

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: P333621-930

Luminaire Tested: **S125RDIP-S1270D590U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333621-930  
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-S1270D590U930-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5707.2 lumens  
Efficiency: N/A  
Efficacy: 103.6 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: Semi-Direct

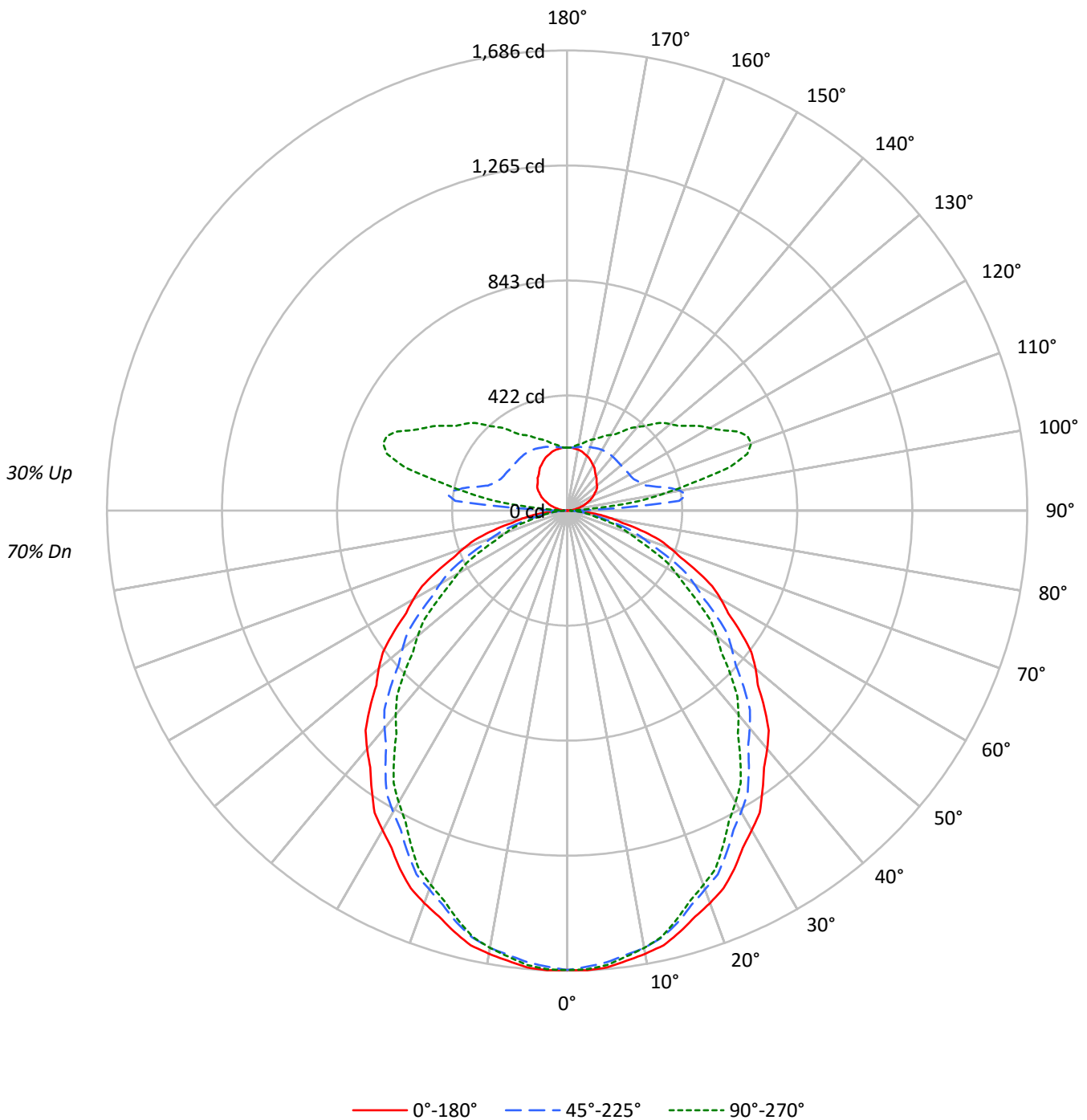
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	103	98	94	91	97	93	90	86	83	81	78	74	72	71	66	65	63	59
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	59	56	54	50
3	86	76	69	63	81	72	65	60	65	60	55	58	54	51	52	49	46	43
4	79	68	59	53	74	64	57	51	58	52	47	52	47	44	47	43	40	37
5	72	60	52	46	68	58	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	43	37	34	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	58	45	37	32	54	43	36	31	39	33	29	36	31	27	32	28	25	23
9	54	41	34	28	51	39	32	28	36	30	26	33	28	24	30	26	23	21
10	50	38	31	26	48	36	30	25	33	27	23	31	26	22	28	24	21	19

**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



TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.3	2.8
10°-20°	442.3	7.7
20°-30°	641.3	11.2
30°-40°	730.9	12.8
40°-50°	712.5	12.5
50°-60°	599.7	10.5
60°-70°	420.4	7.4
70°-80°	216.1	3.8
80°-90°	55.9	1.0
90°-100°	167.2	2.9
100°-110°	359.4	6.3
110°-120°	337.3	5.9
120°-130°	273.4	4.8
130°-140°	219.4	3.8
140°-150°	165.6	2.9
150°-160°	116.5	2.0
160°-170°	68.7	1.2
170°-180°	22.3	0.4
0°-30°	1241.9	21.8
0°-40°	1972.8	34.6
0°-60°	3284.9	57.6
0°-90°	3977.3	69.7
90°-120°	864.0	15.1
90°-150°	1522.3	26.7
90°-180°	1730.0	30.3
0°-180°	5707.2	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°	0	4	7	10	11	4
95°	15	45	412	187	109	16
105°	53	73	337	664	616	55
115°	94	113	271	583	686	92
125°	130	153	260	464	541	115
135°	152	183	258	389	449	118
145°	178	203	259	322	354	111
155°	203	218	252	285	297	93
165°	221	227	242	256	260	62
175°	230	230	232	235	234	22
180°	231	231	231	231	231	



TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

**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°	23.5	22.0	20.6	19.2	17.8	17.1	17.0	16.9	16.8	16.7	16.8
90°	0.5	0.9	1.9	2.8	3.8	4.6	5.1	6.0	6.5	7.4	7.9
92.5°	5.7	6.8	10.8	16.6	24.5	38.2	63.5	106.2	152.4	149.9	121.4
95°	15.3	15.8	19.6	24.6	34.9	55.8	105.6	207.9	336.2	412.1	403.2
97.5°	25.5	26.0	28.6	33.8	43.0	58.0	91.0	165.9	300.3	440.0	510.2
100°	32.5	33.5	35.4	40.4	49.3	63.3	90.3	150.7	267.9	420.0	536.2
102.5°	40.4	40.9	42.4	47.9	56.0	69.5	93.6	144.4	243.3	384.6	520.6
105°	52.6	52.6	54.9	59.5	66.9	80.0	100.4	141.9	219.5	337.2	470.7
107.5°	64.5	65.4	67.6	71.4	79.2	90.9	110.7	146.1	209.5	304.5	419.7
110°	73.1	73.9	75.8	80.0	87.0	99.1	118.1	150.2	206.5	289.3	390.7



TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	81.6	82.5	84.0	88.2	95.1	106.9	125.2	155.4	206.5	280.4	369.1
115°	93.9	94.9	96.3	100.4	107.5	119.0	136.2	163.2	207.9	270.7	345.5
117.5°	105.1	106.5	108.0	112.2	120.1	131.3	147.7	172.2	210.9	266.0	331.5
120°	112.5	114.0	115.8	120.0	127.9	139.5	155.8	178.1	213.9	263.7	323.7
122.5°	120.3	121.4	122.9	127.0	135.7	147.3	163.6	184.8	216.5	261.9	317.0
125°	130.2	131.2	133.5	137.6	146.5	158.6	173.9	194.0	220.9	259.5	307.9
127.5°	137.9	139.3	142.4	147.7	157.0	169.1	183.8	202.3	225.8	258.4	299.5
130°	142.8	144.1	147.9	153.9	163.7	175.8	190.2	207.9	228.9	257.6	293.9
132.5°	146.5	148.3	152.7	159.6	169.7	181.7	196.2	212.7	232.2	257.6	289.4
135°	152.5	154.4	160.0	167.5	177.2	189.7	204.2	219.5	236.7	257.6	284.1
137.5°	160.2	161.6	166.8	174.2	183.8	196.7	209.9	224.5	240.9	258.2	279.4
140°	164.6	166.0	171.6	179.0	187.9	200.5	213.9	227.9	242.8	258.6	277.2
142.5°	169.8	170.9	176.1	183.5	192.0	203.8	216.5	229.8	243.9	258.9	275.3
145°	177.7	178.6	183.2	189.7	198.1	208.8	220.9	232.5	245.1	258.6	272.6
147.5°	185.8	186.4	190.4	196.4	203.7	213.1	223.7	234.2	245.6	257.4	269.6
150°	190.7	191.6	194.9	200.9	207.4	215.3	225.6	235.3	245.6	256.2	267.4
152.5°	195.9	196.4	199.3	204.6	210.8	217.9	227.4	236.0	245.2	254.8	264.8
155°	202.8	202.8	205.5	210.2	214.8	221.4	229.3	236.7	244.2	252.1	260.4
157.5°	208.9	208.8	211.1	215.1	219.2	224.0	230.9	237.2	243.0	249.2	256.3
160°	213.0	212.5	214.4	217.7	221.4	225.6	231.6	237.2	241.8	247.4	253.0
162.5°	216.4	215.9	217.8	220.6	223.6	227.1	232.4	236.8	240.8	245.2	250.1
165°	221.4	220.5	221.8	224.1	226.0	228.9	232.5	236.3	239.0	241.8	245.6
167.5°	224.7	224.3	225.1	226.4	227.7	229.4	232.5	235.1	236.4	238.6	241.2
170°	227.0	226.5	227.0	227.9	228.9	230.2	232.5	234.4	235.3	236.7	238.6
172.5°	228.4	227.6	228.0	229.0	229.6	230.2	232.2	233.7	233.8	234.5	235.9
175°	230.2	229.3	229.8	230.2	230.2	230.2	231.6	232.5	232.0	232.0	232.5
177.5°	231.1	230.3	230.3	230.6	230.3	230.3	231.1	231.4	230.6	230.6	231.1
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6



TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

**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°	17.0	17.0	17.1	17.2	17.0	16.7	16.6	16.4
90°	8.4	8.8	9.3	10.2	10.2	10.2	10.7	10.7
92.5°	82.4	59.8	45.0	38.2	32.2	31.1	30.4	29.7
95°	334.4	263.7	206.5	167.5	134.4	120.4	116.8	109.3
97.5°	498.0	448.4	392.7	338.3	309.7	283.6	270.1	264.2
100°	572.0	549.3	501.3	453.0	420.9	387.4	370.2	362.7
102.5°	597.0	611.0	588.0	555.3	521.0	497.2	478.5	472.9
105°	582.3	646.0	666.4	661.3	646.5	631.1	621.8	616.2
107.5°	529.8	614.8	667.4	691.6	699.2	699.1	696.0	692.3
110°	491.1	579.5	645.1	684.6	705.5	714.4	717.6	717.6





TEST NUMBER: P333621-930

CATALOG NUMBER: S125RDIP-S1270D590U930-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	460.6	544.5	610.8	657.5	688.0	703.2	711.3	714.6
115°	422.2	494.4	558.1	608.8	645.1	667.4	680.4	686.5
117.5°	397.5	459.7	514.5	561.1	597.4	620.4	633.3	637.1
120°	384.2	439.9	491.1	532.1	566.5	588.8	601.4	605.0
122.5°	374.1	425.8	471.4	509.7	540.4	560.8	573.4	576.7
125°	359.5	406.9	447.4	480.9	507.0	526.0	536.2	540.9
127.5°	344.6	388.9	426.6	458.0	481.6	498.5	508.1	510.2
130°	335.3	376.3	412.5	442.7	466.0	481.4	490.6	493.4
132.5°	326.0	364.4	397.3	426.4	449.6	465.0	473.5	476.7
135°	313.9	346.0	375.8	402.3	422.7	438.1	446.5	449.2
137.5°	303.7	329.6	354.4	376.9	395.2	409.2	416.9	420.0
140°	298.1	320.0	341.4	360.9	378.1	390.2	397.1	399.5
142.5°	293.3	311.8	330.2	347.2	361.7	371.9	378.5	380.5
145°	287.0	301.3	315.8	328.3	339.5	347.4	352.5	354.4
147.5°	281.0	292.7	303.8	313.2	322.1	328.4	331.4	332.2
150°	277.6	287.9	296.7	305.1	312.1	317.6	319.5	320.0
152.5°	273.9	283.1	291.1	297.7	303.5	307.9	309.8	310.3
155°	268.3	275.8	282.3	287.4	292.0	295.3	296.7	297.2
157.5°	262.8	268.9	273.9	277.9	281.5	284.2	285.5	285.4
160°	259.0	263.7	268.3	271.6	274.8	277.2	278.1	277.6
162.5°	254.9	259.3	263.1	266.0	268.6	270.5	270.7	270.6
165°	249.2	252.5	255.4	257.6	259.5	260.4	260.4	260.4
167.5°	243.9	246.1	248.2	249.8	250.8	251.6	251.2	251.1
170°	240.9	242.3	243.7	244.6	245.6	246.1	246.1	245.6
172.5°	237.6	239.0	239.9	240.5	240.8	241.6	240.8	240.4
175°	233.9	233.9	234.9	234.9	234.9	235.3	234.4	233.9
177.5°	231.4	231.8	231.8	231.8	231.4	231.8	230.6	230.6
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6

(END OF REPORT)