

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: P333247-830

Luminaire Tested: **S125DIP-S850D1205U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333247-830
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: S125DIP-S850D1205U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7760.6 lumens
Efficiency: N/A
Efficacy: 136.4 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: General Diffuse

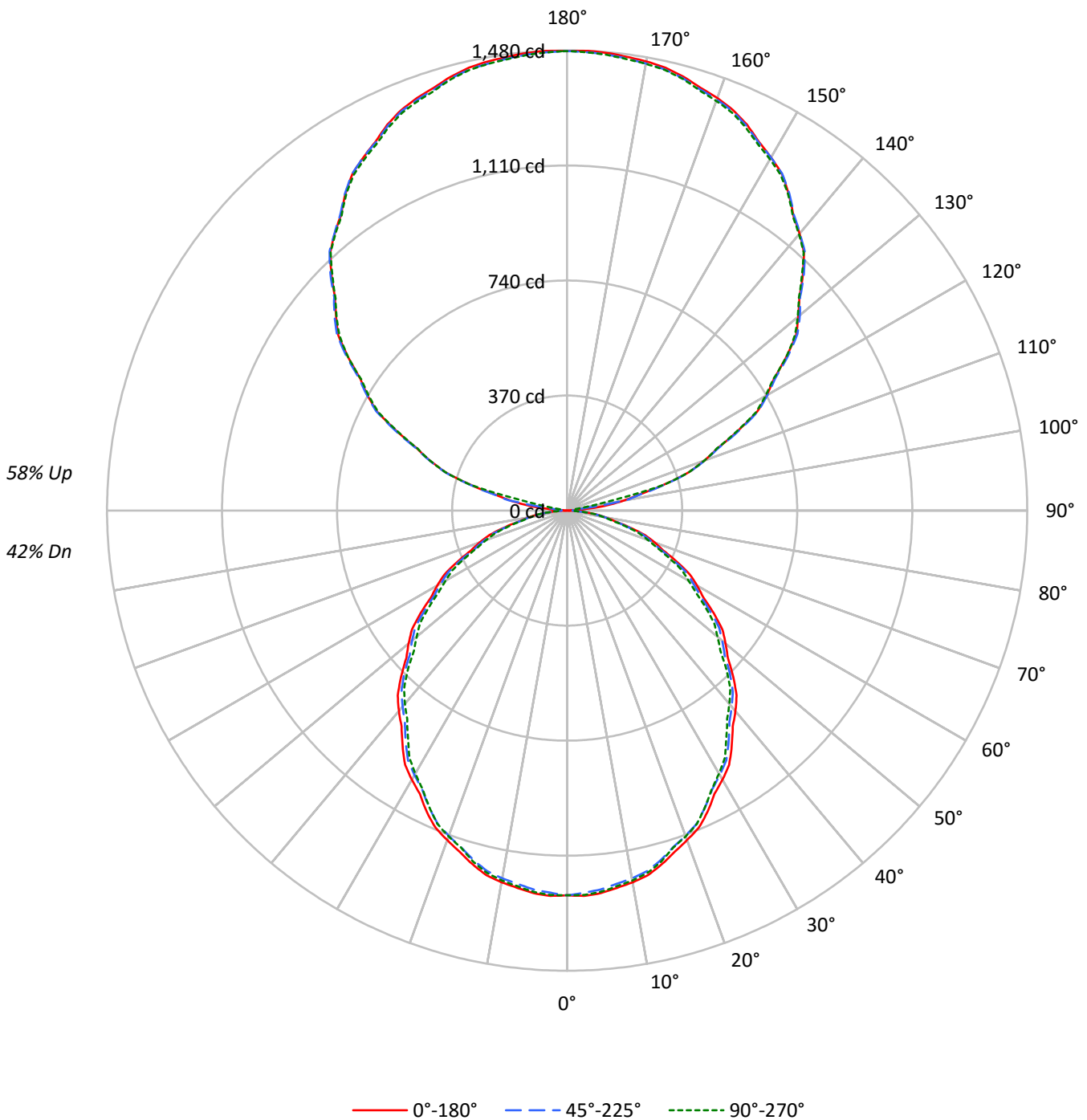
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	63	63	63	48	48	48	42
1	96	92	88	84	87	84	80	77	69	66	64	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	63	60	56	53	48	46	43	37	36	34	29
3	80	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	25
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	30	27	25	21
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	18
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22	26	22	19	20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	1.5
10°-20°	329.6	4.2
20°-30°	486.6	6.3
30°-40°	567.8	7.3
40°-50°	570.3	7.3
50°-60°	500.6	6.5
60°-70°	373.0	4.8
70°-80°	213.3	2.7
80°-90°	65.1	0.8
90°-100°	53.7	0.7
100°-110°	330.9	4.3
110°-120°	600.2	7.7
120°-130°	770.3	9.9
130°-140°	828.6	10.7
140°-150°	777.7	10.0
150°-160°	629.1	8.1
160°-170°	406.9	5.2
170°-180°	140.3	1.8
0°-30°	932.8	12.0
0°-40°	1500.6	19.3
0°-60°	2571.4	33.1
0°-90°	3222.8	41.5
90°-120°	984.9	12.7
90°-150°	3361.5	43.3
90°-180°	4538.0	58.5
0°-180°	7760.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	10	18	23	26	6
95°	62	57	18	23	23	80
105°	322	326	326	326	325	341
115°	605	610	611	607	600	599
125°	860	867	868	863	860	768
135°	1072	1078	1077	1074	1068	826
145°	1243	1245	1246	1246	1240	777
155°	1369	1363	1365	1368	1359	631
165°	1445	1439	1439	1445	1437	408
175°	1478	1472	1472	1480	1471	141
180°	1478	1478	1478	1478	1478	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.4	21.8	22.1	22.5	22.9	23.2	23.4	23.6	23.7	23.8	24.1
90°	1.1	3.0	5.0	7.0	8.9	10.7	12.4	14.1	15.8	17.5	18.8
92.5°	16.9	15.6	14.1	12.8	11.4	11.5	13.0	14.5	16.0	17.5	18.8
95°	62.4	61.7	61.0	60.2	59.5	54.6	45.2	36.0	26.8	17.5	18.8
97.5°	130.4	131.7	133.0	134.3	135.6	127.1	108.8	90.5	72.2	53.9	47.0
100°	182.9	183.7	184.4	185.1	185.9	186.7	187.7	188.7	189.6	190.6	154.3
102.5°	236.4	237.3	238.3	239.1	240.1	240.8	241.4	242.0	242.6	243.2	236.3
105°	322.1	323.0	324.0	325.0	325.9	326.4	326.4	326.4	326.4	326.4	326.4
107.5°	411.0	411.0	411.0	411.0	411.0	411.2	411.7	412.2	412.7	413.2	413.2
110°	468.8	468.8	468.8	468.8	468.8	469.1	469.6	470.0	470.5	471.0	470.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	523.2	523.8	524.3	524.9	525.5	525.9	526.2	526.5	526.8	527.1	526.2
115°	604.6	605.9	607.1	608.3	609.5	610.3	610.5	610.8	611.0	611.2	610.3
117.5°	689.0	689.0	688.9	688.9	688.8	689.3	690.2	691.1	692.0	693.0	691.7
120°	741.6	741.3	741.1	740.8	740.6	740.8	741.6	742.3	743.0	743.8	743.3
122.5°	788.1	789.0	789.9	790.8	791.7	792.4	792.7	793.1	793.4	793.7	793.2
125°	859.9	861.6	863.3	865.0	866.7	867.5	867.5	867.5	867.5	867.5	866.6
127.5°	928.5	929.7	930.9	932.1	933.3	933.9	933.7	933.6	933.4	933.3	932.7
130°	970.5	971.8	973.0	974.2	975.4	976.1	976.4	976.7	976.9	977.1	976.4
132.5°	1012.6	1014.0	1015.4	1016.8	1018.2	1018.7	1018.1	1017.6	1017.1	1016.5	1016.4
135°	1072.4	1073.8	1075.3	1076.8	1078.3	1078.7	1078.3	1077.8	1077.2	1076.8	1076.3
137.5°	1127.4	1128.7	1129.9	1131.1	1132.5	1132.8	1132.5	1132.0	1131.5	1131.1	1131.2
140°	1163.3	1163.9	1164.3	1164.8	1165.3	1165.4	1165.2	1164.9	1164.7	1164.4	1164.9
142.5°	1195.7	1196.0	1196.4	1196.7	1196.9	1197.2	1197.6	1197.9	1198.3	1198.6	1198.7
145°	1243.3	1243.8	1244.3	1244.7	1245.2	1245.5	1245.5	1245.5	1245.5	1245.5	1245.8
147.5°	1284.9	1284.8	1284.7	1284.6	1284.5	1284.6	1284.9	1285.2	1285.5	1285.8	1286.1
150°	1311.2	1310.7	1310.2	1309.8	1309.3	1309.3	1309.8	1310.2	1310.7	1311.2	1311.6
152.5°	1336.6	1335.6	1334.5	1333.4	1332.3	1332.0	1332.6	1333.0	1333.5	1334.0	1334.5
155°	1369.2	1367.8	1366.3	1364.9	1363.4	1362.9	1363.4	1363.9	1364.4	1364.9	1365.6
157.5°	1394.5	1393.5	1392.7	1391.9	1390.9	1390.5	1390.6	1390.6	1390.7	1390.7	1391.5
160°	1412.0	1410.5	1409.1	1407.6	1406.2	1405.5	1405.8	1406.0	1406.3	1406.5	1407.5
162.5°	1426.0	1424.6	1423.1	1421.6	1420.1	1419.6	1419.8	1420.0	1420.3	1420.5	1421.9
165°	1444.8	1443.4	1441.9	1440.5	1439.0	1438.4	1438.6	1438.9	1439.1	1439.4	1440.9
167.5°	1458.9	1457.4	1455.9	1454.3	1452.8	1452.2	1452.5	1452.6	1452.9	1453.2	1454.9
170°	1466.8	1465.1	1463.3	1461.6	1459.9	1459.2	1459.4	1459.7	1459.9	1460.2	1462.2
172.5°	1472.0	1470.3	1468.6	1466.9	1465.2	1464.5	1465.0	1465.5	1465.8	1466.3	1468.1
175°	1477.7	1476.2	1474.8	1473.3	1471.9	1471.2	1471.5	1471.8	1472.0	1472.3	1474.1
177.5°	1480.4	1479.1	1478.0	1476.9	1475.6	1475.2	1475.4	1475.6	1475.7	1475.9	1477.3
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	24.3	24.6	24.9	24.9	24.7	24.4	24.2	24.0
90°	20.0	21.2	22.4	23.4	24.1	24.8	25.5	26.3
92.5°	20.0	21.2	22.4	23.2	23.5	23.8	24.2	24.5
95°	20.0	21.2	22.4	23.0	23.0	23.0	23.0	23.0
97.5°	40.2	33.3	26.4	23.0	23.0	23.0	23.0	23.0
100°	118.1	81.8	45.5	26.9	25.9	25.0	23.9	23.0
102.5°	229.4	222.6	215.7	204.1	187.5	170.9	154.4	137.8
105°	326.4	326.4	326.4	326.3	326.0	325.8	325.6	325.4
107.5°	413.3	413.3	413.4	413.0	412.3	411.6	410.9	410.1
110°	469.6	468.8	468.1	467.9	468.1	468.3	468.6	468.8



TEST NUMBER: P333247-830

CATALOG NUMBER: S125DIP-S850D1205U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	525.3	524.3	523.4	522.7	522.5	522.1	521.8	521.4
115°	609.3	608.3	607.4	606.1	604.6	603.2	601.7	600.3
117.5°	690.4	689.2	687.9	686.9	686.3	685.7	685.0	684.4
120°	742.8	742.3	741.9	741.0	739.8	738.6	737.4	736.1
122.5°	792.8	792.3	791.8	790.8	789.4	788.0	786.6	785.2
125°	865.6	864.6	863.7	862.8	862.0	861.4	860.6	859.9
127.5°	932.2	931.7	931.1	930.0	928.2	926.3	924.5	922.7
130°	975.6	974.9	974.2	973.2	971.9	970.8	969.6	968.4
132.5°	1016.2	1016.1	1016.0	1015.3	1014.1	1012.9	1011.6	1010.4
135°	1075.8	1075.3	1074.9	1073.8	1072.4	1070.9	1069.5	1068.0
137.5°	1131.3	1131.4	1131.5	1131.0	1129.6	1128.4	1127.1	1125.9
140°	1165.4	1165.8	1166.4	1165.8	1164.4	1163.0	1161.5	1160.1
142.5°	1198.8	1198.9	1199.0	1198.3	1196.8	1195.4	1193.9	1192.5
145°	1245.9	1246.2	1246.4	1245.9	1244.3	1242.9	1241.4	1240.0
147.5°	1286.4	1286.7	1286.9	1286.2	1284.5	1282.7	1281.0	1279.2
150°	1312.2	1312.7	1313.2	1312.4	1310.5	1308.5	1306.6	1304.7
152.5°	1334.9	1335.5	1336.0	1335.3	1333.5	1331.8	1330.0	1328.3
155°	1366.3	1367.1	1367.8	1367.2	1365.3	1363.3	1361.3	1359.4
157.5°	1392.3	1393.1	1393.8	1393.3	1391.3	1389.4	1387.4	1385.4
160°	1408.4	1409.4	1410.4	1409.9	1408.0	1406.0	1404.1	1402.1
162.5°	1423.2	1424.7	1426.0	1425.6	1423.4	1421.3	1419.2	1417.0
165°	1442.3	1443.8	1445.2	1444.9	1443.0	1441.1	1439.1	1437.2
167.5°	1456.7	1458.4	1460.2	1460.0	1457.7	1455.6	1453.4	1451.2
170°	1464.1	1466.0	1468.0	1467.8	1465.7	1463.5	1461.3	1459.1
172.5°	1469.8	1471.6	1473.3	1473.1	1470.9	1468.8	1466.5	1464.3
175°	1476.1	1478.1	1480.0	1479.9	1477.7	1475.6	1473.3	1471.1
177.5°	1478.7	1480.1	1481.4	1481.3	1479.8	1478.2	1476.6	1475.1
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7

(END OF REPORT)