

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: P333619-940

Luminaire Tested: **S125RDIP-S1270D590U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333619-940  
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: S125RDIP-S1270D590U940-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6457.6 lumens  
Efficiency: N/A  
Efficacy: 117.2 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

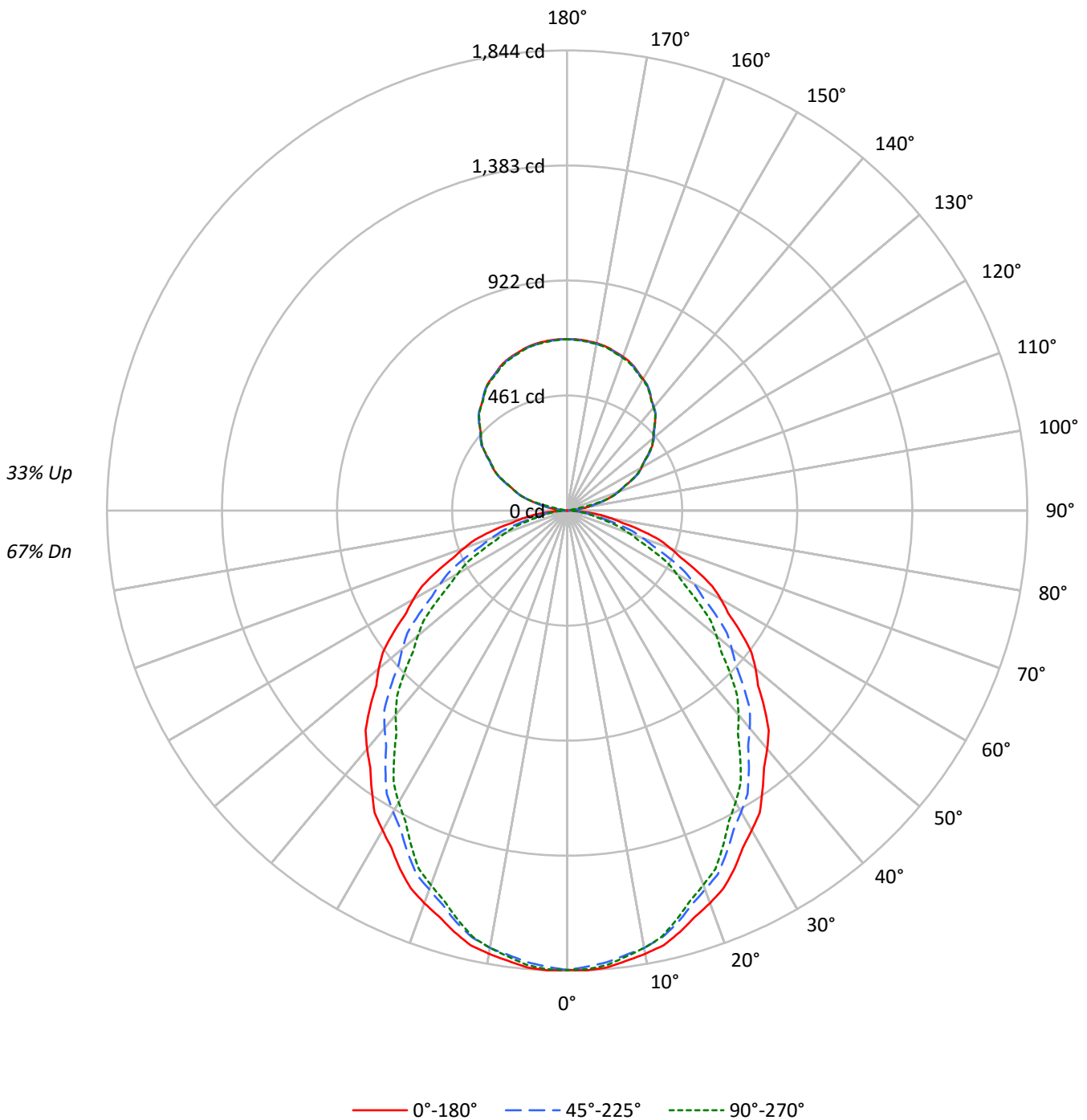
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	102	98	94	90	96	92	89	86	82	80	77	73	71	69	64	63	62
2	93	86	79	74	88	81	76	71	72	68	64	64	61	58	57	54	52
3	85	76	68	62	80	72	65	60	64	59	54	57	53	50	51	47	45
4	78	67	59	53	73	64	56	51	57	51	47	51	46	43	45	42	39
5	72	60	52	46	68	57	50	44	51	45	41	46	41	37	41	37	34
6	66	54	46	40	62	51	44	38	46	40	36	42	37	33	37	33	30
7	61	49	41	35	58	47	39	34	42	36	32	38	33	29	34	30	27
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	31	27	24
9	53	41	33	28	50	39	32	27	36	30	25	32	27	24	29	25	22
10	50	38	30	25	47	36	29	25	33	27	23	30	25	21	27	23	20

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

	0°	45°	90°
0°	11889	11889	11889
5°	11916	11780	11852
10°	11825	11671	11671
15°	11685	11433	11340
20°	11504	11103	10970
25°	11294	10779	10541
30°	11032	10399	10068
35°	10764	10008	9536
40°	10514	9599	9014
45°	10209	9143	8444
50°	9904	8647	7850
55°	9549	8172	7218
60°	9195	7596	6536
65°	8775	6927	5757
70°	8295	6090	4962
75°	7633	5133	4127
80°	6721	4032	3466
85°	5669	3298	3090



TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.1	2.7
10°-20°	483.7	7.5
20°-30°	701.4	10.9
30°-40°	799.4	12.4
40°-50°	779.2	12.1
50°-60°	655.9	10.2
60°-70°	459.8	7.1
70°-80°	236.3	3.7
80°-90°	61.1	0.9
90°-100°	24.9	0.4
100°-110°	153.7	2.4
110°-120°	278.8	4.3
120°-130°	357.8	5.5
130°-140°	384.8	6.0
140°-150°	361.2	5.6
150°-160°	292.2	4.5
160°-170°	189.0	2.9
170°-180°	65.2	1.0
0°-30°	1358.2	21.0
0°-40°	2157.6	33.4
0°-60°	3592.8	55.6
0°-90°	4350.1	67.4
90°-120°	457.4	7.1
90°-150°	1561.2	24.2
90°-180°	2108.0	32.6
0°-180°	6457.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1841	1841	1841	1841	1841	
5°	1838	1832	1817	1830	1828	174
15°	1748	1738	1710	1708	1696	492
25°	1585	1562	1513	1495	1479	729
35°	1365	1330	1269	1230	1210	854
45°	1118	1075	1001	947	924	862
55°	848	802	726	665	641	758
65°	574	525	453	400	377	569
75°	306	263	206	176	165	324
85°	76	52	44	43	42	86
90°	0	5	8	11	12	5
95°	29	26	8	11	11	37
105°	150	152	152	152	151	159
115°	281	283	284	282	279	278
125°	399	403	403	401	399	357
135°	498	501	500	499	496	384
145°	578	578	578	579	576	361
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8
2.5°	1844.1	1843.3	1842.5	1841.8	1841.1	1839.5	1837.0	1834.5	1832.1	1829.6	1832.1
5°	1838.0	1836.7	1835.5	1834.2	1833.0	1830.7	1827.3	1823.9	1820.5	1817.1	1820.2
7.5°	1819.9	1818.7	1817.6	1816.3	1815.2	1812.6	1808.5	1804.4	1800.4	1796.3	1798.4
10°	1803.2	1802.2	1801.3	1800.5	1799.5	1796.9	1792.5	1788.2	1783.9	1779.6	1780.5
12.5°	1784.3	1783.2	1781.9	1780.7	1779.6	1776.1	1770.3	1764.5	1758.6	1752.8	1753.5
15°	1747.6	1745.7	1743.9	1742.0	1740.2	1736.0	1729.5	1723.1	1716.5	1710.0	1709.8
17.5°	1706.1	1703.3	1700.5	1697.6	1694.8	1689.3	1681.1	1672.9	1664.8	1656.6	1655.1
20°	1673.9	1670.8	1667.7	1664.6	1661.5	1655.0	1645.2	1635.3	1625.4	1615.5	1614.0
22.5°	1638.3	1635.2	1632.1	1629.1	1625.9	1619.3	1608.8	1598.5	1588.0	1577.7	1574.7
25°	1584.9	1580.3	1575.7	1571.0	1566.4	1558.4	1546.9	1535.5	1524.0	1512.6	1508.6
27.5°	1523.8	1518.1	1512.5	1506.9	1501.3	1492.4	1480.1	1467.8	1455.6	1443.4	1437.8
30°	1479.3	1473.4	1467.5	1461.7	1455.8	1446.4	1433.3	1420.4	1407.4	1394.5	1387.3
32.5°	1435.9	1429.1	1422.2	1415.3	1408.5	1398.4	1385.2	1372.0	1358.7	1345.5	1337.7
35°	1365.3	1357.8	1350.4	1343.0	1335.6	1324.9	1311.0	1297.2	1283.3	1269.4	1260.3
37.5°	1296.0	1287.0	1278.0	1269.0	1259.9	1248.2	1233.9	1219.6	1205.2	1190.9	1180.2
40°	1247.1	1237.8	1228.5	1219.2	1210.1	1197.9	1183.1	1168.3	1153.4	1138.6	1126.9
42.5°	1196.0	1186.4	1176.9	1167.3	1157.9	1145.4	1130.2	1114.8	1099.5	1084.1	1072.9
45°	1117.8	1108.8	1099.8	1090.9	1081.9	1069.0	1052.0	1035.0	1018.0	1001.0	988.6
47.5°	1036.9	1027.4	1018.0	1008.5	999.1	985.8	968.7	951.5	934.4	917.3	904.6
50°	985.7	975.5	965.3	955.1	944.9	931.0	913.4	895.8	878.2	860.6	847.6
52.5°	930.1	919.6	909.2	898.8	888.3	874.8	858.2	841.6	824.9	808.3	794.3
55°	848.1	838.2	828.3	818.4	808.5	795.0	777.7	760.4	743.1	725.8	711.9
57.5°	765.2	754.7	744.0	733.5	722.9	709.4	692.7	675.9	659.2	642.6	629.0
60°	711.9	701.0	690.2	679.4	668.6	654.8	638.1	621.4	604.8	588.1	574.5
62.5°	655.1	644.8	634.5	624.1	613.9	600.2	583.3	566.3	549.4	532.4	519.9
65°	574.2	563.7	553.2	542.7	532.2	518.7	502.4	486.0	469.6	453.3	440.9
67.5°	493.8	483.3	472.8	462.4	451.8	438.7	423.0	407.3	391.6	375.9	364.6
70°	439.3	428.8	418.3	407.8	397.3	384.3	368.9	353.5	338.0	322.5	313.0
72.5°	385.9	375.7	365.4	355.2	344.9	332.5	318.1	303.6	289.2	274.7	265.9
75°	305.9	296.6	287.3	278.0	268.8	257.7	244.7	231.8	218.7	205.7	198.9
77.5°	226.3	218.9	211.5	204.1	196.7	187.8	177.4	167.0	156.7	146.2	141.5
80°	180.7	173.3	165.9	158.5	151.1	143.0	134.4	125.7	117.1	108.4	105.7
82.5°	136.3	129.6	122.9	116.2	109.6	103.3	97.3	91.4	85.4	79.5	78.2
85°	76.5	70.9	65.4	59.7	54.2	50.6	49.1	47.6	46.0	44.5	44.1
87.5°	25.7	24.2	22.6	21.0	19.5	18.6	18.5	18.5	18.4	18.3	18.5
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	7.8	7.2	6.6	6.0	5.3	5.4	6.1	6.8	7.4	8.1	8.7
95°	29.0	28.6	28.4	28.0	27.6	25.3	21.0	16.8	12.4	8.1	8.7
97.5°	60.5	61.2	61.8	62.3	63.0	59.0	50.6	42.0	33.5	25.1	21.8
100°	85.0	85.3	85.6	86.0	86.3	86.7	87.2	87.7	88.1	88.5	71.7
102.5°	109.8	110.2	110.7	111.1	111.5	111.8	112.1	112.4	112.7	113.0	109.8
105°	149.5	150.0	150.5	151.0	151.4	151.6	151.6	151.6	151.6	151.6	151.6
107.5°	190.9	190.9	190.9	190.9	190.9	191.0	191.2	191.5	191.7	191.9	191.9
110°	217.8	217.8	217.8	217.8	217.8	217.8	218.1	218.3	218.6	218.7	218.5



TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	243.0	243.3	243.5	243.8	244.1	244.2	244.4	244.5	244.7	244.8	244.4
115°	280.8	281.4	282.0	282.5	283.1	283.5	283.6	283.7	283.7	283.9	283.5
117.5°	320.0	319.9	319.9	319.9	319.9	320.1	320.6	321.0	321.4	321.8	321.3
120°	344.5	344.3	344.2	344.1	343.9	344.1	344.5	344.7	345.1	345.4	345.2
122.5°	366.0	366.4	366.8	367.3	367.7	368.0	368.2	368.4	368.5	368.6	368.5
125°	399.4	400.2	400.9	401.7	402.5	403.0	403.0	403.0	403.0	403.0	402.5
127.5°	431.2	431.8	432.4	432.9	433.5	433.7	433.6	433.6	433.5	433.5	433.2
130°	450.8	451.3	451.9	452.5	453.0	453.3	453.4	453.6	453.7	453.8	453.4
132.5°	470.3	470.9	471.6	472.3	472.9	473.1	472.9	472.6	472.3	472.2	472.1
135°	498.1	498.7	499.4	500.1	500.8	501.1	500.8	500.5	500.3	500.1	499.9
137.5°	523.6	524.2	524.8	525.4	525.9	526.2	525.9	525.8	525.6	525.3	525.4
140°	540.3	540.6	540.7	541.0	541.2	541.3	541.2	541.0	540.9	540.8	541.0
142.5°	555.4	555.5	555.6	555.8	555.9	556.1	556.2	556.3	556.5	556.7	556.7
145°	577.5	577.7	577.9	578.1	578.4	578.5	578.5	578.5	578.5	578.5	578.5
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.4
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8	1840.8
2.5°	1834.5	1837.0	1839.5	1840.6	1840.4	1840.1	1839.9	1839.6
5°	1823.3	1826.4	1829.4	1830.7	1830.1	1829.4	1828.8	1828.2
7.5°	1800.5	1802.8	1804.9	1805.6	1804.9	1804.3	1803.6	1803.0
10°	1781.4	1782.4	1783.2	1783.2	1782.4	1781.4	1780.5	1779.6
12.5°	1754.3	1754.9	1755.6	1755.2	1753.8	1752.4	1751.0	1749.5
15°	1709.4	1709.1	1708.8	1707.3	1704.5	1701.7	1698.9	1696.1
17.5°	1653.6	1652.0	1650.5	1648.6	1646.3	1644.0	1641.7	1639.4
20°	1612.4	1610.9	1609.4	1607.1	1604.4	1601.6	1598.8	1596.1
22.5°	1571.6	1568.6	1565.6	1562.9	1560.7	1558.4	1556.0	1553.8
25°	1504.6	1500.6	1496.6	1492.8	1489.4	1486.0	1482.6	1479.3
27.5°	1432.2	1426.6	1420.9	1416.5	1413.2	1409.9	1406.6	1403.4
30°	1380.3	1373.1	1366.0	1361.1	1358.3	1355.5	1352.7	1350.0
32.5°	1329.8	1322.0	1314.1	1308.4	1304.9	1301.4	1297.9	1294.3
35°	1251.4	1242.4	1233.5	1226.8	1222.5	1218.2	1213.9	1209.5
37.5°	1169.4	1158.7	1147.9	1140.4	1136.2	1132.0	1127.8	1123.6
40°	1115.2	1103.4	1091.7	1084.0	1080.2	1076.6	1072.8	1069.2
42.5°	1061.7	1050.4	1039.2	1030.8	1025.4	1019.9	1014.5	1009.1
45°	976.2	963.9	951.5	943.1	938.4	933.8	929.2	924.5
47.5°	891.9	879.1	866.4	857.5	852.3	847.2	842.0	837.0
50°	834.6	821.6	808.7	799.9	795.2	790.6	786.0	781.3
52.5°	780.3	766.4	752.4	743.2	738.5	733.9	729.2	724.6
55°	697.9	684.0	670.1	660.7	655.8	650.8	645.9	641.0
57.5°	615.4	601.8	588.2	579.3	574.8	570.4	566.1	561.7
60°	560.9	547.3	533.7	524.6	520.0	515.3	510.7	506.0
62.5°	507.3	494.6	482.1	473.4	468.8	464.1	459.5	454.9
65°	428.6	416.2	403.8	395.3	390.7	386.0	381.4	376.7
67.5°	353.3	342.0	330.7	323.2	319.5	315.8	312.1	308.4
70°	303.4	293.8	284.3	277.6	273.8	270.2	266.4	262.8
72.5°	257.1	248.3	239.3	233.7	231.2	228.8	226.3	223.8
75°	192.2	185.4	178.6	174.1	171.9	169.8	167.6	165.4
77.5°	136.7	132.0	127.2	124.0	122.4	120.8	119.2	117.6
80°	102.9	100.1	97.3	95.6	95.0	94.3	93.8	93.2
82.5°	77.0	75.6	74.4	73.5	73.1	72.8	72.4	72.1
85°	43.9	43.6	43.2	43.0	42.6	42.4	42.0	41.7
87.5°	18.5	18.6	18.7	18.7	18.5	18.4	18.2	18.0
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	9.3	9.8	10.4	10.8	10.9	11.1	11.2	11.4
95°	9.3	9.8	10.4	10.7	10.7	10.7	10.7	10.7
97.5°	18.6	15.4	12.3	10.7	10.7	10.7	10.7	10.7
100°	54.8	38.0	21.1	12.5	12.0	11.6	11.1	10.7
102.5°	106.6	103.3	100.2	94.8	87.0	79.4	71.7	64.0
105°	151.6	151.6	151.6	151.6	151.4	151.3	151.2	151.1
107.5°	192.0	192.0	192.0	191.8	191.5	191.2	190.8	190.5
110°	218.1	217.8	217.4	217.3	217.4	217.5	217.7	217.8





TEST NUMBER: P333619-940

CATALOG NUMBER: S125RDIP-S1270D590U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	244.0	243.5	243.1	242.8	242.6	242.5	242.4	242.2
115°	282.9	282.5	282.0	281.5	280.8	280.2	279.5	278.8
117.5°	320.7	320.0	319.5	319.1	318.8	318.4	318.2	317.9
120°	345.0	344.7	344.6	344.1	343.6	343.0	342.4	341.9
122.5°	368.2	368.0	367.7	367.3	366.7	366.0	365.3	364.7
125°	402.1	401.5	401.1	400.7	400.4	400.0	399.8	399.4
127.5°	432.9	432.7	432.5	431.9	431.1	430.3	429.4	428.6
130°	453.2	452.8	452.5	452.0	451.5	450.8	450.3	449.8
132.5°	472.0	471.9	471.9	471.5	471.0	470.4	469.8	469.3
135°	499.6	499.4	499.2	498.7	498.1	497.4	496.7	496.1
137.5°	525.4	525.5	525.5	525.2	524.7	524.1	523.5	522.9
140°	541.3	541.4	541.7	541.4	540.8	540.1	539.5	538.8
142.5°	556.8	556.8	556.9	556.5	555.9	555.2	554.5	553.8
145°	578.7	578.8	578.9	578.6	577.9	577.3	576.6	575.9
147.5°	597.4	597.6	597.7	597.4	596.6	595.8	594.9	594.1
150°	609.4	609.7	609.8	609.6	608.7	607.7	606.8	605.9
152.5°	620.0	620.3	620.5	620.2	619.4	618.6	617.7	616.9
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)