

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: P333320-840

Luminaire Tested: **S125DIP-S1270D810U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333320-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
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-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8012.5 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

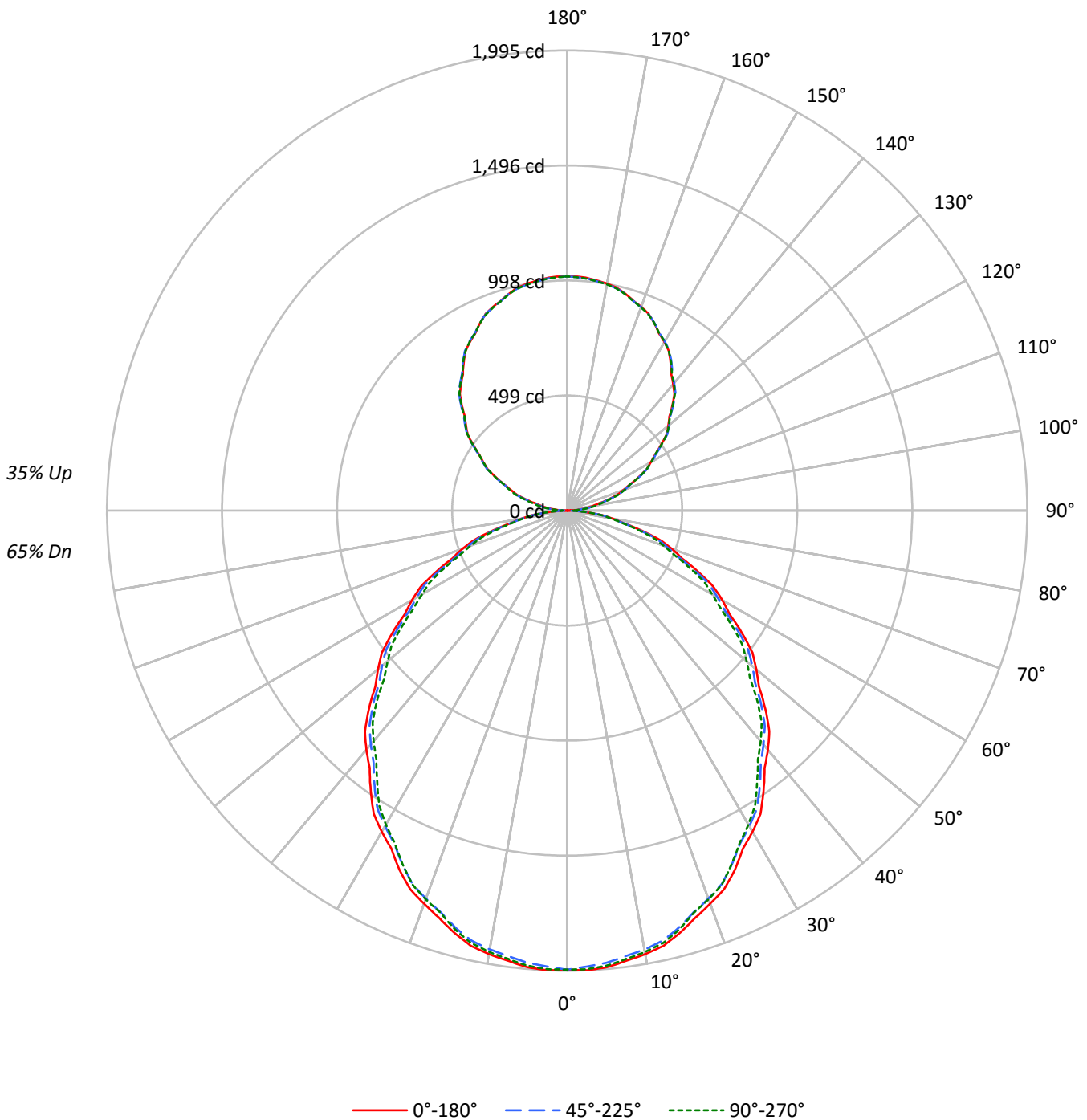
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	70	70	70	65
1	101	97	93	89	95	91	87	84	80	78	75	70	68	67	61	60	59	54
2	92	84	78	73	86	79	74	69	70	66	62	62	58	56	54	52	49	45
3	84	74	67	60	78	70	63	58	62	57	52	55	50	47	48	45	42	38
4	77	66	57	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33
5	71	59	50	44	66	55	48	42	49	43	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	25
7	60	48	39	34	56	45	38	32	40	34	30	36	31	27	32	28	25	22
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	22	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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.6	2.3
10°-20°	530.1	6.6
20°-30°	782.7	9.8
30°-40°	913.3	11.4
40°-50°	917.2	11.4
50°-60°	805.1	10.0
60°-70°	599.9	7.5
70°-80°	343.0	4.3
80°-90°	102.0	1.3
90°-100°	68.0	0.8
100°-110°	200.7	2.5
110°-120°	339.9	4.2
120°-130°	447.4	5.6
130°-140°	501.3	6.3
140°-150°	491.3	6.1
150°-160°	412.7	5.2
160°-170°	274.3	3.4
170°-180°	96.0	1.2
0°-30°	1500.4	18.7
0°-40°	2413.6	30.1
0°-60°	4136.0	51.6
0°-90°	5181.0	64.7
90°-120°	608.6	7.6
90°-150°	2048.6	25.6
90°-180°	2832.0	35.3
0°-180°	8012.5	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	19	8
95°	51	53	61	66	68	55
105°	180	184	189	193	196	192
115°	340	343	345	344	344	336
125°	497	501	502	501	500	445
135°	646	650	652	651	648	498
145°	782	786	788	788	786	489
155°	895	895	896	899	895	412
165°	974	972	973	976	971	275
175°	1012	1009	1009	1013	1008	96
180°	1015	1015	1015	1015	1015	



TEST NUMBER: P333320-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F1

**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	34.4	34.7	35.0	35.2	35.4	35.3	35.3	35.3	35.2	35.4
90°	0.8	2.2	3.6	5.0	6.4	7.7	9.0	10.2	11.4	12.6	13.5
92.5°	19.1	20.1	21.1	22.0	23.0	24.2	25.8	27.3	28.8	30.3	31.5
95°	51.3	51.7	52.0	52.4	52.7	53.8	55.5	57.3	59.1	60.8	62.0
97.5°	85.3	85.4	85.5	85.7	85.8	87.2	89.6	92.0	94.4	96.8	98.0
100°	110.6	110.6	110.6	110.6	110.6	111.7	114.0	116.2	118.6	120.8	122.4
102.5°	137.7	138.5	139.2	139.9	140.6	141.5	142.6	143.8	144.9	146.1	147.8
105°	180.1	181.0	181.8	182.7	183.6	184.5	185.6	186.6	187.6	188.7	189.8
107.5°	226.8	227.6	228.5	229.4	230.4	231.2	232.0	232.8	233.6	234.4	234.9
110°	259.0	259.9	260.7	261.7	262.6	263.3	263.8	264.3	264.8	265.3	265.9



TEST NUMBER: P333320-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	291.9	292.4	292.8	293.3	293.7	294.3	294.9	295.6	296.3	296.9	297.2
115°	340.3	341.0	341.7	342.4	343.2	343.7	344.1	344.4	344.8	345.1	344.9
117.5°	389.0	389.3	389.6	389.9	390.2	390.6	390.9	391.2	391.5	391.8	391.9
120°	419.3	420.2	421.1	421.9	422.8	423.3	423.5	423.7	423.8	424.0	424.0
122.5°	452.1	452.5	452.8	453.1	453.4	453.8	454.2	454.7	455.1	455.7	455.4
125°	496.7	497.8	498.8	499.9	500.9	501.5	501.7	501.9	502.0	502.2	501.9
127.5°	544.1	544.7	545.2	545.8	546.4	546.8	547.0	547.2	547.5	547.8	547.5
130°	572.5	573.4	574.3	575.1	576.0	576.6	576.9	577.3	577.6	578.0	577.8
132.5°	601.0	602.4	603.8	605.2	606.7	607.3	607.3	607.2	607.1	607.1	606.9
135°	645.9	647.0	648.0	649.1	650.2	650.8	651.0	651.2	651.3	651.5	651.5
137.5°	688.3	689.3	690.3	691.4	692.4	693.1	693.5	693.8	694.2	694.6	694.8
140°	715.5	716.3	717.2	718.1	718.9	719.6	720.1	720.7	721.2	721.8	722.2
142.5°	742.7	743.4	744.1	744.8	745.6	746.3	746.9	747.6	748.2	748.9	749.1
145°	782.5	783.3	784.0	784.7	785.4	786.0	786.5	787.0	787.6	788.1	788.1
147.5°	819.5	819.9	820.3	820.7	821.0	821.4	821.9	822.3	822.7	823.1	823.5
150°	844.1	843.9	843.8	843.6	843.4	843.7	844.4	845.2	845.9	846.6	846.6
152.5°	864.3	864.6	864.8	865.2	865.4	865.7	865.9	866.2	866.5	866.8	867.2
155°	895.4	895.4	895.4	895.4	895.4	895.5	895.8	896.0	896.1	896.3	897.0
157.5°	923.3	922.9	922.5	922.1	921.7	921.6	921.8	922.0	922.1	922.3	923.0
160°	939.7	939.2	938.7	938.2	937.6	937.5	937.6	937.8	938.0	938.2	938.9
162.5°	954.2	953.8	953.4	953.1	952.7	952.5	952.5	952.6	952.6	952.7	953.5
165°	973.7	973.3	973.0	972.6	972.3	972.2	972.3	972.5	972.7	972.9	973.6
167.5°	990.1	989.4	988.7	988.0	987.2	986.9	986.9	986.9	986.9	986.9	988.0
170°	999.0	998.3	997.5	996.8	996.1	995.7	995.7	995.7	995.7	995.7	996.8
172.5°	1005.2	1004.5	1003.8	1003.1	1002.4	1002.1	1002.1	1002.1	1002.1	1002.1	1003.1
175°	1012.4	1011.7	1011.0	1010.3	1009.6	1009.2	1009.2	1009.2	1009.2	1009.2	1010.3
177.5°	1016.0	1015.4	1014.9	1014.3	1013.7	1013.4	1013.3	1013.1	1013.0	1012.8	1013.7
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7



TEST NUMBER: P333320-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F1

**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°	35.6	35.9	36.0	35.9	35.3	34.9	34.4	34.0
90°	14.3	15.2	16.2	16.9	17.4	17.9	18.4	19.0
92.5°	32.6	33.8	34.9	35.7	36.2	36.5	36.9	37.3
95°	63.2	64.5	65.7	66.6	66.9	67.3	67.6	67.9
97.5°	99.2	100.3	101.5	102.1	102.3	102.5	102.8	103.0
100°	124.0	125.5	127.1	128.2	128.5	128.8	129.2	129.5
102.5°	149.6	151.3	153.0	154.1	154.6	155.0	155.5	156.0
105°	190.9	191.9	193.0	193.7	194.3	194.8	195.3	195.8
107.5°	235.4	235.9	236.5	236.7	236.7	236.6	236.6	236.6
110°	266.4	266.9	267.4	267.6	267.4	267.2	267.1	266.9





TEST NUMBER: P333320-840

CATALOG NUMBER: S125DIP-S1270D810U840-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	297.4	297.6	297.9	297.9	297.5	297.2	296.9	296.6
115°	344.8	344.6	344.4	344.2	344.1	343.9	343.7	343.6
117.5°	392.1	392.2	392.4	392.1	391.4	390.7	390.0	389.3
120°	424.0	424.0	424.0	423.7	423.0	422.3	421.6	420.9
122.5°	455.3	455.2	455.0	454.7	454.1	453.6	453.0	452.5
125°	501.5	501.2	500.8	500.6	500.4	500.2	500.1	499.9
127.5°	547.3	547.1	547.0	546.7	546.4	546.0	545.7	545.3
130°	577.6	577.5	577.3	577.0	576.7	576.3	576.0	575.6
132.5°	606.7	606.5	606.4	606.0	605.6	605.1	604.6	604.1
135°	651.5	651.5	651.5	651.2	650.5	649.7	649.0	648.3
137.5°	695.0	695.2	695.4	695.1	694.2	693.4	692.5	691.6
140°	722.5	722.8	723.2	722.9	722.1	721.1	720.2	719.4
142.5°	749.3	749.5	749.7	749.4	748.5	747.7	746.8	745.9
145°	788.1	788.1	788.1	787.8	787.3	786.8	786.3	785.7
147.5°	823.9	824.5	824.9	824.5	823.2	822.0	820.9	819.7
150°	846.6	846.6	846.6	846.4	846.0	845.7	845.3	845.0
152.5°	867.6	868.0	868.4	868.3	867.7	867.1	866.5	865.8
155°	897.7	898.4	899.1	899.0	898.1	897.3	896.4	895.4
157.5°	923.7	924.4	925.1	924.9	923.7	922.6	921.4	920.3
160°	939.6	940.2	940.9	940.9	940.0	939.1	938.2	937.4
162.5°	954.3	955.2	956.0	955.9	954.9	953.9	952.9	951.9
165°	974.3	975.0	975.6	975.5	974.4	973.4	972.3	971.3
167.5°	989.1	990.1	991.2	991.1	990.1	989.0	987.8	986.7
170°	997.8	999.0	1000.0	999.9	998.7	997.4	996.2	995.0
172.5°	1004.2	1005.2	1006.3	1006.3	1005.2	1004.1	1003.0	1001.9
175°	1011.3	1012.4	1013.4	1013.3	1012.1	1010.9	1009.7	1008.5
177.5°	1014.5	1015.3	1016.2	1016.1	1015.1	1014.2	1013.2	1012.2
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7

(END OF REPORT)