

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: P333321-840

Luminaire Tested: **S125DIP-S1270D810U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333321-840
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: S125DIP-S1270D810U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8117.9 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

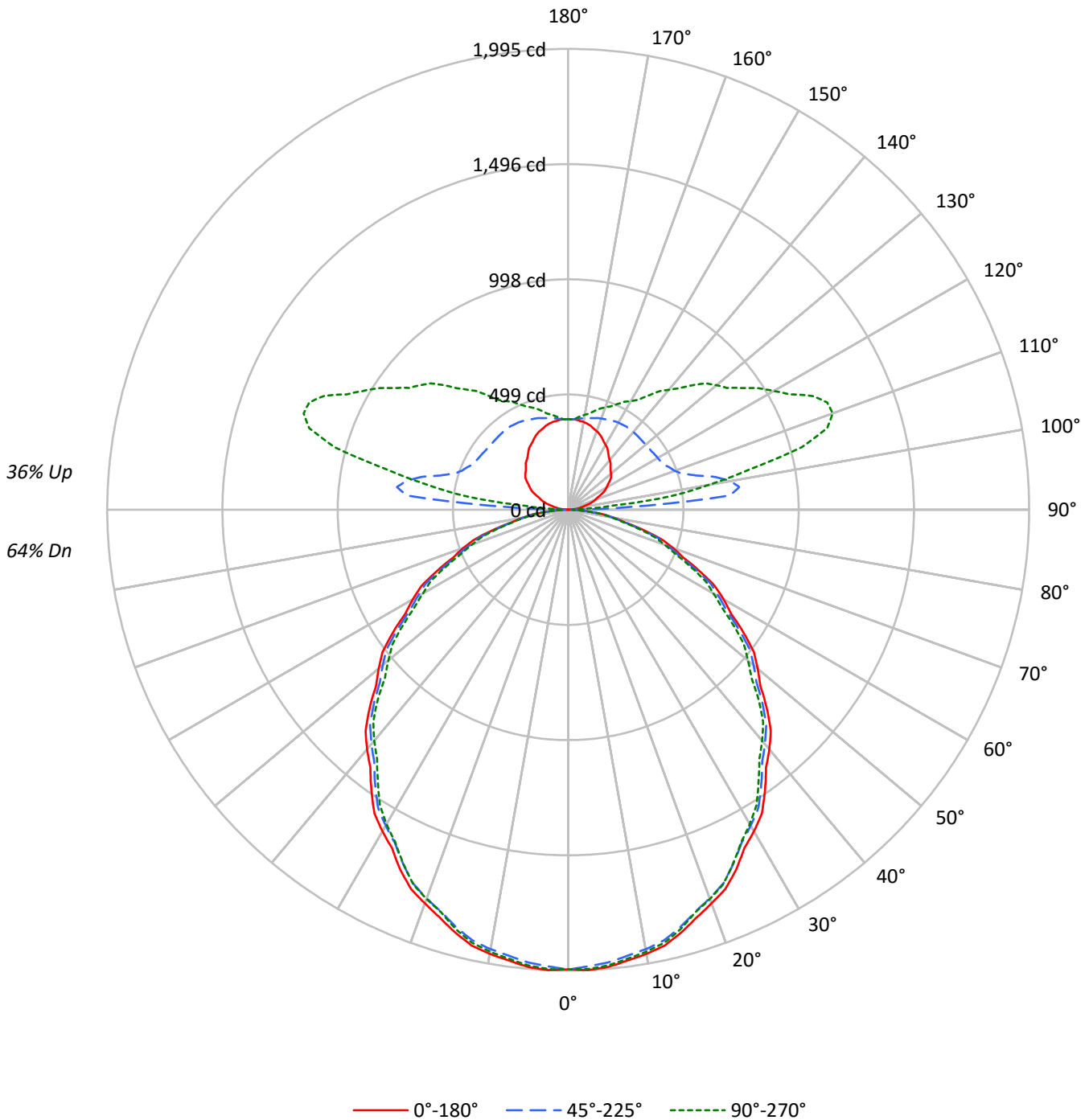
Input Watts (W): 60.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	101	96	92	89	94	91	87	84	80	77	75	70	68	66	61	59	58	54
2	92	84	78	72	86	79	74	69	70	66	62	61	58	55	53	51	49	45
3	84	74	66	60	78	70	63	58	62	56	52	54	50	47	47	44	41	38
4	77	65	57	51	72	62	54	49	55	49	44	48	44	40	42	39	36	33
5	70	58	50	44	66	55	48	42	49	43	38	43	39	35	38	34	31	28
6	65	52	44	38	61	50	42	37	44	38	33	39	34	30	35	31	27	25
7	60	47	39	34	56	45	38	32	40	34	30	36	31	27	32	28	24	22
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22	20
9	52	39	32	27	49	38	30	26	34	28	24	30	25	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	25	21	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12853	12853	12853
5°	12882	12759	12841
10°	12804	12669	12742
15°	12664	12517	12570
20°	12466	12304	12325
25°	12252	12050	12039
30°	11989	11777	11718
35°	11706	11483	11321
40°	11415	11163	11005
45°	11102	10872	10656
50°	10758	10520	10203
55°	10424	10124	9839
60°	10026	9722	9376
65°	9553	9239	8926
70°	9098	8682	8384
75°	8289	8015	7738
80°	7375	7260	7089
85°	6417	6536	6180



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.6	2.3
10°-20°	530.1	6.5
20°-30°	782.7	9.6
30°-40°	913.3	11.2
40°-50°	917.2	11.3
50°-60°	805.1	9.9
60°-70°	599.9	7.4
70°-80°	343.0	4.2
80°-90°	102.0	1.3
90°-100°	283.9	3.5
100°-110°	610.3	7.5
110°-120°	572.7	7.1
120°-130°	464.2	5.7
130°-140°	372.5	4.6
140°-150°	281.1	3.5
150°-160°	197.9	2.4
160°-170°	116.6	1.4
170°-180°	37.9	0.5
0°-30°	1500.4	18.5
0°-40°	2413.6	29.7
0°-60°	4136.0	50.9
0°-90°	5180.9	63.8
90°-120°	1466.9	18.1
90°-150°	2584.6	31.8
90°-180°	2937.0	36.2
0°-180°	8117.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1987	1983	1968	1981	1981	188
15°	1894	1889	1872	1880	1880	534
25°	1719	1711	1691	1694	1689	791
35°	1485	1478	1456	1448	1436	928
45°	1216	1208	1190	1172	1167	936
55°	926	920	899	885	874	826
65°	625	621	605	591	584	620
75°	332	329	321	316	310	354
85°	87	88	88	86	83	97
90°	1	7	13	17	18	6
95°	26	77	700	317	186	28
105°	89	125	572	1127	1046	94
115°	160	192	460	991	1166	157
125°	221	259	441	788	918	196
135°	259	311	438	660	763	201
145°	302	346	439	547	602	189
155°	344	370	428	484	504	158
165°	376	386	411	436	442	106
175°	391	391	394	399	397	37
180°	392	392	392	392	392	



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1995.2	1994.4	1993.6	1992.7	1991.9	1990.0	1987.2	1984.4	1981.7	1978.8	1981.7
5°	1987.0	1986.3	1985.6	1984.9	1984.2	1982.2	1978.6	1975.1	1971.7	1968.1	1971.3
7.5°	1968.7	1968.0	1967.3	1966.6	1965.9	1963.7	1959.8	1956.0	1952.2	1948.3	1951.4
10°	1952.4	1951.7	1951.0	1950.3	1949.5	1947.3	1943.5	1939.6	1935.7	1931.9	1934.7
12.5°	1932.2	1931.0	1929.8	1928.4	1927.2	1924.8	1921.2	1917.6	1914.1	1910.5	1912.8
15°	1894.1	1893.1	1892.0	1891.0	1890.0	1887.4	1883.6	1879.8	1875.9	1872.1	1873.8
17.5°	1850.4	1848.9	1847.2	1845.7	1844.2	1841.4	1837.4	1833.4	1829.5	1825.4	1827.7
20°	1813.8	1813.1	1812.4	1811.7	1811.0	1808.4	1803.8	1799.3	1794.7	1790.2	1792.6
22.5°	1777.3	1776.0	1774.7	1773.5	1772.2	1769.5	1765.2	1761.0	1756.7	1752.4	1754.0
25°	1719.4	1717.6	1715.9	1714.1	1712.3	1709.2	1704.7	1700.1	1695.6	1691.0	1691.7
27.5°	1651.6	1650.6	1649.5	1648.5	1647.5	1644.6	1639.9	1635.2	1630.5	1625.8	1626.0
30°	1607.6	1606.5	1605.5	1604.4	1603.4	1600.2	1595.0	1589.7	1584.5	1579.2	1578.5
32.5°	1559.7	1558.1	1556.5	1554.9	1553.3	1550.1	1545.4	1540.8	1536.0	1531.4	1530.1
35°	1484.7	1483.4	1482.0	1480.6	1479.1	1476.0	1471.1	1466.2	1461.3	1456.4	1454.7
37.5°	1406.9	1405.2	1403.5	1401.7	1400.0	1396.7	1392.2	1387.6	1382.9	1378.4	1375.7
40°	1354.0	1352.3	1350.6	1348.8	1347.1	1343.7	1338.9	1333.9	1329.1	1324.1	1321.0
42.5°	1297.4	1296.0	1294.4	1292.9	1291.5	1288.3	1283.4	1278.5	1273.6	1268.7	1265.9
45°	1215.5	1214.2	1212.7	1211.3	1209.9	1207.1	1203.0	1198.7	1194.6	1190.3	1186.1
47.5°	1127.3	1127.4	1127.5	1127.5	1127.6	1125.1	1120.1	1115.1	1110.0	1105.0	1100.8
50°	1070.7	1069.6	1068.5	1067.5	1066.4	1063.8	1059.7	1055.4	1051.3	1047.0	1042.5
52.5°	1012.7	1012.0	1011.2	1010.4	1009.7	1007.0	1002.5	998.0	993.6	989.1	985.1
55°	925.8	924.7	923.7	922.6	921.6	918.7	913.7	908.9	903.9	899.1	895.9
57.5°	834.1	833.6	833.0	832.5	831.9	829.6	825.5	821.3	817.2	813.0	809.0
60°	776.2	774.9	773.5	772.0	770.6	768.0	764.2	760.3	756.5	752.7	749.1
62.5°	715.8	714.7	713.6	712.4	711.2	709.1	705.8	702.5	699.2	695.9	692.2
65°	625.1	624.4	623.7	623.0	622.3	620.0	616.1	612.3	608.4	604.6	601.5
67.5°	537.2	535.7	534.3	532.8	531.4	529.2	526.3	523.4	520.6	517.7	515.0
70°	481.8	480.1	478.3	476.6	474.8	472.3	469.2	466.1	462.9	459.8	457.7
72.5°	421.3	420.1	419.0	417.8	416.6	415.0	412.9	410.9	408.9	406.9	404.5
75°	332.2	331.5	330.8	330.1	329.4	328.2	326.5	324.7	323.0	321.2	320.1
77.5°	250.0	249.7	249.4	249.2	248.9	248.3	247.3	246.3	245.3	244.4	243.8
80°	198.3	198.3	198.3	198.3	198.3	198.0	197.3	196.6	195.9	195.2	194.9
82.5°	153.0	152.5	151.9	151.4	150.8	150.5	150.3	150.2	150.1	149.9	149.3
85°	86.6	86.9	87.3	87.7	88.0	88.2	88.2	88.2	88.2	88.2	87.9
87.5°	34.1	34.3	34.6	34.9	35.2	35.4	35.3	35.3	35.2	35.2	35.4
90°	0.8	1.6	3.1	4.7	6.4	7.9	8.7	10.3	11.0	12.6	13.4
92.5°	9.6	11.7	18.3	28.1	41.7	64.7	107.9	180.2	258.6	254.6	206.1
95°	26.1	26.9	33.1	41.8	59.2	94.7	179.3	352.9	570.9	699.6	684.6
97.5°	43.2	44.2	48.7	57.4	72.9	98.6	154.4	281.8	509.8	747.1	866.2
100°	55.2	56.9	60.0	68.7	83.7	107.3	153.2	255.8	454.8	713.1	910.4
102.5°	68.6	69.5	72.0	81.3	95.0	118.2	158.9	245.1	413.1	653.0	883.9
105°	89.3	89.3	93.2	101.1	113.7	135.8	170.6	240.9	372.7	572.5	799.1
107.5°	109.5	111.0	114.8	121.3	134.4	154.3	187.9	248.1	355.7	517.1	712.6
110°	124.0	125.5	128.7	135.8	147.6	168.1	200.6	255.1	350.6	491.1	663.3



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.5	140.1	142.6	149.7	161.6	181.5	212.6	263.9	350.6	475.9	626.6
115°	159.5	161.1	163.5	170.6	182.4	202.2	231.4	277.1	352.9	459.6	586.6
117.5°	178.4	180.9	183.4	190.5	203.9	223.0	250.6	292.4	358.2	451.5	562.8
120°	191.1	193.5	196.6	203.7	217.1	236.9	264.5	302.5	363.2	447.7	549.6
122.5°	204.4	206.1	208.6	215.7	230.5	250.1	277.8	313.8	367.6	444.5	538.2
125°	221.1	222.7	226.6	233.7	248.7	269.2	295.3	329.2	375.1	440.6	522.7
127.5°	234.2	236.6	241.7	250.6	266.6	287.1	312.3	343.5	383.4	438.7	508.5
130°	242.4	244.8	251.1	261.4	277.9	298.5	323.0	352.9	388.5	437.5	499.1
132.5°	248.7	251.8	259.3	270.8	288.0	308.6	333.1	361.1	394.2	437.5	491.5
135°	259.0	262.2	271.7	284.3	300.8	322.1	346.7	372.7	401.9	437.5	482.4
137.5°	272.0	274.3	283.2	295.8	312.0	334.0	356.3	381.2	409.0	438.4	474.4
140°	279.5	281.9	291.3	304.0	319.0	340.3	363.2	386.9	412.1	439.0	470.6
142.5°	288.3	290.1	298.9	311.5	326.0	346.0	367.6	390.1	414.0	439.7	467.5
145°	301.6	303.2	311.1	322.1	336.4	354.6	375.1	394.8	416.2	439.0	462.7
147.5°	315.5	316.5	323.3	333.6	345.9	361.8	379.8	397.7	416.9	437.0	457.8
150°	323.8	325.3	330.8	341.1	352.1	365.6	382.9	399.5	416.9	435.0	454.0
152.5°	332.5	333.6	338.4	347.4	357.9	370.0	386.1	400.8	416.3	432.5	449.6
155°	344.3	344.3	349.0	356.9	364.8	375.9	389.3	401.9	414.5	428.0	442.2
157.5°	354.7	354.6	358.3	365.1	372.0	380.4	391.9	402.7	412.5	423.2	435.3
160°	361.6	360.8	364.1	369.5	375.9	382.9	393.2	402.7	410.6	420.1	429.6
162.5°	367.3	366.6	369.7	374.6	379.6	385.5	394.5	402.0	408.7	416.3	424.4
165°	375.9	374.3	376.7	380.6	383.7	388.5	394.8	401.1	405.9	410.6	416.9
167.5°	381.5	380.7	382.1	384.4	386.6	389.6	394.8	399.2	401.4	405.1	409.5
170°	385.4	384.6	385.4	386.9	388.5	390.8	394.8	398.0	399.5	401.9	405.1
172.5°	387.9	386.5	387.2	388.8	389.7	390.8	394.2	396.7	397.0	398.1	400.6
175°	390.8	389.3	390.1	390.8	390.8	390.8	393.2	394.8	394.0	394.0	394.8
177.5°	392.2	391.0	391.0	391.6	391.0	391.0	392.2	392.9	391.6	391.6	392.2
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1984.4	1987.2	1990.0	1991.3	1991.0	1990.7	1990.4	1990.1
5°	1974.4	1977.6	1980.7	1982.2	1981.8	1981.5	1981.1	1980.7
7.5°	1954.4	1957.5	1960.6	1962.0	1961.7	1961.3	1961.0	1960.6
10°	1937.5	1940.4	1943.1	1944.3	1944.0	1943.6	1943.3	1943.0
12.5°	1915.0	1917.2	1919.5	1920.6	1920.5	1920.4	1920.4	1920.3
15°	1875.6	1877.3	1879.1	1880.0	1880.0	1880.0	1880.0	1880.0
17.5°	1829.8	1832.0	1834.1	1834.3	1832.6	1830.9	1829.1	1827.4
20°	1795.1	1797.6	1800.0	1800.4	1798.6	1796.9	1795.1	1793.3
22.5°	1755.7	1757.3	1758.9	1759.1	1757.9	1756.7	1755.4	1754.3
25°	1692.4	1693.1	1693.8	1693.6	1692.6	1691.5	1690.5	1689.4
27.5°	1626.1	1626.3	1626.4	1625.9	1624.9	1623.9	1622.8	1621.7
30°	1577.8	1577.1	1576.4	1575.6	1574.5	1573.5	1572.4	1571.3
32.5°	1528.8	1527.6	1526.3	1524.7	1522.9	1521.0	1519.0	1517.2
35°	1452.9	1451.2	1449.5	1447.1	1444.3	1441.6	1438.8	1435.9
37.5°	1373.1	1370.6	1368.0	1365.8	1364.2	1362.6	1361.0	1359.4
40°	1317.9	1314.7	1311.5	1309.5	1308.4	1307.4	1306.3	1305.3
42.5°	1263.0	1260.1	1257.3	1255.1	1253.4	1251.8	1250.2	1248.6
45°	1181.9	1177.7	1173.6	1170.9	1169.8	1168.8	1167.7	1166.7
47.5°	1096.4	1092.2	1087.9	1084.6	1082.1	1079.6	1077.2	1074.8
50°	1037.9	1033.4	1028.9	1025.3	1022.9	1020.5	1018.0	1015.5
52.5°	981.1	977.1	973.1	969.8	967.0	964.3	961.6	958.9
55°	892.7	889.6	886.5	883.6	881.2	878.8	876.3	873.8
57.5°	805.0	800.9	796.9	794.2	792.8	791.5	790.1	788.8
60°	745.6	742.1	738.6	735.7	733.2	730.7	728.3	725.9
62.5°	688.3	684.6	680.9	678.0	676.1	674.2	672.3	670.4
65°	598.3	595.1	592.0	589.8	588.3	586.9	585.5	584.1
67.5°	512.4	509.7	507.1	505.3	504.4	503.6	502.8	501.9
70°	455.6	453.4	451.3	449.6	448.2	446.8	445.5	444.0
72.5°	402.1	399.7	397.4	395.5	394.0	392.6	391.2	389.8
75°	319.1	318.0	317.0	315.8	314.4	313.0	311.5	310.1
77.5°	243.1	242.5	241.9	241.1	240.0	239.0	238.1	237.1
80°	194.5	194.2	193.8	193.3	192.6	191.9	191.2	190.6
82.5°	148.7	148.0	147.3	147.0	146.8	146.7	146.5	146.4
85°	87.5	87.2	86.7	86.2	85.5	84.8	84.1	83.4
87.5°	35.5	35.7	36.0	36.0	35.3	34.8	34.4	33.8
90°	14.2	15.0	15.8	17.4	17.4	17.4	18.2	18.2
92.5°	140.0	101.6	76.4	64.7	54.6	52.7	51.6	50.4
95°	567.7	447.7	350.6	284.3	228.2	204.5	198.2	185.5
97.5°	845.6	761.3	666.7	574.5	525.7	481.5	458.6	448.5
100°	971.2	932.5	851.2	769.1	714.6	657.7	628.5	615.9
102.5°	1013.5	1037.4	998.4	942.8	884.5	844.0	812.3	802.8
105°	988.6	1096.8	1131.6	1122.9	1097.5	1071.5	1055.7	1046.2
107.5°	899.5	1043.9	1133.1	1174.3	1187.1	1186.9	1181.7	1175.4
110°	833.8	983.8	1095.2	1162.3	1197.8	1212.8	1218.4	1218.4



TEST NUMBER: P333321-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	782.0	924.4	1037.0	1116.2	1168.1	1193.9	1207.6	1213.4
115°	717.0	839.4	947.6	1033.6	1095.2	1133.1	1155.2	1165.5
117.5°	675.0	780.4	873.6	952.6	1014.2	1053.3	1075.3	1081.6
120°	652.2	747.0	833.8	903.3	961.7	999.7	1021.0	1027.2
122.5°	635.2	723.0	800.3	865.5	917.6	952.3	973.6	979.3
125°	610.4	690.9	759.6	816.5	860.7	893.0	910.4	918.3
127.5°	585.1	660.2	724.4	777.6	817.7	846.3	862.7	866.2
130°	569.3	638.8	700.3	751.7	791.2	817.3	833.0	837.8
132.5°	553.5	618.5	674.5	723.9	763.4	789.4	804.0	809.3
135°	533.0	587.4	638.0	683.0	717.7	743.8	758.0	762.8
137.5°	515.6	559.7	601.7	639.9	671.1	694.7	707.8	713.1
140°	506.1	543.2	579.6	612.7	642.0	662.5	674.3	678.2
142.5°	498.0	529.4	560.6	589.4	614.2	631.6	642.8	646.0
145°	487.2	511.7	536.1	557.4	576.4	589.9	598.5	601.7
147.5°	477.1	497.0	515.7	531.9	546.8	557.6	562.7	564.1
150°	471.4	488.8	503.7	518.0	529.9	539.3	542.5	543.2
152.5°	465.0	480.6	494.3	505.3	515.3	522.9	526.0	526.8
155°	455.7	468.3	479.3	488.0	495.8	501.4	503.7	504.5
157.5°	446.2	456.6	465.0	471.9	478.1	482.6	484.8	484.6
160°	439.8	447.7	455.7	461.1	466.7	470.6	472.2	471.4
162.5°	432.8	440.1	446.8	451.6	456.0	459.2	459.6	459.4
165°	423.2	428.8	433.5	437.5	440.6	442.2	442.2	442.2
167.5°	414.0	417.7	421.3	424.1	425.8	427.2	426.6	426.4
170°	409.0	411.4	413.7	415.4	416.9	417.7	417.7	416.9
172.5°	403.3	405.7	407.5	408.4	408.7	410.1	408.9	408.1
175°	397.2	397.2	398.8	398.8	398.8	399.5	398.0	397.2
177.5°	392.9	393.5	393.5	393.5	392.9	393.5	391.6	391.6
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6

(END OF REPORT)