

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: P333415

Luminaire Tested: **S125DIW-S850D1050U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333415
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
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-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6917.2 lumens
Efficiency: N/A
Efficacy: 131.5 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

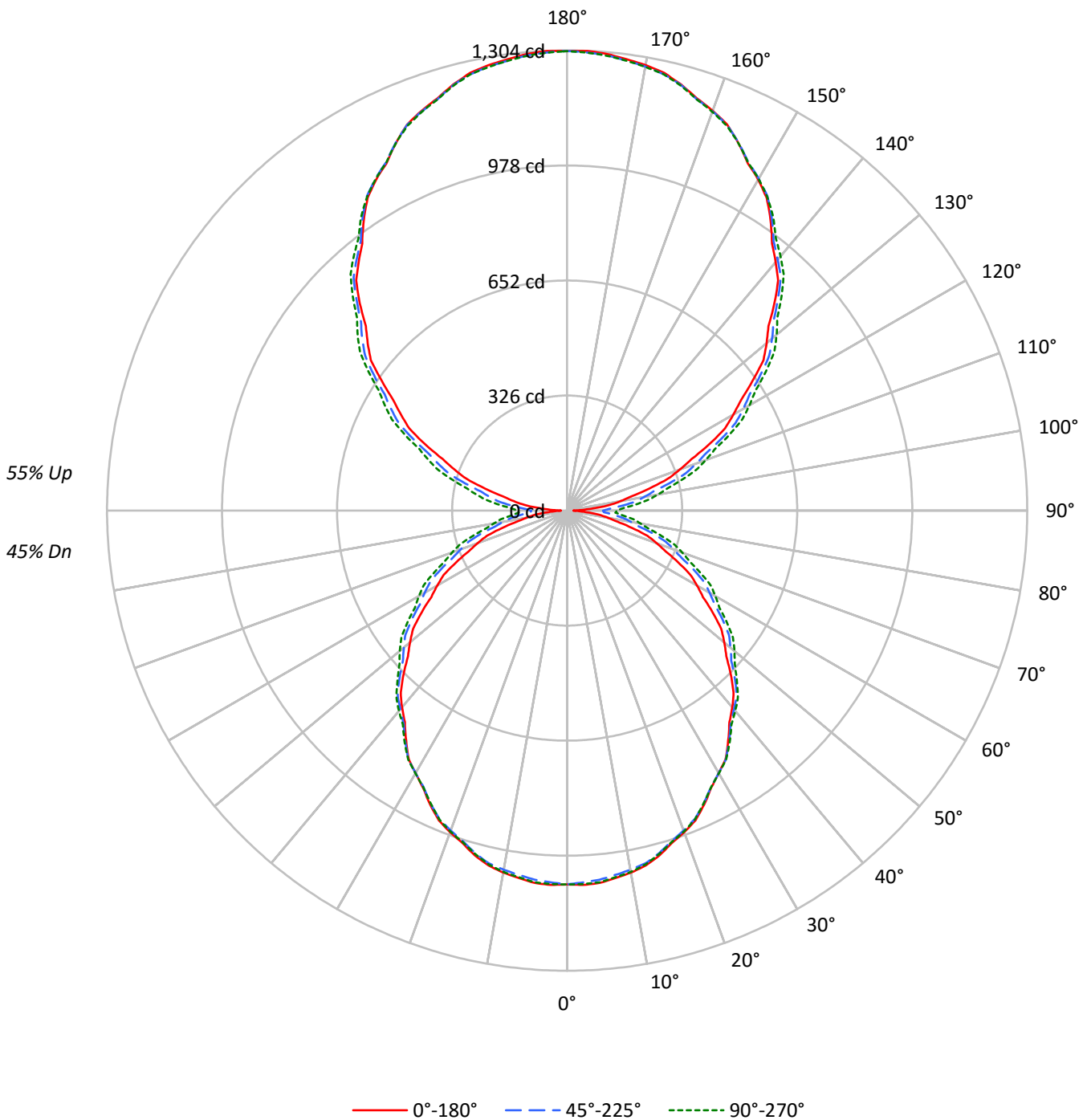
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	91	87	83	88	84	80	77	69	67	65	56	54	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	55	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	24	21	19	16
7	56	44	36	30	51	41	33	28	34	29	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	20	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

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: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.4
10°-20°	284.4	4.1
20°-30°	422.9	6.1
30°-40°	500.9	7.2
40°-50°	517.9	7.5
50°-60°	477.1	6.9
60°-70°	385.7	5.6
70°-80°	258.3	3.7
80°-90°	136.8	2.0
90°-100°	162.4	2.3
100°-110°	312.9	4.5
110°-120°	473.3	6.8
120°-130°	595.1	8.6
130°-140°	652.4	9.4
140°-150°	632.3	9.1
150°-160°	529.5	7.7
160°-170°	352.0	5.1
170°-180°	123.2	1.8
0°-30°	807.4	11.7
0°-40°	1308.3	18.9
0°-60°	2303.3	33.3
0°-90°	3084.0	44.6
90°-120°	948.6	13.7
90°-150°	2828.5	40.9
90°-180°	3833.0	55.4
0°-180°	6917.2	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	15
95°	79	109	154	183	193	81
105°	240	263	299	325	336	257
115°	443	455	483	500	506	438
125°	642	648	668	682	687	574
135°	831	836	844	857	859	640
145°	1005	1008	1011	1016	1018	628
155°	1149	1149	1150	1154	1149	529
165°	1249	1247	1248	1252	1246	352
175°	1299	1295	1295	1300	1294	123
180°	1302	1302	1302	1302	1302	



TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

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	92.0	101.4	107.8
92.5°	39.5	47.6	55.7	63.8	71.8	80.9	90.8	100.8	110.8	120.7	127.4
95°	79.4	85.8	92.3	98.7	105.2	113.4	123.5	133.6	143.7	153.8	160.5
97.5°	121.7	127.3	132.8	138.4	144.0	152.1	162.8	173.5	184.2	194.8	201.2
100°	153.3	158.1	163.0	167.8	172.7	180.2	190.6	200.9	211.2	221.5	228.4
102.5°	187.3	192.7	198.1	203.4	208.8	215.9	224.5	233.2	241.9	250.6	257.5
105°	240.4	245.2	250.0	254.8	259.6	266.2	274.5	282.7	291.0	299.3	305.3
107.5°	299.1	303.4	307.6	311.9	316.2	322.1	329.8	337.5	345.2	352.9	358.1
110°	339.6	343.5	347.4	351.3	355.2	360.7	367.9	375.0	382.1	389.3	394.3



TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	381.8	384.6	387.4	390.2	393.0	397.9	405.1	412.2	419.3	426.5	431.0
115°	442.9	445.5	448.0	450.5	453.0	457.5	463.9	470.4	476.8	483.3	487.2
117.5°	504.3	505.8	507.3	508.7	510.2	514.0	520.1	526.1	532.2	538.3	542.4
120°	543.2	545.1	546.9	548.7	550.5	554.2	559.7	565.2	570.8	576.3	580.2
122.5°	584.6	585.3	586.0	586.7	587.5	590.7	596.4	602.1	607.8	613.5	617.1
125°	641.5	642.6	643.7	644.9	646.0	649.0	653.8	658.6	663.5	668.3	671.6
127.5°	701.3	701.8	702.3	702.9	703.4	705.7	709.7	713.8	717.9	721.9	725.1
130°	737.7	738.6	739.5	740.4	741.3	743.6	747.3	751.0	754.6	758.3	761.3
132.5°	773.4	775.2	777.0	778.8	780.6	782.7	785.1	787.5	789.9	792.3	795.3
135°	830.9	832.0	833.2	834.3	835.4	836.9	838.7	840.6	842.4	844.2	847.2
137.5°	885.0	886.1	887.3	888.4	889.5	890.7	892.0	893.3	894.6	895.8	898.8
140°	919.1	920.2	921.3	922.4	923.6	924.6	925.5	926.4	927.3	928.2	931.2
142.5°	953.9	954.7	955.4	956.2	957.0	957.8	958.7	959.6	960.5	961.4	963.8
145°	1005.2	1005.8	1006.5	1007.2	1007.9	1008.5	1009.2	1009.9	1010.6	1011.2	1012.4
147.5°	1051.6	1052.1	1052.6	1053.0	1053.5	1054.1	1054.6	1055.1	1055.7	1056.2	1057.1
150°	1083.2	1083.0	1082.7	1082.5	1082.3	1082.6	1083.5	1084.4	1085.3	1086.2	1086.2
152.5°	1109.1	1109.4	1109.7	1110.1	1110.4	1110.7	1111.1	1111.4	1111.8	1112.2	1112.7
155°	1149.0	1149.0	1149.0	1149.0	1149.0	1149.1	1149.4	1149.6	1149.8	1150.1	1151.0
157.5°	1184.7	1184.2	1183.7	1183.2	1182.7	1182.6	1182.8	1183.0	1183.3	1183.5	1184.4
160°	1205.8	1205.1	1204.4	1203.8	1203.1	1202.9	1203.1	1203.3	1203.5	1203.8	1204.7
162.5°	1224.4	1223.9	1223.4	1222.9	1222.4	1222.2	1222.3	1222.3	1222.4	1222.4	1223.5
165°	1249.4	1248.9	1248.4	1248.0	1247.5	1247.4	1247.7	1247.9	1248.1	1248.3	1249.2
167.5°	1270.4	1269.5	1268.6	1267.7	1266.8	1266.4	1266.4	1266.4	1266.4	1266.4	1267.7
170°	1281.8	1280.9	1280.0	1279.1	1278.2	1277.7	1277.7	1277.7	1277.7	1277.7	1279.1
172.5°	1289.9	1289.0	1288.1	1287.2	1286.3	1285.8	1285.8	1285.8	1285.8	1285.8	1287.2
175°	1299.0	1298.1	1297.2	1296.3	1295.4	1294.9	1294.9	1294.9	1294.9	1294.9	1296.3
177.5°	1303.7	1302.9	1302.2	1301.5	1300.8	1300.3	1300.1	1300.0	1299.8	1299.6	1300.7
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

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	120.7	127.1	131.5	133.8	136.1	138.3	140.6
92.5°	134.0	140.6	147.2	151.5	153.7	155.8	157.9	160.0
95°	167.1	173.8	180.5	184.8	186.9	188.9	191.0	193.1
97.5°	207.5	213.8	220.2	224.3	226.1	227.9	229.8	231.6
100°	235.2	242.1	249.0	253.3	255.2	257.0	258.8	260.7
102.5°	264.3	271.2	278.1	282.5	284.5	286.5	288.6	290.6
105°	311.2	317.2	323.2	327.3	329.6	331.9	334.2	336.5
107.5°	363.4	368.6	373.9	377.2	378.6	379.9	381.3	382.7
110°	399.4	404.4	409.5	412.7	414.1	415.5	416.9	418.3



TEST NUMBER: P333415

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	435.5	440.0	444.5	447.4	448.6	449.8	451.0	452.2
115°	491.2	495.1	499.0	501.6	502.7	503.9	505.0	506.2
117.5°	546.5	550.6	554.7	557.1	557.8	558.4	559.1	559.8
120°	584.2	588.1	592.0	594.2	594.7	595.2	595.7	596.2
122.5°	620.6	624.2	627.8	629.9	630.5	631.2	631.9	632.5
125°	674.8	678.0	681.3	683.4	684.3	685.2	686.2	687.1
127.5°	728.3	731.5	734.7	736.7	737.6	738.5	739.4	740.3
130°	764.3	767.3	770.3	772.2	772.9	773.6	774.3	775.0
132.5°	798.3	801.3	804.3	806.0	806.3	806.7	807.0	807.3
135°	850.2	853.2	856.2	857.9	858.1	858.4	858.6	858.9
137.5°	901.8	904.8	907.8	909.2	909.0	908.8	908.6	908.4
140°	934.2	937.2	940.2	941.5	941.3	941.1	940.9	940.7
142.5°	966.3	968.7	971.2	972.3	972.1	971.9	971.7	971.5
145°	1013.5	1014.7	1015.8	1016.6	1016.8	1017.0	1017.3	1017.5
147.5°	1058.0	1059.0	1059.9	1059.8	1058.6	1057.5	1056.4	1055.3
150°	1086.2	1086.2	1086.2	1086.1	1085.9	1085.7	1085.4	1085.2
152.5°	1113.2	1113.8	1114.3	1114.2	1113.4	1112.7	1111.9	1111.1
155°	1151.9	1152.8	1153.7	1153.5	1152.4	1151.3	1150.2	1149.0
157.5°	1185.3	1186.2	1187.1	1186.8	1185.3	1183.8	1182.3	1180.9
160°	1205.6	1206.5	1207.4	1207.2	1206.1	1205.0	1203.9	1202.7
162.5°	1224.6	1225.6	1226.7	1226.6	1225.3	1224.0	1222.7	1221.4
165°	1250.1	1251.0	1251.9	1251.7	1250.4	1249.0	1247.7	1246.3
167.5°	1269.1	1270.4	1271.8	1271.8	1270.4	1269.0	1267.6	1266.2
170°	1280.4	1281.8	1283.1	1283.0	1281.4	1279.9	1278.3	1276.7
172.5°	1288.5	1289.9	1291.2	1291.2	1289.8	1288.4	1287.0	1285.6
175°	1297.6	1299.0	1300.4	1300.2	1298.7	1297.1	1295.5	1293.9
177.5°	1301.8	1302.9	1303.9	1303.8	1302.6	1301.3	1300.1	1298.8
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0

(END OF REPORT)