348.5	353.5	353.5	354.8	352.2	349.7	340.9	344.7	343.4
67.5°	309.3	308.1	308.1	313.1	311.8	314.4	311.8	308.1	301.7	296.7	295.4
70°	276.5	275.2	275.2	277.8	279.0	279.0	277.8	275.2	266.4	261.3	257.6
72.5°	247.5	246.2	247.5	248.7	250.0	251.2	250.0	247.5	239.9	233.6	227.3
75°	220.9	219.7	223.5	223.5	224.7	224.7	226.0	224.7	218.4	210.8	203.3
77.5°	194.4	195.7	199.5	200.7	203.3	204.5	205.8	205.8	199.5	193.2	183.1
80°	173.0	175.5	178.0	179.3	181.8	185.6	186.9	188.1	183.1	176.8	165.4
82.5°	157.8	159.1	161.6	162.9	166.7	167.9	169.2	171.7	169.2	162.9	150.2
85°	145.2	146.5	149.0	149.0	151.5	154.0	155.3	156.6	155.3	149.0	136.4
87.5°	133.8	135.1	136.4	137.6	138.9	140.1	141.4	142.7	141.4	135.1	123.7
90°	123.7	123.7	125.0	125.0	126.3	127.5	130.0	130.0	128.8	123.7	112.4
92.5°	112.4	113.6	113.6	114.9	116.2	117.4	118.7	118.7	117.4	112.4	102.3
95°	104.8	104.8	106.1	106.1	107.3	107.3	108.6	108.6	107.3	102.3	92.2
97.5°	96.0	96.0	96.0	96.0	97.2	97.2	98.5	98.5	97.2	92.2	83.3
100°	88.4	88.4	88.4	88.4	88.4	89.6	89.6	89.6	88.4	83.3	74.5
102.5°	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	79.5	75.8	66.9
105°	78.3	78.3	78.3	77.0	77.0	77.0	75.8	75.8	72.0	68.2	60.6
107.5°	73.2	73.2	73.2	72.0	72.0	70.7	69.4	69.4	65.7	61.9	54.3
110°	69.4	69.4	69.4	68.2	66.9	65.7	64.4	63.1	59.3	54.3	48.0





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	65.7	65.7	64.4	64.4	63.1	61.9	59.3	58.1	54.3	49.2	42.9
115°	60.6	60.6	60.6	59.3	58.1	56.8	55.6	53.0	49.2	44.2	37.9
117.5°	55.6	55.6	55.6	54.3	53.0	51.8	50.5	48.0	44.2	39.1	34.1
120°	50.5	50.5	50.5	49.2	48.0	46.7	45.5	42.9	39.1	35.4	29.0
122.5°	46.7	46.7	45.5	44.2	42.9	41.7	40.4	37.9	35.4	30.3	25.3
125°	41.7	41.7	40.4	40.4	39.1	37.9	36.6	34.1	30.3	26.5	22.7
127.5°	37.9	36.6	36.6	36.6	35.4	34.1	31.6	30.3	26.5	22.7	18.9
130°	32.8	32.8	32.8	31.6	31.6	30.3	27.8	25.3	22.7	20.2	16.4
132.5°	29.0	29.0	29.0	29.0	27.8	26.5	24.0	22.7	20.2	16.4	13.9
135°	26.5	26.5	25.3	25.3	24.0	22.7	21.5	18.9	16.4	13.9	11.4
137.5°	22.7	22.7	22.7	21.5	21.5	20.2	17.7	16.4	15.2	12.6	10.1
140°	20.2	20.2	18.9	18.9	17.7	17.7	16.4	13.9	12.6	10.1	8.8
142.5°	17.7	17.7	16.4	16.4	15.2	15.2	13.9	12.6	10.1	8.8	6.3
145°	15.2	15.2	13.9	13.9	13.9	12.6	11.4	10.1	8.8	7.6	6.3
147.5°	12.6	12.6	12.6	11.4	11.4	10.1	10.1	8.8	7.6	6.3	5.1
150°	11.4	11.4	10.1	10.1	10.1	8.8	7.6	7.6	6.3	5.1	3.8
152.5°	8.8	8.8	8.8	8.8	7.6	7.6	6.3	6.3	5.1	3.8	3.8
155°	7.6	7.6	7.6	6.3	6.3	6.3	5.1	5.1	3.8	3.8	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3	2444.3
2.5°	2430.4	2429.1	2440.5	2439.2	2424.1	2446.8	2462.0
5°	2424.1	2422.8	2432.9	2435.4	2419.0	2443.0	2459.4
7.5°	2419.0	2417.8	2429.1	2432.9	2416.5	2438.0	2455.6
10°	2420.3	2414.0	2424.1	2426.6	2411.5	2434.2	2449.3
12.5°	2429.1	2414.0	2417.8	2417.8	2403.9	2424.1	2440.5
15°	2450.6	2419.0	2414.0	2410.2	2392.5	2411.5	2427.9
17.5°	2474.6	2431.7	2414.0	2401.4	2379.9	2396.3	2414.0
20°	2498.6	2445.5	2416.5	2396.3	2367.3	2382.4	2395.0
22.5°	2509.9	2458.2	2419.0	2388.7	2352.1	2359.7	2373.6
25°	2494.8	2453.1	2414.0	2377.4	2333.2	2334.4	2345.8
27.5°	2439.2	2427.9	2402.6	2366.0	2318.0	2311.7	2320.5
30°	2344.5	2376.1	2377.4	2350.9	2300.3	2287.7	2291.5
32.5°	2212.0	2282.7	2324.3	2319.3	2275.1	2257.4	2259.9
35°	2059.2	2147.6	2238.5	2268.8	2237.2	2223.3	2218.3
37.5°	1876.1	1994.8	2116.0	2190.5	2185.5	2176.6	2171.6
40°	1674.1	1816.8	1960.7	2079.4	2116.0	2116.0	2118.5
42.5°	1458.2	1624.9	1782.7	1932.9	2018.8	2037.7	2045.3
45°	1249.9	1417.8	1589.5	1762.5	1877.4	1936.7	1958.2
47.5°	1060.5	1229.7	1392.6	1582.0	1734.7	1811.7	1845.8
50°	898.9	1025.2	1196.9	1385.0	1551.7	1646.4	1713.3
52.5°	765.1	863.6	1013.8	1189.3	1357.2	1487.3	1549.1
55°	652.7	719.6	847.2	998.7	1159.0	1294.1	1366.1
57.5°	558.0	611.1	698.2	824.4	959.5	1093.4	1170.4
60°	474.7	511.3	570.7	670.4	785.3	900.2	974.7
62.5°	402.8	426.7	465.9	539.1	628.7	718.4	787.8
65°	347.2	357.3	378.8	424.2	492.4	560.6	619.9
67.5°	292.9	299.2	315.6	343.4	377.5	426.7	465.9
70°	252.5	252.5	253.8	270.2	287.9	319.4	347.2
72.5°	219.7	215.9	208.3	212.1	215.9	233.6	251.2
75°	193.2	184.3	171.7	166.7	164.1	166.7	176.8
77.5°	170.4	157.8	142.7	130.0	119.9	116.2	125.0
80°	151.5	136.4	118.7	102.3	85.9	77.0	80.8
82.5°	136.4	117.4	98.5	79.5	60.6	48.0	48.0
85°	119.9	102.3	82.1	61.9	42.9	26.5	24.0
87.5°	108.6	89.6	68.2	49.2	30.3	13.9	7.6
90°	97.2	78.3	58.1	39.1	21.5	6.3	0.0
92.5°	87.1	69.4	50.5	31.6	15.2	3.8	0.0
95°	78.3	61.9	42.9	26.5	12.6	2.5	1.3
97.5°	69.4	54.3	37.9	21.5	8.8	2.5	1.3
100°	63.1	48.0	32.8	17.7	7.6	1.3	1.3
102.5°	55.6	42.9	27.8	15.2	6.3	1.3	1.3
105°	49.2	37.9	24.0	12.6	5.1	1.3	1.3
107.5°	44.2	32.8	21.5	11.4	5.1	1.3	1.3
110°	39.1	29.0	18.9	10.1	3.8	1.3	1.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	35.4	25.3	16.4	8.8	2.5	1.3	1.3
115°	30.3	22.7	13.9	7.6	2.5	1.3	1.3
117.5°	26.5	18.9	12.6	6.3	2.5	1.3	1.3
120°	22.7	16.4	10.1	5.1	1.3	1.3	1.3
122.5°	20.2	13.9	8.8	5.1	1.3	1.3	1.3
125°	17.7	12.6	7.6	3.8	1.3	1.3	1.3
127.5°	15.2	10.1	6.3	2.5	1.3	1.3	1.3
130°	12.6	8.8	5.1	2.5	1.3	1.3	1.3
132.5°	10.1	7.6	5.1	2.5	1.3	1.3	1.3
135°	8.8	6.3	3.8	2.5	1.3	1.3	1.3
137.5°	7.6	5.1	2.5	2.5	2.5	1.3	1.3
140°	6.3	3.8	2.5	2.5	2.5	2.5	1.3
142.5°	5.1	3.8	2.5	2.5	2.5	2.5	1.3
145°	3.8	2.5	2.5	2.5	2.5	2.5	1.3
147.5°	3.8	2.5	2.5	2.5	2.5	2.5	1.3
150°	2.5	2.5	2.5	2.5	2.5	2.5	2.5
152.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5
155°	2.5	2.5	2.5	2.5	2.5	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)