

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: P243767

Luminaire Tested: **S125RDR-H1270D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243767
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-H1270D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3739.4 lumens
Efficiency: N/A
Efficacy: 99.2 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

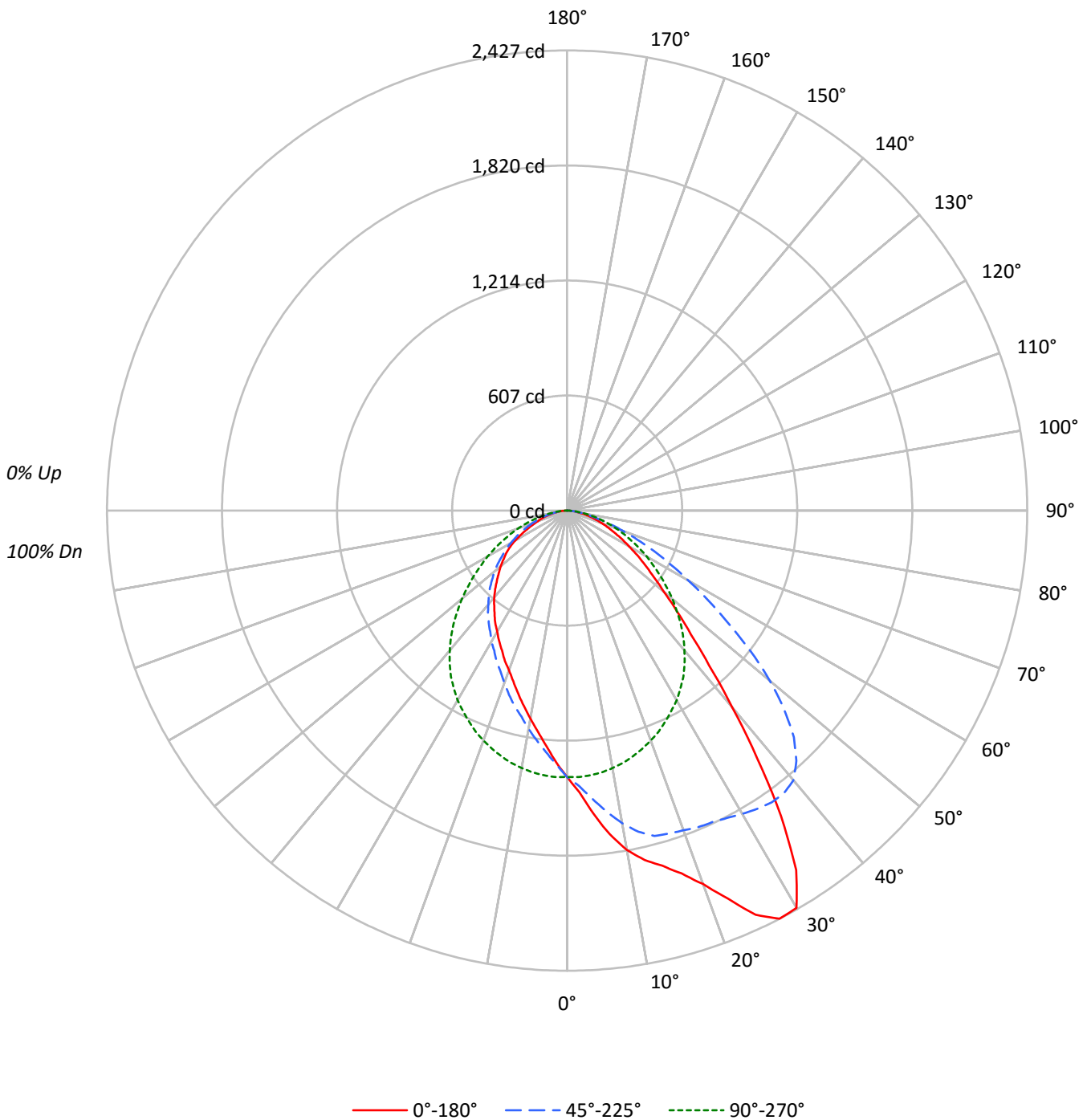
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	9987	9987	9987
5°	11464	10000	8896
10°	13116	9952	8042
15°	14266	9872	7354
20°	15852	9759	6776
25°	18446	9621	6379
30°	19862	9478	6053
35°	17064	9266	5791
40°	12571	8932	5552
45°	9284	8517	5264
50°	7355	8009	5051
55°	6213	7421	4860
60°	5353	6874	4498
65°	4647	6259	3917
70°	4075	5731	3427
75°	3457	5017	3243
80°	2689	4195	2689
85°	2365	3360	2455



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.2	3.6
10°-20°	400.1	10.7
20°-30°	638.2	17.1
30°-40°	774.9	20.7
40°-50°	698.3	18.7
50°-60°	536.9	14.4
60°-70°	348.4	9.3
70°-80°	167.7	4.5
80°-90°	39.7	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°	1173.6	31.4
0°-40°	1948.5	52.1
0°-60°	3183.7	85.1
0°-90°	3739.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3739.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1405	1405	1405	1405	1405	
5°	1607	1526	1402	1278	1247	160
15°	1939	1777	1342	1068	1000	556
25°	2352	1813	1227	879	813	1076
35°	1967	1879	1068	721	667	1203
45°	924	1691	847	575	524	734
55°	501	1039	599	420	392	455
65°	276	505	372	266	233	277
75°	126	171	183	130	118	135
85°	29	31	41	33	30	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1
2.5°	1486.4	1492.0	1487.5	1490.3	1485.9	1483.6	1478.1	1469.7	1461.3	1453.5	1453.0
5°	1606.8	1605.6	1601.2	1595.1	1590.6	1579.5	1573.9	1554.9	1542.1	1526.5	1518.7
7.5°	1721.5	1718.7	1712.1	1703.7	1699.8	1685.3	1669.7	1645.8	1625.7	1601.2	1582.8
10°	1817.4	1816.8	1811.8	1806.2	1791.2	1775.0	1760.0	1734.9	1704.8	1674.2	1648.5
12.5°	1887.5	1884.8	1878.6	1869.2	1856.9	1845.8	1825.7	1802.9	1766.1	1734.9	1699.8
15°	1938.8	1937.7	1928.8	1925.4	1901.5	1885.9	1859.1	1836.3	1807.9	1776.7	1738.8
17.5°	2006.8	2009.0	2001.2	1982.3	1960.5	1936.6	1898.7	1861.4	1821.8	1785.6	1755.0
20°	2095.9	2090.3	2077.0	2054.1	2015.1	1985.6	1947.7	1901.5	1848.0	1794.5	1750.5
22.5°	2215.1	2209.0	2187.8	2160.0	2111.0	2056.9	1999.0	1929.9	1868.6	1807.3	1749.4
25°	2352.2	2340.5	2309.3	2279.2	2209.6	2152.2	2065.8	1983.4	1894.2	1812.9	1747.7
27.5°	2426.8	2426.8	2412.4	2379.5	2324.3	2239.7	2151.6	2041.9	1938.8	1827.4	1734.9
30°	2420.2	2416.3	2421.8	2407.9	2372.3	2308.7	2221.3	2105.9	1974.5	1846.9	1736.0
32.5°	2247.5	2249.1	2282.6	2305.4	2323.2	2307.6	2250.8	2146.6	2015.7	1865.8	1731.6
35°	1966.7	1971.1	2030.2	2069.2	2148.8	2194.5	2207.9	2151.6	2034.1	1879.2	1723.8
37.5°	1645.8	1645.8	1714.3	1773.3	1862.5	1975.0	2059.1	2080.3	2022.9	1878.6	1717.1
40°	1354.9	1353.3	1407.3	1479.7	1575.0	1699.2	1824.6	1932.1	1946.0	1856.9	1693.7
42.5°	1108.7	1105.9	1165.0	1205.1	1305.4	1416.2	1582.8	1734.9	1821.8	1789.5	1659.1
45°	923.7	921.5	959.9	1005.6	1076.4	1191.7	1331.5	1500.3	1646.3	1690.9	1594.5
47.5°	784.4	785.6	806.2	844.6	904.8	987.2	1112.6	1269.1	1449.6	1552.7	1513.2
50°	665.2	669.1	684.7	713.7	757.7	824.0	931.5	1073.0	1258.6	1395.0	1403.4
52.5°	576.1	581.6	598.4	614.0	650.7	697.5	781.1	903.7	1056.9	1220.7	1279.2
55°	501.4	504.2	513.7	530.4	557.7	596.7	657.4	751.0	893.1	1039.0	1142.1
57.5°	439.0	439.0	445.1	456.8	478.6	513.7	554.3	631.8	751.6	883.6	993.4
60°	376.6	378.8	383.3	396.1	410.6	437.3	476.9	525.9	629.6	739.9	858.0
62.5°	324.2	328.1	332.6	338.7	352.1	371.0	398.9	444.0	513.7	615.6	720.9
65°	276.3	280.2	280.8	288.0	296.9	312.5	333.7	366.6	424.5	504.8	591.7
67.5°	234.0	235.7	237.3	242.9	251.3	261.3	275.2	299.7	345.4	399.5	484.1
70°	196.1	197.2	197.8	203.9	207.8	216.7	224.0	239.6	268.5	310.3	376.1
72.5°	160.5	158.8	158.2	163.2	164.9	172.2	181.1	192.2	207.8	237.3	286.4
75°	125.9	126.5	127.0	129.8	130.4	133.7	139.3	146.5	153.8	171.0	202.2
77.5°	96.9	94.7	94.7	98.1	99.2	99.7	103.6	107.5	111.4	121.5	133.7
80°	65.7	66.9	66.9	66.9	67.4	68.5	70.8	74.1	76.9	83.0	85.2
82.5°	46.8	46.8	46.2	47.4	47.9	48.5	48.5	48.5	50.1	51.8	54.0
85°	29.0	29.5	27.9	29.0	29.5	29.5	29.5	29.5	31.2	30.6	31.2
87.5°	12.3	12.8	12.8	13.4	13.4	13.9	13.4	13.9	13.4	13.4	13.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1
2.5°	1451.3	1444.6	1441.3	1434.6	1425.7	1420.1	1414.5	1406.7	1400.6	1391.1	1382.8
5°	1504.8	1491.4	1479.2	1462.5	1446.3	1432.4	1417.9	1401.7	1387.2	1371.1	1353.8
7.5°	1564.4	1543.2	1517.6	1488.1	1463.0	1441.3	1416.8	1392.8	1371.1	1345.5	1322.1
10°	1621.8	1587.8	1553.8	1514.3	1477.5	1445.2	1412.3	1378.9	1350.5	1318.7	1289.8
12.5°	1666.4	1634.1	1583.4	1534.3	1486.4	1444.6	1403.4	1362.7	1325.4	1290.3	1255.8
15°	1705.4	1651.9	1609.0	1555.5	1497.0	1440.2	1388.9	1341.6	1296.4	1255.2	1220.1
17.5°	1716.5	1668.6	1621.8	1559.4	1496.4	1431.8	1372.8	1316.5	1266.4	1220.7	1181.1
20°	1715.4	1666.9	1616.2	1556.6	1489.8	1419.0	1353.3	1290.3	1233.5	1181.1	1138.8
22.5°	1698.7	1651.9	1600.6	1540.5	1472.5	1399.5	1330.4	1260.8	1198.9	1144.3	1100.9
25°	1680.9	1621.8	1568.3	1507.6	1443.0	1375.5	1302.0	1226.8	1162.2	1105.3	1056.3
27.5°	1665.3	1594.5	1528.8	1469.1	1402.8	1342.1	1269.1	1190.6	1124.3	1064.7	1014.0
30°	1640.2	1565.5	1485.9	1420.7	1356.6	1293.1	1226.2	1154.9	1082.5	1021.8	971.1
32.5°	1618.5	1524.3	1437.9	1364.4	1300.3	1244.6	1180.6	1112.0	1041.3	983.3	928.7
35°	1594.5	1482.0	1391.7	1305.4	1241.3	1180.6	1129.9	1068.0	997.8	936.5	887.5
37.5°	1566.1	1438.5	1334.9	1246.9	1180.6	1118.2	1072.5	1017.3	953.8	893.1	844.6
40°	1534.3	1393.9	1274.7	1183.9	1112.6	1050.2	1011.7	962.7	908.7	848.5	803.4
42.5°	1494.2	1346.6	1220.1	1120.9	1041.8	985.6	947.1	906.4	856.9	804.5	755.5
45°	1443.5	1287.5	1154.9	1050.2	972.2	917.6	877.5	847.4	807.8	758.8	712.6
47.5°	1381.7	1225.7	1088.1	979.4	904.2	851.8	814.5	784.4	754.4	712.0	668.0
50°	1299.8	1154.9	1022.9	912.0	832.3	781.7	748.2	724.3	697.0	662.4	622.3
52.5°	1209.5	1075.3	946.0	842.4	765.5	714.8	680.3	660.2	639.6	611.2	576.6
55°	1104.8	995.6	872.5	771.1	695.9	645.7	618.4	598.9	581.6	559.9	530.9
57.5°	993.9	898.1	791.1	697.5	626.8	579.4	555.5	539.3	524.8	509.2	485.3
60°	877.5	809.5	708.1	622.3	560.5	521.5	498.6	483.6	470.2	457.4	439.6
62.5°	756.0	699.8	624.0	551.0	495.8	459.1	442.4	429.5	415.6	404.5	391.7
65°	632.9	600.6	548.2	479.7	429.0	398.9	382.7	372.2	365.5	352.7	342.6
67.5°	520.9	503.1	458.5	412.3	373.3	346.0	330.9	323.1	315.9	309.8	298.6
70°	414.5	401.7	376.1	343.2	312.5	289.1	278.0	275.8	265.8	259.6	254.1
72.5°	315.9	312.5	291.4	276.9	259.6	241.2	232.9	228.4	221.7	216.2	213.9
75°	224.5	229.5	222.9	215.6	207.3	192.2	185.0	182.7	176.6	174.9	172.2
77.5°	153.2	160.5	162.7	159.3	155.4	150.4	145.4	143.2	137.1	135.9	134.3
80°	96.4	107.0	110.9	110.3	108.6	109.2	103.1	102.5	99.7	98.1	99.7
82.5°	58.5	64.1	71.3	73.0	70.8	71.9	70.2	68.0	68.0	69.1	66.9
85°	31.8	32.3	35.7	37.9	40.7	42.9	40.7	41.2	40.7	40.7	39.0
87.5°	13.9	14.5	14.5	13.9	15.0	16.2	18.4	19.5	18.9	17.3	15.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1	1405.1
2.5°	1376.1	1372.2	1365.5	1359.9	1347.1	1338.2	1337.1	1337.7	1336.5	1335.4	1334.9
5°	1342.7	1329.9	1317.6	1307.0	1292.5	1278.1	1271.4	1268.6	1267.5	1261.3	1264.7
7.5°	1307.0	1287.5	1273.0	1253.0	1235.7	1223.5	1211.8	1206.2	1205.1	1196.7	1194.5
10°	1269.1	1245.7	1224.0	1204.0	1186.7	1169.4	1155.5	1150.5	1143.8	1137.1	1127.1
12.5°	1231.8	1202.8	1178.9	1156.6	1133.2	1113.7	1102.6	1095.3	1087.0	1080.8	1077.5
15°	1187.2	1162.7	1133.2	1109.2	1085.3	1068.0	1053.0	1039.6	1031.8	1026.8	1012.9
17.5°	1147.1	1114.8	1087.0	1064.1	1037.9	1018.4	1002.8	991.7	978.3	968.3	959.4
20°	1104.2	1070.8	1045.2	1017.9	991.1	967.2	947.7	938.8	929.3	919.8	914.8
22.5°	1058.0	1029.0	1000.0	971.6	943.2	917.6	905.3	892.5	884.2	874.7	868.0
25°	1017.9	986.1	957.1	925.4	894.2	879.1	862.4	849.6	842.9	833.5	826.2
27.5°	975.0	944.3	909.8	876.9	858.5	832.9	821.8	811.7	802.8	793.4	788.3
30°	934.9	899.2	864.7	839.0	815.1	796.7	786.1	773.9	761.6	757.1	750.5
32.5°	892.5	854.1	824.0	798.4	778.3	756.0	746.0	736.0	724.3	718.7	712.6
35°	848.5	811.2	781.7	758.3	737.6	720.9	709.8	699.2	692.0	683.6	679.1
37.5°	802.3	770.0	741.5	718.1	699.2	685.8	671.9	663.5	653.5	645.7	642.4
40°	758.3	729.3	702.0	680.3	663.0	646.8	634.6	624.0	617.9	611.2	605.6
42.5°	718.7	688.6	665.2	642.4	626.8	611.2	598.9	591.1	580.5	577.7	569.9
45°	676.4	648.5	625.1	603.9	587.8	575.0	560.5	551.0	544.3	537.6	534.8
47.5°	633.5	607.8	586.1	566.6	549.9	535.4	524.3	514.2	507.0	500.9	497.5
50°	591.7	569.4	547.7	528.7	511.4	500.9	487.5	476.3	470.8	464.1	460.2
52.5°	547.7	529.3	505.9	489.7	473.6	459.6	446.3	439.0	433.4	427.9	425.1
55°	506.4	486.9	466.9	449.6	434.0	419.5	408.9	403.4	396.1	392.8	392.2
57.5°	464.1	444.0	427.3	411.7	393.9	382.7	373.3	366.6	360.5	357.7	357.7
60°	417.8	401.7	386.1	368.8	356.0	343.2	333.2	328.7	322.6	321.5	317.6
62.5°	375.5	360.5	345.4	329.3	317.6	304.7	297.5	291.4	288.0	283.6	279.1
65°	331.5	318.1	303.6	289.7	280.2	266.3	259.6	252.4	248.5	243.5	237.9
67.5°	289.1	276.3	263.0	250.2	242.4	229.0	224.5	215.6	212.8	207.3	202.2
70°	244.6	235.7	225.1	212.3	205.6	195.0	190.5	182.2	177.7	174.4	171.6
72.5°	206.1	197.8	185.5	177.2	168.8	162.1	154.9	151.0	147.1	144.3	143.7
75°	168.3	157.7	150.4	142.6	137.1	130.4	127.0	124.2	122.6	120.9	119.2
77.5°	128.7	124.2	117.0	109.2	104.7	102.0	99.7	98.6	96.9	96.4	94.7
80°	95.8	89.7	85.2	82.5	79.1	76.9	75.2	71.3	69.1	68.0	66.9
82.5°	63.5	61.8	58.5	55.7	52.9	52.4	50.7	49.6	49.0	49.0	48.5
85°	38.4	34.0	34.0	33.4	33.4	32.9	31.8	31.8	30.6	32.3	32.3
87.5°	15.6	15.6	14.5	14.5	15.0	13.9	13.4	13.4	13.4	12.8	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: P243767

CATALOG NUMBER: S125RDR-H1270D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1405.1	1405.1	1405.1	1405.1
2.5°	1334.9	1332.1	1332.6	1329.3
5°	1258.6	1256.9	1251.3	1246.9
7.5°	1188.9	1181.7	1181.1	1176.7
10°	1123.7	1117.0	1113.7	1114.3
12.5°	1066.9	1059.7	1059.7	1055.2
15°	1006.2	998.9	1000.0	999.5
17.5°	956.0	951.0	947.1	943.8
20°	907.0	900.9	898.6	895.9
22.5°	861.9	857.4	858.0	858.0
25°	819.0	819.5	814.5	813.4
27.5°	781.1	780.0	778.9	776.6
30°	745.4	741.0	739.9	737.6
32.5°	708.7	708.1	703.7	705.3
35°	671.3	669.7	668.6	667.4
37.5°	636.8	633.5	632.9	631.8
40°	601.7	600.6	595.6	598.4
42.5°	563.8	561.6	561.6	561.6
45°	532.1	525.9	525.9	523.7
47.5°	496.4	494.2	493.1	489.2
50°	461.3	458.0	456.8	456.8
52.5°	425.1	424.5	425.6	423.4
55°	393.3	393.9	393.3	392.2
57.5°	358.8	356.0	356.0	356.6
60°	317.6	317.6	318.7	316.4
62.5°	278.0	276.9	273.0	271.9
65°	237.3	232.9	232.3	232.9
67.5°	201.1	199.5	196.7	197.2
70°	169.9	169.4	166.6	164.9
72.5°	142.1	142.1	140.4	140.4
75°	118.7	117.6	117.0	118.1
77.5°	91.4	88.6	89.7	88.0
80°	66.3	67.4	66.3	65.7
82.5°	49.0	47.9	48.5	47.9
85°	31.2	30.1	30.6	30.1
87.5°	12.8	13.4	13.4	12.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)