

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: P333427-840

Luminaire Tested: **S125DIW-S850D1560U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333427-840
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-S850D1560U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8778.9 lumens
Efficiency: N/A
Efficacy: 128.9 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

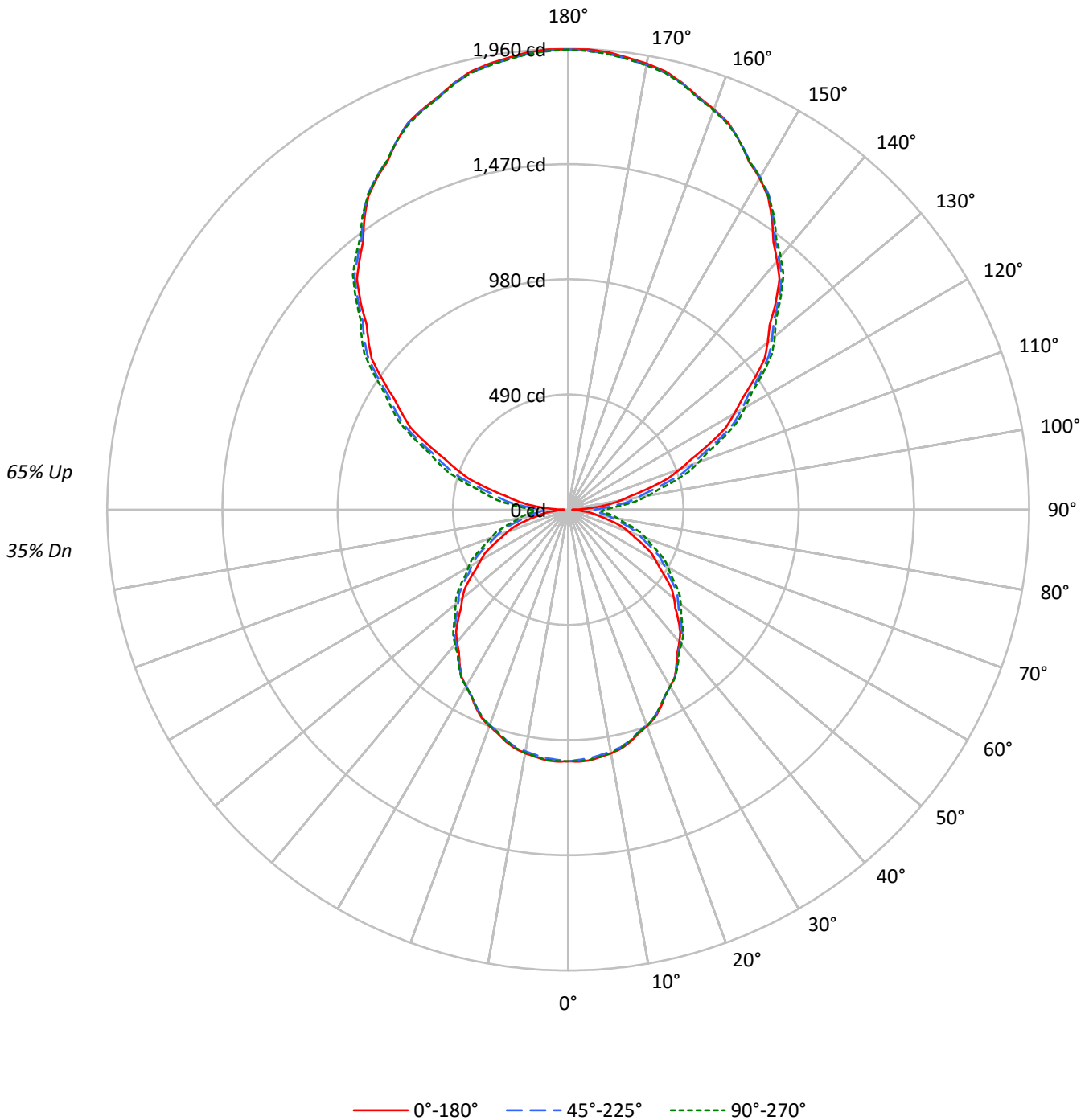
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333427-840

CATALOG NUMBER: S125DIW-S850D1560U840-4F0-1E-UDD-D1

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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	41	39	36	33	28	26	25	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	20	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	14	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	15	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



TEST NUMBER: P333427-840

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.2
10°-20°	287.2	3.3
20°-30°	427.1	4.9
30°-40°	505.9	5.8
40°-50°	523.0	6.0
50°-60°	481.8	5.5
60°-70°	389.5	4.4
70°-80°	260.8	3.0
80°-90°	139.5	1.6
90°-100°	207.0	2.4
100°-110°	443.0	5.0
110°-120°	693.1	7.9
120°-130°	884.2	10.1
130°-140°	976.1	11.1
140°-150°	949.5	10.8
150°-160°	795.9	9.1
160°-170°	529.1	6.0
170°-180°	185.2	2.1
0°-30°	815.4	9.3
0°-40°	1321.2	15.1
0°-60°	2326.0	26.5
0°-90°	3115.9	35.5
90°-120°	1343.2	15.3
90°-150°	4152.9	47.3
90°-180°	5663.0	64.5
0°-180°	8778.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	18	64	110	141	154	17
95°	113	144	194	226	238	116
105°	357	382	422	451	464	381
115°	663	677	706	723	729	655
125°	962	971	993	1006	1010	861
135°	1248	1256	1265	1278	1278	962
145°	1510	1515	1520	1525	1525	944
155°	1727	1727	1729	1734	1727	795
165°	1878	1875	1876	1882	1873	530
175°	1953	1947	1946	1954	1945	185
180°	1957	1957	1957	1957	1957	



TEST NUMBER: P333427-840

CATALOG NUMBER: S125DIW-S850D1560U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	33.0	41.0	49.0	57.1	65.0	73.2	81.6	90.0	98.5	106.8	112.5
90°	18.3	28.5	38.7	48.8	59.0	69.2	79.5	89.8	100.1	110.4	117.4
92.5°	52.0	60.8	69.6	78.4	87.2	97.0	108.1	119.1	130.1	141.2	148.6
95°	112.6	119.4	126.1	132.8	139.6	148.6	159.9	171.2	182.5	193.8	201.4
97.5°	176.8	182.6	188.3	194.0	199.8	208.7	221.1	233.4	245.7	258.0	265.2
100°	224.8	229.6	234.6	239.4	244.4	252.7	264.6	276.4	288.3	300.1	308.1
102.5°	276.3	282.2	288.1	294.0	299.8	307.5	317.0	326.5	336.0	345.6	353.6
105°	356.7	362.1	367.5	372.9	378.4	385.6	394.7	403.6	412.6	421.7	428.4
107.5°	445.6	450.5	455.3	460.2	465.0	471.6	479.9	488.2	496.4	504.7	510.3
110°	506.9	511.4	515.8	520.4	524.8	530.9	538.5	545.9	553.5	561.1	566.4



TEST NUMBER: P333427-840

CATALOG NUMBER: S125DIW-S850D1560U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	570.3	573.4	576.5	579.6	582.7	588.1	595.7	603.4	611.0	618.6	623.3
115°	662.7	665.7	668.7	671.7	674.7	679.5	686.3	693.0	699.7	706.5	710.3
117.5°	755.5	757.2	758.8	760.5	762.2	766.2	772.5	778.9	785.3	791.6	795.9
120°	814.0	816.4	818.8	821.1	823.5	827.6	833.2	839.0	844.7	850.4	854.3
122.5°	876.5	877.5	878.4	879.3	880.2	883.7	889.8	895.9	901.9	908.0	911.5
125°	962.2	964.0	965.7	967.6	969.4	972.8	977.8	982.8	987.7	992.8	995.8
127.5°	1052.5	1053.4	1054.4	1055.3	1056.2	1058.7	1063.0	1067.2	1071.5	1075.7	1078.8
130°	1107.3	1108.8	1110.2	1111.8	1113.2	1115.9	1119.8	1123.8	1127.7	1131.7	1134.6
132.5°	1161.3	1164.1	1166.8	1169.5	1172.3	1174.8	1177.2	1179.6	1181.9	1184.4	1187.3
135°	1248.0	1249.7	1251.5	1253.3	1255.2	1257.0	1259.0	1260.9	1262.9	1264.9	1267.9
137.5°	1329.4	1331.1	1332.9	1334.7	1336.5	1338.2	1339.7	1341.2	1342.7	1344.2	1347.5
140°	1380.9	1382.6	1384.3	1386.0	1387.7	1389.2	1390.4	1391.7	1392.9	1394.1	1397.4
142.5°	1433.3	1434.5	1435.8	1437.0	1438.2	1439.6	1440.9	1442.2	1443.5	1444.9	1447.4
145°	1510.4	1511.5	1512.6	1513.8	1514.9	1515.9	1516.9	1517.9	1518.9	1519.9	1521.2
147.5°	1580.6	1581.3	1582.1	1582.9	1583.6	1584.4	1585.2	1586.0	1586.8	1587.6	1588.8
150°	1628.1	1627.8	1627.5	1627.1	1626.8	1627.3	1628.6	1630.0	1631.3	1632.7	1632.7
152.5°	1667.1	1667.6	1668.1	1668.5	1669.0	1669.5	1670.1	1670.6	1671.1	1671.7	1672.5
155°	1727.2	1727.2	1727.2	1727.2	1727.2	1727.3	1727.7	1728.0	1728.3	1728.7	1730.0
157.5°	1780.7	1780.0	1779.3	1778.5	1777.8	1777.6	1777.9	1778.3	1778.6	1778.9	1780.3
160°	1812.4	1811.4	1810.4	1809.4	1808.4	1808.1	1808.4	1808.7	1809.1	1809.4	1810.7
162.5°	1840.5	1839.7	1839.0	1838.3	1837.4	1837.1	1837.1	1837.2	1837.3	1837.3	1839.1
165°	1877.9	1877.2	1876.5	1875.9	1875.2	1875.0	1875.4	1875.7	1876.0	1876.4	1877.7
167.5°	1909.6	1908.2	1906.9	1905.5	1904.2	1903.5	1903.5	1903.5	1903.5	1903.5	1905.5
170°	1926.6	1925.3	1923.9	1922.6	1921.3	1920.6	1920.6	1920.6	1920.6	1920.6	1922.6
172.5°	1938.8	1937.5	1936.1	1934.8	1933.4	1932.8	1932.8	1932.8	1932.8	1932.8	1934.8
175°	1952.6	1951.2	1949.8	1948.4	1947.1	1946.4	1946.4	1946.4	1946.4	1946.4	1948.4
177.5°	1959.5	1958.4	1957.4	1956.3	1955.2	1954.5	1954.3	1954.0	1953.7	1953.5	1955.1
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1



TEST NUMBER: P333427-840

CATALOG NUMBER: S125DIW-S850D1560U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	118.3	123.9	129.6	133.4	135.2	137.0	138.9	140.7
90°	124.5	131.5	138.6	143.4	146.1	148.8	151.4	154.0
92.5°	155.9	163.4	170.8	175.6	178.0	180.4	182.8	185.1
95°	208.8	216.3	223.8	228.7	231.1	233.4	235.6	237.9
97.5°	272.3	279.4	286.6	291.1	293.1	295.1	297.1	299.1
100°	316.0	324.0	331.9	336.9	339.0	341.0	343.2	345.2
102.5°	361.5	369.6	377.6	382.8	385.2	387.5	389.8	392.2
105°	435.0	441.8	448.5	453.1	455.8	458.4	461.1	463.7
107.5°	515.9	521.6	527.3	530.7	532.1	533.5	534.8	536.2
110°	571.9	577.3	582.8	586.2	587.4	588.8	590.1	591.4



TEST NUMBER: P333427-840

CATALOG NUMBER: S125DIW-S850D1560U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	628.0	632.8	637.4	640.4	641.4	642.4	643.4	644.4
115°	714.2	718.0	721.9	724.4	725.4	726.5	727.5	728.6
117.5°	800.1	804.3	808.5	810.7	811.0	811.2	811.4	811.7
120°	858.3	862.2	866.3	868.3	868.3	868.3	868.4	868.4
122.5°	914.9	918.5	922.0	923.9	924.2	924.5	924.8	925.1
125°	998.9	1001.9	1005.0	1006.9	1007.7	1008.6	1009.4	1010.3
127.5°	1081.9	1085.0	1088.1	1090.0	1090.7	1091.4	1092.1	1092.7
130°	1137.5	1140.4	1143.4	1145.1	1145.5	1146.0	1146.5	1147.0
132.5°	1190.2	1193.2	1196.1	1197.5	1197.5	1197.6	1197.6	1197.6
135°	1270.9	1273.9	1277.0	1278.5	1278.3	1278.1	1277.9	1277.7
137.5°	1350.6	1353.7	1357.0	1358.1	1357.4	1356.6	1355.8	1355.0
140°	1400.7	1403.9	1407.1	1408.4	1407.5	1406.8	1406.0	1405.3
142.5°	1450.1	1452.7	1455.2	1456.2	1455.4	1454.6	1453.9	1453.1
145°	1522.4	1523.5	1524.7	1525.2	1525.1	1525.0	1525.0	1524.9
147.5°	1590.0	1591.1	1592.4	1592.1	1590.1	1588.2	1586.4	1584.5
150°	1632.7	1632.7	1632.7	1632.4	1632.0	1631.6	1631.1	1630.7
152.5°	1673.3	1674.2	1675.0	1674.8	1673.5	1672.4	1671.2	1670.1
155°	1731.3	1732.7	1734.0	1733.9	1732.2	1730.5	1728.8	1727.2
157.5°	1781.6	1783.0	1784.3	1783.9	1781.6	1779.4	1777.2	1774.9
160°	1812.1	1813.4	1814.8	1814.6	1812.9	1811.2	1809.6	1807.9
162.5°	1840.7	1842.3	1843.9	1843.7	1841.8	1839.8	1837.9	1835.8
165°	1879.1	1880.5	1881.8	1881.5	1879.5	1877.4	1875.4	1873.3
167.5°	1907.5	1909.6	1911.6	1911.6	1909.5	1907.4	1905.3	1903.2
170°	1924.6	1926.6	1928.6	1928.5	1926.1	1923.8	1921.4	1919.0
172.5°	1936.8	1938.8	1940.9	1940.9	1938.7	1936.6	1934.5	1932.5
175°	1950.6	1952.6	1954.6	1954.4	1952.1	1949.6	1947.3	1944.9
177.5°	1956.7	1958.3	1959.9	1959.8	1957.9	1956.0	1954.1	1952.3
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1

(END OF REPORT)