

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: P332323-930

Luminaire Tested: **S123RDIP-S775D1025U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332323-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D1025U930-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1025 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5405.6 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

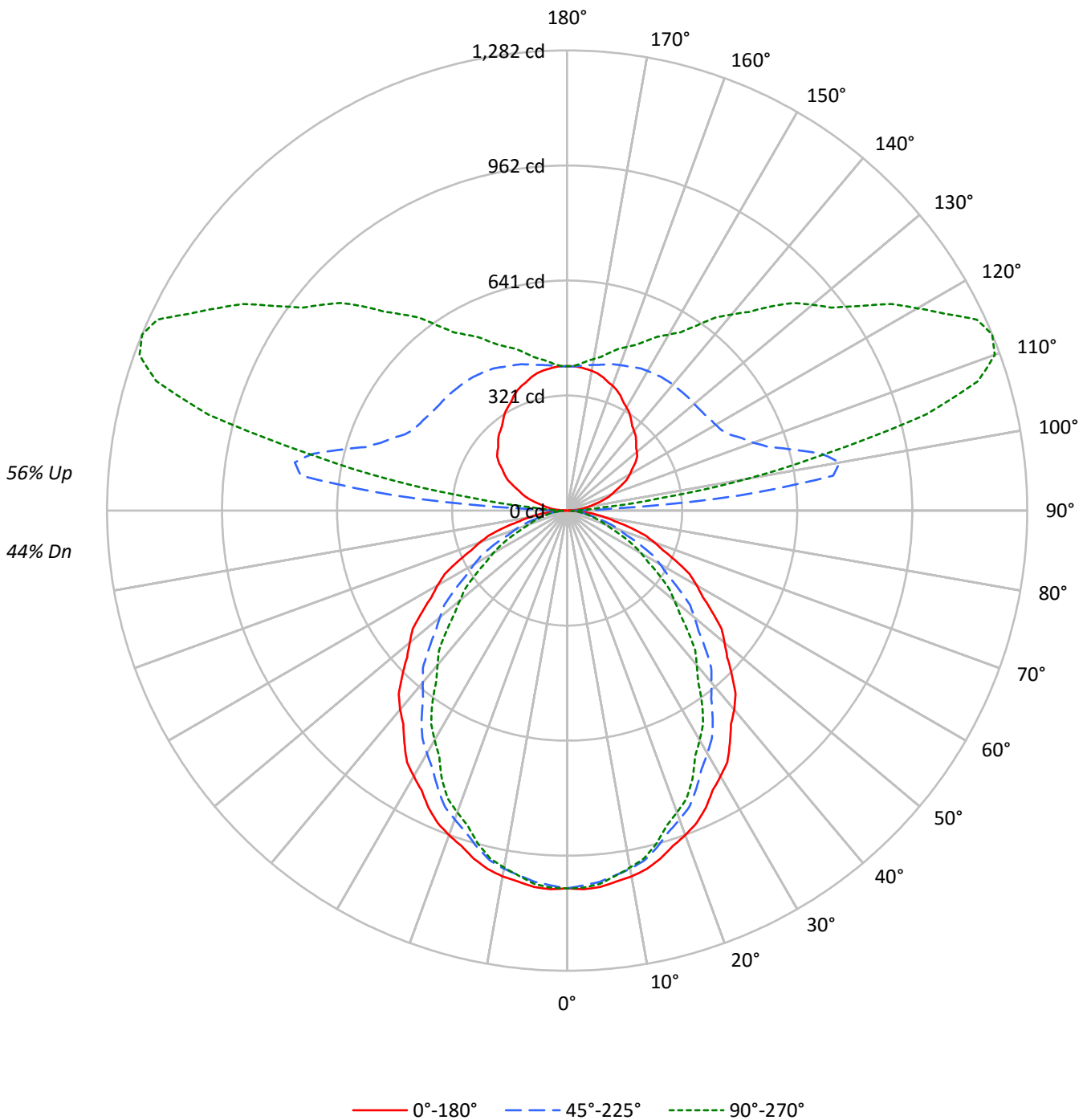
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

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	80	80	80	65	65	65	51	51	51	44				
1	97	93	89	85	88	85	82	79	71	68	66	57	56	54	45	44	43	38				
2	88	81	75	70	81	75	69	65	62	58	55	51	48	46	40	38	37	32				
3	81	72	64	59	74	66	60	55	55	50	47	45	42	39	36	34	32	27				
4	74	63	56	50	67	58	52	47	49	44	40	40	37	34	32	30	28	24				
5	68	57	49	43	62	52	45	40	44	39	35	36	32	29	29	26	24	21				
6	63	51	43	37	57	47	40	35	40	34	30	33	29	26	26	24	21	18				
7	58	46	38	33	53	42	36	31	36	31	27	30	26	23	24	21	19	16				
8	54	42	34	29	49	39	32	27	33	28	24	27	23	20	22	19	17	15				
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	21	18	16	13				
10	47	35	28	23	43	32	26	22	28	23	19	23	19	17	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11330	11330	11330
5°	11373	11217	11282
10°	11309	11075	11038
15°	11188	10816	10702
20°	11021	10493	10247
25°	10849	10128	9804
30°	10621	9708	9178
35°	10387	9289	8604
40°	10172	8792	7893
45°	9889	8304	7252
50°	9577	7748	6532
55°	9259	7112	5863
60°	8968	6433	5126
65°	8588	5695	4391
70°	8113	4784	3547
75°	7419	3764	3335
80°	6614	3335	3068
85°	5582	2952	2742



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	1.8
10°-20°	275.0	5.1
20°-30°	396.0	7.3
30°-40°	446.1	8.3
40°-50°	426.7	7.9
50°-60°	349.5	6.5
60°-70°	235.8	4.4
70°-80°	118.6	2.2
80°-90°	34.5	0.6
90°-100°	223.7	4.1
100°-110°	633.5	11.7
110°-120°	623.2	11.5
120°-130°	497.1	9.2
130°-140°	391.9	7.3
140°-150°	292.5	5.4
150°-160°	203.9	3.8
160°-170°	119.8	2.2
170°-180°	39.0	0.7
0°-30°	769.9	14.2
0°-40°	1215.9	22.5
0°-60°	1992.1	36.9
0°-90°	2381.0	44.0
90°-120°	1480.5	27.4
90°-150°	2662.0	49.2
90°-180°	3025.0	56.0
0°-180°	5405.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1053	1048	1038	1045	1044	100
15°	1004	994	971	966	960	283
25°	914	891	853	835	826	420
35°	790	759	707	671	655	495
45°	650	610	546	498	476	501
55°	493	450	379	331	312	442
65°	337	289	224	184	172	334
75°	178	137	90	82	80	190
85°	45	27	24	22	22	51
90°	2	10	20	23	24	4
95°	28	90	483	141	94	30
105°	94	140	654	1144	1035	100
115°	167	208	500	1097	1259	165
125°	232	274	467	846	993	206
135°	272	324	461	697	805	210
145°	310	355	455	572	629	194
155°	352	380	440	500	522	162
165°	385	396	422	447	455	108
175°	401	402	404	410	409	38
180°	402	402	402	402	402	



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1056.0	1055.4	1054.8	1054.2	1053.6	1052.4	1050.5	1048.7	1046.9	1045.1	1046.8
5°	1052.6	1051.7	1050.7	1049.8	1048.8	1047.2	1044.9	1042.6	1040.3	1038.1	1039.8
7.5°	1042.8	1041.9	1040.8	1039.8	1038.8	1036.7	1033.8	1030.9	1027.9	1024.9	1025.9
10°	1034.7	1033.3	1032.0	1030.7	1029.3	1027.0	1023.5	1020.2	1016.8	1013.3	1013.5
12.5°	1023.0	1021.6	1020.1	1018.6	1017.2	1014.3	1010.2	1006.0	1001.8	997.6	997.5
15°	1004.0	1001.8	999.7	997.7	995.6	991.9	986.6	981.3	975.9	970.6	969.7
17.5°	979.8	977.5	975.0	972.6	970.1	965.6	958.8	952.0	945.3	938.6	936.5
20°	962.1	959.0	956.0	953.0	950.0	944.9	937.6	930.4	923.2	916.0	913.5
22.5°	942.3	938.8	935.3	931.8	928.3	922.8	915.1	907.4	899.8	892.1	889.0
25°	913.5	908.7	903.9	899.2	894.5	887.7	879.0	870.3	861.5	852.8	848.8
27.5°	878.4	873.2	868.0	862.7	857.5	850.0	840.3	830.6	820.8	811.1	805.6
30°	854.5	848.8	843.2	837.5	831.8	823.6	813.0	802.3	791.7	781.1	774.7
32.5°	830.6	824.2	817.7	811.3	804.9	796.0	784.7	773.6	762.3	751.1	744.0
35°	790.5	783.7	776.8	770.1	763.2	753.9	742.2	730.3	718.6	706.9	698.7
37.5°	749.9	742.2	734.7	727.1	719.5	709.5	696.9	684.4	671.8	659.3	650.0
40°	723.9	715.6	707.2	698.9	690.6	679.6	666.2	652.7	639.2	625.7	615.9
42.5°	694.6	686.2	677.8	669.5	661.2	650.0	636.1	622.2	608.3	594.4	583.6
45°	649.6	641.2	632.6	624.0	615.5	604.0	589.3	574.7	560.1	545.5	534.7
47.5°	604.8	595.4	586.0	576.7	567.3	555.3	540.7	526.0	511.4	496.8	485.1
50°	571.9	563.0	554.2	545.2	536.3	524.2	508.8	493.4	478.1	462.7	450.9
52.5°	542.6	533.0	523.3	513.6	503.9	491.5	476.2	461.1	445.8	430.6	418.4
55°	493.4	484.1	474.8	465.5	456.2	443.5	427.4	411.3	395.2	379.0	368.0
57.5°	448.0	437.9	427.8	417.6	407.5	394.4	378.1	361.9	345.7	329.5	319.1
60°	416.6	406.2	395.7	385.3	374.9	361.7	346.0	330.3	314.5	298.8	288.5
62.5°	385.1	374.7	364.3	353.8	343.5	330.4	314.6	298.9	283.2	267.3	257.7
65°	337.2	326.8	316.3	305.9	295.5	282.8	268.1	253.2	238.5	223.6	214.3
67.5°	289.3	278.7	268.2	257.6	247.0	234.6	220.5	206.3	192.1	177.9	171.0
70°	257.8	247.6	237.3	227.1	216.9	205.0	191.8	178.6	165.3	152.0	145.3
72.5°	226.4	216.3	206.2	196.1	186.1	175.0	162.9	150.8	138.8	126.7	121.2
75°	178.4	169.3	160.2	151.1	142.0	132.2	121.8	111.4	100.9	90.5	88.6
77.5°	134.7	126.5	118.2	110.0	101.7	94.3	87.6	80.9	74.2	67.4	66.4
80°	106.7	98.9	91.2	83.4	75.6	69.7	65.7	61.7	57.8	53.8	53.2
82.5°	80.1	73.4	66.6	59.9	53.2	48.9	47.0	45.2	43.4	41.5	40.9
85°	45.2	41.1	36.9	32.7	28.5	26.2	25.6	25.0	24.5	23.9	23.6
87.5°	16.7	15.4	14.0	12.9	11.5	11.0	11.5	12.0	12.5	13.0	12.6
90°	1.6	3.3	4.9	7.3	9.0	10.6	13.0	15.5	17.9	20.4	19.6
92.5°	10.1	15.0	21.9	28.1	35.0	47.0	68.3	103.4	137.7	125.1	94.4
95°	27.6	30.1	39.1	52.9	74.0	105.8	175.0	296.2	429.7	482.6	391.4
97.5°	47.2	48.0	55.0	67.0	87.9	122.2	188.3	325.1	547.6	747.9	800.1
100°	60.3	61.1	66.8	78.1	97.7	129.4	186.4	306.8	520.8	770.7	931.0
102.5°	73.9	75.3	80.4	91.2	108.8	137.9	189.0	291.1	481.8	728.4	937.5
105°	94.4	96.9	101.7	111.5	126.9	152.2	196.2	280.0	433.7	654.3	887.9
107.5°	116.2	118.6	123.4	133.0	147.5	170.9	209.5	279.2	403.2	588.9	801.0
110°	131.8	134.3	138.4	147.3	161.1	183.9	220.5	282.4	391.4	551.8	746.2



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	146.2	148.6	152.7	161.6	175.5	197.6	231.6	288.9	384.9	527.0	698.7
115°	166.8	170.1	175.0	183.1	197.0	218.9	249.8	299.5	382.5	500.5	641.3
117.5°	187.5	191.3	195.3	202.8	218.3	238.6	269.2	313.5	383.9	484.9	606.6
120°	201.8	204.2	208.3	216.5	232.0	252.3	281.6	323.9	386.5	477.7	588.4
122.5°	214.2	216.6	220.7	229.5	244.3	266.0	294.6	333.7	391.1	473.1	573.4
125°	232.0	233.6	238.5	247.4	262.9	284.9	313.3	349.1	397.9	467.2	554.2
127.5°	245.5	247.9	253.9	263.0	280.1	302.1	329.6	361.8	405.8	464.2	537.3
130°	253.9	256.3	263.7	273.5	290.5	312.5	339.3	370.3	411.0	462.3	528.2
132.5°	260.4	263.5	271.5	283.2	300.3	321.6	347.8	378.1	414.9	461.6	519.7
135°	271.8	275.1	284.1	296.2	313.3	335.3	360.5	388.2	420.8	460.6	508.7
137.5°	282.6	286.0	294.7	307.8	324.7	345.0	369.3	395.7	424.6	458.9	499.0
140°	289.8	293.8	301.9	315.0	331.3	351.6	375.2	399.6	427.2	458.2	493.2
142.5°	297.5	300.9	309.7	321.5	337.7	356.8	379.8	403.5	429.2	456.9	488.0
145°	310.1	312.5	319.8	332.1	345.8	364.6	385.7	407.7	430.5	454.9	480.9
147.5°	322.8	324.2	331.4	341.9	355.3	371.3	390.6	410.3	430.5	451.8	474.1
150°	331.3	332.1	338.5	349.1	360.5	375.2	393.9	411.0	430.5	449.2	469.5
152.5°	339.7	339.8	346.3	355.6	365.7	379.8	395.8	412.3	428.5	446.0	464.4
155°	352.4	352.4	357.3	365.4	374.4	385.7	399.6	412.6	426.4	440.3	456.6
157.5°	362.5	363.1	367.0	374.2	381.8	390.6	401.7	413.4	423.7	435.2	447.8
160°	370.3	370.3	373.6	380.0	385.7	393.9	403.7	413.4	422.4	431.3	441.9
162.5°	376.2	376.2	378.8	383.9	389.0	395.8	404.3	412.8	419.8	427.4	436.0
165°	384.9	384.1	385.7	389.8	393.1	398.8	405.3	411.0	415.9	421.6	428.0
167.5°	391.6	390.6	391.4	394.5	396.8	400.4	405.1	409.7	412.0	415.7	420.4
170°	395.5	393.9	394.7	397.1	398.8	400.4	404.5	407.7	409.4	411.8	415.9
172.5°	398.1	397.1	397.3	399.1	400.1	401.0	404.5	407.1	407.4	408.5	411.3
175°	401.2	400.4	399.6	401.2	401.2	402.0	403.7	405.3	404.5	404.5	406.1
177.5°	402.7	402.0	401.4	402.0	402.0	402.0	402.7	404.0	402.7	402.0	402.7
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1048.4	1050.1	1051.7	1052.5	1052.1	1051.8	1051.5	1051.2
5°	1041.5	1043.2	1044.9	1045.5	1045.2	1044.8	1044.4	1044.1
7.5°	1026.9	1027.8	1028.7	1028.9	1028.3	1027.6	1027.0	1026.3
10°	1013.7	1013.9	1014.1	1013.7	1012.8	1011.8	1010.9	1009.9
12.5°	997.4	997.3	997.2	996.5	995.5	994.3	993.3	992.1
15°	968.7	967.8	966.9	965.7	964.4	963.0	961.7	960.4
17.5°	934.5	932.5	930.5	928.5	926.5	924.5	922.6	920.6
20°	911.1	908.6	906.1	903.8	901.5	899.2	896.9	894.6
22.5°	886.0	882.9	879.8	877.2	875.1	872.9	870.8	868.7
25°	844.9	840.9	836.9	833.9	831.8	829.6	827.6	825.5
27.5°	800.1	794.6	789.0	784.6	781.5	778.3	775.1	771.9
30°	768.3	761.7	755.3	750.6	747.5	744.5	741.4	738.4
32.5°	736.9	729.9	722.8	717.7	714.5	711.3	708.2	705.0
35°	690.6	682.4	674.3	668.5	665.0	661.6	658.2	654.8
37.5°	640.7	631.4	622.2	615.5	611.2	607.0	602.8	598.6
40°	606.0	596.1	586.3	579.2	574.8	570.5	566.1	561.7
42.5°	572.7	562.0	551.2	543.9	540.0	536.1	532.1	528.2
45°	523.9	513.1	502.2	494.6	490.0	485.4	480.9	476.4
47.5°	473.3	461.5	449.8	441.9	437.8	433.7	429.7	425.7
50°	439.2	427.4	415.6	407.6	403.2	398.8	394.5	390.1
52.5°	406.2	394.0	381.7	373.7	369.7	365.8	361.9	358.0
55°	357.0	346.0	335.0	327.6	323.8	320.0	316.3	312.4
57.5°	308.8	298.3	288.0	281.1	277.9	274.7	271.4	268.2
60°	278.3	268.1	257.8	251.1	247.9	244.6	241.4	238.1
62.5°	248.1	238.5	228.9	222.3	218.9	215.6	212.2	208.8
65°	205.0	195.8	186.5	180.8	178.7	176.6	174.6	172.4
67.5°	164.0	157.1	150.1	145.5	143.3	141.0	138.8	136.6
70°	138.7	132.0	125.4	121.1	119.0	116.8	114.8	112.7
72.5°	115.9	110.4	105.0	101.8	100.9	100.1	99.2	98.3
75°	86.7	84.8	82.9	81.8	81.4	81.0	80.6	80.2
77.5°	65.4	64.3	63.3	62.6	62.3	61.9	61.5	61.1
80°	52.7	52.1	51.5	51.0	50.6	50.3	49.9	49.5
82.5°	40.4	39.8	39.2	38.9	38.8	38.7	38.6	38.6
85°	23.2	22.7	22.4	22.2	22.2	22.2	22.2	22.2
87.5°	12.6	12.6	12.6	12.8	12.6	12.6	12.6	12.2
90°	20.4	21.2	22.0	23.6	22.7	23.6	24.4	23.6
92.5°	68.5	54.4	48.0	43.8	42.3	39.9	40.7	39.2
95°	292.9	198.6	155.5	126.1	110.7	103.4	97.7	94.4
97.5°	730.3	585.0	480.0	382.6	322.6	286.0	264.0	257.0
100°	959.5	893.6	798.3	682.8	600.6	541.2	509.5	510.3
102.5°	1035.7	1033.6	978.0	904.8	840.8	793.8	767.3	748.5
105°	1057.9	1139.4	1154.8	1133.7	1096.2	1065.3	1039.3	1035.2
107.5°	993.8	1126.0	1197.3	1226.3	1226.9	1216.5	1207.7	1200.2
110°	932.6	1082.4	1184.9	1241.9	1264.7	1271.2	1269.6	1268.0



TEST NUMBER: P332323-930

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	872.0	1025.1	1140.0	1213.2	1254.9	1275.0	1281.2	1281.6
115°	791.8	933.4	1053.0	1141.7	1202.8	1238.6	1254.9	1259.0
117.5°	733.8	856.0	963.4	1053.4	1117.0	1158.1	1181.5	1187.0
120°	703.1	813.0	910.7	992.9	1057.1	1102.7	1122.3	1127.2
122.5°	679.1	778.5	869.0	945.3	1002.5	1043.5	1064.9	1071.1
125°	647.0	735.7	813.8	878.9	931.0	966.8	987.2	992.9
127.5°	619.0	698.1	768.6	827.8	874.2	904.8	923.2	928.4
130°	601.4	674.7	740.5	795.9	839.0	868.4	885.4	891.9
132.5°	585.1	652.5	713.9	766.6	807.1	836.4	851.6	856.1
135°	563.1	620.9	673.8	720.2	760.1	784.5	799.2	804.9
137.5°	543.2	590.5	636.1	676.3	709.8	734.6	746.9	750.6
140°	531.4	572.9	612.0	647.0	677.9	700.7	713.7	712.9
142.5°	520.3	556.0	589.9	620.3	646.7	666.8	678.6	677.8
145°	507.0	533.9	559.9	583.5	603.8	620.9	627.5	629.1
147.5°	496.1	517.4	538.4	555.2	570.6	582.2	588.4	589.1
150°	488.3	507.0	524.1	539.6	551.8	560.7	565.6	565.6
152.5°	481.1	497.3	512.4	525.2	534.8	543.2	546.1	546.1
155°	470.3	483.4	495.6	505.4	512.7	519.2	520.8	521.6
157.5°	459.0	469.9	479.3	487.0	493.3	498.2	499.5	499.4
160°	452.5	461.5	469.5	475.2	480.9	485.8	485.8	485.0
162.5°	444.7	452.3	459.8	464.9	468.6	472.8	472.8	472.0
165°	434.6	439.4	445.2	449.2	452.5	455.8	454.9	454.9
167.5°	425.7	429.5	432.8	435.7	437.2	439.4	438.6	438.6
170°	420.0	422.4	425.6	427.2	428.0	429.7	428.8	428.8
172.5°	414.7	416.5	419.1	420.1	420.3	421.9	420.4	419.8
175°	407.7	408.5	410.2	410.2	410.2	411.0	410.2	409.4
177.5°	403.3	404.0	404.6	404.6	404.0	404.6	403.3	403.3
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0

(END OF REPORT)