

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: P333609

Luminaire Tested: **S125RDIP-S1090D1205U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333609  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8547.7 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

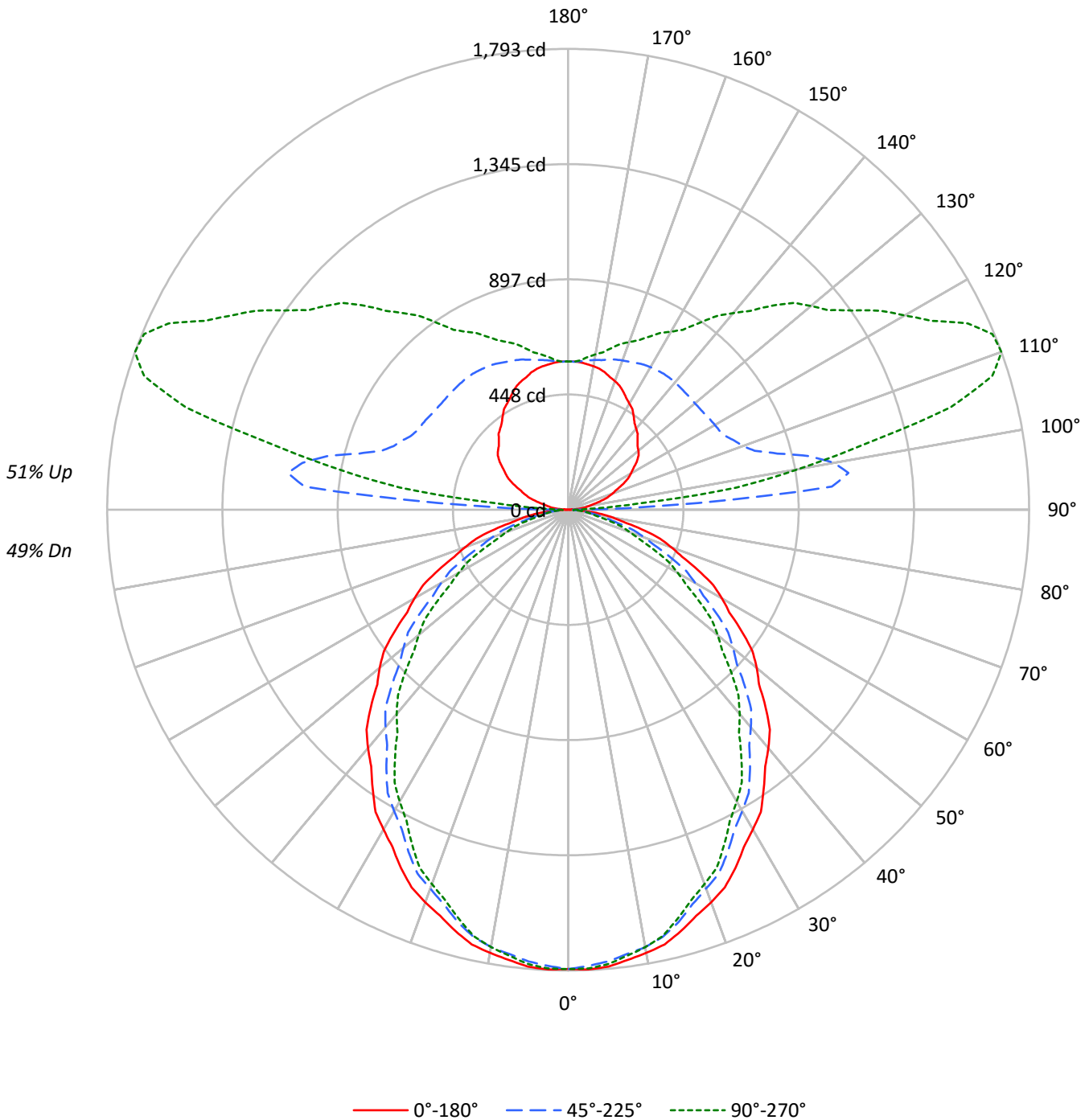
Input Watts (W): 65.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	98	94	90	86	90	86	83	80	73	71	69	61	59	58	49	48	47	42
2	89	82	76	71	82	76	71	66	64	60	57	54	51	48	44	42	40	36
3	82	72	65	59	75	67	61	56	57	52	48	48	44	41	39	37	34	30
4	75	64	56	50	69	59	53	47	51	45	41	43	39	35	35	32	30	26
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	32	29	26	23
6	63	51	43	38	58	48	41	35	41	35	31	35	30	27	29	26	23	20
7	59	46	38	33	54	43	36	31	37	32	28	32	27	24	26	23	21	18
8	54	42	34	29	50	39	32	28	34	28	25	29	25	21	24	21	18	16
9	51	38	31	26	47	36	29	25	31	26	22	27	22	19	22	19	17	15
10	47	35	28	23	44	33	27	22	29	23	20	25	20	18	21	18	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11544	11544	11544
5°	11570	11439	11509
10°	11482	11332	11332
15°	11346	11102	11012
20°	11171	10781	10652
25°	10967	10467	10236
30°	10712	10097	9775
35°	10452	9717	9260
40°	10209	9321	8752
45°	9913	8878	8199
50°	9616	8396	7623
55°	9272	7935	7007
60°	8928	7375	6347
65°	8520	6725	5590
70°	8055	5914	4817
75°	7411	4986	4007
80°	6527	3916	3362
85°	5498	3201	3001



TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	2.0
10°-20°	469.7	5.5
20°-30°	681.1	8.0
30°-40°	776.2	9.1
40°-50°	756.6	8.9
50°-60°	636.9	7.5
60°-70°	446.5	5.2
70°-80°	229.5	2.7
80°-90°	61.2	0.7
90°-100°	417.8	4.9
100°-110°	898.0	10.5
110°-120°	842.8	9.9
120°-130°	683.0	8.0
130°-140°	548.1	6.4
140°-150°	413.6	4.8
150°-160°	291.2	3.4
160°-170°	171.6	2.0
170°-180°	55.8	0.7
0°-30°	1318.9	15.4
0°-40°	2095.1	24.5
0°-60°	3488.6	40.8
0°-90°	4225.8	49.4
90°-120°	2158.6	25.3
90°-150°	3803.4	44.5
90°-180°	4322.0	50.6
0°-180°	8547.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1785	1779	1764	1777	1775	169
15°	1697	1688	1660	1659	1647	478
25°	1539	1517	1469	1451	1436	708
35°	1326	1292	1232	1194	1174	830
45°	1085	1044	972	920	898	837
55°	824	778	705	646	622	736
65°	558	510	440	388	366	552
75°	297	256	200	171	161	314
85°	74	51	43	42	40	83
90°	1	10	19	24	27	6
95°	38	113	1030	467	273	41
105°	131	184	842	1659	1540	138
115°	235	283	676	1458	1715	231
125°	325	381	648	1160	1351	289
135°	381	458	644	972	1122	296
145°	444	508	646	805	885	278
155°	507	545	630	712	742	233
165°	553	568	604	641	651	156
175°	575	575	580	587	584	55
180°	576	576	576	576	576	



TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1790.6	1789.9	1789.2	1788.4	1787.7	1786.2	1783.8	1781.4	1779.0	1776.6	1779.0
5°	1784.7	1783.5	1782.3	1781.1	1779.9	1777.6	1774.3	1771.0	1767.7	1764.4	1767.4
7.5°	1767.1	1766.0	1764.8	1763.7	1762.5	1760.0	1756.0	1752.1	1748.1	1744.2	1746.3
10°	1750.9	1750.0	1749.1	1748.2	1747.3	1744.8	1740.6	1736.4	1732.2	1728.0	1728.9
12.5°	1732.5	1731.4	1730.3	1729.1	1728.0	1724.6	1719.0	1713.3	1707.7	1702.0	1702.7
15°	1696.9	1695.1	1693.3	1691.5	1689.7	1685.7	1679.4	1673.1	1666.8	1660.5	1660.2
17.5°	1656.7	1653.9	1651.2	1648.4	1645.6	1640.3	1632.4	1624.5	1616.5	1608.6	1607.1
20°	1625.4	1622.4	1619.4	1616.4	1613.4	1607.1	1597.5	1587.9	1578.3	1568.7	1567.2
22.5°	1590.8	1587.8	1584.8	1581.8	1578.8	1572.3	1562.2	1552.1	1542.0	1531.9	1529.0
25°	1539.0	1534.5	1530.0	1525.5	1521.0	1513.2	1502.1	1491.0	1479.9	1468.8	1464.9
27.5°	1479.6	1474.1	1468.6	1463.2	1457.7	1449.1	1437.2	1425.3	1413.4	1401.5	1396.1
30°	1436.4	1430.7	1425.0	1419.3	1413.6	1404.4	1391.8	1379.2	1366.6	1354.0	1347.1
32.5°	1394.2	1387.6	1380.9	1374.3	1367.6	1357.9	1345.0	1332.2	1319.3	1306.5	1298.9
35°	1325.7	1318.5	1311.3	1304.1	1296.9	1286.5	1273.0	1259.5	1246.0	1232.5	1223.8
37.5°	1258.4	1249.7	1240.9	1232.2	1223.4	1212.1	1198.1	1184.2	1170.3	1156.4	1145.9
40°	1210.9	1201.9	1192.9	1183.9	1174.9	1163.2	1148.8	1134.4	1120.0	1105.6	1094.2
42.5°	1161.2	1152.0	1142.8	1133.5	1124.3	1112.2	1097.3	1082.5	1067.6	1052.7	1041.8
45°	1085.4	1076.7	1068.0	1059.3	1050.6	1038.0	1021.5	1005.0	988.5	972.0	960.0
47.5°	1006.8	997.6	988.4	979.3	970.1	957.2	940.6	923.9	907.3	890.7	878.3
50°	957.1	947.2	937.3	927.4	917.5	904.0	886.9	869.8	852.7	835.6	823.0
52.5°	903.1	893.0	882.8	872.7	862.6	849.4	833.3	817.1	801.0	784.9	771.3
55°	823.5	813.9	804.3	794.7	785.1	771.9	755.1	738.3	721.5	704.7	691.2
57.5°	743.0	732.8	722.5	712.2	702.0	688.8	672.6	656.4	640.2	624.0	610.8
60°	691.2	680.7	670.2	659.7	649.2	635.8	619.6	603.4	587.2	571.0	557.8
62.5°	636.1	626.1	616.1	606.0	596.0	582.8	566.4	549.9	533.5	517.0	504.8
65°	557.5	547.3	537.1	526.9	516.7	503.7	487.8	471.9	456.0	440.1	428.1
67.5°	479.5	469.3	459.1	448.9	438.7	426.0	410.7	395.5	380.3	365.0	354.1
70°	426.6	416.4	406.2	396.0	385.8	373.2	358.2	343.2	328.2	313.2	303.9
72.5°	374.8	364.8	354.8	344.9	334.9	322.9	308.9	294.8	280.8	266.8	258.2
75°	297.0	288.0	279.0	270.0	261.0	250.2	237.6	225.0	212.4	199.8	193.2
77.5°	219.8	212.6	205.4	198.2	191.0	182.3	172.3	162.2	152.1	142.0	137.4
80°	175.5	168.3	161.1	153.9	146.7	138.9	130.5	122.1	113.7	105.3	102.6
82.5°	132.3	125.8	119.3	112.9	106.4	100.3	94.5	88.7	83.0	77.2	76.0
85°	74.2	68.8	63.4	58.0	52.6	49.2	47.7	46.2	44.7	43.2	42.9
87.5°	25.1	23.6	22.4	21.2	20.0	19.5	19.5	19.7	19.7	19.9	20.2
90°	1.2	2.3	4.6	7.0	9.3	11.6	12.8	15.1	16.3	18.6	19.8
92.5°	14.2	17.2	27.0	41.4	61.4	95.3	158.7	265.2	380.7	374.6	303.3
95°	38.3	39.5	48.8	61.6	87.1	139.4	263.8	519.4	840.1	1029.5	1007.4
97.5°	63.7	65.1	71.6	84.4	107.4	145.0	227.3	414.6	750.2	1099.4	1274.7
100°	81.3	83.7	88.3	101.1	123.2	158.0	225.4	376.5	669.3	1049.2	1339.7
102.5°	100.9	102.3	106.0	119.7	139.9	173.8	233.8	360.7	607.9	960.9	1300.7
105°	131.3	131.3	137.1	148.7	167.3	199.9	251.0	354.4	548.4	842.4	1175.9
107.5°	161.0	163.4	168.9	178.5	197.8	227.0	276.5	365.1	523.3	760.8	1048.6
110°	182.4	184.8	189.4	199.9	217.3	247.5	295.1	375.3	515.9	722.7	976.0



TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.8	206.1	209.8	220.3	237.7	267.0	312.8	388.3	515.9	700.4	922.1
115°	234.7	237.0	240.5	251.0	268.4	297.5	340.5	407.8	519.4	676.3	863.3
117.5°	262.6	266.1	269.8	280.3	300.0	328.1	368.8	430.2	527.1	664.4	828.2
120°	281.2	284.7	289.3	299.8	319.5	348.6	389.3	445.0	534.5	658.8	808.7
122.5°	300.7	303.3	307.0	317.4	339.1	368.1	408.8	461.8	541.0	654.2	792.0
125°	325.3	327.7	333.5	343.9	366.0	396.2	434.6	484.5	551.9	648.4	769.2
127.5°	344.6	348.1	355.6	368.8	392.3	422.5	459.4	505.5	564.2	645.6	748.3
130°	356.7	360.2	369.5	384.6	409.0	439.2	475.2	519.4	571.7	643.7	734.4
132.5°	366.0	370.4	381.6	398.6	423.9	454.1	490.1	531.5	580.0	643.7	723.2
135°	381.1	385.8	399.7	418.3	442.7	474.1	510.1	548.4	591.4	643.7	710.0
137.5°	400.2	403.7	416.7	435.3	459.2	491.5	524.3	561.0	601.9	645.1	698.1
140°	411.3	414.8	428.8	447.4	469.4	500.8	534.5	569.4	606.5	646.0	692.5
142.5°	424.3	426.9	439.9	458.5	479.7	509.2	541.0	574.0	609.3	647.0	687.9
145°	443.9	446.2	457.8	474.1	495.0	521.7	551.9	581.0	612.4	646.0	680.9
147.5°	464.3	465.7	475.7	490.8	508.9	532.4	558.9	585.2	613.5	643.0	673.7
150°	476.4	478.7	486.9	502.0	518.2	538.0	563.5	588.0	613.5	640.2	668.1
152.5°	489.4	490.8	498.0	511.3	526.6	544.5	568.2	589.8	612.6	636.5	661.6
155°	506.6	506.6	513.6	525.2	536.8	553.1	572.8	591.4	610.0	629.8	650.7
157.5°	522.0	521.7	527.3	537.3	547.5	559.8	576.8	592.6	607.0	622.8	640.5
160°	532.2	531.0	535.7	543.8	553.1	563.5	578.7	592.6	604.2	618.2	632.1
162.5°	540.5	539.4	544.0	551.2	558.7	567.3	580.5	591.7	601.4	612.6	624.7
165°	553.1	550.8	554.3	560.1	564.7	571.7	581.0	590.3	597.2	604.2	613.5
167.5°	561.5	560.3	562.4	565.6	568.9	573.3	581.0	587.5	590.7	596.1	602.6
170°	567.0	565.9	567.0	569.4	571.7	575.2	581.0	585.6	588.0	591.4	596.1
172.5°	570.8	568.7	569.8	572.1	573.5	575.2	580.0	583.8	584.2	585.9	589.6
175°	575.2	572.8	574.0	575.2	575.2	575.2	578.7	581.0	579.8	579.8	581.0
177.5°	577.3	575.4	575.4	576.3	575.4	575.4	577.3	578.2	576.3	576.3	577.3
180°	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3



TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1781.4	1783.8	1786.2	1787.2	1787.0	1786.8	1786.5	1786.3
5°	1770.4	1773.4	1776.4	1777.6	1777.0	1776.4	1775.8	1775.2
7.5°	1748.4	1750.5	1752.6	1753.3	1752.6	1752.0	1751.3	1750.6
10°	1729.8	1730.7	1731.6	1731.6	1730.7	1729.8	1728.9	1728.0
12.5°	1703.4	1704.0	1704.7	1704.3	1702.9	1701.6	1700.2	1698.8
15°	1659.9	1659.6	1659.3	1657.8	1655.1	1652.4	1649.7	1647.0
17.5°	1605.6	1604.1	1602.6	1600.8	1598.5	1596.3	1594.1	1591.9
20°	1565.7	1564.2	1562.7	1560.6	1557.9	1555.2	1552.5	1549.8
22.5°	1526.1	1523.1	1520.2	1517.6	1515.4	1513.2	1510.9	1508.7
25°	1461.0	1457.1	1453.2	1449.6	1446.3	1443.0	1439.7	1436.4
27.5°	1390.6	1385.2	1379.7	1375.4	1372.2	1369.0	1365.8	1362.7
30°	1340.2	1333.3	1326.4	1321.6	1318.9	1316.2	1313.5	1310.8
32.5°	1291.3	1283.6	1276.0	1270.5	1267.1	1263.7	1260.2	1256.8
35°	1215.1	1206.4	1197.7	1191.3	1187.1	1182.9	1178.7	1174.5
37.5°	1135.5	1125.1	1114.6	1107.4	1103.3	1099.2	1095.1	1091.0
40°	1082.8	1071.4	1060.0	1052.5	1048.9	1045.3	1041.7	1038.1
42.5°	1030.9	1019.9	1009.0	1000.9	995.6	990.4	985.1	979.8
45°	948.0	936.0	924.0	915.7	911.2	906.7	902.2	897.7
47.5°	866.0	853.6	841.3	832.6	827.6	822.6	817.7	812.7
50°	810.4	797.8	785.2	776.7	772.2	767.7	763.2	758.7
52.5°	757.8	744.2	730.6	721.6	717.1	712.6	708.1	703.6
55°	677.7	664.2	650.7	641.5	636.7	631.9	627.1	622.3
57.5°	597.6	584.4	571.2	562.4	558.2	553.9	549.6	545.4
60°	544.6	531.4	518.2	509.4	504.9	500.4	495.9	491.4
62.5°	492.6	480.3	468.1	459.7	455.2	450.7	446.2	441.7
65°	416.1	404.1	392.1	383.8	379.3	374.8	370.3	365.8
67.5°	343.1	332.1	321.1	313.8	310.2	306.6	303.0	299.4
70°	294.6	285.3	276.0	269.5	265.9	262.3	258.7	255.1
72.5°	249.6	241.0	232.4	226.9	224.5	222.1	219.7	217.3
75°	186.6	180.0	173.4	169.0	166.9	164.8	162.7	160.6
77.5°	132.8	128.2	123.5	120.4	118.9	117.3	115.8	114.2
80°	99.9	97.2	94.5	92.8	92.2	91.6	91.0	90.4
82.5°	74.7	73.4	72.2	71.4	71.0	70.6	70.3	69.9
85°	42.6	42.3	42.0	41.7	41.4	41.1	40.8	40.5
87.5°	20.4	20.6	20.8	21.2	21.0	20.7	20.7	20.5
90°	20.9	22.1	23.2	25.6	25.6	25.6	26.7	26.7
92.5°	205.9	149.4	112.5	95.3	80.4	77.6	76.0	74.1
95°	835.4	658.8	515.9	418.3	335.8	300.9	291.7	273.1
97.5°	1244.2	1120.4	981.2	845.4	773.6	708.6	674.9	660.0
100°	1429.2	1372.3	1252.6	1131.7	1051.6	967.9	924.9	906.3
102.5°	1491.5	1526.6	1469.2	1387.4	1301.6	1242.1	1195.4	1181.5
105°	1454.8	1614.0	1665.1	1652.3	1615.1	1576.8	1553.5	1539.6
107.5°	1323.7	1536.1	1667.4	1728.1	1746.9	1746.7	1739.0	1729.7
110°	1227.0	1447.8	1611.6	1710.4	1762.7	1784.8	1792.9	1792.9





TEST NUMBER: P333609

CATALOG NUMBER: S125RDIP-S1090D1205U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1150.8	1360.4	1526.1	1642.5	1719.0	1756.9	1777.1	1785.5
115°	1055.1	1235.2	1394.3	1521.0	1611.6	1667.4	1699.9	1715.0
117.5°	993.2	1148.5	1285.6	1401.8	1492.4	1550.1	1582.4	1591.6
120°	959.8	1099.2	1227.0	1329.3	1415.3	1471.0	1502.4	1511.7
122.5°	934.7	1063.9	1177.8	1273.5	1350.2	1401.3	1432.7	1441.1
125°	898.2	1016.7	1117.8	1201.5	1266.5	1314.2	1339.7	1351.4
127.5°	861.0	971.6	1066.0	1144.3	1203.3	1245.4	1269.6	1274.7
130°	837.8	940.0	1030.7	1106.2	1164.3	1202.6	1225.9	1232.8
132.5°	814.5	910.3	992.5	1065.3	1123.4	1161.7	1183.1	1191.0
135°	784.3	864.5	938.9	1005.1	1056.2	1094.6	1115.5	1122.5
137.5°	758.8	823.6	885.4	941.7	987.4	1022.3	1041.6	1049.2
140°	744.8	799.4	852.9	901.7	944.7	974.9	992.3	998.1
142.5°	732.7	779.0	825.0	867.3	903.8	929.3	945.8	950.7
145°	716.9	752.9	789.0	820.3	848.2	868.0	880.8	885.4
147.5°	702.1	731.3	759.0	782.7	804.8	820.6	828.0	830.1
150°	693.7	719.3	741.3	762.2	779.7	793.6	798.3	799.4
152.5°	684.4	707.2	727.4	743.7	758.3	769.4	774.1	775.3
155°	670.4	689.0	705.3	718.1	729.7	737.8	741.3	742.5
157.5°	656.5	671.8	684.4	694.4	703.4	710.2	713.4	713.2
160°	647.2	658.8	670.4	678.6	686.7	692.5	694.9	693.7
162.5°	637.0	647.7	657.4	664.6	670.9	675.8	676.3	676.0
165°	622.8	630.9	637.9	643.7	648.4	650.7	650.7	650.7
167.5°	609.3	614.7	620.0	624.2	626.5	628.6	627.7	627.5
170°	601.9	605.4	608.9	611.2	613.5	614.7	614.7	613.5
172.5°	593.5	597.0	599.6	601.0	601.4	603.5	601.7	600.5
175°	584.5	584.5	586.8	586.8	586.8	588.0	585.6	584.5
177.5°	578.2	579.1	579.1	579.1	578.2	579.1	576.3	576.3
180°	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3

(END OF REPORT)