

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: P333579-830

Luminaire Tested: **S125RDIP-S850D1205U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333579-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D1205U830-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7138.5 lumens
Efficiency: N/A
Efficacy: 125.5 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: General Diffuse

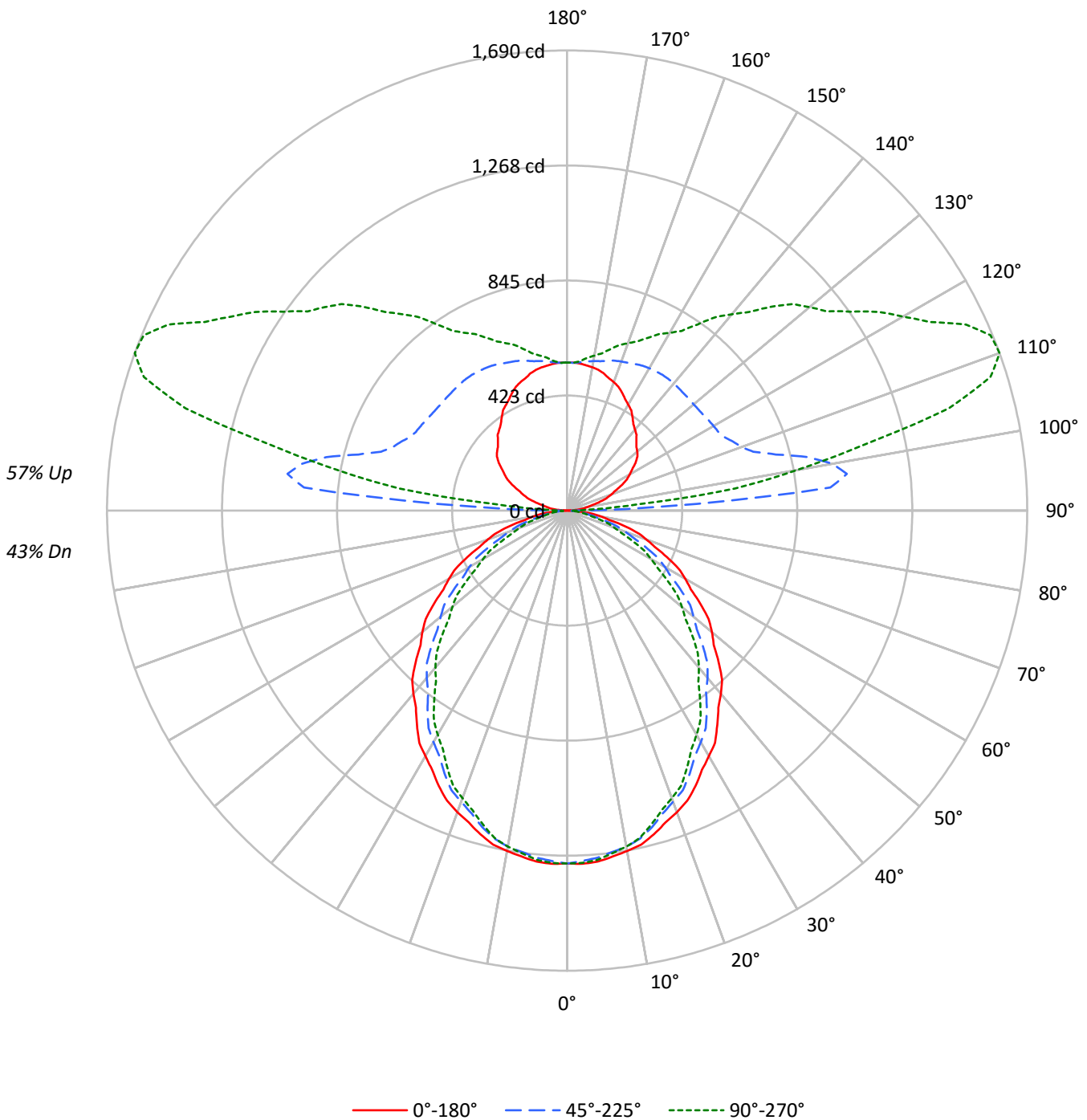
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	68	66	56	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	61	58	55	50	47	45	39	37	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	27	23
5	67	56	48	42	61	52	45	39	43	38	34	35	32	29	28	25	23	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	16
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	21	19	16	14
9	50	38	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	23	42	32	26	21	27	22	19	23	19	16	18	16	14	12

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	1.7
10°-20°	340.6	4.8
20°-30°	493.9	6.9
30°-40°	562.9	7.9
40°-50°	548.6	7.7
50°-60°	461.8	6.5
60°-70°	323.7	4.5
70°-80°	166.4	2.3
80°-90°	45.1	0.6
90°-100°	393.7	5.5
100°-110°	846.4	11.9
110°-120°	794.4	11.1
120°-130°	643.8	9.0
130°-140°	516.6	7.2
140°-150°	389.9	5.5
150°-160°	274.4	3.8
160°-170°	161.8	2.3
170°-180°	52.6	0.7
0°-30°	956.3	13.4
0°-40°	1519.2	21.3
0°-60°	2529.7	35.4
0°-90°	3064.9	42.9
90°-120°	2034.5	28.5
90°-150°	3584.8	50.2
90°-180°	4074.0	57.1
0°-180°	7138.5	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	60
90°	1	10	18	23	25	5
95°	36	107	970	440	257	38
105°	124	173	794	1563	1451	130
115°	221	267	637	1374	1616	218
125°	307	359	611	1093	1274	272
135°	359	432	607	916	1058	279
145°	418	479	609	758	834	262
155°	478	514	594	671	700	220
165°	521	536	570	604	613	147
175°	542	542	546	553	551	51
180°	543	543	543	543	543	



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CATALOG NUMBER: S125RDIP-S850D1205U830-4F0-1E-UDD-F4

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°	18.2	17.2	16.5	15.6	14.9	14.6	14.7	15.0	15.0	15.3	15.5
90°	1.1	2.2	4.3	6.6	8.8	10.9	12.1	14.2	15.4	17.5	18.7
92.5°	13.4	16.2	25.4	39.0	57.9	89.8	149.6	250.0	358.8	353.1	285.9
95°	36.1	37.2	46.0	58.1	82.1	131.4	248.6	489.6	791.8	970.3	949.5
97.5°	60.0	61.4	67.5	79.6	101.2	136.7	214.2	390.8	707.1	1036.2	1201.5
100°	76.6	78.9	83.2	95.3	116.1	148.9	212.4	354.9	630.8	988.9	1262.7
102.5°	95.1	96.4	99.9	112.8	131.9	163.8	220.4	340.0	573.0	905.7	1226.0
105°	123.8	123.8	129.2	140.2	157.7	188.4	236.6	334.0	516.9	794.0	1108.3
107.5°	151.7	154.0	159.2	168.2	186.4	214.0	260.6	344.1	493.2	717.1	988.4
110°	171.9	174.2	178.5	188.4	204.8	233.3	278.1	353.7	486.3	681.2	919.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.1	194.3	197.7	207.6	224.0	251.7	294.8	366.0	486.3	660.2	869.1
115°	221.2	223.4	226.7	236.6	253.0	280.4	320.9	384.4	489.6	637.4	813.7
117.5°	247.5	250.8	254.3	264.2	282.8	309.2	347.6	405.5	496.8	626.2	780.6
120°	265.0	268.3	272.7	282.6	301.1	328.6	366.9	419.4	503.8	620.9	762.2
122.5°	283.4	285.9	289.4	299.2	319.6	346.9	385.3	435.3	509.9	616.6	746.5
125°	306.6	308.9	314.3	324.1	345.0	373.4	409.6	456.7	520.2	611.1	725.0
127.5°	324.8	328.1	335.2	347.6	369.8	398.2	433.0	476.5	531.8	608.5	705.3
130°	336.2	339.5	348.3	362.5	385.5	414.0	447.9	489.6	538.9	606.7	692.2
132.5°	345.0	349.1	359.7	375.7	399.5	428.0	461.9	501.0	546.7	606.7	681.6
135°	359.2	363.6	376.7	394.3	417.3	446.9	480.8	516.9	557.4	606.7	669.2
137.5°	377.2	380.5	392.8	410.3	432.8	463.3	494.2	528.8	567.3	608.0	658.0
140°	387.7	391.0	404.2	421.7	442.4	472.0	503.8	536.7	571.7	608.9	652.7
142.5°	399.9	402.4	414.6	432.2	452.1	479.9	509.9	541.0	574.3	609.8	648.4
145°	418.4	420.6	431.5	446.9	466.6	491.7	520.2	547.6	577.2	608.9	641.8
147.5°	437.6	438.9	448.4	462.6	479.7	501.8	526.8	551.6	578.2	606.1	635.0
150°	449.0	451.2	458.9	473.2	488.4	507.1	531.1	554.2	578.2	603.4	629.7
152.5°	461.3	462.6	469.4	481.9	496.3	513.2	535.6	555.9	577.4	599.9	623.6
155°	477.5	477.5	484.1	495.0	506.0	521.3	539.9	557.4	575.0	593.6	613.3
157.5°	492.0	491.7	497.0	506.4	516.0	527.6	543.7	558.6	572.1	587.0	603.7
160°	501.6	500.5	504.9	512.6	521.3	531.1	545.4	558.6	569.5	582.7	595.8
162.5°	509.4	508.4	512.7	519.5	526.6	534.7	547.1	557.7	566.8	577.4	588.8
165°	521.3	519.2	522.5	527.9	532.3	538.9	547.6	556.4	562.9	569.5	578.2
167.5°	529.2	528.1	530.1	533.1	536.2	540.4	547.6	553.7	556.8	561.8	568.0
170°	534.4	533.4	534.4	536.7	538.9	542.2	547.6	552.0	554.2	557.4	561.8
172.5°	538.0	536.0	537.1	539.2	540.5	542.2	546.7	550.3	550.6	552.2	555.7
175°	542.2	539.9	541.0	542.2	542.2	542.2	545.4	547.6	546.5	546.5	547.6
177.5°	544.1	542.3	542.3	543.2	542.3	542.3	544.1	545.0	543.2	543.2	544.1
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2



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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°	15.6	15.9	16.1	16.5	16.3	16.1	16.2	16.0
90°	19.7	20.8	21.9	24.1	24.1	24.1	25.2	25.2
92.5°	194.1	140.8	106.0	89.8	75.8	73.1	71.6	69.8
95°	787.4	620.9	486.3	394.3	316.5	283.6	274.9	257.4
97.5°	1172.7	1056.0	924.8	796.8	729.2	667.9	636.1	622.1
100°	1347.1	1293.5	1180.6	1066.7	991.2	912.3	871.8	854.2
102.5°	1405.8	1438.9	1384.8	1307.7	1226.8	1170.7	1126.7	1113.6
105°	1371.2	1521.3	1569.4	1557.4	1522.3	1486.2	1464.2	1451.1
107.5°	1247.6	1447.8	1571.6	1628.8	1646.5	1646.3	1639.1	1630.3
110°	1156.5	1364.6	1519.0	1612.1	1661.4	1682.2	1689.9	1689.9



TEST NUMBER: P333579-830

CATALOG NUMBER: S125RDIP-S850D1205U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1084.7	1282.2	1438.4	1548.1	1620.2	1656.0	1675.0	1682.9
115°	994.5	1164.2	1314.2	1433.6	1519.0	1571.6	1602.2	1616.5
117.5°	936.1	1082.5	1211.7	1321.3	1406.7	1461.0	1491.5	1500.2
120°	904.7	1036.0	1156.5	1252.9	1334.0	1386.5	1416.1	1424.8
122.5°	881.0	1002.8	1110.1	1200.3	1272.6	1320.8	1350.4	1358.3
125°	846.6	958.3	1053.6	1132.5	1193.7	1238.7	1262.7	1273.8
127.5°	811.5	915.8	1004.8	1078.6	1134.2	1173.8	1196.7	1201.5
130°	789.7	886.0	971.5	1042.6	1097.4	1133.5	1155.5	1162.0
132.5°	767.7	858.0	935.5	1004.1	1058.9	1095.0	1115.1	1122.6
135°	739.2	814.8	885.0	947.3	995.5	1031.7	1051.4	1058.0
137.5°	715.2	776.3	834.5	887.6	930.7	963.6	981.8	988.9
140°	702.0	753.5	803.9	849.9	890.4	918.9	935.3	940.8
142.5°	690.6	734.2	777.6	817.5	851.9	875.9	891.5	896.1
145°	675.7	709.6	743.7	773.2	799.5	818.1	830.2	834.5
147.5°	661.8	689.3	715.4	737.7	758.6	773.5	780.4	782.4
150°	653.8	678.0	698.7	718.4	734.9	748.0	752.4	753.5
152.5°	645.1	666.6	685.6	701.0	714.7	725.2	729.6	730.8
155°	631.9	649.4	664.8	676.8	687.8	695.4	698.7	699.8
157.5°	618.8	633.2	645.1	654.5	663.0	669.4	672.4	672.2
160°	610.0	620.9	631.9	639.6	647.2	652.7	655.0	653.8
162.5°	600.4	610.5	619.6	626.4	632.4	637.0	637.4	637.2
165°	587.0	594.7	601.2	606.7	611.1	613.3	613.3	613.3
167.5°	574.3	579.4	584.4	588.3	590.5	592.5	591.6	591.4
170°	567.3	570.6	573.9	576.1	578.2	579.4	579.4	578.2
172.5°	559.4	562.7	565.1	566.5	566.8	568.8	567.1	566.0
175°	550.9	550.9	553.1	553.1	553.1	554.2	552.0	550.9
177.5°	545.0	545.8	545.8	545.8	545.0	545.8	543.2	543.2
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2

(END OF REPORT)