

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: P333447-830

Luminaire Tested: **S125DIW-S1090D1050U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333447-830
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-S1090D1050U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH 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: 7612.3 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

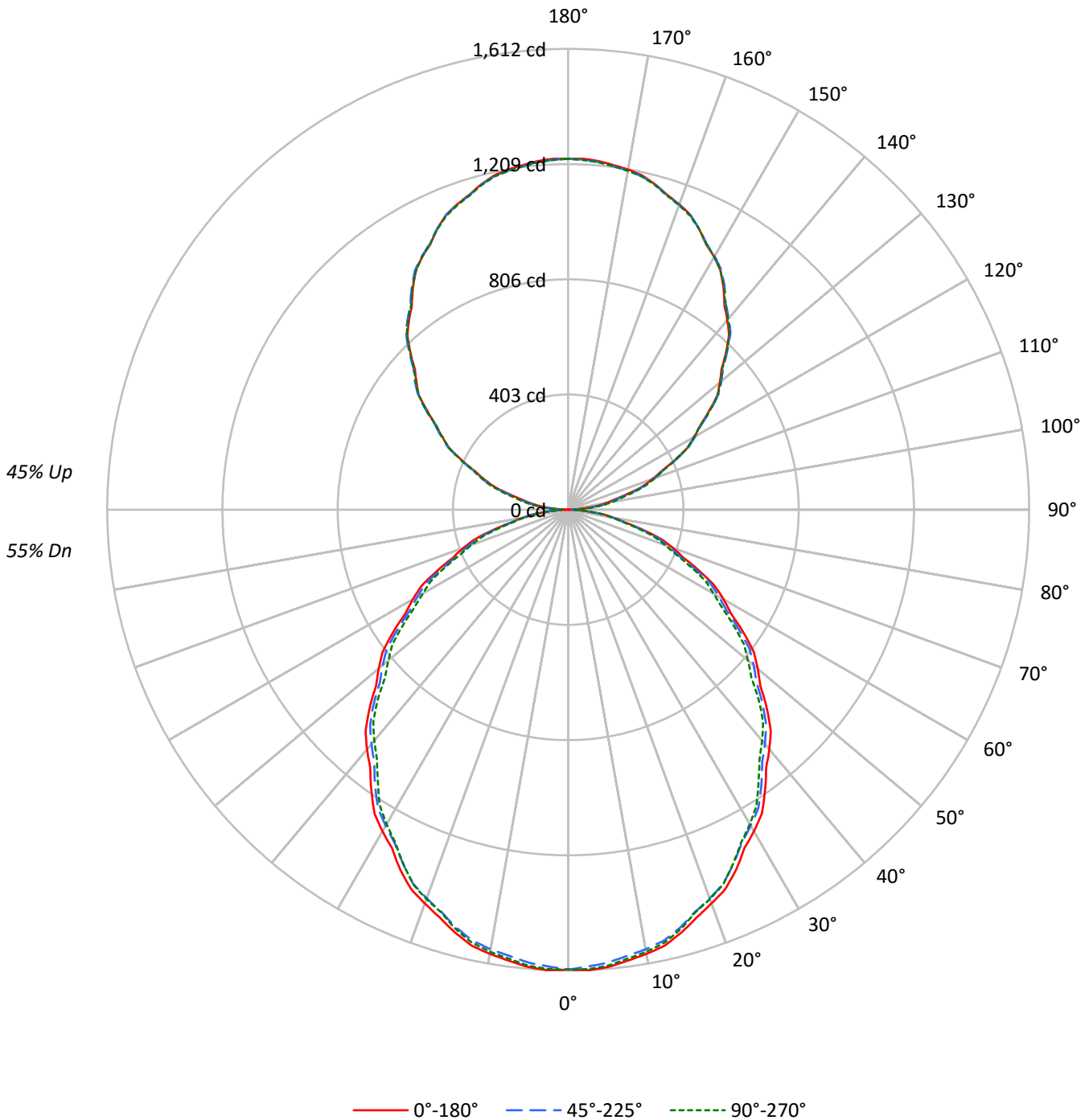
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	94	90	87	92	88	84	81	75	73	71	64	62	61	54	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39
3	82	72	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	27	24
6	64	51	43	37	59	48	41	35	42	36	32	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	21	19
8	55	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19	17
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17	15
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10388	10388	10388
5°	10410	10311	10377
10°	10347	10238	10297
15°	10235	10116	10158
20°	10074	9943	9961
25°	9902	9738	9729
30°	9688	9517	9470
35°	9460	9280	9150
40°	9226	9022	8893
45°	8972	8786	8611
50°	8694	8501	8246
55°	8425	8180	7952
60°	8103	7856	7576
65°	7719	7467	7213
70°	7353	7017	6775
75°	6697	6478	6253
80°	5962	5869	5724
85°	5180	5283	4994



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	2.0
10°-20°	428.4	5.6
20°-30°	632.5	8.3
30°-40°	738.0	9.7
40°-50°	741.2	9.7
50°-60°	650.7	8.5
60°-70°	484.8	6.4
70°-80°	277.2	3.6
80°-90°	83.3	1.1
90°-100°	82.2	1.1
100°-110°	242.7	3.2
110°-120°	411.1	5.4
120°-130°	541.1	7.1
130°-140°	606.3	8.0
140°-150°	594.2	7.8
150°-160°	499.1	6.6
160°-170°	331.7	4.4
170°-180°	116.1	1.5
0°-30°	1212.5	15.9
0°-40°	1950.5	25.6
0°-60°	3342.4	43.9
0°-90°	4187.8	55.0
90°-120°	736.0	9.7
90°-150°	2477.6	32.5
90°-180°	3424.0	45.0
0°-180°	7612.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1606	1603	1590	1601	1601	152
15°	1531	1526	1513	1519	1519	431
25°	1390	1383	1367	1369	1365	639
35°	1200	1194	1177	1170	1160	750
45°	982	977	962	947	943	757
55°	748	744	726	715	706	668
65°	505	502	489	477	472	501
75°	268	266	260	256	251	286
85°	70	71	71	70	67	78
90°	1	8	15	20	23	7
95°	62	64	74	80	82	66
105°	218	223	228	234	237	233
115°	412	415	417	416	416	407
125°	601	606	607	606	604	538
135°	781	787	788	788	784	602
145°	946	950	953	953	950	591
155°	1083	1083	1084	1087	1083	499
165°	1178	1176	1177	1180	1175	332
175°	1224	1221	1220	1226	1220	116
180°	1227	1227	1227	1227	1227	



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1612.4	1611.7	1611.0	1610.3	1609.7	1608.2	1605.9	1603.6	1601.4	1599.1	1601.4
5°	1605.8	1605.2	1604.7	1604.1	1603.5	1601.9	1599.0	1596.2	1593.4	1590.5	1593.1
7.5°	1591.0	1590.4	1589.9	1589.3	1588.7	1586.9	1583.8	1580.6	1577.5	1574.4	1577.0
10°	1577.8	1577.3	1576.7	1576.1	1575.6	1573.7	1570.6	1567.4	1564.3	1561.2	1563.5
12.5°	1561.5	1560.5	1559.4	1558.4	1557.5	1555.5	1552.6	1549.7	1546.8	1543.9	1545.8
15°	1530.7	1529.8	1529.0	1528.1	1527.3	1525.3	1522.2	1519.1	1516.0	1512.9	1514.3
17.5°	1495.3	1494.1	1492.8	1491.6	1490.3	1488.1	1484.9	1481.7	1478.5	1475.2	1477.0
20°	1465.8	1465.3	1464.7	1464.1	1463.6	1461.4	1457.7	1454.1	1450.4	1446.7	1448.7
22.5°	1436.2	1435.3	1434.3	1433.2	1432.2	1429.9	1426.5	1423.1	1419.7	1416.2	1417.5
25°	1389.5	1388.1	1386.7	1385.3	1383.8	1381.3	1377.6	1373.9	1370.3	1366.6	1367.2
27.5°	1334.7	1333.9	1333.0	1332.2	1331.3	1329.1	1325.2	1321.4	1317.7	1313.9	1314.0
30°	1299.1	1298.3	1297.4	1296.6	1295.7	1293.2	1288.9	1284.7	1280.4	1276.2	1275.6
32.5°	1260.5	1259.1	1257.8	1256.5	1255.3	1252.7	1248.9	1245.1	1241.3	1237.6	1236.5
35°	1199.9	1198.7	1197.6	1196.5	1195.3	1192.8	1188.8	1184.9	1180.9	1177.0	1175.5
37.5°	1137.0	1135.6	1134.2	1132.7	1131.3	1128.8	1125.0	1121.3	1117.6	1113.9	1111.7
40°	1094.3	1092.9	1091.5	1090.1	1088.6	1085.9	1081.9	1078.0	1074.0	1070.1	1067.5
42.5°	1048.5	1047.3	1046.1	1044.9	1043.7	1041.1	1037.2	1033.2	1029.3	1025.3	1022.9
45°	982.3	981.2	980.1	978.9	977.8	975.5	972.1	968.7	965.4	962.0	958.6
47.5°	911.1	911.1	911.2	911.3	911.3	909.3	905.2	901.1	897.0	893.0	889.5
50°	865.3	864.4	863.6	862.7	861.9	859.7	856.3	852.9	849.5	846.1	842.4
52.5°	818.4	817.7	817.2	816.5	816.0	813.8	810.2	806.5	803.0	799.3	796.1
55°	748.2	747.3	746.5	745.6	744.8	742.3	738.4	734.4	730.5	726.5	724.0
57.5°	674.1	673.6	673.3	672.8	672.3	670.4	667.0	663.7	660.4	657.0	653.7
60°	627.3	626.1	625.0	623.9	622.7	620.7	617.6	614.4	611.3	608.2	605.4
62.5°	578.4	577.5	576.6	575.7	574.9	573.1	570.3	567.7	565.1	562.4	559.3
65°	505.1	504.5	504.0	503.4	502.8	501.1	497.9	494.8	491.7	488.6	486.1
67.5°	434.1	432.9	431.8	430.6	429.4	427.6	425.3	423.0	420.7	418.4	416.2
70°	389.4	388.0	386.5	385.1	383.7	381.7	379.2	376.6	374.1	371.6	369.9
72.5°	340.5	339.5	338.6	337.6	336.7	335.4	333.8	332.1	330.5	328.8	326.9
75°	268.4	267.9	267.3	266.7	266.2	265.2	263.8	262.4	261.0	259.6	258.7
77.5°	202.1	201.8	201.6	201.4	201.1	200.7	199.8	199.1	198.3	197.5	197.0
80°	160.3	160.3	160.3	160.3	160.3	160.0	159.5	158.9	158.3	157.8	157.5
82.5°	123.7	123.2	122.8	122.3	121.9	121.6	121.5	121.4	121.2	121.1	120.6
85°	69.9	70.2	70.5	70.8	71.1	71.3	71.3	71.3	71.3	71.3	71.0
87.5°	27.7	28.0	28.4	28.7	29.0	29.2	29.3	29.4	29.4	29.5	29.7
90°	0.9	2.6	4.3	6.0	7.7	9.3	10.8	12.3	13.8	15.3	16.3
92.5°	23.1	24.3	25.4	26.7	27.9	29.4	31.2	33.0	34.9	36.7	38.1
95°	62.1	62.5	63.0	63.3	63.8	65.0	67.2	69.3	71.4	73.5	75.0
97.5°	103.1	103.3	103.5	103.7	103.9	105.4	108.3	111.2	114.1	117.1	118.5
100°	133.7	133.7	133.7	133.7	133.7	135.1	137.8	140.6	143.4	146.1	148.1
102.5°	166.5	167.4	168.2	169.1	169.9	171.1	172.5	173.9	175.3	176.7	178.8
105°	217.7	218.8	219.9	220.9	222.0	223.2	224.4	225.7	227.0	228.3	229.5
107.5°	274.3	275.3	276.4	277.5	278.5	279.6	280.5	281.5	282.5	283.4	284.1
110°	313.2	314.3	315.4	316.4	317.5	318.4	319.0	319.6	320.3	320.9	321.5



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.0	353.5	354.1	354.7	355.2	355.9	356.7	357.5	358.3	359.1	359.4
115°	411.6	412.5	413.3	414.2	415.0	415.7	416.0	416.5	416.9	417.4	417.2
117.5°	470.4	470.8	471.2	471.6	472.0	472.4	472.8	473.2	473.5	473.9	474.1
120°	507.1	508.2	509.3	510.3	511.3	512.0	512.2	512.5	512.6	512.8	512.8
122.5°	546.9	547.2	547.6	548.0	548.4	548.8	549.4	550.0	550.5	551.1	550.9
125°	600.7	602.0	603.2	604.5	605.8	606.5	606.8	607.0	607.2	607.4	607.0
127.5°	658.0	658.7	659.5	660.2	660.9	661.4	661.7	661.9	662.1	662.4	662.2
130°	692.4	693.4	694.6	695.6	696.6	697.4	697.9	698.2	698.7	699.1	698.9
132.5°	726.8	728.5	730.3	732.0	733.8	734.6	734.5	734.4	734.3	734.2	734.1
135°	781.2	782.5	783.7	785.0	786.4	787.0	787.3	787.5	787.7	787.9	787.9
137.5°	832.5	833.7	834.9	836.1	837.4	838.2	838.7	839.1	839.6	840.1	840.3
140°	865.3	866.3	867.4	868.5	869.5	870.3	871.0	871.7	872.2	872.9	873.4
142.5°	898.1	899.0	899.9	900.8	901.7	902.6	903.3	904.2	904.9	905.8	906.0
145°	946.4	947.3	948.1	949.0	949.8	950.6	951.2	951.9	952.5	953.1	953.1
147.5°	991.2	991.6	992.1	992.5	993.0	993.5	994.0	994.5	995.0	995.5	996.1
150°	1021.0	1020.8	1020.5	1020.3	1020.1	1020.4	1021.2	1022.1	1022.9	1023.8	1023.8
152.5°	1045.4	1045.7	1045.9	1046.3	1046.6	1046.9	1047.3	1047.5	1047.9	1048.3	1048.8
155°	1083.0	1083.0	1083.0	1083.0	1083.0	1083.1	1083.4	1083.5	1083.7	1084.0	1084.9
157.5°	1116.6	1116.2	1115.7	1115.2	1114.7	1114.7	1114.8	1115.0	1115.3	1115.5	1116.3
160°	1136.5	1135.9	1135.2	1134.6	1134.0	1133.8	1134.0	1134.2	1134.3	1134.6	1135.5
162.5°	1154.0	1153.6	1153.1	1152.6	1152.2	1152.0	1152.1	1152.1	1152.2	1152.2	1153.2
165°	1177.6	1177.1	1176.7	1176.3	1175.8	1175.7	1176.0	1176.2	1176.4	1176.6	1177.4
167.5°	1197.4	1196.6	1195.7	1194.9	1194.0	1193.6	1193.6	1193.6	1193.6	1193.6	1194.9
170°	1208.2	1207.3	1206.5	1205.6	1204.8	1204.3	1204.3	1204.3	1204.3	1204.3	1205.6
172.5°	1215.8	1214.9	1214.1	1213.2	1212.4	1211.9	1211.9	1211.9	1211.9	1211.9	1213.2
175°	1224.4	1223.5	1222.7	1221.8	1221.0	1220.5	1220.5	1220.5	1220.5	1220.5	1221.8
177.5°	1228.8	1228.0	1227.4	1226.7	1226.1	1225.6	1225.4	1225.3	1225.1	1224.9	1226.0
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1603.6	1605.9	1608.2	1609.2	1609.0	1608.7	1608.5	1608.4
5°	1595.6	1598.2	1600.7	1601.9	1601.6	1601.3	1601.0	1600.7
7.5°	1579.4	1582.0	1584.4	1585.5	1585.3	1585.0	1584.7	1584.4
10°	1565.8	1568.0	1570.3	1571.3	1571.0	1570.7	1570.5	1570.2
12.5°	1547.6	1549.4	1551.1	1552.1	1552.0	1551.9	1551.9	1551.8
15°	1515.7	1517.1	1518.5	1519.3	1519.3	1519.3	1519.3	1519.3
17.5°	1478.8	1480.5	1482.2	1482.4	1481.0	1479.6	1478.2	1476.8
20°	1450.7	1452.6	1454.6	1454.9	1453.5	1452.1	1450.7	1449.3
22.5°	1418.8	1420.1	1421.4	1421.5	1420.6	1419.7	1418.7	1417.7
25°	1367.7	1368.3	1368.9	1368.7	1367.8	1367.0	1366.1	1365.3
27.5°	1314.1	1314.2	1314.4	1314.0	1313.2	1312.3	1311.5	1310.6
30°	1275.1	1274.5	1273.9	1273.3	1272.4	1271.6	1270.7	1269.9
32.5°	1235.5	1234.4	1233.5	1232.2	1230.7	1229.2	1227.6	1226.1
35°	1174.1	1172.7	1171.3	1169.5	1167.2	1165.0	1162.7	1160.5
37.5°	1109.7	1107.6	1105.5	1103.8	1102.5	1101.2	1099.9	1098.6
40°	1065.0	1062.4	1059.9	1058.2	1057.3	1056.5	1055.6	1054.8
42.5°	1020.7	1018.3	1016.1	1014.2	1013.0	1011.6	1010.3	1009.0
45°	955.2	951.8	948.4	946.2	945.4	944.5	943.7	942.8
47.5°	886.1	882.6	879.2	876.5	874.5	872.5	870.5	868.6
50°	838.8	835.1	831.4	828.6	826.6	824.6	822.7	820.7
52.5°	792.9	789.7	786.5	783.7	781.5	779.3	777.1	774.9
55°	721.4	718.9	716.3	714.1	712.1	710.1	708.1	706.2
57.5°	650.5	647.2	643.9	641.8	640.7	639.6	638.6	637.4
60°	602.6	599.7	596.9	594.5	592.5	590.5	588.5	586.5
62.5°	556.3	553.3	550.2	547.9	546.4	544.9	543.3	541.8
65°	483.5	481.0	478.4	476.5	475.4	474.3	473.2	472.0
67.5°	414.1	411.9	409.7	408.3	407.6	407.0	406.3	405.7
70°	368.2	366.5	364.8	363.4	362.2	361.1	360.0	358.8
72.5°	325.0	323.0	321.1	319.6	318.5	317.4	316.2	315.1
75°	257.9	257.0	256.2	255.1	254.0	252.9	251.8	250.6
77.5°	196.4	196.0	195.5	194.8	194.0	193.2	192.4	191.6
80°	157.2	156.9	156.7	156.2	155.6	155.0	154.5	153.9
82.5°	120.1	119.6	119.1	118.8	118.7	118.6	118.5	118.3
85°	70.7	70.4	70.1	69.7	69.1	68.5	68.0	67.4
87.5°	30.0	30.2	30.3	30.3	30.0	29.7	29.3	29.0
90°	17.4	18.5	19.5	20.4	21.0	21.7	22.2	22.9
92.5°	39.5	40.9	42.3	43.2	43.6	44.1	44.6	45.1
95°	76.5	77.9	79.5	80.4	80.9	81.2	81.7	82.1
97.5°	119.9	121.3	122.7	123.5	123.8	124.0	124.3	124.5
100°	150.0	151.8	153.7	155.0	155.3	155.8	156.2	156.7
102.5°	180.9	182.9	185.0	186.3	186.9	187.6	188.1	188.7
105°	230.8	232.1	233.4	234.3	235.0	235.5	236.2	236.9
107.5°	284.7	285.4	286.0	286.3	286.3	286.3	286.2	286.2
110°	322.2	322.8	323.5	323.7	323.5	323.2	323.0	322.8



TEST NUMBER: P333447-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	359.7	360.0	360.2	360.2	359.9	359.5	359.1	358.7
115°	416.9	416.7	416.5	416.3	416.0	415.8	415.7	415.5
117.5°	474.2	474.4	474.6	474.2	473.3	472.5	471.6	470.8
120°	512.8	512.8	512.8	512.5	511.6	510.8	509.9	509.1
122.5°	550.7	550.5	550.4	550.0	549.3	548.6	547.9	547.2
125°	606.5	606.1	605.7	605.4	605.2	604.9	604.7	604.5
127.5°	661.9	661.8	661.6	661.3	660.8	660.4	660.0	659.6
130°	698.7	698.4	698.2	698.0	697.5	697.1	696.6	696.3
132.5°	733.8	733.6	733.4	733.0	732.4	731.8	731.2	730.6
135°	787.9	787.9	787.9	787.5	786.6	785.8	784.9	784.1
137.5°	840.6	840.8	841.0	840.7	839.6	838.6	837.4	836.4
140°	873.7	874.2	874.6	874.3	873.3	872.1	871.1	870.1
142.5°	906.3	906.5	906.8	906.3	905.3	904.3	903.2	902.1
145°	953.1	953.1	953.1	952.8	952.2	951.5	950.9	950.3
147.5°	996.6	997.0	997.6	997.1	995.7	994.2	992.8	991.4
150°	1023.8	1023.8	1023.8	1023.6	1023.1	1022.8	1022.3	1021.9
152.5°	1049.2	1049.8	1050.3	1050.2	1049.4	1048.7	1047.8	1047.1
155°	1085.7	1086.6	1087.4	1087.2	1086.2	1085.1	1084.1	1083.0
157.5°	1117.2	1118.0	1118.9	1118.6	1117.2	1115.8	1114.4	1113.0
160°	1136.3	1137.2	1138.0	1137.8	1136.8	1135.8	1134.7	1133.6
162.5°	1154.2	1155.2	1156.2	1156.1	1154.9	1153.7	1152.4	1151.2
165°	1178.3	1179.1	1180.0	1179.8	1178.6	1177.2	1176.0	1174.7
167.5°	1196.2	1197.4	1198.7	1198.7	1197.4	1196.1	1194.8	1193.4
170°	1206.8	1208.2	1209.4	1209.3	1207.8	1206.4	1204.9	1203.3
172.5°	1214.5	1215.8	1217.0	1217.0	1215.7	1214.4	1213.1	1211.7
175°	1223.0	1224.4	1225.7	1225.5	1224.1	1222.6	1221.1	1219.6
177.5°	1227.0	1228.0	1229.0	1228.9	1227.8	1226.5	1225.4	1224.2
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2

(END OF REPORT)