

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: P333625-940

Luminaire Tested: **S125RDIP-S1270D810U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333625-940  
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-S1270D810U940-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7239.4 lumens  
Efficiency: N/A  
Efficacy: 119.3 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: Semi-Direct

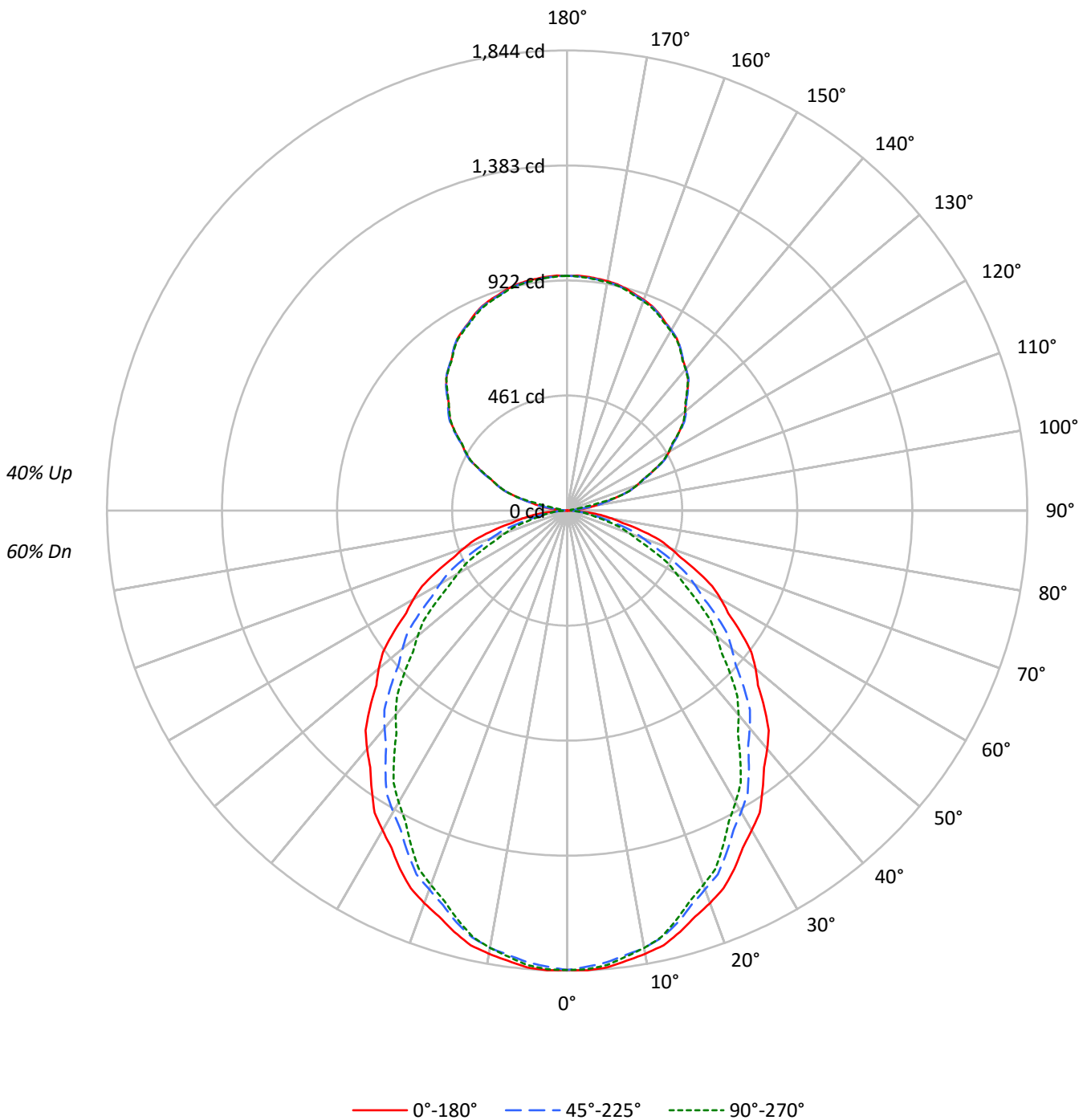
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65
1	100	96	92	89	94	90	87	84	78	76	74	68	66	64	58	57	56
2	92	84	78	73	85	79	74	69	69	65	61	60	57	54	52	49	47
3	84	74	67	61	78	70	63	58	61	56	52	53	49	46	46	43	41
4	77	66	58	52	71	62	55	49	54	49	45	48	43	40	41	38	35
5	71	59	51	45	66	55	48	43	49	43	39	43	38	35	37	34	31
6	65	53	45	39	61	50	43	37	44	38	34	39	34	30	34	30	27
7	60	48	40	34	56	45	38	33	40	34	30	35	31	27	31	27	24
8	56	44	36	30	52	41	34	29	37	31	27	32	28	24	28	25	22
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	23	20
10	49	37	29	25	46	35	28	24	31	26	22	28	23	20	24	21	18

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.1	2.4
10°-20°	483.7	6.7
20°-30°	701.4	9.7
30°-40°	799.4	11.0
40°-50°	779.2	10.8
50°-60°	655.9	9.1
60°-70°	459.8	6.4
70°-80°	236.3	3.3
80°-90°	61.7	0.9
90°-100°	34.2	0.5
100°-110°	210.7	2.9
110°-120°	382.1	5.3
120°-130°	490.4	6.8
130°-140°	527.5	7.3
140°-150°	495.1	6.8
150°-160°	400.5	5.5
160°-170°	259.0	3.6
170°-180°	89.3	1.2
0°-30°	1358.2	18.8
0°-40°	2157.6	29.8
0°-60°	3592.8	49.6
0°-90°	4350.6	60.1
90°-120°	627.0	8.7
90°-150°	2140.0	29.6
90°-180°	2889.0	39.9
0°-180°	7239.4	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°	1	6	11	15	17	5
95°	40	36	11	14	15	51
105°	205	208	208	208	207	217
115°	385	388	389	386	382	381
125°	547	552	552	550	547	489
135°	683	687	686	684	680	526
145°	792	793	793	793	789	495
155°	872	868	869	871	865	401
165°	920	916	916	920	915	260
175°	941	937	937	942	937	90
180°	941	941	941	941	941	



TEST NUMBER: P333625-940

CATALOG NUMBER: S125RDIP-S1270D810U940-4F0-1E-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	24.3	22.7	21.3	19.8	19.0	19.0	19.0	18.9	18.9	19.1
90°	0.7	2.0	3.2	4.5	5.6	6.8	7.9	9.0	10.1	11.1	11.9
92.5°	10.7	9.9	9.0	8.1	7.3	7.3	8.3	9.3	10.2	11.1	11.9
95°	39.8	39.3	38.8	38.3	37.9	34.7	28.8	22.9	17.0	11.1	11.9
97.5°	83.0	83.8	84.6	85.5	86.3	81.0	69.3	57.6	45.9	34.3	30.0
100°	116.5	116.9	117.3	117.9	118.3	118.9	119.5	120.1	120.7	121.4	98.3
102.5°	150.5	151.1	151.7	152.2	152.8	153.3	153.7	154.1	154.4	154.8	150.4
105°	205.0	205.6	206.3	206.9	207.5	207.8	207.8	207.8	207.8	207.8	207.8
107.5°	261.6	261.6	261.6	261.6	261.6	261.8	262.1	262.4	262.7	263.1	263.1
110°	298.5	298.5	298.5	298.5	298.5	298.6	298.9	299.3	299.5	299.9	299.4



TEST NUMBER: P333625-940

CATALOG NUMBER: S125RDIP-S1270D810U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	333.1	333.4	333.8	334.2	334.6	334.8	335.0	335.2	335.4	335.6	335.0
115°	385.0	385.8	386.5	387.3	388.1	388.5	388.7	388.8	389.0	389.1	388.5
117.5°	438.6	438.6	438.5	438.5	438.5	438.8	439.3	440.0	440.6	441.1	440.3
120°	472.1	472.0	471.8	471.6	471.4	471.6	472.1	472.6	473.1	473.5	473.2
122.5°	501.7	502.3	502.8	503.5	504.0	504.4	504.6	504.9	505.1	505.3	505.0
125°	547.4	548.5	549.6	550.7	551.8	552.3	552.3	552.3	552.3	552.3	551.7
127.5°	591.1	591.8	592.6	593.4	594.1	594.5	594.4	594.3	594.2	594.1	593.8
130°	617.9	618.7	619.4	620.2	621.0	621.4	621.6	621.7	621.9	622.1	621.6
132.5°	644.6	645.5	646.4	647.3	648.3	648.5	648.2	647.8	647.5	647.1	647.0
135°	682.7	683.7	684.6	685.5	686.4	686.7	686.4	686.1	685.8	685.5	685.2
137.5°	717.7	718.5	719.3	720.1	720.9	721.2	720.9	720.7	720.4	720.1	720.1
140°	740.6	740.9	741.2	741.5	741.8	741.9	741.7	741.6	741.5	741.3	741.6
142.5°	761.3	761.4	761.6	761.8	762.0	762.1	762.4	762.6	762.9	763.0	763.1
145°	791.5	791.8	792.1	792.5	792.7	792.9	792.9	792.9	792.9	792.9	793.1
147.5°	818.0	818.0	817.9	817.8	817.8	817.8	818.0	818.1	818.4	818.6	818.8
150°	834.7	834.5	834.1	833.8	833.5	833.5	833.8	834.1	834.5	834.7	835.1
152.5°	851.0	850.2	849.5	848.9	848.2	848.0	848.3	848.6	848.9	849.3	849.5
155°	871.7	870.8	869.9	868.9	868.0	867.6	868.0	868.3	868.6	868.9	869.3
157.5°	887.7	887.2	886.6	886.1	885.5	885.2	885.3	885.3	885.3	885.4	885.8
160°	898.9	898.0	897.1	896.1	895.2	894.8	894.9	895.1	895.3	895.4	896.0
162.5°	907.9	906.9	906.0	905.0	904.1	903.7	903.8	904.0	904.2	904.4	905.2
165°	919.8	918.9	917.9	917.0	916.1	915.7	915.9	916.1	916.1	916.3	917.3
167.5°	928.7	927.8	926.8	925.9	924.9	924.5	924.6	924.8	925.0	925.1	926.2
170°	933.8	932.6	931.6	930.5	929.4	929.0	929.1	929.3	929.4	929.6	930.9
172.5°	937.1	936.0	935.0	933.9	932.7	932.4	932.6	932.9	933.2	933.4	934.6
175°	940.8	939.8	938.9	938.0	937.0	936.7	936.7	936.9	937.1	937.3	938.5
177.5°	942.4	941.6	940.9	940.2	939.4	939.1	939.2	939.3	939.5	939.6	940.5
180°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8



TEST NUMBER: P333625-940

CATALOG NUMBER: S125RDIP-S1270D810U940-4F0-1E-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°	19.3	19.4	19.5	19.5	19.4	19.3	19.1	18.9
90°	12.8	13.5	14.3	14.9	15.3	15.8	16.2	16.8
92.5°	12.8	13.5	14.3	14.7	15.0	15.2	15.4	15.6
95°	12.8	13.5	14.3	14.6	14.6	14.6	14.6	14.6
97.5°	25.6	21.2	16.9	14.6	14.6	14.6	14.6	14.6
100°	75.2	52.1	29.0	17.1	16.5	15.9	15.2	14.6
102.5°	146.1	141.7	137.3	129.9	119.3	108.8	98.3	87.7
105°	207.8	207.8	207.8	207.8	207.6	207.4	207.2	207.1
107.5°	263.1	263.1	263.1	263.0	262.5	262.0	261.5	261.1
110°	298.9	298.5	298.0	297.8	298.0	298.2	298.3	298.5





TEST NUMBER: P333625-940

CATALOG NUMBER: S125RDIP-S1270D810U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	334.4	333.8	333.2	332.8	332.6	332.3	332.2	332.0
115°	387.9	387.3	386.6	385.8	385.0	384.0	383.1	382.2
117.5°	439.5	438.7	437.9	437.3	436.9	436.5	436.1	435.7
120°	472.9	472.6	472.3	471.7	470.9	470.2	469.4	468.6
122.5°	504.7	504.4	504.1	503.5	502.6	501.7	500.8	499.9
125°	551.1	550.5	549.8	549.3	548.8	548.3	547.9	547.4
127.5°	593.4	593.2	592.8	592.0	590.9	589.8	588.6	587.5
130°	621.1	620.6	620.2	619.6	618.8	618.0	617.2	616.4
132.5°	646.9	646.8	646.8	646.3	645.6	644.8	644.0	643.3
135°	684.9	684.6	684.3	683.7	682.7	681.8	680.8	679.9
137.5°	720.2	720.2	720.3	720.0	719.2	718.4	717.6	716.8
140°	741.9	742.3	742.5	742.3	741.3	740.4	739.4	738.5
142.5°	763.2	763.2	763.3	762.9	762.0	761.0	760.1	759.1
145°	793.2	793.4	793.5	793.1	792.2	791.3	790.3	789.4
147.5°	818.9	819.1	819.3	818.9	817.7	816.6	815.5	814.4
150°	835.4	835.7	836.0	835.5	834.3	833.0	831.8	830.5
152.5°	849.9	850.2	850.5	850.1	849.0	847.8	846.8	845.6
155°	869.9	870.3	870.8	870.4	869.2	867.9	866.7	865.4
157.5°	886.4	886.9	887.3	887.0	885.7	884.5	883.2	882.0
160°	896.6	897.2	897.9	897.6	896.3	895.1	893.9	892.6
162.5°	906.1	907.0	907.8	907.6	906.2	904.8	903.5	902.1
165°	918.2	919.1	920.1	919.9	918.6	917.4	916.1	914.9
167.5°	927.4	928.4	929.6	929.4	928.0	926.7	925.2	923.9
170°	932.0	933.3	934.5	934.4	933.1	931.7	930.2	928.9
172.5°	935.7	936.8	938.0	937.8	936.4	935.0	933.6	932.2
175°	939.7	940.9	942.2	942.1	940.8	939.3	938.0	936.6
177.5°	941.4	942.2	943.1	943.1	942.0	941.0	940.0	939.1
180°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8

(END OF REPORT)