

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: P331994-935

Luminaire Tested: **S123DIP-S775D1195U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331994-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D1195U935-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6890.8 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

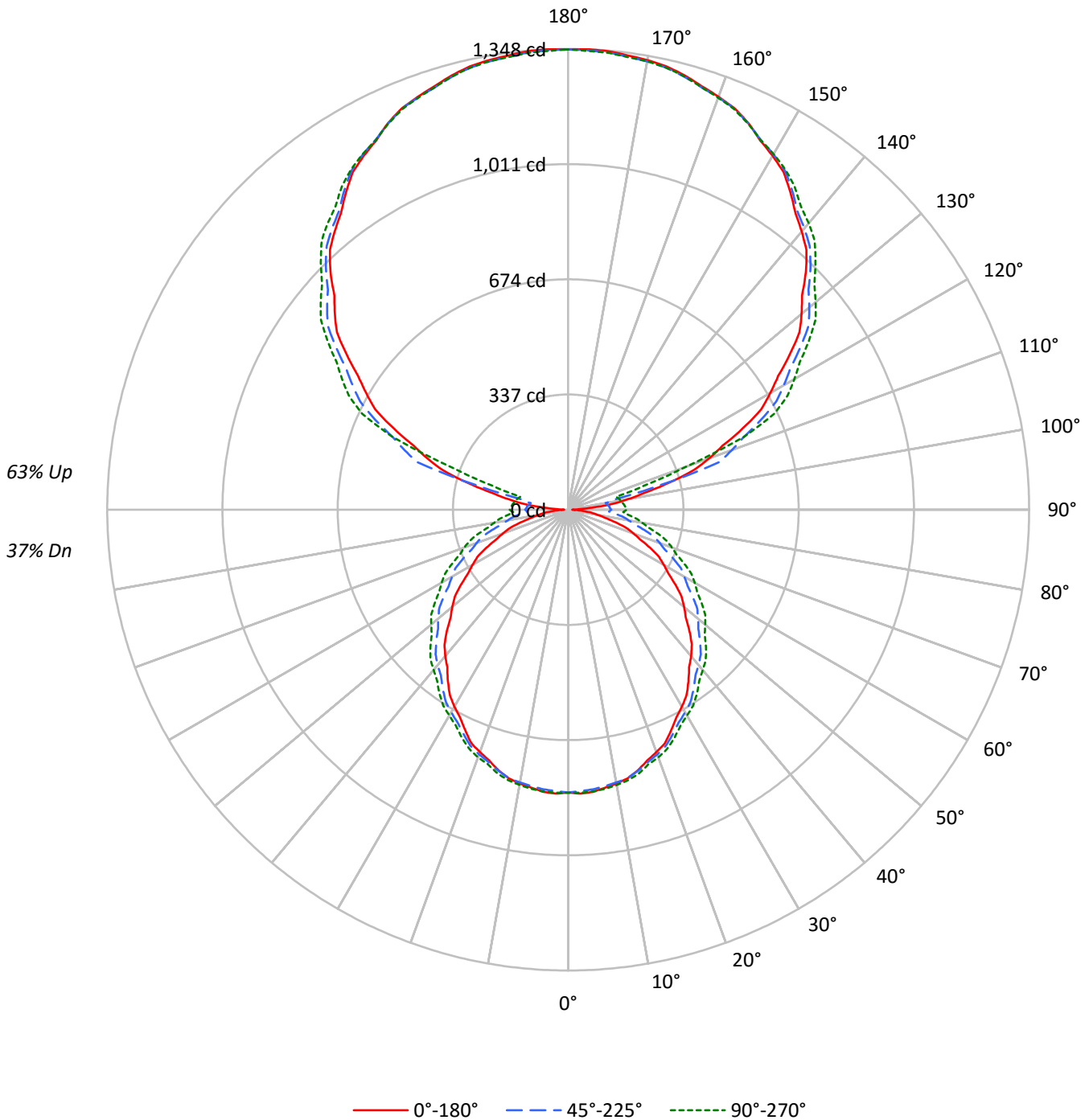
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-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	76	76	76	59	59	59	44	44	44	37
1	94	89	85	82	85	81	78	74	65	63	61	51	49	48	38	37	36	30
2	85	78	71	66	77	70	65	60	57	53	50	44	42	39	33	31	29	24
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25	20
4	71	60	52	46	64	54	48	42	44	39	35	35	31	28	26	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	15	16	13	11	9
10	44	32	25	20	40	30	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8908	8908	8908
5°	8936	8684	8689
10°	8856	8484	8441
15°	8741	8257	8171
20°	8579	7997	7875
25°	8377	7698	7561
30°	8171	7430	7245
35°	7939	7146	6992
40°	7720	6888	6722
45°	7475	6640	6505
50°	7232	6394	6267
55°	6967	6143	6052
60°	6707	5889	5832
65°	6441	5617	5571
70°	6040	5312	5303
75°	5534	4961	5030
80°	4951	4618	4718
85°	4409	4384	4537



TEST NUMBER: P331994-935

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	1.1
10°-20°	223.7	3.2
20°-30°	334.5	4.9
30°-40°	399.5	5.8
40°-50°	418.0	6.1
50°-60°	392.2	5.7
60°-70°	327.6	4.8
70°-80°	234.4	3.4
80°-90°	143.5	2.1
90°-100°	136.6	2.0
100°-110°	297.8	4.3
110°-120°	603.4	8.8
120°-130°	738.2	10.7
130°-140°	773.5	11.2
140°-150°	715.4	10.4
150°-160°	575.1	8.3
160°-170°	371.2	5.4
170°-180°	127.9	1.9
0°-30°	636.6	9.2
0°-40°	1036.1	15.0
0°-60°	1846.2	26.8
0°-90°	2551.7	37.0
90°-120°	1037.8	15.1
90°-150°	3264.9	47.4
90°-180°	4339.0	63.0
0°-180°	6890.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	826	821	828	828	79
15°	789	791	791	799	799	222
25°	712	721	724	735	736	328
35°	613	627	639	652	656	383
45°	501	523	545	562	570	386
55°	382	412	444	468	476	342
65°	264	300	339	365	375	261
75°	143	186	231	260	271	153
85°	44	89	137	166	177	46
90°	13	67	126	159	172	11
95°	71	68	120	154	164	83
105°	305	333	287	144	145	323
115°	564	582	622	652	665	556
125°	791	800	829	849	858	706
135°	983	989	1002	1020	1023	757
145°	1133	1139	1141	1150	1154	709
155°	1247	1246	1246	1251	1245	574
165°	1315	1313	1311	1319	1312	371
175°	1346	1342	1342	1349	1341	128
180°	1346	1346	1346	1346	1346	



TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	831.2	830.7	830.3	829.7	829.3	828.4	827.2	825.9	824.6	823.3	824.6
5°	828.5	828.1	827.7	827.3	826.9	826.1	824.9	823.7	822.5	821.3	822.9
7.5°	820.4	820.4	820.5	820.6	820.7	820.2	819.0	817.9	816.7	815.5	817.5
10°	813.2	813.6	814.0	814.4	814.8	814.5	813.5	812.5	811.5	810.5	812.5
12.5°	804.5	805.1	805.6	806.2	806.8	806.8	806.1	805.4	804.7	804.0	805.8
15°	788.8	789.5	790.1	790.7	791.3	791.4	791.3	791.1	790.8	790.7	792.6
17.5°	769.0	770.3	771.5	772.6	773.8	774.4	774.3	774.2	774.1	774.0	775.8
20°	754.6	755.8	757.0	758.2	759.4	760.2	760.6	761.0	761.4	761.8	763.6
22.5°	739.4	740.6	741.8	743.0	744.2	745.1	745.7	746.2	746.8	747.3	749.7
25°	712.2	714.2	716.2	718.2	720.2	721.5	722.1	722.7	723.3	723.9	726.5
27.5°	684.8	687.1	689.4	691.6	694.0	695.7	697.0	698.3	699.6	700.9	703.1
30°	665.3	668.0	670.5	673.1	675.7	677.9	679.4	681.1	682.7	684.2	686.6
32.5°	643.7	646.6	649.5	652.5	655.4	657.9	660.0	662.1	664.2	666.2	668.8
35°	613.0	616.2	619.5	622.7	625.9	628.8	631.4	634.0	636.6	639.2	642.2
37.5°	580.6	584.2	587.8	591.4	595.0	598.4	601.7	604.9	608.0	611.2	614.7
40°	559.0	562.6	566.2	569.8	573.3	577.2	581.2	585.2	589.2	593.2	596.6
42.5°	535.1	539.6	544.0	548.4	552.8	557.1	561.2	565.4	569.6	573.8	577.5
45°	501.3	506.1	510.8	515.7	520.5	525.4	530.4	535.4	540.4	545.4	549.2
47.5°	465.7	471.2	476.6	482.1	487.5	493.1	498.9	504.5	510.3	516.0	520.3
50°	442.6	448.2	453.8	459.5	465.1	471.0	477.3	483.5	489.7	495.8	500.4
52.5°	418.1	424.0	430.0	435.9	441.9	448.2	455.1	461.9	468.8	475.6	480.4
55°	382.3	388.8	395.5	402.1	408.7	415.6	422.8	430.1	437.2	444.4	449.9
57.5°	347.2	354.1	361.0	367.9	374.9	382.2	390.1	398.0	405.9	413.8	419.2
60°	322.8	329.9	337.2	344.4	351.6	359.3	367.6	375.7	383.9	392.2	397.8
62.5°	299.6	307.0	314.4	321.8	329.2	337.2	345.9	354.6	363.3	372.0	377.5
65°	264.2	272.0	279.7	287.6	295.4	303.7	312.5	321.3	330.2	339.0	345.0
67.5°	228.1	236.3	244.7	253.0	261.2	269.9	278.9	287.8	296.8	305.8	312.4
70°	202.9	211.5	220.1	228.7	237.3	246.4	256.1	265.6	275.3	284.9	291.3
72.5°	179.8	188.4	197.0	205.6	214.2	223.5	233.4	243.4	253.3	263.2	269.8
75°	143.4	152.7	162.2	171.6	181.0	190.7	200.7	210.8	220.8	230.8	237.4
77.5°	111.6	121.1	130.6	140.1	149.6	159.4	169.5	179.6	189.7	199.8	206.7
80°	89.3	99.1	108.9	118.7	128.5	138.6	149.0	159.5	169.9	180.3	187.1
82.5°	69.7	79.7	89.7	99.7	109.7	119.9	130.5	141.1	151.7	162.3	169.1
85°	44.2	54.2	64.2	74.2	84.2	94.5	105.2	115.8	126.4	137.1	143.9
87.5°	24.2	34.6	45.0	55.4	65.9	76.5	87.3	98.1	108.8	119.7	126.7
90°	12.7	24.8	36.8	48.8	60.9	73.4	86.5	99.7	112.8	125.9	133.5
92.5°	29.6	37.8	46.1	54.3	62.5	72.8	85.0	97.2	109.5	121.7	129.8
95°	70.9	69.7	68.4	67.1	65.7	71.2	83.5	95.7	108.0	120.3	128.0
97.5°	131.5	134.4	137.4	140.3	143.4	141.5	134.8	128.2	121.6	114.9	122.7
100°	177.2	188.0	198.9	209.7	220.6	213.3	187.9	162.4	136.9	111.4	119.0
102.5°	229.3	238.2	247.2	256.1	265.2	255.2	226.4	197.6	168.8	139.9	140.1
105°	305.3	312.5	319.8	327.1	334.3	332.3	320.9	309.4	298.1	286.7	253.0
107.5°	384.6	390.7	396.7	402.8	408.8	417.5	428.9	440.1	451.5	462.9	439.4
110°	437.6	442.9	448.3	453.7	459.1	467.0	477.4	487.9	498.3	508.9	506.7



TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	488.8	493.4	497.9	502.5	507.0	514.4	524.5	534.7	544.8	554.9	560.1
115°	563.7	567.4	571.2	574.9	578.7	585.1	594.3	603.6	612.8	622.0	629.0
117.5°	637.0	640.1	643.2	646.4	649.5	654.9	662.7	670.5	678.3	686.0	692.6
120°	681.8	684.8	687.9	690.9	693.8	699.0	706.3	713.5	720.8	728.1	734.4
122.5°	728.2	730.4	732.5	734.7	736.9	741.6	748.7	755.8	762.9	770.1	775.8
125°	790.9	792.7	794.5	796.3	798.1	802.3	809.0	815.7	822.4	829.1	833.8
127.5°	852.6	854.1	855.7	857.3	858.8	862.6	868.5	874.3	880.2	886.1	890.8
130°	891.0	892.6	894.1	895.7	897.3	900.5	905.4	910.3	915.2	920.2	924.8
132.5°	927.0	928.8	930.6	932.3	934.0	936.9	940.8	944.7	948.6	952.5	957.1
135°	983.1	984.2	985.4	986.5	987.7	989.7	992.8	995.9	999.0	1002.1	1006.4
137.5°	1031.0	1032.5	1034.0	1035.5	1037.1	1038.7	1040.4	1042.2	1043.9	1045.6	1049.8
140°	1062.2	1063.6	1064.9	1066.3	1067.6	1068.8	1070.1	1071.4	1072.7	1073.9	1077.8
142.5°	1091.8	1093.0	1094.2	1095.4	1096.6	1097.5	1098.3	1099.1	1099.8	1100.7	1104.1
145°	1133.2	1134.6	1136.0	1137.3	1138.7	1139.6	1140.1	1140.5	1140.9	1141.3	1143.4
147.5°	1171.4	1172.4	1173.5	1174.4	1175.4	1176.2	1176.6	1177.1	1177.5	1177.9	1178.9
150°	1195.4	1196.0	1196.7	1197.4	1198.1	1198.6	1199.0	1199.5	1200.0	1200.4	1200.8
152.5°	1217.0	1217.3	1217.6	1217.9	1218.2	1218.5	1218.7	1219.1	1219.3	1219.6	1220.4
155°	1247.4	1247.0	1246.5	1246.0	1245.6	1245.5	1245.7	1246.0	1246.2	1246.4	1247.5
157.5°	1271.0	1270.9	1270.9	1270.8	1270.8	1270.7	1270.5	1270.2	1270.1	1269.8	1271.2
160°	1285.4	1285.2	1285.0	1284.8	1284.5	1284.3	1284.1	1283.8	1283.7	1283.4	1284.8
162.5°	1299.0	1298.5	1297.9	1297.3	1296.7	1296.3	1296.1	1295.9	1295.6	1295.4	1296.9
165°	1315.4	1314.7	1314.1	1313.5	1312.8	1312.3	1312.1	1311.8	1311.6	1311.4	1313.2
167.5°	1328.3	1327.3	1326.5	1325.6	1324.6	1324.2	1324.2	1324.2	1324.2	1324.2	1326.0
170°	1335.4	1334.6	1333.7	1332.7	1331.9	1331.5	1331.5	1331.5	1331.5	1331.5	1333.2
172.5°	1340.2	1339.2	1338.1	1337.0	1335.9	1335.5	1335.7	1335.8	1336.0	1336.2	1338.0
175°	1346.4	1345.3	1344.2	1343.1	1342.0	1341.5	1341.8	1342.0	1342.2	1342.4	1344.0
177.5°	1348.1	1347.1	1346.3	1345.4	1344.5	1344.1	1344.3	1344.5	1344.6	1344.8	1346.3
180°	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4



TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	825.9	827.2	828.4	829.0	828.8	828.6	828.5	828.4
5°	824.5	826.1	827.7	828.4	828.2	828.0	827.9	827.6
7.5°	819.5	821.6	823.5	824.4	824.1	824.0	823.7	823.5
10°	814.5	816.5	818.5	819.3	818.9	818.5	818.1	817.7
12.5°	807.7	809.5	811.3	812.1	811.7	811.3	810.9	810.5
15°	794.6	796.7	798.7	799.5	799.4	799.2	798.9	798.7
17.5°	777.7	779.5	781.3	782.0	781.8	781.4	781.2	780.9
20°	765.4	767.2	769.0	770.0	770.3	770.4	770.6	770.9
22.5°	751.9	754.2	756.5	757.6	757.5	757.3	757.2	757.1
25°	729.2	731.8	734.3	735.6	735.6	735.6	735.6	735.6
27.5°	705.3	707.6	709.8	711.0	711.2	711.4	711.5	711.7
30°	689.1	691.5	693.9	695.1	695.1	695.1	695.1	695.1
32.5°	671.3	673.9	676.5	678.0	678.5	679.0	679.4	679.9
35°	645.2	648.2	651.2	653.2	653.9	654.7	655.5	656.3
37.5°	618.0	621.5	624.8	626.9	627.5	628.2	628.8	629.5
40°	600.0	603.4	606.8	608.9	609.8	610.5	611.3	612.2
42.5°	581.2	584.9	588.7	591.1	592.2	593.3	594.4	595.6
45°	553.0	556.8	560.7	563.4	565.0	566.5	568.2	569.8
47.5°	524.6	528.9	533.2	536.0	537.2	538.5	539.7	540.9
50°	505.1	509.6	514.3	517.3	518.7	520.0	521.5	522.9
52.5°	485.2	490.0	494.7	498.0	499.7	501.4	503.2	504.9
55°	455.3	460.7	466.1	469.6	471.2	472.8	474.4	476.0
57.5°	424.7	430.2	435.6	439.3	441.2	443.1	444.9	446.8
60°	403.4	409.0	414.6	418.5	420.7	422.9	425.2	427.3
62.5°	383.2	388.8	394.4	398.2	400.3	402.3	404.4	406.4
65°	351.0	357.0	363.0	367.0	369.0	371.0	373.1	375.1
67.5°	318.9	325.5	332.1	336.2	337.9	339.6	341.3	342.9
70°	297.7	304.1	310.6	314.7	316.8	318.7	320.7	322.8
72.5°	276.4	282.9	289.6	293.9	295.8	297.8	299.8	301.9
75°	244.0	250.6	257.3	261.7	264.2	266.6	269.0	271.4
77.5°	213.7	220.7	227.6	232.0	233.9	235.7	237.6	239.4
80°	193.9	200.7	207.6	212.0	214.0	215.9	218.0	220.0
82.5°	175.9	182.7	189.5	193.9	196.0	197.9	199.9	201.9
85°	150.7	157.5	164.3	168.7	170.7	172.7	174.7	176.7
87.5°	133.6	140.6	147.6	152.1	154.2	156.4	158.4	160.5
90°	141.3	149.0	156.7	161.8	164.2	166.7	169.1	171.5
92.5°	137.8	145.9	154.0	159.1	161.2	163.3	165.4	167.6
95°	135.8	143.5	151.4	156.2	158.3	160.2	162.2	164.2
97.5°	130.4	138.2	145.9	150.9	153.2	155.4	157.6	159.9
100°	126.7	134.2	141.8	146.7	149.0	151.2	153.3	155.6
102.5°	140.2	140.3	140.5	141.7	144.1	146.5	149.0	151.4
105°	219.2	185.5	151.7	136.0	138.3	140.5	142.8	145.0
107.5°	415.9	392.4	368.9	343.2	315.3	287.4	259.5	231.6
110°	504.5	502.5	500.3	484.1	454.0	423.8	393.6	363.4



TEST NUMBER: P331994-935

CATALOG NUMBER: S123DIP-S775D1195U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	565.3	570.5	575.7	575.8	570.8	565.8	560.9	555.9
115°	636.0	643.1	650.1	654.9	657.4	659.9	662.4	664.8
117.5°	699.1	705.7	712.2	716.4	718.2	719.9	721.6	723.3
120°	740.9	747.3	753.6	757.5	758.9	760.3	761.7	763.1
122.5°	781.4	787.2	792.9	796.5	798.1	799.7	801.2	802.8
125°	838.4	843.1	847.7	850.9	852.8	854.6	856.5	858.3
127.5°	895.4	900.2	904.8	907.7	908.5	909.5	910.3	911.3
130°	929.5	934.2	938.9	941.6	942.4	943.1	943.9	944.7
132.5°	961.6	966.1	970.7	973.3	974.0	974.8	975.5	976.3
135°	1010.6	1014.9	1019.3	1021.5	1021.8	1022.2	1022.5	1022.9
137.5°	1054.1	1058.3	1062.6	1065.0	1065.5	1066.1	1066.6	1067.2
140°	1081.8	1085.6	1089.5	1091.7	1092.3	1092.9	1093.4	1094.0
142.5°	1107.5	1110.9	1114.2	1116.1	1116.5	1116.9	1117.3	1117.7
145°	1145.5	1147.5	1149.5	1151.0	1151.8	1152.6	1153.4	1154.2
147.5°	1179.8	1180.8	1181.6	1182.0	1181.7	1181.4	1181.1	1180.8
150°	1201.3	1201.7	1202.1	1202.2	1202.0	1201.7	1201.4	1201.2
152.5°	1221.2	1222.0	1222.8	1222.7	1221.8	1220.8	1219.9	1218.9
155°	1248.6	1249.7	1250.9	1250.7	1249.4	1248.1	1246.7	1245.4
157.5°	1272.5	1273.8	1275.1	1275.0	1273.2	1271.4	1269.7	1268.0
160°	1286.1	1287.4	1288.7	1288.7	1287.1	1285.6	1283.9	1282.4
162.5°	1298.5	1299.9	1301.5	1301.5	1300.1	1298.7	1297.4	1296.0
165°	1315.0	1316.7	1318.5	1318.6	1317.1	1315.5	1314.0	1312.4
167.5°	1327.7	1329.6	1331.4	1331.4	1329.6	1327.7	1326.0	1324.2
170°	1335.0	1336.8	1338.5	1338.5	1336.8	1335.0	1333.2	1331.5
172.5°	1339.8	1341.5	1343.3	1343.2	1341.3	1339.4	1337.4	1335.4
175°	1345.6	1347.1	1348.7	1348.5	1346.8	1345.0	1343.2	1341.4
177.5°	1347.6	1349.1	1350.5	1350.3	1348.6	1346.8	1345.0	1343.2
180°	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4

(END OF REPORT)