

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-LD5-64SL-LN-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 (P33519)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

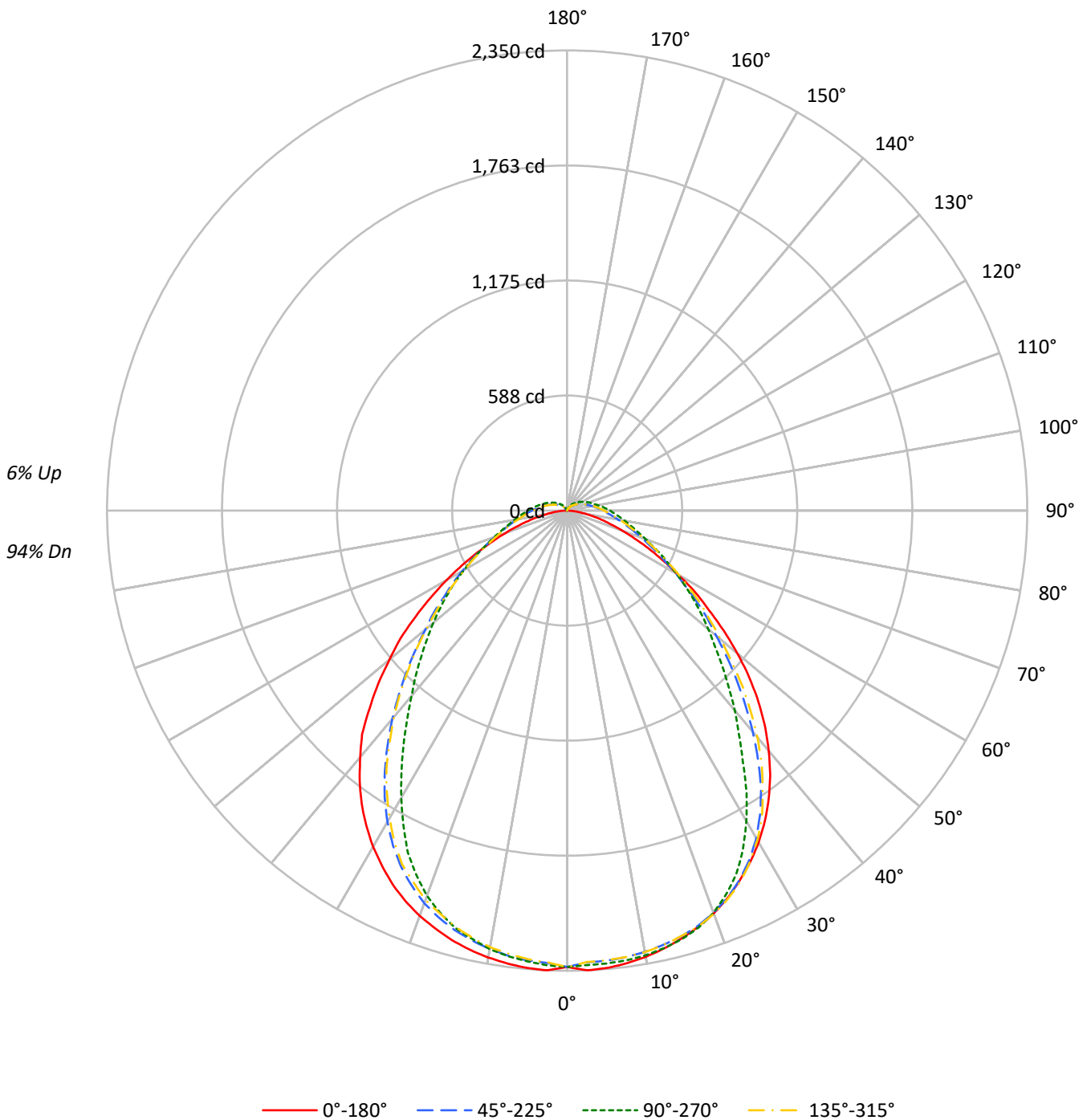
Lumens per Lamp: N/A
Luminaire Lumens: 5898.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 55
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-LD5-64SL-LN-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	114	114	114	114	108	108	108	102	102	102	96	96	96	94				
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79				
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67				
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57				
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50				
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44				
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39				
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35				
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31				
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28				
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	18833	18833	18833	18833
5°	18967	18234	18967	18153
10°	18883	17749	18914	17502
15°	18761	17219	18847	16770
20°	18617	16537	18727	15839
25°	18318	15525	18521	14611
30°	17930	14039	18166	12997
35°	17326	12218	17660	11376
40°	16458	10685	16893	9914
45°	15314	9288	15812	8755
50°	13751	8162	14357	7750
55°	11895	7207	12760	6843
60°	10004	6328	10909	5964
65°	8200	5596	9028	5188
70°	6528	4965	7309	4592
75°	5125	4584	5771	4217
80°	3700	4423	4356	4043
85°	2275	4448	3067	4089



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.0	3.7
10°-20°	633.5	10.7
20°-30°	939.0	15.9
30°-40°	1043.2	17.7
40°-50°	945.6	16.0
50°-60°	732.7	12.4
60°-70°	497.6	8.4
70°-80°	316.6	5.4
80°-90°	202.4	3.4
90°-100°	136.5	2.3
100°-110°	93.5	1.6
110°-120°	62.3	1.1
120°-130°	38.8	0.7
130°-140°	21.4	0.4
140°-150°	10.1	0.2
150°-160°	3.7	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1793.5	30.4
0°-40°	2836.6	48.1
0°-60°	4515.0	76.6
0°-90°	5531.5	93.8
90°-120°	292.3	5.0
90°-150°	362.6	6.1
90°-180°	366.0	6.2
0°-180°	5898.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2330	2330	2330	2330	2330	
5°	2345	2322	2345	2311	2345	223
15°	2261	2265	2272	2206	2261	638
25°	2084	2046	2108	1926	2084	960
35°	1795	1564	1829	1456	1795	1120
45°	1382	1118	1427	1054	1382	1061
55°	882	786	946	746	882	794
65°	458	528	504	490	458	459
75°	183	352	206	324	183	197
85°	33	254	45	233	33	40
90°	0	219	3	200	0	2
95°	1	187	0	174	1	1
105°	1	137	0	130	1	1
115°	1	104	0	96	1	1
125°	1	77	1	68	1	1
135°	1	54	1	44	1	1
145°	1	35	1	24	1	1
155°	1	19	1	9	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2349.8	2347.2	2344.6	2340.8	2344.6	2354.9	2348.5	2334.4	2331.8	2308.8	2319.0
5°	2344.6	2340.8	2338.2	2334.4	2339.5	2352.3	2345.9	2333.1	2329.3	2307.5	2319.0
7.5°	2331.8	2329.3	2325.4	2325.4	2330.5	2343.4	2338.2	2324.1	2321.6	2299.8	2312.6
10°	2313.9	2312.6	2310.0	2310.0	2315.2	2330.5	2324.1	2311.3	2308.8	2288.2	2302.3
12.5°	2290.8	2292.1	2288.2	2288.2	2295.9	2311.3	2306.2	2292.1	2289.5	2271.6	2285.7
15°	2261.3	2262.6	2260.0	2261.3	2269.0	2287.0	2280.6	2267.7	2265.2	2251.1	2262.6
17.5°	2228.0	2229.3	2229.3	2228.0	2237.0	2254.9	2249.8	2238.2	2234.4	2222.9	2237.0
20°	2189.5	2189.5	2189.5	2189.5	2199.8	2217.7	2211.3	2202.4	2194.7	2185.7	2197.2
22.5°	2142.1	2140.8	2142.1	2145.9	2156.2	2170.3	2166.5	2156.2	2144.7	2139.5	2148.5
25°	2084.4	2088.3	2089.5	2093.4	2106.2	2117.7	2113.9	2103.6	2085.7	2081.9	2084.4
27.5°	2024.2	2026.7	2030.6	2029.3	2047.2	2058.8	2051.1	2042.1	2016.5	2012.6	2010.1
30°	1956.2	1960.1	1962.6	1961.4	1975.5	1988.3	1980.6	1969.0	1934.4	1931.9	1911.4
32.5°	1879.3	1883.2	1885.7	1885.7	1906.2	1911.4	1897.3	1880.6	1843.4	1834.4	1816.5
35°	1794.7	1798.5	1799.8	1799.8	1820.3	1819.1	1801.1	1778.0	1737.0	1725.5	1694.7
37.5°	1703.7	1706.2	1707.5	1715.2	1724.2	1716.5	1693.4	1663.9	1633.2	1601.1	1567.8
40°	1601.1	1605.0	1607.5	1612.7	1621.6	1612.7	1579.3	1543.4	1510.1	1474.2	1440.9
42.5°	1496.0	1507.5	1505.0	1503.7	1508.8	1484.5	1458.8	1417.8	1384.5	1347.3	1314.0
45°	1381.9	1380.6	1387.0	1389.6	1388.3	1367.8	1331.9	1294.7	1261.4	1223.0	1194.8
47.5°	1261.4	1260.1	1265.3	1267.8	1260.1	1238.3	1210.1	1167.8	1139.6	1106.3	1084.5
50°	1134.5	1134.5	1142.2	1134.5	1130.7	1108.9	1085.8	1043.5	1021.7	992.2	979.4
52.5°	1007.6	1019.1	1011.4	1008.9	1005.0	983.2	965.3	930.7	912.7	899.9	884.5
55°	882.0	894.8	889.7	885.8	884.5	866.6	849.9	824.3	812.7	803.8	794.8
57.5°	775.6	774.3	771.7	767.9	769.2	755.1	738.4	724.3	719.2	715.3	717.9
60°	652.5	662.8	658.9	660.2	661.5	658.9	644.8	635.8	637.1	638.4	642.2
62.5°	551.2	560.2	566.6	561.5	564.0	567.9	560.2	557.6	562.8	567.9	573.0
65°	457.6	466.6	473.0	471.7	479.4	487.1	485.9	488.4	500.0	506.4	512.8
67.5°	373.0	382.0	391.0	392.3	403.8	415.3	420.5	429.4	442.3	451.2	458.9
70°	300.0	307.7	317.9	324.3	339.7	355.1	364.1	382.0	389.7	402.5	407.7
72.5°	234.6	241.0	255.1	270.5	283.3	302.5	320.5	335.9	347.4	361.5	367.9
75°	183.3	185.9	201.3	219.2	237.2	258.9	278.2	294.8	310.2	324.3	334.6
77.5°	134.6	138.4	152.5	176.9	197.4	220.5	242.3	260.2	276.9	291.0	305.1
80°	93.6	101.3	116.7	141.0	164.1	189.7	210.2	230.7	248.7	262.8	276.9
82.5°	60.3	66.7	88.5	112.8	137.2	162.8	184.6	205.1	224.3	239.7	252.5
85°	33.3	42.3	64.1	89.7	114.1	139.7	162.8	183.3	202.5	216.6	229.5
87.5°	12.8	25.6	46.1	70.5	94.9	119.2	143.6	162.8	182.0	197.4	209.0
90°	0.0	15.4	34.6	59.0	83.3	107.7	130.8	151.3	169.2	183.3	196.1
92.5°	1.3	10.3	26.9	47.4	70.5	93.6	115.4	135.9	153.8	167.9	179.5
95°	1.3	7.7	21.8	41.0	61.5	83.3	103.8	123.1	139.7	153.8	165.4
97.5°	1.3	5.1	17.9	35.9	53.8	75.6	94.9	112.8	128.2	142.3	151.3
100°	1.3	5.1	15.4	30.8	48.7	67.9	85.9	103.8	117.9	129.5	139.7
102.5°	1.3	3.8	12.8	26.9	43.6	60.3	78.2	94.9	107.7	119.2	129.5
105°	1.3	3.8	11.5	23.1	38.5	55.1	70.5	85.9	100.0	110.2	119.2
107.5°	1.3	2.6	10.3	19.2	33.3	50.0	65.4	78.2	91.0	101.3	110.2
110°	1.3	2.6	9.0	17.9	29.5	44.9	59.0	71.8	83.3	93.6	101.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.3	2.6	7.7	16.7	26.9	39.7	53.8	65.4	76.9	85.9	93.6
115°	1.3	2.6	7.7	15.4	24.4	34.6	47.4	60.3	69.2	79.5	85.9
117.5°	1.3	2.6	6.4	12.8	23.1	32.0	43.6	53.8	64.1	73.1	79.5
120°	1.3	2.6	6.4	11.5	20.5	29.5	38.5	48.7	59.0	65.4	71.8
122.5°	1.3	2.6	5.1	11.5	17.9	26.9	34.6	43.6	52.6	60.3	66.7
125°	1.3	2.6	5.1	10.3	16.7	24.4	32.0	38.5	47.4	53.8	60.3
127.5°	1.3	2.6	5.1	9.0	15.4	21.8	29.5	35.9	42.3	48.7	53.8
130°	1.3	2.6	3.8	7.7	14.1	19.2	25.6	33.3	38.5	43.6	48.7
132.5°	1.3	2.6	3.8	7.7	11.5	16.7	23.1	29.5	34.6	39.7	43.6
135°	1.3	2.6	3.8	6.4	10.3	15.4	19.2	25.6	30.8	35.9	39.7
137.5°	1.3	2.6	3.8	6.4	9.0	12.8	16.7	21.8	26.9	30.8	35.9
140°	1.3	2.6	3.8	5.1	7.7	11.5	15.4	17.9	23.1	26.9	30.8
142.5°	1.3	2.6	3.8	5.1	7.7	10.3	12.8	15.4	19.2	23.1	26.9
145°	1.3	2.6	3.8	5.1	6.4	9.0	11.5	14.1	15.4	19.2	21.8
147.5°	1.3	2.6	3.8	5.1	5.1	7.7	10.3	11.5	14.1	15.4	17.9
150°	1.3	2.6	3.8	3.8	5.1	6.4	9.0	10.3	11.5	14.1	15.4
152.5°	1.3	2.6	3.8	3.8	5.1	6.4	7.7	9.0	10.3	11.5	12.8
155°	1.3	2.6	3.8	3.8	3.8	5.1	6.4	7.7	9.0	10.3	11.5
157.5°	2.6	2.6	2.6	3.8	3.8	5.1	5.1	6.4	7.7	7.7	9.0
160°	2.6	2.6	2.6	3.8	3.8	3.8	5.1	5.1	6.4	6.4	7.7
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°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2316.4	2320.3	2331.8	2331.8	2329.3	2326.7	2326.7	2322.9	2325.4	2330.5	2328.0
5°	2316.4	2320.3	2331.8	2331.8	2329.3	2326.7	2325.4	2321.6	2325.4	2330.5	2328.0
7.5°	2308.8	2313.9	2325.4	2325.4	2322.9	2321.6	2319.0	2316.4	2320.3	2325.4	2322.9
10°	2298.5	2303.6	2315.2	2315.2	2312.6	2312.6	2308.8	2306.2	2311.3	2315.2	2313.9
12.5°	2283.1	2289.5	2299.8	2298.5	2295.9	2297.2	2293.4	2288.2	2293.4	2297.2	2298.5
15°	2261.3	2269.0	2279.3	2276.7	2272.9	2275.4	2269.0	2265.2	2269.0	2276.7	2275.4
17.5°	2233.1	2238.2	2245.9	2245.9	2242.1	2239.5	2237.0	2233.1	2235.7	2240.8	2242.1
20°	2193.4	2199.8	2203.6	2199.8	2198.5	2194.7	2189.5	2185.7	2190.8	2198.5	2199.8
22.5°	2140.8	2142.1	2151.1	2142.1	2135.7	2134.4	2129.3	2121.6	2129.3	2135.7	2137.0
25°	2075.4	2081.9	2078.0	2062.6	2062.6	2052.4	2049.8	2046.0	2047.2	2058.8	2063.9
27.5°	1992.1	1994.7	1984.4	1971.6	1960.1	1953.7	1944.7	1946.0	1946.0	1961.4	1966.5
30°	1901.1	1887.0	1878.0	1857.5	1848.5	1833.2	1830.6	1830.6	1828.0	1835.7	1858.8
32.5°	1792.1	1772.9	1758.8	1739.6	1724.2	1708.8	1701.1	1705.0	1703.7	1722.9	1730.6
35°	1672.9	1661.4	1631.9	1607.5	1598.6	1575.5	1575.5	1564.0	1571.6	1593.4	1602.4
37.5°	1547.3	1529.3	1505.0	1478.1	1471.7	1453.7	1447.3	1440.9	1457.6	1461.4	1470.4
40°	1419.1	1402.4	1379.4	1353.7	1353.7	1331.9	1331.9	1331.9	1333.2	1340.9	1357.6
42.5°	1297.3	1279.4	1258.9	1240.9	1238.3	1221.7	1221.7	1220.4	1223.0	1229.4	1244.8
45°	1179.4	1165.3	1143.5	1134.5	1135.8	1117.8	1121.7	1117.8	1123.0	1129.4	1134.5
47.5°	1070.4	1061.4	1052.5	1039.6	1035.8	1034.5	1028.1	1023.0	1032.0	1032.0	1039.6
50°	969.1	964.0	958.9	951.2	952.5	947.3	939.7	939.7	946.1	947.3	952.5
52.5°	880.7	874.3	867.9	869.1	870.4	867.9	864.0	860.2	864.0	866.6	873.0
55°	792.2	787.1	793.5	791.0	793.5	791.0	788.4	785.8	792.2	788.4	794.8
57.5°	712.8	717.9	720.4	715.3	719.2	716.6	717.9	714.0	719.2	721.7	720.4
60°	639.7	647.4	643.5	644.8	649.9	647.4	642.2	646.1	651.2	652.5	651.2
62.5°	573.0	582.0	585.8	583.3	584.6	582.0	585.8	580.7	587.1	589.7	585.8
65°	512.8	523.0	525.6	525.6	525.6	523.0	526.9	528.2	530.7	530.7	528.2
67.5°	461.5	470.5	473.0	475.6	473.0	470.5	470.5	471.7	476.9	479.4	476.9
70°	415.3	424.3	425.6	425.6	426.9	429.4	424.3	426.9	430.7	432.0	430.7
72.5°	375.6	384.6	387.1	385.9	387.1	388.4	388.4	385.9	389.7	392.3	392.3
75°	343.6	348.7	351.2	351.2	352.5	353.8	353.8	352.5	355.1	356.4	357.7
77.5°	314.1	317.9	321.8	321.8	323.0	321.8	324.3	324.3	325.6	326.9	328.2
80°	284.6	289.7	292.3	293.6	296.1	297.4	297.4	297.4	298.7	300.0	300.0
82.5°	261.5	265.4	269.2	273.1	273.1	274.3	274.3	274.3	275.6	275.6	276.9
85°	238.4	243.6	247.4	250.0	251.3	252.5	252.5	253.8	253.8	253.8	255.1
87.5°	217.9	224.3	226.9	229.5	230.7	233.3	233.3	233.3	234.6	234.6	234.6
90°	203.8	210.2	212.8	215.4	216.6	217.9	217.9	219.2	219.2	220.5	220.5
92.5°	187.2	193.6	198.7	198.7	200.0	202.5	201.3	201.3	202.5	203.8	203.8
95°	174.3	179.5	183.3	184.6	185.9	185.9	185.9	187.2	185.9	187.2	187.2
97.5°	159.0	164.1	167.9	170.5	171.8	171.8	171.8	173.1	171.8	173.1	173.1
100°	146.1	151.3	155.1	156.4	159.0	159.0	159.0	159.0	159.0	159.0	160.2
102.5°	135.9	141.0	143.6	144.9	146.1	147.4	147.4	147.4	147.4	148.7	148.7
105°	125.6	130.8	133.3	134.6	135.9	137.2	137.2	137.2	138.4	138.4	137.2
107.5°	116.7	120.5	123.1	125.6	126.9	126.9	128.2	128.2	128.2	128.2	128.2
110°	107.7	111.5	115.4	117.9	117.9	119.2	119.2	120.5	120.5	119.2	120.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	98.7	103.8	106.4	109.0	110.2	111.5	111.5	111.5	111.5	111.5	111.5
115°	91.0	96.1	98.7	101.3	102.6	103.8	103.8	103.8	103.8	103.8	103.8
117.5°	84.6	89.7	92.3	93.6	94.9	96.1	97.4	97.4	97.4	97.4	96.1
120°	78.2	82.0	84.6	87.2	88.5	89.7	89.7	89.7	89.7	89.7	89.7
122.5°	71.8	75.6	78.2	80.8	82.0	83.3	83.3	83.3	83.3	83.3	83.3
125°	65.4	69.2	71.8	74.4	75.6	76.9	76.9	76.9	76.9	76.9	76.9
127.5°	59.0	62.8	66.7	67.9	69.2	70.5	70.5	70.5	71.8	70.5	70.5
130°	52.6	56.4	60.3	61.5	62.8	64.1	65.4	65.4	65.4	65.4	64.1
132.5°	47.4	51.3	53.8	55.1	57.7	57.7	59.0	59.0	59.0	59.0	57.7
135°	43.6	46.1	48.7	50.0	52.6	52.6	52.6	53.8	53.8	52.6	51.3
137.5°	38.5	41.0	43.6	44.9	46.1	47.4	47.4	48.7	47.4	47.4	47.4
140°	35.9	37.2	39.7	41.0	42.3	42.3	42.3	43.6	43.6	42.3	42.3
142.5°	30.8	33.3	35.9	37.2	38.5	38.5	38.5	38.5	38.5	38.5	38.5
145°	25.6	29.5	30.8	33.3	33.3	34.6	34.6	34.6	34.6	34.6	33.3
147.5°	21.8	24.4	28.2	29.5	29.5	30.8	30.8	30.8	30.8	30.8	29.5
150°	16.7	19.2	23.1	25.6	25.6	26.9	26.9	26.9	26.9	25.6	25.6
152.5°	14.1	16.7	17.9	20.5	21.8	21.8	21.8	23.1	21.8	21.8	21.8
155°	12.8	14.1	15.4	16.7	17.9	19.2	19.2	19.2	19.2	17.9	17.9
157.5°	10.3	11.5	12.8	14.1	15.4	16.7	16.7	16.7	16.7	16.7	15.4
160°	7.7	9.0	10.3	10.3	11.5	12.8	14.1	12.8	12.8	12.8	12.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2325.4	2324.1	2328.0	2321.6	2302.3	2307.5	2304.9	2316.4	2319.0	2321.6	2333.1
5°	2325.4	2324.1	2326.7	2321.6	2301.1	2304.9	2302.3	2313.9	2316.4	2317.7	2329.3
7.5°	2320.3	2319.0	2322.9	2316.4	2294.7	2299.8	2295.9	2307.5	2308.8	2310.0	2320.3
10°	2310.0	2308.8	2311.3	2306.2	2284.4	2289.5	2284.4	2295.9	2295.9	2298.5	2306.2
12.5°	2294.7	2292.1	2297.2	2290.8	2266.4	2272.9	2270.3	2278.0	2279.3	2280.6	2288.2
15°	2272.9	2270.3	2274.1	2270.3	2248.5	2249.8	2245.9	2257.5	2258.8	2256.2	2263.9
17.5°	2240.8	2238.2	2245.9	2243.4	2221.6	2226.7	2225.4	2228.0	2231.8	2225.4	2235.7
20°	2201.1	2203.6	2206.2	2207.5	2190.8	2190.8	2189.5	2194.7	2198.5	2193.4	2201.1
22.5°	2142.1	2148.5	2156.2	2158.8	2147.2	2145.9	2153.6	2151.1	2154.9	2152.4	2157.5
25°	2067.8	2080.6	2088.3	2096.0	2089.5	2092.1	2103.6	2106.2	2106.2	2104.9	2110.1
27.5°	1975.5	1992.1	2006.2	2022.9	2016.5	2021.6	2040.8	2043.4	2048.5	2043.4	2053.6
30°	1865.2	1880.6	1907.5	1931.9	1934.4	1942.1	1969.0	1971.6	1985.7	1980.6	1984.4
32.5°	1755.0	1762.7	1793.4	1817.8	1833.2	1852.4	1881.9	1887.0	1906.2	1910.1	1910.1
35°	1616.5	1638.3	1666.5	1701.1	1720.3	1740.9	1780.6	1788.3	1816.5	1825.5	1835.7
37.5°	1499.9	1520.4	1538.3	1574.2	1608.8	1631.9	1663.9	1683.2	1712.7	1729.3	1742.1
40°	1375.5	1392.2	1411.4	1447.3	1476.8	1511.4	1543.4	1566.5	1603.7	1622.9	1639.6
42.5°	1257.6	1270.4	1290.9	1316.5	1347.3	1385.8	1416.5	1443.5	1483.2	1510.1	1529.3
45°	1152.5	1160.1	1178.1	1197.3	1224.2	1264.0	1293.5	1328.1	1360.1	1388.3	1411.4
47.5°	1053.7	1064.0	1073.0	1085.8	1110.2	1134.5	1169.1	1202.4	1234.5	1265.3	1288.3
50°	962.7	962.7	976.8	985.8	1002.5	1024.3	1051.2	1074.3	1114.0	1135.8	1165.3
52.5°	874.3	879.4	887.1	892.2	905.0	919.1	940.9	960.2	993.5	1014.0	1042.2
55°	796.1	801.2	805.1	807.6	815.3	832.0	839.7	855.0	878.1	894.8	919.1
57.5°	721.7	724.3	728.1	729.4	730.7	741.0	747.4	751.2	774.3	791.0	811.5
60°	653.8	653.8	657.6	656.3	655.1	660.2	658.9	662.8	676.9	687.1	696.1
62.5°	589.7	589.7	591.0	588.4	587.1	587.1	582.0	585.8	589.7	591.0	597.4
65°	530.7	537.1	532.0	533.3	525.6	523.0	520.5	512.8	511.5	506.4	508.9
67.5°	478.2	483.3	478.2	478.2	471.7	466.6	460.2	447.4	443.5	433.3	430.7
70°	435.9	432.0	434.6	430.7	423.0	416.6	407.7	397.4	384.6	371.8	362.8
72.5°	394.8	394.8	392.3	388.4	384.6	371.8	361.5	350.0	334.6	317.9	305.1
75°	355.1	356.4	356.4	352.5	346.1	334.6	323.0	306.4	289.7	270.5	253.8
77.5°	326.9	326.9	326.9	320.5	314.1	303.8	289.7	271.8	253.8	230.7	211.5
80°	300.0	298.7	298.7	291.0	284.6	273.1	258.9	241.0	221.8	197.4	175.6
82.5°	278.2	276.9	274.3	267.9	258.9	247.4	233.3	214.1	193.6	171.8	144.9
85°	255.1	253.8	251.3	244.8	235.9	225.6	210.2	191.0	170.5	146.1	120.5
87.5°	234.6	233.3	229.5	225.6	215.4	203.8	188.4	170.5	148.7	125.6	100.0
90°	220.5	217.9	215.4	210.2	201.3	188.4	173.1	153.8	132.0	109.0	83.3
92.5°	203.8	202.5	198.7	193.6	185.9	173.1	157.7	139.7	117.9	96.1	71.8
95°	187.2	185.9	183.3	178.2	170.5	159.0	144.9	126.9	106.4	84.6	62.8
97.5°	171.8	171.8	167.9	164.1	155.1	146.1	132.0	115.4	96.1	76.9	56.4
100°	159.0	159.0	155.1	150.0	143.6	134.6	120.5	105.1	87.2	69.2	48.7
102.5°	147.4	146.1	143.6	138.4	132.0	123.1	110.2	96.1	79.5	61.5	43.6
105°	137.2	135.9	133.3	128.2	123.1	112.8	102.6	88.5	71.8	55.1	38.5
107.5°	126.9	125.6	124.3	119.2	112.8	103.8	93.6	79.5	65.4	50.0	34.6
110°	117.9	116.7	114.1	109.0	102.6	94.9	84.6	73.1	59.0	44.9	30.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	110.2	109.0	106.4	101.3	96.1	87.2	78.2	65.4	53.8	41.0	26.9
115°	102.6	101.3	98.7	93.6	87.2	79.5	70.5	60.3	47.4	35.9	24.4
117.5°	94.9	93.6	91.0	87.2	80.8	73.1	64.1	53.8	42.3	33.3	21.8
120°	88.5	85.9	83.3	79.5	73.1	66.7	57.7	48.7	38.5	29.5	19.2
122.5°	82.0	79.5	76.9	73.1	66.7	60.3	51.3	43.6	35.9	26.9	17.9
125°	74.4	73.1	70.5	66.7	60.3	53.8	47.4	39.7	32.0	24.4	15.4
127.5°	67.9	66.7	64.1	59.0	53.8	48.7	42.3	35.9	28.2	20.5	14.1
130°	62.8	60.3	57.7	53.8	50.0	44.9	38.5	32.0	25.6	17.9	12.8
132.5°	56.4	53.8	51.3	48.7	44.9	39.7	34.6	28.2	23.1	16.7	11.5
135°	51.3	48.7	46.1	43.6	39.7	35.9	30.8	25.6	20.5	15.4	10.3
137.5°	44.9	43.6	42.3	39.7	35.9	32.0	28.2	21.8	17.9	14.1	9.0
140°	41.0	39.7	38.5	34.6	32.0	28.2	24.4	19.2	15.4	11.5	7.7
142.5°	37.2	35.9	33.3	30.8	28.2	25.6	20.5	17.9	14.1	10.3	7.7
145°	32.0	30.8	29.5	26.9	24.4	20.5	17.9	15.4	12.8	9.0	6.4
147.5°	29.5	28.2	25.6	23.1	20.5	17.9	16.7	14.1	10.3	7.7	5.1
150°	24.4	23.1	21.8	19.2	17.9	16.7	14.1	11.5	9.0	6.4	5.1
152.5°	20.5	19.2	17.9	17.9	15.4	14.1	11.5	10.3	7.7	6.4	3.8
155°	17.9	17.9	16.7	15.4	12.8	11.5	10.3	7.7	6.4	5.1	3.8
157.5°	15.4	14.1	12.8	12.8	11.5	10.3	7.7	6.4	5.1	5.1	3.8
160°	12.8	11.5	11.5	10.3	9.0	7.7	6.4	6.4	5.1	3.8	3.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2334.4	2320.3	2333.1	2349.8	2349.8	2347.2	2344.6	2349.8	2362.6	2357.5	2342.1
5°	2330.5	2316.4	2328.0	2344.6	2344.6	2340.8	2338.2	2342.1	2356.2	2349.8	2335.7
7.5°	2322.9	2310.0	2317.7	2333.1	2333.1	2329.3	2326.7	2331.8	2343.4	2337.0	2321.6
10°	2308.8	2294.7	2303.6	2317.7	2316.4	2313.9	2310.0	2316.4	2326.7	2317.7	2299.8
12.5°	2290.8	2276.7	2284.4	2297.2	2295.9	2290.8	2288.2	2292.1	2301.1	2295.9	2276.7
15°	2266.4	2252.3	2258.8	2271.6	2267.7	2263.9	2258.8	2260.0	2271.6	2262.6	2242.1
17.5°	2237.0	2221.6	2226.7	2238.2	2234.4	2230.6	2224.1	2225.4	2238.2	2225.4	2203.6
20°	2201.1	2184.4	2188.3	2202.4	2195.9	2189.5	2183.1	2183.1	2195.9	2181.8	2157.5
22.5°	2162.6	2145.9	2148.5	2158.8	2153.6	2142.1	2135.7	2139.5	2145.9	2128.0	2102.4
25°	2115.2	2093.4	2097.2	2107.5	2103.6	2088.3	2081.9	2084.4	2081.9	2067.8	2040.8
27.5°	2060.1	2037.0	2039.5	2046.0	2040.8	2026.7	2019.0	2020.3	2015.2	1997.2	1966.5
30°	1990.8	1979.3	1978.0	1981.9	1974.2	1960.1	1951.1	1948.5	1947.2	1921.6	1884.4
32.5°	1920.3	1910.1	1903.7	1908.8	1899.8	1885.7	1870.3	1870.3	1857.5	1833.2	1801.1
35°	1848.5	1831.9	1825.5	1829.3	1819.1	1801.1	1788.3	1781.9	1762.7	1731.9	1697.3
37.5°	1756.2	1744.7	1737.0	1740.9	1729.3	1716.5	1692.1	1685.7	1665.2	1622.9	1579.3
40°	1656.3	1647.3	1639.6	1643.4	1630.6	1611.4	1589.6	1579.3	1556.3	1508.8	1474.2
42.5°	1548.6	1544.7	1535.8	1549.9	1524.2	1505.0	1483.2	1466.5	1443.5	1392.2	1352.4
45°	1434.5	1443.5	1422.9	1426.8	1410.1	1393.5	1370.4	1346.0	1323.0	1274.2	1229.4
47.5°	1314.0	1320.4	1306.3	1308.8	1290.9	1275.5	1255.0	1224.2	1198.6	1156.3	1116.6
50°	1189.6	1187.1	1187.1	1184.5	1170.4	1151.2	1130.7	1102.5	1076.8	1038.4	1005.0
52.5°	1057.6	1062.7	1065.3	1071.7	1053.7	1042.2	1010.2	985.8	966.6	926.8	898.6
55°	930.7	948.6	943.5	946.1	925.6	916.6	890.9	871.7	843.5	820.4	802.5
57.5°	815.3	819.2	821.7	825.6	816.6	798.6	778.1	762.7	741.0	721.7	708.9
60°	703.8	703.8	705.1	711.5	702.5	687.1	671.7	660.2	644.8	633.3	625.6
62.5°	598.7	607.6	608.9	603.8	592.3	584.6	574.3	567.9	557.6	553.8	551.2
65°	501.2	501.2	501.2	503.8	497.4	492.3	485.9	484.6	488.4	483.3	485.9
67.5°	419.2	415.3	412.8	414.1	411.5	408.9	407.7	411.5	419.2	419.2	425.6
70°	348.7	341.0	335.9	335.9	335.9	337.1	341.0	348.7	361.5	366.6	375.6
72.5°	291.0	274.3	266.6	266.6	267.9	273.1	284.6	298.7	310.2	320.5	332.0
75°	235.9	219.2	207.7	206.4	209.0	216.6	233.3	246.1	265.4	279.5	293.6
77.5°	191.0	170.5	156.4	155.1	159.0	170.5	191.0	207.7	229.5	244.8	260.2
80°	152.5	129.5	117.9	110.2	116.7	130.8	153.8	174.3	194.9	215.4	234.6
82.5°	121.8	100.0	82.0	74.4	82.0	101.3	123.1	147.4	167.9	189.7	209.0
85°	96.1	73.1	52.6	44.9	53.8	74.4	98.7	123.1	146.1	167.9	187.2
87.5°	75.6	52.6	32.0	21.8	33.3	55.1	78.2	102.6	126.9	148.7	167.9
90°	59.0	37.2	17.9	2.6	19.2	39.7	62.8	85.9	110.2	132.0	151.3
92.5°	50.0	28.2	10.3	0.0	11.5	29.5	51.3	74.4	96.1	117.9	137.2
95°	42.3	23.1	7.7	0.0	7.7	23.1	42.3	62.8	84.6	106.4	125.6
97.5°	35.9	17.9	5.1	0.0	5.1	17.9	34.6	55.1	74.4	94.9	112.8
100°	30.8	15.4	3.8	0.0	3.8	14.1	29.5	47.4	66.7	85.9	102.6
102.5°	26.9	12.8	2.6	0.0	2.6	11.5	24.4	41.0	57.7	75.6	92.3
105°	23.1	10.3	2.6	0.0	1.3	9.0	20.5	35.9	51.3	67.9	83.3
107.5°	20.5	9.0	2.6	0.0	1.3	7.7	17.9	30.8	46.1	60.3	74.4
110°	17.9	7.7	2.6	0.0	1.3	5.1	15.4	26.9	39.7	53.8	67.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	15.4	6.4	1.3	0.0	0.0	3.8	12.8	23.1	34.6	48.7	60.3
115°	14.1	6.4	1.3	0.0	0.0	2.6	10.3	20.5	30.8	43.6	53.8
117.5°	12.8	5.1	1.3	0.0	1.3	2.6	9.0	17.9	26.9	37.2	48.7
120°	11.5	5.1	1.3	0.0	1.3	1.3	6.4	15.4	23.1	33.3	42.3
122.5°	10.3	5.1	1.3	0.0	1.3	1.3	5.1	12.8	20.5	29.5	37.2
125°	9.0	3.8	2.6	1.3	1.3	1.3	3.8	10.3	17.9	24.4	33.3
127.5°	9.0	3.8	2.6	1.3	1.3	1.3	2.6	9.0	14.1	21.8	29.5
130°	7.7	3.8	2.6	1.3	1.3	1.3	1.3	6.4	12.8	17.9	24.4
132.5°	6.4	3.8	2.6	1.3	1.3	1.3	1.3	3.8	9.0	15.4	20.5
135°	6.4	3.8	2.6	1.3	1.3	1.3	1.3	2.6	6.4	11.5	16.7
137.5°	5.1	2.6	2.6	1.3	1.3	1.3	1.3	1.3	5.1	9.0	12.8
140°	5.1	2.6	2.6	1.3	1.3	1.3	1.3	1.3	3.8	6.4	10.3
142.5°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	2.6	5.1	7.7
145°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	5.1
147.5°	3.8	3.8	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	3.8
150°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
152.5°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
155°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6
157.5°	3.8	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
160°	3.8	2.6	2.6	1.3	2.6	1.3	2.6	2.6	2.6	2.6	2.6
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-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2337.0	2312.6	2325.4	2321.6	2326.7	2337.0	2335.7	2333.1	2333.1	2329.3	2324.1
5°	2329.3	2306.2	2317.7	2311.3	2317.7	2326.7	2325.4	2321.6	2324.1	2317.7	2311.3
7.5°	2313.9	2293.4	2303.6	2298.5	2303.6	2312.6	2308.8	2307.5	2310.0	2299.8	2295.9
10°	2295.9	2272.9	2284.4	2278.0	2284.4	2290.8	2288.2	2283.1	2288.2	2278.0	2274.1
12.5°	2267.7	2248.5	2256.2	2253.6	2257.5	2263.9	2258.8	2254.9	2257.5	2248.5	2240.8
15°	2237.0	2217.7	2224.1	2220.3	2222.9	2230.6	2221.6	2220.3	2217.7	2208.8	2206.2
17.5°	2197.2	2179.3	2185.7	2179.3	2183.1	2180.6	2179.3	2172.9	2172.9	2162.6	2154.9
20°	2148.5	2133.1	2129.3	2124.2	2129.3	2124.2	2116.5	2111.3	2110.1	2099.8	2093.4
22.5°	2092.1	2074.2	2076.7	2062.6	2063.9	2056.2	2043.4	2038.3	2033.1	2021.6	2012.6
25°	2024.2	2006.2	1993.4	1984.4	1972.9	1971.6	1954.9	1942.1	1940.8	1926.7	1925.5
27.5°	1947.2	1926.7	1916.5	1894.7	1880.6	1869.1	1855.0	1842.1	1835.7	1820.3	1810.1
30°	1858.8	1835.7	1810.1	1794.7	1772.9	1763.9	1739.6	1724.2	1719.1	1702.4	1694.7
32.5°	1758.8	1734.4	1713.9	1684.5	1660.1	1647.3	1622.9	1607.5	1601.1	1583.2	1572.9
35°	1649.8	1622.9	1598.6	1570.4	1551.1	1529.3	1499.9	1484.5	1470.4	1464.0	1456.3
37.5°	1535.8	1506.3	1478.1	1449.9	1433.2	1407.6	1381.9	1371.7	1355.0	1348.6	1340.9
40°	1417.8	1388.3	1361.4	1334.5	1315.3	1292.2	1269.1	1265.3	1247.3	1240.9	1235.8
42.5°	1301.2	1270.4	1239.6	1220.4	1206.3	1183.2	1167.8	1164.0	1148.6	1144.8	1144.8
45°	1196.0	1157.6	1131.9	1115.3	1103.7	1084.5	1071.7	1069.1	1056.3	1053.7	1053.7
47.5°	1083.2	1047.3	1028.1	1017.9	1007.6	993.5	985.8	985.8	973.0	970.4	969.1
50°	978.1	944.8	930.7	920.4	919.1	908.9	902.5	899.9	899.9	890.9	892.2
52.5°	878.1	861.5	849.9	843.5	835.8	829.4	824.3	824.3	820.4	814.0	816.6
55°	785.8	766.6	767.9	762.7	758.9	755.1	756.3	748.6	747.4	742.2	746.1
57.5°	693.5	693.5	691.0	687.1	680.7	683.3	683.3	683.3	676.9	673.0	676.9
60°	615.3	619.2	612.8	616.6	614.0	615.3	612.8	612.8	608.9	607.6	608.9
62.5°	546.1	552.5	549.9	555.1	552.5	553.8	556.4	551.2	548.7	546.1	548.7
65°	484.6	492.3	491.0	494.8	496.1	497.4	498.7	496.1	493.5	491.0	489.7
67.5°	430.7	438.4	443.5	444.8	446.1	450.0	448.7	446.1	443.5	439.7	438.4
70°	382.0	392.3	398.7	401.2	406.4	403.8	403.8	402.5	400.0	396.1	394.8
72.5°	341.0	352.5	358.9	361.5	366.6	366.6	365.3	364.1	361.5	357.7	356.4
75°	305.1	315.4	324.3	329.5	333.3	333.3	332.0	330.7	328.2	325.6	324.3
77.5°	276.9	285.9	293.6	300.0	302.5	303.8	302.5	300.0	300.0	298.7	297.4
80°	248.7	258.9	266.6	273.1	276.9	276.9	275.6	276.9	274.3	273.1	271.8
82.5°	224.3	235.9	244.8	251.3	253.8	255.1	253.8	255.1	252.5	252.5	252.5
85°	202.5	214.1	224.3	229.5	233.3	234.6	234.6	234.6	233.3	233.3	233.3
87.5°	184.6	196.1	206.4	211.5	215.4	216.6	216.6	217.9	215.4	215.4	215.4
90°	167.9	179.5	189.7	194.9	198.7	201.3	201.3	202.5	201.3	200.0	200.0
92.5°	152.5	165.4	175.6	180.8	184.6	188.4	188.4	189.7	187.2	187.2	187.2
95°	139.7	152.5	161.5	167.9	171.8	174.3	175.6	175.6	174.3	174.3	174.3
97.5°	128.2	139.7	148.7	155.1	159.0	160.2	161.5	162.8	161.5	161.5	161.5
100°	116.7	128.2	137.2	142.3	147.4	148.7	150.0	151.3	151.3	150.0	150.0
102.5°	106.4	117.9	125.6	132.0	135.9	138.4	139.7	139.7	139.7	139.7	139.7
105°	96.1	107.7	115.4	121.8	125.6	128.2	129.5	130.8	130.8	129.5	129.5
107.5°	87.2	97.4	106.4	111.5	116.7	119.2	120.5	120.5	121.8	120.5	120.5
110°	78.2	89.7	97.4	102.6	107.7	110.2	111.5	112.8	112.8	112.8	112.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	71.8	80.8	88.5	93.6	98.7	101.3	102.6	103.8	105.1	103.8	103.8
115°	64.1	73.1	80.8	85.9	89.7	92.3	94.9	96.1	96.1	97.4	96.1
117.5°	57.7	65.4	73.1	78.2	82.0	85.9	87.2	88.5	89.7	88.5	88.5
120°	51.3	59.0	65.4	70.5	74.4	78.2	79.5	80.8	82.0	80.8	80.8
122.5°	46.1	52.6	59.0	64.1	67.9	70.5	73.1	73.1	74.4	74.4	74.4
125°	41.0	47.4	52.6	57.7	61.5	64.1	65.4	66.7	66.7	67.9	67.9
127.5°	35.9	41.0	47.4	51.3	55.1	57.7	59.0	60.3	60.3	61.5	61.5
130°	30.8	35.9	41.0	44.9	48.7	51.3	52.6	53.8	55.1	55.1	55.1
132.5°	26.9	32.0	35.9	39.7	42.3	44.9	47.4	48.7	48.7	48.7	48.7
135°	21.8	26.9	30.8	34.6	37.2	39.7	41.0	43.6	43.6	43.6	43.6
137.5°	17.9	23.1	26.9	29.5	32.0	34.6	35.9	37.2	38.5	38.5	38.5
140°	14.1	17.9	21.8	25.6	28.2	29.5	32.0	32.0	33.3	33.3	33.3
142.5°	10.3	14.1	16.7	20.5	23.1	25.6	26.9	28.2	28.2	28.2	28.2
145°	7.7	10.3	12.8	15.4	19.2	20.5	21.8	23.1	24.4	24.4	24.4
147.5°	5.1	7.7	9.0	11.5	14.1	16.7	17.9	19.2	20.5	20.5	20.5
150°	3.8	5.1	7.7	9.0	10.3	12.8	15.4	15.4	16.7	16.7	15.4
152.5°	2.6	3.8	5.1	6.4	7.7	9.0	11.5	11.5	12.8	12.8	12.8
155°	2.6	2.6	2.6	3.8	5.1	6.4	7.7	9.0	9.0	9.0	9.0
157.5°	2.6	2.6	2.6	2.6	2.6	3.8	5.1	6.4	6.4	6.4	6.4
160°	2.6	2.6	1.3	1.3	2.6	2.6	2.6	2.6	3.8	3.8	3.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2328.0	2330.5	2330.5	2328.0	2326.7	2331.8	2325.4	2301.1	2308.8	2311.3	2319.0
5°	2316.4	2319.0	2319.0	2319.0	2316.4	2321.6	2315.2	2290.8	2299.8	2303.6	2308.8
7.5°	2299.8	2301.1	2303.6	2302.3	2299.8	2307.5	2301.1	2276.7	2283.1	2289.5	2295.9
10°	2278.0	2278.0	2279.3	2281.8	2279.3	2285.7	2279.3	2257.5	2263.9	2267.7	2275.4
12.5°	2248.5	2251.1	2252.3	2251.1	2249.8	2254.9	2252.3	2231.8	2234.4	2242.1	2249.8
15°	2208.8	2208.8	2215.2	2212.6	2212.6	2217.7	2220.3	2197.2	2201.1	2212.6	2220.3
17.5°	2160.0	2161.3	2166.5	2169.0	2167.7	2176.7	2178.0	2160.0	2158.8	2172.9	2180.6
20°	2097.2	2099.8	2106.2	2111.3	2111.3	2121.6	2125.4	2113.9	2115.2	2130.6	2133.1
22.5°	2020.3	2020.3	2031.9	2039.5	2046.0	2052.4	2063.9	2053.6	2053.6	2074.2	2085.7
25°	1925.5	1934.4	1938.3	1953.7	1962.6	1980.6	1990.8	1992.1	1993.4	2012.6	2020.3
27.5°	1820.3	1822.9	1834.4	1852.4	1862.6	1879.3	1898.5	1902.4	1908.8	1934.4	1946.0
30°	1701.1	1708.8	1713.9	1739.6	1753.7	1775.5	1799.8	1808.8	1813.9	1848.5	1862.6
32.5°	1579.3	1581.9	1603.7	1617.8	1634.5	1657.5	1685.7	1702.4	1712.7	1748.6	1769.1
35°	1457.6	1462.7	1480.6	1498.6	1515.2	1538.3	1567.8	1590.9	1608.8	1640.9	1667.8
37.5°	1346.0	1358.8	1362.7	1380.6	1393.5	1416.5	1437.0	1470.4	1488.3	1521.6	1556.3
40°	1246.0	1249.9	1252.4	1270.4	1279.4	1301.2	1330.6	1352.4	1376.8	1401.1	1442.2
42.5°	1147.3	1149.9	1153.7	1164.0	1174.2	1189.6	1211.4	1233.2	1258.9	1294.7	1321.7
45°	1056.3	1058.9	1061.4	1067.8	1076.8	1090.9	1105.0	1120.4	1146.0	1176.8	1205.0
47.5°	971.7	976.8	976.8	978.1	984.5	996.1	1006.3	1025.5	1039.6	1056.3	1088.4
50°	890.9	894.8	896.1	896.1	899.9	907.6	910.2	923.0	935.8	951.2	974.3
52.5°	815.3	815.3	814.0	819.2	819.2	824.3	825.6	833.3	842.2	858.9	869.1
55°	743.5	743.5	747.4	744.8	744.8	747.4	746.1	747.4	755.1	765.3	774.3
57.5°	674.3	673.0	676.9	674.3	673.0	675.6	678.1	673.0	674.3	684.5	684.5
60°	605.1	606.4	610.2	607.6	607.6	607.6	605.1	602.5	599.9	606.4	608.9
62.5°	549.9	546.1	549.9	546.1	548.7	547.4	544.8	539.7	541.0	538.4	535.8
65°	492.3	492.3	493.5	489.7	492.3	492.3	488.4	487.1	479.4	476.9	470.5
67.5°	442.3	442.3	443.5	441.0	441.0	442.3	438.4	434.6	426.9	423.0	414.1
70°	398.7	398.7	398.7	397.4	397.4	397.4	394.8	389.7	382.0	375.6	364.1
72.5°	358.9	360.2	358.9	358.9	362.8	358.9	355.1	350.0	343.6	330.7	320.5
75°	326.9	328.2	326.9	326.9	326.9	325.6	324.3	316.6	308.9	298.7	283.3
77.5°	298.7	298.7	300.0	298.7	298.7	297.4	293.6	287.2	278.2	269.2	251.3
80°	271.8	273.1	274.3	275.6	273.1	271.8	267.9	262.8	251.3	241.0	223.1
82.5°	252.5	251.3	252.5	253.8	251.3	250.0	246.1	239.7	230.7	216.6	198.7
85°	233.3	232.0	232.0	233.3	232.0	229.5	225.6	219.2	210.2	196.1	178.2
87.5°	214.1	215.4	216.6	215.4	214.1	211.5	207.7	201.3	191.0	179.5	160.2
90°	200.0	200.0	200.0	200.0	198.7	196.1	192.3	184.6	175.6	161.5	144.9
92.5°	187.2	187.2	187.2	187.2	185.9	182.0	178.2	171.8	161.5	147.4	132.0
95°	174.3	175.6	174.3	174.3	171.8	170.5	164.1	157.7	148.7	134.6	117.9
97.5°	160.2	161.5	160.2	160.2	159.0	156.4	152.5	144.9	135.9	123.1	107.7
100°	150.0	150.0	148.7	148.7	147.4	144.9	139.7	133.3	124.3	111.5	96.1
102.5°	138.4	139.7	138.4	138.4	135.9	133.3	129.5	123.1	114.1	101.3	87.2
105°	129.5	129.5	128.2	128.2	125.6	123.1	119.2	111.5	103.8	92.3	78.2
107.5°	120.5	120.5	119.2	119.2	116.7	114.1	109.0	102.6	94.9	83.3	70.5
110°	111.5	111.5	111.5	110.2	107.7	103.8	100.0	93.6	85.9	75.6	62.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	105.1	103.8	102.6	101.3	98.7	96.1	91.0	84.6	76.9	67.9	56.4
115°	96.1	96.1	94.9	93.6	91.0	87.2	83.3	78.2	70.5	60.3	50.0
117.5°	88.5	88.5	87.2	85.9	83.3	79.5	75.6	70.5	62.8	53.8	44.9
120°	80.8	80.8	79.5	78.2	75.6	71.8	69.2	62.8	56.4	47.4	39.7
122.5°	74.4	73.1	73.1	70.5	69.2	65.4	61.5	56.4	50.0	42.3	34.6
125°	66.7	66.7	65.4	64.1	62.8	59.0	55.1	50.0	43.6	37.2	30.8
127.5°	60.3	60.3	59.0	57.7	56.4	52.6	48.7	44.9	38.5	32.0	25.6
130°	53.8	53.8	52.6	51.3	50.0	46.1	43.6	38.5	33.3	28.2	21.8
132.5°	48.7	48.7	47.4	46.1	43.6	41.0	38.5	33.3	29.5	24.4	19.2
135°	43.6	42.3	42.3	41.0	38.5	35.9	33.3	29.5	24.4	20.5	15.4
137.5°	38.5	37.2	35.9	34.6	33.3	30.8	28.2	25.6	21.8	16.7	12.8
140°	33.3	32.0	32.0	30.8	28.2	26.9	24.4	20.5	17.9	14.1	10.3
142.5°	28.2	28.2	26.9	25.6	24.4	23.1	20.5	17.9	14.1	11.5	7.7
145°	24.4	23.1	23.1	21.8	20.5	17.9	16.7	14.1	11.5	9.0	6.4
147.5°	19.2	19.2	19.2	17.9	16.7	15.4	14.1	11.5	9.0	6.4	3.8
150°	15.4	15.4	15.4	14.1	12.8	11.5	10.3	9.0	6.4	3.8	2.6
152.5°	12.8	12.8	11.5	11.5	10.3	9.0	7.7	6.4	3.8	2.6	2.6
155°	9.0	9.0	9.0	7.7	7.7	6.4	5.1	3.8	2.6	2.6	2.6
157.5°	6.4	6.4	6.4	5.1	5.1	3.8	3.8	2.6	2.6	2.6	2.6
160°	3.8	3.8	3.8	3.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5	2330.5
2.5°	2315.2	2313.9	2324.1	2324.1	2312.6	2330.5	2349.8
5°	2307.5	2306.2	2316.4	2316.4	2306.2	2324.1	2344.6
7.5°	2292.1	2293.4	2303.6	2306.2	2293.4	2310.0	2331.8
10°	2275.4	2274.1	2285.7	2288.2	2278.0	2293.4	2313.9
12.5°	2248.5	2248.5	2260.0	2263.9	2253.6	2271.6	2290.8
15°	2220.3	2220.3	2228.0	2234.4	2225.4	2242.1	2261.3
17.5°	2184.4	2183.1	2190.8	2198.5	2189.5	2207.5	2228.0
20°	2138.3	2138.3	2147.2	2156.2	2149.8	2166.5	2189.5
22.5°	2089.5	2084.4	2099.8	2106.2	2102.4	2119.0	2142.1
25°	2028.0	2026.7	2042.1	2051.1	2046.0	2063.9	2084.4
27.5°	1961.4	1960.1	1975.5	1987.0	1984.4	2001.1	2024.2
30°	1880.6	1887.0	1901.1	1920.3	1913.9	1931.9	1956.2
32.5°	1796.0	1802.4	1819.1	1839.6	1840.8	1855.0	1879.3
35°	1694.7	1711.4	1722.9	1749.8	1755.0	1769.1	1794.7
37.5°	1588.3	1607.5	1631.9	1652.4	1662.7	1674.2	1703.7
40°	1469.1	1497.3	1524.2	1548.6	1561.4	1572.9	1601.1
42.5°	1361.4	1383.2	1408.8	1433.2	1456.3	1466.5	1496.0
45°	1239.6	1265.3	1288.3	1317.8	1340.9	1352.4	1381.9
47.5°	1120.4	1146.0	1176.8	1197.3	1221.7	1233.2	1261.4
50°	1006.3	1029.4	1055.0	1079.4	1099.9	1110.2	1134.5
52.5°	893.5	917.9	942.2	957.6	979.4	987.1	1007.6
55°	793.5	810.2	832.0	840.9	862.7	867.9	882.0
57.5°	697.4	708.9	716.6	732.0	747.4	758.9	775.6
60°	610.2	615.3	620.5	629.4	642.2	646.1	652.5
62.5°	532.0	530.7	541.0	543.5	544.8	557.6	551.2
65°	462.8	464.1	455.1	451.2	456.4	460.2	457.6
67.5°	405.1	397.4	389.7	380.7	373.0	376.9	373.0
70°	348.7	342.3	329.5	316.6	311.5	303.8	300.0
72.5°	303.8	288.4	275.6	258.9	250.0	241.0	234.6
75°	269.2	247.4	229.5	211.5	198.7	185.9	183.3
77.5°	233.3	212.8	192.3	173.1	153.8	139.7	134.6
80°	205.1	185.9	161.5	138.4	117.9	100.0	93.6
82.5°	179.5	159.0	134.6	110.2	87.2	67.9	60.3
85°	157.7	135.9	111.5	87.2	64.1	43.6	33.3
87.5°	141.0	116.7	92.3	69.2	44.9	24.4	12.8
90°	125.6	102.6	79.5	55.1	32.0	12.8	0.0
92.5°	111.5	89.7	66.7	44.9	24.4	7.7	1.3
95°	98.7	79.5	56.4	35.9	17.9	5.1	1.3
97.5°	88.5	69.2	48.7	29.5	14.1	3.8	1.3
100°	79.5	60.3	42.3	24.4	11.5	2.6	1.3
102.5°	70.5	53.8	35.9	20.5	9.0	1.3	1.3
105°	62.8	47.4	30.8	17.9	7.7	1.3	1.3
107.5°	56.4	42.3	26.9	15.4	5.1	1.3	1.3
110°	50.0	35.9	23.1	12.8	3.8	1.3	1.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	44.9	32.0	20.5	10.3	2.6	1.3	1.3
115°	39.7	28.2	17.9	9.0	2.6	1.3	1.3
117.5°	34.6	24.4	15.4	6.4	1.3	1.3	1.3
120°	30.8	21.8	12.8	5.1	1.3	1.3	1.3
122.5°	26.9	17.9	10.3	3.8	1.3	1.3	1.3
125°	23.1	15.4	9.0	2.6	1.3	1.3	1.3
127.5°	19.2	12.8	6.4	2.6	1.3	1.3	1.3
130°	16.7	10.3	5.1	1.3	1.3	1.3	1.3
132.5°	14.1	7.7	3.8	1.3	1.3	1.3	1.3
135°	11.5	6.4	2.6	1.3	1.3	1.3	1.3
137.5°	9.0	5.1	2.6	1.3	1.3	1.3	1.3
140°	6.4	3.8	1.3	1.3	1.3	1.3	1.3
142.5°	5.1	2.6	1.3	1.3	1.3	1.3	1.3
145°	3.8	2.6	1.3	1.3	1.3	1.3	1.3
147.5°	2.6	2.6	2.6	2.6	1.3	1.3	1.3
150°	2.6	2.6	1.3	1.3	2.6	1.3	1.3
152.5°	2.6	1.3	1.3	1.3	2.6	1.3	1.3
155°	2.6	2.6	2.6	2.6	2.6	2.6	1.3
157.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6
160°	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)