

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: P331985

Luminaire Tested: **S123DIP-S775D1025U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331985
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-S775D1025U835-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

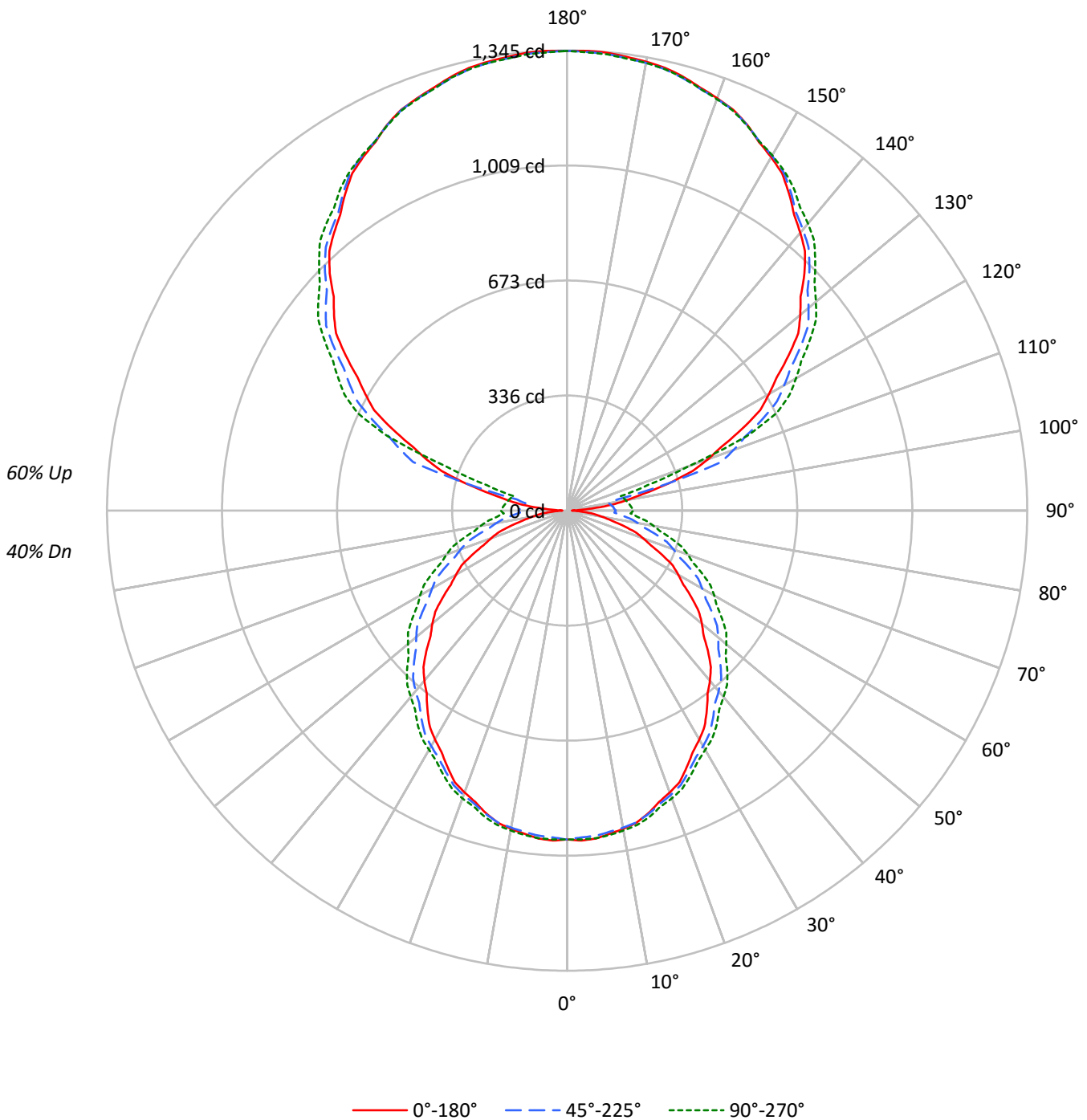
Lumens per Lamp: N/A
Luminaire Lumens: 7330.9 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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



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Luminous Intensity Polar Plot





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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	95	90	86	82	86	82	79	75	67	64	62	53	51	50	40	39	38	32				
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26				
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22				
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19				
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	20	16				
6	60	48	40	34	54	44	37	31	36	31	27	29	25	22	22	19	17	14				
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15	12				
8	51	39	31	26	47	36	29	24	30	24	21	24	20	17	19	16	13	11				
9	48	36	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10				
10	45	33	25	21	41	30	23	19	25	20	16	20	16	14	16	13	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10346	10346	10346
5°	10379	10086	10092
10°	10286	9853	9804
15°	10153	9590	9490
20°	9963	9288	9146
25°	9730	8942	8782
30°	9490	8630	8415
35°	9221	8300	8121
40°	8965	8000	7807
45°	8682	7712	7556
50°	8400	7427	7278
55°	8091	7135	7030
60°	7790	6839	6774
65°	7480	6524	6470
70°	7013	6169	6159
75°	6425	5763	5842
80°	5749	5363	5479
85°	5117	5090	5269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	1.2
10°-20°	259.8	3.5
20°-30°	388.5	5.3
30°-40°	464.0	6.3
40°-50°	485.4	6.6
50°-60°	455.5	6.2
60°-70°	380.5	5.2
70°-80°	272.2	3.7
80°-90°	166.1	2.3
90°-100°	150.7	2.1
100°-110°	307.6	4.2
110°-120°	609.2	8.3
120°-130°	740.6	10.1
130°-140°	773.6	10.6
140°-150°	714.2	9.7
150°-160°	573.9	7.8
160°-170°	370.4	5.1
170°-180°	127.6	1.7
0°-30°	739.4	10.1
0°-40°	1203.3	16.4
0°-60°	2144.3	29.2
0°-90°	2963.0	40.4
90°-120°	1067.5	14.6
90°-150°	3296.0	45.0
90°-180°	4368.0	59.6
0°-180°	7330.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	962	960	954	962	961	91
15°	916	919	918	928	928	258
25°	827	837	841	854	854	381
35°	712	729	742	757	762	445
45°	582	607	634	653	662	449
55°	444	479	516	543	553	397
65°	307	348	394	424	436	303
75°	166	216	268	301	315	178
85°	51	104	159	193	205	54
90°	15	76	142	180	194	12
95°	72	76	135	172	184	84
105°	306	337	297	159	161	324
115°	563	583	628	662	676	556
125°	790	799	832	855	865	705
135°	981	987	1002	1022	1026	755
145°	1131	1137	1139	1149	1153	707
155°	1245	1243	1244	1248	1243	573
165°	1313	1310	1309	1316	1310	371
175°	1344	1339	1340	1346	1338	128
180°	1344	1344	1344	1344	1344	



TEST NUMBER: P331985

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	961.2	961.2	961.2	961.2	961.2	961.2	961.2	961.2	961.2	961.2	961.2
2.5°	965.4	964.8	964.3	963.7	963.2	962.1	960.7	959.2	957.7	956.2	957.7
5°	962.3	961.8	961.3	960.9	960.4	959.5	958.1	956.7	955.3	953.9	955.8
7.5°	952.8	952.9	953.0	953.1	953.2	952.6	951.2	949.9	948.5	947.2	949.5
10°	944.5	944.9	945.4	945.9	946.3	946.0	944.8	943.7	942.5	941.3	943.7
12.5°	934.4	935.1	935.7	936.4	937.0	937.0	936.2	935.4	934.6	933.8	935.9
15°	916.2	916.9	917.6	918.3	919.0	919.2	919.0	918.8	918.5	918.3	920.6
17.5°	893.2	894.6	896.0	897.3	898.7	899.4	899.3	899.2	899.1	899.0	901.1
20°	876.4	877.8	879.2	880.6	882.0	882.9	883.4	883.9	884.3	884.8	886.9
22.5°	858.8	860.2	861.6	863.0	864.4	865.4	866.1	866.7	867.4	868.0	870.7
25°	827.2	829.5	831.8	834.2	836.5	838.0	838.7	839.4	840.1	840.8	843.8
27.5°	795.4	798.0	800.7	803.3	806.0	808.0	809.5	811.0	812.5	814.0	816.6
30°	772.7	775.8	778.8	781.8	784.8	787.3	789.1	791.0	792.9	794.7	797.5
32.5°	747.6	751.0	754.4	757.8	761.2	764.1	766.5	769.0	771.4	773.8	776.8
35°	712.0	715.7	719.5	723.2	726.9	730.3	733.3	736.3	739.4	742.4	745.9
37.5°	674.3	678.5	682.7	686.9	691.1	695.0	698.8	702.5	706.2	709.9	713.9
40°	649.2	653.4	657.6	661.8	665.9	670.4	675.0	679.7	684.3	689.0	692.9
42.5°	621.5	626.7	631.8	636.9	642.0	647.0	651.8	656.7	661.5	666.4	670.7
45°	582.2	587.8	593.3	598.9	604.5	610.2	616.0	621.8	627.7	633.5	637.9
47.5°	540.9	547.3	553.6	559.9	566.2	572.7	579.4	586.0	592.7	599.3	604.3
50°	514.1	520.6	527.1	533.7	540.2	547.0	554.3	561.5	568.7	575.9	581.2
52.5°	485.6	492.5	499.4	506.3	513.2	520.6	528.6	536.5	544.5	552.4	558.0
55°	444.0	451.6	459.3	467.0	474.7	482.7	491.1	499.5	507.8	516.2	522.5
57.5°	403.3	411.3	419.3	427.3	435.4	443.9	453.1	462.3	471.4	480.6	486.9
60°	374.9	383.2	391.6	400.0	408.4	417.3	426.9	436.4	445.9	455.5	462.0
62.5°	348.0	356.6	365.2	373.7	382.3	391.6	401.7	411.8	421.9	432.0	438.5
65°	306.8	315.9	324.9	334.0	343.1	352.7	363.0	373.2	383.5	393.7	400.7
67.5°	264.9	274.5	284.2	293.8	303.4	313.5	323.9	334.3	344.7	355.2	362.8
70°	235.6	245.6	255.6	265.6	275.6	286.2	297.4	308.5	319.7	330.9	338.3
72.5°	208.8	218.8	228.8	238.8	248.8	259.6	271.1	282.7	294.2	305.7	313.4
75°	166.5	177.4	188.4	199.3	210.2	221.5	233.1	244.8	256.4	268.1	275.7
77.5°	129.6	140.7	151.7	162.7	173.7	185.1	196.9	208.6	220.3	232.0	240.1
80°	103.7	115.1	126.5	137.9	149.3	161.0	173.1	185.2	197.3	209.4	217.3
82.5°	81.0	92.6	104.2	115.8	127.4	139.3	151.6	163.9	176.2	188.5	196.4
85°	51.3	62.9	74.6	86.2	97.8	109.8	122.2	134.5	146.8	159.2	167.1
87.5°	28.1	40.1	52.1	64.1	76.2	88.4	100.9	113.3	125.7	138.2	146.3
90°	14.6	28.2	41.8	55.5	69.1	83.3	98.0	112.8	127.5	142.3	151.1
92.5°	31.3	41.0	50.7	60.3	70.0	81.8	95.6	109.5	123.3	137.2	146.3
95°	72.4	72.4	72.4	72.3	72.3	79.2	93.1	106.9	120.8	134.6	143.4
97.5°	132.6	136.7	140.9	145.0	149.1	148.6	143.5	138.4	133.3	128.3	137.0
100°	178.1	190.0	201.9	213.8	225.6	219.6	195.7	171.8	147.9	124.0	132.6
102.5°	230.0	239.9	249.8	259.7	269.6	260.9	233.6	206.3	179.0	151.7	152.8
105°	305.8	313.8	321.9	329.9	337.9	337.0	327.0	317.0	307.1	297.1	264.4
107.5°	384.8	391.5	398.2	404.9	411.6	421.3	433.9	446.6	459.2	471.9	449.3
110°	437.5	443.4	449.4	455.4	461.3	470.2	481.9	493.7	505.4	517.2	515.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	488.6	493.6	498.7	503.7	508.8	517.0	528.3	539.7	551.1	562.5	568.5
115°	563.2	567.3	571.4	575.6	579.7	586.9	597.3	607.7	618.1	628.4	636.2
117.5°	636.3	639.6	643.0	646.3	649.7	655.8	664.7	673.6	682.5	691.4	698.7
120°	680.9	684.1	687.3	690.4	693.6	699.3	707.7	716.0	724.4	732.7	739.8
122.5°	727.2	729.5	731.7	734.0	736.2	741.4	749.6	757.7	765.9	774.0	780.4
125°	789.7	791.5	793.2	795.0	796.8	801.5	809.1	816.8	824.4	832.0	837.4
127.5°	851.2	852.7	854.3	855.8	857.3	861.4	868.1	874.7	881.4	888.0	893.3
130°	889.5	891.0	892.6	894.1	895.7	899.2	904.7	910.3	915.8	921.4	926.7
132.5°	925.4	927.1	928.8	930.6	932.3	935.4	939.8	944.2	948.7	953.1	958.2
135°	981.3	982.4	983.5	984.6	985.7	987.9	991.4	994.8	998.3	1001.7	1006.6
137.5°	1029.0	1030.5	1032.0	1033.5	1035.0	1036.7	1038.6	1040.6	1042.5	1044.4	1049.2
140°	1060.1	1061.4	1062.7	1064.1	1065.4	1066.8	1068.1	1069.5	1070.8	1072.2	1076.6
142.5°	1089.6	1090.8	1091.9	1093.1	1094.2	1095.2	1096.0	1096.8	1097.6	1098.4	1102.2
145°	1130.9	1132.3	1133.6	1134.9	1136.2	1137.1	1137.6	1138.0	1138.4	1138.9	1141.2
147.5°	1168.8	1169.9	1170.9	1171.9	1172.9	1173.6	1174.1	1174.5	1175.0	1175.4	1176.4
150°	1192.8	1193.5	1194.1	1194.8	1195.4	1196.0	1196.4	1196.9	1197.3	1197.8	1198.2
152.5°	1214.3	1214.7	1215.0	1215.3	1215.6	1215.9	1216.1	1216.4	1216.7	1216.9	1217.7
155°	1244.7	1244.2	1243.8	1243.4	1242.9	1242.8	1243.0	1243.2	1243.5	1243.7	1244.8
157.5°	1268.2	1268.2	1268.2	1268.1	1268.1	1267.9	1267.7	1267.5	1267.3	1267.0	1268.4
160°	1282.6	1282.4	1282.2	1282.0	1281.7	1281.5	1281.3	1281.1	1280.8	1280.6	1282.0
162.5°	1296.2	1295.6	1295.0	1294.5	1293.9	1293.5	1293.3	1293.0	1292.8	1292.6	1294.1
165°	1312.6	1311.9	1311.2	1310.6	1309.9	1309.5	1309.2	1309.0	1308.8	1308.6	1310.3
167.5°	1325.3	1324.5	1323.6	1322.7	1321.8	1321.3	1321.3	1321.3	1321.3	1321.3	1323.1
170°	1332.5	1331.6	1330.8	1329.9	1329.0	1328.5	1328.5	1328.5	1328.5	1328.5	1330.3
172.5°	1337.3	1336.3	1335.2	1334.1	1333.1	1332.6	1332.8	1333.0	1333.1	1333.3	1335.1
175°	1343.5	1342.4	1341.3	1340.2	1339.1	1338.6	1338.8	1339.1	1339.3	1339.5	1341.1
177.5°	1345.1	1344.2	1343.3	1342.4	1341.6	1341.2	1341.4	1341.6	1341.7	1341.9	1343.3
180°	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	961.2	961.2	961.2	961.2	961.2	961.2	961.2	961.2
2.5°	959.2	960.7	962.1	962.8	962.6	962.4	962.2	962.1
5°	957.6	959.5	961.3	962.1	961.9	961.7	961.5	961.2
7.5°	951.8	954.2	956.5	957.5	957.2	957.0	956.7	956.4
10°	946.0	948.3	950.6	951.6	951.1	950.6	950.2	949.7
12.5°	938.1	940.2	942.3	943.2	942.7	942.3	941.8	941.3
15°	922.9	925.3	927.6	928.6	928.4	928.2	927.9	927.7
17.5°	903.2	905.3	907.4	908.3	908.0	907.6	907.3	907.0
20°	889.0	891.1	893.2	894.3	894.6	894.8	895.0	895.3
22.5°	873.3	876.0	878.6	879.9	879.8	879.6	879.5	879.3
25°	846.9	849.9	852.9	854.4	854.4	854.4	854.4	854.4
27.5°	819.2	821.8	824.4	825.8	826.0	826.2	826.4	826.6
30°	800.3	803.1	805.9	807.3	807.3	807.3	807.3	807.3
32.5°	779.7	782.7	785.7	787.5	788.0	788.6	789.1	789.7
35°	749.4	752.9	756.3	758.6	759.5	760.4	761.3	762.3
37.5°	717.8	721.8	725.7	728.1	728.8	729.6	730.3	731.1
40°	696.9	700.8	704.8	707.2	708.2	709.1	710.0	711.0
42.5°	675.0	679.3	683.7	686.5	687.8	689.1	690.4	691.7
45°	642.3	646.7	651.2	654.3	656.2	658.0	659.9	661.8
47.5°	609.3	614.3	619.3	622.5	623.9	625.4	626.8	628.2
50°	586.6	591.9	597.3	600.8	602.4	604.0	605.7	607.3
52.5°	563.5	569.1	574.6	578.4	580.4	582.4	584.4	586.4
55°	528.8	535.1	541.3	545.4	547.3	549.1	551.0	552.9
57.5°	493.3	499.6	505.9	510.2	512.4	514.6	516.7	518.9
60°	468.5	475.0	481.5	486.1	488.6	491.2	493.8	496.3
62.5°	445.1	451.6	458.1	462.5	464.9	467.3	469.7	472.0
65°	407.7	414.6	421.6	426.3	428.6	430.9	433.3	435.6
67.5°	370.4	378.1	385.7	390.5	392.4	394.4	396.4	398.3
70°	345.8	353.2	360.7	365.5	367.9	370.2	372.5	374.9
72.5°	321.0	328.6	336.3	341.3	343.6	345.9	348.2	350.6
75°	283.4	291.1	298.8	304.0	306.8	309.6	312.4	315.2
77.5°	248.2	256.3	264.4	269.5	271.7	273.8	276.0	278.1
80°	225.2	233.1	241.1	246.2	248.5	250.8	253.2	255.5
82.5°	204.3	212.2	220.1	225.2	227.6	229.9	232.2	234.5
85°	175.0	182.9	190.8	195.9	198.2	200.6	202.9	205.2
87.5°	154.4	162.5	170.5	175.8	178.2	180.6	183.0	185.5
90°	159.9	168.7	177.5	183.3	186.0	188.8	191.6	194.3
92.5°	155.5	164.6	173.8	179.5	181.9	184.3	186.7	189.2
95°	152.1	160.9	169.7	175.2	177.5	179.9	182.2	184.5
97.5°	145.7	154.4	163.1	168.7	171.3	173.8	176.4	178.9
100°	141.1	149.6	158.1	163.7	166.2	168.8	171.3	173.9
102.5°	153.9	154.9	156.0	157.9	160.6	163.3	166.1	168.8
105°	231.6	198.9	166.1	151.0	153.6	156.1	158.7	161.2
107.5°	426.7	404.2	381.6	356.6	329.0	301.5	274.0	246.4
110°	514.6	513.4	512.1	496.5	466.7	436.8	407.0	377.1



TEST NUMBER: P331985

CATALOG NUMBER: S123DIP-S775D1025U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	574.5	580.4	586.4	587.1	582.5	577.8	573.2	568.5
115°	644.0	651.8	659.6	664.9	667.7	670.4	673.2	675.9
117.5°	706.0	713.3	720.6	725.3	727.3	729.3	731.3	733.2
120°	747.0	754.1	761.2	765.6	767.2	768.8	770.5	772.1
122.5°	786.8	793.2	799.7	803.8	805.6	807.4	809.2	811.0
125°	842.7	848.0	853.3	857.0	859.1	861.2	863.3	865.3
127.5°	898.7	904.0	909.3	912.5	913.7	914.8	915.9	917.1
130°	932.0	937.3	942.6	945.7	946.7	947.6	948.6	949.5
132.5°	963.4	968.5	973.6	976.6	977.6	978.6	979.5	980.5
135°	1011.4	1016.3	1021.1	1023.8	1024.3	1024.8	1025.3	1025.8
137.5°	1053.9	1058.6	1063.4	1066.1	1066.8	1067.5	1068.3	1069.0
140°	1081.0	1085.3	1089.7	1092.3	1093.0	1093.7	1094.4	1095.1
142.5°	1106.1	1109.9	1113.7	1115.9	1116.4	1117.0	1117.5	1118.1
145°	1143.5	1145.8	1148.1	1149.7	1150.7	1151.6	1152.5	1153.4
147.5°	1177.4	1178.4	1179.4	1179.8	1179.7	1179.5	1179.3	1179.1
150°	1198.7	1199.1	1199.6	1199.7	1199.5	1199.3	1199.1	1198.9
152.5°	1218.5	1219.3	1220.1	1220.1	1219.1	1218.2	1217.3	1216.4
155°	1245.9	1247.0	1248.1	1248.0	1246.7	1245.4	1244.0	1242.7
157.5°	1269.7	1271.0	1272.4	1272.2	1270.4	1268.7	1267.0	1265.3
160°	1283.3	1284.6	1285.9	1285.8	1284.3	1282.7	1281.2	1279.6
162.5°	1295.6	1297.1	1298.6	1298.7	1297.3	1295.9	1294.6	1293.2
165°	1312.1	1313.9	1315.7	1315.8	1314.2	1312.7	1311.1	1309.6
167.5°	1324.9	1326.7	1328.4	1328.4	1326.7	1324.9	1323.1	1321.3
170°	1332.1	1333.9	1335.6	1335.6	1333.9	1332.1	1330.3	1328.5
172.5°	1336.9	1338.6	1340.4	1340.3	1338.4	1336.4	1334.5	1332.5
175°	1342.6	1344.2	1345.7	1345.6	1343.8	1342.1	1340.3	1338.5
177.5°	1344.7	1346.2	1347.6	1347.4	1345.6	1343.9	1342.1	1340.3
180°	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5	1343.5

(END OF REPORT)