

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: NEO-RAY

Report Number: P231541

Luminaire Tested: **S121-DR-2-35-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29630)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-DR-2-35-X-0048-1-U-DD-3-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

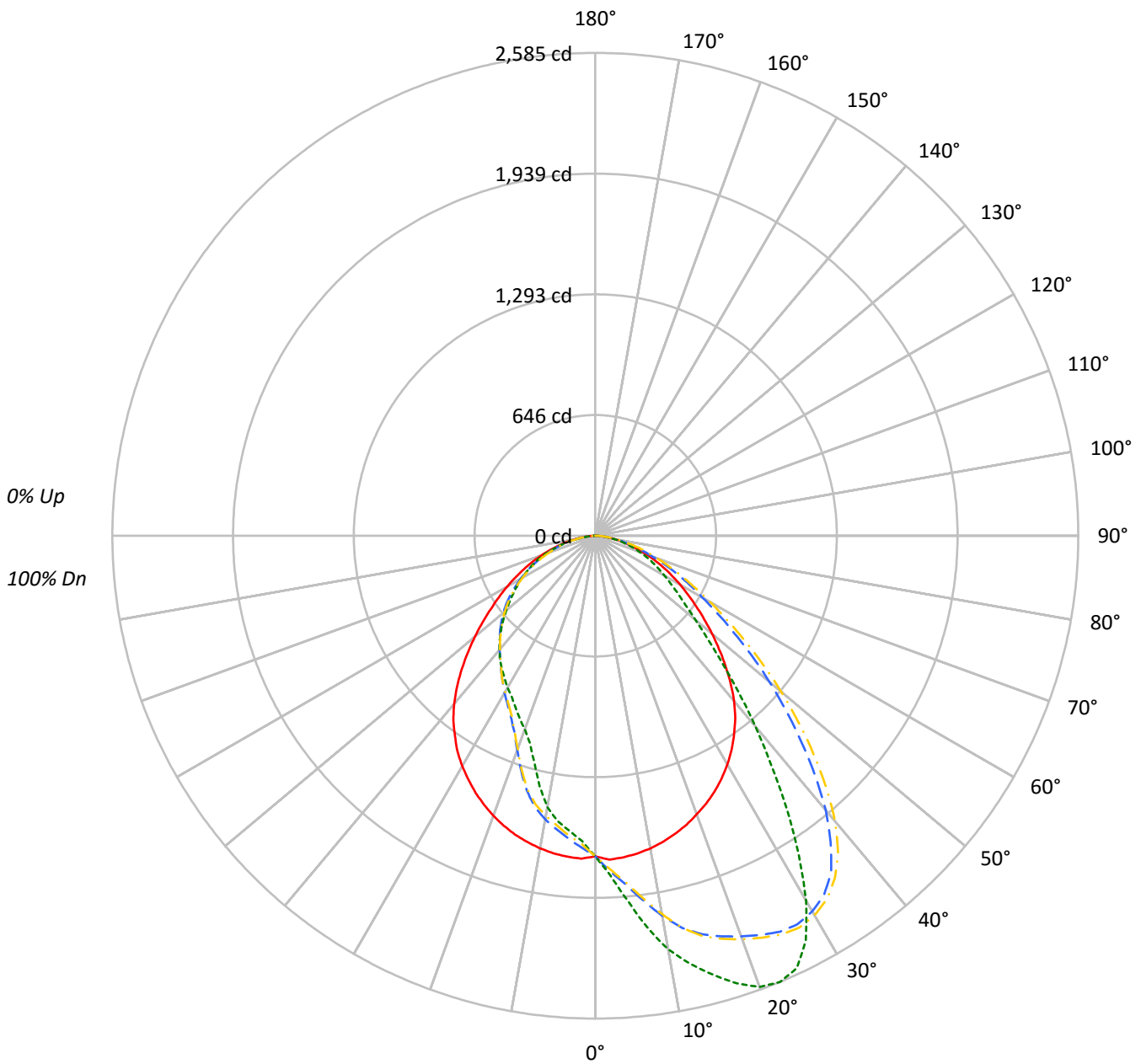
Lumens per Lamp: N/A
Luminaire Lumens: 4410.9 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.39
Luminous Opening: Rectangular (W 3.92' x L: 0.1' x H: 0')
CIE Type: Direct

Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86					86			
2	101	93	87	81	98	91	85	81	88	83	79	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54					54			
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48					48			
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38					38			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	47972	47972	47972	47972
5°	48495	54938	48402	44518
10°	48244	63838	48244	41882
15°	47789	70426	47948	36405
20°	47195	76480	47457	32813
25°	46595	78754	46799	31208
30°	45641	72806	45960	30320
35°	44205	61037	44689	29730
40°	42178	48631	42897	29105
45°	38960	37699	39957	28230
50°	35452	30389	36552	27045
55°	32072	26292	33198	26077
60°	29299	23892	30468	25369
65°	26600	22307	27758	24563
70°	23795	20566	25054	23435
75°	20286	18633	21831	20167
80°	16277	16100	18740	15746
85°	11644	13023	14435	10938



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.6	3.8
10°-20°	500.2	11.3
20°-30°	767.9	17.4
30°-40°	874.6	19.8
40°-50°	794.9	18.0
50°-60°	620.0	14.1
60°-70°	419.9	9.5
70°-80°	215.2	4.9
80°-90°	50.6	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1435.7	32.5
0°-40°	2310.3	52.4
0°-60°	3725.3	84.5
0°-90°	4410.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4410.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1716	1716	1716	1716	1716	
5°	1728	1958	1725	1586	1728	164
15°	1651	2433	1657	1258	1651	466
25°	1510	2553	1517	1012	1510	695
35°	1295	1788	1309	871	1295	809
45°	985	954	1011	714	985	760
55°	658	539	681	535	658	592
65°	402	337	420	371	402	400
75°	188	172	202	187	188	201
85°	36	41	45	34	36	46
90°	0	0	0	0	0	



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1735.7	1728.0	1732.4	1744.5	1757.6	1762.0	1764.2	1769.7	1776.3	1787.3	1796.1
5°	1728.0	1729.1	1742.3	1763.1	1784.0	1792.8	1800.5	1815.9	1833.4	1855.4	1875.2
7.5°	1715.9	1724.7	1748.9	1778.5	1810.4	1825.8	1837.8	1868.6	1900.5	1935.6	1969.7
10°	1699.4	1717.0	1750.0	1790.6	1837.8	1859.8	1880.7	1926.8	1973.0	2021.3	2066.3
12.5°	1677.5	1703.8	1746.7	1800.5	1864.2	1893.9	1922.4	1982.8	2041.1	2098.2	2150.9
15°	1651.1	1686.2	1740.1	1808.2	1886.2	1922.4	1957.6	2027.9	2092.7	2153.1	2209.1
17.5°	1622.5	1665.4	1730.2	1812.6	1902.7	1942.2	1978.5	2054.2	2120.2	2185.0	2248.7
20°	1586.3	1642.3	1717.0	1809.3	1904.8	1945.5	1985.0	2061.9	2132.2	2208.0	2282.7
22.5°	1551.1	1609.3	1698.3	1795.0	1889.5	1933.4	1974.1	2057.5	2138.8	2226.7	2313.5
25°	1510.5	1576.4	1670.9	1767.5	1862.0	1905.9	1952.1	2046.6	2145.4	2244.3	2338.8
27.5°	1464.3	1534.6	1631.3	1725.8	1823.6	1874.1	1926.8	2036.7	2148.7	2253.1	2344.3
30°	1413.8	1490.7	1580.8	1673.1	1782.9	1840.0	1900.5	2023.5	2144.3	2238.8	2322.3
32.5°	1357.8	1434.7	1518.2	1621.4	1739.0	1803.8	1874.1	1999.3	2120.2	2203.6	2278.3
35°	1295.2	1364.4	1450.1	1563.2	1693.9	1765.3	1834.5	1963.1	2078.4	2148.7	2200.4
37.5°	1230.4	1299.6	1379.8	1502.8	1643.4	1721.4	1786.2	1909.2	2016.9	2067.4	2068.5
40°	1155.7	1219.4	1305.1	1440.2	1587.4	1659.9	1731.3	1844.4	1936.7	1956.5	1918.0
42.5°	1072.2	1139.2	1231.5	1375.4	1521.5	1597.3	1658.8	1767.5	1836.7	1823.6	1740.1
45°	985.4	1059.0	1156.8	1304.0	1444.6	1513.8	1576.4	1673.1	1715.9	1674.2	1558.8
47.5°	898.6	977.7	1079.9	1226.0	1357.8	1424.8	1483.0	1563.2	1580.8	1512.7	1383.0
50°	815.1	895.3	1000.8	1141.4	1263.3	1329.2	1378.7	1440.2	1435.8	1347.9	1216.1
52.5°	734.9	817.3	928.3	1050.2	1164.4	1222.7	1268.8	1308.3	1288.6	1185.3	1055.7
55°	658.0	738.2	836.0	943.6	1063.4	1109.5	1151.3	1173.2	1140.3	1035.9	907.4
57.5°	589.9	661.3	760.2	855.8	957.9	996.4	1031.5	1038.1	994.2	881.0	774.5
60°	524.0	587.7	674.5	749.2	847.0	883.2	908.5	905.2	858.0	763.5	661.3
62.5°	461.4	516.3	589.9	663.5	738.2	766.8	788.7	788.7	730.5	648.1	569.0
65°	402.1	448.2	506.4	560.2	633.9	655.8	673.4	658.0	616.3	538.3	480.1
67.5°	346.0	382.3	427.3	472.4	535.0	551.5	562.4	558.1	513.0	448.2	401.0
70°	291.1	319.7	354.8	390.0	439.4	451.5	461.4	457.0	421.8	374.6	325.2
72.5°	236.2	257.1	285.6	315.3	351.5	360.3	369.1	364.7	330.7	299.9	263.6
75°	187.8	202.1	221.9	245.0	271.3	280.1	285.6	283.4	257.1	231.8	207.6
77.5°	141.7	151.6	167.0	183.5	201.0	204.3	209.8	207.6	191.1	173.6	157.1
80°	101.1	106.6	117.5	127.4	139.5	142.8	145.0	145.0	132.9	121.9	113.1
82.5°	65.9	69.2	75.8	81.3	89.0	90.1	92.3	92.3	84.6	80.2	75.8
85°	36.3	38.4	42.8	45.0	48.3	47.2	49.4	50.5	47.2	46.1	43.9
87.5°	15.4	15.4	16.5	18.7	17.6	17.6	18.7	19.8	18.7	17.6	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1802.7	1792.8	1806.0	1818.1	1821.4	1826.9	1815.9	1809.3	1807.1	1817.0	1810.4
5°	1890.6	1889.5	1911.4	1930.1	1935.6	1945.5	1940.0	1938.9	1941.1	1957.6	1949.9
7.5°	1996.0	2005.9	2038.9	2066.3	2075.1	2089.4	2088.3	2090.5	2094.9	2112.5	2105.9
10°	2114.7	2122.4	2161.9	2197.1	2208.0	2222.3	2213.5	2228.9	2234.4	2248.7	2239.9
12.5°	2200.4	2213.5	2255.3	2293.7	2303.6	2313.5	2312.4	2324.5	2334.4	2347.6	2342.1
15°	2257.5	2274.0	2323.4	2366.2	2379.4	2388.2	2389.3	2404.7	2415.7	2433.2	2439.8
17.5°	2301.4	2327.8	2383.8	2433.2	2447.5	2457.4	2464.0	2481.6	2495.9	2512.3	2517.8
20°	2342.1	2379.4	2443.1	2494.8	2507.9	2515.6	2525.5	2539.8	2556.3	2570.6	2573.9
22.5°	2377.2	2421.2	2482.7	2526.6	2536.5	2539.8	2546.4	2556.3	2573.9	2584.8	2590.3
25°	2397.0	2433.2	2488.2	2525.5	2533.2	2527.7	2532.1	2532.1	2546.4	2553.0	2565.1
27.5°	2389.3	2420.1	2462.9	2482.7	2479.4	2464.0	2444.2	2427.7	2440.9	2440.9	2457.4
30°	2353.0	2367.3	2380.5	2366.2	2335.5	2317.9	2282.7	2248.7	2259.7	2255.3	2271.8
32.5°	2277.3	2256.4	2235.5	2190.5	2146.5	2118.0	2065.2	2046.6	2029.0	2026.8	2041.1
35°	2157.5	2099.3	2044.4	1976.3	1926.8	1891.7	1829.1	1781.8	1786.2	1788.4	1799.4
37.5°	1998.2	1910.3	1832.3	1751.1	1706.0	1661.0	1599.5	1574.2	1556.6	1544.5	1565.4
40°	1814.8	1706.0	1615.9	1532.4	1491.8	1442.4	1385.2	1360.0	1342.4	1332.5	1346.8
42.5°	1625.8	1509.4	1414.9	1329.2	1286.4	1243.5	1188.6	1164.4	1144.7	1130.4	1146.9
45°	1442.4	1321.5	1223.8	1139.2	1096.3	1062.3	1008.4	987.6	968.9	953.5	971.1
47.5°	1263.3	1162.2	1048.0	966.7	930.5	897.5	854.7	837.1	822.8	811.8	822.8
50°	1095.2	996.4	889.8	822.8	794.2	764.6	730.5	717.3	706.4	698.7	705.3
52.5°	941.4	849.2	759.1	695.4	680.0	658.0	631.7	621.8	608.6	606.4	614.1
55°	803.0	723.9	650.3	603.1	587.7	571.2	551.5	544.9	537.2	539.4	538.3
57.5°	685.5	619.6	559.2	526.2	511.9	498.7	484.5	481.2	477.9	479.0	477.9
60°	585.5	531.7	484.5	457.0	448.2	438.3	428.4	422.9	425.1	427.3	430.6
62.5°	497.6	455.9	418.5	397.7	392.2	385.6	380.1	376.8	379.0	381.2	384.5
65°	421.8	388.9	361.4	347.1	341.6	338.3	335.1	337.2	335.1	337.2	340.5
67.5°	354.8	329.6	308.7	299.9	296.6	293.3	291.1	294.4	293.3	294.4	296.6
70°	294.4	273.5	259.3	252.7	250.5	248.3	247.2	247.2	249.4	251.6	253.8
72.5°	237.3	225.2	216.4	210.9	208.7	207.6	206.5	208.7	208.7	210.9	213.1
75°	187.8	180.2	172.5	171.4	170.3	169.2	169.2	171.4	171.4	172.5	173.6
77.5°	147.2	140.6	134.0	134.0	132.9	135.1	132.9	135.1	132.9	135.1	136.2
80°	108.8	103.3	102.2	98.9	97.8	101.1	97.8	100.0	97.8	100.0	101.1
82.5°	73.6	70.3	69.2	67.0	67.0	69.2	67.0	68.1	67.0	68.1	69.2
85°	42.8	41.7	40.6	40.6	39.5	41.7	39.5	40.6	39.5	40.6	41.7
87.5°	18.7	18.7	17.6	18.7	16.5	18.7	17.6	18.7	19.8	18.7	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1818.1	1807.1	1803.8	1795.0	1797.2	1808.2	1804.9	1811.5	1785.1	1764.2	1750.0
5°	1953.2	1934.5	1924.6	1909.2	1908.1	1911.4	1899.4	1899.4	1862.0	1831.2	1804.9
7.5°	2108.1	2082.8	2067.4	2046.6	2043.3	2038.9	2016.9	2005.9	1957.6	1910.3	1869.7
10°	2239.9	2214.6	2198.2	2178.4	2174.0	2167.4	2137.7	2116.9	2056.4	1996.0	1940.0
12.5°	2342.1	2315.7	2297.0	2279.4	2272.9	2266.3	2238.8	2204.7	2150.9	2076.2	2010.3
15°	2434.3	2405.8	2383.8	2362.9	2352.0	2338.8	2306.9	2275.1	2219.0	2138.8	2067.4
17.5°	2511.2	2480.5	2454.1	2433.2	2419.0	2401.4	2362.9	2319.0	2263.0	2178.4	2104.8
20°	2567.3	2536.5	2507.9	2489.3	2477.2	2451.9	2411.3	2360.7	2299.2	2206.9	2123.5
22.5°	2585.9	2557.4	2532.1	2517.8	2505.7	2486.0	2449.7	2400.3	2328.9	2227.8	2133.3
25°	2562.9	2546.4	2528.8	2521.1	2512.3	2497.0	2470.6	2424.5	2355.2	2246.5	2138.8
27.5°	2461.8	2466.2	2468.4	2480.5	2478.3	2481.6	2466.2	2425.6	2365.1	2259.7	2142.1
30°	2288.2	2313.5	2336.6	2365.1	2370.6	2409.1	2421.2	2393.7	2346.5	2257.5	2141.0
32.5°	2086.1	2103.7	2143.2	2172.9	2204.7	2274.0	2319.0	2334.4	2306.9	2233.3	2125.7
35°	1843.3	1869.7	1921.3	1964.2	2000.4	2093.8	2168.5	2230.0	2235.5	2190.5	2090.5
37.5°	1609.3	1639.0	1691.7	1744.5	1773.0	1886.2	1983.9	2085.0	2133.3	2123.5	2043.3
40°	1390.7	1422.6	1474.2	1529.2	1552.2	1669.8	1777.4	1909.2	1996.0	2033.4	1977.4
42.5°	1188.6	1221.6	1272.1	1320.4	1368.8	1463.2	1572.0	1719.2	1830.1	1907.0	1889.5
45°	1006.3	1037.0	1086.4	1129.3	1161.1	1269.9	1376.5	1509.4	1651.1	1745.6	1775.2
47.5°	852.5	878.8	922.8	961.2	1004.1	1088.6	1195.2	1327.0	1472.0	1601.7	1644.5
50°	729.4	751.4	788.7	819.5	851.4	927.2	1024.9	1153.5	1297.4	1435.8	1499.5
52.5°	631.7	649.2	680.0	700.9	728.3	789.8	875.5	994.2	1129.3	1271.0	1349.0
55°	553.7	566.8	594.3	605.3	627.3	676.7	747.0	854.7	971.1	1109.5	1197.4
57.5°	488.8	497.6	520.7	528.4	544.9	583.3	639.3	730.5	831.6	959.0	1064.5
60°	435.0	441.6	455.9	462.5	475.7	505.3	549.3	620.7	707.5	821.7	908.5
62.5°	385.6	390.0	401.0	405.4	415.2	437.2	472.4	529.5	599.8	696.5	789.8
65°	341.6	343.8	352.6	352.6	361.4	377.9	404.3	451.5	505.3	587.7	667.9
67.5°	297.7	298.8	302.1	306.5	313.1	325.2	343.8	381.2	424.0	491.0	558.1
70°	253.8	254.9	259.3	259.3	263.6	272.4	290.0	317.5	350.4	404.3	459.2
72.5°	213.1	215.3	217.5	216.4	220.8	226.3	238.4	256.0	288.9	326.3	370.2
75°	174.7	173.6	178.0	176.9	180.2	183.5	193.3	205.4	227.4	253.8	288.9
77.5°	137.3	136.2	139.5	141.7	140.6	143.9	150.5	157.1	172.5	191.1	215.3
80°	102.2	103.3	103.3	105.5	105.5	106.6	111.0	114.2	125.2	136.2	152.7
82.5°	69.2	71.4	71.4	73.6	72.5	73.6	75.8	78.0	84.6	90.1	100.0
85°	41.7	41.7	42.8	43.9	43.9	43.9	46.1	46.1	49.4	51.6	57.1
87.5°	19.8	18.7	19.8	20.9	19.8	20.9	19.8	20.9	23.1	22.0	24.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1741.2	1744.5	1742.3	1739.0	1739.0	1748.9	1746.7	1730.2	1713.7	1695.0	1688.4
5°	1787.3	1781.8	1774.1	1766.4	1757.6	1758.7	1748.9	1724.7	1701.6	1677.5	1667.6
7.5°	1837.8	1819.2	1807.1	1793.9	1773.0	1766.4	1746.7	1714.8	1686.2	1657.7	1643.4
10°	1893.9	1858.7	1837.8	1818.1	1786.2	1767.5	1739.0	1699.4	1666.5	1632.4	1615.9
12.5°	1948.8	1898.3	1870.8	1842.2	1795.0	1766.4	1728.0	1679.7	1641.2	1603.9	1583.0
15°	1996.0	1936.7	1901.6	1866.4	1802.7	1758.7	1710.4	1656.6	1609.3	1570.9	1545.6
17.5°	2029.0	1962.0	1925.7	1885.1	1807.1	1748.9	1689.5	1628.0	1576.4	1532.4	1502.8
20°	2042.2	1971.9	1934.5	1891.7	1804.9	1732.4	1665.4	1595.1	1540.1	1495.1	1455.6
22.5°	2041.1	1966.4	1926.8	1882.9	1791.7	1713.7	1635.7	1557.7	1498.4	1446.8	1401.7
25°	2031.2	1947.7	1904.8	1859.8	1768.6	1688.4	1602.8	1517.1	1452.3	1392.9	1338.0
27.5°	2021.3	1921.3	1874.1	1828.0	1735.7	1654.4	1563.2	1472.0	1400.6	1332.5	1268.8
30°	2009.2	1892.8	1838.9	1786.2	1686.2	1607.1	1518.2	1423.7	1344.6	1267.7	1190.8
32.5°	1991.6	1864.2	1804.9	1742.3	1632.4	1552.2	1466.5	1372.1	1282.0	1194.1	1112.8
35°	1966.4	1831.2	1768.6	1699.4	1572.0	1487.4	1407.2	1309.4	1217.2	1119.4	1038.1
37.5°	1925.7	1790.6	1723.6	1652.2	1509.4	1416.0	1338.0	1247.9	1145.8	1044.7	966.7
40°	1871.9	1737.9	1672.0	1596.2	1444.6	1340.2	1262.2	1175.4	1070.0	971.1	901.9
42.5°	1807.1	1672.0	1607.1	1535.7	1378.7	1263.3	1182.0	1095.2	993.1	901.9	840.4
45°	1721.4	1594.0	1527.0	1463.2	1308.3	1184.2	1098.5	1010.6	919.5	839.3	782.2
47.5°	1620.3	1508.3	1441.3	1379.8	1231.5	1105.1	1013.9	925.0	845.9	777.8	727.2
50°	1502.8	1413.8	1349.0	1284.2	1149.1	1023.8	929.4	840.4	772.3	719.5	674.5
52.5°	1376.5	1311.6	1249.0	1188.6	1061.2	941.4	840.4	759.1	704.2	662.4	625.1
55°	1243.5	1202.9	1152.4	1086.4	967.8	855.8	761.3	681.1	637.1	606.4	575.6
57.5°	1107.3	1085.3	1042.5	982.1	871.1	770.1	683.3	610.8	573.4	550.4	527.3
60°	973.3	960.1	919.5	876.6	774.5	685.5	604.2	544.9	514.1	496.5	477.9
62.5°	840.4	839.3	814.0	769.0	680.0	603.1	530.6	480.1	455.9	443.8	428.4
65°	715.1	722.8	698.7	663.5	587.7	520.7	460.3	419.6	401.0	391.1	380.1
67.5°	598.7	609.7	591.0	561.3	499.8	442.7	395.5	362.5	347.1	339.4	330.7
70°	493.2	502.0	489.9	464.7	415.2	370.2	331.8	306.5	295.5	288.9	284.5
72.5°	398.8	403.2	393.3	374.6	337.2	303.2	270.2	251.6	242.8	237.3	231.8
75°	306.5	316.4	307.6	292.2	262.5	234.0	215.3	202.1	194.4	191.1	187.8
77.5°	227.4	234.0	228.5	217.5	198.8	178.0	164.8	159.3	154.9	147.2	145.0
80°	159.3	164.8	161.5	153.8	141.7	131.8	118.6	116.4	112.0	106.6	105.5
82.5°	107.7	106.6	105.5	98.9	92.3	86.8	78.0	78.0	71.4	70.3	69.2
85°	57.1	59.3	58.2	54.9	52.7	47.2	45.0	45.0	42.8	39.5	39.5
87.5°	23.1	24.2	24.2	22.0	22.0	19.8	20.9	19.8	18.7	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1684.0	1685.1	1681.8	1675.3	1672.0	1662.1	1670.9	1659.9	1645.6	1656.6	1653.3
5°	1658.8	1657.7	1651.1	1642.3	1635.7	1622.5	1629.1	1615.9	1599.5	1606.0	1601.7
7.5°	1630.2	1628.0	1619.2	1606.0	1595.1	1579.7	1585.2	1569.8	1552.2	1558.8	1554.4
10°	1599.5	1594.0	1583.0	1566.5	1554.4	1537.9	1542.3	1524.8	1505.0	1507.2	1498.4
12.5°	1562.1	1554.4	1542.3	1524.8	1510.5	1489.6	1488.5	1463.2	1434.7	1429.2	1411.6
15°	1520.4	1511.6	1499.5	1476.4	1455.6	1423.7	1413.8	1376.5	1336.9	1323.7	1300.7
17.5°	1479.7	1464.3	1450.1	1416.0	1383.0	1338.0	1319.3	1274.3	1233.6	1218.3	1197.4
20°	1421.5	1407.2	1386.3	1340.2	1296.3	1243.5	1220.5	1171.0	1143.6	1135.9	1123.8
22.5°	1356.7	1336.9	1313.8	1252.3	1204.0	1153.5	1134.8	1097.4	1081.0	1078.8	1072.2
25°	1282.0	1257.8	1221.6	1163.3	1117.2	1077.7	1068.9	1042.5	1033.7	1034.8	1029.3
27.5°	1210.6	1175.4	1142.5	1081.0	1044.7	1019.4	1017.2	996.4	993.1	992.0	984.3
30°	1121.6	1094.1	1061.2	1009.5	984.3	971.1	972.2	953.5	949.1	946.9	942.5
32.5°	1044.7	1020.5	989.8	949.1	934.8	930.5	923.9	908.5	910.7	908.5	908.5
35°	973.3	946.9	927.2	897.5	890.9	888.7	878.8	867.8	870.0	876.6	874.4
37.5°	908.5	888.7	870.0	851.4	847.0	845.9	834.9	831.6	840.4	840.4	838.2
40°	849.2	832.7	817.3	807.4	804.1	801.9	795.3	795.3	804.1	803.0	801.9
42.5°	795.3	780.0	770.1	764.6	761.3	761.3	758.0	763.5	767.9	766.8	761.3
45°	743.7	731.6	726.1	720.6	718.4	721.7	720.6	723.9	729.4	726.1	719.5
47.5°	693.2	684.4	681.1	676.7	680.0	681.1	682.2	684.4	687.7	682.2	675.6
50°	645.9	639.3	637.1	631.7	640.4	639.3	642.6	645.9	643.7	636.0	630.6
52.5°	599.8	595.4	594.3	594.3	598.7	598.7	600.9	603.1	597.6	589.9	584.4
55°	555.9	551.5	550.4	547.1	553.7	555.9	555.9	555.9	549.3	540.5	536.1
57.5°	511.9	506.4	505.3	508.6	508.6	508.6	509.7	508.6	502.0	495.4	492.1
60°	465.8	461.4	460.3	463.6	462.5	466.9	462.5	460.3	454.8	451.5	452.6
62.5°	419.6	414.1	414.1	417.4	417.4	419.6	415.2	411.9	408.7	406.5	409.8
65°	369.1	366.9	366.9	371.3	371.3	369.1	365.8	365.8	364.7	363.6	363.6
67.5°	321.9	320.8	321.9	326.3	325.2	321.9	319.7	320.8	320.8	321.9	321.9
70°	280.1	272.4	272.4	280.1	280.1	280.1	272.4	274.6	274.6	279.0	283.4
72.5°	231.8	227.4	227.4	231.8	228.5	232.9	228.5	231.8	232.9	235.1	237.3
75°	183.5	187.8	184.6	188.9	186.7	188.9	185.7	188.9	190.0	188.9	187.8
77.5°	145.0	146.1	142.8	147.2	146.1	147.2	145.0	147.2	147.2	145.0	147.2
80°	105.5	106.6	104.4	108.8	106.6	107.7	105.5	107.7	106.6	102.2	103.3
82.5°	70.3	71.4	69.2	73.6	70.3	72.5	69.2	70.3	69.2	64.8	65.9
85°	40.6	41.7	39.5	42.8	40.6	41.7	38.4	39.5	38.4	36.3	36.3
87.5°	16.5	17.6	15.4	17.6	16.5	16.5	14.3	15.4	15.4	13.2	14.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1653.3	1645.6	1641.2	1636.8	1632.4	1635.7	1637.9	1639.0	1645.6	1643.4	1644.5
5°	1599.5	1591.8	1585.2	1580.8	1579.7	1586.3	1589.6	1588.5	1591.8	1587.4	1589.6
7.5°	1553.3	1545.6	1539.0	1532.4	1533.5	1541.2	1545.6	1545.6	1550.0	1543.4	1543.4
10°	1498.4	1488.5	1477.5	1469.8	1468.7	1475.3	1476.4	1474.2	1483.0	1483.0	1487.4
12.5°	1410.5	1396.2	1388.5	1368.8	1367.7	1374.3	1377.6	1384.1	1387.4	1391.8	1400.6
15°	1297.4	1284.2	1273.2	1252.3	1251.2	1257.8	1253.4	1271.0	1277.6	1284.2	1293.0
17.5°	1194.1	1185.3	1174.3	1158.9	1156.8	1163.3	1162.2	1174.3	1178.7	1183.1	1190.8
20°	1121.6	1110.6	1108.4	1098.5	1098.5	1102.9	1101.8	1107.3	1109.5	1109.5	1113.9
22.5°	1071.1	1064.5	1061.2	1054.6	1054.6	1057.9	1059.0	1061.2	1061.2	1057.9	1060.1
25°	1028.2	1021.6	1016.1	1007.4	1008.4	1011.7	1012.8	1015.0	1016.1	1015.0	1017.2
27.5°	982.1	975.5	971.1	965.6	966.7	970.0	968.9	971.1	971.1	971.1	973.3
30°	941.4	937.0	937.0	933.7	937.0	939.2	938.1	938.1	935.9	931.6	931.6
32.5°	906.3	905.2	905.2	904.1	904.1	904.1	905.2	906.3	904.1	900.8	899.7
35°	873.3	871.1	871.1	867.8	871.1	871.1	871.1	872.2	870.0	867.8	864.5
37.5°	839.3	839.3	837.1	837.1	836.0	838.2	837.1	837.1	836.0	832.7	830.5
40°	803.0	801.9	797.5	796.4	795.3	797.5	795.3	797.5	797.5	796.4	795.3
42.5°	761.3	760.2	758.0	755.8	754.7	756.9	754.7	755.8	756.9	756.9	754.7
45°	718.4	719.5	715.1	709.6	714.0	714.0	712.9	714.0	714.0	715.1	712.9
47.5°	675.6	675.6	671.2	669.0	667.9	667.9	665.7	667.9	670.1	672.3	670.1
50°	629.5	628.4	622.9	617.4	620.7	621.8	618.5	620.7	621.8	625.1	625.1
52.5°	582.2	582.2	577.8	574.5	578.9	577.8	575.6	575.6	576.7	575.6	576.7
55°	536.1	538.3	535.0	532.8	533.9	535.0	533.9	533.9	533.9	532.8	531.7
57.5°	493.2	495.4	492.1	491.0	493.2	494.3	491.0	491.0	491.0	491.0	488.8
60°	451.5	452.6	451.5	449.3	452.6	453.7	451.5	450.4	449.3	447.1	447.1
62.5°	408.7	409.8	410.8	409.8	411.9	413.0	410.8	409.8	408.7	404.3	403.2
65°	365.8	368.0	370.2	370.2	372.4	371.3	370.2	369.1	366.9	363.6	360.3
67.5°	323.0	326.3	328.5	328.5	330.7	329.6	328.5	327.4	325.2	321.9	318.6
70°	281.2	284.5	284.5	285.6	285.6	286.7	283.4	283.4	283.4	279.0	273.5
72.5°	234.0	237.3	236.2	237.3	237.3	235.1	235.1	235.1	236.2	231.8	229.6
75°	188.9	191.1	190.0	191.1	187.8	186.7	190.0	186.7	186.7	186.7	184.6
77.5°	142.8	143.9	142.8	143.9	138.4	142.8	141.7	138.4	139.5	139.5	143.9
80°	100.0	101.1	98.9	98.9	94.5	97.8	97.8	95.6	95.6	95.6	100.0
82.5°	63.7	63.7	62.6	62.6	59.3	62.6	61.5	59.3	59.3	60.4	62.6
85°	36.3	35.2	34.1	35.2	31.9	34.1	34.1	33.0	33.0	33.0	34.1
87.5°	14.3	13.2	13.2	13.2	13.2	13.2	13.2	12.1	12.1	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9	1715.9
2.5°	1651.1	1656.6	1667.6	1678.6	1652.2	1656.6	1662.1	1669.8	1676.4	1679.7	1682.9
5°	1595.1	1603.9	1615.9	1631.3	1611.5	1612.6	1624.7	1635.7	1645.6	1650.0	1655.5
7.5°	1547.8	1554.4	1570.9	1581.9	1565.4	1567.6	1583.0	1599.5	1611.5	1618.1	1625.8
10°	1494.0	1503.9	1525.9	1536.8	1522.6	1523.7	1536.8	1556.6	1574.2	1581.9	1591.8
12.5°	1411.6	1427.0	1458.8	1475.3	1474.2	1477.5	1491.8	1511.6	1530.3	1540.1	1553.3
15°	1296.3	1323.7	1364.4	1388.5	1403.9	1416.0	1438.0	1465.4	1485.2	1494.0	1505.0
17.5°	1195.2	1219.4	1257.8	1284.2	1311.6	1334.7	1365.5	1405.0	1432.5	1444.6	1457.7
20°	1117.2	1130.4	1161.1	1184.2	1215.0	1241.3	1277.6	1330.3	1368.8	1385.2	1402.8
22.5°	1062.3	1073.3	1088.6	1104.0	1128.2	1151.3	1185.3	1245.7	1295.2	1316.0	1342.4
25°	1018.3	1027.1	1037.0	1044.7	1060.1	1065.6	1098.5	1157.8	1213.9	1239.1	1272.1
27.5°	975.5	986.5	995.3	1000.8	1009.5	1007.4	1031.5	1074.4	1130.4	1158.9	1191.9
30°	931.6	939.2	951.3	956.8	966.7	956.8	968.9	1000.8	1050.2	1077.7	1110.6
32.5°	897.5	897.5	903.0	909.6	923.9	915.1	918.4	938.1	978.8	1003.0	1034.8
35°	864.5	863.4	864.5	865.6	877.7	875.5	874.4	884.3	916.2	935.9	963.4
37.5°	829.4	828.3	828.3	827.2	833.8	834.9	834.9	837.1	859.0	871.1	897.5
40°	792.0	790.9	792.0	790.9	793.1	792.0	793.1	795.3	808.5	817.3	834.9
42.5°	753.6	754.7	754.7	754.7	753.6	750.3	751.4	752.5	762.4	765.7	780.0
45°	711.8	715.1	715.1	714.0	714.0	711.8	707.5	710.7	717.3	717.3	728.3
47.5°	670.1	671.2	673.4	673.4	673.4	672.3	665.7	667.9	673.4	671.2	678.9
50°	624.0	627.3	629.5	631.7	632.8	630.6	625.1	624.0	624.0	626.2	629.5
52.5°	576.7	581.1	584.4	587.7	589.9	588.8	585.5	581.1	582.2	582.2	584.4
55°	531.7	532.8	538.3	543.8	544.9	544.9	542.7	537.2	540.5	537.2	540.5
57.5°	486.6	487.7	491.0	491.0	497.6	499.8	498.7	494.3	496.5	493.2	495.4
60°	444.9	444.9	444.9	448.2	450.4	453.7	453.7	449.3	450.4	449.3	450.4
62.5°	402.1	401.0	399.9	402.1	402.1	406.5	407.6	404.3	404.3	406.5	404.3
65°	359.2	358.1	357.0	352.6	354.8	358.1	361.4	359.2	358.1	359.2	358.1
67.5°	317.5	315.3	314.2	308.7	309.8	310.9	314.2	313.1	313.1	313.1	312.0
70°	279.0	270.2	269.1	266.9	262.5	263.6	264.7	264.7	263.6	264.7	262.5
72.5°	232.9	227.4	224.1	224.1	224.1	219.7	220.8	220.8	218.6	219.7	217.5
75°	188.9	184.6	183.5	183.5	181.3	178.0	178.0	175.8	175.8	175.8	173.6
77.5°	143.9	141.7	141.7	141.7	140.6	137.3	138.4	136.2	134.0	135.1	136.2
80°	101.1	100.0	100.0	101.1	102.2	98.9	100.0	97.8	96.7	96.7	94.5
82.5°	63.7	63.7	63.7	65.9	67.0	68.1	65.9	63.7	63.7	63.7	64.8
85°	35.2	34.1	35.2	36.3	36.3	35.2	36.3	36.3	36.3	36.3	34.1
87.5°	13.2	12.1	13.2	13.2	13.2	12.1	13.2	13.2	13.2	14.3	14.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231541

CATALOG NUMBER: S121-DR-2-35-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1715.9	1715.9	1715.9	1715.9
2.5°	1695.0	1714.8	1729.1	1735.7
5°	1670.9	1695.0	1714.8	1728.0
7.5°	1644.5	1670.9	1697.2	1715.9
10°	1613.7	1646.7	1674.2	1699.4
12.5°	1578.6	1614.8	1645.6	1677.5
15°	1539.0	1579.7	1614.8	1651.1
17.5°	1494.0	1540.1	1578.6	1622.5
20°	1442.4	1495.1	1539.0	1586.3
22.5°	1387.4	1445.7	1496.2	1551.1
25°	1325.9	1390.7	1450.1	1510.5
27.5°	1254.5	1331.4	1399.5	1464.3
30°	1178.7	1263.3	1342.4	1413.8
32.5°	1099.6	1191.9	1282.0	1357.8
35°	1024.9	1118.3	1217.2	1295.2
37.5°	954.6	1042.5	1148.0	1230.4
40°	886.5	966.7	1072.2	1155.7
42.5°	825.0	896.4	996.4	1072.2
45°	765.7	829.4	917.3	985.4
47.5°	709.6	767.9	841.5	898.6
50°	656.9	707.5	766.8	815.1
52.5°	605.3	649.2	696.5	734.9
55°	554.8	592.1	625.1	658.0
57.5°	506.4	535.0	559.2	589.9
60°	458.1	480.1	495.4	524.0
62.5°	409.8	426.2	436.1	461.4
65°	361.4	373.5	381.2	402.1
67.5°	314.2	323.0	327.4	346.0
70°	263.6	266.9	272.4	291.1
72.5°	218.6	220.8	224.1	236.2
75°	174.7	178.0	179.1	187.8
77.5°	137.3	136.2	139.5	141.7
80°	95.6	96.7	100.0	101.1
82.5°	61.5	62.6	65.9	65.9
85°	34.1	35.2	37.3	36.3
87.5°	13.2	14.3	15.4	15.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)