

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: P333699-830

Luminaire Tested: **S125RDIW-S850D1560U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333699-830
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: S125RDIW-S850D1560U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8162.9 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

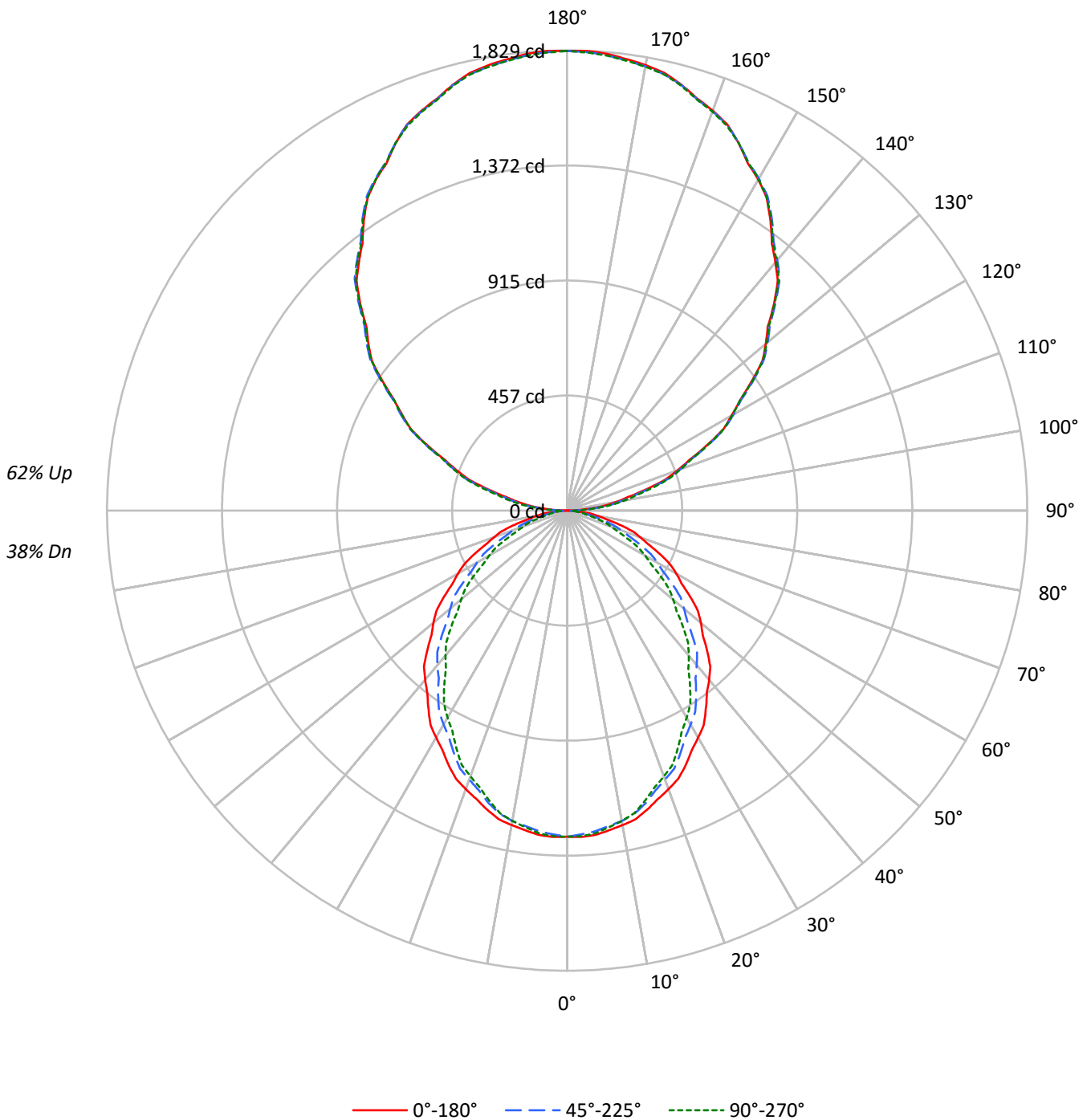
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	51	50	40	39	38	32
2	87	80	74	69	78	72	67	63	59	55	52	47	44	42	35	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	31	29	28	23
4	72	62	54	49	65	57	50	45	46	42	38	37	33	31	28	26	24	20
5	66	55	47	42	60	50	44	38	41	36	32	33	29	27	25	23	21	17
6	61	50	42	36	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	57	45	37	31	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	40	33	28	48	37	31	26	31	26	22	25	21	18	19	17	15	12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	17	18	15	13	11
10	46	34	27	22	41	31	25	21	26	21	18	21	17	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8371	8371	8371
5°	8390	8294	8345
10°	8326	8217	8217
15°	8227	8050	7985
20°	8100	7818	7724
25°	7953	7590	7422
30°	7767	7322	7088
35°	7579	7046	6714
40°	7403	6759	6347
45°	7188	6437	5945
50°	6973	6089	5528
55°	6723	5754	5082
60°	6473	5349	4602
65°	6178	4876	4053
70°	5840	4288	3493
75°	5375	3616	2907
80°	4731	2838	2440
85°	3987	2319	2179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	1.5
10°-20°	340.6	4.2
20°-30°	493.9	6.1
30°-40°	562.9	6.9
40°-50°	548.6	6.7
50°-60°	461.8	5.7
60°-70°	323.7	4.0
70°-80°	166.4	2.0
80°-90°	46.0	0.6
90°-100°	122.3	1.5
100°-110°	361.3	4.4
110°-120°	611.9	7.5
120°-130°	805.3	9.9
130°-140°	902.4	11.1
140°-150°	884.4	10.8
150°-160°	742.8	9.1
160°-170°	493.8	6.0
170°-180°	172.8	2.1
0°-30°	956.3	11.7
0°-40°	1519.2	18.6
0°-60°	2529.7	31.0
0°-90°	3065.8	37.6
90°-120°	1095.5	13.4
90°-150°	3687.7	45.2
90°-180°	5097.0	62.4
0°-180°	8162.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1294	1290	1279	1289	1287	123
15°	1230	1224	1204	1203	1194	347
25°	1116	1100	1065	1052	1042	513
35°	961	937	894	866	852	602
45°	787	757	705	667	651	607
55°	597	564	511	468	451	534
65°	404	370	319	281	265	400
75°	215	185	145	124	116	228
85°	54	37	31	30	29	61
90°	1	13	23	30	34	8
95°	92	96	109	119	122	99
105°	324	331	340	348	352	346
115°	613	618	621	620	618	606
125°	894	902	904	901	900	800
135°	1163	1171	1173	1172	1167	896
145°	1409	1414	1419	1418	1414	880
155°	1612	1612	1613	1618	1612	742
165°	1753	1750	1751	1756	1748	494
175°	1822	1817	1817	1824	1815	173
180°	1827	1827	1827	1827	1827	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.4	1297.9	1297.3	1296.8	1296.3	1295.1	1293.5	1291.7	1290.0	1288.2	1290.0
5°	1294.1	1293.3	1292.3	1291.5	1290.6	1289.0	1286.6	1284.2	1281.8	1279.4	1281.6
7.5°	1281.4	1280.5	1279.7	1278.8	1278.1	1276.2	1273.4	1270.5	1267.6	1264.7	1266.2
10°	1269.6	1268.9	1268.3	1267.6	1267.0	1265.2	1262.2	1259.0	1256.0	1253.0	1253.6
12.5°	1256.3	1255.5	1254.6	1253.9	1253.0	1250.6	1246.4	1242.4	1238.3	1234.2	1234.6
15°	1230.5	1229.2	1227.9	1226.5	1225.2	1222.3	1217.8	1213.1	1208.6	1204.0	1203.8
17.5°	1201.3	1199.3	1197.3	1195.3	1193.3	1189.4	1183.6	1177.9	1172.1	1166.4	1165.4
20°	1178.6	1176.4	1174.2	1172.1	1169.9	1165.3	1158.4	1151.4	1144.4	1137.5	1136.4
22.5°	1153.5	1151.3	1149.1	1147.0	1144.8	1140.1	1132.7	1125.5	1118.1	1110.9	1108.7
25°	1116.0	1112.7	1109.4	1106.2	1102.9	1097.2	1089.2	1081.1	1073.1	1065.1	1062.2
27.5°	1072.9	1068.9	1065.0	1061.0	1057.1	1050.7	1042.2	1033.5	1024.9	1016.2	1012.3
30°	1041.5	1037.4	1033.3	1029.2	1025.0	1018.3	1009.3	1000.1	991.0	981.8	976.9
32.5°	1011.0	1006.2	1001.4	996.6	991.6	984.6	975.3	966.0	956.7	947.3	941.9
35°	961.3	956.0	950.8	945.6	940.4	932.8	923.1	913.3	903.5	893.7	887.4
37.5°	912.5	906.2	899.8	893.4	887.1	878.9	868.8	858.7	848.6	838.5	830.9
40°	878.1	871.6	865.0	858.5	852.0	843.5	833.0	822.6	812.2	801.7	793.4
42.5°	842.1	835.4	828.7	821.9	815.2	806.5	795.7	784.9	774.1	763.4	755.4
45°	787.0	780.7	774.4	768.1	761.8	752.6	740.6	728.8	716.8	704.8	696.1
47.5°	730.1	723.4	716.7	710.1	703.4	694.1	682.0	670.0	657.9	645.8	636.9
50°	694.0	686.8	679.7	672.5	665.3	655.5	643.1	630.7	618.3	606.0	596.8
52.5°	654.9	647.5	640.2	632.8	625.5	616.0	604.3	592.6	580.8	569.1	559.3
55°	597.1	590.1	583.2	576.3	569.3	559.7	547.5	535.4	523.2	511.0	501.1
57.5°	538.8	531.3	523.9	516.4	509.1	499.5	487.7	475.9	464.2	452.4	442.9
60°	501.1	493.6	486.0	478.3	470.7	461.1	449.3	437.5	425.8	414.1	404.5
62.5°	461.3	454.0	446.8	439.4	432.2	422.6	410.7	398.8	386.8	374.9	366.1
65°	404.3	396.9	389.5	382.1	374.7	365.2	353.7	342.1	330.6	319.1	310.4
67.5°	347.7	340.3	332.9	325.6	318.1	308.9	297.8	286.8	275.8	264.7	256.7
70°	309.3	301.9	294.5	287.1	279.7	270.6	259.8	248.8	238.0	227.1	220.4
72.5°	271.7	264.5	257.3	250.1	242.9	234.1	223.9	213.8	203.6	193.4	187.2
75°	215.4	208.9	202.3	195.8	189.3	181.4	172.3	163.2	154.0	144.9	140.1
77.5°	159.4	154.1	148.9	143.7	138.5	132.2	124.9	117.6	110.3	103.0	99.6
80°	127.2	122.1	116.8	111.6	106.4	100.8	94.6	88.5	82.5	76.3	74.4
82.5°	96.0	91.2	86.5	81.8	77.1	72.7	68.5	64.4	60.1	56.0	55.0
85°	53.8	50.0	46.0	42.1	38.2	35.6	34.6	33.5	32.4	31.3	31.1
87.5°	18.3	17.6	16.9	16.1	15.5	15.3	15.5	15.7	16.0	16.3	16.6
90°	1.4	4.0	6.5	9.0	11.5	13.9	16.1	18.3	20.5	22.7	24.3
92.5°	34.4	36.2	38.0	39.7	41.5	43.7	46.5	49.1	51.8	54.6	56.6
95°	92.4	93.0	93.7	94.3	94.9	96.8	100.0	103.1	106.3	109.4	111.7
97.5°	153.5	153.7	154.0	154.3	154.6	156.8	161.2	165.6	169.9	174.3	176.3
100°	199.0	199.0	199.0	199.0	199.0	201.0	205.2	209.2	213.4	217.4	220.4
102.5°	247.9	249.2	250.4	251.7	253.0	254.7	256.7	258.8	260.9	263.0	266.1
105°	324.1	325.6	327.3	328.9	330.5	332.2	334.0	335.9	337.8	339.8	341.7
107.5°	408.2	409.8	411.4	413.0	414.5	416.1	417.5	419.0	420.5	421.9	422.8
110°	466.3	467.9	469.4	471.0	472.6	473.8	474.8	475.7	476.6	477.6	478.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	525.4	526.2	527.1	527.8	528.7	529.7	530.8	532.1	533.3	534.5	534.9
115°	612.7	614.0	615.2	616.4	617.7	618.7	619.3	619.9	620.6	621.2	620.9
117.5°	700.2	700.8	701.3	701.9	702.5	703.0	703.6	704.2	704.7	705.4	705.6
120°	754.8	756.4	758.0	759.6	761.1	762.0	762.4	762.7	763.0	763.4	763.4
122.5°	814.0	814.5	815.1	815.7	816.2	816.9	817.7	818.6	819.4	820.2	819.9
125°	894.1	896.0	898.0	899.8	901.7	902.9	903.1	903.4	903.8	904.1	903.4
127.5°	979.4	980.5	981.6	982.6	983.7	984.5	984.9	985.2	985.6	986.0	985.6
130°	1030.6	1032.2	1033.8	1035.3	1036.9	1038.0	1038.7	1039.2	1039.9	1040.6	1040.2
132.5°	1081.8	1084.4	1086.9	1089.6	1092.1	1093.3	1093.3	1093.1	1093.0	1092.9	1092.5
135°	1162.8	1164.7	1166.6	1168.5	1170.4	1171.5	1171.8	1172.1	1172.4	1172.7	1172.7
137.5°	1239.0	1240.9	1242.6	1244.4	1246.3	1247.5	1248.3	1249.0	1249.6	1250.4	1250.8
140°	1287.9	1289.5	1291.0	1292.6	1294.2	1295.4	1296.4	1297.4	1298.4	1299.3	1299.9
142.5°	1336.8	1338.1	1339.4	1340.8	1342.1	1343.3	1344.5	1345.8	1347.0	1348.1	1348.5
145°	1408.7	1409.9	1411.3	1412.5	1413.8	1414.9	1415.8	1416.7	1417.7	1418.6	1418.6
147.5°	1475.3	1475.9	1476.6	1477.3	1478.0	1478.8	1479.5	1480.3	1481.0	1481.8	1482.5
150°	1519.6	1519.3	1519.0	1518.6	1518.3	1518.8	1520.0	1521.4	1522.6	1523.9	1523.9
152.5°	1555.9	1556.4	1556.9	1557.3	1557.7	1558.2	1558.8	1559.2	1559.7	1560.3	1561.0
155°	1612.0	1612.0	1612.0	1612.0	1612.0	1612.1	1612.5	1612.8	1613.1	1613.4	1614.7
157.5°	1662.0	1661.3	1660.7	1659.9	1659.3	1659.1	1659.3	1659.7	1660.0	1660.3	1661.6
160°	1691.6	1690.6	1689.7	1688.8	1687.8	1687.5	1687.8	1688.1	1688.5	1688.8	1690.0
162.5°	1717.8	1717.0	1716.4	1715.7	1715.0	1714.7	1714.7	1714.8	1714.9	1714.9	1716.5
165°	1752.8	1752.1	1751.4	1750.9	1750.2	1750.0	1750.4	1750.7	1751.0	1751.3	1752.6
167.5°	1782.3	1781.0	1779.8	1778.5	1777.3	1776.6	1776.6	1776.6	1776.6	1776.6	1778.5
170°	1798.2	1797.0	1795.6	1794.4	1793.2	1792.5	1792.5	1792.5	1792.5	1792.5	1794.4
172.5°	1809.6	1808.4	1807.0	1805.8	1804.5	1803.9	1803.9	1803.9	1803.9	1803.9	1805.8
175°	1822.4	1821.1	1819.9	1818.5	1817.3	1816.7	1816.7	1816.7	1816.7	1816.7	1818.5
177.5°	1828.9	1827.9	1826.9	1825.9	1824.9	1824.2	1824.0	1823.7	1823.4	1823.3	1824.8
180°	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1291.7	1293.5	1295.1	1296.0	1295.8	1295.6	1295.4	1295.2
5°	1283.7	1285.9	1288.1	1289.0	1288.5	1288.1	1287.7	1287.2
7.5°	1267.8	1269.3	1270.8	1271.3	1270.8	1270.4	1269.9	1269.4
10°	1254.2	1254.9	1255.6	1255.6	1254.9	1254.2	1253.6	1253.0
12.5°	1235.1	1235.6	1236.1	1235.9	1234.8	1233.8	1232.8	1231.8
15°	1203.6	1203.3	1203.2	1202.1	1200.1	1198.2	1196.2	1194.2
17.5°	1164.2	1163.2	1162.1	1160.7	1159.1	1157.5	1155.9	1154.3
20°	1135.3	1134.2	1133.1	1131.6	1129.6	1127.7	1125.7	1123.8
22.5°	1106.5	1104.5	1102.3	1100.4	1098.8	1097.2	1095.6	1094.0
25°	1059.4	1056.6	1053.8	1051.1	1048.7	1046.3	1044.0	1041.5
27.5°	1008.3	1004.4	1000.4	997.3	995.0	992.7	990.4	988.1
30°	971.9	966.9	961.8	958.4	956.4	954.4	952.4	950.5
32.5°	936.3	930.8	925.3	921.2	918.8	916.3	913.8	911.3
35°	881.1	874.8	868.5	863.8	860.7	857.7	854.7	851.6
37.5°	823.4	815.8	808.2	803.0	800.0	797.0	794.1	791.2
40°	785.1	776.9	768.6	763.2	760.6	758.0	755.4	752.8
42.5°	747.5	739.6	731.7	725.8	722.0	718.1	714.3	710.5
45°	687.4	678.7	670.0	664.0	660.7	657.5	654.2	650.9
47.5°	627.9	619.0	610.0	603.7	600.1	596.5	592.9	589.3
50°	587.7	578.5	569.4	563.2	560.0	556.7	553.4	550.2
52.5°	549.5	539.6	529.8	523.2	520.0	516.7	513.5	510.2
55°	491.4	481.6	471.8	465.1	461.8	458.3	454.8	451.3
57.5°	433.3	423.8	414.2	407.8	404.7	401.6	398.6	395.5
60°	394.9	385.3	375.8	369.4	366.1	362.9	359.6	356.3
62.5°	357.1	348.3	339.4	333.4	330.1	326.8	323.6	320.3
65°	301.7	293.0	284.3	278.3	275.0	271.8	268.5	265.2
67.5°	248.7	240.8	232.8	227.5	225.0	222.3	219.7	217.2
70°	213.6	206.9	200.1	195.5	192.8	190.2	187.7	185.0
72.5°	181.0	174.7	168.5	164.6	162.8	161.1	159.4	157.6
75°	135.3	130.5	125.7	122.6	121.0	119.5	118.0	116.5
77.5°	96.2	92.9	89.5	87.4	86.2	85.1	84.0	82.8
80°	72.5	70.5	68.5	67.3	66.9	66.4	66.0	65.6
82.5°	54.2	53.3	52.3	51.7	51.5	51.3	51.0	50.7
85°	30.9	30.6	30.4	30.3	30.0	29.8	29.6	29.4
87.5°	17.0	17.2	17.5	17.7	17.7	17.7	17.8	17.8
90°	25.9	27.5	29.0	30.3	31.3	32.2	33.2	34.1
92.5°	58.7	60.8	63.0	64.3	65.0	65.7	66.4	67.1
95°	113.9	116.1	118.3	119.7	120.4	121.0	121.6	122.2
97.5°	178.4	180.5	182.6	183.9	184.3	184.6	185.0	185.4
100°	223.2	226.0	228.8	230.6	231.2	231.9	232.5	233.1
102.5°	269.2	272.3	275.3	277.4	278.2	279.1	280.0	280.9
105°	343.6	345.4	347.3	348.7	349.7	350.6	351.6	352.5
107.5°	423.8	424.7	425.7	426.1	426.0	426.0	425.9	425.8
110°	479.6	480.5	481.5	481.7	481.5	481.1	480.8	480.5



TEST NUMBER: P333699-830

CATALOG NUMBER: S125RDIW-S850D1560U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	535.4	535.8	536.2	536.2	535.6	535.1	534.5	534.0
115°	620.6	620.3	619.9	619.6	619.3	619.0	618.7	618.4
117.5°	705.9	706.2	706.3	705.9	704.6	703.3	702.1	700.8
120°	763.4	763.4	763.4	762.7	761.5	760.2	758.9	757.7
122.5°	819.7	819.4	819.2	818.6	817.6	816.5	815.5	814.5
125°	902.9	902.2	901.5	901.1	900.8	900.4	900.1	899.8
127.5°	985.3	985.1	984.7	984.2	983.5	983.0	982.3	981.7
130°	1039.9	1039.6	1039.2	1038.8	1038.2	1037.6	1036.9	1036.3
132.5°	1092.2	1091.9	1091.6	1091.0	1090.1	1089.2	1088.4	1087.4
135°	1172.7	1172.7	1172.7	1172.1	1170.8	1169.6	1168.3	1167.1
137.5°	1251.1	1251.5	1251.9	1251.3	1249.7	1248.1	1246.5	1244.9
140°	1300.5	1301.2	1301.7	1301.3	1299.8	1298.2	1296.6	1295.0
142.5°	1348.9	1349.2	1349.7	1349.1	1347.5	1346.0	1344.3	1342.7
145°	1418.6	1418.6	1418.6	1418.1	1417.2	1416.3	1415.3	1414.4
147.5°	1483.3	1484.0	1484.8	1484.1	1482.0	1479.8	1477.7	1475.6
150°	1523.9	1523.9	1523.9	1523.5	1522.9	1522.3	1521.6	1521.0
152.5°	1561.8	1562.5	1563.3	1563.1	1562.0	1560.9	1559.7	1558.6
155°	1615.9	1617.2	1618.4	1618.3	1616.7	1615.1	1613.5	1612.0
157.5°	1662.8	1664.2	1665.4	1665.0	1662.8	1660.8	1658.7	1656.6
160°	1691.3	1692.5	1693.8	1693.7	1692.1	1690.5	1688.9	1687.3
162.5°	1718.0	1719.5	1721.0	1720.8	1719.0	1717.1	1715.3	1713.4
165°	1753.8	1755.1	1756.3	1756.1	1754.2	1752.3	1750.4	1748.4
167.5°	1780.4	1782.3	1784.1	1784.1	1782.2	1780.3	1778.3	1776.3
170°	1796.3	1798.2	1800.1	1800.0	1797.7	1795.5	1793.3	1791.1
172.5°	1807.7	1809.6	1811.5	1811.5	1809.5	1807.5	1805.5	1803.6
175°	1820.5	1822.4	1824.3	1824.1	1821.9	1819.7	1817.5	1815.2
177.5°	1826.3	1827.8	1829.3	1829.2	1827.4	1825.6	1823.8	1822.1
180°	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6	1826.6

(END OF REPORT)