

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-L940-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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

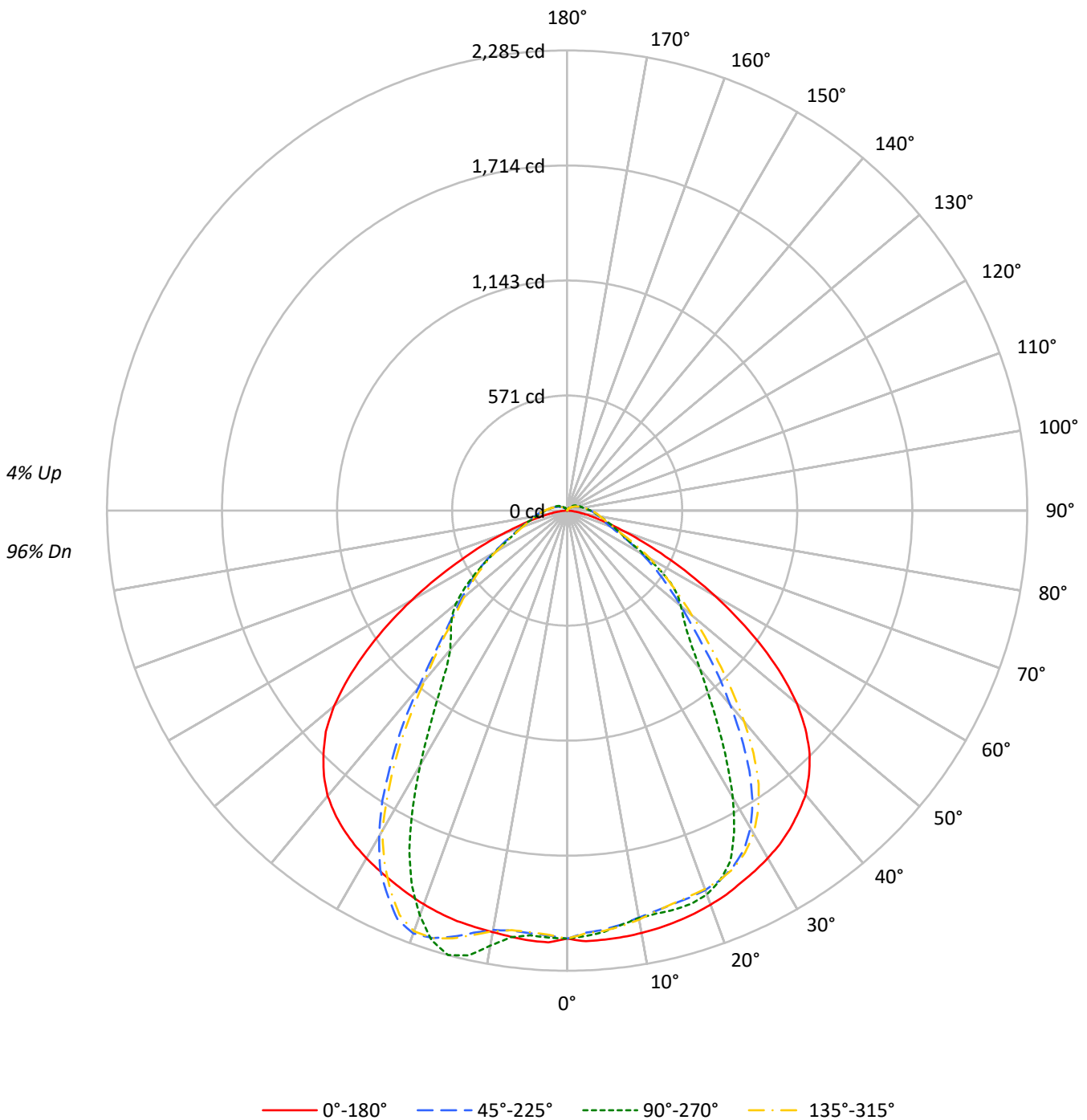
Lumens per Lamp: N/A
Luminaire Lumens: 5067.0 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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#
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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°	17176	17176	17176	17176
5°	17302	16495	17336	16624
10°	17382	15809	17346	16882
15°	17516	15598	17507	17367
20°	17709	15351	17690	16181
25°	17926	14562	17917	14071
30°	18264	12621	18274	11182
35°	18622	10206	18674	8637
40°	18937	8217	19016	7239
45°	18870	6961	18968	6778
50°	18057	6409	18310	6265
55°	16021	5760	16420	5236
60°	12996	4408	13685	4043
65°	9661	3373	10408	3198
70°	6569	2911	7405	2783
75°	4298	2627	5005	2484
80°	2779	2450	3253	2253
85°	1428	2443	1872	2233



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.9	4.0
10°-20°	600.7	11.9
20°-30°	913.2	18.0
30°-40°	979.7	19.3
40°-50°	850.3	16.8
50°-60°	630.1	12.4
60°-70°	361.0	7.1
70°-80°	199.9	3.9
80°-90°	121.7	2.4
90°-100°	79.2	1.6
100°-110°	53.0	1.0
110°-120°	35.8	0.7
120°-130°	22.0	0.4
130°-140°	11.6	0.2
140°-150°	5.3	0.1
150°-160°	1.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1715.8	33.9
0°-40°	2695.5	53.2
0°-60°	4175.9	82.4
0°-90°	4858.7	95.9
90°-120°	168.0	3.3
90°-150°	206.8	4.1
90°-180°	208.0	4.1
0°-180°	5067.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2126	2126	2126	2126	2126	
5°	2139	2100	2143	2117	2139	204
15°	2111	2052	2110	2285	2111	597
25°	2040	1919	2039	1854	2040	943
35°	1929	1306	1934	1106	1929	1207
45°	1703	838	1712	816	1703	1304
55°	1188	628	1218	571	1188	1053
65°	539	318	581	302	539	543
75°	154	202	179	191	154	176
85°	21	139	27	127	21	27
90°	0	116	2	108	0	1
95°	1	96	0	91	1	1
105°	1	71	1	68	1	1
115°	1	58	1	53	1	1
125°	1	44	1	36	1	1
135°	1	27	1	23	1	1
145°	1	16	2	13	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#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2140.8	2135.4	2133.2	2128.8	2132.1	2145.2	2136.5	2122.2	2123.3	2098.0	2111.2
5°	2138.7	2132.1	2128.8	2124.4	2126.6	2138.7	2129.9	2115.6	2114.5	2089.2	2101.3
7.5°	2135.4	2128.8	2123.3	2120.0	2121.1	2131.0	2120.0	2103.5	2100.2	2072.8	2083.8
10°	2129.9	2125.5	2117.8	2112.3	2111.2	2122.2	2104.6	2088.2	2080.5	2051.9	2062.9
12.5°	2122.2	2115.6	2107.9	2098.0	2096.9	2103.5	2089.2	2066.2	2058.5	2035.5	2047.5
15°	2111.2	2103.5	2094.7	2083.8	2078.3	2082.7	2065.1	2044.2	2043.1	2023.4	2039.8
17.5°	2099.1	2088.2	2078.3	2062.9	2055.2	2058.5	2044.2	2025.6	2027.8	2015.7	2034.4
20°	2082.7	2070.6	2055.2	2039.8	2028.9	2034.4	2024.5	2010.2	2013.5	2004.7	2021.2
22.5°	2064.0	2047.5	2028.9	2011.3	2002.5	2010.2	2002.5	1990.4	1991.5	1986.0	1995.9
25°	2039.8	2021.2	1999.2	1977.3	1972.9	1978.4	1974.0	1964.1	1959.7	1950.9	1955.3
27.5°	2017.9	1997.0	1969.6	1946.5	1938.8	1949.8	1939.9	1923.5	1911.4	1899.3	1890.5
30°	1992.6	1967.4	1936.6	1910.3	1903.7	1908.1	1893.8	1868.6	1836.7	1821.4	1797.2
32.5°	1965.2	1932.3	1893.8	1864.2	1859.8	1856.5	1830.2	1793.9	1744.5	1713.8	1676.4
35°	1929.0	1892.7	1846.6	1810.4	1803.8	1785.1	1742.3	1694.0	1630.3	1577.6	1514.0
37.5°	1888.3	1845.5	1797.2	1748.9	1730.2	1692.9	1632.5	1582.0	1485.4	1421.7	1344.9
40°	1842.2	1790.6	1731.3	1673.2	1642.4	1582.0	1512.9	1438.2	1344.9	1259.3	1194.5
42.5°	1778.6	1723.7	1653.4	1588.6	1535.9	1455.8	1374.5	1269.1	1183.5	1111.0	1045.2
45°	1702.8	1636.9	1555.7	1477.7	1410.8	1315.2	1219.7	1114.3	1043.0	958.4	913.4
47.5°	1605.1	1533.7	1447.0	1360.3	1272.4	1167.0	1067.1	966.1	894.8	834.4	801.4
50°	1489.8	1423.9	1328.4	1225.2	1128.6	1018.8	918.9	843.2	774.0	736.7	711.4
52.5°	1347.1	1285.6	1187.9	1075.9	982.6	875.0	783.9	722.4	673.0	645.5	636.8
55°	1187.9	1134.1	1037.5	933.2	837.7	738.9	669.7	615.9	584.1	567.6	568.7
57.5°	1017.7	976.0	884.9	791.6	701.5	626.9	564.3	521.5	497.3	496.2	499.5
60°	847.6	816.8	737.8	657.6	578.6	518.2	472.1	442.4	427.1	428.2	427.1
62.5°	685.1	656.5	599.4	533.6	471.0	430.4	388.6	376.6	363.4	362.3	362.3
65°	539.1	517.1	471.0	423.8	376.6	350.2	329.4	315.1	305.2	303.0	304.1
67.5°	405.1	396.3	364.5	332.7	303.0	286.5	269.0	265.7	258.0	258.0	260.2
70°	301.9	295.3	277.8	259.1	247.0	236.0	227.3	227.3	226.2	225.1	230.6
72.5°	218.5	219.6	214.1	199.8	198.7	196.5	194.3	197.6	198.7	202.0	208.6
75°	153.7	157.0	157.0	154.8	159.2	164.7	168.0	173.5	180.1	184.4	192.1
77.5°	108.7	108.7	114.2	120.8	129.5	139.4	148.2	155.9	164.7	170.2	176.8
80°	70.3	73.6	82.3	94.4	106.5	119.7	131.7	141.6	150.4	159.2	163.6
82.5°	41.7	47.2	58.2	73.6	88.9	105.4	117.5	129.5	139.4	148.2	151.5
85°	20.9	28.5	41.7	58.2	74.7	92.2	107.6	118.6	129.5	137.2	141.6
87.5°	6.6	15.4	29.6	45.0	62.6	80.1	96.6	108.7	118.6	125.2	129.5
90°	0.0	7.7	20.9	37.3	53.8	71.4	86.7	99.9	109.8	115.3	118.6
92.5°	0.0	4.4	16.5	30.7	46.1	63.7	79.0	91.1	99.9	105.4	107.6
95°	1.1	3.3	12.1	25.3	40.6	57.1	71.4	82.3	91.1	96.6	97.7
97.5°	1.1	2.2	9.9	20.9	35.1	50.5	64.8	75.8	82.3	87.8	88.9
100°	1.1	2.2	7.7	18.7	30.7	45.0	58.2	68.1	75.8	80.1	81.2
102.5°	1.1	1.1	6.6	15.4	27.4	39.5	51.6	61.5	68.1	72.5	74.7
105°	1.1	1.1	5.5	13.2	24.2	35.1	46.1	56.0	61.5	65.9	68.1
107.5°	1.1	1.1	4.4	11.0	20.9	30.7	41.7	49.4	56.0	60.4	62.6
110°	1.1	1.1	3.3	9.9	17.6	27.4	36.2	43.9	50.5	54.9	57.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	1.1	3.3	8.8	15.4	24.2	31.8	39.5	45.0	49.4	52.7
115°	1.1	1.1	3.3	7.7	14.3	20.9	28.5	35.1	40.6	45.0	48.3
117.5°	1.1	1.1	3.3	6.6	12.1	18.7	25.3	31.8	36.2	40.6	43.9
120°	1.1	1.1	2.2	5.5	11.0	16.5	22.0	27.4	32.9	37.3	40.6
122.5°	1.1	1.1	2.2	5.5	8.8	14.3	19.8	24.2	29.6	32.9	36.2
125°	1.1	1.1	2.2	4.4	7.7	13.2	17.6	22.0	25.3	29.6	32.9
127.5°	1.1	1.1	2.2	4.4	6.6	11.0	15.4	19.8	23.1	26.3	28.5
130°	1.1	1.1	2.2	3.3	5.5	8.8	13.2	16.5	20.9	23.1	25.3
132.5°	1.1	1.1	1.1	3.3	4.4	6.6	9.9	14.3	17.6	20.9	22.0
135°	1.1	1.1	1.1	2.2	4.4	5.5	7.7	11.0	14.3	17.6	19.8
137.5°	1.1	1.1	1.1	2.2	3.3	5.5	6.6	8.8	12.1	14.3	17.6
140°	1.1	1.1	1.1	2.2	3.3	4.4	5.5	7.7	9.9	12.1	14.3
142.5°	1.1	1.1	1.1	2.2	2.2	3.3	4.4	6.6	7.7	9.9	12.1
145°	1.1	1.1	1.1	2.2	2.2	3.3	4.4	5.5	6.6	7.7	9.9
147.5°	1.1	1.1	1.1	2.2	2.2	2.2	3.3	4.4	5.5	6.6	7.7
150°	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	4.4	5.5	6.6
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	4.4	5.5
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	4.4	4.4
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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2106.8	2109.0	2122.2	2121.1	2118.9	2116.7	2116.7	2114.5	2116.7	2122.2	2120.0
5°	2095.8	2099.1	2109.0	2107.9	2105.7	2104.6	2103.5	2100.2	2102.4	2110.1	2107.9
7.5°	2076.1	2079.4	2088.2	2083.8	2080.5	2082.7	2077.2	2073.9	2078.3	2086.0	2084.9
10°	2055.2	2057.4	2068.4	2066.2	2060.7	2061.8	2056.3	2054.1	2059.6	2064.0	2065.1
12.5°	2040.9	2048.6	2058.5	2057.4	2056.3	2057.4	2051.9	2049.7	2053.0	2057.4	2056.3
15°	2037.6	2047.5	2058.5	2058.5	2059.6	2060.7	2055.2	2051.9	2055.2	2058.5	2057.4
17.5°	2034.4	2046.4	2056.3	2055.2	2056.3	2058.5	2049.7	2047.5	2051.9	2056.3	2054.1
20°	2023.4	2034.4	2040.9	2038.7	2038.7	2039.8	2028.9	2028.9	2035.5	2038.7	2039.8
22.5°	1992.6	2005.8	2005.8	2000.3	2000.3	1995.9	1992.6	1986.0	1993.7	1999.2	2003.6
25°	1946.5	1952.0	1945.4	1933.4	1926.8	1921.3	1905.9	1919.1	1919.1	1935.5	1941.0
27.5°	1881.8	1869.7	1851.0	1825.8	1820.3	1802.7	1792.8	1796.1	1801.6	1824.7	1842.2
30°	1775.3	1739.0	1707.2	1696.2	1672.1	1654.5	1636.9	1645.7	1655.6	1668.8	1705.0
32.5°	1634.7	1599.6	1548.0	1529.3	1504.1	1482.1	1461.3	1474.4	1492.0	1500.8	1540.3
35°	1473.3	1431.6	1384.4	1352.6	1326.2	1314.2	1287.8	1306.5	1325.1	1331.7	1365.8
37.5°	1302.1	1259.3	1217.5	1190.1	1164.8	1157.2	1139.6	1152.8	1167.0	1176.9	1205.5
40°	1139.6	1100.1	1068.2	1049.6	1032.0	1025.4	1018.8	1024.3	1035.3	1043.0	1064.9
42.5°	1000.2	968.3	946.4	935.4	923.3	914.5	915.6	917.8	923.3	939.8	949.7
45°	878.3	859.6	845.4	843.2	835.5	834.4	833.3	837.7	841.0	850.8	858.5
47.5°	780.6	772.9	769.6	774.0	777.3	772.9	775.1	780.6	787.2	787.2	786.1
50°	703.7	705.9	710.3	720.2	726.8	729.0	731.2	737.8	738.9	741.1	737.8
52.5°	641.2	643.4	655.4	670.8	678.5	681.8	686.2	692.8	692.8	695.0	690.6
55°	577.5	580.8	592.9	608.2	614.8	619.2	623.6	628.0	631.3	635.7	632.4
57.5°	507.2	517.1	524.8	529.2	533.6	536.9	540.2	541.3	547.8	548.9	554.4
60°	432.6	434.8	442.4	441.3	438.1	446.8	442.4	450.1	457.8	467.7	468.8
62.5°	361.2	362.3	367.8	365.6	370.0	368.9	372.2	372.2	377.7	382.1	387.5
65°	305.2	306.3	310.7	310.7	309.6	312.9	316.2	318.4	318.4	321.7	326.1
67.5°	263.5	266.8	271.2	273.4	275.6	275.6	278.9	280.0	282.2	283.3	285.4
70°	234.9	239.3	243.7	245.9	247.0	249.2	250.3	250.3	252.5	253.6	255.8
72.5°	214.1	218.5	221.8	221.8	224.0	225.1	225.1	226.2	227.3	229.5	231.7
75°	196.5	199.8	202.0	200.9	200.9	200.9	202.0	202.0	204.2	206.4	208.6
77.5°	180.1	183.3	183.3	181.1	181.1	181.1	181.1	182.2	183.3	185.5	187.7
80°	168.0	168.0	166.9	166.9	164.7	163.6	163.6	164.7	164.7	166.9	170.2
82.5°	154.8	154.8	153.7	152.6	151.5	150.4	150.4	151.5	152.6	153.7	155.9
85°	142.7	142.7	140.5	140.5	139.4	139.4	139.4	139.4	140.5	141.6	143.8
87.5°	130.6	129.5	128.5	127.4	127.4	127.4	127.4	127.4	128.5	130.6	131.7
90°	118.6	117.5	116.4	116.4	115.3	115.3	116.4	116.4	117.5	118.6	119.7
92.5°	107.6	106.5	105.4	105.4	104.3	104.3	105.4	104.3	106.5	106.5	107.6
95°	97.7	96.6	95.5	95.5	95.5	95.5	95.5	95.5	96.6	96.6	97.7
97.5°	88.9	87.8	86.7	86.7	87.8	86.7	87.8	87.8	87.8	88.9	90.0
100°	81.2	80.1	80.1	81.2	80.1	80.1	81.2	81.2	81.2	81.2	82.3
102.5°	74.7	74.7	74.7	74.7	74.7	74.7	75.8	75.8	75.8	75.8	76.9
105°	68.1	69.2	69.2	69.2	70.3	70.3	70.3	71.4	71.4	71.4	71.4
107.5°	63.7	64.8	64.8	65.9	65.9	67.0	67.0	67.0	67.0	68.1	68.1
110°	59.3	60.4	61.5	62.6	62.6	63.7	63.7	63.7	63.7	63.7	63.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	54.9	56.0	57.1	59.3	60.4	60.4	60.4	60.4	61.5	61.5	60.4
115°	50.5	52.7	53.8	56.0	57.1	57.1	58.2	58.2	58.2	58.2	57.1
117.5°	46.1	49.4	50.5	52.7	53.8	53.8	54.9	54.9	54.9	54.9	53.8
120°	42.8	45.0	47.2	48.3	49.4	50.5	50.5	51.6	51.6	51.6	50.5
122.5°	39.5	41.7	43.9	45.0	46.1	47.2	47.2	47.2	47.2	47.2	47.2
125°	35.1	37.3	39.5	40.6	41.7	42.8	42.8	43.9	43.9	43.9	42.8
127.5°	31.8	34.0	35.1	37.3	38.4	38.4	39.5	39.5	39.5	39.5	38.4
130°	27.4	29.6	31.8	32.9	34.0	34.0	35.1	35.1	35.1	35.1	35.1
132.5°	24.2	26.3	27.4	29.6	29.6	30.7	30.7	31.8	31.8	31.8	30.7
135°	22.0	23.1	24.2	26.3	26.3	27.4	27.4	27.4	27.4	27.4	27.4
137.5°	19.8	20.9	22.0	23.1	23.1	24.2	24.2	24.2	24.2	25.3	24.2
140°	16.5	18.7	19.8	19.8	20.9	20.9	20.9	22.0	22.0	22.0	20.9
142.5°	14.3	15.4	16.5	17.6	18.7	18.7	18.7	18.7	19.8	18.7	18.7
145°	11.0	13.2	14.3	15.4	16.5	16.5	16.5	16.5	16.5	16.5	16.5
147.5°	8.8	9.9	12.1	13.2	13.2	14.3	14.3	14.3	14.3	14.3	14.3
150°	7.7	7.7	9.9	11.0	12.1	12.1	12.1	12.1	12.1	12.1	12.1
152.5°	5.5	6.6	7.7	8.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9
155°	5.5	5.5	6.6	6.6	7.7	7.7	7.7	7.7	8.8	7.7	7.7
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2116.7	2115.6	2120.0	2115.6	2093.6	2102.4	2099.1	2111.2	2112.3	2115.6	2126.6
5°	2105.7	2105.7	2111.2	2106.8	2086.0	2094.7	2093.6	2105.7	2107.9	2110.1	2122.2
7.5°	2083.8	2084.9	2092.5	2089.2	2067.3	2080.5	2079.4	2093.6	2098.0	2102.4	2113.4
10°	2062.9	2061.8	2070.6	2067.3	2046.4	2061.8	2060.7	2075.0	2081.6	2089.2	2102.4
12.5°	2051.9	2048.6	2051.9	2048.6	2025.6	2037.6	2038.7	2055.2	2062.9	2072.8	2088.2
15°	2051.9	2046.4	2046.4	2039.8	2013.5	2021.2	2022.3	2033.3	2043.1	2053.0	2071.7
17.5°	2049.7	2044.2	2043.1	2037.6	2009.1	2009.1	2008.0	2015.7	2021.2	2031.1	2050.8
20°	2037.6	2035.5	2034.4	2031.1	2004.7	2000.3	1998.1	1998.1	2001.4	2004.7	2024.5
22.5°	2005.8	2008.0	2010.2	2012.4	1991.5	1983.9	1985.0	1982.8	1979.5	1979.5	1995.9
25°	1946.5	1957.5	1966.3	1976.2	1964.1	1958.6	1965.2	1961.9	1956.4	1952.0	1966.3
27.5°	1852.1	1875.2	1893.8	1918.0	1919.1	1914.7	1932.3	1930.1	1929.0	1922.4	1933.4
30°	1721.5	1757.7	1782.9	1818.1	1847.7	1852.1	1881.8	1886.1	1890.5	1887.2	1898.2
32.5°	1563.4	1612.8	1655.6	1710.5	1739.0	1764.3	1806.0	1823.6	1841.1	1846.6	1858.7
35°	1391.0	1447.0	1497.5	1557.9	1602.9	1657.8	1708.3	1734.6	1774.2	1789.5	1807.1
37.5°	1227.4	1280.1	1329.5	1389.9	1462.4	1519.5	1582.0	1641.3	1695.1	1717.1	1743.4
40°	1082.5	1125.3	1172.5	1225.2	1291.1	1365.8	1433.8	1516.2	1579.8	1623.8	1662.2
42.5°	972.7	993.6	1034.2	1081.4	1134.1	1209.9	1279.0	1371.2	1448.1	1510.7	1574.3
45°	875.0	884.9	914.5	939.8	993.6	1060.5	1134.1	1224.1	1304.3	1384.4	1461.3
47.5°	791.6	803.6	817.9	833.3	871.7	927.7	991.4	1072.6	1152.8	1246.1	1333.9
50°	735.6	738.9	741.1	747.7	770.7	809.1	860.7	929.9	1006.7	1106.7	1200.0
52.5°	686.2	686.2	679.6	676.3	685.1	709.2	738.9	788.3	867.3	959.5	1058.3
55°	633.5	623.6	621.4	610.4	612.6	623.6	637.9	676.3	741.1	820.1	915.6
57.5°	559.9	555.5	555.5	551.1	542.3	547.8	551.1	578.6	624.7	692.8	776.2
60°	475.4	473.2	478.7	479.8	472.1	475.4	474.3	490.7	523.7	578.6	647.7
62.5°	390.8	400.7	401.8	406.2	401.8	400.7	406.2	420.5	437.0	478.7	532.5
65°	328.3	333.8	334.9	340.3	338.1	338.1	342.5	353.5	363.4	391.9	433.7
67.5°	287.6	285.4	286.5	289.8	286.5	285.4	288.7	295.3	303.0	320.6	350.2
70°	255.8	253.6	253.6	253.6	249.2	245.9	247.0	249.2	252.5	262.4	281.1
72.5°	231.7	231.7	228.4	225.1	221.8	219.6	217.4	215.2	214.1	217.4	227.3
75°	209.7	210.8	209.7	206.4	202.0	197.6	193.2	188.8	183.3	181.1	182.2
77.5°	189.9	191.0	192.1	191.0	186.6	181.1	174.6	168.0	160.3	152.6	148.2
80°	172.4	174.6	175.7	174.6	171.3	166.9	159.2	151.5	140.5	130.6	119.7
82.5°	157.0	160.3	161.4	161.4	159.2	154.8	146.0	137.2	125.2	112.0	97.7
85°	144.9	147.1	149.3	149.3	148.2	143.8	135.0	125.2	113.1	97.7	82.3
87.5°	132.8	133.9	136.1	138.3	136.1	131.7	124.1	113.1	101.0	85.6	68.1
90°	120.8	121.9	124.1	126.3	125.2	120.8	114.2	104.3	91.1	74.7	57.1
92.5°	108.7	110.9	112.0	113.1	114.2	110.9	105.4	95.5	82.3	65.9	49.4
95°	99.9	99.9	102.1	103.2	104.3	101.0	96.6	86.7	74.7	59.3	42.8
97.5°	91.1	91.1	93.3	93.3	94.4	92.2	87.8	79.0	67.0	52.7	36.2
100°	82.3	83.4	84.5	85.6	85.6	84.5	80.1	71.4	60.4	47.2	31.8
102.5°	76.9	76.9	77.9	77.9	79.0	76.9	72.5	64.8	53.8	41.7	27.4
105°	71.4	71.4	72.5	72.5	71.4	69.2	64.8	58.2	48.3	36.2	24.2
107.5°	67.0	67.0	67.0	67.0	65.9	63.7	59.3	51.6	42.8	32.9	22.0
110°	63.7	62.6	62.6	61.5	60.4	57.1	52.7	46.1	38.4	28.5	18.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	60.4	59.3	58.2	57.1	54.9	51.6	47.2	41.7	34.0	25.3	16.5
115°	57.1	56.0	54.9	52.7	50.5	47.2	42.8	37.3	29.6	22.0	14.3
117.5°	53.8	52.7	50.5	48.3	46.1	42.8	38.4	32.9	26.3	19.8	13.2
120°	49.4	48.3	47.2	45.0	42.8	38.4	34.0	29.6	23.1	17.6	11.0
122.5°	46.1	45.0	42.8	41.7	38.4	35.1	30.7	26.3	20.9	15.4	9.9
125°	41.7	40.6	39.5	37.3	35.1	30.7	27.4	23.1	18.7	13.2	7.7
127.5°	38.4	37.3	35.1	32.9	30.7	27.4	24.2	20.9	16.5	11.0	7.7
130°	34.0	32.9	31.8	29.6	27.4	24.2	22.0	17.6	14.3	9.9	6.6
132.5°	29.6	29.6	28.5	26.3	24.2	22.0	18.7	15.4	12.1	8.8	5.5
135°	27.4	26.3	25.3	23.1	22.0	18.7	16.5	13.2	9.9	7.7	4.4
137.5°	24.2	23.1	22.0	20.9	18.7	16.5	14.3	11.0	8.8	6.6	4.4
140°	20.9	19.8	19.8	17.6	16.5	14.3	12.1	9.9	7.7	5.5	3.3
142.5°	18.7	17.6	16.5	15.4	14.3	12.1	9.9	7.7	6.6	4.4	3.3
145°	16.5	15.4	14.3	13.2	12.1	9.9	8.8	6.6	5.5	4.4	3.3
147.5°	13.2	13.2	12.1	11.0	9.9	8.8	7.7	6.6	4.4	3.3	2.2
150°	11.0	11.0	9.9	8.8	8.8	7.7	6.6	5.5	4.4	3.3	2.2
152.5°	9.9	8.8	8.8	7.7	7.7	6.6	5.5	4.4	3.3	3.3	2.2
155°	7.7	7.7	7.7	6.6	6.6	5.5	4.4	4.4	3.3	2.2	2.2
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2128.8	2115.6	2126.6	2146.3	2144.1	2141.9	2139.8	2144.1	2158.4	2150.7	2138.7
5°	2125.5	2112.3	2124.4	2143.0	2141.9	2138.7	2136.5	2140.8	2155.1	2147.4	2134.3
7.5°	2118.9	2106.8	2115.6	2134.3	2134.3	2132.1	2129.9	2134.3	2147.4	2140.8	2127.7
10°	2107.9	2099.1	2107.9	2125.5	2126.6	2122.2	2120.0	2125.5	2138.7	2135.4	2124.4
12.5°	2099.1	2090.3	2100.2	2117.8	2118.9	2114.5	2111.2	2117.8	2135.4	2137.6	2134.3
15°	2087.1	2079.4	2091.4	2110.1	2110.1	2106.8	2106.8	2115.6	2139.8	2149.6	2155.1
17.5°	2069.5	2064.0	2078.3	2096.9	2098.0	2095.8	2096.9	2114.5	2146.3	2170.5	2185.9
20°	2047.5	2045.3	2060.7	2080.5	2083.8	2084.9	2090.3	2116.7	2160.6	2193.5	2208.9
22.5°	2021.2	2022.3	2039.8	2060.7	2065.1	2068.4	2079.4	2116.7	2171.6	2206.7	2213.3
25°	1991.5	1994.8	2013.5	2038.7	2044.2	2050.8	2069.5	2117.8	2174.9	2197.9	2187.0
27.5°	1959.7	1966.3	1990.4	2016.8	2023.4	2034.4	2058.5	2111.2	2159.5	2160.6	2120.0
30°	1926.8	1934.4	1963.0	1993.7	2004.7	2015.7	2045.3	2095.8	2122.2	2087.1	2015.7
32.5°	1889.4	1900.4	1929.0	1966.3	1979.5	1993.7	2023.4	2066.2	2056.3	1980.6	1878.5
35°	1842.2	1857.6	1890.5	1934.4	1946.5	1965.2	1986.0	1995.9	1952.0	1844.4	1729.1
37.5°	1784.0	1807.1	1845.5	1896.0	1909.2	1921.3	1926.8	1899.3	1811.5	1695.1	1575.4
40°	1717.1	1752.2	1793.9	1849.9	1863.1	1863.1	1843.3	1785.1	1674.3	1521.6	1388.8
42.5°	1635.8	1678.6	1731.3	1787.3	1800.5	1785.1	1737.9	1635.8	1509.6	1339.4	1198.9
45°	1537.0	1594.1	1653.4	1711.6	1718.2	1684.1	1599.6	1470.0	1314.2	1156.1	1022.1
47.5°	1419.5	1494.2	1559.0	1624.8	1616.1	1559.0	1445.9	1298.8	1134.1	984.8	877.2
50°	1287.8	1375.6	1448.1	1510.7	1492.0	1413.0	1280.1	1126.4	962.8	835.5	746.6
52.5°	1147.3	1248.3	1320.7	1371.2	1346.0	1251.6	1105.6	958.4	824.5	708.1	648.8
55°	1001.3	1103.4	1178.0	1217.5	1184.6	1082.5	938.7	804.7	678.5	602.7	567.6
57.5°	859.6	955.1	1025.4	1057.2	1015.5	913.4	780.6	667.5	576.4	512.7	495.1
60°	723.5	801.4	868.4	892.6	847.6	753.1	639.0	548.9	482.0	438.1	429.3
62.5°	597.2	660.9	713.6	732.3	688.4	614.8	516.0	449.0	401.8	379.9	368.9
65°	492.9	530.3	584.1	580.8	554.4	486.4	413.9	366.7	335.9	321.7	315.1
67.5°	387.5	421.6	455.6	460.0	427.1	379.9	332.7	298.6	282.2	274.5	271.2
70°	299.7	325.0	345.8	340.3	322.8	293.1	263.5	244.8	238.2	234.9	234.9
72.5°	232.7	245.9	255.8	249.2	238.2	222.9	208.6	200.9	202.0	204.2	206.4
75°	180.1	183.3	185.5	179.0	176.8	166.9	165.8	166.9	173.5	180.1	183.3
77.5°	138.3	133.9	130.6	124.1	125.2	124.1	129.5	138.3	148.2	158.1	166.9
80°	106.5	96.6	88.9	82.3	85.6	91.1	102.1	115.3	128.5	139.4	150.4
82.5°	82.3	68.1	57.1	50.5	57.1	65.9	80.1	96.6	112.0	124.1	136.1
85°	63.7	47.2	34.0	27.4	34.0	47.2	62.6	81.2	97.7	110.9	123.0
87.5°	49.4	34.0	18.7	11.0	18.7	32.9	50.5	68.1	84.5	99.9	112.0
90°	39.5	23.1	8.8	2.2	9.9	23.1	39.5	57.1	73.6	90.0	102.1
92.5°	31.8	16.5	4.4	0.0	5.5	17.6	32.9	49.4	65.9	81.2	93.3
95°	26.3	13.2	3.3	0.0	4.4	13.2	26.3	42.8	58.2	73.6	83.4
97.5°	22.0	9.9	2.2	0.0	2.2	11.0	22.0	36.2	51.6	65.9	75.8
100°	18.7	8.8	2.2	0.0	2.2	8.8	18.7	31.8	45.0	58.2	68.1
102.5°	15.4	6.6	1.1	1.1	1.1	6.6	16.5	27.4	39.5	51.6	61.5
105°	14.3	5.5	1.1	1.1	1.1	5.5	14.3	24.2	35.1	46.1	54.9
107.5°	12.1	4.4	1.1	1.1	1.1	4.4	12.1	20.9	31.8	41.7	49.4
110°	9.9	4.4	1.1	1.1	1.1	4.4	9.9	18.7	27.4	36.2	43.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.8	3.3	1.1	1.1	1.1	3.3	8.8	16.5	24.2	32.9	39.5
115°	7.7	3.3	1.1	1.1	1.1	3.3	7.7	14.3	20.9	28.5	35.1
117.5°	6.6	3.3	1.1	1.1	1.1	2.2	6.6	12.1	18.7	25.3	31.8
120°	5.5	2.2	1.1	1.1	1.1	2.2	5.5	11.0	16.5	22.0	27.4
122.5°	5.5	2.2	1.1	1.1	1.1	2.2	4.4	8.8	14.3	18.7	24.2
125°	4.4	2.2	1.1	1.1	1.1	1.1	4.4	7.7	12.1	16.5	20.9
127.5°	4.4	2.2	1.1	1.1	1.1	1.1	3.3	6.6	9.9	14.3	18.7
130°	3.3	2.2	1.1	1.1	1.1	1.1	2.2	5.5	8.8	12.1	15.4
132.5°	3.3	2.2	1.1	1.1	1.1	1.1	2.2	4.4	6.6	9.9	13.2
135°	3.3	1.1	1.1	1.1	1.1	1.1	1.1	3.3	5.5	7.7	9.9
137.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	2.2	4.4	5.5	8.8
140°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	2.2	3.3	4.4	6.6
142.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	3.3	5.5
145°	2.2	1.1	1.1	2.2	2.2	1.1	1.1	2.2	2.2	3.3	4.4
147.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3
150°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2136.5	2111.2	2124.4	2120.0	2124.4	2135.4	2134.3	2131.0	2133.2	2127.7	2122.2
5°	2132.1	2106.8	2120.0	2114.5	2120.0	2131.0	2128.8	2125.5	2128.8	2122.2	2116.7
7.5°	2126.6	2103.5	2118.9	2117.8	2127.7	2141.9	2143.0	2143.0	2150.7	2140.8	2136.5
10°	2126.6	2114.5	2135.4	2143.0	2168.3	2187.0	2189.2	2193.5	2206.7	2204.5	2193.5
12.5°	2149.6	2147.4	2178.2	2196.8	2219.9	2246.2	2260.5	2264.9	2273.7	2267.1	2262.7
15°	2179.3	2190.3	2224.3	2245.1	2270.4	2290.2	2293.5	2295.6	2302.2	2292.4	2284.7
17.5°	2218.8	2225.4	2252.8	2261.6	2278.1	2281.4	2277.0	2266.0	2266.0	2244.0	2237.5
20°	2237.5	2234.2	2245.1	2230.9	2224.3	2204.5	2185.9	2165.0	2163.9	2140.8	2138.7
22.5°	2221.0	2199.0	2176.0	2140.8	2125.5	2096.9	2071.7	2059.6	2051.9	2022.3	2014.6
25°	2162.8	2109.0	2075.0	2033.3	1995.9	1963.0	1938.8	1913.6	1889.4	1865.3	1854.3
27.5°	2061.8	2011.3	1956.4	1898.2	1846.6	1796.1	1755.5	1730.2	1707.2	1675.4	1658.9
30°	1937.7	1867.5	1807.1	1751.1	1666.6	1605.1	1571.1	1520.6	1503.0	1488.7	1458.0
32.5°	1791.7	1707.2	1624.8	1549.1	1462.4	1405.3	1360.3	1322.9	1312.0	1274.6	1265.8
35°	1630.3	1519.5	1426.1	1351.5	1288.9	1219.7	1182.4	1157.2	1135.2	1109.9	1105.6
37.5°	1440.4	1340.5	1235.1	1169.2	1119.8	1060.5	1032.0	1014.4	1004.6	985.9	982.6
40°	1249.4	1149.5	1077.0	1011.1	980.4	948.6	927.7	920.0	915.6	909.0	902.4
42.5°	1075.9	988.1	936.5	892.6	879.4	864.0	858.5	862.9	858.5	856.3	855.2
45°	928.8	861.8	825.6	812.4	809.1	804.7	809.1	816.8	817.9	815.7	815.7
47.5°	794.9	763.0	747.7	749.8	755.3	758.6	766.3	776.2	778.4	772.9	775.1
50°	707.0	688.4	685.1	693.9	705.9	710.3	719.1	726.8	725.7	723.5	721.3
52.5°	624.7	619.2	628.0	636.8	649.9	652.1	655.4	658.7	657.6	653.2	651.0
55°	555.5	559.9	567.6	570.9	580.8	579.7	580.8	580.8	576.4	574.2	570.9
57.5°	492.9	494.0	498.4	499.5	505.0	502.8	501.7	499.5	492.9	491.8	488.6
60°	429.3	427.1	437.0	429.3	433.7	429.3	428.2	422.7	416.1	415.0	412.8
62.5°	368.9	364.5	371.1	367.8	370.0	365.6	363.4	356.8	351.3	350.2	349.1
65°	315.1	312.9	319.5	318.4	320.6	315.1	312.9	308.5	304.1	303.0	301.9
67.5°	270.1	275.6	278.9	278.9	281.1	280.0	274.5	273.4	272.3	267.9	267.9
70°	237.1	240.4	247.0	248.1	247.0	249.2	244.8	243.7	242.6	240.4	239.3
72.5°	210.8	215.2	221.8	222.9	221.8	221.8	219.6	218.5	218.5	215.2	215.2
75°	189.9	195.4	200.9	200.9	200.9	198.7	196.5	196.5	194.3	193.2	191.0
77.5°	172.4	179.0	183.3	182.2	181.1	179.0	179.0	175.7	172.4	172.4	170.2
80°	159.2	163.6	166.9	165.8	164.7	161.4	160.3	157.0	154.8	151.5	151.5
82.5°	144.9	150.4	152.6	151.5	149.3	146.0	144.9	142.7	140.5	139.4	137.2
85°	132.8	138.3	139.4	137.2	135.0	132.8	131.7	130.6	129.5	127.4	127.4
87.5°	120.8	126.3	126.3	125.2	123.0	121.9	120.8	119.7	118.6	117.5	116.4
90°	110.9	115.3	115.3	114.2	113.1	112.0	110.9	109.8	108.7	107.6	107.6
92.5°	101.0	105.4	105.4	104.3	103.2	102.1	102.1	101.0	99.9	98.8	97.7
95°	92.2	96.6	96.6	96.6	95.5	94.4	94.4	93.3	92.2	92.2	91.1
97.5°	83.4	87.8	87.8	87.8	86.7	85.6	85.6	84.5	84.5	84.5	83.4
100°	75.8	79.0	80.1	80.1	79.0	79.0	79.0	77.9	77.9	77.9	76.9
102.5°	68.1	71.4	73.6	73.6	73.6	72.5	72.5	72.5	72.5	72.5	71.4
105°	61.5	64.8	67.0	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
107.5°	56.0	59.3	61.5	62.6	63.7	63.7	64.8	64.8	64.8	64.8	64.8
110°	50.5	53.8	57.1	58.2	59.3	60.4	60.4	61.5	60.4	60.4	60.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	45.0	49.4	51.6	53.8	54.9	56.0	57.1	57.1	57.1	57.1	57.1
115°	40.6	45.0	47.2	49.4	51.6	52.7	52.7	53.8	53.8	53.8	52.7
117.5°	36.2	40.6	42.8	45.0	46.1	48.3	49.4	49.4	49.4	49.4	48.3
120°	32.9	36.2	38.4	40.6	42.8	43.9	45.0	45.0	45.0	45.0	45.0
122.5°	28.5	31.8	35.1	37.3	38.4	39.5	40.6	40.6	40.6	40.6	40.6
125°	25.3	28.5	30.7	32.9	34.0	36.2	36.2	36.2	36.2	36.2	36.2
127.5°	22.0	25.3	27.4	29.6	30.7	31.8	32.9	32.9	32.9	32.9	32.9
130°	18.7	22.0	24.2	26.3	27.4	28.5	28.5	29.6	29.6	29.6	29.6
132.5°	16.5	18.7	20.9	23.1	24.2	25.3	25.3	26.3	26.3	26.3	26.3
135°	13.2	16.5	17.6	19.8	20.9	22.0	22.0	23.1	23.1	23.1	23.1
137.5°	11.0	13.2	15.4	17.6	18.7	18.7	19.8	19.8	20.9	20.9	20.9
140°	8.8	9.9	13.2	14.3	15.4	16.5	17.6	17.6	17.6	17.6	17.6
142.5°	6.6	8.8	9.9	12.1	13.2	14.3	15.4	15.4	15.4	15.4	15.4
145°	5.5	6.6	7.7	9.9	11.0	12.1	13.2	13.2	13.2	13.2	13.2
147.5°	4.4	5.5	6.6	7.7	8.8	9.9	11.0	11.0	11.0	11.0	11.0
150°	3.3	4.4	5.5	5.5	6.6	7.7	8.8	9.9	9.9	9.9	9.9
152.5°	3.3	3.3	4.4	4.4	5.5	6.6	7.7	7.7	7.7	7.7	7.7
155°	2.2	3.3	3.3	3.3	4.4	4.4	5.5	6.6	6.6	6.6	6.6
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-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2125.5	2129.9	2127.7	2124.4	2123.3	2128.8	2123.3	2098.0	2107.9	2109.0	2116.7
5°	2122.2	2125.5	2123.3	2121.1	2117.8	2124.4	2117.8	2091.4	2101.3	2102.4	2110.1
7.5°	2144.1	2145.2	2145.2	2139.8	2131.0	2134.3	2125.5	2095.8	2101.3	2101.3	2106.8
10°	2199.0	2201.2	2204.5	2190.3	2179.3	2170.5	2158.4	2122.2	2121.1	2112.3	2112.3
12.5°	2270.4	2264.9	2259.4	2252.8	2244.0	2233.1	2215.5	2172.7	2158.4	2144.1	2129.9
15°	2291.3	2289.1	2288.0	2284.7	2279.2	2275.9	2262.7	2219.9	2199.0	2181.5	2156.2
17.5°	2236.4	2240.8	2255.0	2256.1	2262.7	2275.9	2273.7	2244.0	2225.4	2217.7	2187.0
20°	2137.6	2138.7	2156.2	2163.9	2192.4	2214.4	2230.9	2227.6	2223.2	2232.0	2208.9
22.5°	2019.0	2026.7	2045.3	2057.4	2084.9	2110.1	2136.5	2150.7	2173.8	2210.0	2205.6
25°	1857.6	1867.5	1893.8	1913.6	1952.0	1990.4	2025.6	2050.8	2078.3	2147.4	2170.5
27.5°	1664.4	1679.7	1713.8	1733.5	1787.3	1826.9	1877.4	1926.8	1965.2	2044.2	2091.4
30°	1461.3	1474.4	1510.7	1538.1	1584.2	1638.0	1701.7	1772.0	1835.6	1915.8	1975.1
32.5°	1271.3	1285.6	1315.2	1339.4	1391.0	1436.0	1506.3	1593.0	1652.3	1763.2	1842.2
35°	1105.6	1118.7	1139.6	1160.4	1203.3	1249.4	1309.8	1394.3	1470.0	1585.3	1685.2
37.5°	989.2	991.4	1003.5	1015.5	1047.4	1082.5	1129.7	1204.4	1274.6	1398.7	1508.5
40°	905.7	905.7	912.3	915.6	929.9	950.8	980.4	1038.6	1096.8	1191.2	1325.1
42.5°	854.1	851.9	851.9	853.0	851.9	861.8	879.4	906.8	958.4	1036.4	1140.7
45°	815.7	811.3	808.0	800.3	796.0	796.0	797.1	806.9	836.6	887.1	971.6
47.5°	772.9	771.8	766.3	757.5	749.8	744.4	735.6	732.3	741.1	769.6	826.7
50°	723.5	718.0	712.5	705.9	697.1	691.7	675.2	676.3	668.6	681.8	711.4
52.5°	651.0	646.6	644.5	639.0	635.7	633.5	620.3	607.1	603.8	606.0	617.0
55°	570.9	573.1	564.3	568.7	567.6	557.7	552.2	542.3	539.1	538.0	543.4
57.5°	487.5	489.7	484.2	488.6	488.6	483.1	479.8	479.8	472.1	465.5	473.2
60°	411.7	407.3	410.6	416.1	416.1	412.8	410.6	410.6	405.1	402.9	408.4
62.5°	350.2	345.8	349.1	354.6	355.7	353.5	351.3	351.3	344.7	344.7	349.1
65°	303.0	304.1	303.0	307.4	307.4	308.5	306.3	304.1	296.4	299.7	298.6
67.5°	269.0	267.9	267.9	272.3	271.2	273.4	271.2	267.9	262.4	258.0	256.9
70°	240.4	239.3	239.3	241.5	242.6	242.6	241.5	239.3	231.7	227.3	224.0
72.5°	215.2	214.1	215.2	216.3	217.4	218.5	217.4	215.2	208.6	203.1	197.6
75°	192.1	191.0	194.3	194.3	195.4	195.4	196.5	195.4	189.9	183.3	176.8
77.5°	169.1	170.2	173.5	174.6	176.8	177.9	179.0	179.0	173.5	168.0	159.2
80°	150.4	152.6	154.8	155.9	158.1	161.4	162.5	163.6	159.2	153.7	143.8
82.5°	137.2	138.3	140.5	141.6	144.9	146.0	147.1	149.3	147.1	141.6	130.6
85°	126.3	127.4	129.5	129.5	131.7	133.9	135.0	136.1	135.0	129.5	118.6
87.5°	116.4	117.5	118.6	119.7	120.8	121.9	123.0	124.1	123.0	117.5	107.6
90°	107.6	107.6	108.7	108.7	109.8	110.9	113.1	113.1	112.0	107.6	97.7
92.5°	97.7	98.8	98.8	99.9	101.0	102.1	103.2	103.2	102.1	97.7	88.9
95°	91.1	91.1	92.2	92.2	93.3	93.3	94.4	94.4	93.3	88.9	80.1
97.5°	83.4	83.4	83.4	83.4	84.5	84.5	85.6	85.6	84.5	80.1	72.5
100°	76.9	76.9	76.9	76.9	76.9	77.9	77.9	77.9	76.9	72.5	64.8
102.5°	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	69.2	65.9	58.2
105°	68.1	68.1	68.1	67.0	67.0	67.0	65.9	65.9	62.6	59.3	52.7
107.5°	63.7	63.7	63.7	62.6	62.6	61.5	60.4	60.4	57.1	53.8	47.2
110°	60.4	60.4	60.4	59.3	58.2	57.1	56.0	54.9	51.6	47.2	41.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	57.1	57.1	56.0	56.0	54.9	53.8	51.6	50.5	47.2	42.8	37.3
115°	52.7	52.7	52.7	51.6	50.5	49.4	48.3	46.1	42.8	38.4	32.9
117.5°	48.3	48.3	48.3	47.2	46.1	45.0	43.9	41.7	38.4	34.0	29.6
120°	43.9	43.9	43.9	42.8	41.7	40.6	39.5	37.3	34.0	30.7	25.3
122.5°	40.6	40.6	39.5	38.4	37.3	36.2	35.1	32.9	30.7	26.3	22.0
125°	36.2	36.2	35.1	35.1	34.0	32.9	31.8	29.6	26.3	23.1	19.8
127.5°	32.9	31.8	31.8	31.8	30.7	29.6	27.4	26.3	23.1	19.8	16.5
130°	28.5	28.5	28.5	27.4	27.4	26.3	24.2	22.0	19.8	17.6	14.3
132.5°	25.3	25.3	25.3	25.3	24.2	23.1	20.9	19.8	17.6	14.3	12.1
135°	23.1	23.1	22.0	22.0	20.9	19.8	18.7	16.5	14.3	12.1	9.9
137.5°	19.8	19.8	19.8	18.7	18.7	17.6	15.4	14.3	13.2	11.0	8.8
140°	17.6	17.6	16.5	16.5	15.4	15.4	14.3	12.1	11.0	8.8	7.7
142.5°	15.4	15.4	14.3	14.3	13.2	13.2	12.1	11.0	8.8	7.7	5.5
145°	13.2	13.2	12.1	12.1	12.1	11.0	9.9	8.8	7.7	6.6	5.5
147.5°	11.0	11.0	11.0	9.9	9.9	8.8	8.8	7.7	6.6	5.5	4.4
150°	9.9	9.9	8.8	8.8	8.8	7.7	6.6	6.6	5.5	4.4	3.3
152.5°	7.7	7.7	7.7	7.7	6.6	6.6	5.5	5.5	4.4	3.3	3.3
155°	6.6	6.6	6.6	5.5	5.5	5.5	4.4	4.4	3.3	3.3	2.2
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-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2113.4	2112.3	2122.2	2121.1	2107.9	2127.7	2140.8
5°	2107.9	2106.8	2115.6	2117.8	2103.5	2124.4	2138.7
7.5°	2103.5	2102.4	2112.3	2115.6	2101.3	2120.0	2135.4
10°	2104.6	2099.1	2107.9	2110.1	2096.9	2116.7	2129.9
12.5°	2112.3	2099.1	2102.4	2102.4	2090.3	2107.9	2122.2
15°	2131.0	2103.5	2099.1	2095.8	2080.5	2096.9	2111.2
17.5°	2151.8	2114.5	2099.1	2088.2	2069.5	2083.8	2099.1
20°	2172.7	2126.6	2101.3	2083.8	2058.5	2071.7	2082.7
22.5°	2182.6	2137.6	2103.5	2077.2	2045.3	2051.9	2064.0
25°	2169.4	2133.2	2099.1	2067.3	2028.9	2030.0	2039.8
27.5°	2121.1	2111.2	2089.2	2057.4	2015.7	2010.2	2017.9
30°	2038.7	2066.2	2067.3	2044.2	2000.3	1989.3	1992.6
32.5°	1923.5	1985.0	2021.2	2016.8	1978.4	1963.0	1965.2
35°	1790.6	1867.5	1946.5	1972.9	1945.4	1933.4	1929.0
37.5°	1631.4	1734.6	1840.0	1904.8	1900.4	1892.7	1888.3
40°	1455.8	1579.8	1705.0	1808.2	1840.0	1840.0	1842.2
42.5°	1268.0	1413.0	1550.2	1680.8	1755.5	1772.0	1778.6
45°	1086.9	1232.9	1382.2	1532.6	1632.5	1684.1	1702.8
47.5°	922.2	1069.3	1211.0	1375.6	1508.5	1575.4	1605.1
50°	781.7	891.5	1040.8	1204.4	1349.3	1431.6	1489.8
52.5°	665.3	750.9	881.6	1034.2	1180.2	1293.3	1347.1
55°	567.6	625.8	736.7	868.4	1007.8	1125.3	1187.9
57.5°	485.3	531.4	607.1	716.9	834.4	950.8	1017.7
60°	412.8	444.6	496.2	583.0	682.9	782.8	847.6
62.5°	350.2	371.1	405.1	468.8	546.7	624.7	685.1
65°	301.9	310.7	329.4	368.9	428.2	487.5	539.1
67.5°	254.7	260.2	274.5	298.6	328.3	371.1	405.1
70°	219.6	219.6	220.7	234.9	250.3	277.8	301.9
72.5°	191.0	187.7	181.1	184.4	187.7	203.1	218.5
75°	168.0	160.3	149.3	144.9	142.7	144.9	153.7
77.5°	148.2	137.2	124.1	113.1	104.3	101.0	108.7
80°	131.7	118.6	103.2	88.9	74.7	67.0	70.3
82.5°	118.6	102.1	85.6	69.2	52.7	41.7	41.7
85°	104.3	88.9	71.4	53.8	37.3	23.1	20.9
87.5°	94.4	77.9	59.3	42.8	26.3	12.1	6.6
90°	84.5	68.1	50.5	34.0	18.7	5.5	0.0
92.5°	75.8	60.4	43.9	27.4	13.2	3.3	0.0
95°	68.1	53.8	37.3	23.1	11.0	2.2	1.1
97.5°	60.4	47.2	32.9	18.7	7.7	2.2	1.1
100°	54.9	41.7	28.5	15.4	6.6	1.1	1.1
102.5°	48.3	37.3	24.2	13.2	5.5	1.1	1.1
105°	42.8	32.9	20.9	11.0	4.4	1.1	1.1
107.5°	38.4	28.5	18.7	9.9	4.4	1.1	1.1
110°	34.0	25.3	16.5	8.8	3.3	1.1	1.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	30.7	22.0	14.3	7.7	2.2	1.1	1.1
115°	26.3	19.8	12.1	6.6	2.2	1.1	1.1
117.5°	23.1	16.5	11.0	5.5	2.2	1.1	1.1
120°	19.8	14.3	8.8	4.4	1.1	1.1	1.1
122.5°	17.6	12.1	7.7	4.4	1.1	1.1	1.1
125°	15.4	11.0	6.6	3.3	1.1	1.1	1.1
127.5°	13.2	8.8	5.5	2.2	1.1	1.1	1.1
130°	11.0	7.7	4.4	2.2	1.1	1.1	1.1
132.5°	8.8	6.6	4.4	2.2	1.1	1.1	1.1
135°	7.7	5.5	3.3	2.2	1.1	1.1	1.1
137.5°	6.6	4.4	2.2	2.2	2.2	1.1	1.1
140°	5.5	3.3	2.2	2.2	2.2	2.2	1.1
142.5°	4.4	3.3	2.2	2.2	2.2	2.2	1.1
145°	3.3	2.2	2.2	2.2	2.2	2.2	1.1
147.5°	3.3	2.2	2.2	2.2	2.2	2.2	1.1
150°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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)