

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: P333266

Luminaire Tested: **S125DIP-S1090D590U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333266  
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-S1090D590U835-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6487.4 lumens  
Efficiency: N/A  
Efficacy: 132.9 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: Semi-Direct

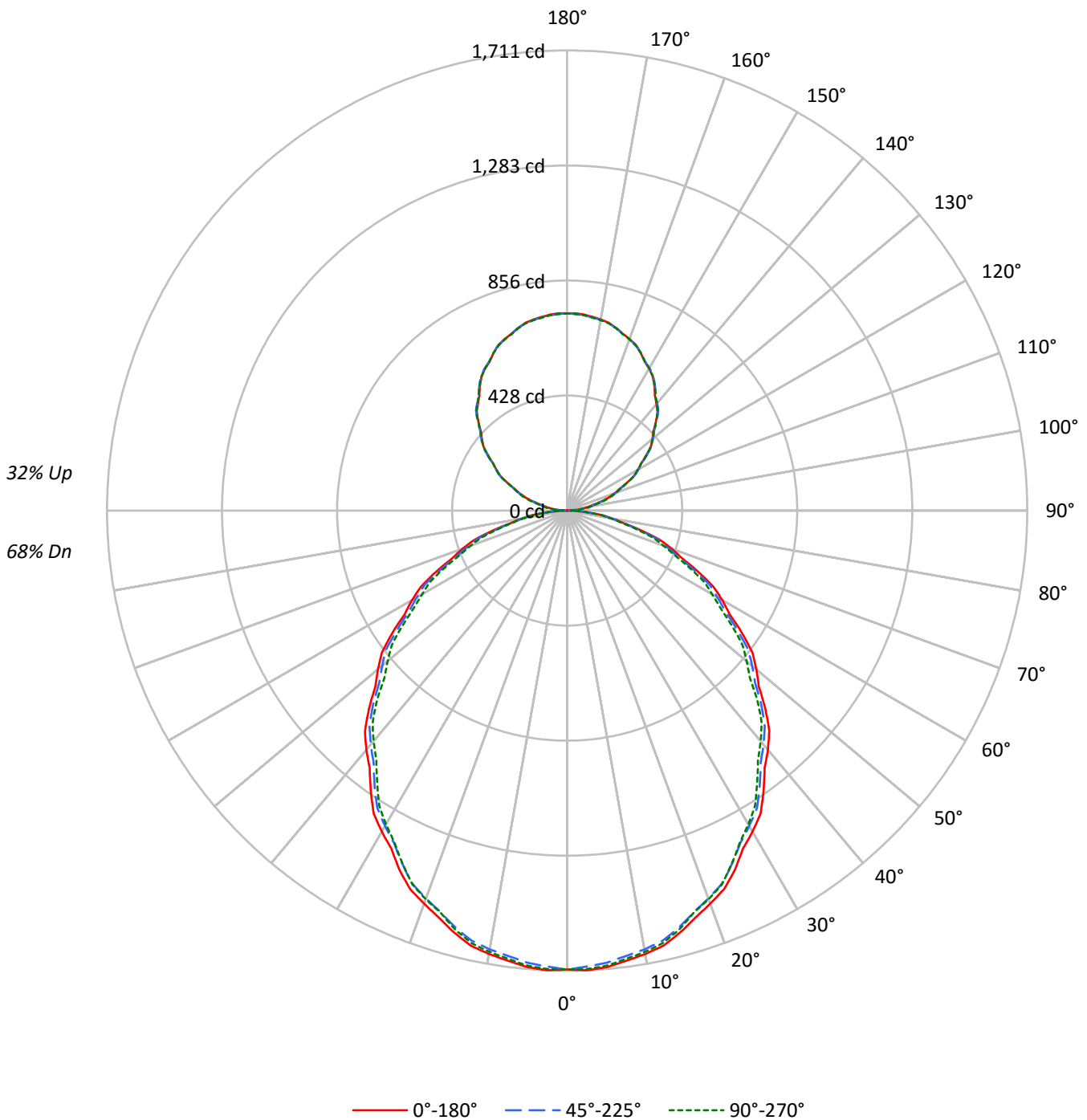
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	68
1	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	62	57
2	93	85	79	73	87	80	75	70	72	67	64	64	61	58	57	54	52	48
3	85	75	67	61	80	71	64	58	63	58	53	57	52	49	50	47	44	41
4	77	66	58	52	73	63	55	50	56	50	46	50	46	42	45	41	38	35
5	71	59	51	44	67	56	48	43	51	44	39	45	40	36	40	36	33	30
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29	27
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	34	29	26	24
8	56	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23	21
9	53	40	32	27	50	38	31	26	35	29	24	32	26	23	28	24	21	19
10	49	37	29	24	47	35	28	24	32	26	22	29	24	21	26	22	19	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11021	11021	11021
5°	11045	10940	11010
10°	10978	10863	10925
15°	10858	10732	10777
20°	10689	10549	10568
25°	10505	10332	10322
30°	10279	10097	10047
35°	10037	9845	9707
40°	9788	9571	9435
45°	9519	9322	9136
50°	9224	9020	8748
55°	8938	8679	8436
60°	8596	8335	8038
65°	8189	7922	7653
70°	7801	7444	7189
75°	7107	6872	6635
80°	6326	6226	6073
85°	5498	5602	5298



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.9	2.5
10°-20°	454.5	7.0
20°-30°	671.0	10.3
30°-40°	783.0	12.1
40°-50°	786.4	12.1
50°-60°	690.3	10.6
60°-70°	514.4	7.9
70°-80°	294.1	4.5
80°-90°	87.2	1.3
90°-100°	49.1	0.8
100°-110°	145.0	2.2
110°-120°	245.6	3.8
120°-130°	323.2	5.0
130°-140°	362.1	5.6
140°-150°	354.9	5.5
150°-160°	298.1	4.6
160°-170°	198.2	3.1
170°-180°	69.4	1.1
0°-30°	1286.4	19.8
0°-40°	2069.4	31.9
0°-60°	3546.2	54.7
0°-90°	4441.8	68.5
90°-120°	439.7	6.8
90°-150°	1479.9	22.8
90°-180°	2046.0	31.5
0°-180°	6487.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1700	1688	1699	1698	162
15°	1624	1619	1605	1612	1612	458
25°	1474	1467	1450	1452	1448	678
35°	1273	1267	1249	1242	1231	796
45°	1042	1036	1021	1005	1000	803
55°	794	789	771	759	749	708
65°	536	533	518	507	501	532
75°	285	282	275	271	266	304
85°	74	76	76	74	72	83
90°	1	5	9	12	14	6
95°	37	38	44	48	49	40
105°	130	133	136	140	142	139
115°	246	248	249	249	248	243
125°	359	362	363	362	361	321
135°	467	470	471	470	468	360
145°	565	568	569	569	568	353
155°	647	647	648	650	647	298
165°	703	702	703	705	702	198
175°	731	729	729	732	728	69
180°	733	733	733	733	733	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1710.7	1710.0	1709.2	1708.5	1707.8	1706.2	1703.8	1701.4	1699.0	1696.6	1699.0
5°	1703.7	1703.1	1702.5	1701.9	1701.3	1699.5	1696.5	1693.5	1690.5	1687.5	1690.2
7.5°	1688.0	1687.4	1686.8	1686.2	1685.6	1683.6	1680.3	1677.0	1673.7	1670.4	1673.1
10°	1674.0	1673.4	1672.8	1672.2	1671.6	1669.6	1666.3	1663.0	1659.7	1656.4	1658.8
12.5°	1656.7	1655.6	1654.5	1653.4	1652.4	1650.3	1647.2	1644.2	1641.1	1638.0	1640.0
15°	1624.0	1623.1	1622.2	1621.3	1620.4	1618.3	1615.0	1611.7	1608.4	1605.1	1606.6
17.5°	1586.5	1585.2	1583.8	1582.5	1581.2	1578.8	1575.4	1572.0	1568.6	1565.1	1567.0
20°	1555.2	1554.6	1554.0	1553.4	1552.8	1550.5	1546.6	1542.7	1538.8	1534.9	1537.0
22.5°	1523.8	1522.8	1521.7	1520.6	1519.5	1517.1	1513.5	1509.8	1506.2	1502.5	1503.9
25°	1474.2	1472.7	1471.2	1469.7	1468.2	1465.5	1461.6	1457.7	1453.8	1449.9	1450.5
27.5°	1416.1	1415.2	1414.3	1413.4	1412.5	1410.1	1406.0	1402.0	1398.0	1394.0	1394.1
30°	1378.3	1377.4	1376.5	1375.6	1374.7	1372.0	1367.5	1363.0	1358.5	1354.0	1353.4
32.5°	1337.3	1335.9	1334.5	1333.1	1331.8	1329.1	1325.0	1321.0	1317.0	1313.0	1311.9
35°	1273.0	1271.8	1270.6	1269.4	1268.2	1265.5	1261.3	1257.1	1252.9	1248.7	1247.2
37.5°	1206.3	1204.8	1203.3	1201.8	1200.3	1197.6	1193.6	1189.7	1185.7	1181.8	1179.5
40°	1161.0	1159.5	1158.0	1156.5	1155.0	1152.1	1147.9	1143.7	1139.5	1135.3	1132.6
42.5°	1112.4	1111.1	1109.9	1108.6	1107.3	1104.6	1100.4	1096.2	1092.0	1087.8	1085.3
45°	1042.2	1041.0	1039.8	1038.6	1037.4	1035.0	1031.4	1027.8	1024.2	1020.6	1017.0
47.5°	966.6	966.6	966.7	966.8	966.8	964.7	960.4	956.0	951.7	947.4	943.7
50°	918.0	917.1	916.2	915.3	914.4	912.1	908.5	904.9	901.3	897.7	893.8
52.5°	868.3	867.6	867.0	866.3	865.7	863.4	859.6	855.7	851.9	848.0	844.6
55°	793.8	792.9	792.0	791.1	790.2	787.6	783.4	779.2	775.0	770.8	768.1
57.5°	715.2	714.7	714.3	713.8	713.3	711.3	707.7	704.2	700.7	697.1	693.6
60°	665.5	664.3	663.1	661.9	660.7	658.5	655.2	651.9	648.6	645.3	642.3
62.5°	613.7	612.7	611.8	610.8	609.9	608.0	605.1	602.3	599.5	596.7	593.4
65°	535.9	535.3	534.7	534.1	533.5	531.6	528.3	525.0	521.7	518.4	515.7
67.5°	460.6	459.3	458.1	456.8	455.6	453.7	451.2	448.8	446.3	443.9	441.6
70°	413.1	411.6	410.1	408.6	407.1	405.0	402.3	399.6	396.9	394.2	392.4
72.5°	361.3	360.2	359.2	358.2	357.2	355.8	354.1	352.3	350.6	348.8	346.8
75°	284.8	284.2	283.6	283.0	282.4	281.4	279.9	278.4	276.9	275.4	274.5
77.5°	214.4	214.1	213.9	213.7	213.4	212.9	212.0	211.2	210.4	209.5	209.0
80°	170.1	170.1	170.1	170.1	170.1	169.8	169.2	168.6	168.0	167.4	167.1
82.5°	131.2	130.7	130.3	129.8	129.3	129.0	128.9	128.8	128.6	128.5	128.0
85°	74.2	74.5	74.8	75.1	75.4	75.6	75.6	75.6	75.6	75.6	75.3
87.5°	29.3	29.5	29.7	29.9	30.1	30.2	30.1	30.0	30.0	29.9	30.0
90°	0.6	1.6	2.6	3.6	4.6	5.6	6.5	7.4	8.2	9.1	9.8
92.5°	13.8	14.5	15.2	15.9	16.6	17.5	18.6	19.7	20.8	21.9	22.7
95°	37.1	37.3	37.6	37.8	38.1	38.9	40.1	41.4	42.7	43.9	44.8
97.5°	61.6	61.7	61.8	61.9	62.0	62.9	64.7	66.4	68.2	69.9	70.8
100°	79.9	79.9	79.9	79.9	79.9	80.7	82.3	84.0	85.6	87.3	88.4
102.5°	99.5	100.0	100.5	101.0	101.5	102.2	103.0	103.9	104.7	105.5	106.8
105°	130.1	130.7	131.3	132.0	132.6	133.3	134.1	134.8	135.6	136.3	137.1
107.5°	163.8	164.5	165.1	165.7	166.4	167.0	167.6	168.1	168.7	169.3	169.7
110°	187.1	187.7	188.4	189.0	189.7	190.2	190.5	190.9	191.3	191.7	192.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	210.8	211.2	211.5	211.8	212.2	212.6	213.1	213.5	214.0	214.5	214.7
115°	245.9	246.4	246.9	247.4	247.9	248.3	248.5	248.8	249.0	249.3	249.2
117.5°	281.0	281.2	281.5	281.7	281.9	282.2	282.4	282.6	282.8	283.1	283.2
120°	302.9	303.6	304.2	304.8	305.5	305.8	306.0	306.1	306.2	306.3	306.3
122.5°	326.7	326.9	327.1	327.3	327.6	327.8	328.2	328.5	328.8	329.2	329.1
125°	358.8	359.6	360.3	361.1	361.9	362.3	362.4	362.6	362.7	362.8	362.6
127.5°	393.1	393.5	393.9	394.3	394.8	395.1	395.2	395.4	395.5	395.7	395.6
130°	413.6	414.2	414.9	415.5	416.1	416.6	416.8	417.1	417.3	417.6	417.5
132.5°	434.1	435.2	436.2	437.2	438.3	438.8	438.7	438.7	438.6	438.6	438.5
135°	466.6	467.4	468.2	468.9	469.7	470.1	470.3	470.4	470.5	470.6	470.6
137.5°	497.2	498.0	498.7	499.4	500.2	500.7	501.0	501.2	501.5	501.8	501.9
140°	516.8	517.5	518.1	518.7	519.4	519.9	520.3	520.7	521.0	521.4	521.7
142.5°	536.5	537.0	537.5	538.1	538.6	539.1	539.6	540.1	540.6	541.0	541.2
145°	565.3	565.8	566.4	566.9	567.4	567.8	568.2	568.6	569.0	569.3	569.3
147.5°	592.0	592.3	592.6	592.9	593.2	593.4	593.7	594.1	594.4	594.7	595.0
150°	609.8	609.7	609.6	609.5	609.3	609.5	610.0	610.5	611.0	611.5	611.5
152.5°	624.4	624.6	624.8	625.0	625.1	625.3	625.5	625.7	625.9	626.2	626.5
155°	646.9	646.9	646.9	646.9	646.9	647.0	647.1	647.2	647.4	647.5	648.0
157.5°	667.0	666.7	666.4	666.2	665.9	665.8	665.9	666.1	666.2	666.3	666.8
160°	678.9	678.5	678.1	677.7	677.3	677.2	677.3	677.5	677.6	677.7	678.2
162.5°	689.4	689.1	688.8	688.5	688.2	688.1	688.1	688.2	688.2	688.2	688.8
165°	703.4	703.1	702.9	702.6	702.4	702.3	702.4	702.6	702.7	702.8	703.3
167.5°	715.3	714.8	714.2	713.7	713.2	713.0	713.0	713.0	713.0	713.0	713.7
170°	721.6	721.1	720.6	720.1	719.6	719.4	719.4	719.4	719.4	719.4	720.1
172.5°	726.2	725.7	725.2	724.7	724.2	723.9	723.9	723.9	723.9	723.9	724.7
175°	731.3	730.8	730.3	729.8	729.3	729.1	729.1	729.1	729.1	729.1	729.8
177.5°	734.0	733.6	733.2	732.8	732.3	732.1	732.0	731.9	731.8	731.7	732.3
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1701.4	1703.8	1706.2	1707.3	1707.1	1706.8	1706.6	1706.4
5°	1692.9	1695.6	1698.3	1699.5	1699.2	1698.9	1698.6	1698.3
7.5°	1675.7	1678.4	1681.0	1682.2	1681.9	1681.6	1681.3	1681.0
10°	1661.2	1663.6	1666.0	1667.1	1666.8	1666.5	1666.2	1665.9
12.5°	1641.9	1643.8	1645.7	1646.7	1646.6	1646.5	1646.5	1646.4
15°	1608.1	1609.6	1611.1	1611.9	1611.9	1611.9	1611.9	1611.9
17.5°	1568.9	1570.7	1572.6	1572.8	1571.3	1569.8	1568.3	1566.8
20°	1539.1	1541.2	1543.3	1543.6	1542.1	1540.6	1539.1	1537.6
22.5°	1505.3	1506.7	1508.0	1508.2	1507.2	1506.2	1505.2	1504.1
25°	1451.1	1451.7	1452.3	1452.1	1451.2	1450.3	1449.4	1448.5
27.5°	1394.2	1394.3	1394.5	1394.1	1393.2	1392.3	1391.4	1390.5
30°	1352.8	1352.2	1351.6	1350.9	1350.0	1349.1	1348.2	1347.3
32.5°	1310.8	1309.7	1308.7	1307.3	1305.7	1304.1	1302.4	1300.8
35°	1245.7	1244.2	1242.7	1240.8	1238.4	1236.0	1233.6	1231.2
37.5°	1177.3	1175.1	1172.9	1171.1	1169.7	1168.3	1166.9	1165.6
40°	1129.9	1127.2	1124.5	1122.7	1121.8	1120.9	1120.0	1119.1
42.5°	1082.9	1080.4	1078.0	1076.0	1074.7	1073.3	1071.9	1070.5
45°	1013.4	1009.8	1006.2	1003.9	1003.0	1002.1	1001.2	1000.3
47.5°	940.1	936.4	932.8	929.9	927.8	925.7	923.6	921.5
50°	889.9	886.0	882.1	879.1	877.0	874.9	872.8	870.7
52.5°	841.2	837.8	834.4	831.5	829.1	826.8	824.5	822.1
55°	765.4	762.7	760.0	757.6	755.5	753.4	751.3	749.2
57.5°	690.2	686.7	683.2	680.9	679.8	678.6	677.5	676.3
60°	639.3	636.3	633.3	630.7	628.6	626.5	624.4	622.3
62.5°	590.2	587.0	583.7	581.3	579.7	578.1	576.4	574.8
65°	513.0	510.3	507.6	505.6	504.4	503.2	502.0	500.8
67.5°	439.3	437.0	434.7	433.2	432.5	431.8	431.1	430.4
70°	390.6	388.8	387.0	385.5	384.3	383.1	381.9	380.7
72.5°	344.8	342.7	340.7	339.1	337.9	336.7	335.5	334.3
75°	273.6	272.7	271.8	270.7	269.5	268.3	267.1	265.9
77.5°	208.4	207.9	207.4	206.7	205.8	205.0	204.1	203.3
80°	166.8	166.5	166.2	165.7	165.1	164.5	163.9	163.3
82.5°	127.4	126.9	126.4	126.0	125.9	125.8	125.7	125.5
85°	75.0	74.7	74.4	73.9	73.3	72.7	72.1	71.5
87.5°	30.2	30.3	30.4	30.3	29.9	29.5	29.1	28.7
90°	10.4	11.0	11.7	12.2	12.6	12.9	13.3	13.7
92.5°	23.6	24.4	25.3	25.8	26.1	26.4	26.6	26.9
95°	45.7	46.6	47.5	48.0	48.3	48.6	48.8	49.1
97.5°	71.6	72.5	73.3	73.8	73.9	74.1	74.2	74.4
100°	89.6	90.7	91.8	92.5	92.8	93.1	93.3	93.6
102.5°	108.0	109.3	110.5	111.3	111.7	112.0	112.4	112.7
105°	137.9	138.6	139.4	140.0	140.3	140.7	141.1	141.5
107.5°	170.1	170.5	170.8	171.0	171.0	171.0	170.9	170.9
110°	192.4	192.8	193.2	193.3	193.2	193.1	192.9	192.8





TEST NUMBER: P333266

CATALOG NUMBER: S125DIP-S1090D590U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.9	215.0	215.2	215.2	215.0	214.7	214.5	214.3
115°	249.0	248.9	248.8	248.7	248.5	248.4	248.3	248.2
117.5°	283.3	283.4	283.5	283.3	282.8	282.3	281.8	281.2
120°	306.3	306.3	306.3	306.1	305.6	305.1	304.6	304.1
122.5°	329.0	328.9	328.8	328.5	328.1	327.7	327.3	326.9
125°	362.3	362.1	361.8	361.6	361.5	361.4	361.2	361.1
127.5°	395.4	395.3	395.2	395.0	394.7	394.5	394.2	394.0
130°	417.3	417.2	417.1	416.9	416.6	416.4	416.1	415.9
132.5°	438.3	438.2	438.1	437.8	437.5	437.1	436.8	436.4
135°	470.6	470.6	470.6	470.4	469.9	469.4	468.9	468.4
137.5°	502.1	502.2	502.4	502.2	501.5	500.9	500.3	499.6
140°	521.9	522.2	522.4	522.2	521.6	521.0	520.3	519.7
142.5°	541.3	541.5	541.6	541.4	540.8	540.1	539.5	538.9
145°	569.3	569.3	569.3	569.1	568.8	568.4	568.0	567.6
147.5°	595.3	595.6	595.9	595.6	594.7	593.9	593.0	592.2
150°	611.5	611.5	611.5	611.4	611.2	610.9	610.7	610.4
152.5°	626.8	627.1	627.4	627.3	626.8	626.4	625.9	625.5
155°	648.5	649.0	649.5	649.5	648.8	648.2	647.5	646.9
157.5°	667.3	667.8	668.3	668.2	667.3	666.5	665.7	664.8
160°	678.7	679.2	679.7	679.7	679.1	678.4	677.8	677.2
162.5°	689.4	690.0	690.7	690.6	689.9	689.1	688.4	687.6
165°	703.8	704.3	704.9	704.7	704.0	703.2	702.4	701.7
167.5°	714.5	715.3	716.0	716.0	715.2	714.4	713.6	712.9
170°	720.9	721.6	722.4	722.3	721.5	720.6	719.7	718.8
172.5°	725.5	726.2	727.0	727.0	726.2	725.4	724.6	723.8
175°	730.6	731.3	732.1	732.0	731.2	730.3	729.4	728.5
177.5°	732.9	733.5	734.1	734.1	733.4	732.7	731.9	731.2
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1

(END OF REPORT)