

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: P333414

Luminaire Tested: **S125DIW-S850D1050U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333414
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D1050U835-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7473.6 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

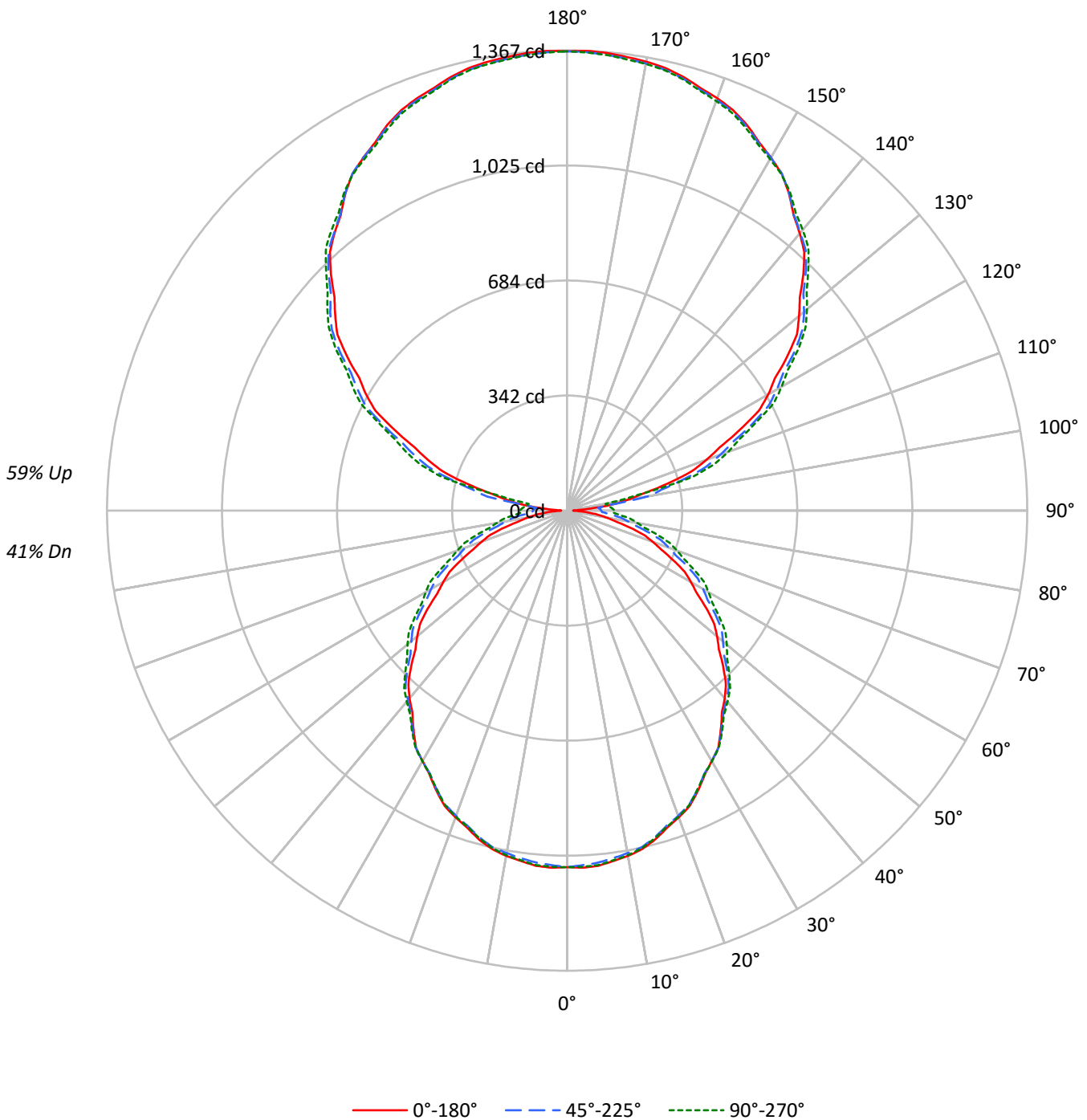
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41																				
1	95	91	87	83	87	83	79	76	68	65	63	54	52	51	42	40	39	33																				
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28																				
3	79	69	62	56	71	63	57	51	52	47	43	41	38	35	32	30	28	23																				
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20																				
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	25	23	20	17																				
6	61	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15																				
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13																				
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12																				
9	48	36	29	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10																				
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	14	12	9																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.3
10°-20°	284.4	3.8
20°-30°	422.9	5.7
30°-40°	500.9	6.7
40°-50°	517.9	6.9
50°-60°	477.1	6.4
60°-70°	385.7	5.2
70°-80°	258.3	3.5
80°-90°	136.8	1.8
90°-100°	124.7	1.7
100°-110°	361.0	4.8
110°-120°	591.3	7.9
120°-130°	732.3	9.8
130°-140°	774.2	10.4
140°-150°	719.9	9.6
150°-160°	580.9	7.8
160°-170°	375.7	5.0
170°-180°	129.6	1.7
0°-30°	807.4	10.8
0°-40°	1308.3	17.5
0°-60°	2303.3	30.8
0°-90°	3084.0	41.3
90°-120°	1077.0	14.4
90°-150°	3303.5	44.2
90°-180°	4390.0	58.7
0°-180°	7473.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	18	59	101	129	141	13
95°	71	94	92	119	127	84
105°	307	328	358	378	386	325
115°	564	578	605	619	620	559
125°	798	805	825	837	840	712
135°	992	997	1002	1013	1013	765
145°	1149	1150	1150	1156	1154	718
155°	1264	1259	1260	1263	1255	582
165°	1334	1328	1329	1334	1327	377
175°	1364	1359	1359	1366	1358	130
180°	1364	1364	1364	1364	1364	



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.6	40.4	48.1	55.8	63.6	71.5	79.7	87.9	96.0	104.2	109.7
90°	17.6	26.8	36.0	45.2	54.4	63.7	73.1	82.5	91.9	101.3	107.8
92.5°	30.5	36.1	41.7	47.2	52.8	60.3	69.7	79.2	88.6	98.0	104.3
95°	71.1	76.5	81.8	87.1	92.5	94.8	94.1	93.4	92.7	92.0	98.2
97.5°	132.6	139.2	145.8	152.5	159.1	157.7	148.4	139.0	129.7	120.4	118.9
100°	180.3	185.8	191.4	196.9	202.4	209.3	217.6	225.9	234.2	242.4	213.8
102.5°	228.8	234.2	239.5	244.8	250.2	256.7	264.4	272.2	279.9	287.7	286.0
105°	306.7	311.3	315.9	320.5	325.1	330.8	337.7	344.7	351.6	358.5	363.1
107.5°	387.6	390.7	393.8	397.0	400.1	405.2	412.3	419.4	426.5	433.6	438.2
110°	440.1	442.9	445.7	448.4	451.2	456.1	463.0	469.9	476.8	483.7	487.4



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	490.3	493.1	495.8	498.6	501.3	506.0	512.5	519.1	525.6	532.2	535.5
115°	564.5	567.2	570.0	572.7	575.5	579.9	586.2	592.4	598.6	604.8	608.1
117.5°	641.3	642.4	643.4	644.4	645.4	649.2	655.7	662.3	668.8	675.3	678.1
120°	689.9	690.4	690.8	691.3	691.8	695.0	701.0	707.0	712.9	718.9	722.4
122.5°	731.9	733.1	734.3	735.5	736.7	740.0	745.4	750.8	756.3	761.7	765.0
125°	798.1	799.4	800.8	802.1	803.5	806.4	811.0	815.7	820.3	824.9	827.7
127.5°	860.4	861.2	862.1	863.0	863.9	866.2	869.8	873.5	877.1	880.8	883.7
130°	899.2	900.1	901.0	901.9	902.8	904.9	908.4	911.8	915.3	918.8	921.3
132.5°	937.2	938.5	939.7	941.0	942.2	943.9	945.9	947.9	949.8	951.8	954.9
135°	992.2	993.3	994.4	995.6	996.7	997.8	999.0	1000.2	1001.3	1002.5	1005.0
137.5°	1042.8	1043.8	1044.7	1045.7	1046.7	1047.4	1047.8	1048.2	1048.5	1048.9	1051.7
140°	1075.1	1075.6	1076.0	1076.5	1076.9	1077.1	1077.1	1077.2	1077.2	1077.2	1080.2
142.5°	1105.1	1105.1	1105.2	1105.3	1105.4	1105.6	1106.0	1106.3	1106.7	1107.1	1109.3
145°	1148.9	1149.2	1149.4	1149.6	1149.8	1149.9	1149.9	1149.9	1149.9	1149.9	1151.3
147.5°	1186.3	1186.3	1186.2	1186.1	1186.0	1186.1	1186.3	1186.6	1186.9	1187.1	1187.8
150°	1210.6	1210.2	1209.7	1209.3	1208.8	1208.8	1209.3	1209.7	1210.2	1210.6	1211.1
152.5°	1234.1	1233.1	1232.1	1231.1	1230.1	1229.9	1230.3	1230.8	1231.2	1231.6	1232.1
155°	1264.2	1262.9	1261.5	1260.2	1258.8	1258.4	1258.8	1259.3	1259.7	1260.2	1260.8
157.5°	1287.5	1286.7	1285.9	1285.1	1284.2	1283.9	1283.9	1283.9	1284.0	1284.0	1284.8
160°	1303.7	1302.3	1301.0	1299.6	1298.3	1297.7	1297.9	1298.2	1298.4	1298.6	1299.5
162.5°	1316.6	1315.3	1313.9	1312.6	1311.2	1310.6	1310.9	1311.1	1311.3	1311.5	1312.8
165°	1334.0	1332.7	1331.3	1330.0	1328.6	1328.0	1328.3	1328.5	1328.7	1328.9	1330.3
167.5°	1346.9	1345.6	1344.2	1342.8	1341.4	1340.8	1341.0	1341.2	1341.5	1341.7	1343.3
170°	1354.2	1352.7	1351.1	1349.5	1347.9	1347.3	1347.5	1347.7	1347.9	1348.2	1350.0
172.5°	1359.1	1357.5	1355.9	1354.4	1352.8	1352.2	1352.6	1353.0	1353.4	1353.8	1355.4
175°	1364.3	1363.0	1361.6	1360.3	1358.9	1358.4	1358.6	1358.8	1359.1	1359.3	1361.1
177.5°	1366.8	1365.7	1364.6	1363.5	1362.5	1362.0	1362.2	1362.4	1362.5	1362.7	1364.0
180°	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	115.3	120.8	126.3	130.0	131.7	133.5	135.2	137.0
90°	114.2	120.6	127.1	131.4	133.7	136.0	138.3	140.6
92.5°	110.5	116.8	123.0	127.1	129.0	131.0	132.9	134.8
95°	104.4	110.6	116.8	120.7	122.3	123.9	125.6	127.2
97.5°	117.4	115.9	114.4	114.5	116.0	117.6	119.2	120.7
100°	185.2	156.5	127.9	113.8	114.3	114.8	115.3	115.7
102.5°	284.3	282.6	281.0	273.2	259.3	245.4	231.5	217.6
105°	367.7	372.4	377.0	380.0	381.4	382.8	384.1	385.5
107.5°	442.9	447.5	452.1	454.8	455.5	456.3	457.0	457.8
110°	491.1	494.8	498.5	501.3	503.2	505.0	506.8	508.7



TEST NUMBER: P333414

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	538.9	542.2	545.5	547.9	549.2	550.5	551.8	553.1
115°	611.4	614.6	617.9	619.5	619.6	619.6	619.6	619.7
117.5°	680.8	683.6	686.3	688.2	689.2	690.2	691.2	692.1
120°	725.9	729.3	732.8	734.7	734.9	735.2	735.5	735.7
122.5°	768.3	771.6	774.9	776.6	776.6	776.7	776.8	776.9
125°	830.5	833.3	836.1	837.7	838.2	838.7	839.1	839.6
127.5°	886.6	889.6	892.5	893.8	893.5	893.1	892.8	892.5
130°	923.9	926.4	929.0	930.3	930.3	930.3	930.4	930.4
132.5°	958.0	961.1	964.2	965.7	965.5	965.4	965.2	965.1
135°	1007.6	1010.1	1012.7	1013.9	1013.7	1013.5	1013.3	1013.1
137.5°	1054.5	1057.4	1060.2	1061.4	1061.2	1061.0	1060.7	1060.5
140°	1083.1	1086.1	1089.1	1090.4	1090.0	1089.5	1089.1	1088.7
142.5°	1111.6	1113.8	1116.1	1117.0	1116.6	1116.2	1115.7	1115.3
145°	1152.7	1154.1	1155.4	1155.9	1155.5	1155.1	1154.6	1154.2
147.5°	1188.4	1189.1	1189.7	1189.4	1188.2	1187.0	1185.8	1184.6
150°	1211.5	1212.0	1212.4	1211.9	1210.3	1208.7	1207.2	1205.6
152.5°	1232.5	1233.0	1233.4	1232.9	1231.3	1229.7	1228.2	1226.6
155°	1261.5	1262.2	1262.9	1262.3	1260.5	1258.7	1256.9	1255.1
157.5°	1285.5	1286.2	1286.9	1286.4	1284.6	1282.8	1281.0	1279.2
160°	1300.4	1301.3	1302.2	1301.7	1300.0	1298.2	1296.4	1294.6
162.5°	1314.1	1315.3	1316.6	1316.2	1314.2	1312.3	1310.3	1308.3
165°	1331.6	1333.0	1334.3	1334.1	1332.3	1330.5	1328.7	1326.9
167.5°	1344.9	1346.5	1348.2	1348.0	1345.9	1343.9	1341.9	1339.9
170°	1351.8	1353.6	1355.4	1355.2	1353.2	1351.2	1349.2	1347.1
172.5°	1357.1	1358.7	1360.3	1360.1	1358.1	1356.0	1354.0	1352.0
175°	1362.9	1364.7	1366.5	1366.4	1364.3	1362.3	1360.3	1358.3
177.5°	1365.2	1366.5	1367.8	1367.7	1366.2	1364.8	1363.4	1361.9
180°	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3	1364.3

(END OF REPORT)