

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: P333070-930

Luminaire Tested: **S124RDIW-S795D1340U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333070-930  
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-S795D1340U930-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6413.8 lumens  
Efficiency: N/A  
Efficacy: 104.5 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

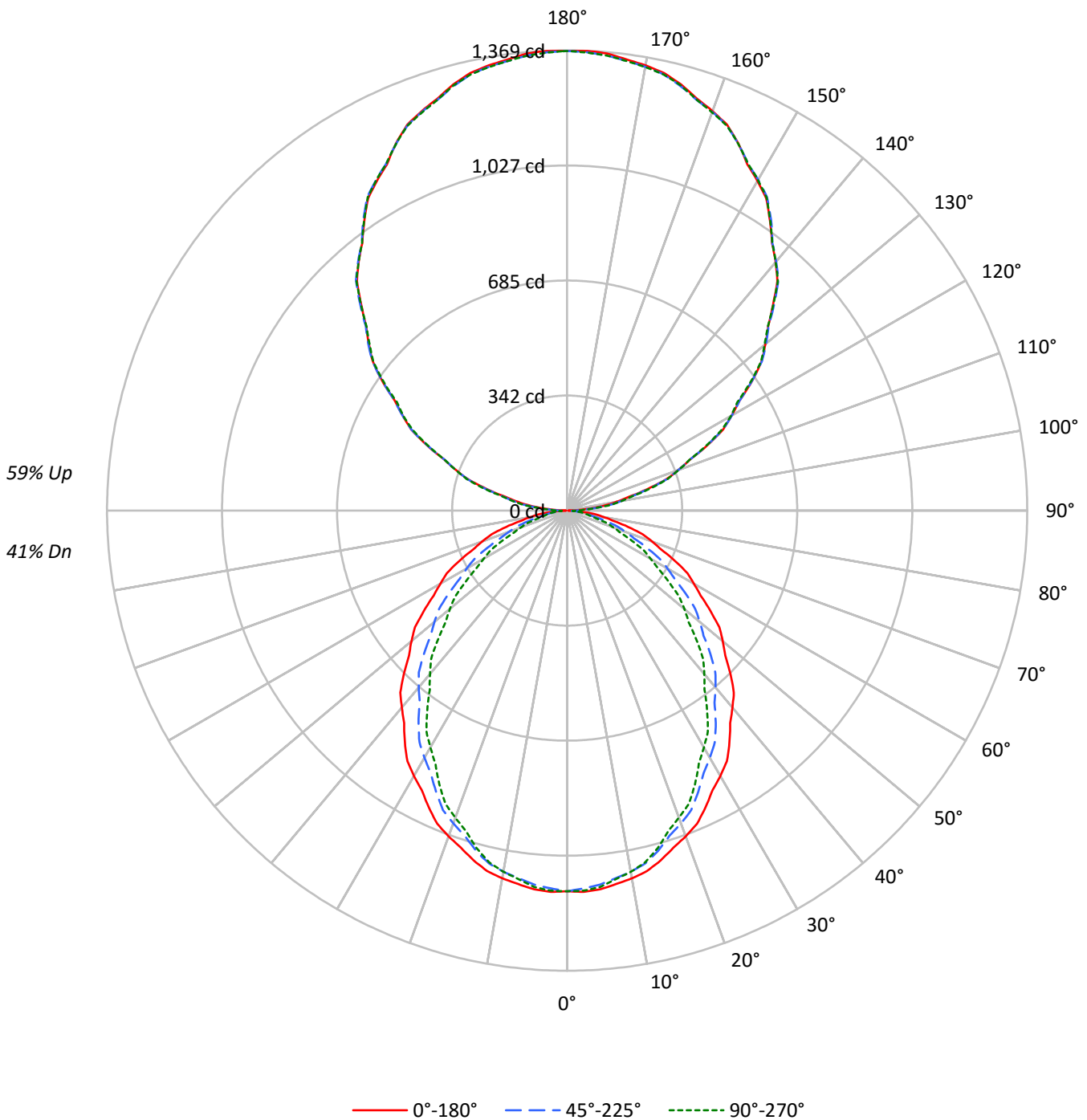
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	42	42	41	35
2	88	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	71	64	58	73	65	59	54	54	49	45	43	40	37	34	31	30	25
4	73	63	55	49	66	58	51	46	48	43	39	39	35	32	30	28	26	22
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	27	25	22	19
6	62	50	42	37	56	46	39	34	38	33	29	31	27	25	25	22	20	17
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	34	28	48	38	31	27	32	27	23	26	22	19	21	18	16	13
9	49	37	30	25	45	35	28	24	29	24	21	24	20	17	19	16	14	12
10	46	34	27	23	42	32	25	21	27	22	18	22	18	16	18	15	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9143	9143	9143
5°	9164	9052	9108
10°	9107	8943	8943
15°	9002	8756	8690
20°	8858	8508	8352
25°	8675	8219	8011
30°	8496	7914	7582
35°	8298	7597	7154
40°	8061	7238	6690
45°	7841	6882	6218
50°	7592	6469	5718
55°	7323	6042	5175
60°	7030	5572	4621
65°	6758	4988	4076
70°	6366	4338	3460
75°	5870	3599	2813
80°	5119	2738	2580
85°	4335	2492	2325



TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.4	1.7
10°-20°	296.7	4.6
20°-30°	428.4	6.7
30°-40°	485.6	7.6
40°-50°	468.9	7.3
50°-60°	389.9	6.1
60°-70°	269.3	4.2
70°-80°	136.5	2.1
80°-90°	39.1	0.6
90°-100°	90.2	1.4
100°-110°	267.1	4.2
110°-120°	453.4	7.1
120°-130°	597.8	9.3
130°-140°	671.4	10.5
140°-150°	659.8	10.3
150°-160°	554.9	8.7
160°-170°	369.2	5.8
170°-180°	129.3	2.0
0°-30°	831.5	13.0
0°-40°	1317.1	20.5
0°-60°	2176.0	33.9
0°-90°	2620.8	40.9
90°-120°	810.7	12.6
90°-150°	2739.7	42.7
90°-180°	3793.0	59.1
0°-180°	6413.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1131	1127	1117	1125	1124	107
15°	1077	1069	1048	1046	1040	303
25°	974	957	923	908	899	449
35°	842	813	771	742	726	526
45°	687	654	603	562	545	529
55°	520	484	429	386	368	465
65°	354	316	261	225	213	349
75°	188	156	115	96	90	199
85°	47	30	27	25	25	53
90°	3	15	23	29	32	6
95°	63	73	80	83	84	71
105°	246	248	252	255	258	261
115°	461	461	459	458	457	454
125°	671	671	670	668	666	598
135°	866	872	872	870	867	670
145°	1052	1056	1057	1056	1053	658
155°	1205	1205	1204	1208	1204	554
165°	1312	1309	1307	1313	1309	370
175°	1365	1360	1359	1365	1359	130
180°	1367	1367	1367	1367	1367	



TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1135.4	1134.7	1134.1	1133.5	1132.9	1131.7	1130.0	1128.4	1126.7	1124.9	1126.7
5°	1130.8	1130.1	1129.3	1128.5	1127.7	1126.3	1123.9	1121.6	1119.2	1117.0	1118.9
7.5°	1120.6	1119.8	1119.0	1118.2	1117.4	1115.5	1112.5	1109.5	1106.4	1103.4	1104.6
10°	1110.9	1109.9	1109.0	1108.0	1107.0	1104.8	1101.4	1097.9	1094.5	1091.0	1091.7
12.5°	1098.4	1097.3	1096.2	1095.0	1094.0	1091.4	1087.3	1083.1	1079.0	1075.0	1075.5
15°	1077.1	1075.4	1073.6	1071.9	1070.2	1066.9	1062.0	1057.2	1052.4	1047.6	1047.2
17.5°	1051.2	1048.7	1046.2	1043.7	1041.2	1037.1	1031.3	1025.5	1019.7	1013.9	1012.8
20°	1031.1	1028.6	1026.1	1023.6	1021.1	1016.6	1010.0	1003.5	996.9	990.3	988.8
22.5°	1008.9	1006.1	1003.3	1000.5	997.7	992.7	985.7	978.7	971.7	964.7	962.4
25°	973.9	970.4	966.9	963.4	960.0	954.3	946.4	938.5	930.6	922.7	919.4
27.5°	937.1	932.8	928.4	924.1	919.7	913.3	904.8	896.4	887.9	879.5	875.5
30°	911.4	906.6	901.8	897.0	892.2	885.3	876.2	867.2	858.0	849.0	844.2
32.5°	884.4	879.0	873.5	868.0	862.7	855.2	845.9	836.5	827.1	817.7	812.2
35°	842.0	835.9	829.7	823.5	817.4	809.5	799.9	790.2	780.6	770.9	764.4
37.5°	796.8	790.4	784.1	777.7	771.4	762.9	752.2	741.5	730.8	720.2	712.8
40°	764.9	758.6	752.2	745.8	739.5	730.8	719.7	708.8	697.8	686.8	678.7
42.5°	734.3	727.7	721.1	714.4	707.7	698.6	687.2	675.7	664.3	652.8	644.6
45°	686.8	679.7	672.5	665.4	658.3	649.0	637.4	625.8	614.2	602.8	593.3
47.5°	637.7	630.4	623.1	615.6	608.3	598.6	586.6	574.5	562.6	550.5	540.7
50°	604.5	597.0	589.4	581.9	574.4	564.4	552.1	539.8	527.4	515.1	505.5
52.5°	570.5	563.1	555.7	548.4	541.0	531.0	518.4	505.7	493.1	480.5	470.7
55°	520.3	512.6	504.9	497.2	489.5	479.4	466.8	454.3	441.8	429.3	419.2
57.5°	470.8	462.7	454.7	446.7	438.6	428.4	416.1	403.8	391.5	379.1	369.0
60°	435.4	427.6	420.0	412.2	404.5	394.5	382.1	369.8	357.5	345.1	335.1
62.5°	403.4	395.4	387.4	379.4	371.4	361.0	348.4	335.7	323.1	310.5	301.2
65°	353.8	345.5	337.2	329.0	320.7	310.4	298.0	285.7	273.4	261.1	252.7
67.5°	302.3	294.4	286.4	278.5	270.5	260.9	249.4	238.0	226.5	215.1	207.9
70°	269.7	261.6	253.5	245.4	237.3	227.8	216.8	205.8	194.9	183.8	177.5
72.5°	235.1	227.7	220.4	213.0	205.7	196.9	186.5	176.1	165.8	155.4	149.9
75°	188.2	181.1	173.9	166.8	159.6	151.6	142.5	133.5	124.4	115.4	110.9
77.5°	140.6	134.6	128.6	122.5	116.4	109.7	102.5	95.1	87.8	80.5	77.9
80°	110.1	104.5	99.0	93.4	87.8	82.1	76.3	70.5	64.7	58.9	58.4
82.5°	83.8	78.7	73.5	68.4	63.3	59.0	55.8	52.4	49.1	45.8	45.3
85°	46.8	43.0	39.1	35.3	31.4	29.2	28.6	28.0	27.5	26.9	26.5
87.5°	16.6	15.9	15.2	14.4	13.7	13.5	13.7	13.9	14.1	14.3	14.5
90°	3.2	5.8	8.3	10.9	13.5	15.7	17.6	19.5	21.4	23.2	24.7
92.5°	22.7	25.6	28.5	31.5	34.5	36.6	37.9	39.2	40.5	41.9	42.7
95°	63.4	65.6	67.7	69.8	71.9	73.8	75.4	77.0	78.7	80.4	81.0
97.5°	110.8	112.5	114.2	115.9	117.6	119.4	121.3	123.3	125.1	127.1	127.9
100°	148.1	149.0	149.9	150.8	151.8	153.3	155.4	157.5	159.6	161.8	162.2
102.5°	186.9	187.4	187.7	188.1	188.4	189.6	191.5	193.5	195.3	197.3	198.0
105°	246.4	246.6	246.9	247.0	247.3	247.9	248.8	249.8	250.7	251.7	252.3
107.5°	308.8	309.0	309.3	309.6	309.9	310.1	310.2	310.4	310.5	310.6	311.3
110°	351.1	351.5	352.0	352.5	352.9	353.0	352.8	352.5	352.4	352.1	351.6



TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	395.0	395.1	395.2	395.3	395.4	395.3	394.8	394.4	394.0	393.5	393.5
115°	461.0	461.0	461.0	461.0	461.0	460.8	460.3	459.8	459.3	458.9	458.7
117.5°	523.2	523.3	523.6	523.7	523.9	523.8	523.5	523.2	522.9	522.5	521.7
120°	564.6	565.6	566.5	567.4	568.3	568.5	567.8	567.1	566.4	565.7	564.5
122.5°	607.7	608.1	608.5	608.9	609.3	609.3	608.9	608.6	608.3	608.0	607.2
125°	671.4	671.4	671.4	671.4	671.4	671.3	671.1	670.8	670.6	670.3	669.8
127.5°	729.1	729.9	730.6	731.2	732.0	732.1	731.7	731.4	731.0	730.6	730.2
130°	769.7	770.5	771.2	771.8	772.6	772.9	772.9	772.9	772.9	772.9	772.4
132.5°	811.2	811.7	812.2	812.8	813.3	813.4	813.3	813.0	812.9	812.7	812.2
135°	865.9	867.4	868.8	870.2	871.6	872.3	872.3	872.3	872.3	872.3	871.9
137.5°	925.6	926.3	926.9	927.6	928.2	928.8	929.1	929.5	929.8	930.3	929.6
140°	965.4	965.8	966.3	966.8	967.3	967.4	967.4	967.4	967.4	967.4	967.3
142.5°	1001.8	1002.2	1002.7	1003.1	1003.6	1003.7	1003.6	1003.4	1003.2	1003.0	1003.0
145°	1052.1	1053.0	1053.9	1054.9	1055.8	1056.4	1056.6	1056.9	1057.1	1057.4	1057.1
147.5°	1102.0	1103.1	1104.2	1105.4	1106.4	1106.9	1106.8	1106.6	1106.4	1106.2	1106.0
150°	1132.5	1133.3	1134.3	1135.2	1136.2	1136.6	1136.6	1136.6	1136.6	1136.6	1136.6
152.5°	1161.1	1161.7	1162.3	1162.9	1163.4	1163.8	1164.0	1164.2	1164.4	1164.6	1165.1
155°	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.0	1204.8	1204.5	1204.4	1205.3
157.5°	1242.6	1242.2	1241.8	1241.3	1240.9	1240.6	1240.6	1240.6	1240.6	1240.5	1241.2
160°	1264.6	1264.4	1264.1	1263.9	1263.6	1263.4	1263.1	1263.0	1262.7	1262.5	1263.1
162.5°	1284.9	1284.3	1283.7	1283.0	1282.5	1282.1	1281.8	1281.6	1281.3	1281.1	1282.4
165°	1312.1	1311.5	1310.8	1310.0	1309.4	1308.8	1308.3	1307.8	1307.3	1306.8	1308.3
167.5°	1333.1	1332.1	1331.1	1330.2	1329.2	1328.7	1328.8	1328.8	1328.9	1328.9	1330.3
170°	1344.9	1343.8	1342.6	1341.4	1340.3	1339.8	1340.0	1340.3	1340.5	1340.7	1342.1
172.5°	1353.4	1352.4	1351.4	1350.5	1349.5	1349.0	1349.1	1349.1	1349.2	1349.2	1350.8
175°	1365.1	1363.8	1362.7	1361.5	1360.3	1359.6	1359.4	1359.2	1358.9	1358.7	1360.3
177.5°	1368.8	1367.9	1366.9	1366.0	1365.1	1364.6	1364.6	1364.6	1364.6	1364.6	1366.0
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2



TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1128.4	1130.0	1131.7	1132.5	1132.4	1132.2	1132.0	1131.9
5°	1120.8	1122.7	1124.7	1125.4	1125.0	1124.7	1124.3	1123.9
7.5°	1105.9	1107.2	1108.4	1108.6	1108.1	1107.4	1106.9	1106.2
10°	1092.5	1093.2	1094.1	1094.1	1093.2	1092.5	1091.7	1091.0
12.5°	1076.0	1076.4	1076.8	1076.5	1075.5	1074.4	1073.3	1072.2
15°	1046.8	1046.4	1046.0	1045.2	1043.8	1042.4	1041.1	1039.8
17.5°	1011.8	1010.7	1009.6	1008.0	1006.0	1004.0	1001.9	999.9
20°	987.2	985.7	984.1	982.2	979.7	977.1	974.6	972.2
22.5°	960.1	957.7	955.4	953.2	951.2	949.2	947.1	945.1
25°	916.2	912.9	909.6	907.0	905.1	903.2	901.2	899.3
27.5°	871.4	867.4	863.3	859.9	857.1	854.4	851.6	848.8
30°	839.4	834.5	829.7	825.7	822.7	819.6	816.5	813.4
32.5°	806.6	801.0	795.4	791.2	788.2	785.3	782.4	779.4
35°	757.8	751.3	744.8	739.7	736.3	732.8	729.3	725.9
37.5°	705.5	698.1	690.8	685.4	682.0	678.5	675.1	671.6
40°	670.7	662.5	654.4	648.7	645.2	641.7	638.3	634.8
42.5°	636.3	628.1	619.9	613.9	610.3	606.7	603.1	599.4
45°	583.8	574.4	564.9	558.5	555.0	551.5	548.0	544.6
47.5°	530.9	521.1	511.4	504.5	500.8	496.9	493.1	489.3
50°	495.9	486.2	476.5	469.9	466.3	462.6	458.9	455.3
52.5°	460.9	451.1	441.2	434.5	430.6	426.8	423.1	419.2
55°	409.2	399.2	389.2	382.4	378.7	375.0	371.4	367.7
57.5°	358.8	348.6	338.4	332.0	329.2	326.4	323.7	320.9
60°	325.1	315.1	305.1	298.5	295.5	292.4	289.3	286.2
62.5°	292.0	282.7	273.5	267.6	265.1	262.7	260.2	257.7
65°	244.4	236.2	227.9	222.6	220.3	217.9	215.6	213.4
67.5°	200.8	193.7	186.5	181.7	179.2	176.6	174.1	171.5
70°	171.1	164.8	158.4	154.3	152.4	150.4	148.5	146.6
72.5°	144.6	139.1	133.6	130.0	128.3	126.5	124.7	122.9
75°	106.5	102.1	97.6	94.8	93.7	92.5	91.3	90.2
77.5°	75.3	72.7	70.1	68.6	68.3	68.0	67.7	67.3
80°	57.8	57.2	56.7	56.3	56.1	55.8	55.7	55.5
82.5°	44.9	44.5	44.1	43.8	43.6	43.4	43.2	43.0
85°	26.1	25.8	25.4	25.1	25.1	25.1	25.1	25.1
87.5°	14.6	14.8	14.8	15.1	15.3	15.6	15.8	16.1
90°	26.1	27.5	28.9	29.8	30.3	30.8	31.2	31.7
92.5°	43.5	44.4	45.2	45.8	46.1	46.4	46.6	47.0
95°	81.8	82.5	83.2	83.6	83.6	83.6	83.6	83.6
97.5°	128.8	129.6	130.4	130.9	130.9	130.9	130.9	130.9
100°	162.7	163.2	163.6	163.9	163.9	163.9	163.9	163.9
102.5°	198.6	199.3	199.9	200.3	200.6	200.7	200.9	201.1
105°	253.1	253.8	254.5	255.2	255.8	256.6	257.3	258.0
107.5°	311.9	312.6	313.3	313.6	313.6	313.5	313.5	313.4
110°	351.1	350.7	350.3	350.3	351.1	351.7	352.5	353.2





TEST NUMBER: P333070-930

CATALOG NUMBER: S124RDIW-S795D1340U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	393.4	393.3	393.1	393.2	393.3	393.5	393.6	393.8
115°	458.4	458.2	458.0	457.7	457.5	457.2	457.0	456.8
117.5°	521.0	520.2	519.3	518.7	518.2	517.8	517.3	516.8
120°	563.4	562.1	561.0	560.6	561.1	561.6	562.1	562.5
122.5°	606.3	605.6	604.8	604.0	603.1	602.3	601.4	600.5
125°	669.4	669.0	668.5	668.0	667.6	667.1	666.6	666.1
127.5°	729.7	729.2	728.7	728.3	728.0	727.6	727.2	726.8
130°	772.0	771.5	771.0	770.4	769.4	768.4	767.5	766.5
132.5°	811.7	811.3	810.8	810.4	810.0	809.6	809.3	808.9
135°	871.4	870.9	870.4	869.8	869.1	868.5	867.7	867.0
137.5°	929.0	928.5	927.8	927.6	927.7	927.9	928.0	928.1
140°	967.0	966.8	966.5	966.3	966.0	965.8	965.6	965.4
142.5°	1002.9	1002.9	1002.8	1002.7	1002.7	1002.7	1002.7	1002.6
145°	1056.9	1056.6	1056.4	1056.0	1055.2	1054.5	1053.9	1053.1
147.5°	1105.8	1105.6	1105.5	1105.2	1105.0	1104.7	1104.6	1104.3
150°	1136.6	1136.6	1136.6	1136.5	1136.3	1136.0	1135.8	1135.6
152.5°	1165.7	1166.3	1166.9	1166.8	1166.2	1165.6	1165.0	1164.3
155°	1206.2	1207.1	1208.1	1208.1	1207.1	1206.2	1205.3	1204.4
157.5°	1241.9	1242.6	1243.3	1243.2	1242.4	1241.6	1240.9	1240.1
160°	1263.9	1264.6	1265.3	1265.0	1263.9	1262.7	1261.5	1260.4
162.5°	1283.6	1284.9	1286.1	1286.2	1285.0	1283.9	1282.7	1281.5
165°	1309.7	1311.1	1312.6	1312.8	1311.8	1310.8	1309.9	1309.0
167.5°	1331.7	1333.1	1334.5	1334.5	1333.0	1331.5	1330.2	1328.7
170°	1343.5	1344.9	1346.4	1346.2	1344.6	1343.0	1341.3	1339.7
172.5°	1352.3	1354.0	1355.6	1355.5	1353.9	1352.3	1350.6	1349.0
175°	1362.0	1363.6	1365.3	1365.3	1363.6	1362.0	1360.3	1358.7
177.5°	1367.3	1368.6	1369.9	1369.8	1368.3	1366.8	1365.3	1363.8
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2

(END OF REPORT)