

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-LD5-64HL-LC-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 (P33518)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

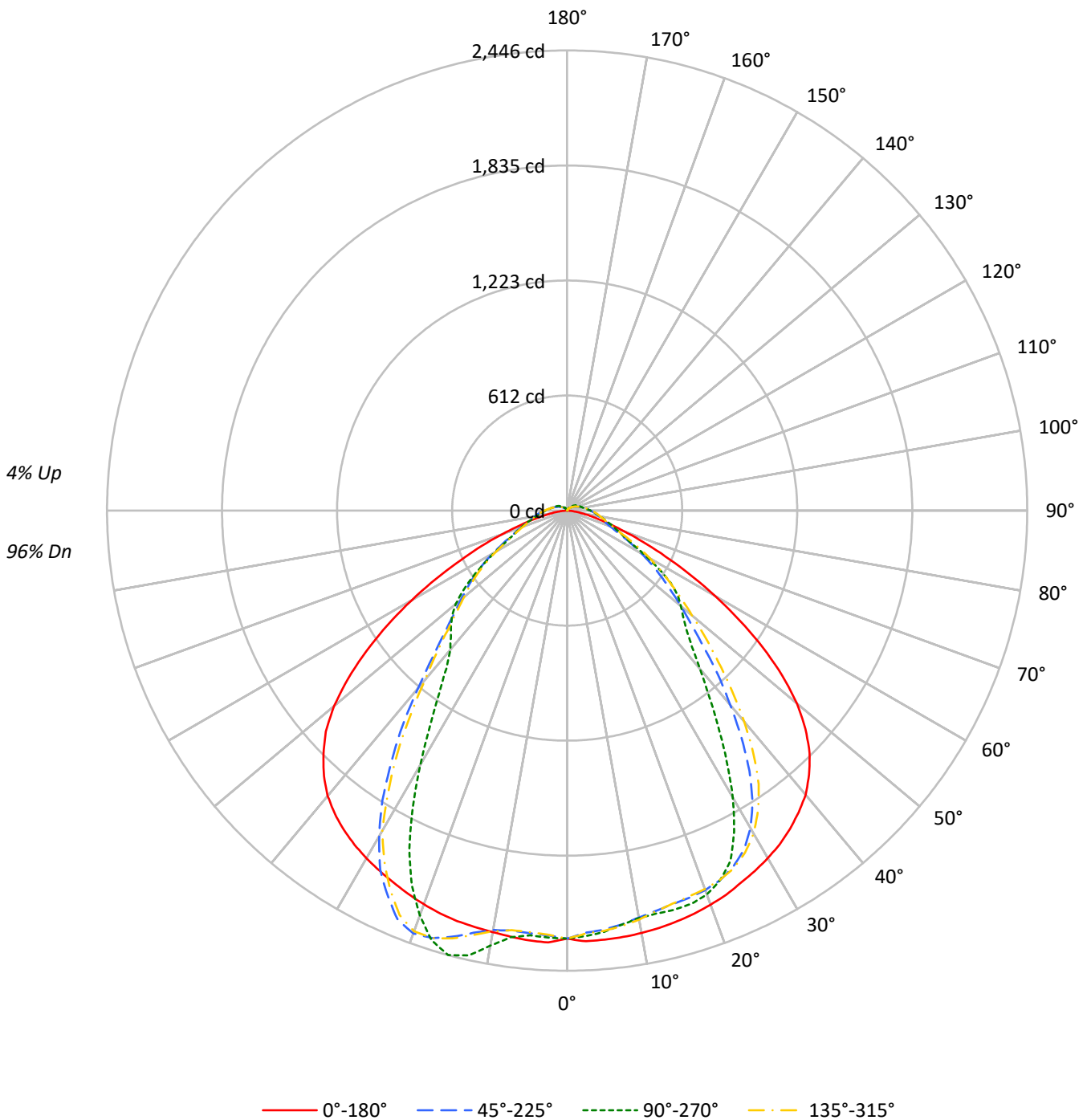
Lumens per Lamp: N/A
Luminaire Lumens: 5424.1 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-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°	18386	18386	18386	18386
5°	18520	17657	18558	17795
10°	18606	16923	18567	18072
15°	18750	16697	18740	18590
20°	18956	16432	18936	17321
25°	19190	15588	19180	15063
30°	19551	13511	19562	11969
35°	19934	10925	19990	9245
40°	20271	8796	20355	7749
45°	20200	7451	20304	7256
50°	19330	6859	19600	6707
55°	17150	6165	17577	5605
60°	13911	4719	14650	4328
65°	10340	3610	11141	3424
70°	7033	3117	7927	2980
75°	4600	2812	5357	2659
80°	2973	2622	3483	2412
85°	1523	2617	2009	2389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.1	4.0
10°-20°	643.0	11.9
20°-30°	977.6	18.0
30°-40°	1048.7	19.3
40°-50°	910.2	16.8
50°-60°	674.5	12.4
60°-70°	386.5	7.1
70°-80°	214.0	3.9
80°-90°	130.3	2.4
90°-100°	84.7	1.6
100°-110°	56.8	1.0
110°-120°	38.3	0.7
120°-130°	23.5	0.4
130°-140°	12.4	0.2
140°-150°	5.6	0.1
150°-160°	1.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1836.7	33.9
0°-40°	2885.5	53.2
0°-60°	4470.2	82.4
0°-90°	5201.0	95.9
90°-120°	179.8	3.3
90°-150°	221.4	4.1
90°-180°	223.0	4.1
0°-180°	5424.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2275	2275	2275	2275	2275	
5°	2289	2248	2294	2266	2289	218
15°	2260	2196	2259	2446	2260	639
25°	2184	2054	2182	1985	2184	1009
35°	2065	1398	2071	1183	2065	1292
45°	1823	897	1832	873	1823	1396
55°	1272	672	1303	611	1272	1128
65°	577	341	622	323	577	582
75°	164	216	192	204	164	188
85°	22	149	29	136	22	29
90°	0	125	2	115	0	1
95°	1	102	0	98	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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2291.7	2285.8	2283.5	2278.8	2282.3	2296.4	2287.0	2271.7	2272.9	2245.8	2260.0
5°	2289.3	2282.3	2278.8	2274.1	2276.4	2289.3	2279.9	2264.7	2263.5	2236.4	2249.4
7.5°	2285.8	2278.8	2272.9	2269.4	2270.5	2281.1	2269.4	2251.7	2248.2	2218.8	2230.6
10°	2279.9	2275.2	2267.0	2261.1	2260.0	2271.7	2252.9	2235.3	2227.0	2196.5	2208.2
12.5°	2271.7	2264.7	2256.4	2245.8	2244.7	2251.7	2236.4	2211.8	2203.5	2178.9	2191.8
15°	2260.0	2251.7	2242.3	2230.6	2224.7	2229.4	2210.6	2188.3	2187.1	2165.9	2183.6
17.5°	2247.0	2235.3	2224.7	2208.2	2200.0	2203.5	2188.3	2168.3	2170.6	2157.7	2177.7
20°	2229.4	2216.5	2200.0	2183.6	2171.8	2177.7	2167.1	2151.8	2155.4	2146.0	2163.6
22.5°	2209.4	2191.8	2171.8	2153.0	2143.6	2151.8	2143.6	2130.7	2131.9	2126.0	2136.6
25°	2183.6	2163.6	2140.1	2116.6	2111.9	2117.8	2113.0	2102.5	2097.8	2088.4	2093.1
27.5°	2160.1	2137.7	2108.3	2083.7	2075.4	2087.2	2076.6	2059.0	2046.1	2033.1	2023.7
30°	2133.0	2106.0	2073.1	2044.9	2037.8	2042.5	2027.3	2000.2	1966.1	1949.7	1923.8
32.5°	2103.6	2068.4	2027.3	1995.5	1990.8	1987.3	1959.1	1920.3	1867.4	1834.5	1794.6
35°	2064.9	2026.1	1976.7	1937.9	1930.9	1910.9	1865.1	1813.4	1745.2	1688.8	1620.6
37.5°	2021.4	1975.5	1923.8	1872.1	1852.2	1812.2	1747.6	1693.5	1590.1	1521.9	1439.6
40°	1972.0	1916.8	1853.3	1791.0	1758.1	1693.5	1619.5	1539.5	1439.6	1348.0	1278.6
42.5°	1903.9	1845.1	1769.9	1700.5	1644.1	1558.3	1471.4	1358.6	1266.9	1189.3	1118.8
45°	1822.8	1752.3	1665.3	1581.8	1510.2	1407.9	1305.7	1192.9	1116.5	1026.0	977.8
47.5°	1718.2	1641.8	1548.9	1456.1	1362.1	1249.3	1142.3	1034.2	957.8	893.2	857.9
50°	1594.8	1524.3	1422.0	1311.5	1208.1	1090.6	983.7	902.6	828.5	788.6	761.5
52.5°	1442.0	1376.2	1271.6	1151.7	1051.8	936.7	839.1	773.3	720.4	691.0	681.6
55°	1271.6	1214.0	1110.6	998.9	896.7	790.9	716.9	659.3	625.2	607.6	608.8
57.5°	1089.4	1044.8	947.2	847.3	751.0	671.1	604.1	558.2	532.4	531.2	534.7
60°	907.3	874.4	789.7	704.0	619.3	554.7	505.3	473.6	457.2	458.3	457.2
62.5°	733.3	702.8	641.7	571.2	504.2	460.7	416.0	403.1	389.0	387.8	387.8
65°	577.0	553.5	504.2	453.6	403.1	374.9	352.6	337.3	326.7	324.4	325.5
67.5°	433.7	424.3	390.2	356.1	324.4	306.7	287.9	284.4	276.2	276.2	278.5
70°	323.2	316.1	297.3	277.4	264.4	252.7	243.3	243.3	242.1	240.9	246.8
72.5°	233.9	235.0	229.2	213.9	212.7	210.4	208.0	211.5	212.7	216.2	223.3
75°	164.5	168.1	168.1	165.7	170.4	176.3	179.8	185.7	192.7	197.4	205.7
77.5°	116.3	116.3	122.2	129.3	138.7	149.3	158.7	166.9	176.3	182.2	189.2
80°	75.2	78.7	88.1	101.1	114.0	128.1	141.0	151.6	161.0	170.4	175.1
82.5°	44.7	50.5	62.3	78.7	95.2	112.8	125.7	138.7	149.3	158.7	162.2
85°	22.3	30.6	44.7	62.3	79.9	98.7	115.2	126.9	138.7	146.9	151.6
87.5°	7.1	16.5	31.7	48.2	67.0	85.8	103.4	116.3	126.9	134.0	138.7
90°	0.0	8.2	22.3	40.0	57.6	76.4	92.8	106.9	117.5	123.4	126.9
92.5°	0.0	4.7	17.6	32.9	49.4	68.2	84.6	97.5	106.9	112.8	115.2
95°	1.2	3.5	12.9	27.0	43.5	61.1	76.4	88.1	97.5	103.4	104.6
97.5°	1.2	2.4	10.6	22.3	37.6	54.1	69.3	81.1	88.1	94.0	95.2
100°	1.2	2.4	8.2	20.0	32.9	48.2	62.3	72.9	81.1	85.8	87.0
102.5°	1.2	1.2	7.1	16.5	29.4	42.3	55.2	65.8	72.9	77.6	79.9
105°	1.2	1.2	5.9	14.1	25.9	37.6	49.4	59.9	65.8	70.5	72.9
107.5°	1.2	1.2	4.7	11.8	22.3	32.9	44.7	52.9	59.9	64.6	67.0
110°	1.2	1.2	3.5	10.6	18.8	29.4	38.8	47.0	54.1	58.8	61.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	1.2	3.5	9.4	16.5	25.9	34.1	42.3	48.2	52.9	56.4
115°	1.2	1.2	3.5	8.2	15.3	22.3	30.6	37.6	43.5	48.2	51.7
117.5°	1.2	1.2	3.5	7.1	12.9	20.0	27.0	34.1	38.8	43.5	47.0
120°	1.2	1.2	2.4	5.9	11.8	17.6	23.5	29.4	35.3	40.0	43.5
122.5°	1.2	1.2	2.4	5.9	9.4	15.3	21.2	25.9	31.7	35.3	38.8
125°	1.2	1.2	2.4	4.7	8.2	14.1	18.8	23.5	27.0	31.7	35.3
127.5°	1.2	1.2	2.4	4.7	7.1	11.8	16.5	21.2	24.7	28.2	30.6
130°	1.2	1.2	2.4	3.5	5.9	9.4	14.1	17.6	22.3	24.7	27.0
132.5°	1.2	1.2	1.2	3.5	4.7	7.1	10.6	15.3	18.8	22.3	23.5
135°	1.2	1.2	1.2	2.4	4.7	5.9	8.2	11.8	15.3	18.8	21.2
137.5°	1.2	1.2	1.2	2.4	3.5	5.9	7.1	9.4	12.9	15.3	18.8
140°	1.2	1.2	1.2	2.4	3.5	4.7	5.9	8.2	10.6	12.9	15.3
142.5°	1.2	1.2	1.2	2.4	2.4	3.5	4.7	7.1	8.2	10.6	12.9
145°	1.2	1.2	1.2	2.4	2.4	3.5	4.7	5.9	7.1	8.2	10.6
147.5°	1.2	1.2	1.2	2.4	2.4	2.4	3.5	4.7	5.9	7.1	8.2
150°	2.4	2.4	2.4	2.4	2.4	2.4	3.5	3.5	4.7	5.9	7.1
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	3.5	3.5	3.5	4.7	5.9
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	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°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2255.3	2257.6	2271.7	2270.5	2268.2	2265.8	2265.8	2263.5	2265.8	2271.7	2269.4
5°	2243.5	2247.0	2257.6	2256.4	2254.1	2252.9	2251.7	2248.2	2250.6	2258.8	2256.4
7.5°	2222.3	2225.9	2235.3	2230.6	2227.0	2229.4	2223.5	2220.0	2224.7	2232.9	2231.7
10°	2200.0	2202.4	2214.1	2211.8	2205.9	2207.1	2201.2	2198.8	2204.7	2209.4	2210.6
12.5°	2184.7	2193.0	2203.5	2202.4	2201.2	2202.4	2196.5	2194.1	2197.7	2202.4	2201.2
15°	2181.2	2191.8	2203.5	2203.5	2204.7	2205.9	2200.0	2196.5	2200.0	2203.5	2202.4
17.5°	2177.7	2190.6	2201.2	2200.0	2201.2	2203.5	2194.1	2191.8	2196.5	2201.2	2198.8
20°	2165.9	2177.7	2184.7	2182.4	2182.4	2183.6	2171.8	2171.8	2178.9	2182.4	2183.6
22.5°	2133.0	2147.1	2147.1	2141.3	2141.3	2136.6	2133.0	2126.0	2134.2	2140.1	2144.8
25°	2083.7	2089.5	2082.5	2069.6	2062.5	2056.6	2040.2	2054.3	2054.3	2071.9	2077.8
27.5°	2014.3	2001.4	1981.4	1954.4	1948.5	1929.7	1919.1	1922.7	1928.5	1953.2	1972.0
30°	1900.3	1861.6	1827.5	1815.7	1789.9	1771.1	1752.3	1761.7	1772.2	1786.3	1825.1
32.5°	1749.9	1712.3	1657.1	1637.1	1610.1	1586.6	1564.2	1578.3	1597.1	1606.5	1648.8
35°	1577.1	1532.5	1482.0	1447.9	1419.7	1406.7	1378.5	1398.5	1418.5	1425.5	1462.0
37.5°	1393.8	1348.0	1303.3	1273.9	1246.9	1238.7	1219.9	1234.0	1249.3	1259.8	1290.4
40°	1219.9	1177.6	1143.5	1123.5	1104.7	1097.7	1090.6	1096.5	1108.2	1116.5	1140.0
42.5°	1070.6	1036.5	1013.0	1001.3	988.4	979.0	980.1	982.5	988.4	1006.0	1016.6
45°	940.2	920.2	904.9	902.6	894.3	893.2	892.0	896.7	900.2	910.8	919.0
47.5°	835.6	827.4	823.8	828.5	832.1	827.4	829.7	835.6	842.6	842.6	841.5
50°	753.3	755.7	760.4	770.9	778.0	780.3	782.7	789.7	790.9	793.3	789.7
52.5°	686.3	688.7	701.6	718.1	726.3	729.8	734.5	741.6	741.6	743.9	739.2
55°	618.2	621.7	634.6	651.1	658.1	662.8	667.5	672.2	675.8	680.5	676.9
57.5°	543.0	553.5	561.8	566.5	571.2	574.7	578.2	579.4	586.4	587.6	593.5
60°	463.0	465.4	473.6	472.4	468.9	478.3	473.6	481.8	490.1	500.6	501.8
62.5°	386.6	387.8	393.7	391.3	396.0	394.9	398.4	398.4	404.3	409.0	414.9
65°	326.7	327.9	332.6	332.6	331.4	334.9	338.5	340.8	340.8	344.3	349.0
67.5°	282.1	285.6	290.3	292.6	295.0	295.0	298.5	299.7	302.0	303.2	305.6
70°	251.5	256.2	260.9	263.2	264.4	266.8	268.0	268.0	270.3	271.5	273.8
72.5°	229.2	233.9	237.4	237.4	239.7	240.9	240.9	242.1	243.3	245.6	248.0
75°	210.4	213.9	216.2	215.1	215.1	215.1	216.2	216.2	218.6	220.9	223.3
77.5°	192.7	196.3	196.3	193.9	193.9	193.9	193.9	195.1	196.3	198.6	201.0
80°	179.8	179.8	178.6	178.6	176.3	175.1	175.1	176.3	176.3	178.6	182.2
82.5°	165.7	165.7	164.5	163.4	162.2	161.0	161.0	162.2	163.4	164.5	166.9
85°	152.8	152.8	150.4	150.4	149.3	149.3	149.3	149.3	150.4	151.6	154.0
87.5°	139.9	138.7	137.5	136.3	136.3	136.3	136.3	136.3	137.5	139.9	141.0
90°	126.9	125.7	124.6	124.6	123.4	123.4	124.6	124.6	125.7	126.9	128.1
92.5°	115.2	114.0	112.8	112.8	111.6	111.6	112.8	111.6	114.0	114.0	115.2
95°	104.6	103.4	102.2	102.2	102.2	102.2	102.2	102.2	103.4	103.4	104.6
97.5°	95.2	94.0	92.8	92.8	94.0	92.8	94.0	94.0	94.0	95.2	96.4
100°	87.0	85.8	85.8	87.0	85.8	85.8	87.0	87.0	87.0	87.0	88.1
102.5°	79.9	79.9	79.9	79.9	79.9	79.9	81.1	81.1	81.1	81.1	82.3
105°	72.9	74.0	74.0	74.0	75.2	75.2	75.2	76.4	76.4	76.4	76.4
107.5°	68.2	69.3	69.3	70.5	70.5	71.7	71.7	71.7	71.7	72.9	72.9
110°	63.5	64.6	65.8	67.0	67.0	68.2	68.2	68.2	68.2	68.2	68.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	58.8	59.9	61.1	63.5	64.6	64.6	64.6	64.6	65.8	65.8	64.6
115°	54.1	56.4	57.6	59.9	61.1	61.1	62.3	62.3	62.3	62.3	61.1
117.5°	49.4	52.9	54.1	56.4	57.6	57.6	58.8	58.8	58.8	58.8	57.6
120°	45.8	48.2	50.5	51.7	52.9	54.1	54.1	55.2	55.2	55.2	54.1
122.5°	42.3	44.7	47.0	48.2	49.4	50.5	50.5	50.5	50.5	50.5	50.5
125°	37.6	40.0	42.3	43.5	44.7	45.8	45.8	47.0	47.0	47.0	45.8
127.5°	34.1	36.4	37.6	40.0	41.1	41.1	42.3	42.3	42.3	42.3	41.1
130°	29.4	31.7	34.1	35.3	36.4	36.4	37.6	37.6	37.6	37.6	37.6
132.5°	25.9	28.2	29.4	31.7	31.7	32.9	32.9	34.1	34.1	34.1	32.9
135°	23.5	24.7	25.9	28.2	28.2	29.4	29.4	29.4	29.4	29.4	29.4
137.5°	21.2	22.3	23.5	24.7	24.7	25.9	25.9	25.9	25.9	27.0	25.9
140°	17.6	20.0	21.2	21.2	22.3	22.3	22.3	23.5	23.5	23.5	22.3
142.5°	15.3	16.5	17.6	18.8	20.0	20.0	20.0	20.0	21.2	20.0	20.0
145°	11.8	14.1	15.3	16.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6
147.5°	9.4	10.6	12.9	14.1	14.1	15.3	15.3	15.3	15.3	15.3	15.3
150°	8.2	8.2	10.6	11.8	12.9	12.9	12.9	12.9	12.9	12.9	12.9
152.5°	5.9	7.1	8.2	9.4	10.6	10.6	10.6	10.6	10.6	10.6	10.6
155°	5.9	5.9	7.1	7.1	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-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2265.8	2264.7	2269.4	2264.7	2241.1	2250.6	2247.0	2260.0	2261.1	2264.7	2276.4
5°	2254.1	2254.1	2260.0	2255.3	2232.9	2242.3	2241.1	2254.1	2256.4	2258.8	2271.7
7.5°	2230.6	2231.7	2240.0	2236.4	2212.9	2227.0	2225.9	2241.1	2245.8	2250.6	2262.3
10°	2208.2	2207.1	2216.5	2212.9	2190.6	2207.1	2205.9	2221.2	2228.2	2236.4	2250.6
12.5°	2196.5	2193.0	2196.5	2193.0	2168.3	2181.2	2182.4	2200.0	2208.2	2218.8	2235.3
15°	2196.5	2190.6	2190.6	2183.6	2155.4	2163.6	2164.8	2176.5	2187.1	2197.7	2217.6
17.5°	2194.1	2188.3	2187.1	2181.2	2150.7	2150.7	2149.5	2157.7	2163.6	2174.2	2195.3
20°	2181.2	2178.9	2177.7	2174.2	2146.0	2141.3	2138.9	2138.9	2142.4	2146.0	2167.1
22.5°	2147.1	2149.5	2151.8	2154.2	2131.9	2123.6	2124.8	2122.5	2118.9	2118.9	2136.6
25°	2083.7	2095.4	2104.8	2115.4	2102.5	2096.6	2103.6	2100.1	2094.2	2089.5	2104.8
27.5°	1982.6	2007.3	2027.3	2053.1	2054.3	2049.6	2068.4	2066.0	2064.9	2057.8	2069.6
30°	1842.7	1881.5	1908.6	1946.2	1977.9	1982.6	2014.3	2019.0	2023.7	2020.2	2032.0
32.5°	1673.5	1726.4	1772.2	1831.0	1861.6	1888.6	1933.2	1952.0	1970.8	1976.7	1989.7
35°	1489.0	1548.9	1603.0	1667.6	1715.8	1774.6	1828.6	1856.9	1899.2	1915.6	1934.4
37.5°	1313.9	1370.3	1423.2	1487.8	1565.4	1626.5	1693.5	1757.0	1814.5	1838.0	1866.3
40°	1158.8	1204.6	1255.1	1311.5	1382.1	1462.0	1534.8	1623.0	1691.1	1738.2	1779.3
42.5°	1041.2	1063.6	1107.1	1157.6	1214.0	1295.1	1369.1	1467.9	1550.1	1617.1	1685.3
45°	936.7	947.2	979.0	1006.0	1063.6	1135.3	1214.0	1310.4	1396.2	1482.0	1564.2
47.5°	847.3	860.3	875.5	892.0	933.1	993.1	1061.2	1148.2	1234.0	1333.9	1427.9
50°	787.4	790.9	793.3	800.3	825.0	866.1	921.4	995.4	1077.7	1184.6	1284.5
52.5°	734.5	734.5	727.5	723.9	733.3	759.2	790.9	843.8	928.4	1027.1	1132.9
55°	678.1	667.5	665.2	653.4	655.8	667.5	682.8	723.9	793.3	877.9	980.1
57.5°	599.4	594.7	594.7	590.0	580.6	586.4	590.0	619.3	668.7	741.6	830.9
60°	508.9	506.5	512.4	513.6	505.3	508.9	507.7	525.3	560.6	619.3	693.4
62.5°	418.4	429.0	430.1	434.8	430.1	429.0	434.8	450.1	467.7	512.4	570.0
65°	351.4	357.3	358.4	364.3	362.0	362.0	366.7	378.4	389.0	419.6	464.2
67.5°	307.9	305.6	306.7	310.3	306.7	305.6	309.1	316.1	324.4	343.2	374.9
70°	273.8	271.5	271.5	271.5	266.8	263.2	264.4	266.8	270.3	280.9	300.9
72.5°	248.0	248.0	244.4	240.9	237.4	235.0	232.7	230.3	229.2	232.7	243.3
75°	224.5	225.6	224.5	220.9	216.2	211.5	206.8	202.1	196.3	193.9	195.1
77.5°	203.3	204.5	205.7	204.5	199.8	193.9	186.9	179.8	171.6	163.4	158.7
80°	184.5	186.9	188.0	186.9	183.3	178.6	170.4	162.2	150.4	139.9	128.1
82.5°	168.1	171.6	172.8	172.8	170.4	165.7	156.3	146.9	134.0	119.9	104.6
85°	155.1	157.5	159.8	159.8	158.7	154.0	144.6	134.0	121.0	104.6	88.1
87.5°	142.2	143.4	145.7	148.1	145.7	141.0	132.8	121.0	108.1	91.7	72.9
90°	129.3	130.4	132.8	135.2	134.0	129.3	122.2	111.6	97.5	79.9	61.1
92.5°	116.3	118.7	119.9	121.0	122.2	118.7	112.8	102.2	88.1	70.5	52.9
95°	106.9	106.9	109.3	110.5	111.6	108.1	103.4	92.8	79.9	63.5	45.8
97.5°	97.5	97.5	99.9	99.9	101.1	98.7	94.0	84.6	71.7	56.4	38.8
100°	88.1	89.3	90.5	91.7	91.7	90.5	85.8	76.4	64.6	50.5	34.1
102.5°	82.3	82.3	83.4	83.4	84.6	82.3	77.6	69.3	57.6	44.7	29.4
105°	76.4	76.4	77.6	77.6	76.4	74.0	69.3	62.3	51.7	38.8	25.9
107.5°	71.7	71.7	71.7	71.7	70.5	68.2	63.5	55.2	45.8	35.3	23.5
110°	68.2	67.0	67.0	65.8	64.6	61.1	56.4	49.4	41.1	30.6	20.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	64.6	63.5	62.3	61.1	58.8	55.2	50.5	44.7	36.4	27.0	17.6
115°	61.1	59.9	58.8	56.4	54.1	50.5	45.8	40.0	31.7	23.5	15.3
117.5°	57.6	56.4	54.1	51.7	49.4	45.8	41.1	35.3	28.2	21.2	14.1
120°	52.9	51.7	50.5	48.2	45.8	41.1	36.4	31.7	24.7	18.8	11.8
122.5°	49.4	48.2	45.8	44.7	41.1	37.6	32.9	28.2	22.3	16.5	10.6
125°	44.7	43.5	42.3	40.0	37.6	32.9	29.4	24.7	20.0	14.1	8.2
127.5°	41.1	40.0	37.6	35.3	32.9	29.4	25.9	22.3	17.6	11.8	8.2
130°	36.4	35.3	34.1	31.7	29.4	25.9	23.5	18.8	15.3	10.6	7.1
132.5°	31.7	31.7	30.6	28.2	25.9	23.5	20.0	16.5	12.9	9.4	5.9
135°	29.4	28.2	27.0	24.7	23.5	20.0	17.6	14.1	10.6	8.2	4.7
137.5°	25.9	24.7	23.5	22.3	20.0	17.6	15.3	11.8	9.4	7.1	4.7
140°	22.3	21.2	21.2	18.8	17.6	15.3	12.9	10.6	8.2	5.9	3.5
142.5°	20.0	18.8	17.6	16.5	15.3	12.9	10.6	8.2	7.1	4.7	3.5
145°	17.6	16.5	15.3	14.1	12.9	10.6	9.4	7.1	5.9	4.7	3.5
147.5°	14.1	14.1	12.9	11.8	10.6	9.4	8.2	7.1	4.7	3.5	2.4
150°	11.8	11.8	10.6	9.4	9.4	8.2	7.1	5.9	4.7	3.5	2.4
152.5°	10.6	9.4	9.4	8.2	8.2	7.1	5.9	4.7	3.5	3.5	2.4
155°	8.2	8.2	8.2	7.1	7.1	5.9	4.7	4.7	3.5	2.4	2.4
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-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2278.8	2264.7	2276.4	2297.6	2295.2	2292.9	2290.5	2295.2	2310.5	2302.3	2289.3
5°	2275.2	2261.1	2274.1	2294.0	2292.9	2289.3	2287.0	2291.7	2307.0	2298.7	2284.6
7.5°	2268.2	2255.3	2264.7	2284.6	2284.6	2282.3	2279.9	2284.6	2298.7	2291.7	2277.6
10°	2256.4	2247.0	2256.4	2275.2	2276.4	2271.7	2269.4	2275.2	2289.3	2285.8	2274.1
12.5°	2247.0	2237.6	2248.2	2267.0	2268.2	2263.5	2260.0	2267.0	2285.8	2288.2	2284.6
15°	2234.1	2225.9	2238.8	2258.8	2258.8	2255.3	2255.3	2264.7	2290.5	2301.1	2307.0
17.5°	2215.3	2209.4	2224.7	2244.7	2245.8	2243.5	2244.7	2263.5	2297.6	2323.4	2339.9
20°	2191.8	2189.4	2205.9	2227.0	2230.6	2231.7	2237.6	2265.8	2312.8	2348.1	2364.5
22.5°	2163.6	2164.8	2183.6	2205.9	2210.6	2214.1	2225.9	2265.8	2324.6	2362.2	2369.2
25°	2131.9	2135.4	2155.4	2182.4	2188.3	2195.3	2215.3	2267.0	2328.1	2352.8	2341.0
27.5°	2097.8	2104.8	2130.7	2158.9	2165.9	2177.7	2203.5	2260.0	2311.7	2312.8	2269.4
30°	2062.5	2070.7	2101.3	2134.2	2146.0	2157.7	2189.4	2243.5	2271.7	2234.1	2157.7
32.5°	2022.6	2034.3	2064.9	2104.8	2118.9	2134.2	2165.9	2211.8	2201.2	2120.1	2010.8
35°	1972.0	1988.5	2023.7	2070.7	2083.7	2103.6	2126.0	2136.6	2089.5	1974.4	1851.0
37.5°	1909.7	1934.4	1975.5	2029.6	2043.7	2056.6	2062.5	2033.1	1939.1	1814.5	1686.4
40°	1838.0	1875.7	1920.3	1980.2	1994.4	1994.4	1973.2	1910.9	1792.2	1628.9	1486.7
42.5°	1751.1	1796.9	1853.3	1913.3	1927.4	1910.9	1860.4	1751.1	1615.9	1433.8	1283.3
45°	1645.3	1706.4	1769.9	1832.2	1839.2	1802.8	1712.3	1573.6	1406.7	1237.5	1094.1
47.5°	1519.6	1599.5	1668.8	1739.3	1729.9	1668.8	1547.8	1390.3	1214.0	1054.2	939.0
50°	1378.5	1472.6	1550.1	1617.1	1597.1	1512.5	1370.3	1205.8	1030.7	894.3	799.2
52.5°	1228.1	1336.2	1413.8	1467.9	1440.8	1339.8	1183.4	1026.0	882.6	758.0	694.6
55°	1071.8	1181.1	1261.0	1303.3	1268.1	1158.8	1004.8	861.4	726.3	645.2	607.6
57.5°	920.2	1022.4	1097.7	1131.7	1087.1	977.8	835.6	714.5	617.0	548.8	530.0
60°	774.5	857.9	929.6	955.5	907.3	806.2	684.0	587.6	515.9	468.9	459.5
62.5°	639.3	707.5	763.9	783.9	736.9	658.1	552.4	480.7	430.1	406.6	394.9
65°	527.7	567.6	625.2	621.7	593.5	520.6	443.1	392.5	359.6	344.3	337.3
67.5°	414.9	451.3	487.7	492.4	457.2	406.6	356.1	319.7	302.0	293.8	290.3
70°	320.8	347.9	370.2	364.3	345.5	313.8	282.1	262.1	255.0	251.5	251.5
72.5°	249.1	263.2	273.8	266.8	255.0	238.6	223.3	215.1	216.2	218.6	220.9
75°	192.7	196.3	198.6	191.6	189.2	178.6	177.5	178.6	185.7	192.7	196.3
77.5°	148.1	143.4	139.9	132.8	134.0	132.8	138.7	148.1	158.7	169.2	178.6
80°	114.0	103.4	95.2	88.1	91.7	97.5	109.3	123.4	137.5	149.3	161.0
82.5°	88.1	72.9	61.1	54.1	61.1	70.5	85.8	103.4	119.9	132.8	145.7
85°	68.2	50.5	36.4	29.4	36.4	50.5	67.0	87.0	104.6	118.7	131.6
87.5°	52.9	36.4	20.0	11.8	20.0	35.3	54.1	72.9	90.5	106.9	119.9
90°	42.3	24.7	9.4	2.4	10.6	24.7	42.3	61.1	78.7	96.4	109.3
92.5°	34.1	17.6	4.7	0.0	5.9	18.8	35.3	52.9	70.5	87.0	99.9
95°	28.2	14.1	3.5	0.0	4.7	14.1	28.2	45.8	62.3	78.7	89.3
97.5°	23.5	10.6	2.4	0.0	2.4	11.8	23.5	38.8	55.2	70.5	81.1
100°	20.0	9.4	2.4	0.0	2.4	9.4	20.0	34.1	48.2	62.3	72.9
102.5°	16.5	7.1	1.2	1.2	1.2	7.1	17.6	29.4	42.3	55.2	65.8
105°	15.3	5.9	1.2	1.2	1.2	5.9	15.3	25.9	37.6	49.4	58.8
107.5°	12.9	4.7	1.2	1.2	1.2	4.7	12.9	22.3	34.1	44.7	52.9
110°	10.6	4.7	1.2	1.2	1.2	4.7	10.6	20.0	29.4	38.8	47.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-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	25.9	35.3	42.3
115°	8.2	3.5	1.2	1.2	1.2	3.5	8.2	15.3	22.3	30.6	37.6
117.5°	7.1	3.5	1.2	1.2	1.2	2.4	7.1	12.9	20.0	27.0	34.1
120°	5.9	2.4	1.2	1.2	1.2	2.4	5.9	11.8	17.6	23.5	29.4
122.5°	5.9	2.4	1.2	1.2	1.2	2.4	4.7	9.4	15.3	20.0	25.9
125°	4.7	2.4	1.2	1.2	1.2	1.2	4.7	8.2	12.9	17.6	22.3
127.5°	4.7	2.4	1.2	1.2	1.2	1.2	3.5	7.1	10.6	15.3	20.0
130°	3.5	2.4	1.2	1.2	1.2	1.2	2.4	5.9	9.4	12.9	16.5
132.5°	3.5	2.4	1.2	1.2	1.2	1.2	2.4	4.7	7.1	10.6	14.1
135°	3.5	1.2	1.2	1.2	1.2	1.2	1.2	3.5	5.9	8.2	10.6
137.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	4.7	5.9	9.4
140°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.5	4.7	7.1
142.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.5	5.9
145°	2.4	1.2	1.2	2.4	2.4	1.2	1.2	2.4	2.4	3.5	4.7
147.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	3.5
150°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.5
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2287.0	2260.0	2274.1	2269.4	2274.1	2285.8	2284.6	2281.1	2283.5	2277.6	2271.7
5°	2282.3	2255.3	2269.4	2263.5	2269.4	2281.1	2278.8	2275.2	2278.8	2271.7	2265.8
7.5°	2276.4	2251.7	2268.2	2267.0	2277.6	2292.9	2294.0	2294.0	2302.3	2291.7	2287.0
10°	2276.4	2263.5	2285.8	2294.0	2321.1	2341.0	2343.4	2348.1	2362.2	2359.8	2348.1
12.5°	2301.1	2298.7	2331.6	2351.6	2376.3	2404.5	2419.8	2424.5	2433.9	2426.8	2422.1
15°	2332.8	2344.6	2381.0	2403.3	2430.4	2451.5	2455.0	2457.4	2464.4	2453.9	2445.6
17.5°	2375.1	2382.2	2411.6	2421.0	2438.6	2442.1	2437.4	2425.7	2425.7	2402.2	2395.1
20°	2395.1	2391.6	2403.3	2388.1	2381.0	2359.8	2339.9	2317.5	2316.4	2291.7	2289.3
22.5°	2377.5	2354.0	2329.3	2291.7	2275.2	2244.7	2217.6	2204.7	2196.5	2164.8	2156.5
25°	2315.2	2257.6	2221.2	2176.5	2136.6	2101.3	2075.4	2048.4	2022.6	1996.7	1985.0
27.5°	2207.1	2153.0	2094.2	2032.0	1976.7	1922.7	1879.2	1852.2	1827.5	1793.4	1775.8
30°	2074.3	1999.1	1934.4	1874.5	1784.0	1718.2	1681.7	1627.7	1608.9	1593.6	1560.7
32.5°	1918.0	1827.5	1739.3	1658.2	1565.4	1504.3	1456.1	1416.1	1404.4	1364.4	1355.0
35°	1745.2	1626.5	1526.6	1446.7	1379.7	1305.7	1265.7	1238.7	1215.2	1188.1	1183.4
37.5°	1541.9	1434.9	1322.1	1251.6	1198.7	1135.3	1104.7	1085.9	1075.3	1055.3	1051.8
40°	1337.4	1230.5	1152.9	1082.4	1049.5	1015.4	993.1	984.8	980.1	973.1	966.0
42.5°	1151.7	1057.7	1002.5	955.5	941.4	924.9	919.0	923.7	919.0	916.7	915.5
45°	994.2	922.5	883.8	869.7	866.1	861.4	866.1	874.4	875.5	873.2	873.2
47.5°	850.9	816.8	800.3	802.7	808.6	812.1	820.3	830.9	833.2	827.4	829.7
50°	756.8	736.9	733.3	742.7	755.7	760.4	769.8	778.0	776.8	774.5	772.1
52.5°	668.7	662.8	672.2	681.6	695.7	698.1	701.6	705.1	704.0	699.3	696.9
55°	594.7	599.4	607.6	611.1	621.7	620.5	621.7	621.7	617.0	614.6	611.1
57.5°	527.7	528.9	533.6	534.7	540.6	538.3	537.1	534.7	527.7	526.5	523.0
60°	459.5	457.2	467.7	459.5	464.2	459.5	458.3	452.5	445.4	444.2	441.9
62.5°	394.9	390.2	397.2	393.7	396.0	391.3	389.0	381.9	376.1	374.9	373.7
65°	337.3	334.9	342.0	340.8	343.2	337.3	334.9	330.2	325.5	324.4	323.2
67.5°	289.1	295.0	298.5	298.5	300.9	299.7	293.8	292.6	291.5	286.8	286.8
70°	253.8	257.4	264.4	265.6	264.4	266.8	262.1	260.9	259.7	257.4	256.2
72.5°	225.6	230.3	237.4	238.6	237.4	237.4	235.0	233.9	233.9	230.3	230.3
75°	203.3	209.2	215.1	215.1	215.1	212.7	210.4	210.4	208.0	206.8	204.5
77.5°	184.5	191.6	196.3	195.1	193.9	191.6	191.6	188.0	184.5	184.5	182.2
80°	170.4	175.1	178.6	177.5	176.3	172.8	171.6	168.1	165.7	162.2	162.2
82.5°	155.1	161.0	163.4	162.2	159.8	156.3	155.1	152.8	150.4	149.3	146.9
85°	142.2	148.1	149.3	146.9	144.6	142.2	141.0	139.9	138.7	136.3	136.3
87.5°	129.3	135.2	135.2	134.0	131.6	130.4	129.3	128.1	126.9	125.7	124.6
90°	118.7	123.4	123.4	122.2	121.0	119.9	118.7	117.5	116.3	115.2	115.2
92.5°	108.1	112.8	112.8	111.6	110.5	109.3	109.3	108.1	106.9	105.8	104.6
95°	98.7	103.4	103.4	103.4	102.2	101.1	101.1	99.9	98.7	98.7	97.5
97.5°	89.3	94.0	94.0	94.0	92.8	91.7	91.7	90.5	90.5	90.5	89.3
100°	81.1	84.6	85.8	85.8	84.6	84.6	84.6	83.4	83.4	83.4	82.3
102.5°	72.9	76.4	78.7	78.7	78.7	77.6	77.6	77.6	77.6	77.6	76.4
105°	65.8	69.3	71.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
107.5°	59.9	63.5	65.8	67.0	68.2	68.2	69.3	69.3	69.3	69.3	69.3
110°	54.1	57.6	61.1	62.3	63.5	64.6	64.6	65.8	64.6	64.6	64.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	48.2	52.9	55.2	57.6	58.8	59.9	61.1	61.1	61.1	61.1	61.1
115°	43.5	48.2	50.5	52.9	55.2	56.4	56.4	57.6	57.6	57.6	56.4
117.5°	38.8	43.5	45.8	48.2	49.4	51.7	52.9	52.9	52.9	52.9	51.7
120°	35.3	38.8	41.1	43.5	45.8	47.0	48.2	48.2	48.2	48.2	48.2
122.5°	30.6	34.1	37.6	40.0	41.1	42.3	43.5	43.5	43.5	43.5	43.5
125°	27.0	30.6	32.9	35.3	36.4	38.8	38.8	38.8	38.8	38.8	38.8
127.5°	23.5	27.0	29.4	31.7	32.9	34.1	35.3	35.3	35.3	35.3	35.3
130°	20.0	23.5	25.9	28.2	29.4	30.6	30.6	31.7	31.7	31.7	31.7
132.5°	17.6	20.0	22.3	24.7	25.9	27.0	27.0	28.2	28.2	28.2	28.2
135°	14.1	17.6	18.8	21.2	22.3	23.5	23.5	24.7	24.7	24.7	24.7
137.5°	11.8	14.1	16.5	18.8	20.0	20.0	21.2	21.2	22.3	22.3	22.3
140°	9.4	10.6	14.1	15.3	16.5	17.6	18.8	18.8	18.8	18.8	18.8
142.5°	7.1	9.4	10.6	12.9	14.1	15.3	16.5	16.5	16.5	16.5	16.5
145°	5.9	7.1	8.2	10.6	11.8	12.9	14.1	14.1	14.1	14.1	14.1
147.5°	4.7	5.9	7.1	8.2	9.4	10.6	11.8	11.8	11.8	11.8	11.8
150°	3.5	4.7	5.9	5.9	7.1	8.2	9.4	10.6	10.6	10.6	10.6
152.5°	3.5	3.5	4.7	4.7	5.9	7.1	8.2	8.2	8.2	8.2	8.2
155°	2.4	3.5	3.5	3.5	4.7	4.7	5.9	7.1	7.1	7.1	7.1
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2275.2	2279.9	2277.6	2274.1	2272.9	2278.8	2272.9	2245.8	2256.4	2257.6	2265.8
5°	2271.7	2275.2	2272.9	2270.5	2267.0	2274.1	2267.0	2238.8	2249.4	2250.6	2258.8
7.5°	2295.2	2296.4	2296.4	2290.5	2281.1	2284.6	2275.2	2243.5	2249.4	2249.4	2255.3
10°	2354.0	2356.3	2359.8	2344.6	2332.8	2323.4	2310.5	2271.7	2270.5	2261.1	2261.1
12.5°	2430.4	2424.5	2418.6	2411.6	2402.2	2390.4	2371.6	2325.8	2310.5	2295.2	2279.9
15°	2452.7	2450.3	2449.2	2445.6	2439.8	2436.2	2422.1	2376.3	2354.0	2335.2	2308.1
17.5°	2393.9	2398.6	2413.9	2415.1	2422.1	2436.2	2433.9	2402.2	2382.2	2373.9	2341.0
20°	2288.2	2289.3	2308.1	2316.4	2346.9	2370.4	2388.1	2384.5	2379.8	2389.2	2364.5
22.5°	2161.2	2169.5	2189.4	2202.4	2231.7	2258.8	2287.0	2302.3	2326.9	2365.7	2361.0
25°	1988.5	1999.1	2027.3	2048.4	2089.5	2130.7	2168.3	2195.3	2224.7	2298.7	2323.4
27.5°	1781.6	1798.1	1834.5	1855.7	1913.3	1955.6	2009.6	2062.5	2103.6	2188.3	2238.8
30°	1564.2	1578.3	1617.1	1646.5	1695.8	1753.4	1821.6	1896.8	1965.0	2050.8	2114.2
32.5°	1360.9	1376.2	1407.9	1433.8	1489.0	1537.2	1612.4	1705.2	1768.7	1887.4	1972.0
35°	1183.4	1197.6	1219.9	1242.2	1288.0	1337.4	1402.0	1492.5	1573.6	1697.0	1804.0
37.5°	1058.9	1061.2	1074.2	1087.1	1121.2	1158.8	1209.3	1289.2	1364.4	1497.2	1614.8
40°	969.6	969.6	976.6	980.1	995.4	1017.7	1049.5	1111.8	1174.0	1275.1	1418.5
42.5°	914.3	912.0	912.0	913.1	912.0	922.5	941.4	970.7	1026.0	1109.4	1221.1
45°	873.2	868.5	865.0	856.7	852.0	852.0	853.2	863.8	895.5	949.6	1040.1
47.5°	827.4	826.2	820.3	810.9	802.7	796.8	787.4	783.9	793.3	823.8	884.9
50°	774.5	768.6	762.7	755.7	746.3	740.4	722.8	723.9	715.7	729.8	761.5
52.5°	696.9	692.2	689.9	684.0	680.5	678.1	664.0	649.9	646.4	648.7	660.5
55°	611.1	613.5	604.1	608.8	607.6	597.0	591.1	580.6	577.0	575.9	581.7
57.5°	521.8	524.1	518.3	523.0	523.0	517.1	513.6	513.6	505.3	498.3	506.5
60°	440.7	436.0	439.5	445.4	445.4	441.9	439.5	439.5	433.7	431.3	437.2
62.5°	374.9	370.2	373.7	379.6	380.8	378.4	376.1	376.1	369.0	369.0	373.7
65°	324.4	325.5	324.4	329.1	329.1	330.2	327.9	325.5	317.3	320.8	319.7
67.5°	287.9	286.8	286.8	291.5	290.3	292.6	290.3	286.8	280.9	276.2	275.0
70°	257.4	256.2	256.2	258.5	259.7	259.7	258.5	256.2	248.0	243.3	239.7
72.5°	230.3	229.2	230.3	231.5	232.7	233.9	232.7	230.3	223.3	217.4	211.5
75°	205.7	204.5	208.0	208.0	209.2	209.2	210.4	209.2	203.3	196.3	189.2
77.5°	181.0	182.2	185.7	186.9	189.2	190.4	191.6	191.6	185.7	179.8	170.4
80°	161.0	163.4	165.7	166.9	169.2	172.8	173.9	175.1	170.4	164.5	154.0
82.5°	146.9	148.1	150.4	151.6	155.1	156.3	157.5	159.8	157.5	151.6	139.9
85°	135.2	136.3	138.7	138.7	141.0	143.4	144.6	145.7	144.6	138.7	126.9
87.5°	124.6	125.7	126.9	128.1	129.3	130.4	131.6	132.8	131.6	125.7	115.2
90°	115.2	115.2	116.3	116.3	117.5	118.7	121.0	121.0	119.9	115.2	104.6
92.5°	104.6	105.8	105.8	106.9	108.1	109.3	110.5	110.5	109.3	104.6	95.2
95°	97.5	97.5	98.7	98.7	99.9	99.9	101.1	101.1	99.9	95.2	85.8
97.5°	89.3	89.3	89.3	89.3	90.5	90.5	91.7	91.7	90.5	85.8	77.6
100°	82.3	82.3	82.3	82.3	82.3	83.4	83.4	83.4	82.3	77.6	69.3
102.5°	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	74.0	70.5	62.3
105°	72.9	72.9	72.9	71.7	71.7	71.7	70.5	70.5	67.0	63.5	56.4
107.5°	68.2	68.2	68.2	67.0	67.0	65.8	64.6	64.6	61.1	57.6	50.5
110°	64.6	64.6	64.6	63.5	62.3	61.1	59.9	58.8	55.2	50.5	44.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	61.1	61.1	59.9	59.9	58.8	57.6	55.2	54.1	50.5	45.8	40.0
115°	56.4	56.4	56.4	55.2	54.1	52.9	51.7	49.4	45.8	41.1	35.3
117.5°	51.7	51.7	51.7	50.5	49.4	48.2	47.0	44.7	41.1	36.4	31.7
120°	47.0	47.0	47.0	45.8	44.7	43.5	42.3	40.0	36.4	32.9	27.0
122.5°	43.5	43.5	42.3	41.1	40.0	38.8	37.6	35.3	32.9	28.2	23.5
125°	38.8	38.8	37.6	37.6	36.4	35.3	34.1	31.7	28.2	24.7	21.2
127.5°	35.3	34.1	34.1	34.1	32.9	31.7	29.4	28.2	24.7	21.2	17.6
130°	30.6	30.6	30.6	29.4	29.4	28.2	25.9	23.5	21.2	18.8	15.3
132.5°	27.0	27.0	27.0	27.0	25.9	24.7	22.3	21.2	18.8	15.3	12.9
135°	24.7	24.7	23.5	23.5	22.3	21.2	20.0	17.6	15.3	12.9	10.6
137.5°	21.2	21.2	21.2	20.0	20.0	18.8	16.5	15.3	14.1	11.8	9.4
140°	18.8	18.8	17.6	17.6	16.5	16.5	15.3	12.9	11.8	9.4	8.2
142.5°	16.5	16.5	15.3	15.3	14.1	14.1	12.9	11.8	9.4	8.2	5.9
145°	14.1	14.1	12.9	12.9	12.9	11.8	10.6	9.4	8.2	7.1	5.9
147.5°	11.8	11.8	11.8	10.6	10.6	9.4	9.4	8.2	7.1	5.9	4.7
150°	10.6	10.6	9.4	9.4	9.4	8.2	7.1	7.1	5.9	4.7	3.5
152.5°	8.2	8.2	8.2	8.2	7.1	7.1	5.9	5.9	4.7	3.5	3.5
155°	7.1	7.1	7.1	5.9	5.9	5.9	4.7	4.7	3.5	3.5	2.4
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-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2	2275.2
2.5°	2262.3	2261.1	2271.7	2270.5	2256.4	2277.6	2291.7
5°	2256.4	2255.3	2264.7	2267.0	2251.7	2274.1	2289.3
7.5°	2251.7	2250.6	2261.1	2264.7	2249.4	2269.4	2285.8
10°	2252.9	2247.0	2256.4	2258.8	2244.7	2265.8	2279.9
12.5°	2261.1	2247.0	2250.6	2250.6	2237.6	2256.4	2271.7
15°	2281.1	2251.7	2247.0	2243.5	2227.0	2244.7	2260.0
17.5°	2303.4	2263.5	2247.0	2235.3	2215.3	2230.6	2247.0
20°	2325.8	2276.4	2249.4	2230.6	2203.5	2217.6	2229.4
22.5°	2336.3	2288.2	2251.7	2223.5	2189.4	2196.5	2209.4
25°	2322.2	2283.5	2247.0	2212.9	2171.8	2173.0	2183.6
27.5°	2270.5	2260.0	2236.4	2202.4	2157.7	2151.8	2160.1
30°	2182.4	2211.8	2212.9	2188.3	2141.3	2129.5	2133.0
32.5°	2059.0	2124.8	2163.6	2158.9	2117.8	2101.3	2103.6
35°	1916.8	1999.1	2083.7	2111.9	2082.5	2069.6	2064.9
37.5°	1746.4	1856.9	1969.7	2039.0	2034.3	2026.1	2021.4
40°	1558.3	1691.1	1825.1	1935.6	1969.7	1969.7	1972.0
42.5°	1357.4	1512.5	1659.4	1799.3	1879.2	1896.8	1903.9
45°	1163.5	1319.8	1479.6	1640.6	1747.6	1802.8	1822.8
47.5°	987.2	1144.7	1296.3	1472.6	1614.8	1686.4	1718.2
50°	836.8	954.3	1114.1	1289.2	1444.3	1532.5	1594.8
52.5°	712.2	803.9	943.7	1107.1	1263.4	1384.4	1442.0
55°	607.6	669.9	788.6	929.6	1078.9	1204.6	1271.6
57.5°	519.4	568.8	649.9	767.4	893.2	1017.7	1089.4
60°	441.9	476.0	531.2	624.0	731.0	837.9	907.3
62.5°	374.9	397.2	433.7	501.8	585.3	668.7	733.3
65°	323.2	332.6	352.6	394.9	458.3	521.8	577.0
67.5°	272.7	278.5	293.8	319.7	351.4	397.2	433.7
70°	235.0	235.0	236.2	251.5	268.0	297.3	323.2
72.5°	204.5	201.0	193.9	197.4	201.0	217.4	233.9
75°	179.8	171.6	159.8	155.1	152.8	155.1	164.5
77.5°	158.7	146.9	132.8	121.0	111.6	108.1	116.3
80°	141.0	126.9	110.5	95.2	79.9	71.7	75.2
82.5°	126.9	109.3	91.7	74.0	56.4	44.7	44.7
85°	111.6	95.2	76.4	57.6	40.0	24.7	22.3
87.5°	101.1	83.4	63.5	45.8	28.2	12.9	7.1
90°	90.5	72.9	54.1	36.4	20.0	5.9	0.0
92.5°	81.1	64.6	47.0	29.4	14.1	3.5	0.0
95°	72.9	57.6	40.0	24.7	11.8	2.4	1.2
97.5°	64.6	50.5	35.3	20.0	8.2	2.4	1.2
100°	58.8	44.7	30.6	16.5	7.1	1.2	1.2
102.5°	51.7	40.0	25.9	14.1	5.9	1.2	1.2
105°	45.8	35.3	22.3	11.8	4.7	1.2	1.2
107.5°	41.1	30.6	20.0	10.6	4.7	1.2	1.2
110°	36.4	27.0	17.6	9.4	3.5	1.2	1.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.9	23.5	15.3	8.2	2.4	1.2	1.2
115°	28.2	21.2	12.9	7.1	2.4	1.2	1.2
117.5°	24.7	17.6	11.8	5.9	2.4	1.2	1.2
120°	21.2	15.3	9.4	4.7	1.2	1.2	1.2
122.5°	18.8	12.9	8.2	4.7	1.2	1.2	1.2
125°	16.5	11.8	7.1	3.5	1.2	1.2	1.2
127.5°	14.1	9.4	5.9	2.4	1.2	1.2	1.2
130°	11.8	8.2	4.7	2.4	1.2	1.2	1.2
132.5°	9.4	7.1	4.7	2.4	1.2	1.2	1.2
135°	8.2	5.9	3.5	2.4	1.2	1.2	1.2
137.5°	7.1	4.7	2.4	2.4	2.4	1.2	1.2
140°	5.9	3.5	2.4	2.4	2.4	2.4	1.2
142.5°	4.7	3.5	2.4	2.4	2.4	2.4	1.2
145°	3.5	2.4	2.4	2.4	2.4	2.4	1.2
147.5°	3.5	2.4	2.4	2.4	2.4	2.4	1.2
150°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)