

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: P333411-830

Luminaire Tested: **S125DIW-S850D770U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333411-830
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: S125DIW-S850D770U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5730.6 lumens
Efficiency: N/A
Efficacy: 127.3 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

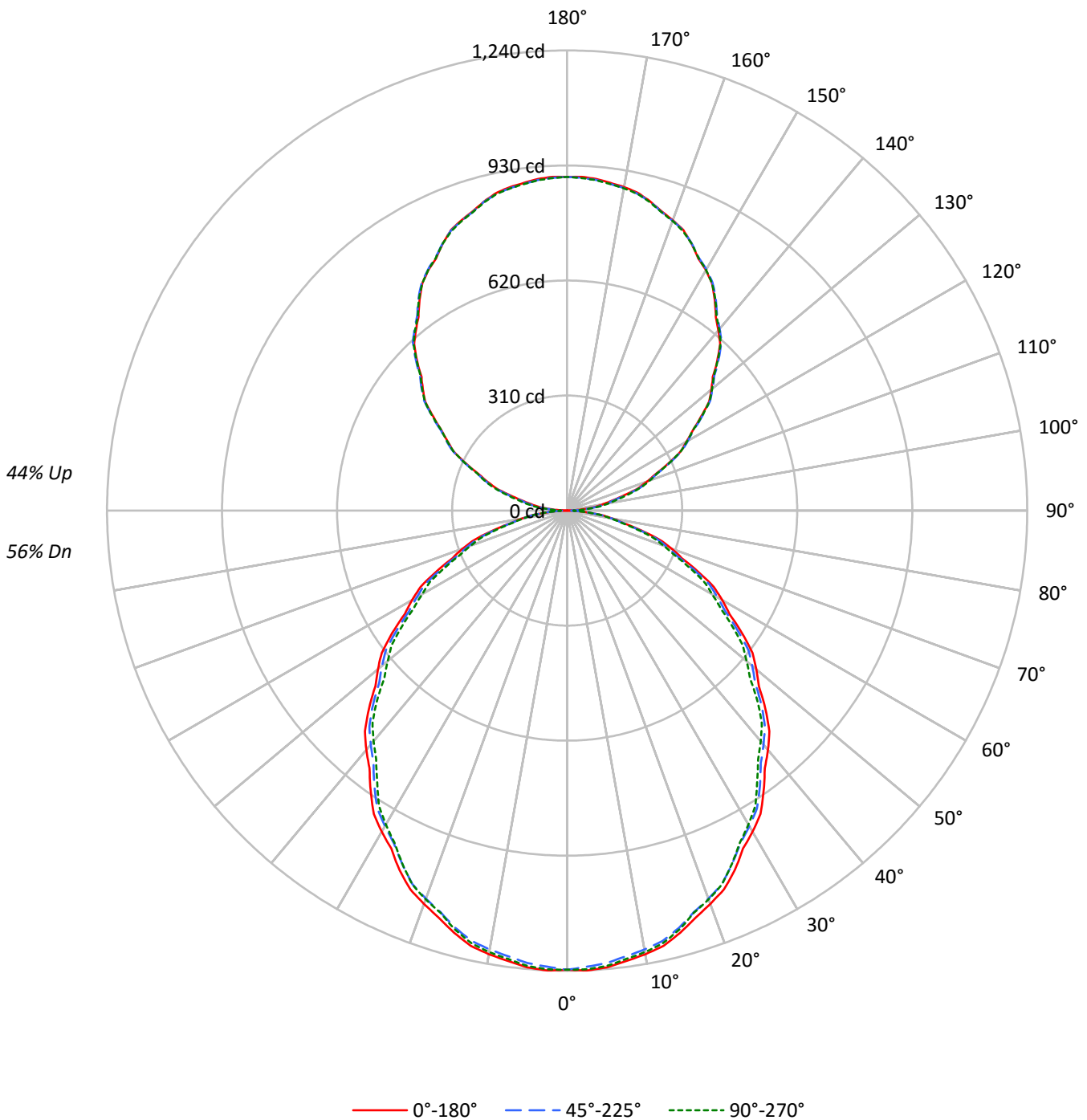
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	82	76	73	71	65	63	61	55	53	52	47
2	90	83	76	71	84	77	72	67	67	62	59	57	54	51	48	46	44	39
3	82	73	65	59	76	68	61	56	59	54	49	50	46	43	42	40	37	33
4	75	64	56	50	70	60	53	47	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14

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



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	2.0
10°-20°	329.6	5.8
20°-30°	486.6	8.5
30°-40°	567.8	9.9
40°-50°	570.3	10.0
50°-60°	500.6	8.7
60°-70°	373.0	6.5
70°-80°	213.3	3.7
80°-90°	64.0	1.1
90°-100°	60.2	1.1
100°-110°	177.8	3.1
110°-120°	301.2	5.3
120°-130°	396.4	6.9
130°-140°	444.2	7.8
140°-150°	435.3	7.6
150°-160°	365.6	6.4
160°-170°	243.1	4.2
170°-180°	85.1	1.5
0°-30°	932.8	16.3
0°-40°	1500.6	26.2
0°-60°	2571.4	44.9
0°-90°	3221.7	56.2
90°-120°	539.3	9.4
90°-150°	1815.1	31.7
90°-180°	2509.0	43.8
0°-180°	5730.6	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	6	11	15	17	5
95°	46	47	54	59	60	49
105°	160	163	167	171	174	170
115°	302	304	306	305	304	298
125°	440	444	445	444	443	394
135°	572	576	577	577	574	441
145°	693	696	698	698	696	433
155°	793	793	794	797	793	365
165°	863	861	862	864	861	243
175°	897	894	894	898	894	85
180°	899	899	899	899	899	



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

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°	21.3	21.5	21.8	22.1	22.2	22.4	22.4	22.5	22.5	22.6	22.7
90°	0.7	2.0	3.2	4.4	5.7	6.9	7.9	9.0	10.1	11.2	12.0
92.5°	17.0	17.8	18.7	19.5	20.5	21.5	22.9	24.2	25.5	26.9	27.9
95°	45.5	45.8	46.1	46.4	46.8	47.7	49.2	50.8	52.3	53.9	55.0
97.5°	75.6	75.7	75.8	76.0	76.1	77.2	79.4	81.5	83.6	85.8	86.8
100°	97.9	97.9	97.9	97.9	97.9	99.0	100.9	103.0	105.0	107.1	108.5
102.5°	122.1	122.6	123.3	123.9	124.5	125.4	126.4	127.4	128.4	129.4	131.0
105°	159.6	160.3	161.1	161.8	162.7	163.5	164.5	165.3	166.3	167.2	168.1
107.5°	201.0	201.7	202.6	203.3	204.1	204.8	205.6	206.2	207.0	207.6	208.1
110°	229.5	230.3	231.0	231.9	232.6	233.2	233.7	234.1	234.6	235.1	235.5



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	258.6	259.0	259.4	259.9	260.2	260.7	261.3	261.9	262.5	263.1	263.3
115°	301.6	302.2	302.8	303.4	304.1	304.5	304.8	305.1	305.5	305.8	305.6
117.5°	344.7	345.0	345.3	345.5	345.8	346.1	346.4	346.7	346.9	347.2	347.3
120°	371.6	372.3	373.1	373.9	374.7	375.1	375.2	375.4	375.6	375.7	375.7
122.5°	400.7	401.0	401.2	401.5	401.8	402.1	402.5	402.9	403.3	403.7	403.6
125°	440.1	441.0	442.0	442.9	443.8	444.4	444.5	444.7	444.9	445.0	444.7
127.5°	482.1	482.6	483.1	483.7	484.2	484.6	484.7	484.9	485.1	485.3	485.1
130°	507.3	508.0	508.9	509.6	510.4	511.0	511.2	511.5	511.9	512.2	512.0
132.5°	532.4	533.8	535.0	536.3	537.5	538.2	538.1	538.0	538.0	537.9	537.8
135°	572.3	573.3	574.2	575.1	576.1	576.6	576.7	576.9	577.1	577.2	577.2
137.5°	609.8	610.8	611.6	612.6	613.5	614.1	614.4	614.7	615.1	615.5	615.7
140°	634.0	634.7	635.5	636.2	637.1	637.6	638.1	638.6	639.0	639.5	639.8
142.5°	658.0	658.6	659.3	660.0	660.6	661.2	661.9	662.4	663.0	663.5	663.7
145°	693.4	694.0	694.7	695.2	695.9	696.4	696.9	697.4	697.9	698.3	698.3
147.5°	726.1	726.5	726.8	727.2	727.5	727.8	728.2	728.6	729.0	729.3	729.7
150°	748.0	747.8	747.6	747.5	747.3	747.6	748.2	748.9	749.4	750.1	750.1
152.5°	765.9	766.1	766.3	766.6	766.8	766.9	767.2	767.5	767.7	768.0	768.4
155°	793.4	793.4	793.4	793.4	793.4	793.5	793.7	793.8	794.0	794.2	794.8
157.5°	818.1	817.7	817.4	817.1	816.7	816.6	816.8	816.9	817.1	817.3	817.8
160°	832.6	832.2	831.7	831.2	830.8	830.6	830.8	830.9	831.0	831.2	831.9
162.5°	845.6	845.2	844.8	844.5	844.1	844.0	844.0	844.0	844.0	844.1	844.9
165°	862.7	862.4	862.1	861.8	861.5	861.4	861.6	861.7	861.9	862.0	862.6
167.5°	877.3	876.7	876.0	875.4	874.8	874.5	874.5	874.5	874.5	874.5	875.4
170°	885.1	884.5	883.8	883.3	882.6	882.3	882.3	882.3	882.3	882.3	883.3
172.5°	890.7	890.0	889.5	888.8	888.3	887.9	887.9	887.9	887.9	887.9	888.8
175°	897.0	896.4	895.8	895.1	894.5	894.2	894.2	894.2	894.2	894.2	895.1
177.5°	900.2	899.8	899.2	898.7	898.2	898.0	897.8	897.7	897.6	897.4	898.1
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

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°	22.9	23.1	23.2	23.2	22.9	22.6	22.4	22.1
90°	12.7	13.6	14.3	14.9	15.4	15.8	16.3	16.8
92.5°	28.9	30.0	31.0	31.7	32.0	32.3	32.7	33.0
95°	56.1	57.1	58.2	58.9	59.3	59.6	59.9	60.1
97.5°	87.8	88.9	89.9	90.5	90.7	90.9	91.0	91.2
100°	109.8	111.2	112.6	113.5	113.9	114.1	114.4	114.7
102.5°	132.5	134.0	135.5	136.5	137.0	137.4	137.8	138.3
105°	169.1	170.0	171.0	171.6	172.1	172.6	173.1	173.5
107.5°	208.6	209.1	209.5	209.7	209.7	209.7	209.6	209.6
110°	236.0	236.5	237.0	237.1	237.0	236.8	236.7	236.5



TEST NUMBER: P333411-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	263.5	263.7	263.9	263.9	263.6	263.3	263.1	262.8
115°	305.5	305.3	305.1	305.0	304.8	304.7	304.5	304.3
117.5°	347.4	347.5	347.7	347.4	346.9	346.2	345.5	345.0
120°	375.7	375.7	375.7	375.4	374.8	374.2	373.5	373.0
122.5°	403.5	403.3	403.2	402.9	402.4	401.9	401.4	401.0
125°	444.4	444.0	443.7	443.6	443.4	443.2	443.1	442.9
127.5°	485.0	484.8	484.7	484.5	484.2	483.8	483.5	483.2
130°	511.9	511.7	511.5	511.3	511.0	510.7	510.4	510.1
132.5°	537.6	537.4	537.3	537.0	536.6	536.1	535.7	535.3
135°	577.2	577.2	577.2	576.9	576.3	575.7	575.0	574.5
137.5°	615.9	616.0	616.2	615.9	615.1	614.3	613.6	612.7
140°	640.2	640.5	640.7	640.6	639.8	638.9	638.2	637.4
142.5°	663.9	664.1	664.3	664.0	663.3	662.5	661.7	660.9
145°	698.3	698.3	698.3	698.0	697.6	697.1	696.6	696.2
147.5°	730.1	730.5	730.8	730.5	729.4	728.4	727.4	726.3
150°	750.1	750.1	750.1	749.9	749.6	749.3	748.9	748.7
152.5°	768.7	769.1	769.5	769.4	768.8	768.3	767.7	767.1
155°	795.4	796.0	796.6	796.5	795.8	795.0	794.2	793.4
157.5°	818.5	819.1	819.7	819.5	818.5	817.5	816.4	815.4
160°	832.5	833.1	833.7	833.7	832.8	832.1	831.3	830.6
162.5°	845.6	846.3	847.1	847.1	846.1	845.2	844.3	843.4
165°	863.3	863.9	864.5	864.3	863.5	862.5	861.6	860.6
167.5°	876.4	877.3	878.2	878.2	877.2	876.3	875.3	874.3
170°	884.2	885.1	886.1	886.0	884.9	883.8	882.7	881.7
172.5°	889.8	890.7	891.6	891.6	890.7	889.7	888.7	887.8
175°	896.1	897.0	898.0	897.9	896.7	895.7	894.6	893.5
177.5°	898.9	899.7	900.4	900.3	899.5	898.6	897.8	896.8
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1

(END OF REPORT)