

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: P331726-927

Luminaire Tested: **SA2XXRDIP-C865D925U927-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331726-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-C865D925U927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5321.6 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

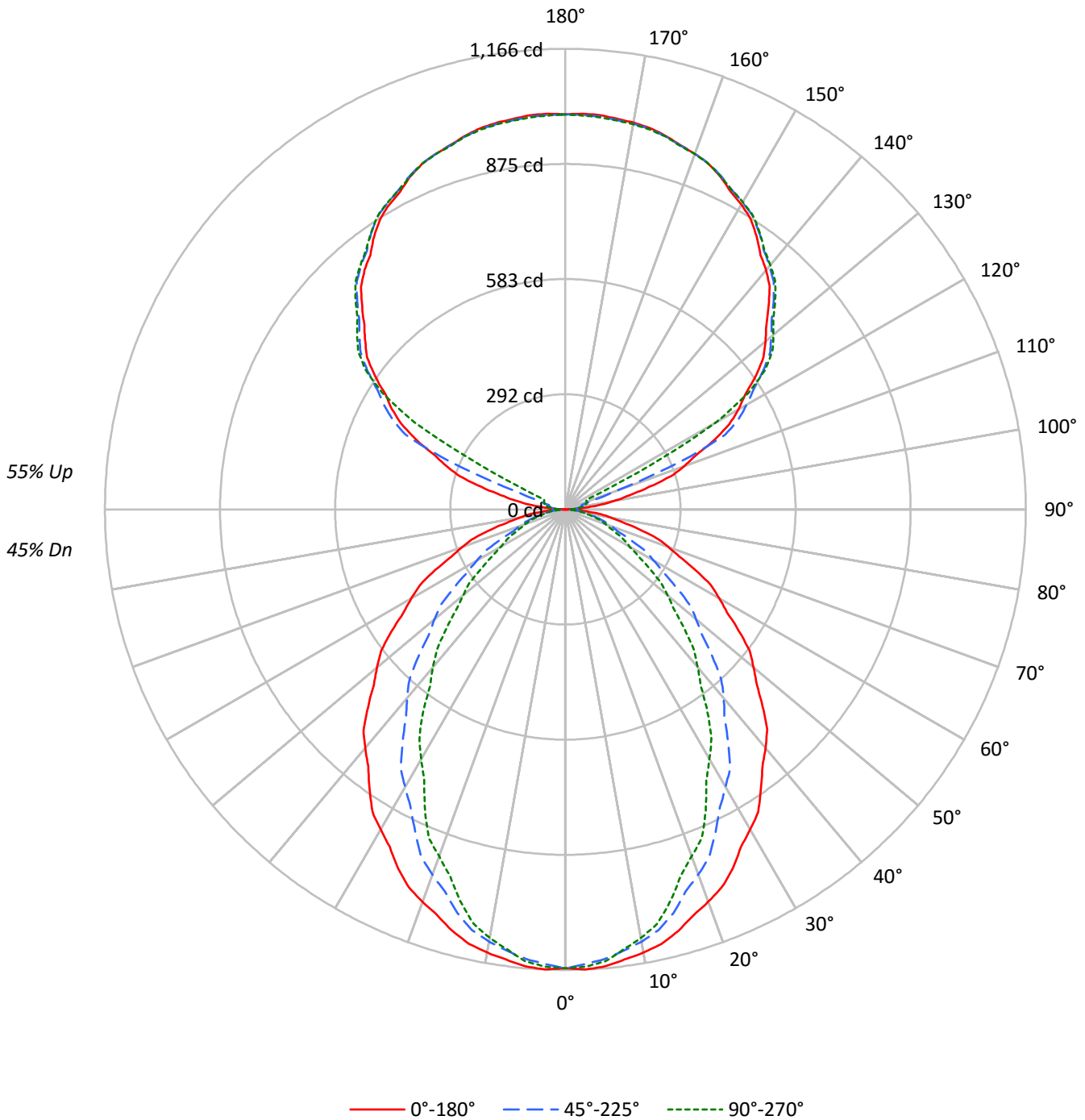
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45				
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44	39				
2	89	82	76	71	81	75	70	66	63	59	56	52	49	47	41	39	38	33				
3	81	72	65	60	74	66	60	55	56	51	48	46	43	40	37	35	33	29				
4	74	64	56	51	68	59	53	47	50	45	41	41	38	35	33	31	29	25				
5	68	57	49	44	63	53	46	41	45	40	36	37	33	30	30	27	25	22				
6	63	52	44	38	58	48	41	36	41	35	31	34	30	27	27	25	22	19				
7	59	47	39	34	54	43	36	32	37	32	28	31	27	24	25	22	20	17				
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18	16				
9	51	39	31	27	47	36	30	25	31	26	22	26	22	19	22	19	16	14				
10	47	36	29	24	44	33	27	23	29	24	20	24	20	18	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18755	18755	18755
5°	18827	18519	18621
10°	18682	18216	18061
15°	18467	17677	17167
20°	18170	16905	16057
25°	17865	16030	14982
30°	17443	15129	13601
35°	17030	14152	12390
40°	16617	13139	10989
45°	16130	12001	9720
50°	15631	10854	8475
55°	15122	9619	7279
60°	14528	8315	6042
65°	13857	6988	5501
70°	13053	5755	5061
75°	12071	5246	4722
80°	10646	4695	4305
85°	8373	3705	3705



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	2.0
10°-20°	298.5	5.6
20°-30°	419.2	7.9
30°-40°	457.1	8.6
40°-50°	420.3	7.9
50°-60°	330.1	6.2
60°-70°	215.2	4.0
70°-80°	111.0	2.1
80°-90°	31.3	0.6
90°-100°	33.4	0.6
100°-110°	122.3	2.3
110°-120°	326.9	6.1
120°-130°	539.7	10.1
130°-140°	574.0	10.8
140°-150°	533.5	10.0
150°-160°	428.9	8.1
160°-170°	276.4	5.2
170°-180°	95.1	1.8
0°-30°	826.5	15.5
0°-40°	1283.6	24.1
0°-60°	2034.0	38.2
0°-90°	2391.5	44.9
90°-120°	482.6	9.1
90°-150°	2129.7	40.0
90°-180°	2930.0	55.1
0°-180°	5321.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1162	1162	1162	1162	1162	
5°	1162	1156	1143	1151	1149	110
15°	1105	1092	1058	1038	1027	311
25°	1003	967	900	858	841	461
35°	864	808	718	654	629	541
45°	706	634	526	454	426	545
55°	537	453	342	281	259	480
65°	363	277	183	149	144	359
75°	194	122	84	77	76	205
85°	45	24	20	20	20	53
90°	1	9	14	18	20	4
95°	47	25	28	32	31	58
105°	220	229	44	52	55	235
115°	416	429	446	127	59	409
125°	588	598	611	616	619	524
135°	728	739	746	753	752	562
145°	844	844	856	860	857	528
155°	930	924	932	936	930	428
165°	980	976	978	982	978	277
175°	1002	997	998	1003	996	95
180°	1000	1000	1000	1000	1000	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6
2.5°	1165.8	1164.8	1163.9	1162.9	1162.1	1160.5	1158.5	1156.4	1154.4	1152.3	1154.2
5°	1161.6	1160.4	1159.2	1158.0	1156.9	1154.8	1151.8	1148.7	1145.7	1142.6	1144.7
7.5°	1149.5	1148.1	1146.7	1145.3	1143.8	1141.3	1137.7	1134.2	1130.6	1127.0	1127.7
10°	1139.5	1137.8	1136.2	1134.6	1132.9	1129.8	1125.1	1120.5	1115.8	1111.1	1110.4
12.5°	1126.9	1124.8	1122.8	1120.9	1118.8	1114.8	1108.8	1102.9	1096.9	1090.9	1089.6
15°	1104.8	1102.2	1099.6	1097.1	1094.5	1089.3	1081.3	1073.4	1065.4	1057.5	1053.0
17.5°	1077.7	1073.7	1069.8	1065.9	1062.0	1054.9	1044.7	1034.5	1024.4	1014.2	1008.9
20°	1057.5	1052.8	1048.1	1043.5	1038.8	1030.6	1018.9	1007.3	995.6	983.9	978.0
22.5°	1035.6	1030.4	1025.2	1019.9	1014.7	1005.5	992.3	979.1	966.0	952.8	945.2
25°	1002.8	995.4	987.9	980.4	973.0	961.5	946.0	930.7	915.2	899.8	890.3
27.5°	963.3	955.1	947.1	938.9	930.8	918.1	900.6	883.3	865.9	848.5	837.3
30°	935.6	926.7	917.8	908.9	900.1	886.3	867.6	848.9	830.2	811.5	799.6
32.5°	908.6	898.3	887.9	877.5	867.1	852.5	833.4	814.3	795.3	776.2	762.6
35°	864.0	852.2	840.3	828.3	816.4	800.2	779.6	759.1	738.6	718.0	703.2
37.5°	819.5	806.4	793.4	780.2	767.1	749.6	727.8	705.8	684.0	662.0	645.8
40°	788.4	774.4	760.3	746.3	732.3	714.0	691.3	668.7	646.0	623.4	606.7
42.5°	756.5	741.6	726.9	712.2	697.4	678.3	654.9	631.4	608.1	584.6	567.5
45°	706.4	690.7	675.1	659.4	643.8	623.7	599.2	574.6	550.1	525.6	509.0
47.5°	657.6	641.0	624.5	607.8	591.3	570.3	545.0	519.7	494.3	469.1	452.6
50°	622.3	605.7	589.1	572.5	556.0	534.8	509.1	483.4	457.7	432.1	415.9
52.5°	587.8	570.5	553.2	535.8	518.5	497.3	472.1	446.9	421.8	396.7	381.1
55°	537.2	519.0	500.7	482.5	464.3	442.5	417.3	392.1	366.9	341.7	327.6
57.5°	485.2	466.5	447.8	429.1	410.5	389.0	364.7	340.5	316.2	292.0	279.2
60°	449.9	431.2	412.6	393.9	375.2	353.8	329.7	305.6	281.6	257.5	245.7
62.5°	415.4	396.7	378.0	359.3	340.6	319.9	296.9	274.0	251.0	228.1	216.7
65°	362.7	343.7	324.8	305.9	287.0	267.0	246.0	225.0	203.9	182.9	175.0
67.5°	311.8	293.0	274.3	255.4	236.6	217.8	198.9	180.0	161.1	142.1	138.5
70°	276.5	258.3	240.0	221.8	203.6	186.4	170.3	154.2	138.1	121.9	119.6
72.5°	242.8	225.4	207.9	190.4	172.9	157.7	144.8	131.8	118.9	106.0	104.0
75°	193.5	177.1	160.7	144.3	128.0	115.9	107.9	100.0	92.1	84.1	82.5
77.5°	144.9	130.5	116.1	101.8	87.5	78.4	74.5	70.7	66.9	63.1	62.1
80°	114.5	102.7	90.8	78.8	66.9	59.8	57.4	55.1	52.8	50.5	49.5
82.5°	86.8	77.6	68.2	58.9	49.7	44.2	42.6	41.0	39.5	37.9	37.3
85°	45.2	40.3	35.4	30.5	25.6	22.8	22.1	21.4	20.7	20.0	20.0
87.5°	13.6	12.4	11.3	10.1	9.0	8.6	8.9	9.1	9.3	9.6	9.6
90°	0.7	2.5	4.3	6.0	7.8	9.3	10.6	11.9	13.2	14.5	15.3
92.5°	14.6	14.4	14.3	14.1	13.9	14.2	14.9	15.5	16.2	16.8	17.2
95°	47.1	41.7	36.4	31.1	25.8	23.7	24.9	26.0	27.1	28.2	29.0
97.5°	93.3	78.3	63.5	48.5	33.5	27.3	29.9	32.6	35.2	37.8	38.4
100°	128.1	106.0	84.0	61.9	39.9	30.3	33.0	35.8	38.5	41.3	42.5
102.5°	166.3	161.6	156.9	152.3	147.6	133.9	111.0	88.1	65.3	42.4	44.0
105°	219.9	224.7	229.6	234.4	239.2	219.7	175.8	131.9	88.0	44.1	45.9
107.5°	281.1	285.0	288.9	292.8	296.8	272.4	219.7	167.1	114.4	61.8	60.0
110°	320.5	323.9	327.3	330.7	334.0	312.4	266.0	219.5	173.1	126.6	110.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	357.5	360.5	363.5	366.5	369.5	365.3	353.8	342.3	330.8	319.3	260.7
115°	416.0	418.7	421.4	424.2	426.9	430.3	434.4	438.4	442.4	446.4	371.9
117.5°	468.3	471.3	474.4	477.4	480.5	483.4	486.2	488.9	491.7	494.4	476.4
120°	506.4	508.8	511.3	513.7	516.1	518.7	521.7	524.5	527.4	530.3	532.3
122.5°	538.8	541.4	543.9	546.4	549.0	551.8	555.0	558.2	561.3	564.5	565.6
125°	588.2	590.3	592.4	594.5	596.6	599.1	602.2	605.2	608.3	611.3	612.5
127.5°	632.9	635.3	637.5	639.8	642.1	644.4	646.7	649.0	651.3	653.6	655.2
130°	661.3	663.8	666.4	669.0	671.5	673.8	675.5	677.2	679.1	680.8	682.5
132.5°	690.2	692.4	694.6	696.8	698.9	700.9	702.7	704.5	706.2	708.0	709.6
135°	727.9	730.4	733.0	735.5	738.2	740.1	741.6	743.1	744.5	745.9	747.5
137.5°	765.9	767.7	769.5	771.3	773.1	774.8	776.4	778.1	779.7	781.4	782.9
140°	790.8	792.1	793.4	794.6	795.9	797.5	799.2	801.0	802.8	804.5	806.0
142.5°	811.6	812.8	814.0	815.1	816.3	817.8	819.8	821.9	823.9	825.9	827.3
145°	844.3	844.1	844.0	843.8	843.7	844.9	847.7	850.4	853.2	855.9	857.0
147.5°	872.8	872.2	871.6	871.0	870.4	871.4	874.1	876.9	879.6	882.3	883.0
150°	891.4	890.3	889.1	888.0	886.8	887.6	890.2	892.7	895.3	897.9	898.8
152.5°	907.0	905.7	904.4	903.2	902.0	902.5	905.0	907.4	909.9	912.4	913.3
155°	929.7	928.3	926.8	925.3	923.9	924.2	926.1	928.0	929.9	931.8	932.8
157.5°	947.5	946.3	945.1	943.8	942.6	942.7	944.0	945.4	946.7	948.1	949.2
160°	957.9	957.0	956.0	955.0	954.0	954.0	955.0	956.0	957.0	957.9	958.9
162.5°	967.2	966.2	965.3	964.2	963.3	963.2	964.1	964.9	965.7	966.6	967.7
165°	979.6	978.7	977.7	976.7	975.7	975.5	976.0	976.4	977.0	977.5	978.6
167.5°	988.9	987.9	987.0	986.0	985.0	984.8	985.2	985.6	986.1	986.6	987.7
170°	994.1	993.1	992.1	991.2	990.2	989.9	990.2	990.5	990.9	991.2	992.3
172.5°	997.5	996.6	995.6	994.7	993.7	993.4	993.7	994.0	994.3	994.7	995.8
175°	1002.0	1000.9	999.8	998.6	997.5	997.1	997.4	997.8	998.1	998.4	999.6
177.5°	1002.7	1001.9	1001.0	1000.1	999.2	998.8	998.9	999.0	999.2	999.3	1000.2
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6	1161.6
2.5°	1156.0	1157.9	1159.8	1160.5	1160.2	1159.8	1159.4	1159.0
5°	1146.8	1148.9	1151.0	1151.8	1151.0	1150.3	1149.6	1148.9
7.5°	1128.3	1128.9	1129.5	1129.2	1128.0	1126.8	1125.5	1124.3
10°	1109.7	1109.0	1108.3	1107.2	1105.8	1104.5	1103.0	1101.6
12.5°	1088.4	1087.1	1085.8	1084.1	1081.7	1079.4	1077.1	1074.8
15°	1048.6	1044.2	1039.7	1036.3	1034.0	1031.7	1029.4	1027.0
17.5°	1003.6	998.3	993.1	988.4	984.4	980.4	976.4	972.3
20°	972.2	966.4	960.5	955.1	949.9	944.8	939.6	934.5
22.5°	937.8	930.3	922.7	917.0	913.2	909.3	905.5	901.7
25°	880.7	871.1	861.5	854.9	851.4	848.0	844.5	841.0
27.5°	826.2	815.0	803.8	795.5	790.0	784.3	778.8	773.2
30°	787.7	775.8	763.8	754.7	748.5	742.1	735.9	729.5
32.5°	749.0	735.4	721.8	712.0	706.2	700.2	694.3	688.3
35°	688.5	673.8	659.1	649.2	644.0	638.9	633.7	628.6
37.5°	629.6	613.4	597.2	586.1	580.3	574.3	568.5	562.6
40°	590.2	573.6	557.0	545.7	539.6	533.5	527.4	521.4
42.5°	550.4	533.2	516.1	504.5	498.7	492.8	486.9	481.0
45°	492.4	475.9	459.2	448.1	442.5	437.0	431.3	425.7
47.5°	436.0	419.5	403.1	392.3	387.2	382.1	377.0	371.9
50°	399.8	383.7	367.6	357.0	352.1	347.2	342.3	337.4
52.5°	365.6	350.1	334.5	324.5	319.9	315.4	310.9	306.3
55°	313.6	299.6	285.6	276.3	271.9	267.4	263.0	258.6
57.5°	266.3	253.5	240.7	232.3	228.6	224.8	221.1	217.4
60°	233.7	221.8	209.8	202.1	198.3	194.6	190.8	187.1
62.5°	205.4	194.1	182.7	175.9	173.6	171.4	169.1	166.9
65°	167.0	159.1	151.1	146.8	146.1	145.4	144.7	144.0
67.5°	134.8	131.2	127.5	125.3	124.6	123.8	123.1	122.4
70°	117.2	114.9	112.6	111.0	110.0	109.1	108.1	107.2
72.5°	102.0	100.1	98.1	96.9	96.3	95.7	95.1	94.6
75°	80.8	79.2	77.6	76.6	76.4	76.1	75.9	75.7
77.5°	61.2	60.3	59.3	58.7	58.3	57.9	57.6	57.2
80°	48.6	47.7	46.7	46.3	46.3	46.3	46.3	46.3
82.5°	36.8	36.1	35.6	35.3	35.3	35.3	35.3	35.3
85°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
87.5°	9.6	9.5	9.5	9.5	9.6	9.7	9.7	9.8
90°	16.1	16.9	17.7	18.2	18.5	18.9	19.3	19.6
92.5°	17.6	18.1	18.5	18.8	18.9	19.2	19.3	19.6
95°	29.8	30.7	31.4	31.8	31.6	31.4	31.3	31.1
97.5°	39.1	39.7	40.3	40.7	41.0	41.1	41.4	41.5
100°	43.8	45.1	46.4	47.2	47.5	47.8	48.2	48.5
102.5°	45.7	47.5	49.1	50.1	50.6	51.0	51.5	52.0
105°	47.7	49.4	51.2	52.4	53.1	53.7	54.3	55.0
107.5°	58.1	56.4	54.6	54.0	54.7	55.3	55.9	56.6
110°	94.4	78.3	62.3	54.6	55.2	55.8	56.5	57.2



TEST NUMBER: P331726-927

CATALOG NUMBER: SA2XXRDIP-C865D925U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	202.1	143.4	84.8	55.7	56.2	56.7	57.2	57.8
115°	297.5	223.1	148.6	105.6	94.0	82.5	70.9	59.3
117.5°	458.4	440.5	422.4	394.3	356.3	318.3	280.3	242.2
120°	534.2	536.1	538.1	528.1	506.4	484.7	463.0	441.3
122.5°	566.8	567.9	569.1	567.6	563.4	559.1	554.9	550.7
125°	613.6	614.7	615.8	616.6	617.1	617.6	618.1	618.6
127.5°	656.9	658.5	660.2	661.0	661.2	661.2	661.3	661.4
130°	684.4	686.1	687.9	688.7	688.6	688.3	688.2	688.0
132.5°	711.1	712.6	714.1	714.7	714.5	714.4	714.2	714.1
135°	749.2	750.8	752.3	753.0	752.7	752.3	752.0	751.7
137.5°	784.5	786.1	787.7	788.2	787.7	787.1	786.6	786.0
140°	807.4	808.9	810.3	810.6	809.8	809.1	808.3	807.4
142.5°	828.5	829.9	831.2	831.5	830.7	829.9	829.1	828.2
145°	858.2	859.3	860.4	860.5	859.8	859.0	858.2	857.4
147.5°	883.9	884.7	885.6	885.7	884.9	884.3	883.6	883.0
150°	899.8	900.8	901.7	901.8	901.0	900.2	899.4	898.6
152.5°	914.3	915.2	916.2	916.2	915.0	914.0	913.0	911.9
155°	933.8	934.8	935.7	935.6	934.3	933.0	931.7	930.4
157.5°	950.2	951.3	952.4	952.4	951.1	949.8	948.6	947.4
160°	959.8	960.8	961.8	961.7	960.5	959.4	958.3	957.2
162.5°	968.8	969.9	971.0	970.8	969.5	968.0	966.7	965.3
165°	979.7	980.8	981.9	981.9	980.8	979.7	978.6	977.5
167.5°	988.8	989.9	991.1	990.9	989.4	988.0	986.6	985.1
170°	993.5	994.6	995.7	995.5	994.1	992.6	991.2	989.8
172.5°	996.9	998.1	999.2	999.0	997.5	996.1	994.7	993.2
175°	1000.7	1001.8	1002.9	1002.7	1001.1	999.5	997.8	996.2
177.5°	1001.1	1002.0	1002.9	1002.7	1001.6	1000.4	999.3	998.1
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9

(END OF REPORT)