

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: P331985-840

Luminaire Tested: **S123DIP-S775D1025U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331985-840
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-S775D1025U840-4F0-1E-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: 7403.3 lumens
Efficiency: N/A
Efficacy: 142.4 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

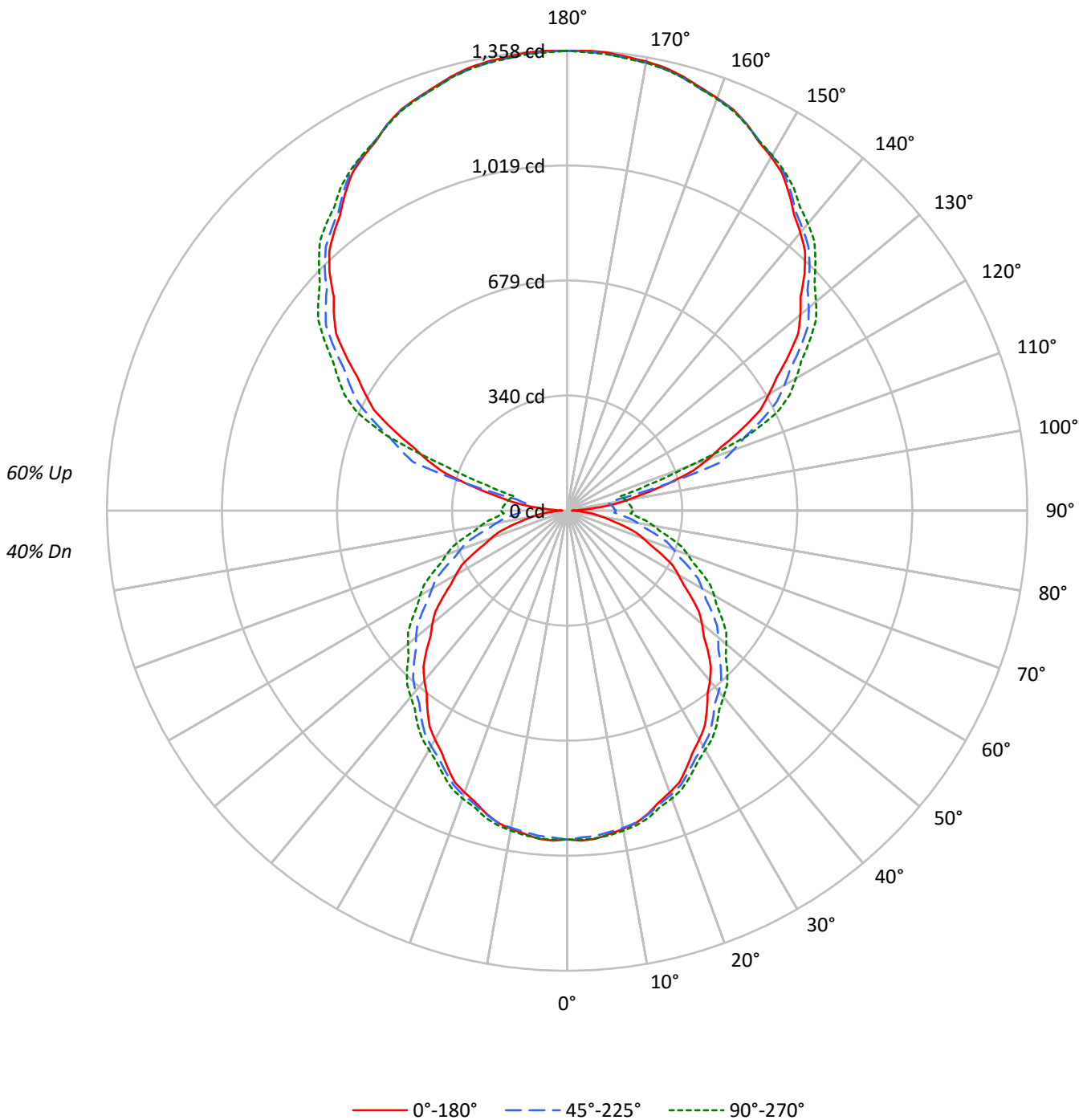
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	90	86	82	86	82	79	75	67	64	62	53	51	50	40	39	38
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	20
6	60	48	40	34	54	44	37	31	36	31	27	29	25	22	22	19	17
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15
8	51	39	31	26	47	36	29	24	30	24	21	24	20	17	19	16	13
9	48	36	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12
10	45	33	25	21	41	30	23	19	25	20	16	20	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10449	10449	10449
5°	10481	10185	10191
10°	10387	9951	9901
15°	10253	9685	9584
20°	10061	9380	9236
25°	9826	9030	8869
30°	9583	8714	8498
35°	9312	8382	8201
40°	9054	8079	7884
45°	8767	7788	7630
50°	8484	7501	7350
55°	8172	7206	7099
60°	7867	6907	6840
65°	7553	6588	6534
70°	7082	6231	6219
75°	6487	5819	5899
80°	5804	5417	5533
85°	5167	5142	5320



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	1.2
10°-20°	262.3	3.5
20°-30°	392.3	5.3
30°-40°	468.5	6.3
40°-50°	490.2	6.6
50°-60°	460.0	6.2
60°-70°	384.2	5.2
70°-80°	274.9	3.7
80°-90°	167.7	2.3
90°-100°	152.2	2.1
100°-110°	310.7	4.2
110°-120°	615.2	8.3
120°-130°	747.9	10.1
130°-140°	781.3	10.6
140°-150°	721.2	9.7
150°-160°	579.6	7.8
160°-170°	374.0	5.1
170°-180°	128.9	1.7
0°-30°	746.7	10.1
0°-40°	1215.2	16.4
0°-60°	2165.4	29.2
0°-90°	2992.3	40.4
90°-120°	1078.1	14.6
90°-150°	3328.5	45.0
90°-180°	4411.0	59.6
0°-180°	7403.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	972	969	963	971	971	92
15°	925	928	927	937	937	260
25°	835	846	849	862	863	385
35°	719	736	750	765	770	450
45°	588	613	640	659	668	453
55°	448	483	521	549	558	401
65°	310	351	398	428	440	306
75°	168	218	271	304	318	180
85°	52	105	161	195	207	54
90°	15	77	144	182	196	12
95°	73	76	136	174	186	85
105°	309	341	300	160	163	327
115°	569	589	635	669	683	562
125°	798	807	840	864	874	712
135°	991	996	1012	1033	1036	763
145°	1142	1148	1150	1160	1165	714
155°	1257	1255	1256	1260	1255	579
165°	1326	1323	1322	1329	1322	374
175°	1357	1352	1353	1359	1352	129
180°	1357	1357	1357	1357	1357	



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	970.7	970.7	970.7	970.7	970.7	970.7	970.7	970.7	970.7	970.7	970.7
2.5°	974.9	974.3	973.8	973.2	972.7	971.6	970.2	968.7	967.1	965.6	967.1
5°	971.8	971.3	970.8	970.4	969.9	969.0	967.6	966.1	964.7	963.3	965.2
7.5°	962.2	962.3	962.4	962.5	962.6	962.0	960.6	959.3	957.9	956.5	958.9
10°	953.8	954.2	954.7	955.2	955.6	955.3	954.1	953.0	951.8	950.6	953.0
12.5°	943.6	944.3	944.9	945.6	946.2	946.2	945.4	944.6	943.8	943.0	945.1
15°	925.2	925.9	926.7	927.4	928.1	928.3	928.1	927.9	927.6	927.4	929.7
17.5°	902.0	903.4	904.8	906.2	907.6	908.3	908.2	908.1	908.0	907.9	910.0
20°	885.0	886.5	887.9	889.3	890.7	891.6	892.1	892.6	893.0	893.5	895.6
22.5°	867.3	868.7	870.1	871.5	872.9	873.9	874.6	875.3	876.0	876.6	879.3
25°	835.4	837.7	840.0	842.4	844.8	846.3	847.0	847.7	848.4	849.1	852.1
27.5°	803.2	805.9	808.6	811.2	814.0	816.0	817.5	819.0	820.5	822.0	824.7
30°	780.3	783.5	786.5	789.5	792.5	795.1	796.9	798.8	800.7	802.5	805.4
32.5°	755.0	758.4	761.8	765.3	768.7	771.6	774.1	776.6	779.0	781.4	784.5
35°	719.0	722.8	726.6	730.3	734.1	737.5	740.5	743.6	746.7	749.7	753.3
37.5°	681.0	685.2	689.4	693.7	697.9	701.9	705.7	709.4	713.2	716.9	720.9
40°	655.6	659.8	664.1	668.3	672.5	677.0	681.7	686.4	691.1	695.8	699.7
42.5°	627.6	632.9	638.0	643.2	648.3	653.4	658.2	663.2	668.0	673.0	677.3
45°	587.9	593.6	599.2	604.8	610.5	616.2	622.1	627.9	633.9	639.7	644.2
47.5°	546.2	552.7	559.1	565.4	571.8	578.3	585.1	591.8	598.5	605.2	610.3
50°	519.2	525.7	532.3	539.0	545.5	552.4	559.8	567.0	574.3	581.6	586.9
52.5°	490.4	497.4	504.3	511.3	518.3	525.7	533.8	541.8	549.9	557.8	563.5
55°	448.4	456.1	463.8	471.6	479.4	487.5	495.9	504.4	512.8	521.3	527.7
57.5°	407.3	415.4	423.4	431.5	439.7	448.3	457.6	466.9	476.1	485.3	491.7
60°	378.6	387.0	395.5	403.9	412.4	421.4	431.1	440.7	450.3	460.0	466.6
62.5°	351.4	360.1	368.8	377.4	386.1	395.5	405.7	415.9	426.1	436.3	442.8
65°	309.8	319.0	328.1	337.3	346.5	356.2	366.6	376.9	387.3	397.6	404.7
67.5°	267.5	277.2	287.0	296.7	306.4	316.6	327.1	337.6	348.1	358.7	366.4
70°	237.9	248.0	258.1	268.2	278.3	289.0	300.3	311.5	322.9	334.2	341.6
72.5°	210.9	221.0	231.1	241.2	251.3	262.2	273.8	285.5	297.1	308.7	316.5
75°	168.1	179.2	190.3	201.3	212.3	223.7	235.4	247.2	258.9	270.7	278.4
77.5°	130.9	142.1	153.2	164.3	175.4	186.9	198.8	210.7	222.5	234.3	242.5
80°	104.7	116.2	127.7	139.3	150.8	162.6	174.8	187.0	199.2	211.5	219.4
82.5°	81.8	93.5	105.2	116.9	128.7	140.7	153.1	165.5	177.9	190.4	198.3
85°	51.8	63.5	75.3	87.1	98.8	110.9	123.4	135.8	148.2	160.8	168.7
87.5°	28.4	40.5	52.6	64.7	77.0	89.3	101.9	114.4	126.9	139.6	147.7
90°	14.7	28.5	42.2	56.0	69.8	84.1	99.0	113.9	128.8	143.7	152.6
92.5°	31.6	41.4	51.2	60.9	70.7	82.6	96.5	110.6	124.5	138.6	147.7
95°	73.1	73.1	73.1	73.0	73.0	80.0	94.0	108.0	122.0	135.9	144.8
97.5°	133.9	138.0	142.3	146.4	150.6	150.1	144.9	139.8	134.6	129.6	138.4
100°	179.9	191.9	203.9	215.9	227.8	221.8	197.6	173.5	149.4	125.2	133.9
102.5°	232.3	242.3	252.3	262.3	272.3	263.5	235.9	208.3	180.8	153.2	154.3
105°	308.8	316.9	325.1	333.2	341.2	340.3	330.2	320.1	310.1	300.0	267.0
107.5°	388.6	395.4	402.1	408.9	415.7	425.5	438.2	451.0	463.7	476.6	453.7
110°	441.8	447.8	453.8	459.9	465.9	474.8	486.7	498.6	510.4	522.3	521.0



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	493.4	498.5	503.6	508.7	513.8	522.1	533.5	545.0	556.5	568.0	574.1
115°	568.8	572.9	577.0	581.3	585.4	592.7	603.2	613.7	624.2	634.6	642.5
117.5°	642.6	645.9	649.3	652.7	656.1	662.3	671.3	680.2	689.2	698.2	705.6
120°	687.6	690.8	694.1	697.2	700.4	706.2	714.7	723.1	731.5	739.9	747.1
122.5°	734.4	736.7	738.9	741.2	743.5	748.7	757.0	765.2	773.5	781.6	788.1
125°	797.5	799.3	801.0	802.8	804.7	809.4	817.1	824.9	832.5	840.2	845.7
127.5°	859.6	861.1	862.7	864.2	865.8	869.9	876.7	883.3	890.1	896.8	902.1
130°	898.3	899.8	901.4	902.9	904.5	908.1	913.6	919.3	924.8	930.5	935.8
132.5°	934.5	936.2	938.0	939.8	941.5	944.6	949.1	953.5	958.1	962.5	967.7
135°	991.0	992.1	993.2	994.3	995.4	997.6	1001.2	1004.6	1008.1	1011.6	1016.5
137.5°	1039.2	1040.7	1042.2	1043.7	1045.2	1046.9	1048.8	1050.9	1052.8	1054.7	1059.6
140°	1070.6	1071.9	1073.2	1074.6	1075.9	1077.3	1078.6	1080.1	1081.4	1082.8	1087.2
142.5°	1100.3	1101.6	1102.7	1103.9	1105.0	1106.0	1106.8	1107.6	1108.4	1109.2	1113.1
145°	1142.1	1143.5	1144.8	1146.1	1147.4	1148.3	1148.8	1149.2	1149.6	1150.1	1152.5
147.5°	1180.3	1181.4	1182.5	1183.5	1184.5	1185.2	1185.7	1186.1	1186.6	1187.0	1188.0
150°	1204.6	1205.3	1205.9	1206.6	1207.2	1207.8	1208.2	1208.7	1209.1	1209.6	1210.0
152.5°	1226.3	1226.7	1227.0	1227.3	1227.6	1227.9	1228.1	1228.4	1228.7	1228.9	1229.7
155°	1257.0	1256.5	1256.1	1255.7	1255.2	1255.1	1255.3	1255.5	1255.8	1256.0	1257.1
157.5°	1280.7	1280.7	1280.7	1280.6	1280.6	1280.4	1280.2	1280.0	1279.8	1279.5	1280.9
160°	1295.3	1295.1	1294.8	1294.6	1294.3	1294.1	1293.9	1293.7	1293.4	1293.2	1294.6
162.5°	1309.0	1308.4	1307.8	1307.3	1306.7	1306.3	1306.1	1305.8	1305.6	1305.4	1306.9
165°	1325.5	1324.8	1324.1	1323.5	1322.8	1322.4	1322.1	1321.9	1321.7	1321.5	1323.2
167.5°	1338.4	1337.6	1336.7	1335.7	1334.8	1334.3	1334.3	1334.3	1334.3	1334.3	1336.2
170°	1345.6	1344.7	1343.9	1343.0	1342.1	1341.6	1341.6	1341.6	1341.6	1341.6	1343.4
172.5°	1350.5	1349.5	1348.4	1347.3	1346.3	1345.7	1345.9	1346.2	1346.3	1346.5	1348.3
175°	1356.8	1355.6	1354.5	1353.4	1352.3	1351.8	1352.0	1352.3	1352.5	1352.7	1354.3
177.5°	1358.4	1357.5	1356.6	1355.6	1354.8	1354.4	1354.6	1354.8	1354.9	1355.1	1356.6
180°	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	970.7	970.7	970.7	970.7	970.7	970.7	970.7	970.7
2.5°	968.7	970.2	971.6	972.3	972.1	971.9	971.7	971.6
5°	967.0	969.0	970.8	971.6	971.4	971.2	971.0	970.7
7.5°	961.2	963.6	965.9	966.9	966.6	966.4	966.1	965.8
10°	955.3	957.7	960.0	961.0	960.5	960.0	959.6	959.1
12.5°	947.4	949.5	951.6	952.5	952.0	951.6	951.1	950.6
15°	932.0	934.4	936.8	937.8	937.6	937.4	937.1	936.9
17.5°	912.1	914.2	916.4	917.3	917.0	916.6	916.3	915.9
20°	897.8	899.9	902.0	903.1	903.4	903.6	903.8	904.1
22.5°	881.9	884.6	887.3	888.6	888.5	888.3	888.2	888.0
25°	855.3	858.3	861.3	862.8	862.8	862.8	862.8	862.8
27.5°	827.3	829.9	832.5	833.9	834.1	834.4	834.6	834.8
30°	808.2	811.0	813.9	815.3	815.3	815.3	815.3	815.3
32.5°	787.4	790.4	793.5	795.3	795.8	796.4	796.9	797.5
35°	756.8	760.3	763.8	766.1	767.0	767.9	768.8	769.8
37.5°	724.9	728.9	732.9	735.3	736.0	736.8	737.5	738.3
40°	703.8	707.7	711.8	714.2	715.2	716.1	717.0	718.0
42.5°	681.7	686.0	690.4	693.3	694.6	695.9	697.2	698.5
45°	648.6	653.1	657.6	660.8	662.7	664.5	666.4	668.3
47.5°	615.3	620.4	625.4	628.6	630.1	631.6	633.0	634.4
50°	592.4	597.7	603.2	606.7	608.3	610.0	611.7	613.3
52.5°	569.1	574.7	580.3	584.1	586.1	588.1	590.2	592.2
55°	534.0	540.4	546.6	550.8	552.7	554.5	556.4	558.4
57.5°	498.2	504.5	510.9	515.2	517.5	519.7	521.8	524.0
60°	473.1	479.7	486.3	490.9	493.4	496.0	498.7	501.2
62.5°	449.5	456.1	462.6	467.1	469.5	471.9	474.3	476.7
65°	411.7	418.7	425.8	430.5	432.8	435.2	437.6	439.9
67.5°	374.1	381.8	389.5	394.4	396.3	398.3	400.3	402.2
70°	349.2	356.7	364.3	369.1	371.5	373.9	376.2	378.6
72.5°	324.2	331.8	339.6	344.7	347.0	349.3	351.6	354.1
75°	286.2	294.0	301.7	307.0	309.8	312.7	315.5	318.3
77.5°	250.6	258.8	267.0	272.2	274.4	276.5	278.7	280.8
80°	227.4	235.4	243.5	248.6	251.0	253.3	255.7	258.0
82.5°	206.3	214.3	222.3	227.4	229.8	232.2	234.5	236.8
85°	176.7	184.7	192.7	197.8	200.2	202.6	204.9	207.2
87.5°	155.9	164.1	172.2	177.5	180.0	182.4	184.8	187.3
90°	161.5	170.4	179.3	185.1	187.8	190.7	193.5	196.2
92.5°	157.0	166.2	175.5	181.3	183.7	186.1	188.5	191.1
95°	153.6	162.5	171.4	176.9	179.3	181.7	184.0	186.3
97.5°	147.1	155.9	164.7	170.4	173.0	175.5	178.1	180.7
100°	142.5	151.1	159.7	165.3	167.8	170.5	173.0	175.6
102.5°	155.4	156.4	157.5	159.5	162.2	164.9	167.7	170.5
105°	233.9	200.9	167.7	152.5	155.1	157.6	160.3	162.8
107.5°	430.9	408.2	385.4	360.1	332.2	304.5	276.7	248.8
110°	519.7	518.5	517.2	501.4	471.3	441.1	411.0	380.8



TEST NUMBER: P331985-840

CATALOG NUMBER: S123DIP-S775D1025U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	580.2	586.1	592.2	592.9	588.2	583.5	578.9	574.1
115°	650.4	658.2	666.1	671.5	674.3	677.0	679.8	682.6
117.5°	713.0	720.3	727.7	732.5	734.5	736.5	738.5	740.4
120°	754.4	761.5	768.7	773.2	774.8	776.4	778.1	779.7
122.5°	794.6	801.0	807.6	811.7	813.5	815.4	817.2	819.0
125°	851.0	856.4	861.7	865.5	867.6	869.7	871.8	873.8
127.5°	907.6	912.9	918.3	921.5	922.7	923.8	924.9	926.1
130°	941.2	946.5	951.9	955.0	956.0	956.9	958.0	958.9
132.5°	972.9	978.1	983.2	986.2	987.2	988.3	989.2	990.2
135°	1021.4	1026.3	1031.2	1033.9	1034.4	1034.9	1035.4	1035.9
137.5°	1064.3	1069.0	1073.9	1076.6	1077.3	1078.0	1078.8	1079.5
140°	1091.7	1096.0	1100.4	1103.1	1103.8	1104.5	1105.2	1105.9
142.5°	1117.0	1120.8	1124.7	1126.9	1127.4	1128.0	1128.5	1129.1
145°	1154.8	1157.1	1159.4	1161.0	1162.1	1163.0	1163.9	1164.8
147.5°	1189.0	1190.0	1191.0	1191.4	1191.3	1191.1	1190.9	1190.7
150°	1210.5	1210.9	1211.4	1211.5	1211.3	1211.1	1210.9	1210.7
152.5°	1230.5	1231.3	1232.1	1232.1	1231.1	1230.2	1229.3	1228.4
155°	1258.2	1259.3	1260.4	1260.3	1259.0	1257.7	1256.3	1255.0
157.5°	1282.2	1283.5	1285.0	1284.8	1282.9	1281.2	1279.5	1277.8
160°	1296.0	1297.3	1298.6	1298.5	1297.0	1295.4	1293.8	1292.2
162.5°	1308.4	1309.9	1311.4	1311.5	1310.1	1308.7	1307.4	1306.0
165°	1325.0	1326.9	1328.7	1328.8	1327.2	1325.6	1324.0	1322.5
167.5°	1338.0	1339.8	1341.5	1341.5	1339.8	1338.0	1336.2	1334.3
170°	1345.2	1347.1	1348.8	1348.8	1347.1	1345.2	1343.4	1341.6
172.5°	1350.1	1351.8	1353.6	1353.5	1351.6	1349.6	1347.7	1345.6
175°	1355.8	1357.5	1359.0	1358.9	1357.1	1355.3	1353.5	1351.7
177.5°	1358.0	1359.5	1360.9	1360.7	1358.9	1357.2	1355.3	1353.5
180°	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8	1356.8

(END OF REPORT)