

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: P333456-927

Luminaire Tested: **S125DIW-S1090D1560U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333456-927
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-S1090D1560U927-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8322.0 lumens
Efficiency: N/A
Efficacy: 108.6 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: Semi-Indirect

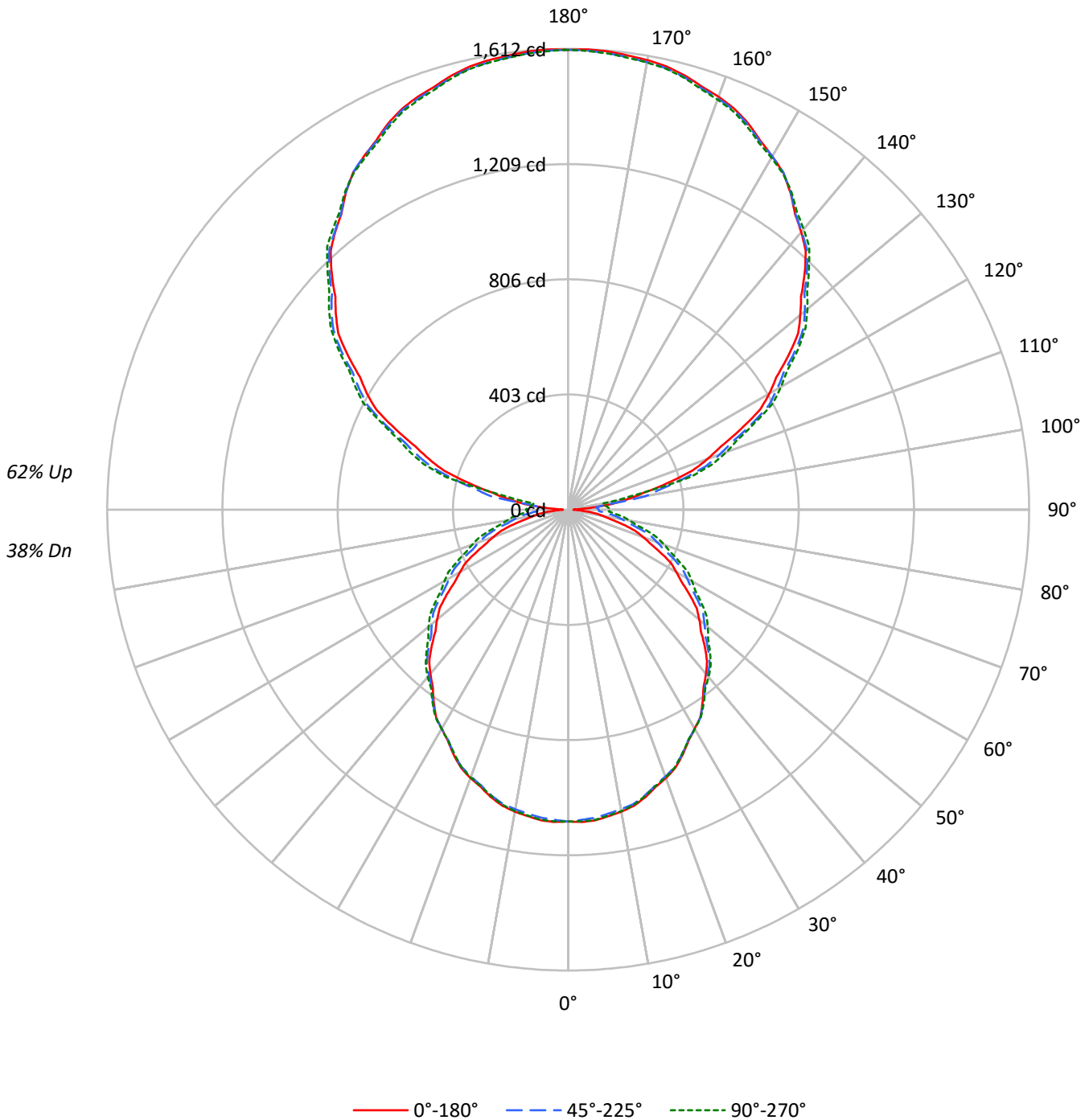
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333456-927

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Luminous Intensity Polar Plot





TEST NUMBER: P333456-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-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	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31
2	86	78	72	67	78	71	66	61	58	54	51	45	43	40	34	32	31	25
3	78	69	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	61	53	47	64	55	48	43	45	40	36	35	32	29	27	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	51	39	32	26	47	36	29	24	30	24	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	25	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	1.2
10°-20°	292.8	3.5
20°-30°	435.5	5.2
30°-40°	515.8	6.2
40°-50°	533.3	6.4
50°-60°	491.3	5.9
60°-70°	397.1	4.8
70°-80°	265.9	3.2
80°-90°	141.3	1.7
90°-100°	135.8	1.6
100°-110°	417.4	5.0
110°-120°	691.7	8.3
120°-130°	860.3	10.3
130°-140°	911.5	11.0
140°-150°	848.6	10.2
150°-160°	684.9	8.2
160°-170°	442.9	5.3
170°-180°	152.8	1.8
0°-30°	831.4	10.0
0°-40°	1347.2	16.2
0°-60°	2371.8	28.5
0°-90°	3176.1	38.2
90°-120°	1244.9	15.0
90°-150°	3865.3	46.4
90°-180°	5146.0	61.8
0°-180°	8322.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	62	107	136	148	14
95°	82	104	97	125	134	98
105°	360	383	414	435	442	382
115°	665	679	707	721	721	659
125°	940	948	969	981	983	839
135°	1170	1176	1181	1192	1190	901
145°	1355	1356	1356	1362	1360	847
155°	1491	1484	1486	1489	1480	686
165°	1573	1566	1567	1573	1565	444
175°	1609	1602	1603	1611	1602	153
180°	1609	1609	1609	1609	1609	



TEST NUMBER: P333456-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.6	41.7	49.7	57.7	65.8	74.0	82.4	90.9	99.3	107.7	113.5
90°	18.3	28.0	37.8	47.5	57.2	67.0	77.0	86.9	96.8	106.8	113.6
92.5°	33.7	39.3	44.8	50.4	55.9	63.7	73.6	83.5	93.4	103.4	110.0
95°	81.9	87.3	92.6	98.0	103.4	105.1	103.1	101.2	99.1	97.1	103.7
97.5°	154.6	161.5	168.5	175.5	182.5	179.9	167.8	155.7	143.5	131.4	128.9
100°	210.9	216.7	222.5	228.3	234.1	241.3	249.9	258.6	267.3	275.9	241.5
102.5°	268.2	273.9	279.5	285.1	290.7	297.5	305.6	313.6	321.7	329.8	327.1
105°	360.2	365.1	369.9	374.8	379.7	385.6	392.8	399.9	407.0	414.2	418.9
107.5°	455.7	459.0	462.2	465.5	468.7	474.0	481.4	488.8	496.1	503.5	508.3
110°	517.8	520.7	523.6	526.4	529.3	534.3	541.5	548.7	555.9	563.1	566.7



TEST NUMBER: P333456-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	577.0	580.0	582.9	585.8	588.7	593.6	600.3	607.1	613.9	620.7	624.0
115°	664.7	667.7	670.7	673.7	676.6	681.4	687.8	694.3	700.7	707.1	710.3
117.5°	755.4	756.5	757.5	758.6	759.6	763.6	770.4	777.3	784.1	791.0	793.6
120°	812.7	813.1	813.6	814.0	814.4	817.8	824.1	830.4	836.6	842.9	846.4
122.5°	862.4	863.7	865.1	866.4	867.8	871.2	876.9	882.6	888.2	893.8	897.1
125°	940.4	942.0	943.6	945.2	946.9	950.1	954.8	959.6	964.3	969.1	971.8
127.5°	1014.0	1015.1	1016.1	1017.2	1018.4	1020.7	1024.5	1028.3	1032.0	1035.7	1038.6
130°	1059.8	1060.9	1061.9	1063.0	1064.1	1066.4	1070.1	1073.6	1077.2	1080.9	1083.4
132.5°	1104.7	1106.2	1107.7	1109.2	1110.6	1112.4	1114.4	1116.3	1118.3	1120.3	1123.5
135°	1169.6	1170.9	1172.4	1173.7	1175.0	1176.2	1177.4	1178.5	1179.6	1180.8	1183.4
137.5°	1229.2	1230.4	1231.6	1232.8	1234.0	1234.8	1235.1	1235.4	1235.7	1236.1	1239.0
140°	1267.5	1268.0	1268.6	1269.1	1269.6	1269.9	1269.9	1269.9	1269.8	1269.8	1273.0
142.5°	1302.8	1303.0	1303.1	1303.2	1303.3	1303.6	1304.0	1304.4	1304.9	1305.3	1307.7
145°	1354.6	1354.9	1355.2	1355.4	1355.7	1355.9	1355.9	1355.9	1355.9	1355.9	1357.3
147.5°	1398.8	1398.7	1398.6	1398.5	1398.4	1398.5	1398.8	1399.2	1399.5	1399.8	1400.5
150°	1427.4	1426.9	1426.4	1425.8	1425.3	1425.3	1425.8	1426.4	1426.9	1427.4	1428.0
152.5°	1455.1	1454.0	1452.8	1451.6	1450.4	1450.1	1450.6	1451.2	1451.8	1452.2	1452.8
155°	1490.6	1489.1	1487.5	1485.9	1484.3	1483.8	1484.3	1484.8	1485.3	1485.9	1486.7
157.5°	1518.1	1517.1	1516.2	1515.2	1514.3	1513.8	1513.9	1513.9	1513.9	1514.0	1514.9
160°	1537.2	1535.6	1534.0	1532.4	1530.8	1530.1	1530.4	1530.7	1530.9	1531.2	1532.2
162.5°	1552.4	1550.9	1549.3	1547.6	1546.0	1545.4	1545.6	1545.9	1546.2	1546.4	1547.9
165°	1573.0	1571.4	1569.7	1568.1	1566.5	1565.9	1566.1	1566.5	1566.7	1566.9	1568.5
167.5°	1588.2	1586.6	1584.9	1583.3	1581.6	1581.0	1581.2	1581.4	1581.8	1582.0	1583.9
170°	1596.8	1594.9	1593.1	1591.2	1589.4	1588.6	1588.8	1589.1	1589.4	1589.6	1591.7
172.5°	1602.5	1600.7	1598.8	1597.0	1595.1	1594.4	1594.9	1595.4	1595.9	1596.3	1598.2
175°	1608.7	1607.1	1605.5	1603.9	1602.3	1601.7	1602.0	1602.2	1602.5	1602.7	1604.9
177.5°	1611.5	1610.3	1609.0	1607.7	1606.5	1605.9	1606.1	1606.4	1606.5	1606.8	1608.3
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7



TEST NUMBER: P333456-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	119.2	124.9	130.7	134.4	136.3	138.1	139.9	141.7
90°	120.3	127.1	134.0	138.6	141.0	143.5	145.9	148.4
92.5°	116.5	123.2	129.8	134.0	136.1	138.2	140.1	142.2
95°	110.3	116.8	123.3	127.5	129.1	130.8	132.5	134.1
97.5°	126.4	124.0	121.4	121.0	122.6	124.3	125.9	127.5
100°	206.9	172.5	138.0	120.9	121.3	121.6	122.0	122.4
102.5°	324.4	321.7	319.1	309.4	292.9	276.2	259.7	243.0
105°	423.7	428.4	433.2	436.3	437.7	439.1	440.5	441.9
107.5°	513.0	517.8	522.5	525.2	525.9	526.6	527.3	528.0
110°	570.5	574.2	577.9	580.7	582.7	584.6	586.5	588.4



TEST NUMBER: P333456-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	627.3	630.7	634.0	636.3	637.5	638.8	640.2	641.4
115°	713.6	716.8	720.0	721.5	721.4	721.2	721.0	720.9
117.5°	796.3	798.9	801.6	803.4	804.3	805.3	806.2	807.1
120°	849.9	853.4	856.9	858.7	858.8	858.9	859.0	859.1
122.5°	900.5	903.8	907.1	908.7	908.6	908.5	908.4	908.2
125°	974.5	977.3	980.0	981.6	982.0	982.4	982.8	983.2
127.5°	1041.6	1044.5	1047.4	1048.6	1048.1	1047.4	1046.9	1046.3
130°	1085.9	1088.5	1091.0	1092.2	1092.0	1091.9	1091.8	1091.6
132.5°	1126.6	1129.8	1133.0	1134.4	1134.1	1133.8	1133.5	1133.1
135°	1185.9	1188.5	1191.0	1192.1	1191.7	1191.3	1190.9	1190.5
137.5°	1241.9	1244.8	1247.8	1249.0	1248.6	1248.2	1247.7	1247.3
140°	1276.0	1279.2	1282.4	1283.6	1282.9	1282.3	1281.7	1281.0
142.5°	1310.0	1312.3	1314.6	1315.5	1314.9	1314.2	1313.6	1313.0
145°	1358.8	1360.3	1361.7	1362.1	1361.4	1360.8	1360.2	1359.5
147.5°	1401.1	1401.8	1402.6	1402.2	1400.7	1399.2	1397.7	1396.2
150°	1428.5	1429.0	1429.6	1428.9	1427.0	1425.1	1423.2	1421.3
152.5°	1453.3	1453.8	1454.4	1453.7	1451.8	1450.0	1448.1	1446.3
155°	1487.5	1488.3	1489.1	1488.4	1486.3	1484.2	1482.0	1479.9
157.5°	1515.7	1516.6	1517.4	1516.8	1514.7	1512.5	1510.4	1508.3
160°	1533.3	1534.4	1535.4	1534.9	1532.8	1530.7	1528.5	1526.5
162.5°	1549.4	1550.9	1552.4	1552.0	1549.7	1547.3	1545.0	1542.6
165°	1570.1	1571.8	1573.4	1573.0	1571.0	1568.8	1566.7	1564.6
167.5°	1585.8	1587.7	1589.6	1589.4	1587.0	1584.6	1582.2	1579.8
170°	1593.9	1596.0	1598.1	1598.0	1595.6	1593.2	1590.8	1588.4
172.5°	1600.1	1602.0	1603.9	1603.7	1601.3	1598.9	1596.6	1594.2
175°	1606.9	1609.1	1611.2	1611.1	1608.7	1606.3	1603.9	1601.6
177.5°	1609.8	1611.2	1612.7	1612.6	1610.9	1609.2	1607.5	1605.8
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7

(END OF REPORT)