

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: P333066-927

Luminaire Tested: **S124RDIW-S795D1050U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333066-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S795D1050U927-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5424.5 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

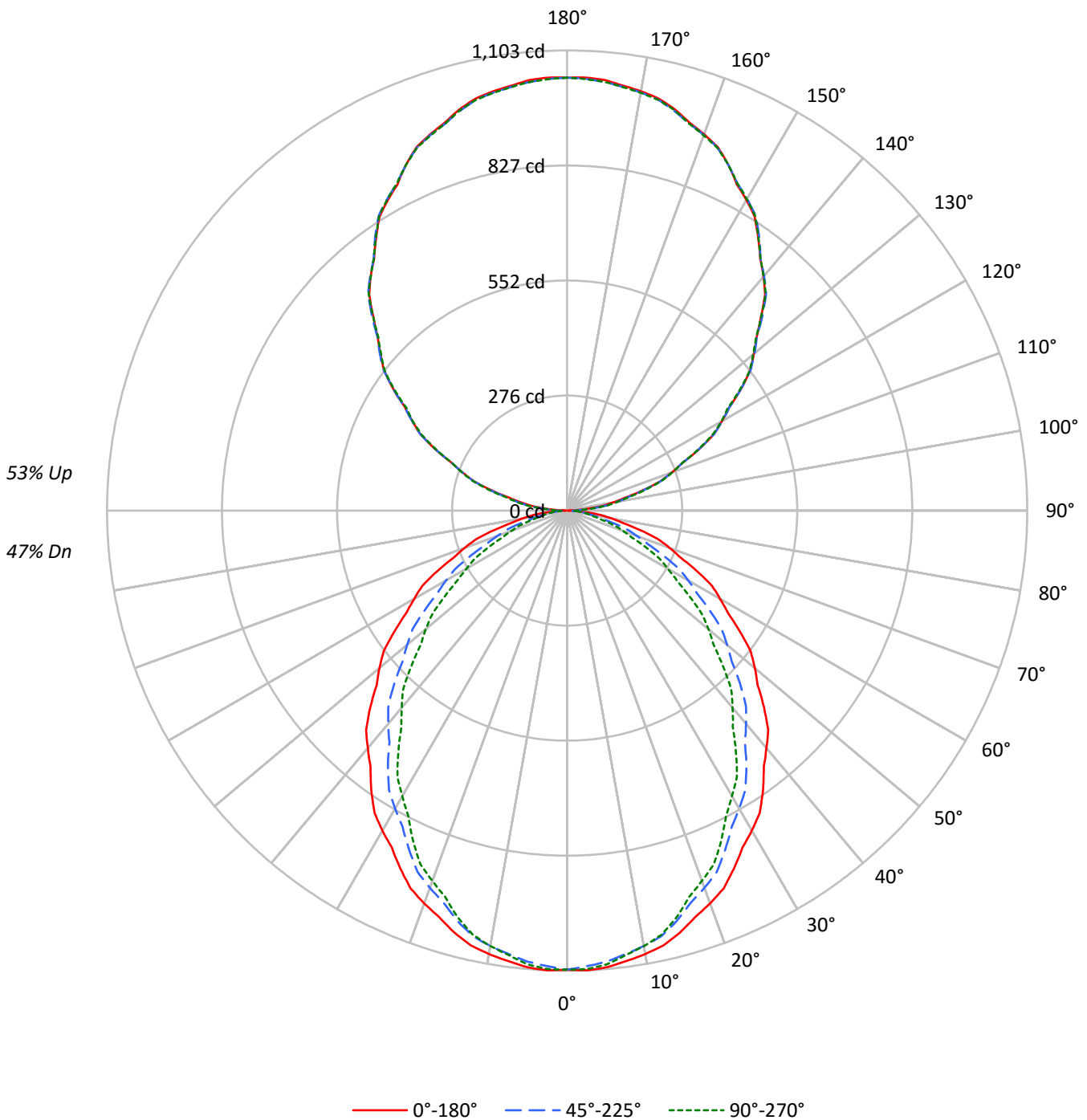
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-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	106	106	106	106	98	98	98	98	82	82	82		67	67	67		53	53	53	47
1	97	93	89	86	89	86	83	80	72	70	68		59	58	56		47	46	45	40
2	89	82	76	71	81	75	70	66	63	60	56		52	50	47		42	40	39	34
3	81	72	65	59	74	66	60	55	56	51	48		46	43	40		37	35	33	29
4	74	64	56	50	68	59	52	47	50	45	41		41	38	35		34	31	29	25
5	68	57	49	43	63	53	46	40	45	39	35		37	33	30		30	28	25	22
6	63	51	43	37	58	47	40	35	40	35	31		34	30	26		28	25	22	19
7	58	46	38	33	53	43	36	31	37	31	27		31	27	24		25	22	20	17
8	54	42	34	29	50	39	32	27	33	28	24		28	24	21		23	20	18	15
9	50	38	31	26	46	36	29	25	31	25	22		26	22	19		22	18	16	14
10	47	35	28	23	43	33	26	22	28	23	20		24	20	17		20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8884	8884	8884
5°	8904	8795	8849
10°	8848	8689	8689
15°	8747	8507	8444
20°	8607	8267	8115
25°	8429	7986	7783
30°	8255	7690	7368
35°	8064	7383	6951
40°	7832	7032	6500
45°	7618	6687	6042
50°	7376	6286	5556
55°	7116	5871	5029
60°	6830	5414	4490
65°	6567	4846	3960
70°	6187	4216	3361
75°	5702	3497	2732
80°	4974	2664	2506
85°	4215	2418	2260



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	1.9
10°-20°	288.3	5.3
20°-30°	416.3	7.7
30°-40°	471.8	8.7
40°-50°	455.6	8.4
50°-60°	378.9	7.0
60°-70°	261.6	4.8
70°-80°	132.6	2.4
80°-90°	37.1	0.7
90°-100°	68.4	1.3
100°-110°	202.7	3.7
110°-120°	344.1	6.3
120°-130°	453.7	8.4
130°-140°	509.6	9.4
140°-150°	500.8	9.2
150°-160°	421.2	7.8
160°-170°	280.2	5.2
170°-180°	98.1	1.8
0°-30°	807.9	14.9
0°-40°	1279.7	23.6
0°-60°	2114.3	39.0
0°-90°	2545.6	46.9
90°-120°	615.3	11.3
90°-150°	2079.4	38.3
90°-180°	2879.0	53.1
0°-180°	5424.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1099	1095	1085	1093	1092	104
15°	1047	1038	1018	1016	1010	295
25°	946	930	896	883	874	436
35°	818	790	749	721	705	511
45°	667	635	586	546	529	514
55°	506	471	417	375	357	452
65°	344	307	254	219	207	339
75°	183	151	112	93	88	193
85°	46	29	26	24	24	51
90°	2	11	18	22	24	5
95°	48	55	61	63	63	54
105°	187	188	191	193	196	198
115°	350	350	348	348	347	345
125°	510	510	509	507	506	454
135°	657	662	662	660	658	508
145°	798	802	802	802	799	500
155°	915	915	914	917	914	421
165°	996	994	992	996	994	281
175°	1036	1032	1031	1036	1031	98
180°	1038	1038	1038	1038	1038	



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1103.2	1102.6	1101.9	1101.4	1100.7	1099.6	1098.0	1096.4	1094.7	1093.1	1094.7
5°	1098.8	1098.0	1097.3	1096.5	1095.7	1094.3	1092.0	1089.8	1087.5	1085.3	1087.2
7.5°	1088.9	1088.1	1087.3	1086.5	1085.7	1083.9	1080.9	1078.0	1075.1	1072.1	1073.3
10°	1079.4	1078.5	1077.5	1076.6	1075.6	1073.5	1070.2	1066.8	1063.4	1060.0	1060.7
12.5°	1067.2	1066.2	1065.1	1064.0	1063.0	1060.4	1056.5	1052.4	1048.5	1044.5	1045.0
15°	1046.6	1044.9	1043.1	1041.5	1039.8	1036.6	1031.9	1027.2	1022.5	1017.9	1017.5
17.5°	1021.4	1019.0	1016.5	1014.2	1011.7	1007.7	1002.0	996.4	990.8	985.2	984.1
20°	1001.9	999.4	997.0	994.6	992.1	987.8	981.4	975.0	968.6	962.3	960.8
22.5°	980.3	977.6	974.9	972.1	969.4	964.6	957.7	950.9	944.1	937.3	935.1
25°	946.3	942.9	939.5	936.1	932.8	927.2	919.6	911.9	904.2	896.5	893.3
27.5°	910.5	906.3	902.1	897.9	893.6	887.4	879.2	871.0	862.8	854.6	850.6
30°	885.6	880.9	876.2	871.6	866.9	860.2	851.4	842.6	833.7	824.9	820.2
32.5°	859.3	854.1	848.7	843.4	838.2	831.0	821.9	812.8	803.7	794.6	789.2
35°	818.2	812.2	806.2	800.2	794.2	786.6	777.2	767.8	758.4	749.1	742.8
37.5°	774.2	768.0	761.8	755.7	749.5	741.2	730.9	720.5	710.1	699.7	692.6
40°	743.2	737.0	730.9	724.7	718.5	710.0	699.3	688.7	678.0	667.3	659.5
42.5°	713.5	707.0	700.6	694.1	687.6	678.8	667.7	656.6	645.5	634.3	626.3
45°	667.3	660.4	653.5	646.6	639.6	630.6	619.3	608.1	596.8	585.7	576.5
47.5°	619.6	612.5	605.4	598.2	591.0	581.6	570.0	558.3	546.6	534.9	525.4
50°	587.3	580.0	572.7	565.4	558.1	548.4	536.5	524.5	512.5	500.5	491.2
52.5°	554.3	547.2	540.0	532.8	525.7	515.9	503.7	491.4	479.1	466.8	457.3
55°	505.6	498.0	490.6	483.1	475.6	465.8	453.6	441.4	429.3	417.1	407.3
57.5°	457.4	449.6	441.8	434.0	426.2	416.3	404.3	392.4	380.4	368.4	358.5
60°	423.0	415.5	408.1	400.5	393.0	383.3	371.3	359.3	347.4	335.3	325.6
62.5°	392.0	384.2	376.4	368.6	360.8	350.8	338.5	326.2	313.9	301.7	292.6
65°	343.8	335.7	327.6	319.6	311.6	301.6	289.5	277.6	265.6	253.7	245.6
67.5°	293.7	286.1	278.3	270.6	262.8	253.5	242.3	231.2	220.1	209.0	202.0
70°	262.1	254.2	246.3	238.4	230.6	221.3	210.6	199.9	189.3	178.6	172.5
72.5°	228.4	221.3	214.1	207.0	199.9	191.3	181.3	171.1	161.1	151.0	145.7
75°	182.8	175.9	169.0	162.1	155.1	147.3	138.5	129.7	120.9	112.1	107.7
77.5°	136.7	130.8	124.9	119.1	113.1	106.6	99.6	92.4	85.3	78.2	75.7
80°	107.0	101.6	96.2	90.7	85.3	79.8	74.1	68.5	62.9	57.3	56.7
82.5°	81.4	76.4	71.5	66.5	61.5	57.4	54.2	50.9	47.7	44.5	44.0
85°	45.5	41.7	38.0	34.3	30.5	28.4	27.8	27.3	26.7	26.1	25.7
87.5°	16.0	15.2	14.3	13.5	12.8	12.4	12.6	12.7	12.8	13.0	13.1
90°	2.4	4.4	6.3	8.3	10.2	12.0	13.4	14.8	16.2	17.7	18.7
92.5°	17.2	19.4	21.7	23.9	26.1	27.8	28.8	29.8	30.8	31.8	32.4
95°	48.2	49.7	51.3	53.0	54.6	56.0	57.3	58.5	59.7	61.0	61.6
97.5°	84.1	85.4	86.7	87.9	89.3	90.6	92.1	93.6	95.0	96.5	97.1
100°	112.3	113.0	113.8	114.5	115.2	116.4	118.0	119.5	121.2	122.8	123.1
102.5°	141.9	142.2	142.4	142.8	143.0	143.9	145.4	146.8	148.3	149.7	150.3
105°	187.0	187.2	187.4	187.5	187.7	188.1	188.9	189.6	190.3	191.0	191.5
107.5°	234.3	234.6	234.7	235.0	235.2	235.4	235.4	235.6	235.7	235.8	236.3
110°	266.4	266.8	267.1	267.5	267.8	267.9	267.8	267.6	267.4	267.2	266.9



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	299.8	299.9	300.0	300.0	300.1	300.0	299.7	299.4	299.0	298.7	298.7
115°	349.9	349.9	349.9	349.9	349.9	349.7	349.4	349.0	348.6	348.3	348.1
117.5°	397.1	397.2	397.4	397.5	397.7	397.6	397.4	397.1	396.9	396.6	396.0
120°	428.6	429.3	430.0	430.7	431.4	431.5	430.9	430.4	429.9	429.4	428.5
122.5°	461.3	461.6	461.8	462.2	462.4	462.5	462.2	461.9	461.7	461.4	460.8
125°	509.6	509.6	509.6	509.6	509.6	509.5	509.3	509.1	509.0	508.8	508.4
127.5°	553.4	554.0	554.4	555.0	555.6	555.7	555.4	555.1	554.8	554.5	554.2
130°	584.2	584.8	585.3	585.8	586.4	586.6	586.6	586.6	586.6	586.6	586.3
132.5°	615.7	616.1	616.5	616.9	617.3	617.3	617.3	617.1	617.0	616.8	616.5
135°	657.3	658.3	659.4	660.4	661.6	662.1	662.1	662.1	662.1	662.1	661.7
137.5°	702.5	703.0	703.5	704.0	704.5	704.9	705.2	705.5	705.8	706.1	705.6
140°	732.7	733.1	733.4	733.8	734.1	734.3	734.3	734.3	734.3	734.3	734.1
142.5°	760.3	760.7	761.0	761.4	761.8	761.8	761.7	761.5	761.4	761.3	761.2
145°	798.5	799.2	799.9	800.7	801.4	801.8	802.0	802.2	802.3	802.5	802.3
147.5°	836.4	837.3	838.1	838.9	839.8	840.2	840.0	839.9	839.7	839.6	839.5
150°	859.5	860.2	860.9	861.7	862.4	862.7	862.7	862.7	862.7	862.7	862.7
152.5°	881.3	881.8	882.2	882.6	883.0	883.3	883.4	883.6	883.8	883.9	884.3
155°	914.9	914.9	914.9	914.9	914.9	914.8	914.6	914.4	914.3	914.1	914.8
157.5°	943.1	942.8	942.5	942.1	941.8	941.7	941.6	941.6	941.5	941.5	942.1
160°	959.8	959.6	959.4	959.3	959.1	958.9	958.7	958.5	958.4	958.2	958.7
162.5°	975.2	974.8	974.3	973.8	973.4	973.0	972.9	972.7	972.5	972.3	973.3
165°	995.9	995.4	994.8	994.3	993.8	993.3	993.0	992.6	992.3	991.9	993.0
167.5°	1011.8	1011.1	1010.3	1009.6	1008.8	1008.4	1008.5	1008.5	1008.5	1008.6	1009.6
170°	1020.8	1019.9	1019.0	1018.1	1017.2	1016.8	1017.1	1017.2	1017.4	1017.6	1018.7
172.5°	1027.2	1026.4	1025.7	1025.0	1024.2	1023.9	1023.9	1024.0	1024.0	1024.0	1025.2
175°	1036.0	1035.1	1034.3	1033.4	1032.5	1032.0	1031.7	1031.6	1031.4	1031.3	1032.5
177.5°	1038.9	1038.2	1037.5	1036.8	1036.1	1035.7	1035.7	1035.7	1035.7	1035.7	1036.7
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1096.4	1098.0	1099.6	1100.4	1100.3	1100.1	1099.9	1099.8
5°	1089.0	1090.9	1092.8	1093.5	1093.1	1092.8	1092.4	1092.0
7.5°	1074.5	1075.8	1077.0	1077.2	1076.7	1076.0	1075.5	1074.8
10°	1061.5	1062.2	1063.0	1063.0	1062.2	1061.5	1060.7	1060.0
12.5°	1045.4	1045.8	1046.3	1046.0	1045.0	1043.9	1042.8	1041.8
15°	1017.2	1016.8	1016.4	1015.6	1014.2	1012.9	1011.6	1010.3
17.5°	983.1	982.1	981.0	979.5	977.5	975.5	973.5	971.5
20°	959.3	957.7	956.2	954.3	951.9	949.4	947.0	944.6
22.5°	932.9	930.6	928.4	926.2	924.2	922.3	920.3	918.3
25°	890.2	887.0	883.8	881.3	879.4	877.6	875.7	873.8
27.5°	846.7	842.8	838.8	835.5	832.8	830.1	827.4	824.7
30°	815.6	810.9	806.2	802.3	799.4	796.4	793.4	790.4
32.5°	783.7	778.3	772.9	768.7	765.9	763.0	760.2	757.3
35°	736.3	730.0	723.7	718.7	715.4	712.0	708.6	705.3
37.5°	685.5	678.3	671.2	666.0	662.7	659.3	655.9	652.5
40°	651.6	643.7	635.9	630.3	626.9	623.5	620.2	616.8
42.5°	618.3	610.3	602.3	596.5	592.9	589.5	586.0	582.4
45°	567.3	558.1	548.9	542.6	539.2	535.9	532.5	529.2
47.5°	515.9	506.4	496.9	490.2	486.6	482.8	479.1	475.4
50°	481.8	472.5	463.0	456.6	453.0	449.5	445.9	442.4
52.5°	447.8	438.3	428.7	422.2	418.4	414.7	411.1	407.3
55°	397.6	387.9	378.2	371.5	368.0	364.4	360.8	357.3
57.5°	348.6	338.7	328.8	322.6	319.9	317.2	314.5	311.8
60°	315.9	306.2	296.4	290.0	287.1	284.1	281.1	278.1
62.5°	283.7	274.7	265.7	260.0	257.6	255.2	252.8	250.4
65°	237.5	229.5	221.4	216.3	214.0	211.8	209.5	207.3
67.5°	195.1	188.2	181.3	176.6	174.1	171.6	169.1	166.7
70°	166.3	160.1	153.9	149.9	148.1	146.2	144.3	142.4
72.5°	140.5	135.1	129.8	126.4	124.7	122.9	121.2	119.5
75°	103.5	99.2	94.8	92.1	91.0	89.9	88.7	87.6
77.5°	73.2	70.7	68.1	66.7	66.4	66.1	65.8	65.4
80°	56.2	55.6	55.1	54.7	54.5	54.3	54.1	53.9
82.5°	43.6	43.3	42.9	42.5	42.4	42.1	42.0	41.8
85°	25.3	25.0	24.6	24.4	24.4	24.4	24.4	24.4
87.5°	13.1	13.2	13.2	13.4	13.6	13.8	14.0	14.3
90°	19.8	20.8	21.9	22.7	23.0	23.4	23.7	24.1
92.5°	33.0	33.7	34.4	34.8	35.0	35.2	35.4	35.6
95°	62.0	62.6	63.1	63.4	63.4	63.4	63.4	63.4
97.5°	97.8	98.4	99.0	99.3	99.3	99.3	99.3	99.3
100°	123.5	123.8	124.2	124.4	124.4	124.4	124.4	124.4
102.5°	150.8	151.2	151.8	152.1	152.2	152.3	152.5	152.7
105°	192.1	192.6	193.1	193.7	194.2	194.7	195.3	195.8
107.5°	236.8	237.3	237.8	238.0	238.0	238.0	237.9	237.9
110°	266.5	266.2	265.8	265.9	266.4	267.0	267.5	268.1



TEST NUMBER: P333066-927

CATALOG NUMBER: S124RDIW-S795D1050U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	298.6	298.5	298.4	298.4	298.6	298.7	298.7	298.9
115°	347.9	347.8	347.6	347.4	347.2	347.1	346.9	346.7
117.5°	395.4	394.7	394.2	393.7	393.3	393.0	392.6	392.3
120°	427.5	426.7	425.8	425.5	425.9	426.2	426.6	426.9
122.5°	460.3	459.6	459.0	458.4	457.7	457.1	456.5	455.8
125°	508.1	507.7	507.4	507.0	506.7	506.3	506.0	505.6
127.5°	553.8	553.5	553.1	552.8	552.5	552.2	551.9	551.7
130°	585.9	585.6	585.2	584.7	584.0	583.3	582.6	581.9
132.5°	616.1	615.8	615.4	615.1	614.8	614.5	614.2	613.9
135°	661.4	661.0	660.7	660.2	659.7	659.1	658.6	658.1
137.5°	705.1	704.6	704.2	704.0	704.1	704.3	704.3	704.4
140°	734.0	733.8	733.6	733.4	733.2	733.1	732.8	732.7
142.5°	761.2	761.1	761.1	761.0	761.0	761.0	761.0	761.0
145°	802.2	802.0	801.8	801.5	800.9	800.3	799.9	799.3
147.5°	839.3	839.2	839.0	838.8	838.7	838.5	838.3	838.1
150°	862.7	862.7	862.7	862.6	862.4	862.3	862.1	861.9
152.5°	884.7	885.2	885.6	885.6	885.1	884.6	884.2	883.8
155°	915.5	916.2	917.0	917.0	916.2	915.5	914.8	914.1
157.5°	942.6	943.1	943.6	943.6	943.0	942.4	941.8	941.2
160°	959.3	959.8	960.4	960.1	959.3	958.4	957.5	956.6
162.5°	974.2	975.2	976.2	976.2	975.3	974.5	973.5	972.6
165°	994.0	995.1	996.2	996.3	995.6	994.9	994.2	993.5
167.5°	1010.7	1011.8	1012.9	1012.9	1011.8	1010.7	1009.6	1008.4
170°	1019.7	1020.8	1021.8	1021.8	1020.6	1019.3	1018.0	1016.8
172.5°	1026.4	1027.6	1028.9	1028.8	1027.6	1026.4	1025.1	1023.8
175°	1033.7	1035.0	1036.3	1036.3	1035.0	1033.7	1032.5	1031.3
177.5°	1037.8	1038.7	1039.7	1039.7	1038.5	1037.4	1036.3	1035.1
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7

(END OF REPORT)