

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: P333294-830

Luminaire Tested: **S125DIP-S1090D1205U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333294-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
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-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8261.8 lumens
Efficiency: N/A
Efficacy: 126.3 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

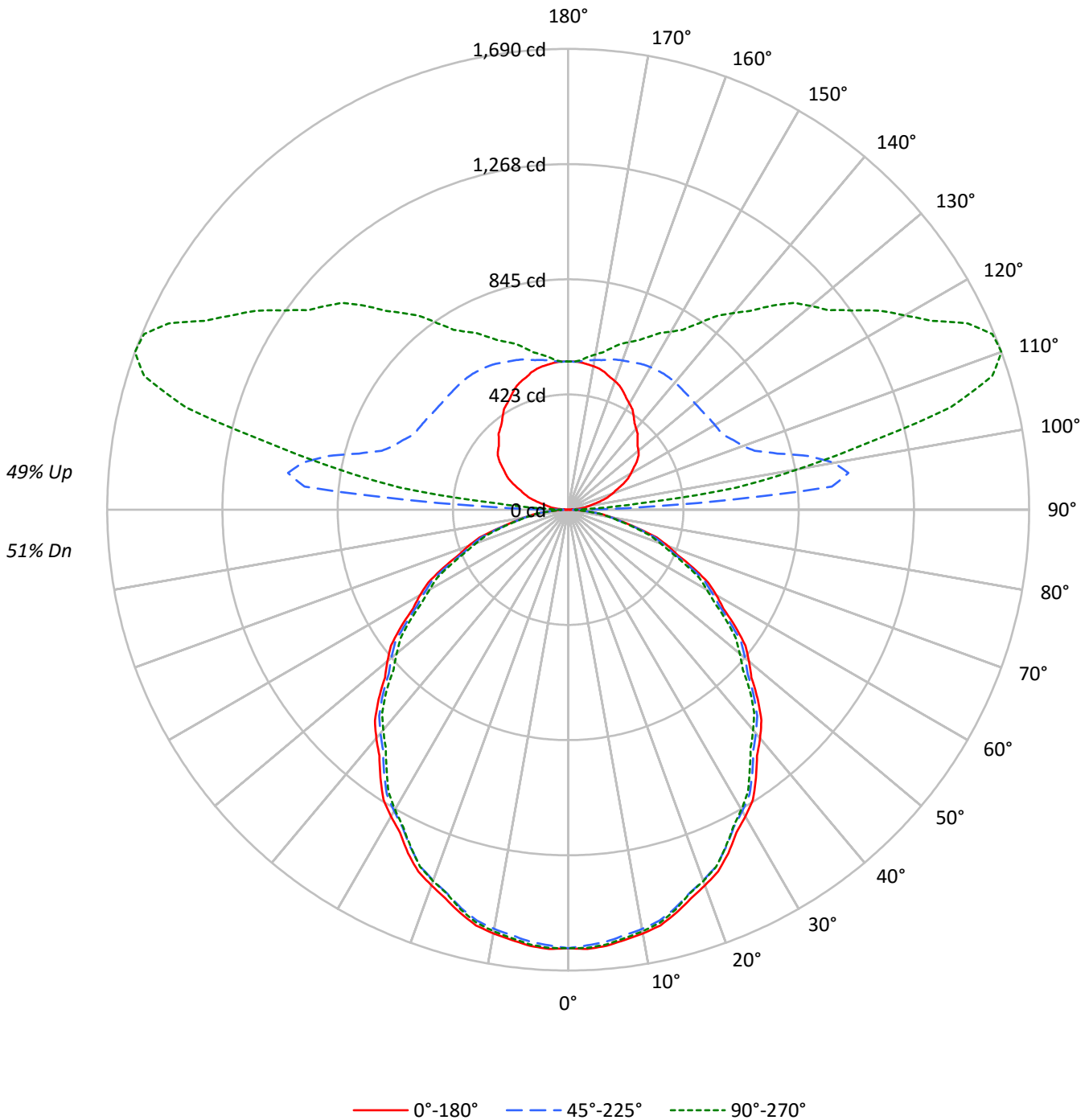
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	86	83	80	73	71	69	61	59	58	50	49	48	43
2	89	82	75	70	82	76	70	66	64	60	57	54	51	48	44	42	40	36
3	81	72	64	58	75	66	60	55	57	52	48	47	44	41	39	36	34	30
4	74	63	56	49	68	59	52	46	50	45	41	42	38	35	35	32	29	26
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	28	25	23	20
7	58	46	38	32	53	43	35	30	37	31	27	31	27	23	26	23	20	17
8	54	42	34	28	50	39	32	27	33	28	24	29	24	21	24	20	18	16
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	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	1.8
10°-20°	428.4	5.2
20°-30°	632.5	7.7
30°-40°	738.0	8.9
40°-50°	741.2	9.0
50°-60°	650.7	7.9
60°-70°	484.8	5.9
70°-80°	277.2	3.4
80°-90°	83.7	1.0
90°-100°	393.7	4.8
100°-110°	846.4	10.2
110°-120°	794.4	9.6
120°-130°	643.8	7.8
130°-140°	516.6	6.3
140°-150°	389.9	4.7
150°-160°	274.4	3.3
160°-170°	161.8	2.0
170°-180°	52.6	0.6
0°-30°	1212.5	14.7
0°-40°	1950.5	23.6
0°-60°	3342.4	40.5
0°-90°	4188.1	50.7
90°-120°	2034.5	24.6
90°-150°	3584.8	43.4
90°-180°	4074.0	49.3
0°-180°	8261.8	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	25	6
95°	36	107	970	440	257	38
105°	124	173	794	1563	1451	130
115°	221	267	637	1374	1616	218
125°	307	359	611	1093	1274	272
135°	359	432	607	916	1058	279
145°	418	479	609	758	834	262
155°	478	514	594	671	700	220
165°	521	536	570	604	613	147
175°	542	542	546	553	551	51
180°	543	543	543	543	543	



TEST NUMBER: P333294-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-F4

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	27.9	28.4	28.8	29.2	29.6	29.6	29.8	29.8	30.0	30.2
90°	1.1	2.2	4.3	6.6	8.8	10.9	12.1	14.2	15.4	17.5	18.7
92.5°	13.4	16.2	25.4	39.0	57.9	89.8	149.6	250.0	358.8	353.1	285.9
95°	36.1	37.2	46.0	58.1	82.1	131.4	248.6	489.6	791.8	970.3	949.5
97.5°	60.0	61.4	67.5	79.6	101.2	136.7	214.2	390.8	707.1	1036.2	1201.5
100°	76.6	78.9	83.2	95.3	116.1	148.9	212.4	354.9	630.8	988.9	1262.7
102.5°	95.1	96.4	99.9	112.8	131.9	163.8	220.4	340.0	573.0	905.7	1226.0
105°	123.8	123.8	129.2	140.2	157.7	188.4	236.6	334.0	516.9	794.0	1108.3
107.5°	151.7	154.0	159.2	168.2	186.4	214.0	260.6	344.1	493.2	717.1	988.4
110°	171.9	174.2	178.5	188.4	204.8	233.3	278.1	353.7	486.3	681.2	919.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.1	194.3	197.7	207.6	224.0	251.7	294.8	366.0	486.3	660.2	869.1
115°	221.2	223.4	226.7	236.6	253.0	280.4	320.9	384.4	489.6	637.4	813.7
117.5°	247.5	250.8	254.3	264.2	282.8	309.2	347.6	405.5	496.8	626.2	780.6
120°	265.0	268.3	272.7	282.6	301.1	328.6	366.9	419.4	503.8	620.9	762.2
122.5°	283.4	285.9	289.4	299.2	319.6	346.9	385.3	435.3	509.9	616.6	746.5
125°	306.6	308.9	314.3	324.1	345.0	373.4	409.6	456.7	520.2	611.1	725.0
127.5°	324.8	328.1	335.2	347.6	369.8	398.2	433.0	476.5	531.8	608.5	705.3
130°	336.2	339.5	348.3	362.5	385.5	414.0	447.9	489.6	538.9	606.7	692.2
132.5°	345.0	349.1	359.7	375.7	399.5	428.0	461.9	501.0	546.7	606.7	681.6
135°	359.2	363.6	376.7	394.3	417.3	446.9	480.8	516.9	557.4	606.7	669.2
137.5°	377.2	380.5	392.8	410.3	432.8	463.3	494.2	528.8	567.3	608.0	658.0
140°	387.7	391.0	404.2	421.7	442.4	472.0	503.8	536.7	571.7	608.9	652.7
142.5°	399.9	402.4	414.6	432.2	452.1	479.9	509.9	541.0	574.3	609.8	648.4
145°	418.4	420.6	431.5	446.9	466.6	491.7	520.2	547.6	577.2	608.9	641.8
147.5°	437.6	438.9	448.4	462.6	479.7	501.8	526.8	551.6	578.2	606.1	635.0
150°	449.0	451.2	458.9	473.2	488.4	507.1	531.1	554.2	578.2	603.4	629.7
152.5°	461.3	462.6	469.4	481.9	496.3	513.2	535.6	555.9	577.4	599.9	623.6
155°	477.5	477.5	484.1	495.0	506.0	521.3	539.9	557.4	575.0	593.6	613.3
157.5°	492.0	491.7	497.0	506.4	516.0	527.6	543.7	558.6	572.1	587.0	603.7
160°	501.6	500.5	504.9	512.6	521.3	531.1	545.4	558.6	569.5	582.7	595.8
162.5°	509.4	508.4	512.7	519.5	526.6	534.7	547.1	557.7	566.8	577.4	588.8
165°	521.3	519.2	522.5	527.9	532.3	538.9	547.6	556.4	562.9	569.5	578.2
167.5°	529.2	528.1	530.1	533.1	536.2	540.4	547.6	553.7	556.8	561.8	568.0
170°	534.4	533.4	534.4	536.7	538.9	542.2	547.6	552.0	554.2	557.4	561.8
172.5°	538.0	536.0	537.1	539.2	540.5	542.2	546.7	550.3	550.6	552.2	555.7
175°	542.2	539.9	541.0	542.2	542.2	542.2	545.4	547.6	546.5	546.5	547.6
177.5°	544.1	542.3	542.3	543.2	542.3	542.3	544.1	545.0	543.2	543.2	544.1
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2



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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	30.6	30.8	31.1	30.6	30.2	29.9	29.5
90°	19.7	20.8	21.9	24.1	24.1	24.1	25.2	25.2
92.5°	194.1	140.8	106.0	89.8	75.8	73.1	71.6	69.8
95°	787.4	620.9	486.3	394.3	316.5	283.6	274.9	257.4
97.5°	1172.7	1056.0	924.8	796.8	729.2	667.9	636.1	622.1
100°	1347.1	1293.5	1180.6	1066.7	991.2	912.3	871.8	854.2
102.5°	1405.8	1438.9	1384.8	1307.7	1226.8	1170.7	1126.7	1113.6
105°	1371.2	1521.3	1569.4	1557.4	1522.3	1486.2	1464.2	1451.1
107.5°	1247.6	1447.8	1571.6	1628.8	1646.5	1646.3	1639.1	1630.3
110°	1156.5	1364.6	1519.0	1612.1	1661.4	1682.2	1689.9	1689.9



TEST NUMBER: P333294-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1084.7	1282.2	1438.4	1548.1	1620.2	1656.0	1675.0	1682.9
115°	994.5	1164.2	1314.2	1433.6	1519.0	1571.6	1602.2	1616.5
117.5°	936.1	1082.5	1211.7	1321.3	1406.7	1461.0	1491.5	1500.2
120°	904.7	1036.0	1156.5	1252.9	1334.0	1386.5	1416.1	1424.8
122.5°	881.0	1002.8	1110.1	1200.3	1272.6	1320.8	1350.4	1358.3
125°	846.6	958.3	1053.6	1132.5	1193.7	1238.7	1262.7	1273.8
127.5°	811.5	915.8	1004.8	1078.6	1134.2	1173.8	1196.7	1201.5
130°	789.7	886.0	971.5	1042.6	1097.4	1133.5	1155.5	1162.0
132.5°	767.7	858.0	935.5	1004.1	1058.9	1095.0	1115.1	1122.6
135°	739.2	814.8	885.0	947.3	995.5	1031.7	1051.4	1058.0
137.5°	715.2	776.3	834.5	887.6	930.7	963.6	981.8	988.9
140°	702.0	753.5	803.9	849.9	890.4	918.9	935.3	940.8
142.5°	690.6	734.2	777.6	817.5	851.9	875.9	891.5	896.1
145°	675.7	709.6	743.7	773.2	799.5	818.1	830.2	834.5
147.5°	661.8	689.3	715.4	737.7	758.6	773.5	780.4	782.4
150°	653.8	678.0	698.7	718.4	734.9	748.0	752.4	753.5
152.5°	645.1	666.6	685.6	701.0	714.7	725.2	729.6	730.8
155°	631.9	649.4	664.8	676.8	687.8	695.4	698.7	699.8
157.5°	618.8	633.2	645.1	654.5	663.0	669.4	672.4	672.2
160°	610.0	620.9	631.9	639.6	647.2	652.7	655.0	653.8
162.5°	600.4	610.5	619.6	626.4	632.4	637.0	637.4	637.2
165°	587.0	594.7	601.2	606.7	611.1	613.3	613.3	613.3
167.5°	574.3	579.4	584.4	588.3	590.5	592.5	591.6	591.4
170°	567.3	570.6	573.9	576.1	578.2	579.4	579.4	578.2
172.5°	559.4	562.7	565.1	566.5	566.8	568.8	567.1	566.0
175°	550.9	550.9	553.1	553.1	553.1	554.2	552.0	550.9
177.5°	545.0	545.8	545.8	545.8	545.0	545.8	543.2	543.2
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2

(END OF REPORT)