

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: P333293-830

Luminaire Tested: **S125DIP-S1090D1205U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

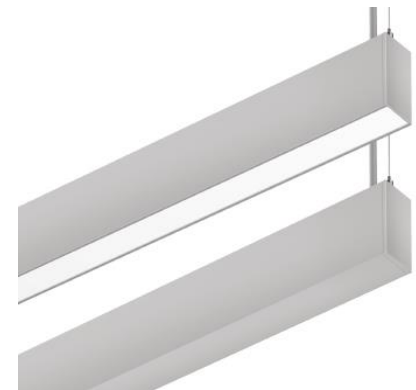
Test Information

Test Method: LM-79-08
Report Number: P333293-830
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: S125DIP-S1090D1205U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8115.5 lumens
Efficiency: N/A
Efficacy: 124.1 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

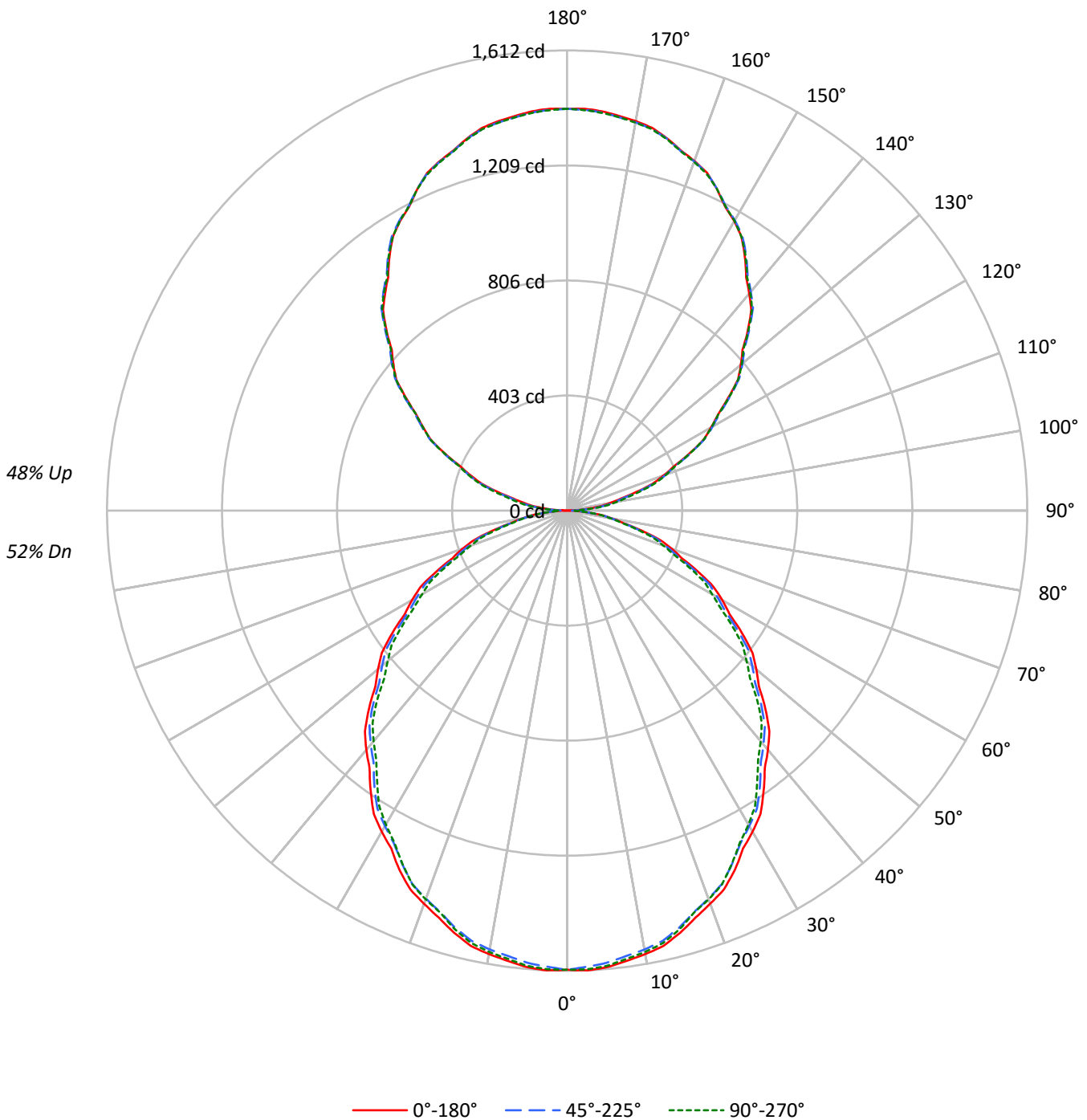
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	94	90	86	91	87	83	80	74	71	69	62	60	58	51	50	49	43
2	89	82	76	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	40	37	35	31
4	74	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	26	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	31	25	46	36	29	24	31	25	22	27	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	25	20	17	21	17	15	13

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	1.9
10°-20°	428.4	5.3
20°-30°	632.5	7.8
30°-40°	738.0	9.1
40°-50°	741.2	9.1
50°-60°	650.7	8.0
60°-70°	484.8	6.0
70°-80°	277.2	3.4
80°-90°	83.7	1.0
90°-100°	94.3	1.2
100°-110°	278.4	3.4
110°-120°	471.5	5.8
120°-130°	620.5	7.6
130°-140°	695.3	8.6
140°-150°	681.4	8.4
150°-160°	572.4	7.1
160°-170°	380.5	4.7
170°-180°	133.1	1.6
0°-30°	1212.5	14.9
0°-40°	1950.5	24.0
0°-60°	3342.4	41.2
0°-90°	4188.2	51.6
90°-120°	844.1	10.4
90°-150°	2841.4	35.0
90°-180°	3927.0	48.4
0°-180°	8115.5	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	10	18	23	26	8
95°	71	74	84	92	94	76
105°	250	255	262	268	272	267
115°	472	476	479	478	476	467
125°	689	695	697	694	693	617
135°	896	902	904	903	899	690
145°	1085	1090	1093	1093	1090	678
155°	1242	1242	1243	1247	1242	572
165°	1350	1348	1349	1353	1347	381
175°	1404	1400	1400	1406	1399	133
180°	1407	1407	1407	1407	1407	



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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	28.1	28.5	28.8	29.2	29.5	29.6	29.8	29.9	30.0	30.3
90°	1.1	3.0	5.0	7.0	8.9	10.7	12.4	14.1	15.8	17.5	18.8
92.5°	26.5	27.9	29.2	30.6	32.0	33.6	35.8	37.9	40.0	42.0	43.6
95°	71.2	71.6	72.2	72.7	73.1	74.6	77.0	79.5	81.9	84.4	86.1
97.5°	118.3	118.5	118.7	118.9	119.0	120.8	124.2	127.5	130.9	134.3	135.9
100°	153.4	153.4	153.4	153.4	153.4	155.0	158.1	161.3	164.4	167.6	169.8
102.5°	191.1	192.0	192.9	194.0	194.9	196.2	197.8	199.4	201.0	202.6	205.0
105°	249.7	250.9	252.1	253.4	254.6	255.9	257.4	258.8	260.3	261.7	263.3
107.5°	314.5	315.8	317.0	318.2	319.4	320.6	321.7	322.8	324.0	325.1	325.8
110°	359.3	360.4	361.7	362.9	364.1	365.0	365.8	366.6	367.3	368.0	368.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	404.8	405.5	406.0	406.7	407.4	408.1	409.1	410.0	410.9	411.8	412.2
115°	472.0	473.1	474.0	474.9	476.0	476.6	477.2	477.7	478.2	478.6	478.4
117.5°	539.5	540.0	540.5	540.8	541.3	541.7	542.2	542.6	543.0	543.5	543.7
120°	581.5	582.8	584.0	585.2	586.4	587.2	587.4	587.7	588.0	588.1	588.1
122.5°	627.2	627.6	628.0	628.5	628.9	629.4	630.1	630.7	631.3	632.0	631.8
125°	688.9	690.4	691.8	693.3	694.7	695.6	695.9	696.1	696.4	696.6	696.1
127.5°	754.7	755.4	756.3	757.1	758.0	758.6	758.8	759.1	759.4	759.7	759.4
130°	794.1	795.3	796.5	797.8	798.9	799.8	800.3	800.8	801.3	801.7	801.5
132.5°	833.5	835.5	837.5	839.5	841.5	842.4	842.4	842.3	842.2	842.1	841.8
135°	896.0	897.4	898.9	900.3	901.8	902.7	902.9	903.1	903.3	903.6	903.6
137.5°	954.6	956.0	957.4	958.8	960.3	961.3	961.8	962.3	962.9	963.4	963.7
140°	992.3	993.5	994.8	996.0	997.2	998.2	998.9	999.7	1000.3	1001.1	1001.5
142.5°	1030.0	1031.0	1032.1	1033.0	1034.1	1035.1	1035.9	1036.9	1037.8	1038.8	1039.1
145°	1085.4	1086.4	1087.4	1088.4	1089.3	1090.1	1090.9	1091.7	1092.3	1093.1	1093.1
147.5°	1136.7	1137.2	1137.7	1138.3	1138.8	1139.3	1140.0	1140.6	1141.1	1141.7	1142.3
150°	1170.8	1170.6	1170.4	1170.2	1169.9	1170.3	1171.2	1172.1	1173.2	1174.1	1174.1
152.5°	1198.9	1199.2	1199.6	1200.0	1200.2	1200.6	1201.0	1201.4	1201.8	1202.2	1202.8
155°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.2	1242.5	1242.6	1242.9	1243.1	1244.2
157.5°	1280.6	1280.1	1279.5	1279.0	1278.5	1278.3	1278.6	1278.8	1279.0	1279.3	1280.3
160°	1303.3	1302.7	1301.9	1301.2	1300.4	1300.2	1300.4	1300.7	1301.0	1301.2	1302.1
162.5°	1323.5	1323.0	1322.5	1321.9	1321.4	1321.2	1321.2	1321.3	1321.3	1321.4	1322.5
165°	1350.5	1350.0	1349.5	1349.1	1348.5	1348.4	1348.7	1348.9	1349.2	1349.3	1350.4
167.5°	1373.3	1372.2	1371.3	1370.4	1369.3	1368.9	1368.9	1368.9	1368.9	1368.9	1370.4
170°	1385.5	1384.6	1383.6	1382.6	1381.7	1381.1	1381.1	1381.1	1381.1	1381.1	1382.6
172.5°	1394.3	1393.4	1392.3	1391.4	1390.4	1389.9	1389.9	1389.9	1389.9	1389.9	1391.4
175°	1404.1	1403.2	1402.2	1401.2	1400.2	1399.8	1399.8	1399.8	1399.8	1399.8	1401.2
177.5°	1409.2	1408.4	1407.6	1406.8	1406.1	1405.6	1405.4	1405.2	1405.0	1404.8	1406.0
180°	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4



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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°	30.4	30.7	30.9	30.9	30.6	30.3	30.0	29.7
90°	20.0	21.2	22.4	23.4	24.1	24.8	25.5	26.3
92.5°	45.2	46.8	48.4	49.6	50.0	50.6	51.2	51.7
95°	87.8	89.4	91.1	92.3	92.7	93.2	93.7	94.2
97.5°	137.5	139.1	140.7	141.7	141.9	142.2	142.5	142.8
100°	171.9	174.2	176.3	177.7	178.1	178.6	179.2	179.6
102.5°	207.4	209.8	212.2	213.7	214.4	215.1	215.7	216.4
105°	264.7	266.2	267.6	268.7	269.5	270.1	270.9	271.6
107.5°	326.5	327.3	328.0	328.4	328.3	328.3	328.2	328.1
110°	369.5	370.2	370.9	371.2	370.9	370.7	370.4	370.2



TEST NUMBER: P333293-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	412.6	412.8	413.2	413.1	412.7	412.3	411.8	411.4
115°	478.2	477.9	477.7	477.4	477.2	476.9	476.6	476.5
117.5°	543.8	544.0	544.2	543.8	542.9	542.0	540.9	540.0
120°	588.1	588.1	588.1	587.7	586.7	585.7	584.8	583.8
122.5°	631.6	631.4	631.2	630.7	629.9	629.1	628.4	627.6
125°	695.6	695.1	694.7	694.3	694.1	693.8	693.5	693.3
127.5°	759.2	758.9	758.7	758.4	757.9	757.3	756.9	756.4
130°	801.3	801.0	800.8	800.4	799.9	799.5	798.9	798.4
132.5°	841.6	841.3	841.0	840.7	839.9	839.2	838.6	837.9
135°	903.6	903.6	903.6	903.1	902.1	901.2	900.2	899.2
137.5°	964.0	964.3	964.6	964.1	962.9	961.7	960.5	959.2
140°	1002.0	1002.6	1003.1	1002.7	1001.5	1000.2	999.0	997.8
142.5°	1039.3	1039.6	1039.9	1039.4	1038.2	1037.1	1035.9	1034.6
145°	1093.1	1093.1	1093.1	1092.7	1092.0	1091.3	1090.5	1089.8
147.5°	1142.9	1143.5	1144.1	1143.5	1141.9	1140.2	1138.6	1136.9
150°	1174.1	1174.1	1174.1	1173.9	1173.4	1172.9	1172.4	1172.0
152.5°	1203.3	1203.9	1204.5	1204.4	1203.5	1202.6	1201.7	1200.9
155°	1245.1	1246.0	1247.1	1246.9	1245.7	1244.4	1243.3	1242.1
157.5°	1281.2	1282.2	1283.2	1282.9	1281.3	1279.7	1278.1	1276.5
160°	1303.2	1304.1	1305.0	1305.0	1303.7	1302.5	1301.3	1300.1
162.5°	1323.7	1324.8	1326.1	1325.9	1324.5	1323.0	1321.6	1320.2
165°	1351.3	1352.3	1353.3	1353.0	1351.6	1350.1	1348.7	1347.2
167.5°	1371.8	1373.3	1374.7	1374.7	1373.2	1371.7	1370.2	1368.7
170°	1384.0	1385.5	1387.0	1386.9	1385.2	1383.5	1381.8	1380.1
172.5°	1392.8	1394.3	1395.7	1395.7	1394.2	1392.7	1391.2	1389.7
175°	1402.7	1404.1	1405.6	1405.5	1403.8	1402.1	1400.3	1398.6
177.5°	1407.1	1408.3	1409.5	1409.4	1408.1	1406.7	1405.3	1403.9
180°	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4

(END OF REPORT)