

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: P333426

Luminaire Tested: **S125DIW-S850D1560U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333426
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: S125DIW-S850D1560U835-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9521.3 lumens
Efficiency: N/A
Efficacy: 139.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

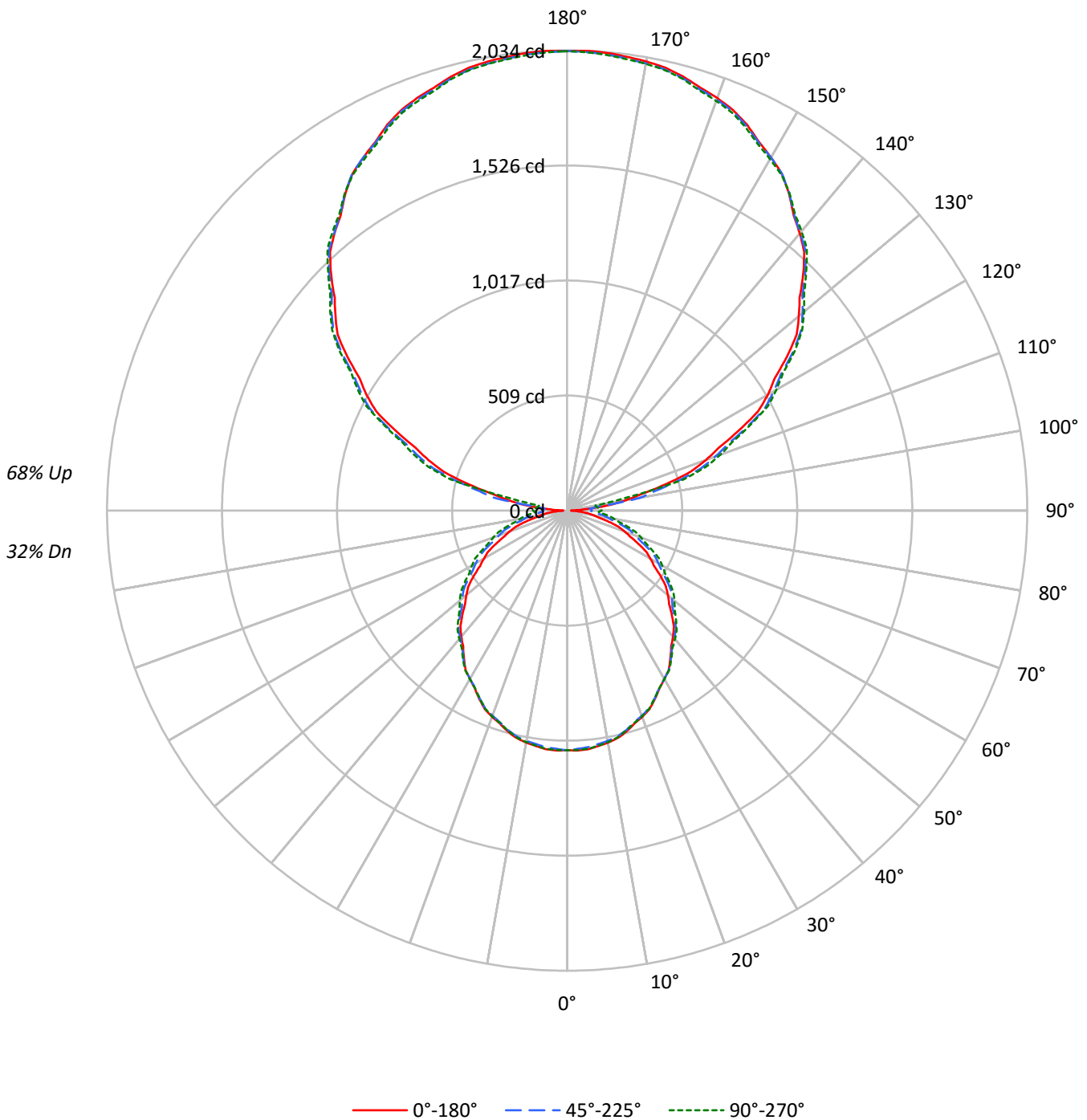
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

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	50	30	10	50	30	10	0		
RCR																										
0	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	32					32			
1	93	89	85	81	84	80	77	74	64	61	59	48	47	46	35	34	33	26					26			
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22					22			
3	77	68	60	55	69	61	55	50	49	44	41	37	34	32	26	25	23	18					18			
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15					15			
5	65	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17	13					13			
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12					12			
7	55	43	35	29	49	39	32	27	31	26	22	24	20	18	17	15	13	10					10			
8	51	39	31	26	45	35	28	24	28	23	20	22	18	16	16	14	12	9					9			
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	12	11	8					8			
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7					7			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.1
10°-20°	284.4	3.0
20°-30°	422.9	4.4
30°-40°	500.9	5.3
40°-50°	517.9	5.4
50°-60°	477.1	5.0
60°-70°	385.7	4.1
70°-80°	258.3	2.7
80°-90°	138.2	1.5
90°-100°	148.9	1.6
100°-110°	510.2	5.4
110°-120°	862.0	9.1
120°-130°	1079.7	11.3
130°-140°	1147.8	12.1
140°-150°	1070.6	11.2
150°-160°	864.6	9.1
160°-170°	559.1	5.9
170°-180°	192.9	2.0
0°-30°	807.4	8.5
0°-40°	1308.3	13.7
0°-60°	2303.3	24.2
0°-90°	3085.4	32.4
90°-120°	1521.2	16.0
90°-150°	4819.3	50.6
90°-180°	6436.0	67.6
0°-180°	9521.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	18	63	109	140	152	15
95°	99	119	100	129	138	120
105°	452	475	506	526	532	479
115°	837	853	880	892	890	830
125°	1186	1196	1216	1226	1227	1059
135°	1476	1484	1488	1498	1495	1137
145°	1710	1712	1712	1718	1713	1068
155°	1882	1873	1876	1879	1868	867
165°	1986	1977	1978	1986	1975	561
175°	2031	2022	2023	2034	2022	193
180°	2031	2031	2031	2031	2031	



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.7	40.6	48.5	56.5	64.4	72.5	80.8	89.1	97.4	105.8	111.4
90°	18.1	28.2	38.2	48.3	58.4	68.5	78.7	88.9	99.1	109.2	116.2
92.5°	38.1	43.1	48.1	53.0	58.0	65.5	75.6	85.7	95.8	105.9	112.7
95°	99.3	104.3	109.3	114.3	119.3	119.4	114.5	109.6	104.8	99.9	106.7
97.5°	191.4	198.6	205.8	213.0	220.2	215.0	197.4	179.9	162.3	144.7	140.1
100°	262.8	268.7	274.5	280.4	286.2	293.5	302.2	311.0	319.7	328.4	283.4
102.5°	335.4	341.2	346.9	352.7	358.4	365.3	373.3	381.3	389.3	397.3	392.6
105°	451.9	457.0	462.0	467.0	472.0	478.0	484.9	491.9	498.8	505.7	510.3
107.5°	572.9	576.0	579.2	582.3	585.5	590.7	598.0	605.3	612.6	620.0	624.6
110°	651.6	654.3	657.1	659.9	662.6	667.6	674.7	681.9	689.0	696.1	699.5



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	726.2	729.2	732.3	735.3	738.3	743.1	749.8	756.5	763.2	769.9	772.8
115°	837.2	840.5	843.8	847.1	850.3	855.2	861.5	867.8	874.2	880.5	883.3
117.5°	952.1	953.1	954.0	955.0	956.0	960.0	967.0	973.9	980.9	987.8	990.0
120°	1024.3	1024.7	1025.0	1025.4	1025.7	1029.1	1035.4	1041.7	1048.0	1054.3	1057.6
122.5°	1087.3	1088.9	1090.5	1092.1	1093.7	1097.3	1102.9	1108.5	1114.1	1119.7	1122.7
125°	1185.9	1188.0	1190.1	1192.2	1194.3	1197.7	1202.3	1206.9	1211.5	1216.1	1218.5
127.5°	1279.1	1280.5	1281.9	1283.4	1284.8	1287.3	1290.9	1294.5	1298.1	1301.7	1304.4
130°	1336.9	1338.3	1339.7	1341.2	1342.6	1345.1	1348.7	1352.3	1355.8	1359.4	1361.6
132.5°	1393.8	1395.7	1397.6	1399.5	1401.4	1403.2	1405.0	1406.7	1408.5	1410.3	1413.3
135°	1475.8	1477.6	1479.4	1481.1	1482.9	1484.3	1485.2	1486.2	1487.1	1488.1	1490.4
137.5°	1551.2	1552.7	1554.3	1555.8	1557.4	1558.3	1558.4	1558.6	1558.8	1559.0	1561.9
140°	1599.7	1600.4	1601.1	1601.7	1602.4	1602.7	1602.6	1602.5	1602.4	1602.3	1605.5
142.5°	1644.3	1644.5	1644.7	1644.9	1645.1	1645.5	1646.0	1646.5	1647.1	1647.6	1649.9
145°	1709.6	1710.1	1710.5	1710.9	1711.4	1711.6	1711.6	1711.6	1711.6	1711.6	1713.1
147.5°	1765.8	1765.6	1765.5	1765.4	1765.2	1765.4	1765.8	1766.2	1766.6	1767.0	1767.8
150°	1801.9	1801.2	1800.6	1799.9	1799.2	1799.2	1799.9	1800.6	1801.2	1801.9	1802.6
152.5°	1836.8	1835.4	1833.9	1832.4	1830.9	1830.5	1831.2	1831.9	1832.6	1833.2	1833.9
155°	1881.7	1879.7	1877.7	1875.7	1873.7	1873.0	1873.7	1874.3	1875.0	1875.7	1876.7
157.5°	1916.3	1915.1	1913.9	1912.7	1911.5	1910.9	1911.0	1911.1	1911.1	1911.2	1912.3
160°	1940.4	1938.4	1936.4	1934.4	1932.4	1931.5	1931.9	1932.2	1932.5	1932.9	1934.2
162.5°	1959.7	1957.7	1955.7	1953.6	1951.6	1950.8	1951.1	1951.5	1951.8	1952.1	1954.0
165°	1985.6	1983.6	1981.5	1979.5	1977.5	1976.7	1977.0	1977.4	1977.7	1978.0	1980.0
167.5°	2004.8	2002.8	2000.7	1998.6	1996.5	1995.7	1996.0	1996.3	1996.7	1997.0	1999.4
170°	2015.7	2013.3	2011.0	2008.6	2006.3	2005.3	2005.6	2006.0	2006.3	2006.6	2009.3
172.5°	2022.9	2020.6	2018.2	2015.9	2013.5	2012.7	2013.3	2013.9	2014.5	2015.1	2017.5
175°	2030.7	2028.7	2026.7	2024.7	2022.7	2021.9	2022.2	2022.5	2022.9	2023.2	2025.9
177.5°	2034.3	2032.7	2031.1	2029.5	2027.9	2027.2	2027.5	2027.8	2028.0	2028.3	2030.2
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	117.1	122.7	128.3	132.1	133.9	135.7	137.5	139.3
90°	123.2	130.2	137.2	142.0	144.6	147.2	149.8	152.4
92.5°	119.5	126.3	133.1	137.5	139.6	141.7	143.8	145.9
95°	113.4	120.2	126.9	131.1	132.7	134.3	135.9	137.5
97.5°	135.5	130.9	126.3	124.8	126.4	128.0	129.5	131.1
100°	238.4	193.4	148.4	125.9	126.0	126.0	126.1	126.1
102.5°	387.8	383.0	378.2	365.2	343.8	322.5	301.1	279.7
105°	514.9	519.6	524.2	527.1	528.4	529.7	531.0	532.3
107.5°	629.2	633.9	638.5	641.0	641.5	641.9	642.3	642.7
110°	702.9	706.3	709.6	712.3	714.3	716.2	718.2	720.1



TEST NUMBER: P333426

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	775.7	778.7	781.6	783.6	784.8	785.9	787.1	788.2
115°	886.1	888.9	891.8	892.9	892.2	891.6	891.0	890.4
117.5°	992.2	994.4	996.5	998.0	998.7	999.4	1000.1	1000.8
120°	1060.8	1064.1	1067.3	1068.8	1068.5	1068.3	1068.0	1067.7
122.5°	1125.8	1128.9	1131.9	1133.2	1132.6	1132.1	1131.5	1131.0
125°	1220.8	1223.2	1225.5	1226.8	1226.9	1227.1	1227.2	1227.4
127.5°	1307.0	1309.7	1312.4	1313.2	1312.0	1310.9	1309.8	1308.6
130°	1363.8	1366.1	1368.3	1369.2	1368.6	1368.1	1367.6	1367.1
132.5°	1416.3	1419.4	1422.4	1423.5	1422.8	1422.1	1421.4	1420.7
135°	1492.7	1495.1	1497.4	1498.1	1497.3	1496.4	1495.6	1494.7
137.5°	1564.7	1567.6	1570.4	1571.4	1570.6	1569.8	1569.0	1568.2
140°	1608.7	1611.9	1615.1	1616.2	1615.1	1614.0	1612.9	1611.8
142.5°	1652.2	1654.5	1656.8	1657.4	1656.3	1655.2	1654.1	1653.1
145°	1714.6	1716.1	1717.5	1717.7	1716.7	1715.6	1714.5	1713.4
147.5°	1768.5	1769.3	1770.1	1769.5	1767.5	1765.5	1763.5	1761.5
150°	1803.2	1803.9	1804.6	1803.7	1801.3	1798.8	1796.4	1793.9
152.5°	1834.6	1835.2	1835.9	1835.0	1832.7	1830.3	1828.0	1825.6
155°	1877.7	1878.7	1879.7	1878.8	1876.2	1873.5	1870.8	1868.1
157.5°	1913.3	1914.4	1915.5	1914.7	1912.0	1909.3	1906.6	1904.0
160°	1935.5	1936.9	1938.2	1937.6	1934.9	1932.2	1929.5	1926.9
162.5°	1955.9	1957.8	1959.6	1959.1	1956.2	1953.2	1950.3	1947.3
165°	1982.0	1984.1	1986.1	1985.7	1983.1	1980.4	1977.7	1975.0
167.5°	2001.8	2004.2	2006.6	2006.3	2003.3	2000.3	1997.3	1994.3
170°	2012.0	2014.7	2017.3	2017.2	2014.2	2011.2	2008.1	2005.1
172.5°	2019.9	2022.3	2024.7	2024.4	2021.4	2018.4	2015.4	2012.4
175°	2028.5	2031.2	2033.9	2033.7	2030.7	2027.7	2024.7	2021.7
177.5°	2032.1	2033.9	2035.8	2035.7	2033.5	2031.4	2029.2	2027.1
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7

(END OF REPORT)