

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: P333465-840

Luminaire Tested: **S125DIW-S1270D470U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333465-840
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: S125DIW-S1270D470U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6821.3 lumens
Efficiency: N/A
Efficacy: 130.2 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

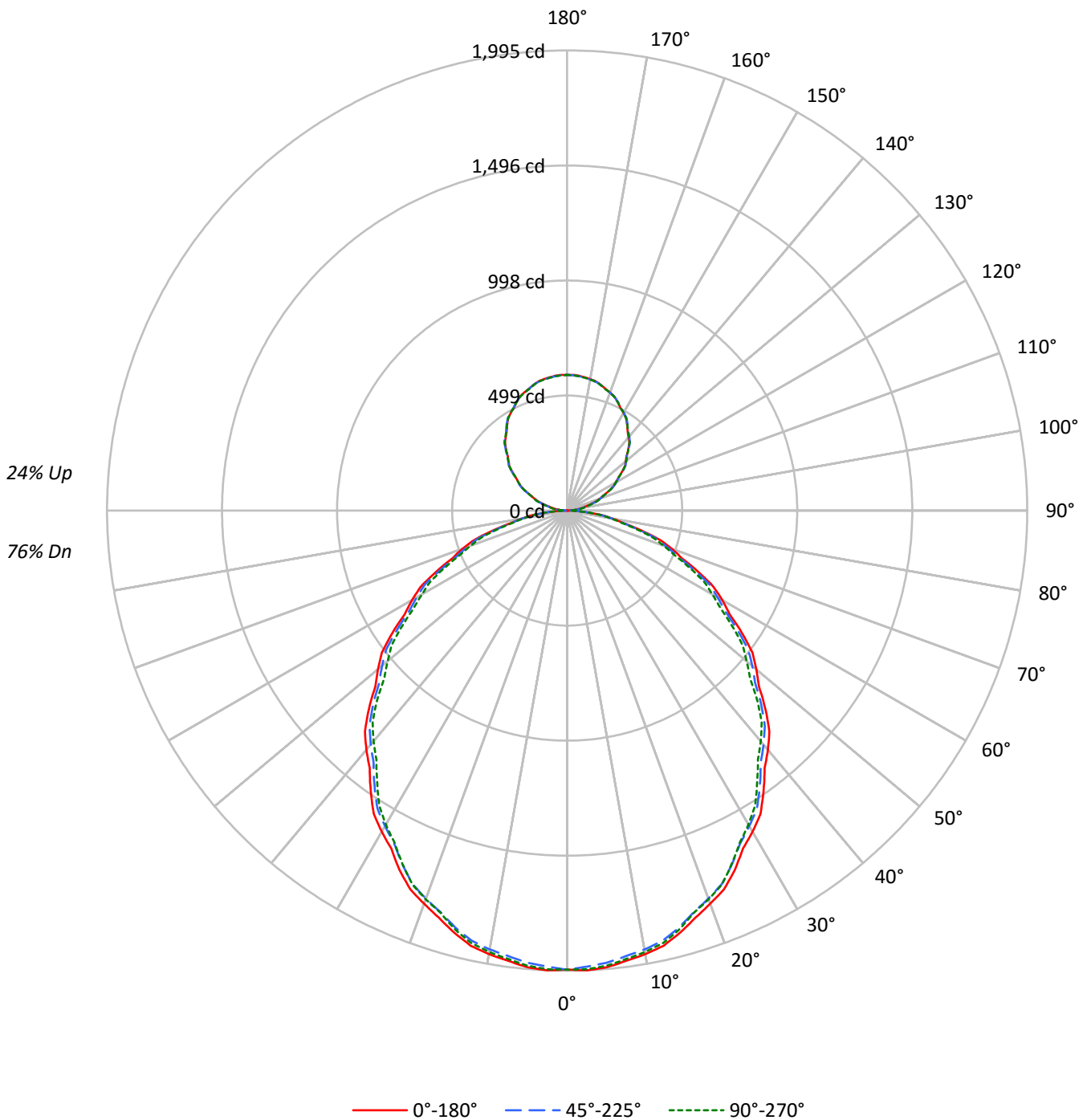
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333465-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F1

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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76
1	104	99	95	91	98	94	91	87	86	83	80	78	76	74	71	69	67	64
2	94	86	80	74	89	82	77	72	75	71	67	68	65	61	62	59	57	53
3	86	76	68	62	82	73	66	60	66	61	56	60	56	52	55	51	48	45
4	79	67	59	53	75	64	57	51	59	53	48	54	49	45	49	45	42	39
5	72	60	52	45	69	58	50	44	53	46	41	48	43	39	44	40	36	34
6	67	54	46	40	63	52	44	38	48	41	36	44	38	34	40	36	32	29
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	37	32	28	26
8	58	45	37	31	55	43	35	30	40	33	29	37	31	27	34	29	26	23
9	54	41	33	28	51	39	32	27	37	30	26	34	28	24	31	27	23	21
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	19

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: P333465-840

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.6	2.8
10°-20°	530.1	7.8
20°-30°	782.7	11.5
30°-40°	913.3	13.4
40°-50°	917.2	13.4
50°-60°	805.1	11.8
60°-70°	599.9	8.8
70°-80°	343.0	5.0
80°-90°	101.1	1.5
90°-100°	39.4	0.6
100°-110°	116.3	1.7
110°-120°	197.1	2.9
120°-130°	259.3	3.8
130°-140°	290.6	4.3
140°-150°	284.8	4.2
150°-160°	239.2	3.5
160°-170°	159.0	2.3
170°-180°	55.6	0.8
0°-30°	1500.4	22.0
0°-40°	2413.6	35.4
0°-60°	4136.0	60.6
0°-90°	5180.0	75.9
90°-120°	352.8	5.2
90°-150°	1187.4	17.4
90°-180°	1641.0	24.1
0°-180°	6821.3	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°	0	4	7	10	11	6
95°	30	31	35	38	39	32
105°	104	107	109	112	114	111
115°	197	199	200	200	199	195
125°	288	290	291	290	290	258
135°	374	377	378	378	376	288
145°	454	455	457	457	455	283
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



TEST NUMBER: P333465-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-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	34.2	34.4	34.6	34.7	34.7	34.6	34.5	34.3	34.2	34.3
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.2	5.9	6.6	7.4	7.9
92.5°	11.1	11.6	12.2	12.8	13.3	14.0	14.9	15.9	16.7	17.6	18.3
95°	29.8	30.0	30.2	30.4	30.6	31.2	32.2	33.2	34.2	35.2	36.0
97.5°	49.4	49.5	49.6	49.7	49.8	50.5	51.9	53.3	54.7	56.1	56.8
100°	64.1	64.1	64.1	64.1	64.1	64.7	66.0	67.4	68.7	70.0	71.0
102.5°	79.8	80.2	80.7	81.1	81.5	82.0	82.7	83.3	84.0	84.6	85.6
105°	104.3	104.8	105.3	105.8	106.4	106.9	107.6	108.2	108.8	109.4	110.0
107.5°	131.5	132.0	132.5	133.0	133.5	134.0	134.4	134.9	135.4	135.8	136.1
110°	150.2	150.7	151.2	151.7	152.2	152.6	152.9	153.2	153.5	153.8	154.1



TEST NUMBER: P333465-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	169.2	169.5	169.7	170.0	170.3	170.6	171.0	171.4	171.7	172.1	172.3
115°	197.2	197.6	198.1	198.5	198.9	199.2	199.4	199.7	199.9	200.1	200.0
117.5°	225.5	225.6	225.8	226.0	226.2	226.4	226.6	226.7	226.9	227.1	227.2
120°	243.1	243.6	244.1	244.6	245.1	245.4	245.5	245.6	245.7	245.8	245.8
122.5°	262.1	262.3	262.5	262.7	262.8	263.1	263.3	263.6	263.9	264.1	264.0
125°	287.9	288.5	289.1	289.7	290.3	290.7	290.8	290.9	291.0	291.1	290.9
127.5°	315.4	315.7	316.1	316.4	316.8	317.0	317.1	317.2	317.3	317.5	317.4
130°	331.8	332.3	332.9	333.4	333.9	334.3	334.5	334.7	334.9	335.1	335.0
132.5°	348.3	349.1	350.0	350.8	351.6	352.0	352.0	351.9	351.9	351.8	351.7
135°	374.4	375.1	375.7	376.3	376.9	377.2	377.3	377.4	377.5	377.6	377.6
137.5°	398.9	399.5	400.1	400.7	401.3	401.7	401.9	402.1	402.3	402.6	402.7
140°	414.7	415.2	415.7	416.2	416.7	417.2	417.5	417.8	418.1	418.4	418.6
142.5°	430.4	430.8	431.3	431.7	432.1	432.5	432.9	433.3	433.7	434.1	434.2
145°	453.6	454.0	454.4	454.8	455.2	455.6	455.9	456.2	456.5	456.8	456.8
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	477.4
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



TEST NUMBER: P333465-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-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°	34.4	34.5	34.6	34.4	33.9	33.4	32.9	32.4
90°	8.4	8.9	9.4	9.8	10.1	10.4	10.7	11.0
92.5°	18.9	19.6	20.3	20.7	20.9	21.1	21.4	21.6
95°	36.7	37.4	38.1	38.6	38.8	39.0	39.2	39.4
97.5°	57.5	58.2	58.8	59.2	59.3	59.5	59.6	59.7
100°	71.9	72.8	73.7	74.2	74.4	74.6	74.8	75.0
102.5°	86.6	87.7	88.7	89.3	89.6	89.9	90.2	90.5
105°	110.6	111.2	111.8	112.3	112.6	112.9	113.2	113.5
107.5°	136.4	136.7	137.0	137.2	137.2	137.1	137.1	137.1
110°	154.4	154.7	155.0	155.1	155.0	154.9	154.8	154.7



TEST NUMBER: P333465-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.4	172.5	172.7	172.7	172.5	172.3	172.1	171.9
115°	199.9	199.8	199.7	199.5	199.4	199.3	199.2	199.1
117.5°	227.3	227.3	227.4	227.3	226.9	226.5	226.0	225.6
120°	245.8	245.8	245.8	245.6	245.2	244.8	244.4	244.0
122.5°	264.0	263.9	263.8	263.6	263.3	263.0	262.6	262.3
125°	290.7	290.5	290.3	290.1	290.0	289.9	289.8	289.7
127.5°	317.3	317.2	317.1	316.9	316.7	316.5	316.3	316.1
130°	334.9	334.8	334.7	334.5	334.3	334.1	333.9	333.7
132.5°	351.6	351.5	351.4	351.3	351.0	350.7	350.4	350.1
135°	377.6	377.6	377.6	377.4	377.0	376.6	376.2	375.8
137.5°	402.8	402.9	403.1	402.9	402.4	401.9	401.3	400.8
140°	418.8	419.0	419.2	419.0	418.5	418.0	417.5	417.0
142.5°	434.3	434.4	434.5	434.3	433.8	433.3	432.8	432.3
145°	456.8	456.8	456.8	456.7	456.4	456.1	455.8	455.4
147.5°	477.6	477.9	478.1	477.9	477.2	476.5	475.7	475.1
150°	490.7	490.7	490.7	490.6	490.4	490.2	490.0	489.8
152.5°	502.9	503.1	503.3	503.3	502.9	502.6	502.2	501.8
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

(END OF REPORT)