

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-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-LD5-64HL-LC-UNV-L940-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
CLEAR LENSED  
Light Source: -  
Ballast/Driver: -

**Summary**

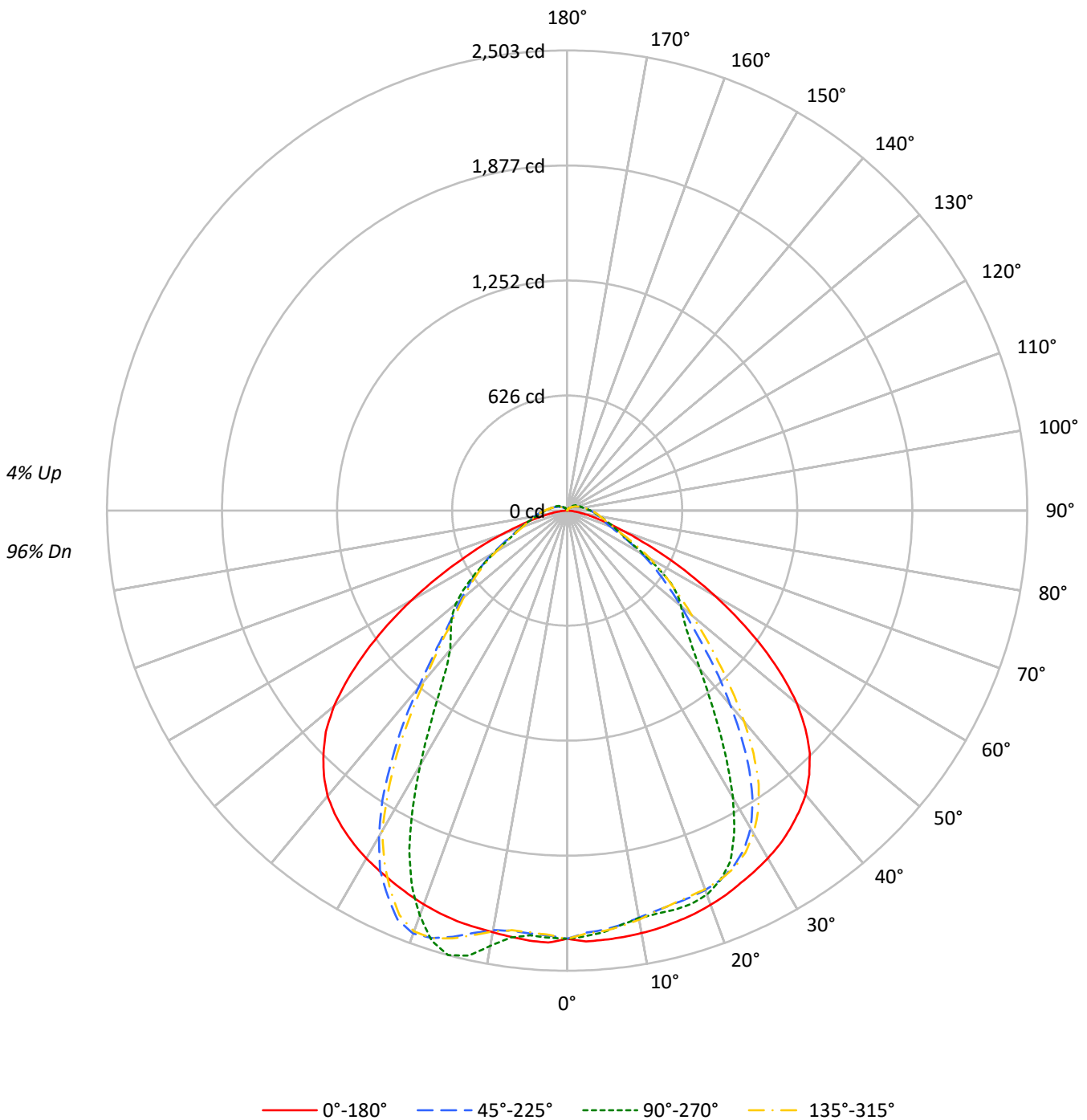
Lumens per Lamp: N/A  
Luminaire Lumens: 5552.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

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



TEST NUMBER: P#  
CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-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°	18820	18820	18820	18820
5°	18958	18074	18996	18216
10°	19045	17322	19005	18498
15°	19193	17090	19183	19030
20°	19404	16820	19383	17730
25°	19643	15956	19632	15418
30°	20013	13829	20024	12251
35°	20404	11183	20462	9463
40°	20750	9004	20836	7932
45°	20677	7627	20783	7427
50°	19785	7022	20063	6865
55°	17555	6311	17993	5737
60°	14239	4830	14995	4430
65°	10586	3696	11405	3504
70°	7198	3190	8114	3050
75°	4709	2878	5483	2722
80°	3044	2683	3566	2469
85°	1564	2678	2056	2445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.2	4.0
10°-20°	658.2	11.9
20°-30°	1000.7	18.0
30°-40°	1073.5	19.3
40°-50°	931.7	16.8
50°-60°	690.4	12.4
60°-70°	395.6	7.1
70°-80°	219.1	3.9
80°-90°	133.4	2.4
90°-100°	86.7	1.6
100°-110°	58.1	1.0
110°-120°	39.2	0.7
120°-130°	24.1	0.4
130°-140°	12.7	0.2
140°-150°	5.8	0.1
150°-160°	1.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1880.1	33.9
0°-40°	2953.6	53.2
0°-60°	4575.7	82.4
0°-90°	5323.7	95.9
90°-120°	184.1	3.3
90°-150°	226.6	4.1
90°-180°	228.0	4.1
0°-180°	5552.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2329	2329	2329	2329	2329	
5°	2343	2301	2348	2319	2343	223
15°	2313	2248	2312	2503	2313	655
25°	2235	2103	2234	2032	2235	1033
35°	2114	1432	2120	1211	2114	1323
45°	1866	918	1875	894	1866	1428
55°	1302	688	1334	626	1302	1154
65°	591	349	636	331	591	595
75°	168	221	196	209	168	192
85°	23	153	30	140	23	30
90°	0	128	2	118	0	1
95°	1	105	0	100	1	1
105°	1	78	1	75	1	1
115°	1	64	1	58	1	1
125°	1	48	1	40	1	1
135°	1	30	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	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2345.8	2339.7	2337.3	2332.5	2336.1	2350.6	2341.0	2325.3	2326.5	2298.8	2313.3
5°	2343.4	2336.1	2332.5	2327.7	2330.1	2343.4	2333.7	2318.1	2316.9	2289.2	2302.5
7.5°	2339.7	2332.5	2326.5	2322.9	2324.1	2334.9	2322.9	2304.9	2301.3	2271.2	2283.2
10°	2333.7	2328.9	2320.5	2314.5	2313.3	2325.3	2306.1	2288.0	2279.6	2248.3	2260.4
12.5°	2325.3	2318.1	2309.7	2298.8	2297.6	2304.9	2289.2	2264.0	2255.5	2230.3	2243.5
15°	2313.3	2304.9	2295.2	2283.2	2277.2	2282.0	2262.8	2239.9	2238.7	2217.0	2235.1
17.5°	2300.1	2288.0	2277.2	2260.4	2251.9	2255.5	2239.9	2219.5	2221.9	2208.6	2229.1
20°	2282.0	2268.8	2251.9	2235.1	2223.1	2229.1	2218.3	2202.6	2206.2	2196.6	2214.6
22.5°	2261.6	2243.5	2223.1	2203.8	2194.2	2202.6	2194.2	2181.0	2182.2	2176.1	2187.0
25°	2235.1	2214.6	2190.6	2166.5	2161.7	2167.7	2162.9	2152.1	2147.3	2137.7	2142.5
27.5°	2211.0	2188.2	2158.1	2132.8	2124.4	2136.5	2125.6	2107.6	2094.3	2081.1	2071.5
30°	2183.4	2155.7	2122.0	2093.1	2085.9	2090.7	2075.1	2047.4	2012.5	1995.7	1969.2
32.5°	2153.3	2117.2	2075.1	2042.6	2037.8	2034.2	2005.3	1965.6	1911.5	1877.8	1836.9
35°	2113.6	2073.9	2023.4	1983.7	1976.5	1956.0	1909.1	1856.2	1786.4	1728.6	1658.9
37.5°	2069.1	2022.2	1969.2	1916.3	1895.9	1855.0	1788.8	1733.5	1627.6	1557.8	1473.6
40°	2018.6	1962.0	1897.1	1833.3	1799.6	1733.5	1657.7	1575.9	1473.6	1379.8	1308.8
42.5°	1948.8	1888.6	1811.7	1740.7	1682.9	1595.1	1506.1	1390.6	1296.8	1217.4	1145.2
45°	1865.8	1793.6	1704.6	1619.2	1545.8	1441.1	1336.5	1221.0	1142.8	1050.2	1000.9
47.5°	1758.7	1680.5	1585.5	1490.5	1394.2	1278.7	1169.3	1058.6	980.4	914.2	878.2
50°	1632.4	1560.2	1455.6	1342.5	1236.6	1116.3	1006.9	923.9	848.1	807.2	779.5
52.5°	1476.0	1408.7	1301.6	1178.9	1076.6	958.8	858.9	791.5	737.4	707.3	697.7
55°	1301.6	1242.7	1136.8	1022.5	917.9	809.6	733.8	674.9	640.0	621.9	623.1
57.5°	1115.1	1069.4	969.6	867.3	768.7	686.9	618.3	571.4	544.9	543.7	547.3
60°	928.7	895.0	808.4	720.6	634.0	567.8	517.3	484.8	467.9	469.2	467.9
62.5°	750.6	719.4	656.8	584.6	516.1	471.6	425.8	412.6	398.2	397.0	397.0
65°	590.7	566.6	516.1	464.3	412.6	383.7	360.9	345.2	334.4	332.0	333.2
67.5°	443.9	434.3	399.4	364.5	332.0	314.0	294.7	291.1	282.7	282.7	285.1
70°	330.8	323.6	304.3	283.9	270.7	258.6	249.0	249.0	247.8	246.6	252.6
72.5°	239.4	240.6	234.6	218.9	217.7	215.3	212.9	216.5	217.7	221.3	228.6
75°	168.4	172.0	172.0	169.6	174.4	180.4	184.1	190.1	197.3	202.1	210.5
77.5°	119.1	119.1	125.1	132.3	141.9	152.8	162.4	170.8	180.4	186.5	193.7
80°	77.0	80.6	90.2	103.5	116.7	131.1	144.4	155.2	164.8	174.4	179.2
82.5°	45.7	51.7	63.8	80.6	97.4	115.5	128.7	141.9	152.8	162.4	166.0
85°	22.9	31.3	45.7	63.8	81.8	101.0	117.9	129.9	141.9	150.4	155.2
87.5°	7.2	16.8	32.5	49.3	68.6	87.8	105.9	119.1	129.9	137.1	141.9
90°	0.0	8.4	22.9	40.9	58.9	78.2	95.0	109.5	120.3	126.3	129.9
92.5°	0.0	4.8	18.0	33.7	50.5	69.8	86.6	99.8	109.5	115.5	117.9
95°	1.2	3.6	13.2	27.7	44.5	62.6	78.2	90.2	99.8	105.9	107.1
97.5°	1.2	2.4	10.8	22.9	38.5	55.3	71.0	83.0	90.2	96.2	97.4
100°	1.2	2.4	8.4	20.5	33.7	49.3	63.8	74.6	83.0	87.8	89.0
102.5°	1.2	1.2	7.2	16.8	30.1	43.3	56.5	67.4	74.6	79.4	81.8
105°	1.2	1.2	6.0	14.4	26.5	38.5	50.5	61.4	67.4	72.2	74.6
107.5°	1.2	1.2	4.8	12.0	22.9	33.7	45.7	54.1	61.4	66.2	68.6
110°	1.2	1.2	3.6	10.8	19.2	30.1	39.7	48.1	55.3	60.1	62.6



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CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	1.2	3.6	9.6	16.8	26.5	34.9	43.3	49.3	54.1	57.7
115°	1.2	1.2	3.6	8.4	15.6	22.9	31.3	38.5	44.5	49.3	52.9
117.5°	1.2	1.2	3.6	7.2	13.2	20.5	27.7	34.9	39.7	44.5	48.1
120°	1.2	1.2	2.4	6.0	12.0	18.0	24.1	30.1	36.1	40.9	44.5
122.5°	1.2	1.2	2.4	6.0	9.6	15.6	21.7	26.5	32.5	36.1	39.7
125°	1.2	1.2	2.4	4.8	8.4	14.4	19.2	24.1	27.7	32.5	36.1
127.5°	1.2	1.2	2.4	4.8	7.2	12.0	16.8	21.7	25.3	28.9	31.3
130°	1.2	1.2	2.4	3.6	6.0	9.6	14.4	18.0	22.9	25.3	27.7
132.5°	1.2	1.2	1.2	3.6	4.8	7.2	10.8	15.6	19.2	22.9	24.1
135°	1.2	1.2	1.2	2.4	4.8	6.0	8.4	12.0	15.6	19.2	21.7
137.5°	1.2	1.2	1.2	2.4	3.6	6.0	7.2	9.6	13.2	15.6	19.2
140°	1.2	1.2	1.2	2.4	3.6	4.8	6.0	8.4	10.8	13.2	15.6
142.5°	1.2	1.2	1.2	2.4	2.4	3.6	4.8	7.2	8.4	10.8	13.2
145°	1.2	1.2	1.2	2.4	2.4	3.6	4.8	6.0	7.2	8.4	10.8
147.5°	1.2	1.2	1.2	2.4	2.4	2.4	3.6	4.8	6.0	7.2	8.4
150°	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	4.8	6.0	7.2
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	3.6	4.8	6.0
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	4.8	4.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2308.5	2310.9	2325.3	2324.1	2321.7	2319.3	2319.3	2316.9	2319.3	2325.3	2322.9
5°	2296.4	2300.1	2310.9	2309.7	2307.3	2306.1	2304.9	2301.3	2303.7	2312.1	2309.7
7.5°	2274.8	2278.4	2288.0	2283.2	2279.6	2282.0	2276.0	2272.4	2277.2	2285.6	2284.4
10°	2251.9	2254.3	2266.4	2264.0	2257.9	2259.2	2253.1	2250.7	2256.7	2261.6	2262.8
12.5°	2236.3	2244.7	2255.5	2254.3	2253.1	2254.3	2248.3	2245.9	2249.5	2254.3	2253.1
15°	2232.7	2243.5	2255.5	2255.5	2256.7	2257.9	2251.9	2248.3	2251.9	2255.5	2254.3
17.5°	2229.1	2242.3	2253.1	2251.9	2253.1	2255.5	2245.9	2243.5	2248.3	2253.1	2250.7
20°	2217.0	2229.1	2236.3	2233.9	2233.9	2235.1	2223.1	2223.1	2230.3	2233.9	2235.1
22.5°	2183.4	2197.8	2197.8	2191.8	2191.8	2187.0	2183.4	2176.1	2184.6	2190.6	2195.4
25°	2132.8	2138.9	2131.6	2118.4	2111.2	2105.2	2088.3	2102.8	2102.8	2120.8	2126.8
27.5°	2061.9	2048.6	2028.2	2000.5	1994.5	1975.3	1964.4	1968.0	1974.1	1999.3	2018.6
30°	1945.2	1905.5	1870.6	1858.6	1832.1	1812.9	1793.6	1803.2	1814.1	1828.5	1868.2
32.5°	1791.2	1752.7	1696.2	1675.7	1648.0	1624.0	1601.1	1615.6	1634.8	1644.4	1687.7
35°	1614.4	1568.7	1516.9	1482.0	1453.2	1439.9	1411.1	1431.5	1452.0	1459.2	1496.5
37.5°	1426.7	1379.8	1334.1	1304.0	1276.3	1267.9	1248.7	1263.1	1278.7	1289.6	1320.8
40°	1248.7	1205.4	1170.5	1150.0	1130.8	1123.6	1116.3	1122.4	1134.4	1142.8	1166.9
42.5°	1095.9	1061.0	1036.9	1024.9	1011.7	1002.1	1003.3	1005.7	1011.7	1029.7	1040.6
45°	962.4	941.9	926.3	923.9	915.4	914.2	913.0	917.9	921.5	932.3	940.7
47.5°	855.3	846.9	843.3	848.1	851.7	846.9	849.3	855.3	862.5	862.5	861.3
50°	771.1	773.5	778.3	789.1	796.4	798.8	801.2	808.4	809.6	812.0	808.4
52.5°	702.5	704.9	718.2	735.0	743.4	747.0	751.8	759.1	759.1	761.5	756.7
55°	632.8	636.4	649.6	666.4	673.7	678.5	683.3	688.1	691.7	696.5	692.9
57.5°	555.8	566.6	575.0	579.8	584.6	588.2	591.9	593.1	600.3	601.5	607.5
60°	474.0	476.4	484.8	483.6	480.0	489.6	484.8	493.2	501.6	512.5	513.7
62.5°	395.8	397.0	403.0	400.6	405.4	404.2	407.8	407.8	413.8	418.6	424.6
65°	334.4	335.6	340.4	340.4	339.2	342.8	346.5	348.9	348.9	352.5	357.3
67.5°	288.7	292.3	297.1	299.5	301.9	301.9	305.6	306.8	309.2	310.4	312.8
70°	257.4	262.2	267.1	269.5	270.7	273.1	274.3	274.3	276.7	277.9	280.3
72.5°	234.6	239.4	243.0	243.0	245.4	246.6	246.6	247.8	249.0	251.4	253.8
75°	215.3	218.9	221.3	220.1	220.1	220.1	221.3	221.3	223.7	226.2	228.6
77.5°	197.3	200.9	200.9	198.5	198.5	198.5	198.5	199.7	200.9	203.3	205.7
80°	184.1	184.1	182.8	182.8	180.4	179.2	179.2	180.4	180.4	182.8	186.5
82.5°	169.6	169.6	168.4	167.2	166.0	164.8	164.8	166.0	167.2	168.4	170.8
85°	156.4	156.4	154.0	154.0	152.8	152.8	152.8	152.8	154.0	155.2	157.6
87.5°	143.2	141.9	140.7	139.5	139.5	139.5	139.5	139.5	140.7	143.2	144.4
90°	129.9	128.7	127.5	127.5	126.3	126.3	127.5	127.5	128.7	129.9	131.1
92.5°	117.9	116.7	115.5	115.5	114.3	114.3	115.5	114.3	116.7	116.7	117.9
95°	107.1	105.9	104.7	104.7	104.7	104.7	104.7	104.7	105.9	105.9	107.1
97.5°	97.4	96.2	95.0	95.0	96.2	95.0	96.2	96.2	96.2	97.4	98.6
100°	89.0	87.8	87.8	89.0	87.8	87.8	89.0	89.0	89.0	89.0	90.2
102.5°	81.8	81.8	81.8	81.8	81.8	81.8	83.0	83.0	83.0	83.0	84.2
105°	74.6	75.8	75.8	75.8	77.0	77.0	77.0	78.2	78.2	78.2	78.2
107.5°	69.8	71.0	71.0	72.2	72.2	73.4	73.4	73.4	73.4	74.6	74.6
110°	65.0	66.2	67.4	68.6	68.6	69.8	69.8	69.8	69.8	69.8	69.8





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	60.1	61.4	62.6	65.0	66.2	66.2	66.2	66.2	67.4	67.4	66.2
115°	55.3	57.7	58.9	61.4	62.6	62.6	63.8	63.8	63.8	63.8	62.6
117.5°	50.5	54.1	55.3	57.7	58.9	58.9	60.1	60.1	60.1	60.1	58.9
120°	46.9	49.3	51.7	52.9	54.1	55.3	55.3	56.5	56.5	56.5	55.3
122.5°	43.3	45.7	48.1	49.3	50.5	51.7	51.7	51.7	51.7	51.7	51.7
125°	38.5	40.9	43.3	44.5	45.7	46.9	46.9	48.1	48.1	48.1	46.9
127.5°	34.9	37.3	38.5	40.9	42.1	42.1	43.3	43.3	43.3	43.3	42.1
130°	30.1	32.5	34.9	36.1	37.3	37.3	38.5	38.5	38.5	38.5	38.5
132.5°	26.5	28.9	30.1	32.5	32.5	33.7	33.7	34.9	34.9	34.9	33.7
135°	24.1	25.3	26.5	28.9	28.9	30.1	30.1	30.1	30.1	30.1	30.1
137.5°	21.7	22.9	24.1	25.3	25.3	26.5	26.5	26.5	26.5	27.7	26.5
140°	18.0	20.5	21.7	21.7	22.9	22.9	22.9	24.1	24.1	24.1	22.9
142.5°	15.6	16.8	18.0	19.2	20.5	20.5	20.5	20.5	21.7	20.5	20.5
145°	12.0	14.4	15.6	16.8	18.0	18.0	18.0	18.0	18.0	18.0	18.0
147.5°	9.6	10.8	13.2	14.4	14.4	15.6	15.6	15.6	15.6	15.6	15.6
150°	8.4	8.4	10.8	12.0	13.2	13.2	13.2	13.2	13.2	13.2	13.2
152.5°	6.0	7.2	8.4	9.6	10.8	10.8	10.8	10.8	10.8	10.8	10.8
155°	6.0	6.0	7.2	7.2	8.4	8.4	8.4	8.4	9.6	8.4	8.4
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2319.3	2318.1	2322.9	2318.1	2294.0	2303.7	2300.1	2313.3	2314.5	2318.1	2330.1
5°	2307.3	2307.3	2313.3	2308.5	2285.6	2295.2	2294.0	2307.3	2309.7	2312.1	2325.3
7.5°	2283.2	2284.4	2292.8	2289.2	2265.2	2279.6	2278.4	2294.0	2298.8	2303.7	2315.7
10°	2260.4	2259.2	2268.8	2265.2	2242.3	2259.2	2257.9	2273.6	2280.8	2289.2	2303.7
12.5°	2248.3	2244.7	2248.3	2244.7	2219.5	2232.7	2233.9	2251.9	2260.4	2271.2	2288.0
15°	2248.3	2242.3	2242.3	2235.1	2206.2	2214.6	2215.8	2227.9	2238.7	2249.5	2270.0
17.5°	2245.9	2239.9	2238.7	2232.7	2201.4	2201.4	2200.2	2208.6	2214.6	2225.5	2247.1
20°	2232.7	2230.3	2229.1	2225.5	2196.6	2191.8	2189.4	2189.4	2193.0	2196.6	2218.3
22.5°	2197.8	2200.2	2202.6	2205.0	2182.2	2173.7	2174.9	2172.5	2168.9	2168.9	2187.0
25°	2132.8	2144.9	2154.5	2165.3	2152.1	2146.1	2153.3	2149.7	2143.7	2138.9	2154.5
27.5°	2029.4	2054.6	2075.1	2101.6	2102.8	2098.0	2117.2	2114.8	2113.6	2106.4	2118.4
30°	1886.2	1925.9	1953.6	1992.1	2024.6	2029.4	2061.9	2066.7	2071.5	2067.9	2079.9
32.5°	1713.0	1767.1	1814.1	1874.2	1905.5	1933.2	1978.9	1998.1	2017.4	2023.4	2036.6
35°	1524.1	1585.5	1640.8	1707.0	1756.3	1816.5	1871.8	1900.7	1944.0	1960.8	1980.1
37.5°	1344.9	1402.6	1456.8	1522.9	1602.3	1664.9	1733.5	1798.4	1857.4	1881.4	1910.3
40°	1186.1	1233.0	1284.8	1342.5	1414.7	1496.5	1571.1	1661.3	1731.1	1779.2	1821.3
42.5°	1065.8	1088.7	1133.2	1184.9	1242.7	1325.7	1401.4	1502.5	1586.7	1655.3	1725.0
45°	958.8	969.6	1002.1	1029.7	1088.7	1162.1	1242.7	1341.3	1429.1	1516.9	1601.1
47.5°	867.3	880.6	896.2	913.0	955.1	1016.5	1086.3	1175.3	1263.1	1365.4	1461.6
50°	806.0	809.6	812.0	819.2	844.5	886.6	943.1	1018.9	1103.1	1212.6	1314.8
52.5°	751.8	751.8	744.6	741.0	750.6	777.1	809.6	863.7	950.3	1051.4	1159.6
55°	694.1	683.3	680.9	668.8	671.2	683.3	698.9	741.0	812.0	898.6	1003.3
57.5°	613.5	608.7	608.7	603.9	594.3	600.3	603.9	634.0	684.5	759.1	850.5
60°	520.9	518.5	524.5	525.7	517.3	520.9	519.7	537.7	573.8	634.0	709.7
62.5°	428.3	439.1	440.3	445.1	440.3	439.1	445.1	460.7	478.8	524.5	583.4
65°	359.7	365.7	366.9	372.9	370.5	370.5	375.3	387.4	398.2	429.5	475.2
67.5°	315.2	312.8	314.0	317.6	314.0	312.8	316.4	323.6	332.0	351.3	383.7
70°	280.3	277.9	277.9	277.9	273.1	269.5	270.7	273.1	276.7	287.5	308.0
72.5°	253.8	253.8	250.2	246.6	243.0	240.6	238.2	235.8	234.6	238.2	249.0
75°	229.8	231.0	229.8	226.2	221.3	216.5	211.7	206.9	200.9	198.5	199.7
77.5°	208.1	209.3	210.5	209.3	204.5	198.5	191.3	184.1	175.6	167.2	162.4
80°	188.9	191.3	192.5	191.3	187.7	182.8	174.4	166.0	154.0	143.2	131.1
82.5°	172.0	175.6	176.8	176.8	174.4	169.6	160.0	150.4	137.1	122.7	107.1
85°	158.8	161.2	163.6	163.6	162.4	157.6	148.0	137.1	123.9	107.1	90.2
87.5°	145.6	146.8	149.2	151.6	149.2	144.4	135.9	123.9	110.7	93.8	74.6
90°	132.3	133.5	135.9	138.3	137.1	132.3	125.1	114.3	99.8	81.8	62.6
92.5°	119.1	121.5	122.7	123.9	125.1	121.5	115.5	104.7	90.2	72.2	54.1
95°	109.5	109.5	111.9	113.1	114.3	110.7	105.9	95.0	81.8	65.0	46.9
97.5°	99.8	99.8	102.3	102.3	103.5	101.0	96.2	86.6	73.4	57.7	39.7
100°	90.2	91.4	92.6	93.8	93.8	92.6	87.8	78.2	66.2	51.7	34.9
102.5°	84.2	84.2	85.4	85.4	86.6	84.2	79.4	71.0	58.9	45.7	30.1
105°	78.2	78.2	79.4	79.4	78.2	75.8	71.0	63.8	52.9	39.7	26.5
107.5°	73.4	73.4	73.4	73.4	72.2	69.8	65.0	56.5	46.9	36.1	24.1
110°	69.8	68.6	68.6	67.4	66.2	62.6	57.7	50.5	42.1	31.3	20.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	66.2	65.0	63.8	62.6	60.1	56.5	51.7	45.7	37.3	27.7	18.0
115°	62.6	61.4	60.1	57.7	55.3	51.7	46.9	40.9	32.5	24.1	15.6
117.5°	58.9	57.7	55.3	52.9	50.5	46.9	42.1	36.1	28.9	21.7	14.4
120°	54.1	52.9	51.7	49.3	46.9	42.1	37.3	32.5	25.3	19.2	12.0
122.5°	50.5	49.3	46.9	45.7	42.1	38.5	33.7	28.9	22.9	16.8	10.8
125°	45.7	44.5	43.3	40.9	38.5	33.7	30.1	25.3	20.5	14.4	8.4
127.5°	42.1	40.9	38.5	36.1	33.7	30.1	26.5	22.9	18.0	12.0	8.4
130°	37.3	36.1	34.9	32.5	30.1	26.5	24.1	19.2	15.6	10.8	7.2
132.5°	32.5	32.5	31.3	28.9	26.5	24.1	20.5	16.8	13.2	9.6	6.0
135°	30.1	28.9	27.7	25.3	24.1	20.5	18.0	14.4	10.8	8.4	4.8
137.5°	26.5	25.3	24.1	22.9	20.5	18.0	15.6	12.0	9.6	7.2	4.8
140°	22.9	21.7	21.7	19.2	18.0	15.6	13.2	10.8	8.4	6.0	3.6
142.5°	20.5	19.2	18.0	16.8	15.6	13.2	10.8	8.4	7.2	4.8	3.6
145°	18.0	16.8	15.6	14.4	13.2	10.8	9.6	7.2	6.0	4.8	3.6
147.5°	14.4	14.4	13.2	12.0	10.8	9.6	8.4	7.2	4.8	3.6	2.4
150°	12.0	12.0	10.8	9.6	9.6	8.4	7.2	6.0	4.8	3.6	2.4
152.5°	10.8	9.6	9.6	8.4	8.4	7.2	6.0	4.8	3.6	3.6	2.4
155°	8.4	8.4	8.4	7.2	7.2	6.0	4.8	4.8	3.6	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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2332.5	2318.1	2330.1	2351.8	2349.4	2347.0	2344.6	2349.4	2365.0	2356.6	2343.4
5°	2328.9	2314.5	2327.7	2348.2	2347.0	2343.4	2341.0	2345.8	2361.4	2353.0	2338.5
7.5°	2321.7	2308.5	2318.1	2338.5	2338.5	2336.1	2333.7	2338.5	2353.0	2345.8	2331.3
10°	2309.7	2300.1	2309.7	2328.9	2330.1	2325.3	2322.9	2328.9	2343.4	2339.7	2327.7
12.5°	2300.1	2290.4	2301.3	2320.5	2321.7	2316.9	2313.3	2320.5	2339.7	2342.2	2338.5
15°	2286.8	2278.4	2291.6	2312.1	2312.1	2308.5	2308.5	2318.1	2344.6	2355.4	2361.4
17.5°	2267.6	2261.6	2277.2	2297.6	2298.8	2296.4	2297.6	2316.9	2351.8	2378.2	2395.1
20°	2243.5	2241.1	2257.9	2279.6	2283.2	2284.4	2290.4	2319.3	2367.4	2403.5	2420.3
22.5°	2214.6	2215.8	2235.1	2257.9	2262.8	2266.4	2278.4	2319.3	2379.4	2417.9	2425.2
25°	2182.2	2185.8	2206.2	2233.9	2239.9	2247.1	2267.6	2320.5	2383.1	2408.3	2396.3
27.5°	2147.3	2154.5	2181.0	2209.8	2217.0	2229.1	2255.5	2313.3	2366.2	2367.4	2322.9
30°	2111.2	2119.6	2150.9	2184.6	2196.6	2208.6	2241.1	2296.4	2325.3	2286.8	2208.6
32.5°	2070.3	2082.3	2113.6	2154.5	2168.9	2184.6	2217.0	2264.0	2253.1	2170.1	2058.3
35°	2018.6	2035.4	2071.5	2119.6	2132.8	2153.3	2176.1	2187.0	2138.9	2021.0	1894.7
37.5°	1954.8	1980.1	2022.2	2077.5	2091.9	2105.2	2111.2	2081.1	1984.9	1857.4	1726.2
40°	1881.4	1919.9	1965.6	2027.0	2041.4	2041.4	2019.8	1956.0	1834.5	1667.3	1521.7
42.5°	1792.4	1839.3	1897.1	1958.4	1972.8	1956.0	1904.3	1792.4	1654.1	1467.6	1313.6
45°	1684.1	1746.7	1811.7	1875.4	1882.6	1845.3	1752.7	1610.8	1439.9	1266.7	1120.0
47.5°	1555.4	1637.2	1708.2	1780.4	1770.8	1708.2	1584.3	1423.1	1242.7	1079.1	961.2
50°	1411.1	1507.3	1586.7	1655.3	1634.8	1548.2	1402.6	1234.2	1055.0	915.4	818.0
52.5°	1257.1	1367.8	1447.2	1502.5	1474.8	1371.4	1211.4	1050.2	903.4	775.9	710.9
55°	1097.1	1209.0	1290.8	1334.1	1298.0	1186.1	1028.5	881.8	743.4	660.4	621.9
57.5°	941.9	1046.6	1123.6	1158.4	1112.7	1000.9	855.3	731.4	631.6	561.8	542.5
60°	792.7	878.2	951.5	978.0	928.7	825.2	700.1	601.5	528.1	480.0	470.4
62.5°	654.4	724.2	781.9	802.4	754.3	673.7	565.4	492.0	440.3	416.2	404.2
65°	540.1	581.0	640.0	636.4	607.5	532.9	453.5	401.8	368.1	352.5	345.2
67.5°	424.6	461.9	499.2	504.0	467.9	416.2	364.5	327.2	309.2	300.7	297.1
70°	328.4	356.1	378.9	372.9	353.7	321.2	288.7	268.3	261.0	257.4	257.4
72.5°	255.0	269.5	280.3	273.1	261.0	244.2	228.6	220.1	221.3	223.7	226.2
75°	197.3	200.9	203.3	196.1	193.7	182.8	181.6	182.8	190.1	197.3	200.9
77.5°	151.6	146.8	143.2	135.9	137.1	135.9	141.9	151.6	162.4	173.2	182.8
80°	116.7	105.9	97.4	90.2	93.8	99.8	111.9	126.3	140.7	152.8	164.8
82.5°	90.2	74.6	62.6	55.3	62.6	72.2	87.8	105.9	122.7	135.9	149.2
85°	69.8	51.7	37.3	30.1	37.3	51.7	68.6	89.0	107.1	121.5	134.7
87.5°	54.1	37.3	20.5	12.0	20.5	36.1	55.3	74.6	92.6	109.5	122.7
90°	43.3	25.3	9.6	2.4	10.8	25.3	43.3	62.6	80.6	98.6	111.9
92.5°	34.9	18.0	4.8	0.0	6.0	19.2	36.1	54.1	72.2	89.0	102.3
95°	28.9	14.4	3.6	0.0	4.8	14.4	28.9	46.9	63.8	80.6	91.4
97.5°	24.1	10.8	2.4	0.0	2.4	12.0	24.1	39.7	56.5	72.2	83.0
100°	20.5	9.6	2.4	0.0	2.4	9.6	20.5	34.9	49.3	63.8	74.6
102.5°	16.8	7.2	1.2	1.2	1.2	7.2	18.0	30.1	43.3	56.5	67.4
105°	15.6	6.0	1.2	1.2	1.2	6.0	15.6	26.5	38.5	50.5	60.1
107.5°	13.2	4.8	1.2	1.2	1.2	4.8	13.2	22.9	34.9	45.7	54.1
110°	10.8	4.8	1.2	1.2	1.2	4.8	10.8	20.5	30.1	39.7	48.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	9.6	3.6	1.2	1.2	1.2	3.6	9.6	18.0	26.5	36.1	43.3
115°	8.4	3.6	1.2	1.2	1.2	3.6	8.4	15.6	22.9	31.3	38.5
117.5°	7.2	3.6	1.2	1.2	1.2	2.4	7.2	13.2	20.5	27.7	34.9
120°	6.0	2.4	1.2	1.2	1.2	2.4	6.0	12.0	18.0	24.1	30.1
122.5°	6.0	2.4	1.2	1.2	1.2	2.4	4.8	9.6	15.6	20.5	26.5
125°	4.8	2.4	1.2	1.2	1.2	1.2	4.8	8.4	13.2	18.0	22.9
127.5°	4.8	2.4	1.2	1.2	1.2	1.2	3.6	7.2	10.8	15.6	20.5
130°	3.6	2.4	1.2	1.2	1.2	1.2	2.4	6.0	9.6	13.2	16.8
132.5°	3.6	2.4	1.2	1.2	1.2	1.2	2.4	4.8	7.2	10.8	14.4
135°	3.6	1.2	1.2	1.2	1.2	1.2	1.2	3.6	6.0	8.4	10.8
137.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	4.8	6.0	9.6
140°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.6	4.8	7.2
142.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.6	6.0
145°	2.4	1.2	1.2	2.4	2.4	1.2	1.2	2.4	2.4	3.6	4.8
147.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	3.6
150°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2341.0	2313.3	2327.7	2322.9	2327.7	2339.7	2338.5	2334.9	2337.3	2331.3	2325.3
5°	2336.1	2308.5	2322.9	2316.9	2322.9	2334.9	2332.5	2328.9	2332.5	2325.3	2319.3
7.5°	2330.1	2304.9	2321.7	2320.5	2331.3	2347.0	2348.2	2348.2	2356.6	2345.8	2341.0
10°	2330.1	2316.9	2339.7	2348.2	2375.8	2396.3	2398.7	2403.5	2417.9	2415.5	2403.5
12.5°	2355.4	2353.0	2386.7	2407.1	2432.4	2461.2	2476.9	2481.7	2491.3	2484.1	2479.3
15°	2387.9	2399.9	2437.2	2460.0	2487.7	2509.4	2513.0	2515.4	2522.6	2511.8	2503.4
17.5°	2431.2	2438.4	2468.5	2478.1	2496.1	2499.7	2494.9	2482.9	2482.9	2458.8	2451.6
20°	2451.6	2448.0	2460.0	2444.4	2437.2	2415.5	2395.1	2372.2	2371.0	2345.8	2343.4
22.5°	2433.6	2409.5	2384.3	2345.8	2328.9	2297.6	2270.0	2256.7	2248.3	2215.8	2207.4
25°	2369.8	2310.9	2273.6	2227.9	2187.0	2150.9	2124.4	2096.8	2070.3	2043.8	2031.8
27.5°	2259.2	2203.8	2143.7	2079.9	2023.4	1968.0	1923.5	1895.9	1870.6	1835.7	1817.7
30°	2123.2	2046.2	1980.1	1918.7	1826.1	1758.7	1721.4	1666.1	1646.8	1631.2	1597.5
32.5°	1963.2	1870.6	1780.4	1697.4	1602.3	1539.8	1490.5	1449.6	1437.5	1396.6	1387.0
35°	1786.4	1664.9	1562.6	1480.8	1412.3	1336.5	1295.6	1267.9	1243.9	1216.2	1211.4
37.5°	1578.3	1468.8	1353.3	1281.1	1227.0	1162.1	1130.8	1111.5	1100.7	1080.3	1076.6
40°	1369.0	1259.5	1180.1	1107.9	1074.2	1039.4	1016.5	1008.1	1003.3	996.0	988.8
42.5°	1178.9	1082.7	1026.1	978.0	963.6	946.7	940.7	945.5	940.7	938.3	937.1
45°	1017.7	944.3	904.6	890.2	886.6	881.8	886.6	895.0	896.2	893.8	893.8
47.5°	870.9	836.1	819.2	821.6	827.6	831.2	839.7	850.5	852.9	846.9	849.3
50°	774.7	754.3	750.6	760.3	773.5	778.3	787.9	796.4	795.2	792.7	790.3
52.5°	684.5	678.5	688.1	697.7	712.2	714.6	718.2	721.8	720.6	715.8	713.4
55°	608.7	613.5	621.9	625.5	636.4	635.2	636.4	636.4	631.6	629.1	625.5
57.5°	540.1	541.3	546.1	547.3	553.4	551.0	549.8	547.3	540.1	538.9	535.3
60°	470.4	467.9	478.8	470.4	475.2	470.4	469.2	463.1	455.9	454.7	452.3
62.5°	404.2	399.4	406.6	403.0	405.4	400.6	398.2	391.0	384.9	383.7	382.5
65°	345.2	342.8	350.1	348.9	351.3	345.2	342.8	338.0	333.2	332.0	330.8
67.5°	295.9	301.9	305.6	305.6	308.0	306.8	300.7	299.5	298.3	293.5	293.5
70°	259.8	263.4	270.7	271.9	270.7	273.1	268.3	267.1	265.9	263.4	262.2
72.5°	231.0	235.8	243.0	244.2	243.0	243.0	240.6	239.4	239.4	235.8	235.8
75°	208.1	214.1	220.1	220.1	220.1	217.7	215.3	215.3	212.9	211.7	209.3
77.5°	188.9	196.1	200.9	199.7	198.5	196.1	196.1	192.5	188.9	188.9	186.5
80°	174.4	179.2	182.8	181.6	180.4	176.8	175.6	172.0	169.6	166.0	166.0
82.5°	158.8	164.8	167.2	166.0	163.6	160.0	158.8	156.4	154.0	152.8	150.4
85°	145.6	151.6	152.8	150.4	148.0	145.6	144.4	143.2	141.9	139.5	139.5
87.5°	132.3	138.3	138.3	137.1	134.7	133.5	132.3	131.1	129.9	128.7	127.5
90°	121.5	126.3	126.3	125.1	123.9	122.7	121.5	120.3	119.1	117.9	117.9
92.5°	110.7	115.5	115.5	114.3	113.1	111.9	111.9	110.7	109.5	108.3	107.1
95°	101.0	105.9	105.9	105.9	104.7	103.5	103.5	102.3	101.0	101.0	99.8
97.5°	91.4	96.2	96.2	96.2	95.0	93.8	93.8	92.6	92.6	92.6	91.4
100°	83.0	86.6	87.8	87.8	86.6	86.6	86.6	85.4	85.4	85.4	84.2
102.5°	74.6	78.2	80.6	80.6	80.6	79.4	79.4	79.4	79.4	79.4	78.2
105°	67.4	71.0	73.4	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
107.5°	61.4	65.0	67.4	68.6	69.8	69.8	71.0	71.0	71.0	71.0	71.0
110°	55.3	58.9	62.6	63.8	65.0	66.2	66.2	67.4	66.2	66.2	66.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	49.3	54.1	56.5	58.9	60.1	61.4	62.6	62.6	62.6	62.6	62.6
115°	44.5	49.3	51.7	54.1	56.5	57.7	57.7	58.9	58.9	58.9	57.7
117.5°	39.7	44.5	46.9	49.3	50.5	52.9	54.1	54.1	54.1	54.1	52.9
120°	36.1	39.7	42.1	44.5	46.9	48.1	49.3	49.3	49.3	49.3	49.3
122.5°	31.3	34.9	38.5	40.9	42.1	43.3	44.5	44.5	44.5	44.5	44.5
125°	27.7	31.3	33.7	36.1	37.3	39.7	39.7	39.7	39.7	39.7	39.7
127.5°	24.1	27.7	30.1	32.5	33.7	34.9	36.1	36.1	36.1	36.1	36.1
130°	20.5	24.1	26.5	28.9	30.1	31.3	31.3	32.5	32.5	32.5	32.5
132.5°	18.0	20.5	22.9	25.3	26.5	27.7	27.7	28.9	28.9	28.9	28.9
135°	14.4	18.0	19.2	21.7	22.9	24.1	24.1	25.3	25.3	25.3	25.3
137.5°	12.0	14.4	16.8	19.2	20.5	20.5	21.7	21.7	22.9	22.9	22.9
140°	9.6	10.8	14.4	15.6	16.8	18.0	19.2	19.2	19.2	19.2	19.2
142.5°	7.2	9.6	10.8	13.2	14.4	15.6	16.8	16.8	16.8	16.8	16.8
145°	6.0	7.2	8.4	10.8	12.0	13.2	14.4	14.4	14.4	14.4	14.4
147.5°	4.8	6.0	7.2	8.4	9.6	10.8	12.0	12.0	12.0	12.0	12.0
150°	3.6	4.8	6.0	6.0	7.2	8.4	9.6	10.8	10.8	10.8	10.8
152.5°	3.6	3.6	4.8	4.8	6.0	7.2	8.4	8.4	8.4	8.4	8.4
155°	2.4	3.6	3.6	3.6	4.8	4.8	6.0	7.2	7.2	7.2	7.2
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2328.9	2333.7	2331.3	2327.7	2326.5	2332.5	2326.5	2298.8	2309.7	2310.9	2319.3
5°	2325.3	2328.9	2326.5	2324.1	2320.5	2327.7	2320.5	2291.6	2302.5	2303.7	2312.1
7.5°	2349.4	2350.6	2350.6	2344.6	2334.9	2338.5	2328.9	2296.4	2302.5	2302.5	2308.5
10°	2409.5	2411.9	2415.5	2399.9	2387.9	2378.2	2365.0	2325.3	2324.1	2314.5	2314.5
12.5°	2487.7	2481.7	2475.7	2468.5	2458.8	2446.8	2427.6	2380.7	2365.0	2349.4	2333.7
15°	2510.6	2508.2	2507.0	2503.4	2497.3	2493.7	2479.3	2432.4	2409.5	2390.3	2362.6
17.5°	2450.4	2455.2	2470.9	2472.1	2479.3	2493.7	2491.3	2458.8	2438.4	2430.0	2396.3
20°	2342.2	2343.4	2362.6	2371.0	2402.3	2426.4	2444.4	2440.8	2436.0	2445.6	2420.3
22.5°	2212.2	2220.7	2241.1	2254.3	2284.4	2312.1	2341.0	2356.6	2381.9	2421.6	2416.7
25°	2035.4	2046.2	2075.1	2096.8	2138.9	2181.0	2219.5	2247.1	2277.2	2353.0	2378.2
27.5°	1823.7	1840.5	1877.8	1899.5	1958.4	2001.7	2057.1	2111.2	2153.3	2239.9	2291.6
30°	1601.1	1615.6	1655.3	1685.3	1735.9	1794.8	1864.6	1941.6	2011.3	2099.2	2164.1
32.5°	1393.0	1408.7	1441.1	1467.6	1524.1	1573.5	1650.5	1745.5	1810.4	1931.9	2018.6
35°	1211.4	1225.8	1248.7	1271.5	1318.4	1369.0	1435.1	1527.8	1610.8	1737.1	1846.5
37.5°	1083.9	1086.3	1099.5	1112.7	1147.6	1186.1	1237.8	1319.6	1396.6	1532.6	1652.9
40°	992.4	992.4	999.7	1003.3	1018.9	1041.8	1074.2	1138.0	1201.8	1305.2	1452.0
42.5°	935.9	933.5	933.5	934.7	933.5	944.3	963.6	993.6	1050.2	1135.6	1249.9
45°	893.8	889.0	885.4	877.0	872.1	872.1	873.3	884.2	916.7	972.0	1064.6
47.5°	846.9	845.7	839.7	830.0	821.6	815.6	806.0	802.4	812.0	843.3	905.8
50°	792.7	786.7	780.7	773.5	763.9	757.9	739.8	741.0	732.6	747.0	779.5
52.5°	713.4	708.5	706.1	700.1	696.5	694.1	679.7	665.2	661.6	664.0	676.1
55°	625.5	627.9	618.3	623.1	621.9	611.1	605.1	594.3	590.7	589.4	595.5
57.5°	534.1	536.5	530.5	535.3	535.3	529.3	525.7	525.7	517.3	510.1	518.5
60°	451.1	446.3	449.9	455.9	455.9	452.3	449.9	449.9	443.9	441.5	447.5
62.5°	383.7	378.9	382.5	388.6	389.8	387.4	384.9	384.9	377.7	377.7	382.5
65°	332.0	333.2	332.0	336.8	336.8	338.0	335.6	333.2	324.8	328.4	327.2
67.5°	294.7	293.5	293.5	298.3	297.1	299.5	297.1	293.5	287.5	282.7	281.5
70°	263.4	262.2	262.2	264.7	265.9	265.9	264.7	262.2	253.8	249.0	245.4
72.5°	235.8	234.6	235.8	237.0	238.2	239.4	238.2	235.8	228.6	222.5	216.5
75°	210.5	209.3	212.9	212.9	214.1	214.1	215.3	214.1	208.1	200.9	193.7
77.5°	185.3	186.5	190.1	191.3	193.7	194.9	196.1	196.1	190.1	184.1	174.4
80°	164.8	167.2	169.6	170.8	173.2	176.8	178.0	179.2	174.4	168.4	157.6
82.5°	150.4	151.6	154.0	155.2	158.8	160.0	161.2	163.6	161.2	155.2	143.2
85°	138.3	139.5	141.9	141.9	144.4	146.8	148.0	149.2	148.0	141.9	129.9
87.5°	127.5	128.7	129.9	131.1	132.3	133.5	134.7	135.9	134.7	128.7	117.9
90°	117.9	117.9	119.1	119.1	120.3	121.5	123.9	123.9	122.7	117.9	107.1
92.5°	107.1	108.3	108.3	109.5	110.7	111.9	113.1	113.1	111.9	107.1	97.4
95°	99.8	99.8	101.0	101.0	102.3	102.3	103.5	103.5	102.3	97.4	87.8
97.5°	91.4	91.4	91.4	91.4	92.6	92.6	93.8	93.8	92.6	87.8	79.4
100°	84.2	84.2	84.2	84.2	84.2	85.4	85.4	85.4	84.2	79.4	71.0
102.5°	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	75.8	72.2	63.8
105°	74.6	74.6	74.6	73.4	73.4	73.4	72.2	72.2	68.6	65.0	57.7
107.5°	69.8	69.8	69.8	68.6	68.6	67.4	66.2	66.2	62.6	58.9	51.7
110°	66.2	66.2	66.2	65.0	63.8	62.6	61.4	60.1	56.5	51.7	45.7





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	62.6	62.6	61.4	61.4	60.1	58.9	56.5	55.3	51.7	46.9	40.9
115°	57.7	57.7	57.7	56.5	55.3	54.1	52.9	50.5	46.9	42.1	36.1
117.5°	52.9	52.9	52.9	51.7	50.5	49.3	48.1	45.7	42.1	37.3	32.5
120°	48.1	48.1	48.1	46.9	45.7	44.5	43.3	40.9	37.3	33.7	27.7
122.5°	44.5	44.5	43.3	42.1	40.9	39.7	38.5	36.1	33.7	28.9	24.1
125°	39.7	39.7	38.5	38.5	37.3	36.1	34.9	32.5	28.9	25.3	21.7
127.5°	36.1	34.9	34.9	34.9	33.7	32.5	30.1	28.9	25.3	21.7	18.0
130°	31.3	31.3	31.3	30.1	30.1	28.9	26.5	24.1	21.7	19.2	15.6
132.5°	27.7	27.7	27.7	27.7	26.5	25.3	22.9	21.7	19.2	15.6	13.2
135°	25.3	25.3	24.1	24.1	22.9	21.7	20.5	18.0	15.6	13.2	10.8
137.5°	21.7	21.7	21.7	20.5	20.5	19.2	16.8	15.6	14.4	12.0	9.6
140°	19.2	19.2	18.0	18.0	16.8	16.8	15.6	13.2	12.0	9.6	8.4
142.5°	16.8	16.8	15.6	15.6	14.4	14.4	13.2	12.0	9.6	8.4	6.0
145°	14.4	14.4	13.2	13.2	13.2	12.0	10.8	9.6	8.4	7.2	6.0
147.5°	12.0	12.0	12.0	10.8	10.8	9.6	9.6	8.4	7.2	6.0	4.8
150°	10.8	10.8	9.6	9.6	9.6	8.4	7.2	7.2	6.0	4.8	3.6
152.5°	8.4	8.4	8.4	8.4	7.2	7.2	6.0	6.0	4.8	3.6	3.6
155°	7.2	7.2	7.2	6.0	6.0	6.0	4.8	4.8	3.6	3.6	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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9	2328.9
2.5°	2315.7	2314.5	2325.3	2324.1	2309.7	2331.3	2345.8
5°	2309.7	2308.5	2318.1	2320.5	2304.9	2327.7	2343.4
7.5°	2304.9	2303.7	2314.5	2318.1	2302.5	2322.9	2339.7
10°	2306.1	2300.1	2309.7	2312.1	2297.6	2319.3	2333.7
12.5°	2314.5	2300.1	2303.7	2303.7	2290.4	2309.7	2325.3
15°	2334.9	2304.9	2300.1	2296.4	2279.6	2297.6	2313.3
17.5°	2357.8	2316.9	2300.1	2288.0	2267.6	2283.2	2300.1
20°	2380.7	2330.1	2302.5	2283.2	2255.5	2270.0	2282.0
22.5°	2391.5	2342.2	2304.9	2276.0	2241.1	2248.3	2261.6
25°	2377.0	2337.3	2300.1	2265.2	2223.1	2224.3	2235.1
27.5°	2324.1	2313.3	2289.2	2254.3	2208.6	2202.6	2211.0
30°	2233.9	2264.0	2265.2	2239.9	2191.8	2179.8	2183.4
32.5°	2107.6	2174.9	2214.6	2209.8	2167.7	2150.9	2153.3
35°	1962.0	2046.2	2132.8	2161.7	2131.6	2118.4	2113.6
37.5°	1787.6	1900.7	2016.2	2087.1	2082.3	2073.9	2069.1
40°	1595.1	1731.1	1868.2	1981.3	2016.2	2016.2	2018.6
42.5°	1389.4	1548.2	1698.6	1841.7	1923.5	1941.6	1948.8
45°	1190.9	1350.9	1514.5	1679.3	1788.8	1845.3	1865.8
47.5°	1010.5	1171.7	1326.9	1507.3	1652.9	1726.2	1758.7
50°	856.5	976.8	1140.4	1319.6	1478.4	1568.7	1632.4
52.5°	729.0	822.8	966.0	1133.2	1293.2	1417.1	1476.0
55°	621.9	685.7	807.2	951.5	1104.3	1233.0	1301.6
57.5°	531.7	582.2	665.2	785.5	914.2	1041.8	1115.1
60°	452.3	487.2	543.7	638.8	748.2	857.7	928.7
62.5°	383.7	406.6	443.9	513.7	599.1	684.5	750.6
65°	330.8	340.4	360.9	404.2	469.2	534.1	590.7
67.5°	279.1	285.1	300.7	327.2	359.7	406.6	443.9
70°	240.6	240.6	241.8	257.4	274.3	304.3	330.8
72.5°	209.3	205.7	198.5	202.1	205.7	222.5	239.4
75°	184.1	175.6	163.6	158.8	156.4	158.8	168.4
77.5°	162.4	150.4	135.9	123.9	114.3	110.7	119.1
80°	144.4	129.9	113.1	97.4	81.8	73.4	77.0
82.5°	129.9	111.9	93.8	75.8	57.7	45.7	45.7
85°	114.3	97.4	78.2	58.9	40.9	25.3	22.9
87.5°	103.5	85.4	65.0	46.9	28.9	13.2	7.2
90°	92.6	74.6	55.3	37.3	20.5	6.0	0.0
92.5°	83.0	66.2	48.1	30.1	14.4	3.6	0.0
95°	74.6	58.9	40.9	25.3	12.0	2.4	1.2
97.5°	66.2	51.7	36.1	20.5	8.4	2.4	1.2
100°	60.1	45.7	31.3	16.8	7.2	1.2	1.2
102.5°	52.9	40.9	26.5	14.4	6.0	1.2	1.2
105°	46.9	36.1	22.9	12.0	4.8	1.2	1.2
107.5°	42.1	31.3	20.5	10.8	4.8	1.2	1.2
110°	37.3	27.7	18.0	9.6	3.6	1.2	1.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64HL-LC-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	33.7	24.1	15.6	8.4	2.4	1.2	1.2
115°	28.9	21.7	13.2	7.2	2.4	1.2	1.2
117.5°	25.3	18.0	12.0	6.0	2.4	1.2	1.2
120°	21.7	15.6	9.6	4.8	1.2	1.2	1.2
122.5°	19.2	13.2	8.4	4.8	1.2	1.2	1.2
125°	16.8	12.0	7.2	3.6	1.2	1.2	1.2
127.5°	14.4	9.6	6.0	2.4	1.2	1.2	1.2
130°	12.0	8.4	4.8	2.4	1.2	1.2	1.2
132.5°	9.6	7.2	4.8	2.4	1.2	1.2	1.2
135°	8.4	6.0	3.6	2.4	1.2	1.2	1.2
137.5°	7.2	4.8	2.4	2.4	2.4	1.2	1.2
140°	6.0	3.6	2.4	2.4	2.4	2.4	1.2
142.5°	4.8	3.6	2.4	2.4	2.4	2.4	1.2
145°	3.6	2.4	2.4	2.4	2.4	2.4	1.2
147.5°	3.6	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)