

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: P332795-935

Luminaire Tested: **S124DIW-S795D1340U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332795-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIW-S795D1340U935-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7410.9 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

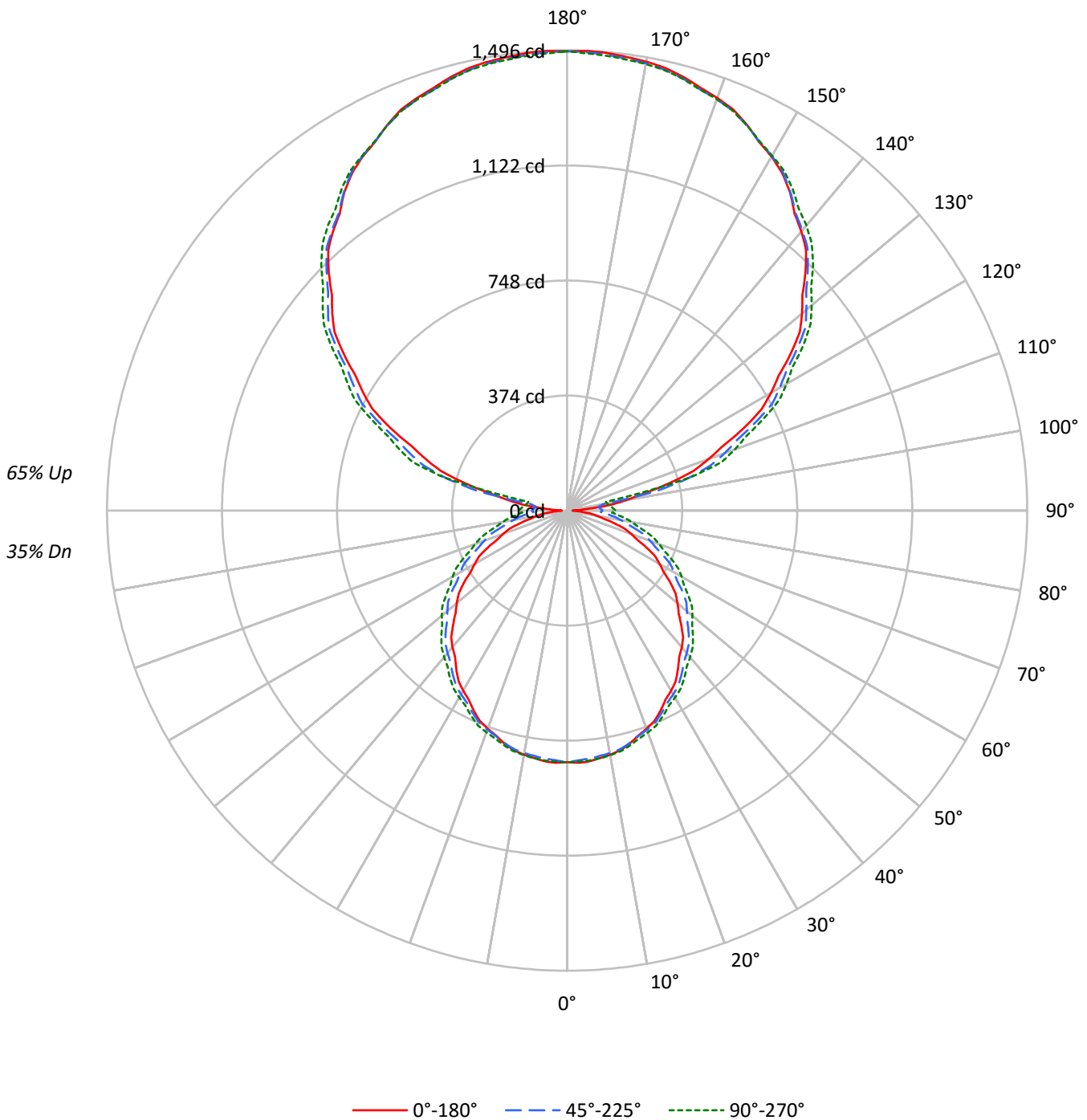
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P332795-935

CATALOG NUMBER: S124DIW-S795D1340U935-4F0-1E-UDD-D

**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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	71	66	76	70	65	60	56	52	49	43	41	38	31	30	28	23
3	77	68	60	54	69	61	55	50	49	45	41	38	35	32	28	25	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	11
8	51	38	31	26	46	35	28	24	28	23	20	22	19	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	13	11	8
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

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

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	1.0
10°-20°	221.9	3.0
20°-30°	335.5	4.5
30°-40°	405.9	5.5
40°-50°	429.2	5.8
50°-60°	403.9	5.5
60°-70°	335.1	4.5
70°-80°	235.4	3.2
80°-90°	137.4	1.9
90°-100°	130.1	1.8
100°-110°	384.1	5.2
110°-120°	662.1	8.9
120°-130°	812.9	11.0
130°-140°	855.6	11.5
140°-150°	793.1	10.7
150°-160°	638.0	8.6
160°-170°	411.5	5.6
170°-180°	141.8	1.9
0°-30°	634.9	8.6
0°-40°	1040.8	14.0
0°-60°	1873.9	25.3
0°-90°	2581.8	34.8
90°-120°	1176.3	15.9
90°-150°	3637.8	49.1
90°-180°	4829.0	65.2
0°-180°	7410.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	18	67	115	147	158	13
95°	73	68	104	134	145	88
105°	344	370	409	438	409	361
115°	633	646	673	694	702	623
125°	886	890	910	930	938	791
135°	1096	1096	1106	1122	1131	845
145°	1263	1265	1265	1272	1278	789
155°	1384	1385	1382	1385	1383	638
165°	1460	1454	1454	1462	1453	412
175°	1493	1487	1488	1496	1484	142
180°	1493	1493	1493	1493	1493	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.8	36.6	45.5	54.3	63.2	72.2	81.5	90.8	100.2	109.5	115.7
90°	18.0	28.8	39.8	50.6	61.5	72.3	83.0	93.8	104.5	115.2	122.6
92.5°	28.0	35.5	43.0	50.5	57.9	67.0	77.7	88.5	99.2	109.9	117.2
95°	73.4	71.6	69.9	68.2	66.5	69.9	78.4	87.0	95.7	104.3	111.2
97.5°	141.2	152.3	163.3	174.4	185.4	181.2	161.8	142.3	123.0	103.5	109.0
100°	193.2	203.0	212.8	222.5	232.3	223.9	197.7	171.3	145.1	118.7	120.0
102.5°	252.2	260.1	268.0	276.0	283.9	289.5	292.7	296.1	299.4	302.7	262.5
105°	344.4	349.9	355.5	361.1	366.6	373.8	382.5	391.3	400.1	408.9	416.2
107.5°	431.5	435.6	439.7	443.8	447.9	454.3	463.1	471.9	480.8	489.6	495.7
110°	489.7	493.4	497.0	500.6	504.1	510.2	518.8	527.4	536.1	544.7	549.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	546.2	550.1	554.0	557.8	561.6	567.3	574.8	582.3	589.8	597.3	601.8
115°	633.1	635.7	638.3	640.8	643.4	647.8	654.1	660.4	666.7	672.9	677.9
117.5°	712.2	714.3	716.4	718.5	720.6	725.0	731.6	738.1	744.8	751.4	755.5
120°	765.1	766.7	768.3	769.9	771.5	775.2	780.8	786.4	792.1	797.7	802.3
122.5°	815.1	815.9	816.6	817.3	818.0	821.3	827.2	833.2	839.1	845.0	849.4
125°	885.9	886.7	887.5	888.3	889.1	891.7	896.4	901.0	905.5	910.2	914.7
127.5°	953.6	953.6	953.7	953.7	953.8	956.3	961.4	966.5	971.5	976.5	980.1
130°	996.7	996.7	996.8	996.8	996.9	998.8	1002.9	1006.9	1010.9	1014.9	1018.8
132.5°	1036.9	1037.1	1037.3	1037.6	1037.8	1039.7	1043.3	1046.8	1050.4	1054.0	1057.7
135°	1096.2	1096.1	1095.8	1095.5	1095.3	1096.3	1098.8	1101.2	1103.6	1106.0	1109.7
137.5°	1149.6	1149.5	1149.4	1149.3	1149.3	1150.0	1151.8	1153.7	1155.4	1157.2	1160.7
140°	1184.5	1184.8	1185.1	1185.3	1185.7	1186.1	1186.9	1187.6	1188.3	1189.0	1192.3
142.5°	1215.0	1215.9	1216.8	1217.5	1218.4	1218.9	1219.1	1219.3	1219.4	1219.7	1222.5
145°	1262.8	1263.4	1263.9	1264.5	1265.1	1265.3	1265.3	1265.3	1265.3	1265.3	1266.8
147.5°	1301.1	1302.3	1303.5	1304.6	1305.8	1306.3	1306.1	1305.8	1305.5	1305.3	1305.6
150°	1328.8	1329.6	1330.3	1331.1	1331.9	1332.1	1332.0	1331.7	1331.5	1331.2	1331.2
152.5°	1351.3	1352.0	1352.7	1353.5	1354.3	1354.4	1354.0	1353.5	1353.1	1352.6	1353.1
155°	1383.7	1383.9	1384.1	1384.4	1384.7	1384.4	1383.7	1382.9	1382.2	1381.5	1382.4
157.5°	1411.2	1411.0	1410.8	1410.7	1410.6	1410.1	1409.2	1408.3	1407.6	1406.7	1408.0
160°	1427.2	1426.5	1425.7	1425.0	1424.3	1423.7	1423.5	1423.2	1423.0	1422.8	1424.3
162.5°	1441.5	1440.5	1439.7	1438.7	1437.8	1437.2	1436.9	1436.7	1436.4	1436.1	1437.6
165°	1459.7	1458.4	1457.2	1455.9	1454.7	1454.1	1454.1	1454.1	1454.1	1454.1	1456.0
167.5°	1473.9	1472.7	1471.4	1470.1	1468.8	1468.0	1467.9	1467.7	1467.6	1467.4	1469.6
170°	1482.0	1480.5	1478.9	1477.5	1476.0	1475.4	1475.6	1475.8	1476.1	1476.4	1478.3
172.5°	1487.3	1485.8	1484.4	1482.8	1481.4	1480.7	1481.0	1481.3	1481.4	1481.7	1483.7
175°	1493.1	1491.6	1490.1	1488.7	1487.1	1486.5	1486.8	1487.0	1487.3	1487.5	1489.8
177.5°	1495.8	1494.4	1493.0	1491.6	1490.2	1489.7	1490.1	1490.6	1490.9	1491.3	1492.9
180°	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	121.9	128.1	134.3	138.4	140.3	142.2	144.0	145.9
90°	130.0	137.4	144.8	149.6	151.7	153.8	155.9	158.1
92.5°	124.4	131.6	138.9	143.4	145.1	146.8	148.5	150.2
95°	118.2	125.2	132.2	136.7	138.8	140.9	142.9	145.0
97.5°	114.4	119.9	125.4	129.2	131.1	133.1	135.2	137.2
100°	121.3	122.6	123.8	125.3	127.0	128.6	130.4	132.0
102.5°	222.3	182.2	142.0	122.7	124.3	126.0	127.6	129.2
105°	423.5	430.8	438.2	438.2	430.8	423.5	416.2	409.0
107.5°	501.8	507.8	513.9	518.2	520.6	523.1	525.5	527.8
110°	555.1	560.3	565.4	569.2	571.5	573.9	576.3	578.7





TEST NUMBER: P332795-935

CATALOG NUMBER: S124DIW-S795D1340U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	606.1	610.5	615.0	618.5	621.0	623.6	626.2	628.8
115°	682.9	687.9	692.8	696.0	697.4	698.9	700.3	701.7
117.5°	759.7	763.8	767.9	770.8	772.3	773.8	775.3	776.9
120°	806.9	811.5	816.1	818.9	820.0	821.1	822.3	823.4
122.5°	853.8	858.2	862.5	865.1	866.2	867.1	868.1	869.0
125°	919.4	923.9	928.6	931.6	933.1	934.5	936.0	937.5
127.5°	983.6	987.1	990.6	993.0	994.1	995.3	996.5	997.7
130°	1022.7	1026.6	1030.5	1033.1	1034.3	1035.5	1036.7	1037.9
132.5°	1061.4	1065.1	1068.9	1071.3	1072.4	1073.3	1074.4	1075.4
135°	1113.5	1117.3	1121.0	1123.8	1125.5	1127.2	1128.9	1130.7
137.5°	1164.2	1167.8	1171.3	1173.5	1174.3	1175.2	1176.0	1176.9
140°	1195.8	1199.1	1202.5	1204.9	1206.1	1207.4	1208.7	1209.9
142.5°	1225.4	1228.2	1231.1	1233.0	1233.9	1234.8	1235.7	1236.7
145°	1268.3	1269.7	1271.2	1272.6	1273.8	1275.1	1276.5	1277.8
147.5°	1306.0	1306.4	1306.7	1307.3	1308.3	1309.2	1310.0	1311.0
150°	1331.2	1331.2	1331.2	1331.3	1331.5	1331.8	1332.1	1332.3
152.5°	1353.4	1353.8	1354.2	1354.4	1354.2	1354.0	1353.9	1353.8
155°	1383.5	1384.4	1385.4	1385.5	1384.8	1384.1	1383.3	1382.6
157.5°	1409.3	1410.6	1411.9	1411.9	1410.6	1409.3	1408.0	1406.7
160°	1425.7	1427.2	1428.7	1428.7	1427.2	1425.7	1424.3	1422.8
162.5°	1439.2	1440.6	1442.1	1442.0	1440.4	1438.6	1436.9	1435.3
165°	1458.0	1460.0	1462.0	1461.8	1459.7	1457.4	1455.2	1452.9
167.5°	1471.8	1473.9	1476.2	1476.0	1473.5	1471.0	1468.6	1466.1
170°	1480.3	1482.3	1484.3	1484.0	1481.6	1479.1	1476.6	1474.1
172.5°	1485.7	1487.7	1489.7	1489.4	1486.6	1483.9	1481.3	1478.6
175°	1492.0	1494.3	1496.5	1496.1	1493.1	1490.1	1487.1	1484.2
177.5°	1494.5	1496.1	1497.7	1497.3	1494.9	1492.5	1490.1	1487.7
180°	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1

(END OF REPORT)