

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-LD5-60HL-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-LD5-60HL-LC-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

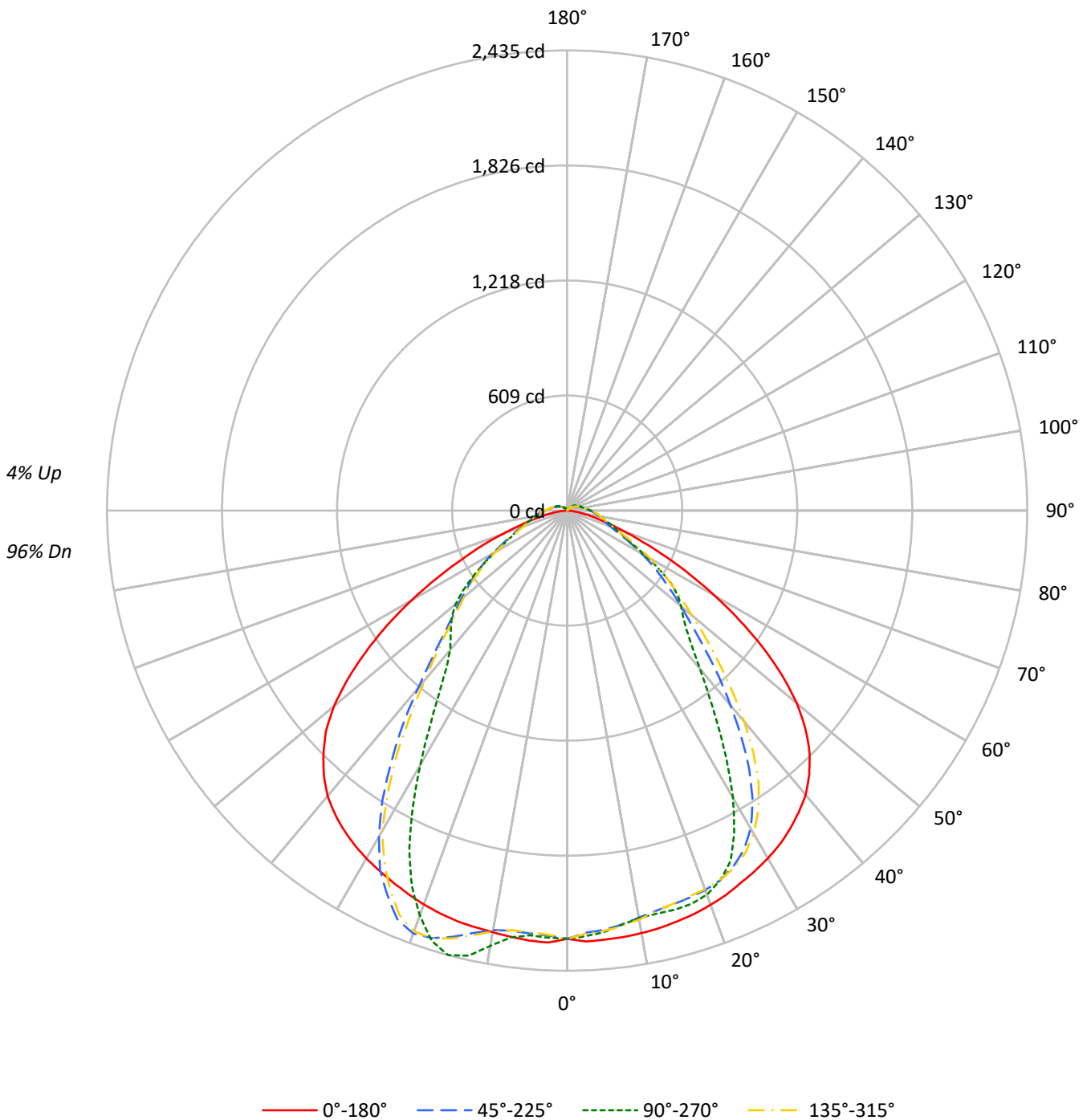
Lumens per Lamp: N/A
Luminaire Lumens: 5401.0 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 43
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-LD5-60HL-LC-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	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°	18308	18308	18308	18308
5°	18441	17583	18479	17720
10°	18527	16851	18489	17995
15°	18671	16626	18661	18512
20°	18876	16362	18856	17247
25°	19109	15522	19098	14998
30°	19468	13453	19479	11919
35°	19849	10879	19906	9205
40°	20186	8759	20270	7717
45°	20114	7419	20218	7225
50°	19247	6831	19516	6678
55°	17077	6140	17503	5581
60°	13851	4699	14587	4309
65°	10297	3595	11094	3409
70°	7002	3103	7894	2967
75°	4580	2800	5332	2648
80°	2961	2610	3471	2402
85°	1517	2604	2002	2378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.2	4.0
10°-20°	640.3	11.9
20°-30°	973.4	18.0
30°-40°	1044.3	19.3
40°-50°	906.3	16.8
50°-60°	671.7	12.4
60°-70°	384.8	7.1
70°-80°	213.1	3.9
80°-90°	129.8	2.4
90°-100°	84.4	1.6
100°-110°	56.5	1.0
110°-120°	38.2	0.7
120°-130°	23.4	0.4
130°-140°	12.3	0.2
140°-150°	5.6	0.1
150°-160°	1.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1829.0	33.9
0°-40°	2873.2	53.2
0°-60°	4451.2	82.4
0°-90°	5178.9	95.9
90°-120°	179.1	3.3
90°-150°	220.4	4.1
90°-180°	222.0	4.1
0°-180°	5401.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2266	2266	2266	2266	2266	
5°	2280	2239	2284	2256	2280	217
15°	2250	2187	2249	2435	2250	637
25°	2174	2046	2173	1976	2174	1005
35°	2056	1393	2062	1178	2056	1287
45°	1815	893	1824	870	1815	1390
55°	1266	669	1298	608	1266	1123
65°	575	339	619	322	575	579
75°	164	215	191	204	164	187
85°	22	149	29	136	22	29
90°	0	124	2	115	0	1
95°	1	102	0	97	1	1
105°	1	76	1	73	1	1
115°	1	62	1	56	1	1
125°	1	47	1	39	1	1
135°	1	29	1	25	1	1
145°	1	18	2	14	1	1
155°	2	8	2	7	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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2282.0	2276.1	2273.8	2269.1	2272.6	2286.6	2277.3	2262.1	2263.2	2236.3	2250.4
5°	2279.6	2272.6	2269.1	2264.4	2266.8	2279.6	2270.3	2255.1	2253.9	2227.0	2239.8
7.5°	2276.1	2269.1	2263.2	2259.7	2260.9	2271.4	2259.7	2242.2	2238.7	2209.4	2221.1
10°	2270.3	2265.6	2257.4	2251.5	2250.4	2262.1	2243.3	2225.8	2217.6	2187.2	2198.9
12.5°	2262.1	2255.1	2246.9	2236.3	2235.2	2242.2	2227.0	2202.4	2194.2	2169.6	2182.5
15°	2250.4	2242.2	2232.8	2221.1	2215.3	2219.9	2201.2	2179.0	2177.8	2156.8	2174.3
17.5°	2237.5	2225.8	2215.3	2198.9	2190.7	2194.2	2179.0	2159.1	2161.4	2148.6	2168.5
20°	2219.9	2207.1	2190.7	2174.3	2162.6	2168.5	2157.9	2142.7	2146.2	2136.9	2154.4
22.5°	2200.0	2182.5	2162.6	2143.9	2134.5	2142.7	2134.5	2121.6	2122.8	2117.0	2127.5
25°	2174.3	2154.4	2131.0	2107.6	2102.9	2108.8	2104.1	2093.6	2088.9	2079.5	2084.2
27.5°	2150.9	2128.7	2099.4	2074.8	2066.6	2078.3	2067.8	2050.3	2037.4	2024.5	2015.2
30°	2124.0	2097.1	2064.3	2036.2	2029.2	2033.9	2018.7	1991.7	1957.8	1941.4	1915.7
32.5°	2094.7	2059.6	2018.7	1987.1	1982.4	1978.9	1950.8	1912.2	1859.5	1826.7	1787.0
35°	2056.1	2017.5	1968.3	1929.7	1922.7	1902.8	1857.2	1805.7	1737.8	1681.6	1613.8
37.5°	2012.8	1967.2	1915.7	1864.2	1844.3	1804.5	1740.1	1686.3	1583.3	1515.5	1433.5
40°	1963.7	1908.7	1845.5	1783.4	1750.7	1686.3	1612.6	1533.0	1433.5	1342.3	1273.2
42.5°	1895.8	1837.3	1762.4	1693.3	1637.2	1551.7	1465.1	1352.8	1261.5	1184.3	1114.1
45°	1815.0	1744.8	1658.2	1575.1	1503.8	1401.9	1300.1	1187.8	1111.7	1021.6	973.6
47.5°	1710.9	1634.8	1542.4	1449.9	1356.3	1244.0	1137.5	1029.8	953.7	889.4	854.3
50°	1588.0	1517.8	1416.0	1306.0	1203.0	1086.0	979.5	898.7	825.0	785.2	758.3
52.5°	1435.9	1370.3	1266.2	1146.8	1047.4	932.7	835.6	770.0	717.4	688.1	678.7
55°	1266.2	1208.9	1105.9	994.7	892.9	787.6	713.8	656.5	622.6	605.0	606.2
57.5°	1084.8	1040.3	943.2	843.7	747.8	668.2	601.5	555.9	530.1	528.9	532.5
60°	903.4	870.7	786.4	701.0	616.7	552.4	503.2	471.6	455.2	456.4	455.2
62.5°	730.2	699.8	639.0	568.7	502.0	458.7	414.3	401.4	387.3	386.2	386.2
65°	574.6	551.2	502.0	451.7	401.4	373.3	351.1	335.9	325.3	323.0	324.2
67.5°	431.8	422.5	388.5	354.6	323.0	305.4	286.7	283.2	275.0	275.0	277.3
70°	321.8	314.8	296.1	276.2	263.3	251.6	242.2	242.2	241.1	239.9	245.8
72.5°	232.9	234.0	228.2	213.0	211.8	209.5	207.1	210.6	211.8	215.3	222.3
75°	163.8	167.3	167.3	165.0	169.7	175.5	179.0	184.9	191.9	196.6	204.8
77.5°	115.9	115.9	121.7	128.7	138.1	148.6	158.0	166.2	175.5	181.4	188.4
80°	74.9	78.4	87.8	100.6	113.5	127.6	140.4	151.0	160.3	169.7	174.4
82.5°	44.5	50.3	62.0	78.4	94.8	112.3	125.2	138.1	148.6	158.0	161.5
85°	22.2	30.4	44.5	62.0	79.6	98.3	114.7	126.4	138.1	146.3	151.0
87.5°	7.0	16.4	31.6	48.0	66.7	85.4	103.0	115.9	126.4	133.4	138.1
90°	0.0	8.2	22.2	39.8	57.3	76.1	92.4	106.5	117.0	122.9	126.4
92.5°	0.0	4.7	17.6	32.8	49.2	67.9	84.3	97.1	106.5	112.3	114.7
95°	1.2	3.5	12.9	26.9	43.3	60.9	76.1	87.8	97.1	103.0	104.2
97.5°	1.2	2.3	10.5	22.2	37.4	53.8	69.0	80.7	87.8	93.6	94.8
100°	1.2	2.3	8.2	19.9	32.8	48.0	62.0	72.6	80.7	85.4	86.6
102.5°	1.2	1.2	7.0	16.4	29.3	42.1	55.0	65.5	72.6	77.2	79.6
105°	1.2	1.2	5.9	14.0	25.7	37.4	49.2	59.7	65.5	70.2	72.6
107.5°	1.2	1.2	4.7	11.7	22.2	32.8	44.5	52.7	59.7	64.4	66.7
110°	1.2	1.2	3.5	10.5	18.7	29.3	38.6	46.8	53.8	58.5	60.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	1.2	3.5	9.4	16.4	25.7	33.9	42.1	48.0	52.7	56.2
115°	1.2	1.2	3.5	8.2	15.2	22.2	30.4	37.4	43.3	48.0	51.5
117.5°	1.2	1.2	3.5	7.0	12.9	19.9	26.9	33.9	38.6	43.3	46.8
120°	1.2	1.2	2.3	5.9	11.7	17.6	23.4	29.3	35.1	39.8	43.3
122.5°	1.2	1.2	2.3	5.9	9.4	15.2	21.1	25.7	31.6	35.1	38.6
125°	1.2	1.2	2.3	4.7	8.2	14.0	18.7	23.4	26.9	31.6	35.1
127.5°	1.2	1.2	2.3	4.7	7.0	11.7	16.4	21.1	24.6	28.1	30.4
130°	1.2	1.2	2.3	3.5	5.9	9.4	14.0	17.6	22.2	24.6	26.9
132.5°	1.2	1.2	1.2	3.5	4.7	7.0	10.5	15.2	18.7	22.2	23.4
135°	1.2	1.2	1.2	2.3	4.7	5.9	8.2	11.7	15.2	18.7	21.1
137.5°	1.2	1.2	1.2	2.3	3.5	5.9	7.0	9.4	12.9	15.2	18.7
140°	1.2	1.2	1.2	2.3	3.5	4.7	5.9	8.2	10.5	12.9	15.2
142.5°	1.2	1.2	1.2	2.3	2.3	3.5	4.7	7.0	8.2	10.5	12.9
145°	1.2	1.2	1.2	2.3	2.3	3.5	4.7	5.9	7.0	8.2	10.5
147.5°	1.2	1.2	1.2	2.3	2.3	2.3	3.5	4.7	5.9	7.0	8.2
150°	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.7	5.9	7.0
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	3.5	4.7	5.9
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.7	4.7
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°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2245.7	2248.0	2262.1	2260.9	2258.6	2256.2	2256.2	2253.9	2256.2	2262.1	2259.7
5°	2234.0	2237.5	2248.0	2246.9	2244.5	2243.3	2242.2	2238.7	2241.0	2249.2	2246.9
7.5°	2212.9	2216.4	2225.8	2221.1	2217.6	2219.9	2214.1	2210.6	2215.3	2223.5	2222.3
10°	2190.7	2193.0	2204.7	2202.4	2196.5	2197.7	2191.9	2189.5	2195.4	2200.0	2201.2
12.5°	2175.5	2183.7	2194.2	2193.0	2191.9	2193.0	2187.2	2184.8	2188.3	2193.0	2191.9
15°	2172.0	2182.5	2194.2	2194.2	2195.4	2196.5	2190.7	2187.2	2190.7	2194.2	2193.0
17.5°	2168.5	2181.3	2191.9	2190.7	2191.9	2194.2	2184.8	2182.5	2187.2	2191.9	2189.5
20°	2156.8	2168.5	2175.5	2173.1	2173.1	2174.3	2162.6	2162.6	2169.6	2173.1	2174.3
22.5°	2124.0	2138.0	2138.0	2132.2	2132.2	2127.5	2124.0	2117.0	2125.2	2131.0	2135.7
25°	2074.8	2080.7	2073.7	2060.8	2053.8	2047.9	2031.5	2045.6	2045.6	2063.1	2069.0
27.5°	2005.8	1992.9	1973.0	1946.1	1940.3	1921.5	1911.0	1914.5	1920.4	1944.9	1963.7
30°	1892.3	1853.7	1819.7	1808.0	1782.3	1763.6	1744.8	1754.2	1764.7	1778.8	1817.4
32.5°	1742.5	1705.0	1650.0	1630.1	1603.2	1579.8	1557.6	1571.6	1590.4	1599.7	1641.8
35°	1570.5	1526.0	1475.7	1441.7	1413.6	1400.8	1372.7	1392.6	1412.5	1419.5	1455.8
37.5°	1387.9	1342.3	1297.8	1268.5	1241.6	1233.4	1214.7	1228.8	1244.0	1254.5	1284.9
40°	1214.7	1172.6	1138.6	1118.7	1100.0	1093.0	1086.0	1091.8	1103.5	1111.7	1135.1
42.5°	1066.1	1032.2	1008.7	997.0	984.2	974.8	976.0	978.3	984.2	1001.7	1012.3
45°	936.2	916.3	901.1	898.7	890.6	889.4	888.2	892.9	896.4	906.9	915.1
47.5°	832.0	823.8	820.3	825.0	828.5	823.8	826.2	832.0	839.1	839.1	837.9
50°	750.1	752.5	757.1	767.7	774.7	777.0	779.4	786.4	787.6	789.9	786.4
52.5°	683.4	685.8	698.6	715.0	723.2	726.7	731.4	738.4	738.4	740.8	736.1
55°	615.5	619.1	631.9	648.3	655.3	660.0	664.7	669.4	672.9	677.6	674.1
57.5°	540.7	551.2	559.4	564.1	568.7	572.2	575.8	576.9	583.9	585.1	591.0
60°	461.1	463.4	471.6	470.4	466.9	476.3	471.6	479.8	488.0	498.5	499.7
62.5°	385.0	386.2	392.0	389.7	394.4	393.2	396.7	396.7	402.6	407.2	413.1
65°	325.3	326.5	331.2	331.2	330.0	333.5	337.0	339.4	339.4	342.9	347.6
67.5°	280.9	284.4	289.0	291.4	293.7	293.7	297.2	298.4	300.8	301.9	304.3
70°	250.4	255.1	259.8	262.1	263.3	265.6	266.8	266.8	269.2	270.3	272.7
72.5°	228.2	232.9	236.4	236.4	238.7	239.9	239.9	241.1	242.2	244.6	246.9
75°	209.5	213.0	215.3	214.2	214.2	214.2	215.3	215.3	217.7	220.0	222.3
77.5°	191.9	195.4	195.4	193.1	193.1	193.1	193.1	194.3	195.4	197.8	200.1
80°	179.0	179.0	177.9	177.9	175.5	174.4	174.4	175.5	175.5	177.9	181.4
82.5°	165.0	165.0	163.8	162.7	161.5	160.3	160.3	161.5	162.7	163.8	166.2
85°	152.1	152.1	149.8	149.8	148.6	148.6	148.6	148.6	149.8	151.0	153.3
87.5°	139.3	138.1	136.9	135.7	135.7	135.7	135.7	135.7	136.9	139.3	140.4
90°	126.4	125.2	124.0	124.0	122.9	122.9	124.0	124.0	125.2	126.4	127.6
92.5°	114.7	113.5	112.3	112.3	111.2	111.2	112.3	111.2	113.5	113.5	114.7
95°	104.2	103.0	101.8	101.8	101.8	101.8	101.8	101.8	103.0	103.0	104.2
97.5°	94.8	93.6	92.4	92.4	93.6	92.4	93.6	93.6	93.6	94.8	96.0
100°	86.6	85.4	85.4	86.6	85.4	85.4	86.6	86.6	86.6	86.6	87.8
102.5°	79.6	79.6	79.6	79.6	79.6	79.6	80.7	80.7	80.7	80.7	81.9
105°	72.6	73.7	73.7	73.7	74.9	74.9	74.9	76.1	76.1	76.1	76.1
107.5°	67.9	69.0	69.0	70.2	70.2	71.4	71.4	71.4	71.4	72.6	72.6
110°	63.2	64.4	65.5	66.7	66.7	67.9	67.9	67.9	67.9	67.9	67.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	58.5	59.7	60.9	63.2	64.4	64.4	64.4	64.4	65.5	65.5	64.4
115°	53.8	56.2	57.3	59.7	60.9	60.9	62.0	62.0	62.0	62.0	60.9
117.5°	49.2	52.7	53.8	56.2	57.3	57.3	58.5	58.5	58.5	58.5	57.3
120°	45.6	48.0	50.3	51.5	52.7	53.8	53.8	55.0	55.0	55.0	53.8
122.5°	42.1	44.5	46.8	48.0	49.2	50.3	50.3	50.3	50.3	50.3	50.3
125°	37.4	39.8	42.1	43.3	44.5	45.6	45.6	46.8	46.8	46.8	45.6
127.5°	33.9	36.3	37.4	39.8	41.0	41.0	42.1	42.1	42.1	42.1	41.0
130°	29.3	31.6	33.9	35.1	36.3	36.3	37.4	37.4	37.4	37.4	37.4
132.5°	25.7	28.1	29.3	31.6	31.6	32.8	32.8	33.9	33.9	33.9	32.8
135°	23.4	24.6	25.7	28.1	28.1	29.3	29.3	29.3	29.3	29.3	29.3
137.5°	21.1	22.2	23.4	24.6	24.6	25.7	25.7	25.7	25.7	26.9	25.7
140°	17.6	19.9	21.1	21.1	22.2	22.2	22.2	23.4	23.4	23.4	22.2
142.5°	15.2	16.4	17.6	18.7	19.9	19.9	19.9	19.9	21.1	19.9	19.9
145°	11.7	14.0	15.2	16.4	17.6	17.6	17.6	17.6	17.6	17.6	17.6
147.5°	9.4	10.5	12.9	14.0	14.0	15.2	15.2	15.2	15.2	15.2	15.2
150°	8.2	8.2	10.5	11.7	12.9	12.9	12.9	12.9	12.9	12.9	12.9
152.5°	5.9	7.0	8.2	9.4	10.5	10.5	10.5	10.5	10.5	10.5	10.5
155°	5.9	5.9	7.0	7.0	8.2	8.2	8.2	8.2	9.4	8.2	8.2
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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2256.2	2255.1	2259.7	2255.1	2231.6	2241.0	2237.5	2250.4	2251.5	2255.1	2266.8
5°	2244.5	2244.5	2250.4	2245.7	2223.5	2232.8	2231.6	2244.5	2246.9	2249.2	2262.1
7.5°	2221.1	2222.3	2230.5	2227.0	2203.6	2217.6	2216.4	2231.6	2236.3	2241.0	2252.7
10°	2198.9	2197.7	2207.1	2203.6	2181.3	2197.7	2196.5	2211.8	2218.8	2227.0	2241.0
12.5°	2187.2	2183.7	2187.2	2183.7	2159.1	2172.0	2173.1	2190.7	2198.9	2209.4	2225.8
15°	2187.2	2181.3	2181.3	2174.3	2146.2	2154.4	2155.6	2167.3	2177.8	2188.3	2208.2
17.5°	2184.8	2179.0	2177.8	2172.0	2141.5	2141.5	2140.4	2148.6	2154.4	2164.9	2186.0
20°	2172.0	2169.6	2168.5	2164.9	2136.9	2132.2	2129.8	2129.8	2133.3	2136.9	2157.9
22.5°	2138.0	2140.4	2142.7	2145.0	2122.8	2114.6	2115.8	2113.5	2109.9	2109.9	2127.5
25°	2074.8	2086.5	2095.9	2106.4	2093.6	2087.7	2094.7	2091.2	2085.4	2080.7	2095.9
27.5°	1974.2	1998.8	2018.7	2044.4	2045.6	2040.9	2059.6	2057.3	2056.1	2049.1	2060.8
30°	1834.9	1873.6	1900.5	1937.9	1969.5	1974.2	2005.8	2010.5	2015.2	2011.6	2023.3
32.5°	1666.4	1719.1	1764.7	1823.2	1853.7	1880.6	1925.0	1943.8	1962.5	1968.3	1981.2
35°	1482.7	1542.4	1596.2	1660.6	1708.5	1767.1	1820.9	1849.0	1891.1	1907.5	1926.2
37.5°	1308.3	1364.5	1417.2	1481.5	1558.8	1619.6	1686.3	1749.5	1806.8	1830.3	1858.3
40°	1153.9	1199.5	1249.8	1306.0	1376.2	1455.8	1528.3	1616.1	1684.0	1730.8	1771.7
42.5°	1036.8	1059.1	1102.4	1152.7	1208.9	1289.6	1363.3	1461.6	1543.5	1610.2	1678.1
45°	932.7	943.2	974.8	1001.7	1059.1	1130.5	1208.9	1304.8	1390.2	1475.7	1557.6
47.5°	843.7	856.6	871.8	888.2	929.2	988.9	1056.7	1143.3	1228.8	1328.2	1421.8
50°	784.1	787.6	789.9	796.9	821.5	862.5	917.5	991.2	1073.1	1179.6	1279.1
52.5°	731.4	731.4	724.4	720.9	730.2	756.0	787.6	840.2	924.5	1022.8	1128.1
55°	675.2	664.7	662.4	650.7	653.0	664.7	679.9	720.9	789.9	874.2	976.0
57.5°	596.8	592.1	592.1	587.5	578.1	583.9	587.5	616.7	665.9	738.4	827.4
60°	506.7	504.4	510.2	511.4	503.2	506.7	505.5	523.1	558.2	616.7	690.4
62.5°	416.6	427.1	428.3	433.0	428.3	427.1	433.0	448.2	465.8	510.2	567.6
65°	349.9	355.8	356.9	362.8	360.4	360.4	365.1	376.8	387.3	417.8	462.2
67.5°	306.6	304.3	305.4	308.9	305.4	304.3	307.8	314.8	323.0	341.7	373.3
70°	272.7	270.3	270.3	270.3	265.6	262.1	263.3	265.6	269.2	279.7	299.6
72.5°	246.9	246.9	243.4	239.9	236.4	234.0	231.7	229.4	228.2	231.7	242.2
75°	223.5	224.7	223.5	220.0	215.3	210.6	206.0	201.3	195.4	193.1	194.3
77.5°	202.5	203.6	204.8	203.6	198.9	193.1	186.1	179.0	170.9	162.7	158.0
80°	183.7	186.1	187.2	186.1	182.6	177.9	169.7	161.5	149.8	139.3	127.6
82.5°	167.3	170.9	172.0	172.0	169.7	165.0	155.6	146.3	133.4	119.4	104.2
85°	154.5	156.8	159.2	159.2	158.0	153.3	143.9	133.4	120.5	104.2	87.8
87.5°	141.6	142.8	145.1	147.5	145.1	140.4	132.2	120.5	107.7	91.3	72.6
90°	128.7	129.9	132.2	134.6	133.4	128.7	121.7	111.2	97.1	79.6	60.9
92.5°	115.9	118.2	119.4	120.5	121.7	118.2	112.3	101.8	87.8	70.2	52.7
95°	106.5	106.5	108.8	110.0	111.2	107.7	103.0	92.4	79.6	63.2	45.6
97.5°	97.1	97.1	99.5	99.5	100.6	98.3	93.6	84.3	71.4	56.2	38.6
100°	87.8	88.9	90.1	91.3	91.3	90.1	85.4	76.1	64.4	50.3	33.9
102.5°	81.9	81.9	83.1	83.1	84.3	81.9	77.2	69.0	57.3	44.5	29.3
105°	76.1	76.1	77.2	77.2	76.1	73.7	69.0	62.0	51.5	38.6	25.7
107.5°	71.4	71.4	71.4	71.4	70.2	67.9	63.2	55.0	45.6	35.1	23.4
110°	67.9	66.7	66.7	65.5	64.4	60.9	56.2	49.2	41.0	30.4	19.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	64.4	63.2	62.0	60.9	58.5	55.0	50.3	44.5	36.3	26.9	17.6
115°	60.9	59.7	58.5	56.2	53.8	50.3	45.6	39.8	31.6	23.4	15.2
117.5°	57.3	56.2	53.8	51.5	49.2	45.6	41.0	35.1	28.1	21.1	14.0
120°	52.7	51.5	50.3	48.0	45.6	41.0	36.3	31.6	24.6	18.7	11.7
122.5°	49.2	48.0	45.6	44.5	41.0	37.4	32.8	28.1	22.2	16.4	10.5
125°	44.5	43.3	42.1	39.8	37.4	32.8	29.3	24.6	19.9	14.0	8.2
127.5°	41.0	39.8	37.4	35.1	32.8	29.3	25.7	22.2	17.6	11.7	8.2
130°	36.3	35.1	33.9	31.6	29.3	25.7	23.4	18.7	15.2	10.5	7.0
132.5°	31.6	31.6	30.4	28.1	25.7	23.4	19.9	16.4	12.9	9.4	5.9
135°	29.3	28.1	26.9	24.6	23.4	19.9	17.6	14.0	10.5	8.2	4.7
137.5°	25.7	24.6	23.4	22.2	19.9	17.6	15.2	11.7	9.4	7.0	4.7
140°	22.2	21.1	21.1	18.7	17.6	15.2	12.9	10.5	8.2	5.9	3.5
142.5°	19.9	18.7	17.6	16.4	15.2	12.9	10.5	8.2	7.0	4.7	3.5
145°	17.6	16.4	15.2	14.0	12.9	10.5	9.4	7.0	5.9	4.7	3.5
147.5°	14.0	14.0	12.9	11.7	10.5	9.4	8.2	7.0	4.7	3.5	2.3
150°	11.7	11.7	10.5	9.4	9.4	8.2	7.0	5.9	4.7	3.5	2.3
152.5°	10.5	9.4	9.4	8.2	8.2	7.0	5.9	4.7	3.5	3.5	2.3
155°	8.2	8.2	8.2	7.0	7.0	5.9	4.7	4.7	3.5	2.3	2.3
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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2269.1	2255.1	2266.8	2287.8	2285.5	2283.1	2280.8	2285.5	2300.7	2292.5	2279.6
5°	2265.6	2251.5	2264.4	2284.3	2283.1	2279.6	2277.3	2282.0	2297.2	2289.0	2274.9
7.5°	2258.6	2245.7	2255.1	2274.9	2274.9	2272.6	2270.3	2274.9	2289.0	2282.0	2267.9
10°	2246.9	2237.5	2246.9	2265.6	2266.8	2262.1	2259.7	2265.6	2279.6	2276.1	2264.4
12.5°	2237.5	2228.1	2238.7	2257.4	2258.6	2253.9	2250.4	2257.4	2276.1	2278.5	2274.9
15°	2224.6	2216.4	2229.3	2249.2	2249.2	2245.7	2245.7	2255.1	2280.8	2291.3	2297.2
17.5°	2205.9	2200.0	2215.3	2235.2	2236.3	2234.0	2235.2	2253.9	2287.8	2313.6	2329.9
20°	2182.5	2180.2	2196.5	2217.6	2221.1	2222.3	2228.1	2256.2	2303.0	2338.1	2354.5
22.5°	2154.4	2155.6	2174.3	2196.5	2201.2	2204.7	2216.4	2256.2	2314.7	2352.2	2359.2
25°	2122.8	2126.3	2146.2	2173.1	2179.0	2186.0	2205.9	2257.4	2318.2	2342.8	2331.1
27.5°	2088.9	2095.9	2121.6	2149.7	2156.8	2168.5	2194.2	2250.4	2301.9	2303.0	2259.7
30°	2053.8	2062.0	2092.4	2125.2	2136.9	2148.6	2180.2	2234.0	2262.1	2224.6	2148.6
32.5°	2014.0	2025.7	2056.1	2095.9	2109.9	2125.2	2156.8	2202.4	2191.9	2111.1	2002.3
35°	1963.7	1980.0	2015.2	2062.0	2074.8	2094.7	2117.0	2127.5	2080.7	1966.0	1843.1
37.5°	1901.6	1926.2	1967.2	2021.0	2035.0	2047.9	2053.8	2024.5	1930.9	1806.8	1679.3
40°	1830.3	1867.7	1912.2	1971.9	1985.9	1985.9	1964.8	1902.8	1784.6	1622.0	1480.4
42.5°	1743.7	1789.3	1845.5	1905.1	1919.2	1902.8	1852.5	1743.7	1609.1	1427.7	1277.9
45°	1638.3	1699.2	1762.4	1824.4	1831.4	1795.1	1705.0	1566.9	1400.8	1232.3	1089.5
47.5°	1513.1	1592.7	1661.7	1732.0	1722.6	1661.7	1541.2	1384.4	1208.9	1049.7	935.0
50°	1372.7	1466.3	1543.5	1610.2	1590.4	1506.1	1364.5	1200.7	1026.3	890.6	795.8
52.5°	1222.9	1330.6	1407.8	1461.6	1434.7	1334.1	1178.4	1021.6	878.8	754.8	691.6
55°	1067.3	1176.1	1255.7	1297.8	1262.7	1153.9	1000.6	857.8	723.2	642.5	605.0
57.5°	916.3	1018.1	1093.0	1126.9	1082.5	973.6	832.0	711.5	614.4	546.5	527.8
60°	771.2	854.3	925.7	951.4	903.4	802.8	681.1	585.1	513.7	466.9	457.6
62.5°	636.6	704.5	760.7	780.5	733.7	655.3	550.0	478.6	428.3	404.9	393.2
65°	525.4	565.2	622.6	619.1	591.0	518.4	441.2	390.9	358.1	342.9	335.9
67.5°	413.1	449.4	485.6	490.3	455.2	404.9	354.6	318.3	300.8	292.6	289.0
70°	319.5	346.4	368.6	362.8	344.1	312.5	280.9	261.0	253.9	250.4	250.4
72.5°	248.1	262.1	272.7	265.6	253.9	237.6	222.3	214.2	215.3	217.7	220.0
75°	191.9	195.4	197.8	190.7	188.4	177.9	176.7	177.9	184.9	191.9	195.4
77.5°	147.5	142.8	139.3	132.2	133.4	132.2	138.1	147.5	158.0	168.5	177.9
80°	113.5	103.0	94.8	87.8	91.3	97.1	108.8	122.9	136.9	148.6	160.3
82.5°	87.8	72.6	60.9	53.8	60.9	70.2	85.4	103.0	119.4	132.2	145.1
85°	67.9	50.3	36.3	29.3	36.3	50.3	66.7	86.6	104.2	118.2	131.1
87.5°	52.7	36.3	19.9	11.7	19.9	35.1	53.8	72.6	90.1	106.5	119.4
90°	42.1	24.6	9.4	2.3	10.5	24.6	42.1	60.9	78.4	96.0	108.8
92.5°	33.9	17.6	4.7	0.0	5.9	18.7	35.1	52.7	70.2	86.6	99.5
95°	28.1	14.0	3.5	0.0	4.7	14.0	28.1	45.6	62.0	78.4	88.9
97.5°	23.4	10.5	2.3	0.0	2.3	11.7	23.4	38.6	55.0	70.2	80.7
100°	19.9	9.4	2.3	0.0	2.3	9.4	19.9	33.9	48.0	62.0	72.6
102.5°	16.4	7.0	1.2	1.2	1.2	7.0	17.6	29.3	42.1	55.0	65.5
105°	15.2	5.9	1.2	1.2	1.2	5.9	15.2	25.7	37.4	49.2	58.5
107.5°	12.9	4.7	1.2	1.2	1.2	4.7	12.9	22.2	33.9	44.5	52.7
110°	10.5	4.7	1.2	1.2	1.2	4.7	10.5	19.9	29.3	38.6	46.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	9.4	3.5	1.2	1.2	1.2	3.5	9.4	17.6	25.7	35.1	42.1
115°	8.2	3.5	1.2	1.2	1.2	3.5	8.2	15.2	22.2	30.4	37.4
117.5°	7.0	3.5	1.2	1.2	1.2	2.3	7.0	12.9	19.9	26.9	33.9
120°	5.9	2.3	1.2	1.2	1.2	2.3	5.9	11.7	17.6	23.4	29.3
122.5°	5.9	2.3	1.2	1.2	1.2	2.3	4.7	9.4	15.2	19.9	25.7
125°	4.7	2.3	1.2	1.2	1.2	1.2	4.7	8.2	12.9	17.6	22.2
127.5°	4.7	2.3	1.2	1.2	1.2	1.2	3.5	7.0	10.5	15.2	19.9
130°	3.5	2.3	1.2	1.2	1.2	1.2	2.3	5.9	9.4	12.9	16.4
132.5°	3.5	2.3	1.2	1.2	1.2	1.2	2.3	4.7	7.0	10.5	14.0
135°	3.5	1.2	1.2	1.2	1.2	1.2	1.2	3.5	5.9	8.2	10.5
137.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	4.7	5.9	9.4
140°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5	4.7	7.0
142.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5	5.9
145°	2.3	1.2	1.2	2.3	2.3	1.2	1.2	2.3	2.3	3.5	4.7
147.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3	2.3	3.5
150°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2277.3	2250.4	2264.4	2259.7	2264.4	2276.1	2274.9	2271.4	2273.8	2267.9	2262.1
5°	2272.6	2245.7	2259.7	2253.9	2259.7	2271.4	2269.1	2265.6	2269.1	2262.1	2256.2
7.5°	2266.8	2242.2	2258.6	2257.4	2267.9	2283.1	2284.3	2284.3	2292.5	2282.0	2277.3
10°	2266.8	2253.9	2276.1	2284.3	2311.2	2331.1	2333.5	2338.1	2352.2	2349.8	2338.1
12.5°	2291.3	2289.0	2321.8	2341.6	2366.2	2394.3	2409.5	2414.2	2423.6	2416.5	2411.9
15°	2322.9	2334.6	2370.9	2393.1	2420.1	2441.1	2444.6	2447.0	2454.0	2443.5	2435.3
17.5°	2365.1	2372.1	2401.3	2410.7	2428.2	2431.8	2427.1	2415.4	2415.4	2392.0	2384.9
20°	2384.9	2381.4	2393.1	2377.9	2370.9	2349.8	2329.9	2307.7	2306.5	2282.0	2279.6
22.5°	2367.4	2344.0	2319.4	2282.0	2265.6	2235.2	2208.2	2195.4	2187.2	2155.6	2147.4
25°	2305.4	2248.0	2211.8	2167.3	2127.5	2092.4	2066.6	2039.7	2014.0	1988.2	1976.5
27.5°	2197.7	2143.9	2085.4	2023.3	1968.3	1914.5	1871.2	1844.3	1819.7	1785.8	1768.2
30°	2065.5	1990.6	1926.2	1866.5	1776.4	1710.9	1674.6	1620.8	1602.1	1586.8	1554.1
32.5°	1909.8	1819.7	1732.0	1651.2	1558.8	1497.9	1449.9	1410.1	1398.4	1358.6	1349.3
35°	1737.8	1619.6	1520.1	1440.6	1373.9	1300.1	1260.3	1233.4	1210.0	1183.1	1178.4
37.5°	1535.4	1428.9	1316.5	1246.3	1193.6	1130.5	1100.0	1081.3	1070.8	1050.9	1047.4
40°	1331.7	1225.2	1148.0	1077.8	1045.0	1011.1	988.9	980.7	976.0	969.0	961.9
42.5°	1146.8	1053.2	998.2	951.4	937.4	921.0	915.1	919.8	915.1	912.8	911.6
45°	990.0	918.6	880.0	866.0	862.5	857.8	862.5	870.7	871.8	869.5	869.5
47.5°	847.3	813.3	796.9	799.3	805.1	808.6	816.8	827.4	829.7	823.8	826.2
50°	753.6	733.7	730.2	739.6	752.5	757.1	766.5	774.7	773.5	771.2	768.8
52.5°	665.9	660.0	669.4	678.7	692.8	695.1	698.6	702.1	701.0	696.3	694.0
55°	592.1	596.8	605.0	608.5	619.1	617.9	619.1	619.1	614.4	612.0	608.5
57.5°	525.4	526.6	531.3	532.5	538.3	536.0	534.8	532.5	525.4	524.3	520.8
60°	457.6	455.2	465.8	457.6	462.2	457.6	456.4	450.5	443.5	442.4	440.0
62.5°	393.2	388.5	395.5	392.0	394.4	389.7	387.3	380.3	374.5	373.3	372.1
65°	335.9	333.5	340.5	339.4	341.7	335.9	333.5	328.8	324.2	323.0	321.8
67.5°	287.9	293.7	297.2	297.2	299.6	298.4	292.6	291.4	290.2	285.5	285.5
70°	252.8	256.3	263.3	264.5	263.3	265.6	261.0	259.8	258.6	256.3	255.1
72.5°	224.7	229.4	236.4	237.6	236.4	236.4	234.0	232.9	232.9	229.4	229.4
75°	202.5	208.3	214.2	214.2	214.2	211.8	209.5	209.5	207.1	206.0	203.6
77.5°	183.7	190.7	195.4	194.3	193.1	190.7	190.7	187.2	183.7	183.7	181.4
80°	169.7	174.4	177.9	176.7	175.5	172.0	170.9	167.3	165.0	161.5	161.5
82.5°	154.5	160.3	162.7	161.5	159.2	155.6	154.5	152.1	149.8	148.6	146.3
85°	141.6	147.5	148.6	146.3	143.9	141.6	140.4	139.3	138.1	135.7	135.7
87.5°	128.7	134.6	134.6	133.4	131.1	129.9	128.7	127.6	126.4	125.2	124.0
90°	118.2	122.9	122.9	121.7	120.5	119.4	118.2	117.0	115.9	114.7	114.7
92.5°	107.7	112.3	112.3	111.2	110.0	108.8	108.8	107.7	106.5	105.3	104.2
95°	98.3	103.0	103.0	103.0	101.8	100.6	100.6	99.5	98.3	98.3	97.1
97.5°	88.9	93.6	93.6	93.6	92.4	91.3	91.3	90.1	90.1	90.1	88.9
100°	80.7	84.3	85.4	85.4	84.3	84.3	84.3	83.1	83.1	83.1	81.9
102.5°	72.6	76.1	78.4	78.4	78.4	77.2	77.2	77.2	77.2	77.2	76.1
105°	65.5	69.0	71.4	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
107.5°	59.7	63.2	65.5	66.7	67.9	67.9	69.0	69.0	69.0	69.0	69.0
110°	53.8	57.3	60.9	62.0	63.2	64.4	64.4	65.5	64.4	64.4	64.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	48.0	52.7	55.0	57.3	58.5	59.7	60.9	60.9	60.9	60.9	60.9
115°	43.3	48.0	50.3	52.7	55.0	56.2	56.2	57.3	57.3	57.3	56.2
117.5°	38.6	43.3	45.6	48.0	49.2	51.5	52.7	52.7	52.7	52.7	51.5
120°	35.1	38.6	41.0	43.3	45.6	46.8	48.0	48.0	48.0	48.0	48.0
122.5°	30.4	33.9	37.4	39.8	41.0	42.1	43.3	43.3	43.3	43.3	43.3
125°	26.9	30.4	32.8	35.1	36.3	38.6	38.6	38.6	38.6	38.6	38.6
127.5°	23.4	26.9	29.3	31.6	32.8	33.9	35.1	35.1	35.1	35.1	35.1
130°	19.9	23.4	25.7	28.1	29.3	30.4	30.4	31.6	31.6	31.6	31.6
132.5°	17.6	19.9	22.2	24.6	25.7	26.9	26.9	28.1	28.1	28.1	28.1
135°	14.0	17.6	18.7	21.1	22.2	23.4	23.4	24.6	24.6	24.6	24.6
137.5°	11.7	14.0	16.4	18.7	19.9	19.9	21.1	21.1	22.2	22.2	22.2
140°	9.4	10.5	14.0	15.2	16.4	17.6	18.7	18.7	18.7	18.7	18.7
142.5°	7.0	9.4	10.5	12.9	14.0	15.2	16.4	16.4	16.4	16.4	16.4
145°	5.9	7.0	8.2	10.5	11.7	12.9	14.0	14.0	14.0	14.0	14.0
147.5°	4.7	5.9	7.0	8.2	9.4	10.5	11.7	11.7	11.7	11.7	11.7
150°	3.5	4.7	5.9	5.9	7.0	8.2	9.4	10.5	10.5	10.5	10.5
152.5°	3.5	3.5	4.7	4.7	5.9	7.0	8.2	8.2	8.2	8.2	8.2
155°	2.3	3.5	3.5	3.5	4.7	4.7	5.9	7.0	7.0	7.0	7.0
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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2265.6	2270.3	2267.9	2264.4	2263.2	2269.1	2263.2	2236.3	2246.9	2248.0	2256.2
5°	2262.1	2265.6	2263.2	2260.9	2257.4	2264.4	2257.4	2229.3	2239.8	2241.0	2249.2
7.5°	2285.5	2286.6	2286.6	2280.8	2271.4	2274.9	2265.6	2234.0	2239.8	2239.8	2245.7
10°	2344.0	2346.3	2349.8	2334.6	2322.9	2313.6	2300.7	2262.1	2260.9	2251.5	2251.5
12.5°	2420.1	2414.2	2408.4	2401.3	2392.0	2380.3	2361.5	2315.9	2300.7	2285.5	2270.3
15°	2442.3	2439.9	2438.8	2435.3	2429.4	2425.9	2411.9	2366.2	2344.0	2325.3	2298.3
17.5°	2383.8	2388.5	2403.7	2404.8	2411.9	2425.9	2423.6	2392.0	2372.1	2363.9	2331.1
20°	2278.5	2279.6	2298.3	2306.5	2337.0	2360.4	2377.9	2374.4	2369.7	2379.1	2354.5
22.5°	2152.1	2160.3	2180.2	2193.0	2222.3	2249.2	2277.3	2292.5	2317.1	2355.7	2351.0
25°	1980.0	1990.6	2018.7	2039.7	2080.7	2121.6	2159.1	2186.0	2215.3	2289.0	2313.6
27.5°	1774.1	1790.5	1826.7	1847.8	1905.1	1947.3	2001.1	2053.8	2094.7	2179.0	2229.3
30°	1557.6	1571.6	1610.2	1639.5	1688.7	1746.0	1813.9	1888.8	1956.6	2042.1	2105.3
32.5°	1355.1	1370.3	1401.9	1427.7	1482.7	1530.7	1605.6	1698.0	1761.2	1879.4	1963.7
35°	1178.4	1192.5	1214.7	1236.9	1282.6	1331.7	1396.1	1486.2	1566.9	1689.8	1796.3
37.5°	1054.4	1056.7	1069.6	1082.5	1116.4	1153.9	1204.2	1283.8	1358.6	1490.9	1607.9
40°	965.4	965.4	972.5	976.0	991.2	1013.4	1045.0	1107.0	1169.1	1269.7	1412.5
42.5°	910.4	908.1	908.1	909.3	908.1	918.6	937.4	966.6	1021.6	1104.7	1215.9
45°	869.5	864.8	861.3	853.1	848.4	848.4	849.6	860.1	891.7	945.6	1035.7
47.5°	823.8	822.7	816.8	807.5	799.3	793.4	784.1	780.5	789.9	820.3	881.2
50°	771.2	765.3	759.5	752.5	743.1	737.3	719.7	720.9	712.7	726.7	758.3
52.5°	694.0	689.3	686.9	681.1	677.6	675.2	661.2	647.1	643.6	646.0	657.7
55°	608.5	610.9	601.5	606.2	605.0	594.5	588.6	578.1	574.6	573.4	579.3
57.5°	519.6	521.9	516.1	520.8	520.8	514.9	511.4	511.4	503.2	496.2	504.4
60°	438.8	434.2	437.7	443.5	443.5	440.0	437.7	437.7	431.8	429.5	435.3
62.5°	373.3	368.6	372.1	378.0	379.2	376.8	374.5	374.5	367.5	367.5	372.1
65°	323.0	324.2	323.0	327.7	327.7	328.8	326.5	324.2	316.0	319.5	318.3
67.5°	286.7	285.5	285.5	290.2	289.0	291.4	289.0	285.5	279.7	275.0	273.8
70°	256.3	255.1	255.1	257.5	258.6	258.6	257.5	255.1	246.9	242.2	238.7
72.5°	229.4	228.2	229.4	230.5	231.7	232.9	231.7	229.4	222.3	216.5	210.6
75°	204.8	203.6	207.1	207.1	208.3	208.3	209.5	208.3	202.5	195.4	188.4
77.5°	180.2	181.4	184.9	186.1	188.4	189.6	190.7	190.7	184.9	179.0	169.7
80°	160.3	162.7	165.0	166.2	168.5	172.0	173.2	174.4	169.7	163.8	153.3
82.5°	146.3	147.5	149.8	151.0	154.5	155.6	156.8	159.2	156.8	151.0	139.3
85°	134.6	135.7	138.1	138.1	140.4	142.8	143.9	145.1	143.9	138.1	126.4
87.5°	124.0	125.2	126.4	127.6	128.7	129.9	131.1	132.2	131.1	125.2	114.7
90°	114.7	114.7	115.9	115.9	117.0	118.2	120.5	120.5	119.4	114.7	104.2
92.5°	104.2	105.3	105.3	106.5	107.7	108.8	110.0	110.0	108.8	104.2	94.8
95°	97.1	97.1	98.3	98.3	99.5	99.5	100.6	100.6	99.5	94.8	85.4
97.5°	88.9	88.9	88.9	88.9	90.1	90.1	91.3	91.3	90.1	85.4	77.2
100°	81.9	81.9	81.9	81.9	81.9	83.1	83.1	83.1	81.9	77.2	69.0
102.5°	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	73.7	70.2	62.0
105°	72.6	72.6	72.6	71.4	71.4	71.4	70.2	70.2	66.7	63.2	56.2
107.5°	67.9	67.9	67.9	66.7	66.7	65.5	64.4	64.4	60.9	57.3	50.3
110°	64.4	64.4	64.4	63.2	62.0	60.9	59.7	58.5	55.0	50.3	44.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	60.9	60.9	59.7	59.7	58.5	57.3	55.0	53.8	50.3	45.6	39.8
115°	56.2	56.2	56.2	55.0	53.8	52.7	51.5	49.2	45.6	41.0	35.1
117.5°	51.5	51.5	51.5	50.3	49.2	48.0	46.8	44.5	41.0	36.3	31.6
120°	46.8	46.8	46.8	45.6	44.5	43.3	42.1	39.8	36.3	32.8	26.9
122.5°	43.3	43.3	42.1	41.0	39.8	38.6	37.4	35.1	32.8	28.1	23.4
125°	38.6	38.6	37.4	37.4	36.3	35.1	33.9	31.6	28.1	24.6	21.1
127.5°	35.1	33.9	33.9	33.9	32.8	31.6	29.3	28.1	24.6	21.1	17.6
130°	30.4	30.4	30.4	29.3	29.3	28.1	25.7	23.4	21.1	18.7	15.2
132.5°	26.9	26.9	26.9	26.9	25.7	24.6	22.2	21.1	18.7	15.2	12.9
135°	24.6	24.6	23.4	23.4	22.2	21.1	19.9	17.6	15.2	12.9	10.5
137.5°	21.1	21.1	21.1	19.9	19.9	18.7	16.4	15.2	14.0	11.7	9.4
140°	18.7	18.7	17.6	17.6	16.4	16.4	15.2	12.9	11.7	9.4	8.2
142.5°	16.4	16.4	15.2	15.2	14.0	14.0	12.9	11.7	9.4	8.2	5.9
145°	14.0	14.0	12.9	12.9	12.9	11.7	10.5	9.4	8.2	7.0	5.9
147.5°	11.7	11.7	11.7	10.5	10.5	9.4	9.4	8.2	7.0	5.9	4.7
150°	10.5	10.5	9.4	9.4	9.4	8.2	7.0	7.0	5.9	4.7	3.5
152.5°	8.2	8.2	8.2	8.2	7.0	7.0	5.9	5.9	4.7	3.5	3.5
155°	7.0	7.0	7.0	5.9	5.9	5.9	4.7	4.7	3.5	3.5	2.3
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-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6	2265.6
2.5°	2252.7	2251.5	2262.1	2260.9	2246.9	2267.9	2282.0
5°	2246.9	2245.7	2255.1	2257.4	2242.2	2264.4	2279.6
7.5°	2242.2	2241.0	2251.5	2255.1	2239.8	2259.7	2276.1
10°	2243.3	2237.5	2246.9	2249.2	2235.2	2256.2	2270.3
12.5°	2251.5	2237.5	2241.0	2241.0	2228.1	2246.9	2262.1
15°	2271.4	2242.2	2237.5	2234.0	2217.6	2235.2	2250.4
17.5°	2293.7	2253.9	2237.5	2225.8	2205.9	2221.1	2237.5
20°	2315.9	2266.8	2239.8	2221.1	2194.2	2208.2	2219.9
22.5°	2326.4	2278.5	2242.2	2214.1	2180.2	2187.2	2200.0
25°	2312.4	2273.8	2237.5	2203.6	2162.6	2163.8	2174.3
27.5°	2260.9	2250.4	2227.0	2193.0	2148.6	2142.7	2150.9
30°	2173.1	2202.4	2203.6	2179.0	2132.2	2120.5	2124.0
32.5°	2050.3	2115.8	2154.4	2149.7	2108.8	2092.4	2094.7
35°	1908.7	1990.6	2074.8	2102.9	2073.7	2060.8	2056.1
37.5°	1739.0	1849.0	1961.3	2030.4	2025.7	2017.5	2012.8
40°	1551.7	1684.0	1817.4	1927.4	1961.3	1961.3	1963.7
42.5°	1351.6	1506.1	1652.4	1791.6	1871.2	1888.8	1895.8
45°	1158.5	1314.2	1473.3	1633.7	1740.1	1795.1	1815.0
47.5°	983.0	1139.8	1290.8	1466.3	1607.9	1679.3	1710.9
50°	833.2	950.2	1109.4	1283.8	1438.2	1526.0	1588.0
52.5°	709.2	800.4	939.7	1102.4	1258.0	1378.5	1435.9
55°	605.0	667.0	785.2	925.7	1074.3	1199.5	1266.2
57.5°	517.2	566.4	647.1	764.2	889.4	1013.4	1084.8
60°	440.0	473.9	528.9	621.4	727.9	834.4	903.4
62.5°	373.3	395.5	431.8	499.7	582.8	665.9	730.2
65°	321.8	331.2	351.1	393.2	456.4	519.6	574.6
67.5°	271.5	277.3	292.6	318.3	349.9	395.5	431.8
70°	234.0	234.0	235.2	250.4	266.8	296.1	321.8
72.5°	203.6	200.1	193.1	196.6	200.1	216.5	232.9
75°	179.0	170.9	159.2	154.5	152.1	154.5	163.8
77.5°	158.0	146.3	132.2	120.5	111.2	107.7	115.9
80°	140.4	126.4	110.0	94.8	79.6	71.4	74.9
82.5°	126.4	108.8	91.3	73.7	56.2	44.5	44.5
85°	111.2	94.8	76.1	57.3	39.8	24.6	22.2
87.5°	100.6	83.1	63.2	45.6	28.1	12.9	7.0
90°	90.1	72.6	53.8	36.3	19.9	5.9	0.0
92.5°	80.7	64.4	46.8	29.3	14.0	3.5	0.0
95°	72.6	57.3	39.8	24.6	11.7	2.3	1.2
97.5°	64.4	50.3	35.1	19.9	8.2	2.3	1.2
100°	58.5	44.5	30.4	16.4	7.0	1.2	1.2
102.5°	51.5	39.8	25.7	14.0	5.9	1.2	1.2
105°	45.6	35.1	22.2	11.7	4.7	1.2	1.2
107.5°	41.0	30.4	19.9	10.5	4.7	1.2	1.2
110°	36.3	26.9	17.6	9.4	3.5	1.2	1.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.8	23.4	15.2	8.2	2.3	1.2	1.2
115°	28.1	21.1	12.9	7.0	2.3	1.2	1.2
117.5°	24.6	17.6	11.7	5.9	2.3	1.2	1.2
120°	21.1	15.2	9.4	4.7	1.2	1.2	1.2
122.5°	18.7	12.9	8.2	4.7	1.2	1.2	1.2
125°	16.4	11.7	7.0	3.5	1.2	1.2	1.2
127.5°	14.0	9.4	5.9	2.3	1.2	1.2	1.2
130°	11.7	8.2	4.7	2.3	1.2	1.2	1.2
132.5°	9.4	7.0	4.7	2.3	1.2	1.2	1.2
135°	8.2	5.9	3.5	2.3	1.2	1.2	1.2
137.5°	7.0	4.7	2.3	2.3	2.3	1.2	1.2
140°	5.9	3.5	2.3	2.3	2.3	2.3	1.2
142.5°	4.7	3.5	2.3	2.3	2.3	2.3	1.2
145°	3.5	2.3	2.3	2.3	2.3	2.3	1.2
147.5°	3.5	2.3	2.3	2.3	2.3	2.3	1.2
150°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)