

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: P243792

Luminaire Tested: **S125RDR-H1270D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243792
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-H1270D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4064.3 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

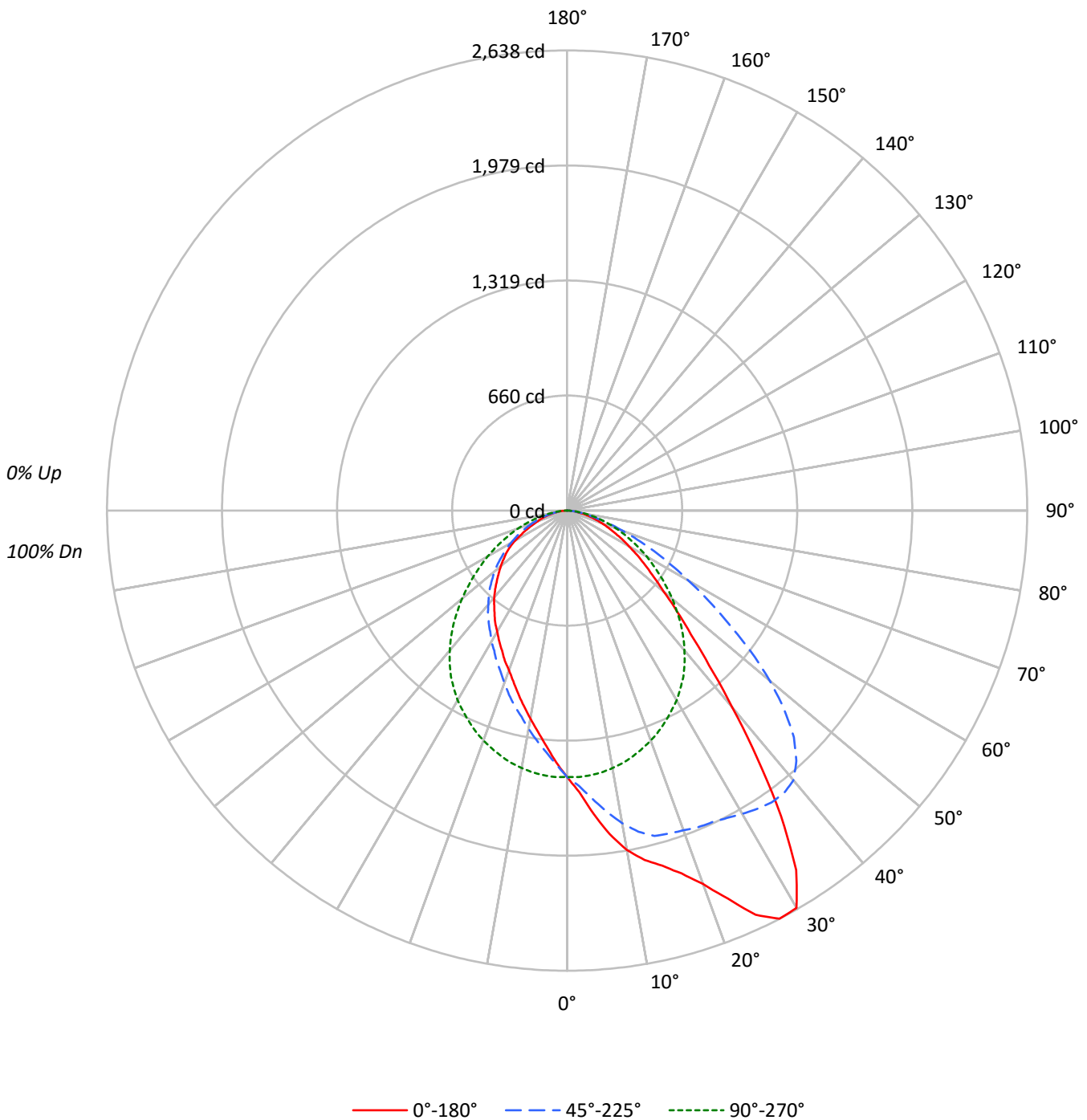
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56					54				
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50					48				
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35					33				
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10854	10854	10854
5°	12459	10869	9669
10°	14255	10816	8740
15°	15505	10729	7993
20°	17230	10607	7365
25°	20048	10457	6933
30°	21587	10302	6579
35°	18546	10072	6294
40°	13663	9708	6033
45°	10092	9257	5721
50°	7994	8704	5490
55°	6753	8065	5282
60°	5818	7471	4888
65°	5050	6803	4256
70°	4428	6228	3724
75°	3757	5454	3526
80°	2926	4560	2926
85°	2569	3653	2667



TEST NUMBER: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	3.6
10°-20°	434.9	10.7
20°-30°	693.6	17.1
30°-40°	842.2	20.7
40°-50°	758.9	18.7
50°-60°	583.6	14.4
60°-70°	378.7	9.3
70°-80°	182.2	4.5
80°-90°	43.1	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°	1275.5	31.4
0°-40°	2117.7	52.1
0°-60°	3460.2	85.1
0°-90°	4064.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4064.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1527	1527	1527	1527	1527	
5°	1746	1659	1524	1389	1355	174
15°	2107	1931	1458	1161	1086	604
25°	2556	1970	1333	956	884	1169
35°	2138	2042	1161	784	725	1308
45°	1004	1838	921	625	569	798
55°	545	1129	651	456	426	494
65°	300	549	404	289	253	301
75°	137	186	199	142	128	147
85°	32	33	45	36	33	36
90°	0	0	0	0	0	



TEST NUMBER: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1
2.5°	1615.5	1621.6	1616.8	1619.8	1614.9	1612.5	1606.5	1597.4	1588.3	1579.8	1579.2
5°	1746.3	1745.1	1740.3	1733.6	1728.8	1716.7	1710.6	1690.0	1676.1	1659.1	1650.7
7.5°	1871.1	1868.0	1860.8	1851.7	1847.5	1831.7	1814.8	1788.7	1766.9	1740.3	1720.3
10°	1975.2	1974.6	1969.2	1963.1	1946.8	1929.2	1912.9	1885.6	1852.9	1819.6	1791.8
12.5°	2051.5	2048.5	2041.8	2031.5	2018.2	2006.1	1984.3	1959.5	1919.5	1885.6	1847.5
15°	2107.2	2106.0	2096.3	2092.7	2066.7	2049.7	2020.6	1995.8	1964.9	1931.0	1889.8
17.5°	2181.1	2183.5	2175.1	2154.5	2130.8	2104.8	2063.6	2023.1	1980.1	1940.7	1907.4
20°	2278.0	2271.9	2257.4	2232.6	2190.2	2158.1	2116.9	2066.7	2008.5	1950.4	1902.6
22.5°	2407.6	2400.9	2377.9	2347.6	2294.3	2235.6	2172.6	2097.5	2030.9	1964.3	1901.4
25°	2556.5	2543.8	2509.9	2477.2	2401.5	2339.1	2245.3	2155.7	2058.8	1970.4	1899.5
27.5°	2637.7	2637.7	2621.9	2586.2	2526.3	2434.2	2338.5	2219.3	2107.2	1986.1	1885.6
30°	2630.4	2626.2	2632.2	2617.1	2578.3	2509.3	2414.2	2288.9	2146.0	2007.3	1886.8
32.5°	2442.7	2444.5	2480.8	2505.7	2525.0	2508.1	2446.3	2333.1	2190.8	2027.9	1882.0
35°	2137.5	2142.4	2206.5	2248.9	2335.5	2385.2	2399.7	2338.5	2210.8	2042.4	1873.5
37.5°	1788.7	1788.7	1863.2	1927.4	2024.3	2146.6	2238.0	2261.0	2198.7	2041.8	1866.2
40°	1472.6	1470.8	1529.6	1608.3	1711.8	1846.9	1983.1	2100.0	2115.1	2018.2	1840.8
42.5°	1205.0	1202.0	1266.2	1309.8	1418.7	1539.2	1720.3	1885.6	1980.1	1945.0	1803.3
45°	1004.0	1001.5	1043.3	1093.0	1169.9	1295.2	1447.2	1630.7	1789.3	1837.8	1733.0
47.5°	852.6	853.8	876.2	918.0	983.4	1073.0	1209.2	1379.4	1575.6	1687.6	1644.6
50°	723.0	727.2	744.2	775.7	823.5	895.6	1012.4	1166.2	1367.9	1516.2	1525.3
52.5°	626.1	632.2	650.3	667.3	707.3	758.1	848.9	982.2	1148.7	1326.7	1390.3
55°	545.0	548.0	558.3	576.5	606.1	648.5	714.5	816.2	970.7	1129.3	1241.3
57.5°	477.2	477.2	483.8	496.5	520.1	558.3	602.5	686.7	816.9	960.4	1079.7
60°	409.3	411.8	416.6	430.5	446.3	475.3	518.3	571.6	684.2	804.1	932.5
62.5°	352.4	356.7	361.5	368.2	382.7	403.3	433.6	482.6	558.3	669.1	783.6
65°	300.3	304.6	305.2	313.1	322.7	339.7	362.7	398.4	461.4	548.6	643.1
67.5°	254.3	256.1	258.0	264.0	273.1	284.0	299.1	325.8	375.4	434.2	526.2
70°	213.1	214.4	215.0	221.6	225.9	235.5	243.4	260.4	291.9	337.3	408.7
72.5°	174.4	172.6	172.0	177.4	179.2	187.1	196.8	208.9	225.9	258.0	311.2
75°	136.8	137.5	138.1	141.1	141.7	145.3	151.4	159.3	167.1	185.9	219.8
77.5°	105.4	102.9	102.9	106.6	107.8	108.4	112.6	116.9	121.1	132.0	145.3
80°	71.5	72.7	72.7	72.7	73.3	74.5	76.9	80.5	83.6	90.2	92.6
82.5°	50.9	50.9	50.3	51.5	52.1	52.7	52.7	52.7	54.5	56.3	58.7
85°	31.5	32.1	30.3	31.5	32.1	32.1	32.1	32.1	33.9	33.3	33.9
87.5°	13.3	13.9	13.9	14.5	14.5	15.1	14.5	15.1	14.5	14.5	15.1
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: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1
2.5°	1577.4	1570.1	1566.5	1559.2	1549.5	1543.5	1537.4	1529.0	1522.3	1512.0	1502.9
5°	1635.5	1621.0	1607.7	1589.5	1571.9	1556.8	1541.1	1523.5	1507.8	1490.2	1471.4
7.5°	1700.3	1677.3	1649.5	1617.4	1590.1	1566.5	1539.9	1513.8	1490.2	1462.3	1436.9
10°	1762.7	1725.7	1688.8	1645.8	1605.9	1570.7	1535.0	1498.7	1467.8	1433.3	1401.8
12.5°	1811.1	1776.0	1720.9	1667.6	1615.5	1570.1	1525.3	1481.1	1440.5	1402.4	1364.9
15°	1853.5	1795.4	1748.8	1690.6	1627.0	1565.3	1509.6	1458.1	1409.1	1364.3	1326.1
17.5°	1865.6	1813.6	1762.7	1694.9	1626.4	1556.2	1492.0	1430.9	1376.4	1326.7	1283.7
20°	1864.4	1811.7	1756.6	1691.8	1619.2	1542.3	1470.8	1402.4	1340.6	1283.7	1237.7
22.5°	1846.2	1795.4	1739.7	1674.3	1600.4	1521.1	1446.0	1370.3	1303.1	1243.8	1196.5
25°	1826.9	1762.7	1704.6	1638.6	1568.3	1495.0	1415.1	1333.4	1263.1	1201.4	1148.1
27.5°	1809.9	1733.0	1661.6	1596.8	1524.7	1458.7	1379.4	1294.0	1222.0	1157.2	1102.1
30°	1782.7	1701.5	1614.9	1544.1	1474.5	1405.4	1332.8	1255.3	1176.5	1110.5	1055.4
32.5°	1759.1	1656.7	1562.9	1482.9	1413.3	1352.7	1283.1	1208.6	1131.7	1068.8	1009.4
35°	1733.0	1610.7	1512.6	1418.7	1349.1	1283.1	1228.0	1160.8	1084.5	1017.9	964.6
37.5°	1702.1	1563.5	1450.8	1355.2	1283.1	1215.3	1165.6	1105.7	1036.7	970.7	918.0
40°	1667.6	1515.0	1385.4	1286.7	1209.2	1141.4	1099.6	1046.3	987.6	922.2	873.2
42.5°	1624.0	1463.6	1326.1	1218.3	1132.3	1071.2	1029.4	985.2	931.3	874.4	821.1
45°	1568.9	1399.4	1255.3	1141.4	1056.6	997.3	953.7	921.0	878.0	824.7	774.5
47.5°	1501.7	1332.2	1182.6	1064.5	982.8	925.8	885.3	852.6	819.9	773.9	726.0
50°	1412.7	1255.3	1111.7	991.2	904.7	849.6	813.2	787.2	757.5	720.0	676.4
52.5°	1314.6	1168.7	1028.2	915.6	832.0	776.9	739.3	717.5	695.1	664.3	626.7
55°	1200.8	1082.1	948.3	838.0	756.3	701.8	672.1	650.9	632.2	608.6	577.1
57.5°	1080.3	976.1	859.8	758.1	681.2	629.7	603.7	586.1	570.4	553.5	527.4
60°	953.7	879.8	769.6	676.4	609.2	566.8	541.9	525.6	511.1	497.1	477.8
62.5°	821.7	760.5	678.2	598.9	538.9	499.0	480.8	466.9	451.7	439.6	425.7
65°	687.9	652.8	595.8	521.4	466.3	433.6	416.0	404.5	397.2	383.3	372.4
67.5°	566.2	546.8	498.3	448.1	405.7	376.0	359.7	351.2	343.3	336.7	324.6
70°	450.5	436.6	408.7	373.0	339.7	314.3	302.2	299.7	288.8	282.2	276.1
72.5°	343.3	339.7	316.7	300.9	282.2	262.2	253.1	248.3	241.0	234.9	232.5
75°	244.0	249.5	242.2	234.3	225.3	208.9	201.0	198.6	192.0	190.1	187.1
77.5°	166.5	174.4	176.8	173.2	168.9	163.5	158.0	155.6	149.0	147.7	145.9
80°	104.8	116.3	120.5	119.9	118.1	118.7	112.0	111.4	108.4	106.6	108.4
82.5°	63.6	69.6	77.5	79.3	76.9	78.1	76.3	73.9	73.9	75.1	72.7
85°	34.5	35.1	38.8	41.2	44.2	46.6	44.2	44.8	44.2	44.2	42.4
87.5°	15.1	15.7	15.7	15.1	16.3	17.6	20.0	21.2	20.6	18.8	16.3
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: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1	1527.1
2.5°	1495.6	1491.4	1484.1	1478.1	1464.2	1454.5	1453.3	1453.9	1452.7	1451.4	1450.8
5°	1459.3	1445.4	1432.1	1420.6	1404.8	1389.1	1381.8	1378.8	1377.6	1370.9	1374.5
7.5°	1420.6	1399.4	1383.6	1361.8	1343.1	1329.7	1317.0	1311.0	1309.8	1300.7	1298.2
10°	1379.4	1354.0	1330.3	1308.5	1289.8	1271.0	1255.9	1250.4	1243.1	1235.9	1225.0
12.5°	1338.8	1307.3	1281.3	1257.1	1231.6	1210.4	1198.3	1190.5	1181.4	1174.7	1171.1
15°	1290.4	1263.7	1231.6	1205.6	1179.6	1160.8	1144.4	1129.9	1121.4	1116.0	1100.8
17.5°	1246.8	1211.7	1181.4	1156.6	1128.1	1106.9	1089.9	1077.8	1063.3	1052.4	1042.7
20°	1200.2	1163.8	1136.0	1106.3	1077.2	1051.2	1030.0	1020.3	1010.0	999.7	994.3
22.5°	1149.9	1118.4	1086.9	1056.0	1025.2	997.3	984.0	970.1	961.0	950.7	943.4
25°	1106.3	1071.8	1040.3	1005.8	971.9	955.5	937.4	923.4	916.2	905.9	898.0
27.5°	1059.7	1026.4	988.8	953.1	933.1	905.3	893.2	882.3	872.6	862.3	856.8
30°	1016.1	977.3	939.8	911.9	885.9	865.9	854.4	841.1	827.8	822.9	815.6
32.5°	970.1	928.3	895.6	867.7	845.9	821.7	810.8	799.9	787.2	781.1	774.5
35°	922.2	881.6	849.6	824.1	801.7	783.6	771.4	759.9	752.1	743.0	738.1
37.5°	872.0	836.8	806.0	780.5	759.9	745.4	730.3	721.2	710.3	701.8	698.2
40°	824.1	792.6	763.0	739.3	720.6	703.0	689.7	678.2	671.5	664.3	658.2
42.5°	781.1	748.4	723.0	698.2	681.2	664.3	650.9	642.5	631.0	627.9	619.5
45°	735.1	704.8	679.4	656.4	638.8	624.9	609.2	598.9	591.6	584.3	581.3
47.5°	688.5	660.6	637.0	615.8	597.7	581.9	569.8	558.9	551.0	544.4	540.7
50°	643.1	618.8	595.2	574.6	555.9	544.4	529.8	517.7	511.7	504.4	500.2
52.5°	595.2	575.2	549.8	532.3	514.7	499.6	485.0	477.2	471.1	465.0	462.0
55°	550.4	529.2	507.4	488.7	471.7	456.0	444.5	438.4	430.5	426.9	426.3
57.5°	504.4	482.6	464.4	447.5	428.1	416.0	405.7	398.4	391.8	388.7	388.7
60°	454.1	436.6	419.6	400.9	386.9	373.0	362.1	357.3	350.6	349.4	345.1
62.5°	408.1	391.8	375.4	357.9	345.1	331.2	323.4	316.7	313.1	308.2	303.4
65°	360.3	345.8	330.0	314.9	304.6	289.4	282.2	274.3	270.1	264.6	258.6
67.5°	314.3	300.3	285.8	271.9	263.4	248.9	244.0	234.3	231.3	225.3	219.8
70°	265.8	256.1	244.6	230.7	223.4	211.9	207.1	198.0	193.2	189.5	186.5
72.5°	224.0	215.0	201.6	192.6	183.5	176.2	168.3	164.1	159.9	156.8	156.2
75°	182.9	171.4	163.5	155.0	149.0	141.7	138.1	135.0	133.2	131.4	129.6
77.5°	139.9	135.0	127.2	118.7	113.8	110.8	108.4	107.2	105.4	104.8	102.9
80°	104.2	97.5	92.6	89.6	86.0	83.6	81.7	77.5	75.1	73.9	72.7
82.5°	69.0	67.2	63.6	60.6	57.5	56.9	55.1	53.9	53.3	53.3	52.7
85°	41.8	36.9	36.9	36.3	36.3	35.7	34.5	34.5	33.3	35.1	35.1
87.5°	17.0	17.0	15.7	15.7	16.3	15.1	14.5	14.5	14.5	13.9	14.5
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: P243792

CATALOG NUMBER: S125RDR-H1270D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1527.1	1527.1	1527.1	1527.1
2.5°	1450.8	1447.8	1448.4	1444.8
5°	1367.9	1366.1	1360.0	1355.2
7.5°	1292.2	1284.3	1283.7	1278.9
10°	1221.3	1214.1	1210.4	1211.1
12.5°	1159.6	1151.7	1151.7	1146.9
15°	1093.6	1085.7	1086.9	1086.3
17.5°	1039.1	1033.6	1029.4	1025.8
20°	985.8	979.1	976.7	973.7
22.5°	936.7	931.9	932.5	932.5
25°	890.1	890.7	885.3	884.1
27.5°	848.9	847.7	846.5	844.1
30°	810.2	805.3	804.1	801.7
32.5°	770.2	769.6	764.8	766.6
35°	729.7	727.8	726.6	725.4
37.5°	692.1	688.5	687.9	686.7
40°	654.0	652.8	647.3	650.3
42.5°	612.8	610.4	610.4	610.4
45°	578.3	571.6	571.6	569.2
47.5°	539.5	537.1	535.9	531.7
50°	501.4	497.7	496.5	496.5
52.5°	462.0	461.4	462.6	460.2
55°	427.5	428.1	427.5	426.3
57.5°	390.0	386.9	386.9	387.5
60°	345.1	345.1	346.4	343.9
62.5°	302.2	300.9	296.7	295.5
65°	258.0	253.1	252.5	253.1
67.5°	218.6	216.8	213.8	214.4
70°	184.7	184.1	181.1	179.2
72.5°	154.4	154.4	152.6	152.6
75°	129.0	127.8	127.2	128.4
77.5°	99.3	96.3	97.5	95.7
80°	72.1	73.3	72.1	71.5
82.5°	53.3	52.1	52.7	52.1
85°	33.9	32.7	33.3	32.7
87.5°	13.9	14.5	14.5	13.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)