

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: P242804

Luminaire Tested: **S125DR-S1270D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242804
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S1270D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3902.8 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

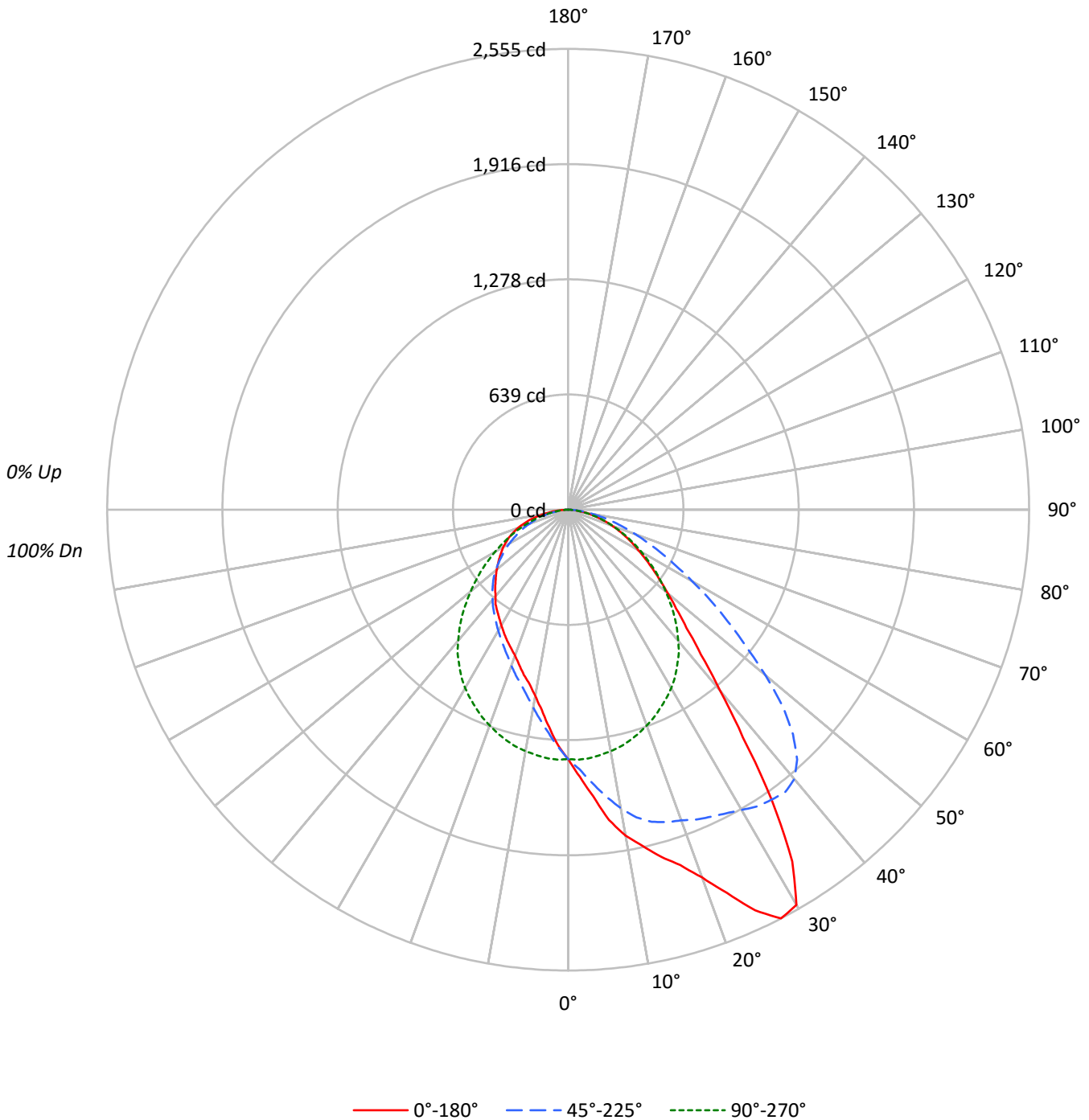
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78		84	80	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57		67	61	56		64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43		54	48	43		53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39		50	43	38		48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34		46	39	34		44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31		42	36	31		41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28		39	33	28		38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9829	9829	9829
5°	11383	9863	8636
10°	13243	9811	7566
15°	14659	9740	6980
20°	16410	9625	6509
25°	19224	9497	6279
30°	20763	9370	6080
35°	17073	9132	5949
40°	12135	8801	5806
45°	9323	8355	5723
50°	7958	7802	5712
55°	7084	7259	5761
60°	6391	6667	5908
65°	5903	6071	6061
70°	5368	5453	6149
75°	4740	4803	6094
80°	3987	3917	5575
85°	3156	2822	4501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	3.4
10°-20°	396.5	10.2
20°-30°	644.0	16.5
30°-40°	787.0	20.2
40°-50°	714.0	18.3
50°-60°	568.7	14.6
60°-70°	396.1	10.1
70°-80°	211.0	5.4
80°-90°	52.3	1.3
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	30.1
0°-40°	1960.6	50.2
0°-60°	3243.4	83.1
0°-90°	3902.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1383	1383	1383	1383	1383	
5°	1596	1520	1382	1243	1210	160
15°	1992	1791	1324	1004	949	569
25°	2451	1878	1211	841	801	1123
35°	1968	1964	1052	713	686	1207
45°	928	1762	831	590	569	738
55°	572	1080	586	450	465	514
65°	351	572	361	304	360	348
75°	173	255	175	160	222	186
85°	39	51	35	38	55	45
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°	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0
2.5°	1482.8	1480.4	1478.1	1473.4	1476.9	1466.9	1462.2	1454.0	1444.0	1440.5	1436.4
5°	1595.5	1598.4	1601.4	1589.0	1590.2	1582.0	1563.2	1547.9	1535.6	1519.8	1508.6
7.5°	1735.2	1726.4	1727.0	1719.4	1705.9	1694.7	1676.5	1651.3	1628.4	1602.5	1580.2
10°	1835.0	1835.6	1830.3	1820.9	1806.2	1795.7	1769.8	1745.2	1715.2	1680.0	1654.8
12.5°	1910.1	1913.1	1906.0	1892.5	1887.2	1860.2	1841.5	1810.9	1773.9	1747.5	1705.9
15°	1992.3	1985.9	1981.2	1965.3	1953.0	1928.3	1896.0	1865.5	1826.8	1791.0	1755.2
17.5°	2065.1	2070.4	2062.8	2051.0	2014.6	1985.9	1945.9	1907.2	1860.8	1816.2	1774.5
20°	2169.6	2174.3	2160.8	2135.5	2089.8	2061.0	2004.1	1950.0	1894.3	1832.6	1785.7
22.5°	2299.9	2294.0	2274.7	2233.0	2194.8	2135.5	2072.7	2004.1	1930.7	1859.1	1792.7
25°	2451.4	2426.7	2415.5	2368.0	2315.8	2237.7	2153.2	2056.9	1970.0	1877.8	1798.0
27.5°	2554.7	2544.7	2528.8	2490.1	2430.2	2341.6	2241.8	2126.7	2009.9	1897.2	1796.8
30°	2530.0	2531.2	2532.4	2521.8	2486.6	2423.8	2324.6	2198.4	2052.8	1921.9	1800.9
32.5°	2311.6	2338.1	2363.3	2396.2	2417.3	2417.9	2365.1	2254.1	2103.3	1950.0	1798.6
35°	1967.7	1974.1	2040.4	2106.2	2195.4	2264.7	2311.1	2260.6	2134.4	1963.5	1796.8
37.5°	1590.8	1623.1	1673.0	1746.9	1880.8	1990.0	2133.2	2182.5	2123.2	1974.7	1796.3
40°	1307.9	1337.2	1367.1	1442.9	1551.5	1691.2	1859.6	2003.5	2036.9	1950.0	1778.6
42.5°	1089.5	1111.2	1145.3	1197.5	1283.8	1403.5	1562.6	1761.6	1897.8	1878.4	1741.7
45°	927.5	942.2	968.0	1013.2	1078.9	1175.8	1317.8	1523.3	1702.3	1761.6	1678.8
47.5°	812.4	813.0	834.1	866.4	916.3	1005.5	1111.8	1280.9	1474.0	1610.8	1591.4
50°	719.7	716.7	732.6	759.6	797.2	851.8	952.1	1080.7	1264.4	1424.7	1469.3
52.5°	639.8	641.0	649.2	667.4	697.4	742.0	810.7	923.4	1073.6	1239.2	1333.1
55°	571.7	569.4	580.6	594.1	616.9	647.5	701.5	790.1	917.5	1079.5	1188.7
57.5°	506.0	512.5	517.2	526.5	546.5	567.6	615.8	683.9	788.9	932.8	1048.4
60°	449.6	456.1	459.6	469.0	484.3	501.9	537.1	589.9	675.1	794.8	909.3
62.5°	399.2	403.9	404.5	412.7	424.4	441.4	467.3	509.5	572.3	673.3	784.8
65°	351.0	351.0	353.4	362.2	368.1	383.3	404.5	436.7	490.7	572.3	668.0
67.5°	304.1	307.0	306.4	310.5	315.8	328.7	344.6	371.6	414.4	476.1	555.3
70°	258.3	260.6	260.0	263.0	268.9	276.5	288.8	314.1	342.8	393.9	459.6
72.5°	217.2	217.8	216.0	220.1	223.1	229.5	243.6	254.2	280.6	321.7	372.8
75°	172.6	173.8	174.9	177.3	180.8	184.3	191.4	204.9	222.5	254.8	289.4
77.5°	137.4	134.4	137.9	137.4	139.1	142.1	148.5	156.1	171.4	193.1	221.9
80°	97.4	98.0	98.0	98.6	101.6	103.3	108.6	113.9	125.0	140.3	159.1
82.5°	64.6	66.3	65.2	66.3	68.7	69.9	72.2	76.3	81.6	92.7	105.1
85°	38.7	35.8	37.0	38.2	38.2	38.7	41.1	42.9	46.4	51.1	56.4
87.5°	14.1	15.3	15.8	15.8	16.4	16.4	18.8	18.8	20.5	22.3	24.7
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°	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0
2.5°	1432.9	1428.8	1424.1	1415.9	1405.9	1400.6	1392.4	1387.1	1376.5	1367.7	1358.3
5°	1495.1	1479.9	1465.8	1447.6	1427.6	1414.7	1399.4	1382.4	1364.8	1346.6	1326.6
7.5°	1557.3	1532.1	1504.5	1475.7	1447.6	1421.2	1396.5	1371.3	1348.4	1319.6	1295.5
10°	1620.1	1586.1	1549.7	1506.9	1465.2	1428.8	1391.8	1359.5	1326.6	1291.4	1260.3
12.5°	1683.0	1634.8	1579.6	1531.5	1479.3	1433.5	1388.3	1344.8	1301.4	1261.5	1223.9
15°	1705.9	1665.9	1618.4	1551.5	1495.1	1434.7	1377.1	1323.7	1273.8	1230.4	1184.6
17.5°	1728.2	1677.1	1626.6	1562.0	1488.7	1423.5	1358.3	1300.2	1245.0	1190.5	1148.8
20°	1733.4	1680.6	1627.2	1564.4	1488.7	1411.2	1346.0	1272.6	1212.2	1155.2	1101.2
22.5°	1731.7	1670.0	1610.8	1545.6	1472.2	1402.4	1320.2	1245.0	1178.1	1122.4	1065.4
25°	1718.8	1654.8	1582.0	1516.8	1444.0	1368.3	1288.5	1211.0	1144.1	1080.1	1024.3
27.5°	1711.1	1630.1	1550.3	1475.2	1405.3	1335.4	1258.0	1178.1	1104.8	1039.6	987.9
30°	1694.1	1603.1	1510.4	1431.1	1358.9	1291.4	1219.2	1141.7	1064.2	1000.9	944.5
32.5°	1678.8	1569.1	1469.9	1381.8	1304.3	1239.2	1174.0	1101.2	1025.5	960.9	904.6
35°	1658.3	1535.6	1423.5	1326.1	1244.5	1177.0	1121.2	1052.5	982.7	920.4	866.4
37.5°	1634.2	1492.2	1373.6	1272.1	1183.4	1113.0	1060.1	1006.7	936.9	875.8	827.7
40°	1604.9	1445.2	1317.8	1213.4	1120.6	1046.6	998.5	948.6	892.8	837.1	785.4
42.5°	1567.9	1403.0	1261.5	1147.0	1055.4	983.8	932.8	892.3	844.7	793.6	746.7
45°	1520.9	1350.1	1199.8	1078.9	986.2	915.1	862.9	831.2	794.2	744.9	704.4
47.5°	1458.7	1290.2	1135.3	1010.2	914.6	848.8	798.9	767.8	740.8	702.1	663.9
50°	1370.1	1221.6	1064.2	940.4	844.7	778.4	733.2	705.6	683.3	655.1	624.0
52.5°	1270.9	1135.3	994.4	872.3	777.8	712.6	668.6	645.1	627.5	609.3	578.8
55°	1164.6	1047.2	913.4	797.2	709.7	645.7	607.0	585.8	570.6	555.3	536.5
57.5°	1050.2	955.1	832.4	723.8	642.8	582.9	546.5	524.8	512.5	504.2	492.5
60°	928.1	849.4	747.3	650.4	571.7	520.1	484.9	469.0	459.0	452.6	444.4
62.5°	814.8	753.7	661.0	574.7	508.4	460.2	429.7	414.4	405.0	402.7	396.2
65°	703.8	653.9	575.9	502.5	443.8	402.1	375.7	361.0	355.1	351.6	352.2
67.5°	592.3	560.0	494.8	430.3	382.1	345.2	323.4	312.3	309.4	304.1	304.1
70°	491.9	469.0	416.2	361.6	319.9	292.9	274.1	262.4	259.5	257.1	256.5
72.5°	403.3	383.9	339.9	298.8	262.4	239.5	224.8	219.0	213.7	212.5	212.5
75°	316.4	305.2	268.9	234.2	208.4	192.0	181.4	174.9	171.4	170.8	171.4
77.5°	238.9	228.3	203.1	177.3	160.3	147.3	137.4	135.6	130.9	131.5	130.3
80°	169.1	162.6	147.9	128.6	115.1	104.5	99.8	95.7	94.5	92.7	94.5
82.5°	110.9	103.9	95.1	84.5	74.0	68.7	64.0	63.4	62.8	62.2	62.2
85°	60.5	61.0	55.2	45.8	41.1	37.6	34.6	34.6	34.0	33.5	34.0
87.5°	25.8	24.7	22.3	20.5	17.6	15.8	15.3	15.8	14.1	13.5	14.1
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°	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0	1383.0
2.5°	1353.1	1346.6	1341.3	1329.6	1323.1	1314.3	1307.3	1314.9	1306.7	1310.2	1304.9
5°	1316.7	1300.2	1288.5	1271.5	1256.8	1243.3	1233.3	1231.5	1226.9	1224.5	1217.5
7.5°	1273.2	1254.4	1235.1	1213.9	1196.3	1177.5	1166.4	1155.8	1149.4	1141.1	1134.7
10°	1235.7	1208.1	1184.6	1157.6	1134.1	1113.6	1097.1	1088.9	1081.3	1070.1	1066.0
12.5°	1189.3	1160.5	1130.6	1101.2	1078.9	1055.4	1041.9	1028.4	1023.7	1010.8	1010.2
15°	1154.1	1111.2	1083.0	1053.7	1022.6	1003.8	992.0	978.5	972.7	963.9	957.4
17.5°	1110.6	1071.9	1036.7	1006.7	978.5	963.3	948.0	938.6	928.7	922.2	911.6
20°	1062.5	1026.1	990.9	958.6	938.0	919.8	908.1	899.3	888.7	885.8	875.2
22.5°	1022.0	980.9	947.4	921.6	898.7	877.6	864.7	859.4	852.9	842.4	842.4
25°	977.4	935.7	906.9	879.9	860.0	841.2	832.4	824.7	817.7	811.2	808.9
27.5°	939.8	902.8	867.6	842.9	825.9	808.3	800.7	790.7	785.4	780.1	773.1
30°	899.9	861.7	831.8	808.3	789.5	774.3	766.0	759.6	754.9	750.2	746.7
32.5°	858.8	824.2	795.4	772.5	753.7	743.2	736.1	732.0	726.7	720.8	716.2
35°	823.6	784.8	756.7	736.7	722.0	713.2	705.0	700.9	695.0	695.0	690.3
37.5°	781.9	747.9	722.6	704.4	691.5	683.3	673.9	671.5	667.4	665.1	663.3
40°	745.5	714.4	690.9	672.7	658.6	652.2	645.1	640.4	638.1	635.1	634.0
42.5°	707.9	678.6	656.3	639.8	628.1	622.8	616.4	613.4	608.1	604.0	603.4
45°	669.8	641.0	620.5	607.0	596.4	589.9	585.8	578.8	576.4	571.7	571.2
47.5°	634.6	606.4	585.8	574.7	565.3	560.6	554.1	546.5	543.6	540.6	540.0
50°	594.1	568.8	550.0	539.5	530.7	523.0	516.6	511.9	510.1	510.1	511.3
52.5°	553.0	532.4	517.2	503.7	495.4	487.2	481.3	479.0	476.1	479.6	481.9
55°	513.0	491.3	479.6	467.3	459.0	449.6	446.7	445.5	443.8	448.5	450.8
57.5°	470.2	455.5	441.4	428.5	421.5	415.6	410.9	410.3	413.8	415.0	422.1
60°	429.7	412.1	399.8	390.4	381.6	378.0	376.9	375.7	378.0	384.5	394.5
62.5°	385.1	371.6	358.1	351.6	345.7	339.3	339.3	340.5	345.7	353.4	363.4
65°	341.6	329.3	320.5	312.3	307.0	303.5	304.7	307.0	312.3	322.3	333.4
67.5°	297.0	288.8	280.6	273.0	267.7	268.3	268.9	271.8	278.2	290.0	300.5
70°	254.2	244.8	238.3	235.4	231.3	228.9	232.5	238.3	243.6	254.2	263.0
72.5°	211.3	203.7	199.0	197.2	196.1	194.3	194.9	201.3	209.0	219.5	230.1
75°	169.1	166.1	162.6	160.3	158.5	159.7	160.8	166.7	172.6	183.7	195.5
77.5°	130.9	127.4	125.0	124.4	123.3	123.9	126.8	131.5	137.4	145.6	155.0
80°	93.3	92.2	91.0	90.4	90.4	91.0	95.7	98.6	103.9	111.5	118.6
82.5°	61.6	61.0	61.0	61.0	61.6	61.6	64.0	68.1	72.2	77.5	83.4
85°	35.8	34.6	36.4	37.0	35.8	37.6	38.7	41.1	42.9	45.8	48.7
87.5°	14.7	15.8	15.3	15.8	15.8	17.0	16.4	18.8	20.0	21.1	20.5
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: P242804

CATALOG NUMBER: S125DR-S1270D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1383.0	1383.0	1383.0	1383.0
2.5°	1301.4	1305.5	1302.0	1306.7
5°	1214.5	1209.2	1212.8	1210.4
7.5°	1134.1	1129.4	1122.4	1120.0
10°	1059.6	1053.1	1052.5	1048.4
12.5°	1005.0	999.1	990.9	989.7
15°	953.9	949.2	945.1	948.6
17.5°	910.5	906.3	905.2	901.6
20°	869.9	867.0	868.2	860.6
22.5°	837.7	831.2	830.0	830.0
25°	803.6	800.7	797.7	800.7
27.5°	773.7	770.7	769.6	770.2
30°	746.7	740.8	741.4	740.8
32.5°	717.3	713.8	712.6	711.5
35°	688.6	688.6	685.6	685.6
37.5°	662.1	661.6	659.8	661.0
40°	631.6	631.0	629.3	625.8
42.5°	602.3	599.9	599.3	598.8
45°	571.2	571.2	570.0	569.4
47.5°	540.6	541.8	544.2	543.6
50°	513.6	514.2	516.0	516.6
52.5°	483.7	487.8	490.2	489.6
55°	456.1	460.2	464.3	464.9
57.5°	428.5	433.8	437.9	439.1
60°	400.3	408.0	413.3	415.6
62.5°	373.3	382.1	387.4	387.4
65°	343.4	352.2	356.9	360.4
67.5°	312.3	321.1	325.8	328.7
70°	277.7	286.5	293.5	295.9
72.5°	243.6	251.2	256.5	259.5
75°	203.1	213.7	219.0	221.9
77.5°	164.4	174.9	177.9	179.6
80°	125.6	131.5	135.6	136.2
82.5°	89.2	93.9	94.5	96.3
85°	52.8	55.2	55.8	55.2
87.5°	21.7	21.1	21.1	22.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)