

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: P333738-930

Luminaire Tested: **S125RDIW-S1270D1560U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333738-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-S1270D1560U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9063.7 lumens  
Efficiency: N/A  
Efficacy: 109.3 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

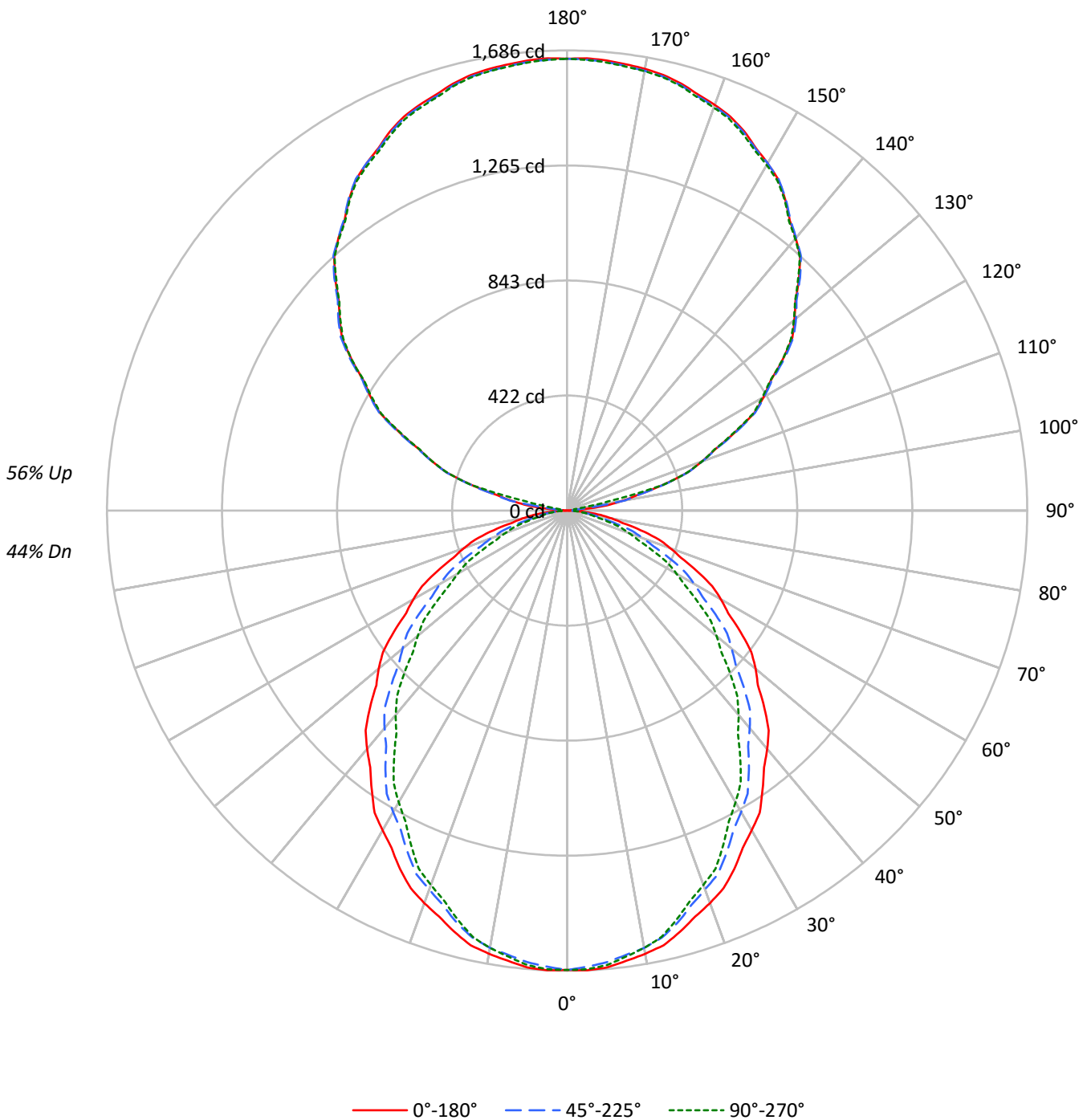
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	92	89	85	88	85	82	79	70	68	66	57	56	54	45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	40	38	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	35	33	31	27
4	74	63	55	49	67	58	51	46	49	44	40	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	40	44	38	34	36	32	29	29	26	24	20
6	62	50	43	37	57	47	40	34	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16
8	53	41	34	29	49	38	32	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13
10	46	35	28	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

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

	0°	45°	90°
0°	10869	10869	10869
5°	10895	10771	10836
10°	10812	10670	10670
15°	10683	10454	10369
20°	10519	10152	10030
25°	10326	9855	9638
30°	10086	9508	9205
35°	9842	9150	8719
40°	9613	8777	8241
45°	9334	8360	7721
50°	9055	7905	7178
55°	8731	7472	6598
60°	8407	6945	5977
65°	8023	6333	5265
70°	7585	5569	4538
75°	6977	4694	3773
80°	6148	3686	3169
85°	5187	3016	2831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.3	1.7
10°-20°	442.3	4.9
20°-30°	641.3	7.1
30°-40°	730.9	8.1
40°-50°	712.5	7.9
50°-60°	599.7	6.6
60°-70°	420.4	4.6
70°-80°	216.1	2.4
80°-90°	58.0	0.6
90°-100°	60.2	0.7
100°-110°	370.8	4.1
110°-120°	672.5	7.4
120°-130°	863.1	9.5
130°-140°	928.3	10.2
140°-150°	871.4	9.6
150°-160°	704.9	7.8
160°-170°	455.9	5.0
170°-180°	157.2	1.7
0°-30°	1241.9	13.7
0°-40°	1972.8	21.8
0°-60°	3284.9	36.2
0°-90°	3979.4	43.9
90°-120°	1103.5	12.2
90°-150°	3766.2	41.6
90°-180°	5084.0	56.1
0°-180°	9063.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1683	1683	1683	1683	1683	
5°	1680	1675	1661	1673	1672	159
15°	1598	1589	1564	1562	1551	450
25°	1449	1428	1383	1367	1352	666
35°	1248	1216	1161	1125	1106	781
45°	1022	983	915	866	845	788
55°	775	733	664	608	586	693
65°	525	480	414	365	344	520
75°	280	241	188	161	151	296
85°	70	48	41	39	38	79
90°	1	11	20	26	29	6
95°	70	64	20	25	26	89
105°	361	365	366	366	364	383
115°	678	683	685	680	672	671
125°	963	972	972	967	963	860
135°	1202	1208	1206	1204	1197	926
145°	1393	1395	1396	1396	1389	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0
2.5°	1686.0	1685.4	1684.7	1684.0	1683.3	1681.9	1679.6	1677.3	1675.1	1672.8	1675.1
5°	1680.5	1679.4	1678.2	1677.1	1675.9	1673.8	1670.7	1667.6	1664.5	1661.4	1664.2
7.5°	1663.9	1662.9	1661.8	1660.7	1659.6	1657.3	1653.5	1649.8	1646.1	1642.3	1644.3
10°	1648.7	1647.8	1647.0	1646.2	1645.3	1642.9	1638.9	1635.0	1631.0	1627.1	1627.9
12.5°	1631.4	1630.4	1629.2	1628.2	1627.1	1623.9	1618.6	1613.3	1607.9	1602.6	1603.3
15°	1597.8	1596.1	1594.5	1592.8	1591.1	1587.2	1581.3	1575.4	1569.5	1563.5	1563.3
17.5°	1559.9	1557.4	1554.8	1552.2	1549.6	1544.5	1537.1	1529.6	1522.2	1514.7	1513.3
20°	1530.5	1527.6	1524.8	1522.0	1519.1	1513.2	1504.2	1495.2	1486.1	1477.1	1475.7
22.5°	1497.9	1495.1	1492.2	1489.5	1486.6	1480.5	1471.0	1461.5	1452.0	1442.5	1439.7
25°	1449.1	1444.9	1440.6	1436.4	1432.2	1424.8	1414.4	1403.9	1393.4	1383.0	1379.3
27.5°	1393.2	1388.0	1382.9	1377.8	1372.6	1364.5	1353.2	1342.1	1330.9	1319.7	1314.6
30°	1352.5	1347.1	1341.7	1336.4	1331.1	1322.4	1310.5	1298.7	1286.8	1275.0	1268.4
32.5°	1312.9	1306.6	1300.3	1294.0	1287.8	1278.6	1266.5	1254.4	1242.3	1230.2	1223.0
35°	1248.3	1241.5	1234.7	1227.9	1221.2	1211.4	1198.7	1186.0	1173.3	1160.6	1152.3
37.5°	1185.0	1176.7	1168.5	1160.3	1151.9	1141.3	1128.2	1115.1	1102.0	1088.8	1079.0
40°	1140.2	1131.7	1123.2	1114.8	1106.4	1095.3	1081.7	1068.2	1054.6	1041.1	1030.4
42.5°	1093.5	1084.8	1076.0	1067.3	1058.7	1047.3	1033.3	1019.3	1005.3	991.2	981.0
45°	1022.0	1013.8	1005.6	997.4	989.2	977.4	961.8	946.3	930.7	915.3	903.9
47.5°	948.0	939.4	930.7	922.1	913.5	901.3	885.7	870.0	854.4	838.7	827.0
50°	901.2	891.9	882.6	873.3	864.0	851.3	835.1	819.0	802.9	786.8	774.9
52.5°	850.4	840.8	831.3	821.7	812.2	799.8	784.6	769.5	754.2	739.1	726.3
55°	775.4	766.4	757.3	748.3	739.2	726.8	711.0	695.2	679.4	663.6	650.9
57.5°	699.6	690.0	680.3	670.7	661.0	648.6	633.3	618.0	602.8	587.5	575.1
60°	650.9	640.9	631.0	621.2	611.3	598.7	583.4	568.2	552.9	537.7	525.3
62.5°	599.0	589.5	580.1	570.6	561.3	548.8	533.3	517.8	502.3	486.8	475.3
65°	525.0	515.4	505.8	496.2	486.6	474.3	459.3	444.3	429.3	414.4	403.1
67.5°	451.5	441.9	432.3	422.7	413.1	401.1	386.8	372.4	358.1	343.7	333.4
70°	401.7	392.1	382.5	372.8	363.3	351.4	337.3	323.2	309.0	294.9	286.2
72.5°	352.9	343.5	334.1	324.7	315.4	304.0	290.8	277.6	264.4	251.2	243.1
75°	279.6	271.2	262.7	254.2	245.7	235.6	223.7	211.9	200.0	188.1	181.9
77.5°	206.9	200.2	193.4	186.6	179.9	171.7	162.2	152.7	143.2	133.7	129.4
80°	165.3	158.5	151.7	144.9	138.1	130.8	122.9	115.0	107.0	99.1	96.6
82.5°	124.6	118.5	112.3	106.2	100.2	94.4	88.9	83.6	78.1	72.7	71.5
85°	70.0	64.8	59.8	54.6	49.6	46.3	44.9	43.5	42.1	40.7	40.4
87.5°	23.6	22.5	21.4	20.2	19.1	18.6	18.8	18.8	19.0	19.2	19.5
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.8	17.7	19.6	21.0
92.5°	18.9	17.4	15.8	14.3	12.8	12.9	14.6	16.2	17.9	19.6	21.0
95°	70.0	69.1	68.3	67.5	66.7	61.1	50.7	40.4	30.0	19.6	21.0
97.5°	146.0	147.5	149.0	150.5	152.0	142.4	121.9	101.4	80.9	60.4	52.7
100°	205.0	205.8	206.6	207.4	208.2	209.2	210.3	211.4	212.5	213.5	172.9
102.5°	264.9	265.9	266.9	268.0	269.0	269.9	270.5	271.2	271.8	272.5	264.8
105°	360.9	361.9	363.1	364.1	365.2	365.7	365.7	365.7	365.7	365.7	365.7
107.5°	460.5	460.5	460.5	460.5	460.5	460.7	461.3	461.9	462.4	462.9	463.0
110°	525.3	525.3	525.3	525.3	525.3	525.5	526.1	526.7	527.2	527.7	526.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	586.2	586.9	587.5	588.2	588.8	589.3	589.6	590.0	590.3	590.6	589.5
115°	677.5	678.8	680.2	681.6	682.9	683.7	684.0	684.3	684.6	684.9	683.7
117.5°	772.0	771.9	771.8	771.8	771.8	772.3	773.3	774.3	775.3	776.4	774.9
120°	830.9	830.6	830.4	830.1	829.8	830.1	830.9	831.7	832.5	833.3	832.8
122.5°	883.0	883.9	885.0	886.1	887.0	887.8	888.2	888.5	888.9	889.3	888.8
125°	963.4	965.3	967.3	969.1	971.1	972.0	972.0	972.0	972.0	972.0	970.9
127.5°	1040.2	1041.6	1043.0	1044.4	1045.7	1046.4	1046.2	1046.0	1045.9	1045.7	1045.1
130°	1087.4	1088.8	1090.1	1091.5	1092.8	1093.6	1094.0	1094.2	1094.5	1094.8	1094.0
132.5°	1134.5	1136.1	1137.7	1139.3	1140.8	1141.3	1140.8	1140.1	1139.5	1139.0	1138.8
135°	1201.5	1203.1	1204.8	1206.5	1208.1	1208.6	1208.1	1207.5	1207.0	1206.5	1205.9
137.5°	1263.1	1264.5	1266.0	1267.4	1268.9	1269.3	1268.8	1268.3	1267.8	1267.3	1267.5
140°	1303.4	1304.0	1304.5	1305.0	1305.6	1305.7	1305.5	1305.2	1304.9	1304.6	1305.2
142.5°	1339.7	1340.0	1340.4	1340.7	1341.0	1341.4	1341.8	1342.1	1342.6	1343.0	1343.0
145°	1393.0	1393.5	1394.1	1394.7	1395.2	1395.5	1395.5	1395.5	1395.5	1395.5	1395.7
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.0
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0
2.5°	1677.3	1679.6	1681.9	1682.9	1682.7	1682.5	1682.2	1682.0
5°	1667.0	1669.9	1672.7	1673.8	1673.2	1672.7	1672.1	1671.5
7.5°	1646.3	1648.3	1650.2	1650.9	1650.2	1649.7	1649.0	1648.5
10°	1628.7	1629.6	1630.4	1630.4	1629.6	1628.7	1627.9	1627.1
12.5°	1603.9	1604.5	1605.2	1604.8	1603.5	1602.2	1600.9	1599.6
15°	1562.9	1562.7	1562.4	1561.0	1558.4	1555.9	1553.3	1550.8
17.5°	1511.9	1510.4	1509.0	1507.3	1505.2	1503.1	1501.0	1498.9
20°	1474.2	1472.8	1471.5	1469.4	1466.9	1464.4	1461.8	1459.3
22.5°	1437.0	1434.2	1431.4	1429.0	1426.9	1424.8	1422.7	1420.7
25°	1375.7	1372.0	1368.3	1364.9	1361.8	1358.7	1355.6	1352.5
27.5°	1309.5	1304.3	1299.2	1295.1	1292.1	1289.1	1286.1	1283.1
30°	1262.0	1255.5	1249.0	1244.5	1241.9	1239.3	1236.8	1234.3
32.5°	1215.9	1208.7	1201.5	1196.3	1193.1	1189.8	1186.7	1183.4
35°	1144.2	1136.0	1127.8	1121.7	1117.8	1113.8	1109.9	1105.9
37.5°	1069.2	1059.4	1049.5	1042.7	1038.9	1035.0	1031.2	1027.4
40°	1019.6	1008.9	998.2	991.1	987.7	984.3	980.9	977.5
42.5°	970.7	960.4	950.1	942.5	937.5	932.5	927.6	922.6
45°	892.6	881.3	870.0	862.3	858.0	853.8	849.5	845.3
47.5°	815.5	803.8	792.1	784.0	779.3	774.6	769.9	765.2
50°	763.1	751.2	739.4	731.3	727.1	722.8	718.6	714.4
52.5°	713.5	700.7	687.9	679.5	675.2	671.0	666.8	662.5
55°	638.1	625.4	612.7	604.1	599.6	595.0	590.5	586.0
57.5°	562.6	550.2	537.8	529.6	525.5	521.5	517.6	513.6
60°	512.8	500.4	488.0	479.6	475.4	471.2	466.9	462.7
62.5°	463.8	452.2	440.8	432.8	428.6	424.4	420.1	415.9
65°	391.8	380.5	369.2	361.4	357.2	352.9	348.7	344.5
67.5°	323.0	312.7	302.4	295.5	292.1	288.7	285.4	281.9
70°	277.4	268.6	259.9	253.8	250.4	247.0	243.6	240.3
72.5°	235.1	227.0	218.8	213.7	211.4	209.2	206.9	204.6
75°	175.7	169.5	163.3	159.1	157.2	155.2	153.3	151.2
77.5°	125.0	120.7	116.3	113.4	111.9	110.5	109.0	107.5
80°	94.1	91.6	88.9	87.4	86.8	86.3	85.8	85.2
82.5°	70.4	69.1	68.0	67.2	66.9	66.5	66.2	65.9
85°	40.1	39.9	39.5	39.3	39.0	38.7	38.4	38.2
87.5°	19.7	20.0	20.3	20.4	20.3	20.2	20.2	20.1
90°	22.3	23.7	25.1	26.2	27.0	27.8	28.6	29.4
92.5°	22.3	23.7	25.1	25.9	26.3	26.7	27.1	27.5
95°	22.3	23.7	25.1	25.8	25.8	25.8	25.8	25.8
97.5°	45.0	37.3	29.6	25.8	25.8	25.8	25.8	25.8
100°	132.2	91.6	51.0	30.2	29.0	28.0	26.9	25.8
102.5°	257.1	249.4	241.7	228.6	210.0	191.5	172.9	154.4
105°	365.7	365.7	365.7	365.6	365.3	365.1	364.8	364.5
107.5°	463.1	463.1	463.2	462.8	461.9	461.1	460.3	459.5
110°	526.1	525.3	524.5	524.2	524.5	524.7	525.1	525.3





TEST NUMBER: P333738-930

CATALOG NUMBER: S125RDIW-S1270D1560U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	588.5	587.5	586.4	585.7	585.4	585.0	584.6	584.2
115°	682.7	681.6	680.4	679.1	677.5	675.8	674.2	672.5
117.5°	773.6	772.2	770.7	769.6	769.0	768.3	767.5	766.8
120°	832.3	831.7	831.2	830.2	828.8	827.4	826.1	824.8
122.5°	888.2	887.7	887.1	886.1	884.5	882.9	881.3	879.7
125°	969.9	968.7	967.7	966.7	965.9	965.1	964.3	963.4
127.5°	1044.5	1043.9	1043.3	1042.0	1039.9	1038.0	1035.9	1033.9
130°	1093.2	1092.3	1091.5	1090.4	1089.1	1087.7	1086.3	1084.9
132.5°	1138.6	1138.5	1138.3	1137.5	1136.2	1134.8	1133.4	1132.0
135°	1205.3	1204.8	1204.3	1203.1	1201.5	1199.9	1198.2	1196.6
137.5°	1267.5	1267.6	1267.8	1267.1	1265.7	1264.3	1262.8	1261.4
140°	1305.7	1306.3	1306.8	1306.3	1304.6	1303.0	1301.4	1299.8
142.5°	1343.1	1343.3	1343.4	1342.6	1340.9	1339.3	1337.7	1336.0
145°	1396.0	1396.3	1396.5	1395.9	1394.2	1392.6	1391.0	1389.4
147.5°	1441.3	1441.6	1441.9	1441.1	1439.2	1437.2	1435.3	1433.3
150°	1470.1	1470.7	1471.3	1470.5	1468.3	1466.1	1464.0	1461.8
152.5°	1495.7	1496.2	1496.8	1496.1	1494.1	1492.2	1490.2	1488.2
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)