

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: P333440

Luminaire Tested: **S125DIW-S1090D770U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333440
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-S1090D770U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

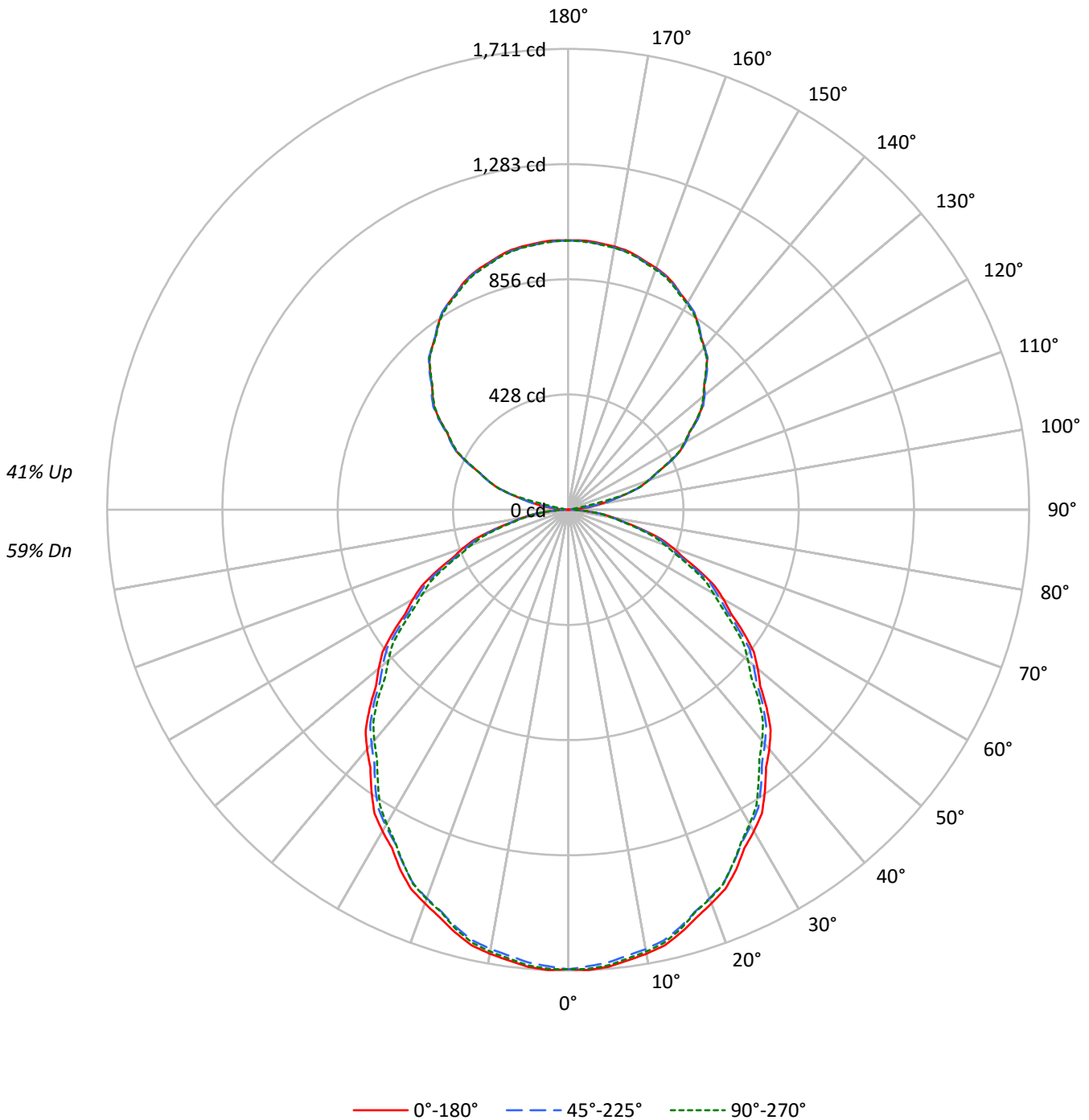
Lumens per Lamp: N/A
Luminaire Lumens: 7511.8 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 53.6
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	56	54	50
2	91	83	77	72	84	78	72	68	68	64	60	59	55	53	50	48	46	42
3	83	73	66	60	77	69	62	57	60	55	50	52	48	45	44	41	39	35
4	76	65	57	51	70	61	54	48	53	48	43	46	42	38	40	36	33	30
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	36	32	29	26
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	29	26	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	30	26	23	20
8	55	43	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	19	16
10	48	36	28	24	45	34	27	23	30	24	21	27	22	19	23	20	17	15

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	2.1
10°-20°	454.5	6.1
20°-30°	671.0	8.9
30°-40°	783.0	10.4
40°-50°	786.4	10.5
50°-60°	690.3	9.2
60°-70°	514.4	6.8
70°-80°	294.1	3.9
80°-90°	87.6	1.2
90°-100°	36.3	0.5
100°-110°	223.9	3.0
110°-120°	406.0	5.4
120°-130°	521.1	6.9
130°-140°	560.5	7.5
140°-150°	526.1	7.0
150°-160°	425.5	5.7
160°-170°	275.2	3.7
170°-180°	94.9	1.3
0°-30°	1286.4	17.1
0°-40°	2069.4	27.5
0°-60°	3546.2	47.2
0°-90°	4442.3	59.1
90°-120°	666.2	8.9
90°-150°	2273.8	30.3
90°-180°	3069.0	40.9
0°-180°	7511.8	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	7	12	15	18	6
95°	42	39	12	15	16	54
105°	218	221	221	221	220	231
115°	409	413	414	410	406	405
125°	582	587	587	584	582	519
135°	725	730	728	727	722	559
145°	841	842	842	843	839	526
155°	926	922	923	925	920	427
165°	977	973	974	978	972	276
175°	1000	995	996	1001	995	95
180°	1000	1000	1000	1000	1000	



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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	29.6	29.8	30.1	30.4	30.5	30.5	30.5	30.5	30.5	30.6
90°	0.7	2.1	3.4	4.7	6.0	7.2	8.4	9.6	10.7	11.9	12.7
92.5°	11.4	10.5	9.6	8.6	7.7	7.8	8.8	9.8	10.8	11.9	12.7
95°	42.2	41.7	41.2	40.8	40.3	36.9	30.6	24.4	18.1	11.9	12.7
97.5°	88.2	89.1	90.0	90.8	91.7	86.0	73.6	61.2	48.8	36.5	31.8
100°	123.7	124.2	124.7	125.2	125.7	126.3	127.0	127.6	128.3	128.9	104.4
102.5°	159.9	160.5	161.2	161.8	162.4	162.9	163.3	163.7	164.1	164.5	159.9
105°	217.8	218.5	219.2	219.8	220.5	220.8	220.8	220.8	220.8	220.8	220.8
107.5°	278.0	278.0	278.0	278.0	278.0	278.2	278.5	278.8	279.2	279.5	279.5
110°	317.1	317.1	317.1	317.1	317.1	317.3	317.6	318.0	318.3	318.6	318.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.9	354.3	354.7	355.1	355.5	355.8	356.0	356.2	356.4	356.6	355.9
115°	409.0	409.8	410.7	411.5	412.3	412.8	413.0	413.1	413.3	413.5	412.8
117.5°	466.1	466.0	466.0	466.0	465.9	466.2	466.9	467.5	468.1	468.7	467.9
120°	501.6	501.5	501.3	501.1	501.0	501.1	501.6	502.1	502.6	503.1	502.8
122.5°	533.0	533.7	534.3	534.9	535.6	536.0	536.2	536.4	536.7	536.9	536.6
125°	581.7	582.8	584.0	585.1	586.3	586.8	586.8	586.8	586.8	586.8	586.2
127.5°	628.0	628.9	629.7	630.5	631.3	631.7	631.6	631.5	631.4	631.3	630.9
130°	656.5	657.3	658.1	659.0	659.8	660.3	660.4	660.6	660.8	660.9	660.4
132.5°	684.9	685.9	686.9	687.8	688.8	689.1	688.7	688.3	688.0	687.6	687.5
135°	725.4	726.4	727.4	728.4	729.4	729.7	729.4	729.0	728.7	728.4	728.0
137.5°	762.6	763.5	764.3	765.2	766.0	766.3	766.0	765.7	765.4	765.1	765.2
140°	786.9	787.2	787.6	787.9	788.2	788.3	788.1	788.0	787.8	787.6	788.0
142.5°	808.8	809.0	809.2	809.4	809.6	809.8	810.1	810.3	810.5	810.8	810.8
145°	841.0	841.3	841.7	842.0	842.3	842.5	842.5	842.5	842.5	842.5	842.6
147.5°	869.2	869.1	869.0	869.0	868.9	869.0	869.2	869.3	869.5	869.7	869.9
150°	886.9	886.6	886.3	885.9	885.6	885.6	885.9	886.3	886.6	886.9	887.3
152.5°	904.1	903.4	902.7	902.0	901.2	901.0	901.4	901.7	902.0	902.3	902.7
155°	926.2	925.2	924.2	923.2	922.3	921.9	922.3	922.6	922.9	923.2	923.7
157.5°	943.2	942.7	942.1	941.5	940.9	940.6	940.6	940.7	940.7	940.7	941.3
160°	955.1	954.1	953.1	952.1	951.2	950.7	950.9	951.1	951.2	951.4	952.1
162.5°	964.6	963.6	962.6	961.6	960.6	960.2	960.4	960.6	960.7	960.9	961.8
165°	977.3	976.3	975.4	974.4	973.4	973.0	973.1	973.3	973.5	973.6	974.6
167.5°	986.8	985.8	984.8	983.8	982.7	982.3	982.5	982.6	982.8	983.0	984.1
170°	992.2	991.0	989.8	988.7	987.5	987.0	987.2	987.4	987.5	987.7	989.0
172.5°	995.7	994.6	993.4	992.2	991.1	990.7	991.0	991.3	991.6	991.9	993.0
175°	999.6	998.6	997.6	996.6	995.6	995.2	995.4	995.5	995.7	995.9	997.2
177.5°	1001.3	1000.5	999.8	999.0	998.2	997.8	998.0	998.1	998.2	998.4	999.3
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6



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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°	30.8	30.9	31.1	31.0	30.6	30.2	29.9	29.5
90°	13.5	14.3	15.1	15.8	16.3	16.8	17.3	17.8
92.5°	13.5	14.3	15.1	15.7	15.9	16.1	16.4	16.6
95°	13.5	14.3	15.1	15.6	15.6	15.6	15.6	15.6
97.5°	27.2	22.5	17.9	15.6	15.6	15.6	15.6	15.6
100°	79.9	55.3	30.8	18.2	17.5	16.9	16.2	15.6
102.5°	155.2	150.6	145.9	138.0	126.8	115.6	104.4	93.2
105°	220.8	220.8	220.8	220.7	220.6	220.4	220.2	220.1
107.5°	279.6	279.6	279.6	279.4	278.9	278.4	277.9	277.4
110°	317.6	317.1	316.6	316.5	316.6	316.8	317.0	317.1



TEST NUMBER: P333440

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	355.3	354.7	354.0	353.6	353.4	353.2	352.9	352.7
115°	412.1	411.5	410.8	410.0	409.0	408.0	407.0	406.0
117.5°	467.0	466.2	465.3	464.7	464.2	463.8	463.4	463.0
120°	502.5	502.1	501.8	501.2	500.4	499.6	498.8	497.9
122.5°	536.2	535.9	535.6	534.9	534.0	533.0	532.1	531.1
125°	585.5	584.9	584.2	583.6	583.1	582.6	582.2	581.7
127.5°	630.6	630.2	629.9	629.1	627.8	626.6	625.4	624.2
130°	660.0	659.5	659.0	658.3	657.5	656.7	655.8	655.0
132.5°	687.4	687.3	687.2	686.8	685.9	685.1	684.3	683.5
135°	727.7	727.4	727.1	726.4	725.4	724.4	723.4	722.4
137.5°	765.3	765.3	765.4	765.0	764.1	763.3	762.4	761.6
140°	788.3	788.6	789.0	788.6	787.6	786.7	785.7	784.7
142.5°	810.9	811.0	811.0	810.6	809.6	808.6	807.6	806.6
145°	842.8	843.0	843.1	842.7	841.7	840.7	839.8	838.8
147.5°	870.1	870.3	870.5	870.0	868.9	867.7	866.5	865.3
150°	887.6	887.9	888.3	887.8	886.4	885.1	883.8	882.5
152.5°	903.0	903.3	903.7	903.2	902.0	900.9	899.7	898.5
155°	924.2	924.7	925.2	924.8	923.5	922.2	920.9	919.5
157.5°	941.8	942.3	942.8	942.4	941.1	939.8	938.5	937.2
160°	952.7	953.4	954.0	953.7	952.4	951.1	949.8	948.4
162.5°	962.7	963.6	964.6	964.3	962.9	961.4	960.0	958.5
165°	975.6	976.6	977.6	977.4	976.1	974.8	973.5	972.1
167.5°	985.3	986.5	987.7	987.6	986.1	984.6	983.1	981.6
170°	990.3	991.7	993.0	992.9	991.4	989.9	988.4	987.0
172.5°	994.2	995.4	996.6	996.4	995.0	993.5	992.0	990.5
175°	998.5	999.8	1001.1	1001.0	999.6	998.1	996.6	995.1
177.5°	1000.2	1001.1	1002.1	1002.0	1000.9	999.9	998.8	997.8
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6

(END OF REPORT)