

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: P231542

Luminaire Tested: **S121-DR-2-40-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231542
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-2-40-X-0048-1-U-DD-3-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

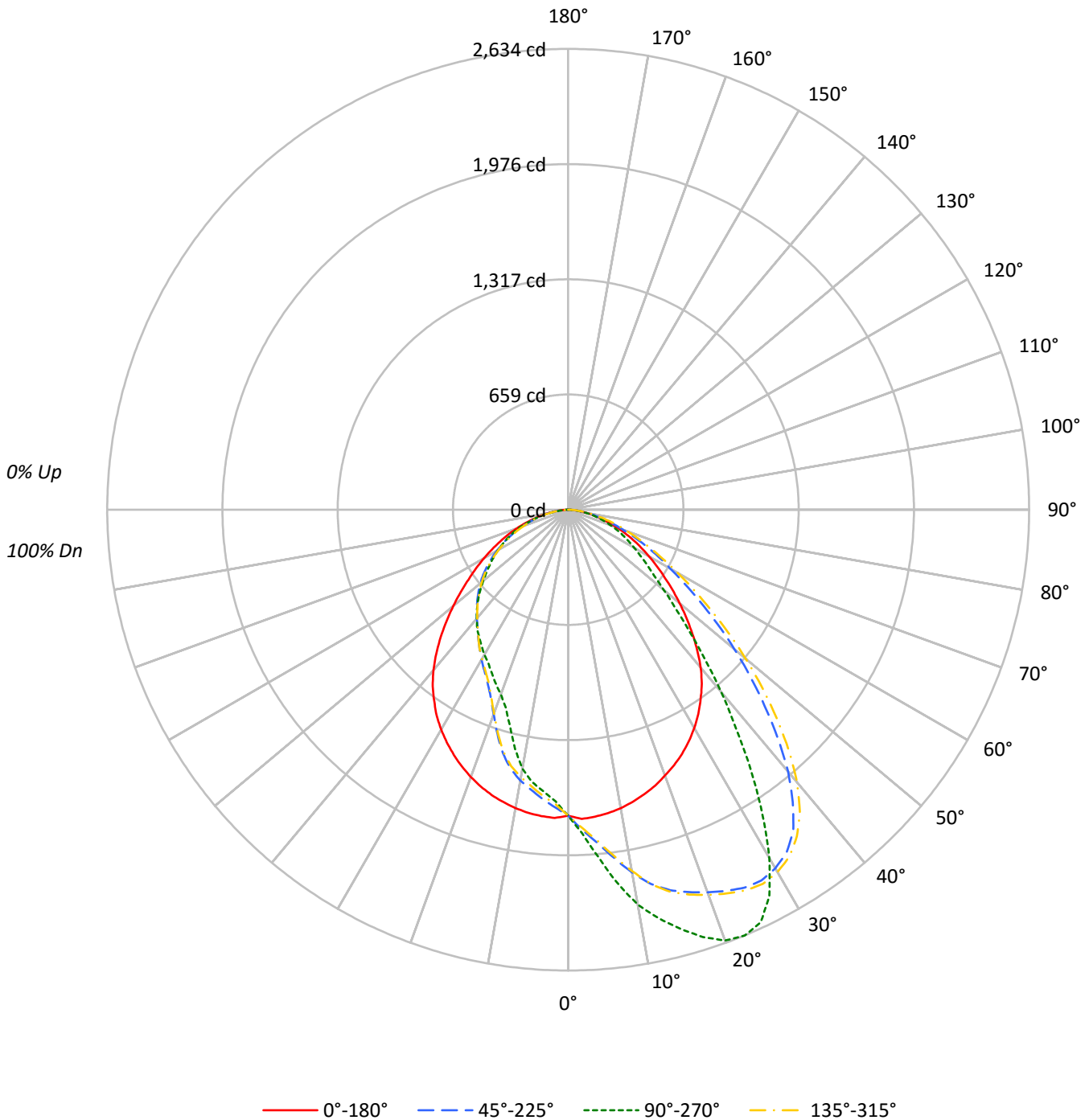
Lumens per Lamp: N/A
Luminaire Lumens: 4495.8 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.39
Luminous Opening: Rectangular (W 3.92' x L: 0.1' x H: 0')
CIE Type: Direct

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





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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°	48895	48895	48895	48895
5°	49427	55994	49334	45374
10°	49172	65064	49172	42688
15°	48706	71780	48868	37106
20°	48102	77949	48367	33444
25°	47490	80268	47696	31810
30°	46519	74208	46845	30904
35°	45055	62212	45549	30304
40°	42988	49565	43722	29667
45°	39708	38427	40728	28776
50°	36135	30972	37253	27562
55°	32691	26798	33837	26579
60°	29864	24351	31049	25855
65°	27109	22737	28294	25032
70°	24253	20959	25536	23885
75°	20686	18990	22252	20556
80°	16583	16406	19111	16036
85°	11837	13280	14724	11131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	3.8
10°-20°	509.8	11.3
20°-30°	782.7	17.4
30°-40°	891.4	19.8
40°-50°	810.2	18.0
50°-60°	631.9	14.1
60°-70°	428.0	9.5
70°-80°	219.3	4.9
80°-90°	51.5	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°	1463.3	32.5
0°-40°	2354.7	52.4
0°-60°	3796.9	84.5
0°-90°	4495.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4495.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1749	1749	1749	1749	1749	
5°	1761	1995	1758	1617	1761	167
15°	1683	2480	1688	1282	1683	475
25°	1540	2602	1546	1031	1540	708
35°	1320	1823	1335	888	1320	824
45°	1004	972	1030	728	1004	774
55°	671	550	694	545	671	604
65°	410	344	428	378	410	408
75°	192	176	206	190	192	205
85°	37	41	46	35	37	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1769.1	1761.2	1765.7	1778.0	1791.4	1795.9	1798.2	1803.8	1810.5	1821.7	1830.6
5°	1761.2	1762.3	1775.8	1797.0	1818.3	1827.3	1835.1	1850.8	1868.7	1891.1	1911.3
7.5°	1748.9	1757.9	1782.5	1812.7	1845.2	1860.9	1873.2	1904.5	1937.0	1972.8	2007.5
10°	1732.1	1750.0	1783.6	1825.0	1873.2	1895.6	1916.8	1963.9	2010.9	2060.2	2106.1
12.5°	1709.7	1736.6	1780.3	1835.1	1900.1	1930.3	1959.4	2021.0	2080.3	2138.5	2192.3
15°	1682.8	1718.7	1773.5	1843.0	1922.4	1959.4	1995.2	2066.9	2132.9	2194.5	2251.6
17.5°	1653.7	1697.4	1763.5	1847.4	1939.2	1979.5	2016.5	2093.8	2160.9	2227.0	2291.9
20°	1616.8	1673.9	1750.0	1844.1	1941.5	1982.9	2023.2	2101.6	2173.3	2250.5	2326.6
22.5°	1581.0	1640.3	1731.0	1829.5	1925.8	1970.6	2012.0	2097.1	2180.0	2269.5	2358.0
25°	1539.5	1606.7	1703.0	1801.5	1897.8	1942.6	1989.6	2085.9	2186.7	2287.5	2383.7
27.5°	1492.5	1564.2	1662.7	1759.0	1858.6	1910.1	1963.9	2075.8	2190.0	2296.4	2389.3
30°	1441.0	1519.4	1611.2	1705.2	1817.2	1875.4	1937.0	2062.4	2185.6	2281.9	2367.0
32.5°	1383.9	1462.3	1547.4	1652.6	1772.4	1838.5	1910.1	2037.8	2160.9	2246.0	2322.2
35°	1320.1	1390.6	1477.9	1593.3	1726.5	1799.3	1869.8	2000.8	2118.4	2190.0	2242.7
37.5°	1254.0	1324.6	1406.3	1531.7	1675.0	1754.5	1820.6	1946.0	2055.7	2107.2	2108.3
40°	1177.9	1242.8	1330.2	1467.9	1617.9	1691.8	1764.6	1879.9	1974.0	1994.1	1954.9
42.5°	1092.8	1161.1	1255.1	1401.8	1550.7	1628.0	1690.7	1801.5	1872.1	1858.6	1773.5
45°	1004.3	1079.3	1179.0	1329.0	1472.3	1542.9	1606.7	1705.2	1748.9	1706.4	1588.8
47.5°	915.9	996.5	1100.6	1249.5	1383.9	1452.2	1511.5	1593.3	1611.2	1541.8	1409.6
50°	830.8	912.5	1020.0	1163.3	1287.6	1354.8	1405.2	1467.9	1463.4	1373.8	1239.5
52.5°	749.0	833.0	946.1	1070.4	1186.8	1246.2	1293.2	1333.5	1313.4	1208.1	1076.0
55°	670.7	752.4	852.1	961.8	1083.8	1130.9	1173.4	1195.8	1162.2	1055.8	924.8
57.5°	601.3	674.0	774.8	872.2	976.3	1015.5	1051.4	1058.1	1013.3	898.0	789.4
60°	534.1	599.0	687.5	763.6	863.3	900.2	926.0	922.6	874.5	778.2	674.0
62.5°	470.3	526.2	601.3	676.3	752.4	781.5	803.9	803.9	744.6	660.6	580.0
65°	409.8	456.8	516.2	571.0	646.0	668.4	686.3	670.7	628.1	548.6	489.3
67.5°	352.7	389.6	435.5	481.5	545.3	562.1	573.3	568.8	522.9	456.8	408.7
70°	296.7	325.8	361.6	397.5	447.9	460.2	470.3	465.8	429.9	381.8	331.4
72.5°	240.7	262.0	291.1	321.3	358.3	367.2	376.2	371.7	337.0	305.7	268.7
75°	191.5	206.0	226.2	249.7	276.6	285.5	291.1	288.9	262.0	236.2	211.6
77.5°	144.4	154.5	170.2	187.0	204.9	208.3	213.9	211.6	194.8	176.9	160.1
80°	103.0	108.6	119.8	129.9	142.2	145.6	147.8	147.8	135.5	124.3	115.3
82.5°	67.2	70.5	77.3	82.9	90.7	91.8	94.1	94.1	86.2	81.7	77.3
85°	36.9	39.2	43.7	45.9	49.3	48.1	50.4	51.5	48.1	47.0	44.8
87.5°	15.7	15.7	16.8	19.0	17.9	17.9	19.0	20.2	19.0	17.9	19.0
90°	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1837.4	1827.3	1840.7	1853.0	1856.4	1862.0	1850.8	1844.1	1841.8	1851.9	1845.2
5°	1926.9	1925.8	1948.2	1967.2	1972.8	1982.9	1977.3	1976.2	1978.4	1995.2	1987.4
7.5°	2034.4	2044.5	2078.1	2106.1	2115.0	2129.6	2128.5	2130.7	2135.2	2153.1	2146.4
10°	2155.3	2163.2	2203.5	2239.3	2250.5	2265.1	2256.1	2271.8	2277.4	2291.9	2283.0
12.5°	2242.7	2256.1	2298.7	2337.8	2347.9	2358.0	2356.9	2369.2	2379.3	2392.7	2387.1
15°	2300.9	2317.7	2368.1	2411.7	2425.2	2434.1	2435.2	2450.9	2462.1	2480.0	2486.8
17.5°	2345.7	2372.5	2429.7	2480.0	2494.6	2504.7	2511.4	2529.3	2543.9	2560.7	2566.2
20°	2387.1	2425.2	2490.1	2542.7	2556.2	2564.0	2574.1	2588.6	2605.4	2620.0	2623.4
22.5°	2422.9	2467.7	2530.4	2575.2	2585.3	2588.6	2595.4	2605.4	2623.4	2634.5	2640.1
25°	2443.1	2480.0	2536.0	2574.1	2581.9	2576.3	2580.8	2580.8	2595.4	2602.1	2614.4
27.5°	2435.2	2466.6	2510.3	2530.4	2527.1	2511.4	2491.2	2474.4	2487.9	2487.9	2504.7
30°	2398.3	2412.9	2426.3	2411.7	2380.4	2362.5	2326.6	2291.9	2303.1	2298.7	2315.4
32.5°	2321.0	2299.8	2278.5	2232.6	2187.8	2158.7	2105.0	2085.9	2068.0	2065.8	2080.3
35°	2199.0	2139.7	2083.7	2014.3	1963.9	1928.0	1864.2	1816.1	1820.6	1822.8	1834.0
37.5°	2036.7	1947.1	1867.6	1784.7	1738.8	1692.9	1630.2	1604.5	1586.6	1574.2	1595.5
40°	1849.7	1738.8	1647.0	1561.9	1520.5	1470.1	1411.9	1386.1	1368.2	1358.1	1372.7
42.5°	1657.1	1538.4	1442.1	1354.8	1311.1	1267.4	1211.5	1186.8	1166.7	1152.1	1168.9
45°	1470.1	1346.9	1247.3	1161.1	1117.4	1082.7	1027.8	1006.6	987.5	971.9	989.8
47.5°	1287.6	1184.6	1068.2	985.3	948.3	914.8	871.1	853.2	838.6	827.4	838.6
50°	1116.3	1015.5	906.9	838.6	809.5	779.3	744.6	731.1	719.9	712.1	718.8
52.5°	959.5	865.5	773.7	708.7	693.1	670.7	643.8	633.7	620.3	618.0	625.9
55°	818.5	737.9	662.8	614.7	599.0	582.2	562.1	555.3	547.5	549.8	548.6
57.5°	698.7	631.5	569.9	536.3	521.8	508.3	493.8	490.4	487.0	488.2	487.0
60°	596.8	541.9	493.8	465.8	456.8	446.7	436.7	431.1	433.3	435.5	438.9
62.5°	507.2	464.7	426.6	405.3	399.7	393.0	387.4	384.0	386.3	388.5	391.9
65°	429.9	396.4	368.4	353.8	348.2	344.9	341.5	343.7	341.5	343.7	347.1
67.5°	361.6	335.9	314.6	305.7	302.3	298.9	296.7	300.1	298.9	300.1	302.3
70°	300.1	278.8	264.2	257.5	255.3	253.0	251.9	251.9	254.2	256.4	258.6
72.5°	241.8	229.5	220.6	215.0	212.7	211.6	210.5	212.7	212.7	215.0	217.2
75°	191.5	183.6	175.8	174.7	173.5	172.4	172.4	174.7	174.7	175.8	176.9
77.5°	150.0	143.3	136.6	136.6	135.5	137.7	135.5	137.7	135.5	137.7	138.8
80°	110.8	105.2	104.1	100.8	99.6	103.0	99.6	101.9	99.6	101.9	103.0
82.5°	75.0	71.7	70.5	68.3	68.3	70.5	68.3	69.4	68.3	69.4	70.5
85°	43.7	42.5	41.4	41.4	40.3	42.5	40.3	41.4	40.3	41.4	42.5
87.5°	19.0	19.0	17.9	19.0	16.8	19.0	17.9	19.0	20.2	19.0	19.0
90°	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1853.0	1841.8	1838.5	1829.5	1831.8	1843.0	1839.6	1846.3	1819.4	1798.2	1783.6
5°	1990.7	1971.7	1961.6	1946.0	1944.8	1948.2	1935.9	1935.9	1897.8	1866.5	1839.6
7.5°	2148.6	2122.9	2107.2	2085.9	2082.6	2078.1	2055.7	2044.5	1995.2	1947.1	1905.7
10°	2283.0	2257.2	2240.4	2220.3	2215.8	2209.1	2178.8	2157.6	2096.0	2034.4	1977.3
12.5°	2387.1	2360.2	2341.2	2323.3	2316.6	2309.8	2281.9	2247.1	2192.3	2116.1	2049.0
15°	2481.2	2452.0	2429.7	2408.4	2397.2	2383.7	2351.3	2318.8	2261.7	2180.0	2107.2
17.5°	2559.5	2528.2	2501.3	2480.0	2465.5	2447.6	2408.4	2363.6	2306.5	2220.3	2145.3
20°	2616.6	2585.3	2556.2	2537.1	2524.8	2499.1	2457.6	2406.1	2343.4	2249.4	2164.3
22.5°	2635.7	2606.6	2580.8	2566.2	2553.9	2533.8	2496.8	2446.4	2373.7	2270.7	2174.4
25°	2612.2	2595.4	2577.4	2569.6	2560.7	2545.0	2518.1	2471.1	2400.5	2289.7	2180.0
27.5°	2509.1	2513.6	2515.9	2528.2	2525.9	2529.3	2513.6	2472.2	2410.6	2303.1	2183.3
30°	2332.2	2358.0	2381.5	2410.6	2416.2	2455.4	2467.7	2439.7	2391.6	2300.9	2182.2
32.5°	2126.2	2144.1	2184.4	2214.7	2247.1	2317.7	2363.6	2379.3	2351.3	2276.3	2166.5
35°	1878.8	1905.7	1958.3	2001.9	2038.9	2134.1	2210.2	2272.9	2278.5	2232.6	2130.7
37.5°	1640.3	1670.5	1724.3	1778.0	1807.1	1922.4	2022.1	2125.1	2174.4	2164.3	2082.6
40°	1417.5	1450.0	1502.6	1558.6	1582.1	1701.9	1811.6	1946.0	2034.4	2072.5	2015.4
42.5°	1211.5	1245.1	1296.6	1345.8	1395.1	1491.4	1602.2	1752.3	1865.3	1943.7	1925.8
45°	1025.6	1057.0	1107.3	1151.0	1183.5	1294.3	1402.9	1538.4	1682.8	1779.1	1809.4
47.5°	868.9	895.7	940.5	979.7	1023.4	1109.6	1218.2	1352.5	1500.3	1632.5	1676.1
50°	743.5	765.8	803.9	835.3	867.7	945.0	1044.6	1175.6	1322.3	1463.4	1528.3
52.5°	643.8	661.7	693.1	714.3	742.3	805.0	892.4	1013.3	1151.0	1295.4	1374.9
55°	564.3	577.7	605.7	616.9	639.3	689.7	761.4	871.1	989.8	1130.9	1220.4
57.5°	498.2	507.2	530.7	538.6	555.3	594.5	651.6	744.6	847.6	977.5	1084.9
60°	443.4	450.1	464.7	471.4	484.8	515.0	559.8	632.6	721.1	837.5	926.0
62.5°	393.0	397.5	408.7	413.2	423.2	445.6	481.5	539.7	611.3	709.9	805.0
65°	348.2	350.5	359.4	359.4	368.4	385.2	412.0	460.2	515.0	599.0	680.8
67.5°	303.4	304.5	307.9	312.4	319.1	331.4	350.5	388.5	432.2	500.5	568.8
70°	258.6	259.8	264.2	264.2	268.7	277.7	295.6	323.6	357.2	412.0	468.0
72.5°	217.2	219.5	221.7	220.6	225.1	230.6	243.0	260.9	294.5	332.5	377.3
75°	178.0	176.9	181.4	180.3	183.6	187.0	197.1	209.4	231.8	258.6	294.5
77.5°	140.0	138.8	142.2	144.4	143.3	146.7	153.4	160.1	175.8	194.8	219.5
80°	104.1	105.2	105.2	107.5	107.5	108.6	113.1	116.4	127.6	138.8	155.6
82.5°	70.5	72.8	72.8	75.0	73.9	75.0	77.3	79.5	86.2	91.8	101.9
85°	42.5	42.5	43.7	44.8	44.8	44.8	47.0	47.0	50.4	52.6	58.2
87.5°	20.2	19.0	20.2	21.3	20.2	21.3	20.2	21.3	23.5	22.4	24.6
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: P231542

CATALOG NUMBER: S121-DR-2-40-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1774.7	1778.0	1775.8	1772.4	1772.4	1782.5	1780.3	1763.5	1746.7	1727.6	1720.9
5°	1821.7	1816.1	1808.2	1800.4	1791.4	1792.6	1782.5	1757.9	1734.3	1709.7	1699.6
7.5°	1873.2	1854.1	1841.8	1828.4	1807.1	1800.4	1780.3	1747.8	1718.7	1689.6	1675.0
10°	1930.3	1894.5	1873.2	1853.0	1820.6	1801.5	1772.4	1732.1	1698.5	1663.8	1647.0
12.5°	1986.3	1934.8	1906.8	1877.7	1829.5	1800.4	1761.2	1712.0	1672.8	1634.7	1613.4
15°	2034.4	1974.0	1938.1	1902.3	1837.4	1792.6	1743.3	1688.4	1640.3	1601.1	1575.4
17.5°	2068.0	1999.7	1962.8	1921.3	1841.8	1782.5	1722.0	1659.3	1606.7	1561.9	1531.7
20°	2081.4	2009.8	1971.7	1928.0	1839.6	1765.7	1697.4	1625.7	1569.8	1523.9	1483.5
22.5°	2080.3	2004.2	1963.9	1919.1	1826.2	1746.7	1667.2	1587.7	1527.2	1474.6	1428.7
25°	2070.2	1985.1	1941.5	1895.6	1802.6	1720.9	1633.6	1546.2	1480.2	1419.7	1363.7
27.5°	2060.2	1958.3	1910.1	1863.1	1769.1	1686.2	1593.3	1500.3	1427.6	1358.1	1293.2
30°	2047.8	1929.2	1874.3	1820.6	1718.7	1638.1	1547.4	1451.1	1370.5	1292.1	1213.7
32.5°	2029.9	1900.1	1839.6	1775.8	1663.8	1582.1	1494.7	1398.4	1306.6	1217.1	1134.2
35°	2004.2	1866.5	1802.6	1732.1	1602.2	1516.0	1434.3	1334.6	1240.6	1140.9	1058.1
37.5°	1962.8	1825.0	1756.7	1684.0	1538.4	1443.2	1363.7	1271.9	1167.8	1064.8	985.3
40°	1907.9	1771.3	1704.1	1626.9	1472.3	1366.0	1286.5	1198.0	1090.5	989.8	919.2
42.5°	1841.8	1704.1	1638.1	1565.3	1405.2	1287.6	1204.7	1116.3	1012.2	919.2	856.5
45°	1754.5	1624.6	1556.3	1491.4	1333.5	1207.0	1119.7	1030.1	937.2	855.4	797.2
47.5°	1651.5	1537.3	1469.0	1406.3	1255.1	1126.4	1033.4	942.7	862.1	792.7	741.2
50°	1531.7	1441.0	1374.9	1308.9	1171.2	1043.5	947.2	856.5	787.1	733.4	687.5
52.5°	1402.9	1336.9	1273.0	1211.5	1081.6	959.5	856.5	773.7	717.7	675.2	637.1
55°	1267.4	1226.0	1174.5	1107.3	986.4	872.2	775.9	694.2	649.4	618.0	586.7
57.5°	1128.6	1106.2	1062.6	1001.0	887.9	784.9	696.4	622.5	584.5	560.9	537.4
60°	992.0	978.6	937.2	893.5	789.4	698.7	615.8	555.3	524.0	506.1	487.0
62.5°	856.5	855.4	829.7	783.8	693.1	614.7	540.8	489.3	464.7	452.3	436.7
65°	728.9	736.7	712.1	676.3	599.0	530.7	469.1	427.7	408.7	398.6	387.4
67.5°	610.2	621.4	602.4	572.1	509.4	451.2	403.1	369.5	353.8	346.0	337.0
70°	502.7	511.7	499.4	473.6	423.2	377.3	338.1	312.4	301.2	294.5	290.0
72.5°	406.4	410.9	400.8	381.8	343.7	309.0	275.4	256.4	247.4	241.8	236.2
75°	312.4	322.5	313.5	297.8	267.6	238.5	219.5	206.0	198.2	194.8	191.5
77.5°	231.8	238.5	232.9	221.7	202.7	181.4	167.9	162.3	157.9	150.0	147.8
80°	162.3	167.9	164.6	156.8	144.4	134.4	120.9	118.7	114.2	108.6	107.5
82.5°	109.7	108.6	107.5	100.8	94.1	88.5	79.5	79.5	72.8	71.7	70.5
85°	58.2	60.5	59.3	56.0	53.7	48.1	45.9	45.9	43.7	40.3	40.3
87.5°	23.5	24.6	24.6	22.4	22.4	20.2	21.3	20.2	19.0	16.8	16.8
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: P231542

CATALOG NUMBER: S121-DR-2-40-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1716.4	1717.6	1714.2	1707.5	1704.1	1694.0	1703.0	1691.8	1677.2	1688.4	1685.1
5°	1690.7	1689.6	1682.8	1673.9	1667.2	1653.7	1660.4	1647.0	1630.2	1636.9	1632.5
7.5°	1661.6	1659.3	1650.4	1636.9	1625.7	1610.1	1615.7	1600.0	1582.1	1588.8	1584.3
10°	1630.2	1624.6	1613.4	1596.6	1584.3	1567.5	1572.0	1554.1	1533.9	1536.2	1527.2
12.5°	1592.1	1584.3	1572.0	1554.1	1539.5	1518.3	1517.1	1491.4	1462.3	1456.7	1438.8
15°	1549.6	1540.6	1528.3	1504.8	1483.5	1451.1	1441.0	1402.9	1362.6	1349.2	1325.7
17.5°	1508.2	1492.5	1477.9	1443.2	1409.6	1363.7	1344.7	1298.8	1257.4	1241.7	1220.4
20°	1448.8	1434.3	1413.0	1366.0	1321.2	1267.4	1243.9	1193.6	1165.6	1157.7	1145.4
22.5°	1382.8	1362.6	1339.1	1276.4	1227.1	1175.6	1156.6	1118.5	1101.7	1099.5	1092.8
25°	1306.6	1282.0	1245.1	1185.7	1138.7	1098.4	1089.4	1062.6	1053.6	1054.7	1049.1
27.5°	1233.9	1198.0	1164.4	1101.7	1064.8	1039.0	1036.8	1015.5	1012.2	1011.0	1003.2
30°	1143.2	1115.2	1081.6	1029.0	1003.2	989.8	990.9	971.9	967.4	965.1	960.7
32.5°	1064.8	1040.2	1008.8	967.4	952.8	948.3	941.6	926.0	928.2	926.0	926.0
35°	992.0	965.1	945.0	914.8	908.0	905.8	895.7	884.5	886.8	893.5	891.2
37.5°	926.0	905.8	886.8	867.7	863.3	862.1	850.9	847.6	856.5	856.5	854.3
40°	865.5	848.7	833.0	822.9	819.6	817.3	810.6	810.6	819.6	818.5	817.3
42.5°	810.6	795.0	784.9	779.3	775.9	775.9	772.6	778.2	782.6	781.5	775.9
45°	758.0	745.7	740.1	734.5	732.3	735.6	734.5	737.9	743.5	740.1	733.4
47.5°	706.5	697.5	694.2	689.7	693.1	694.2	695.3	697.5	700.9	695.3	688.6
50°	658.4	651.6	649.4	643.8	652.8	651.6	655.0	658.4	656.1	648.3	642.7
52.5°	611.3	606.9	605.7	605.7	610.2	610.2	612.5	614.7	609.1	601.3	595.7
55°	566.5	562.1	560.9	557.6	564.3	566.5	566.5	566.5	559.8	550.9	546.4
57.5°	521.8	516.2	515.0	518.4	518.4	518.4	519.5	518.4	511.7	505.0	501.6
60°	474.7	470.3	469.1	472.5	471.4	475.9	471.4	469.1	463.5	460.2	461.3
62.5°	427.7	422.1	422.1	425.5	425.5	427.7	423.2	419.9	416.5	414.3	417.6
65°	376.2	374.0	374.0	378.4	378.4	376.2	372.8	372.8	371.7	370.6	370.6
67.5°	328.1	326.9	328.1	332.5	331.4	328.1	325.8	326.9	326.9	328.1	328.1
70°	285.5	277.7	277.7	285.5	285.5	285.5	277.7	279.9	279.9	284.4	288.9
72.5°	236.2	231.8	231.8	236.2	232.9	237.4	232.9	236.2	237.4	239.6	241.8
75°	187.0	191.5	188.1	192.6	190.3	192.6	189.2	192.6	193.7	192.6	191.5
77.5°	147.8	148.9	145.6	150.0	148.9	150.0	147.8	150.0	150.0	147.8	150.0
80°	107.5	108.6	106.4	110.8	108.6	109.7	107.5	109.7	108.6	104.1	105.2
82.5°	71.7	72.8	70.5	75.0	71.7	73.9	70.5	71.7	70.5	66.1	67.2
85°	41.4	42.5	40.3	43.7	41.4	42.5	39.2	40.3	39.2	36.9	36.9
87.5°	16.8	17.9	15.7	17.9	16.8	16.8	14.6	15.7	15.7	13.4	14.6
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: P231542

CATALOG NUMBER: S121-DR-2-40-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1685.1	1677.2	1672.8	1668.3	1663.8	1667.2	1669.4	1670.5	1677.2	1675.0	1676.1
5°	1630.2	1622.4	1615.7	1611.2	1610.1	1616.8	1620.1	1619.0	1622.4	1617.9	1620.1
7.5°	1583.2	1575.4	1568.6	1561.9	1563.0	1570.9	1575.4	1575.4	1579.8	1573.1	1573.1
10°	1527.2	1517.1	1505.9	1498.1	1497.0	1503.7	1504.8	1502.6	1511.5	1511.5	1516.0
12.5°	1437.6	1423.1	1415.2	1395.1	1394.0	1400.7	1404.0	1410.8	1414.1	1418.6	1427.6
15°	1322.3	1308.9	1297.7	1276.4	1275.3	1282.0	1277.5	1295.4	1302.2	1308.9	1317.8
17.5°	1217.1	1208.1	1196.9	1181.2	1179.0	1185.7	1184.6	1196.9	1201.4	1205.9	1213.7
20°	1143.2	1132.0	1129.7	1119.7	1119.7	1124.1	1123.0	1128.6	1130.9	1130.9	1135.3
22.5°	1091.7	1084.9	1081.6	1074.9	1074.9	1078.2	1079.3	1081.6	1081.6	1078.2	1080.5
25°	1048.0	1041.3	1035.7	1026.7	1027.8	1031.2	1032.3	1034.6	1035.7	1034.6	1036.8
27.5°	1001.0	994.3	989.8	984.2	985.3	988.7	987.5	989.8	989.8	989.8	992.0
30°	959.5	955.1	955.1	951.7	955.1	957.3	956.2	956.2	953.9	949.5	949.5
32.5°	923.7	922.6	922.6	921.5	921.5	921.5	922.6	923.7	921.5	918.1	917.0
35°	890.1	887.9	887.9	884.5	887.9	887.9	887.9	889.0	886.8	884.5	881.2
37.5°	855.4	855.4	853.2	853.2	852.1	854.3	853.2	853.2	852.1	848.7	846.5
40°	818.5	817.3	812.9	811.7	810.6	812.9	810.6	812.9	812.9	811.7	810.6
42.5°	775.9	774.8	772.6	770.3	769.2	771.4	769.2	770.3	771.4	771.4	769.2
45°	732.3	733.4	728.9	723.3	727.8	727.8	726.7	727.8	727.8	728.9	726.7
47.5°	688.6	688.6	684.1	681.9	680.8	680.8	678.5	680.8	683.0	685.2	683.0
50°	641.6	640.4	634.8	629.2	632.6	633.7	630.4	632.6	633.7	637.1	637.1
52.5°	593.4	593.4	588.9	585.6	590.1	588.9	586.7	586.7	587.8	586.7	587.8
55°	546.4	548.6	545.3	543.0	544.2	545.3	544.2	544.2	544.2	543.0	541.9
57.5°	502.7	505.0	501.6	500.5	502.7	503.8	500.5	500.5	500.5	500.5	498.2
60°	460.2	461.3	460.2	457.9	461.3	462.4	460.2	459.1	457.9	455.7	455.7
62.5°	416.5	417.6	418.8	417.6	419.9	421.0	418.8	417.6	416.5	412.0	410.9
65°	372.8	375.1	377.3	377.3	379.6	378.4	377.3	376.2	374.0	370.6	367.2
67.5°	329.2	332.5	334.8	334.8	337.0	335.9	334.8	333.7	331.4	328.1	324.7
70°	286.6	290.0	290.0	291.1	291.1	292.2	288.9	288.9	288.9	284.4	278.8
72.5°	238.5	241.8	240.7	241.8	241.8	239.6	239.6	239.6	240.7	236.2	234.0
75°	192.6	194.8	193.7	194.8	191.5	190.3	193.7	190.3	190.3	190.3	188.1
77.5°	145.6	146.7	145.6	146.7	141.1	145.6	144.4	141.1	142.2	142.2	146.7
80°	101.9	103.0	100.8	100.8	96.3	99.6	99.6	97.4	97.4	97.4	101.9
82.5°	64.9	64.9	63.8	63.8	60.5	63.8	62.7	60.5	60.5	61.6	63.8
85°	36.9	35.8	34.7	35.8	32.5	34.7	34.7	33.6	33.6	33.6	34.7
87.5°	14.6	13.4	13.4	13.4	13.4	13.4	13.4	12.3	12.3	13.4	13.4
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: P231542

CATALOG NUMBER: S121-DR-2-40-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9	1748.9
2.5°	1682.8	1688.4	1699.6	1710.8	1684.0	1688.4	1694.0	1701.9	1708.6	1712.0	1715.3
5°	1625.7	1634.7	1647.0	1662.7	1642.5	1643.7	1656.0	1667.2	1677.2	1681.7	1687.3
7.5°	1577.6	1584.3	1601.1	1612.3	1595.5	1597.7	1613.4	1630.2	1642.5	1649.3	1657.1
10°	1522.7	1532.8	1555.2	1566.4	1551.8	1553.0	1566.4	1586.6	1604.5	1612.3	1622.4
12.5°	1438.8	1454.4	1486.9	1503.7	1502.6	1505.9	1520.5	1540.6	1559.7	1569.8	1583.2
15°	1321.2	1349.2	1390.6	1415.2	1430.9	1443.2	1465.6	1493.6	1513.8	1522.7	1533.9
17.5°	1218.2	1242.8	1282.0	1308.9	1336.9	1360.4	1391.7	1432.0	1460.0	1472.3	1485.8
20°	1138.7	1152.1	1183.5	1207.0	1238.3	1265.2	1302.2	1355.9	1395.1	1411.9	1429.8
22.5°	1082.7	1093.9	1109.6	1125.3	1149.9	1173.4	1208.1	1269.7	1320.1	1341.3	1368.2
25°	1037.9	1046.9	1057.0	1064.8	1080.5	1086.1	1119.7	1180.1	1237.2	1263.0	1296.6
27.5°	994.3	1005.5	1014.4	1020.0	1029.0	1026.7	1051.4	1095.0	1152.1	1181.2	1214.8
30°	949.5	957.3	969.6	975.2	985.3	975.2	987.5	1020.0	1070.4	1098.4	1132.0
32.5°	914.8	914.8	920.4	927.1	941.6	932.7	936.0	956.2	997.6	1022.2	1054.7
35°	881.2	880.0	881.2	882.3	894.6	892.4	891.2	901.3	933.8	953.9	981.9
37.5°	845.3	844.2	844.2	843.1	849.8	850.9	850.9	853.2	875.6	887.9	914.8
40°	807.3	806.2	807.3	806.2	808.4	807.3	808.4	810.6	824.1	833.0	850.9
42.5°	768.1	769.2	769.2	769.2	768.1	764.7	765.8	767.0	777.0	780.4	795.0
45°	725.5	728.9	728.9	727.8	727.8	725.5	721.1	724.4	731.1	731.1	742.3
47.5°	683.0	684.1	686.3	686.3	686.3	685.2	678.5	680.8	686.3	684.1	691.9
50°	636.0	639.3	641.6	643.8	644.9	642.7	637.1	636.0	636.0	638.2	641.6
52.5°	587.8	592.3	595.7	599.0	601.3	600.1	596.8	592.3	593.4	593.4	595.7
55°	541.9	543.0	548.6	554.2	555.3	555.3	553.1	547.5	550.9	547.5	550.9
57.5°	496.0	497.1	500.5	500.5	507.2	509.4	508.3	503.8	506.1	502.7	505.0
60°	453.5	453.5	453.5	456.8	459.1	462.4	462.4	457.9	459.1	457.9	459.1
62.5°	409.8	408.7	407.6	409.8	409.8	414.3	415.4	412.0	412.0	414.3	412.0
65°	366.1	365.0	363.9	359.4	361.6	365.0	368.4	366.1	365.0	366.1	365.0
67.5°	323.6	321.3	320.2	314.6	315.7	316.9	320.2	319.1	319.1	319.1	318.0
70°	284.4	275.4	274.3	272.1	267.6	268.7	269.8	269.8	268.7	269.8	267.6
72.5°	237.4	231.8	228.4	228.4	228.4	223.9	225.1	225.1	222.8	223.9	221.7
75°	192.6	188.1	187.0	187.0	184.7	181.4	181.4	179.1	179.1	179.1	176.9
77.5°	146.7	144.4	144.4	144.4	143.3	140.0	141.1	138.8	136.6	137.7	138.8
80°	103.0	101.9	101.9	103.0	104.1	100.8	101.9	99.6	98.5	98.5	96.3
82.5°	64.9	64.9	64.9	67.2	68.3	69.4	67.2	64.9	64.9	64.9	66.1
85°	35.8	34.7	35.8	36.9	36.9	35.8	36.9	36.9	36.9	36.9	34.7
87.5°	13.4	12.3	13.4	13.4	13.4	12.3	13.4	13.4	13.4	14.6	14.6
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: P231542

CATALOG NUMBER: S121-DR-2-40-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1748.9	1748.9	1748.9	1748.9
2.5°	1727.6	1747.8	1762.3	1769.1
5°	1703.0	1727.6	1747.8	1761.2
7.5°	1676.1	1703.0	1729.9	1748.9
10°	1644.8	1678.4	1706.4	1732.1
12.5°	1608.9	1645.9	1677.2	1709.7
15°	1568.6	1610.1	1645.9	1682.8
17.5°	1522.7	1569.8	1608.9	1653.7
20°	1470.1	1523.9	1568.6	1616.8
22.5°	1414.1	1473.5	1525.0	1581.0
25°	1351.4	1417.5	1477.9	1539.5
27.5°	1278.6	1357.0	1426.4	1492.5
30°	1201.4	1287.6	1368.2	1441.0
32.5°	1120.8	1214.8	1306.6	1383.9
35°	1044.6	1139.8	1240.6	1320.1
37.5°	973.0	1062.6	1170.0	1254.0
40°	903.6	985.3	1092.8	1177.9
42.5°	840.9	913.6	1015.5	1092.8
45°	780.4	845.3	934.9	1004.3
47.5°	723.3	782.6	857.7	915.9
50°	669.6	721.1	781.5	830.8
52.5°	616.9	661.7	709.9	749.0
55°	565.4	603.5	637.1	670.7
57.5°	516.2	545.3	569.9	601.3
60°	466.9	489.3	505.0	534.1
62.5°	417.6	434.4	444.5	470.3
65°	368.4	380.7	388.5	409.8
67.5°	320.2	329.2	333.7	352.7
70°	268.7	272.1	277.7	296.7
72.5°	222.8	225.1	228.4	240.7
75°	178.0	181.4	182.5	191.5
77.5°	140.0	138.8	142.2	144.4
80°	97.4	98.5	101.9	103.0
82.5°	62.7	63.8	67.2	67.2
85°	34.7	35.8	38.1	36.9
87.5°	13.4	14.6	15.7	15.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)