

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

Luminaire Tested: **S125DIW-S1090D1050U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333447  
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-S1090D1050U835-4F0-1E-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**

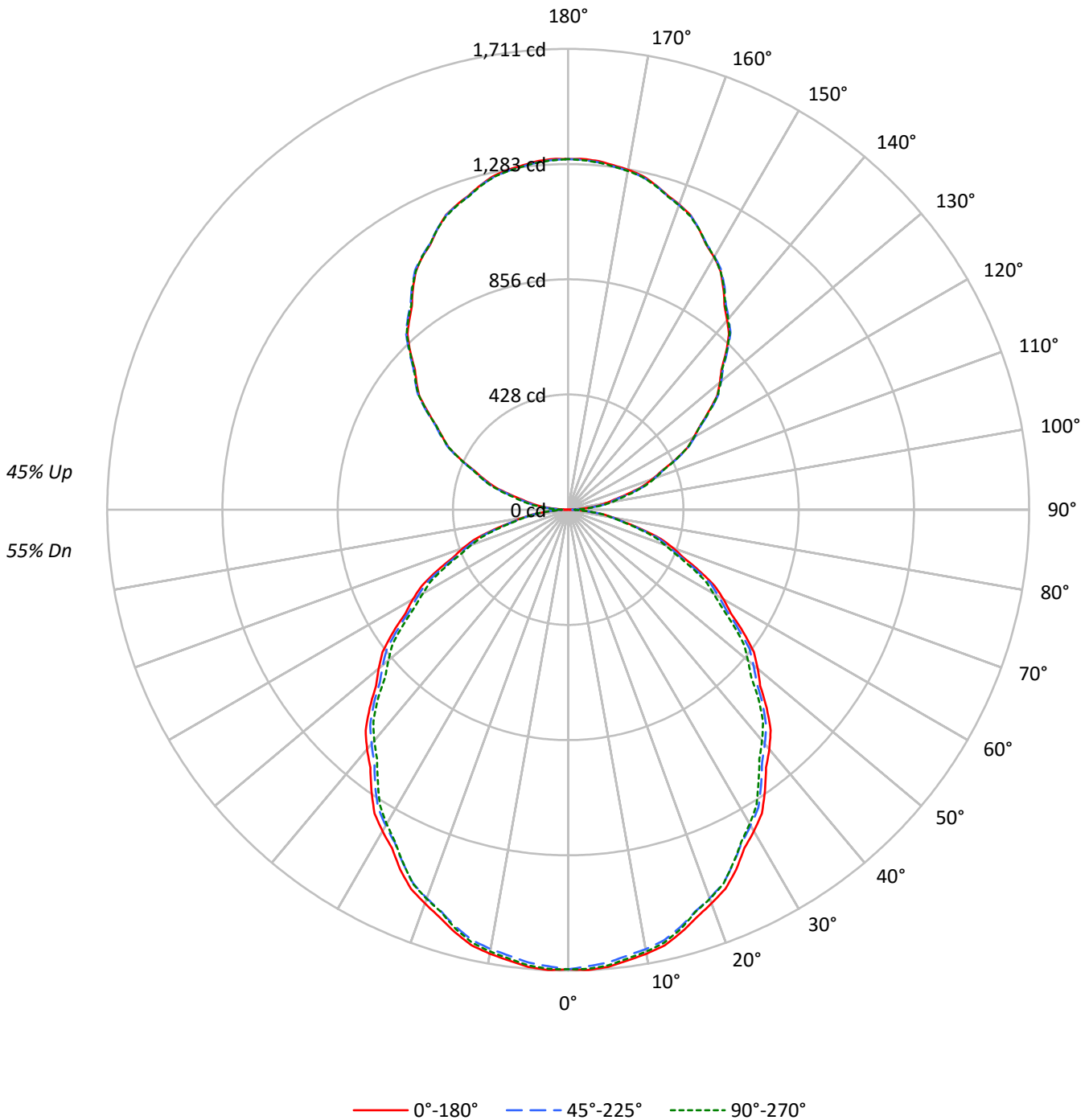
Lumens per Lamp: N/A  
Luminaire Lumens: 8076.3 lumens  
Efficiency: N/A  
Efficacy: 132.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 61.2  
Input Voltage (V): 120  
Input Current (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



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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°	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	2.0
10°-20°	454.5	5.6
20°-30°	671.0	8.3
30°-40°	783.0	9.7
40°-50°	786.4	9.7
50°-60°	690.3	8.5
60°-70°	514.4	6.4
70°-80°	294.1	3.6
80°-90°	88.4	1.1
90°-100°	87.2	1.1
100°-110°	257.5	3.2
110°-120°	436.2	5.4
120°-130°	574.0	7.1
130°-140°	643.2	8.0
140°-150°	630.4	7.8
150°-160°	529.5	6.6
160°-170°	352.0	4.4
170°-180°	123.2	1.5
0°-30°	1286.4	15.9
0°-40°	2069.4	25.6
0°-60°	3546.2	43.9
0°-90°	4443.1	55.0
90°-120°	780.9	9.7
90°-150°	2628.6	32.5
90°-180°	3633.0	45.0
0°-180°	8076.3	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	9	16	21	24	8
95°	66	68	78	85	87	70
105°	231	236	242	248	251	247
115°	437	441	443	442	441	432
125°	637	643	644	642	641	571
135°	829	835	836	836	832	639
145°	1004	1008	1011	1011	1008	627
155°	1149	1149	1150	1154	1149	529
165°	1249	1247	1248	1252	1246	352
175°	1299	1295	1295	1300	1294	123
180°	1302	1302	1302	1302	1302	



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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°	29.4	29.7	30.1	30.4	30.8	31.0	31.1	31.2	31.2	31.3	31.5
90°	1.0	2.8	4.6	6.4	8.2	9.9	11.5	13.1	14.6	16.2	17.3
92.5°	24.5	25.8	27.0	28.3	29.6	31.2	33.1	35.0	37.0	38.9	40.4
95°	65.9	66.3	66.8	67.2	67.7	69.0	71.3	73.5	75.8	78.0	79.6
97.5°	109.4	109.6	109.8	110.0	110.2	111.8	114.9	118.0	121.1	124.2	125.7
100°	141.9	141.9	141.9	141.9	141.9	143.3	146.2	149.2	152.1	155.0	157.1
102.5°	176.7	177.6	178.5	179.4	180.3	181.5	183.0	184.5	186.0	187.5	189.7
105°	231.0	232.1	233.3	234.4	235.5	236.8	238.1	239.5	240.8	242.2	243.5
107.5°	291.0	292.1	293.3	294.4	295.5	296.6	297.6	298.7	299.7	300.7	301.4
110°	332.3	333.5	334.6	335.7	336.9	337.8	338.4	339.1	339.8	340.5	341.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	374.5	375.1	375.7	376.3	376.8	377.6	378.4	379.3	380.1	381.0	381.3
115°	436.7	437.6	438.5	439.4	440.3	441.0	441.4	441.9	442.3	442.8	442.6
117.5°	499.1	499.5	499.9	500.3	500.8	501.2	501.6	502.0	502.4	502.8	503.0
120°	538.0	539.2	540.3	541.4	542.5	543.2	543.4	543.7	543.9	544.1	544.1
122.5°	580.2	580.6	581.0	581.4	581.8	582.3	582.9	583.5	584.1	584.7	584.5
125°	637.3	638.7	640.0	641.4	642.7	643.5	643.8	644.0	644.2	644.4	644.0
127.5°	698.1	698.9	699.7	700.4	701.2	701.7	702.0	702.3	702.5	702.8	702.6
130°	734.6	735.7	736.9	738.0	739.1	739.9	740.4	740.8	741.3	741.7	741.5
132.5°	771.1	772.9	774.8	776.6	778.5	779.4	779.3	779.2	779.1	779.0	778.8
135°	828.8	830.2	831.5	832.9	834.3	835.0	835.3	835.5	835.7	835.9	835.9
137.5°	883.2	884.5	885.8	887.1	888.4	889.3	889.8	890.3	890.8	891.3	891.5
140°	918.0	919.1	920.3	921.4	922.5	923.4	924.1	924.8	925.4	926.1	926.6
142.5°	952.9	953.8	954.8	955.7	956.7	957.6	958.4	959.3	960.1	961.0	961.2
145°	1004.1	1005.0	1005.9	1006.8	1007.7	1008.5	1009.2	1009.9	1010.6	1011.2	1011.2
147.5°	1051.6	1052.1	1052.6	1053.0	1053.5	1054.1	1054.6	1055.1	1055.7	1056.2	1056.8
150°	1083.2	1083.0	1082.7	1082.5	1082.3	1082.6	1083.5	1084.4	1085.3	1086.2	1086.2
152.5°	1109.1	1109.4	1109.7	1110.1	1110.4	1110.7	1111.1	1111.4	1111.8	1112.2	1112.7
155°	1149.0	1149.0	1149.0	1149.0	1149.0	1149.1	1149.4	1149.6	1149.8	1150.1	1151.0
157.5°	1184.7	1184.2	1183.7	1183.2	1182.7	1182.6	1182.8	1183.0	1183.3	1183.5	1184.4
160°	1205.8	1205.1	1204.4	1203.8	1203.1	1202.9	1203.1	1203.3	1203.5	1203.8	1204.7
162.5°	1224.4	1223.9	1223.4	1222.9	1222.4	1222.2	1222.3	1222.3	1222.4	1222.4	1223.5
165°	1249.4	1248.9	1248.4	1248.0	1247.5	1247.4	1247.7	1247.9	1248.1	1248.3	1249.2
167.5°	1270.4	1269.5	1268.6	1267.7	1266.8	1266.4	1266.4	1266.4	1266.4	1266.4	1267.7
170°	1281.8	1280.9	1280.0	1279.1	1278.2	1277.7	1277.7	1277.7	1277.7	1277.7	1279.1
172.5°	1289.9	1289.0	1288.1	1287.2	1286.3	1285.8	1285.8	1285.8	1285.8	1285.8	1287.2
175°	1299.0	1298.1	1297.2	1296.3	1295.4	1294.9	1294.9	1294.9	1294.9	1294.9	1296.3
177.5°	1303.7	1302.9	1302.2	1301.5	1300.8	1300.3	1300.1	1300.0	1299.8	1299.6	1300.7
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



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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°	31.8	32.0	32.2	32.2	31.8	31.5	31.1	30.8
90°	18.5	19.6	20.7	21.6	22.3	23.0	23.6	24.3
92.5°	41.9	43.4	44.9	45.8	46.3	46.8	47.3	47.8
95°	81.2	82.7	84.3	85.3	85.8	86.2	86.7	87.1
97.5°	127.2	128.7	130.2	131.0	131.3	131.6	131.9	132.1
100°	159.1	161.1	163.1	164.4	164.8	165.3	165.7	166.2
102.5°	191.9	194.1	196.3	197.7	198.3	199.0	199.6	200.2
105°	244.9	246.2	247.6	248.6	249.3	249.9	250.6	251.3
107.5°	302.1	302.8	303.4	303.8	303.7	303.7	303.6	303.6
110°	341.8	342.5	343.2	343.4	343.2	342.9	342.7	342.5





TEST NUMBER: P333447

CATALOG NUMBER: S125DIW-S1090D1050U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	381.6	381.9	382.2	382.2	381.8	381.4	381.0	380.6
115°	442.3	442.1	441.9	441.7	441.4	441.2	441.0	440.8
117.5°	503.1	503.3	503.5	503.1	502.2	501.3	500.4	499.5
120°	544.1	544.1	544.1	543.7	542.8	541.9	541.0	540.1
122.5°	584.3	584.1	583.9	583.5	582.8	582.0	581.3	580.6
125°	643.5	643.1	642.6	642.3	642.1	641.8	641.6	641.4
127.5°	702.3	702.1	701.9	701.6	701.1	700.7	700.2	699.8
130°	741.3	741.0	740.8	740.5	740.0	739.6	739.1	738.7
132.5°	778.5	778.3	778.1	777.7	777.0	776.4	775.8	775.1
135°	835.9	835.9	835.9	835.5	834.6	833.7	832.8	831.9
137.5°	891.8	892.1	892.3	891.9	890.8	889.7	888.5	887.4
140°	927.0	927.5	927.9	927.6	926.5	925.3	924.2	923.1
142.5°	961.5	961.8	962.1	961.6	960.5	959.4	958.3	957.1
145°	1011.2	1011.2	1011.2	1010.9	1010.2	1009.5	1008.9	1008.2
147.5°	1057.3	1057.8	1058.4	1057.9	1056.4	1054.8	1053.3	1051.8
150°	1086.2	1086.2	1086.2	1086.0	1085.5	1085.1	1084.6	1084.2
152.5°	1113.2	1113.8	1114.3	1114.2	1113.4	1112.6	1111.7	1110.9
155°	1151.9	1152.8	1153.7	1153.5	1152.4	1151.3	1150.2	1149.0
157.5°	1185.3	1186.2	1187.1	1186.8	1185.3	1183.8	1182.3	1180.9
160°	1205.6	1206.5	1207.4	1207.2	1206.1	1205.0	1203.9	1202.7
162.5°	1224.6	1225.6	1226.7	1226.6	1225.3	1224.0	1222.7	1221.4
165°	1250.1	1251.0	1251.9	1251.7	1250.4	1249.0	1247.7	1246.3
167.5°	1269.1	1270.4	1271.8	1271.8	1270.4	1269.0	1267.6	1266.2
170°	1280.4	1281.8	1283.1	1283.0	1281.4	1279.9	1278.3	1276.7
172.5°	1288.5	1289.9	1291.2	1291.2	1289.8	1288.4	1287.0	1285.6
175°	1297.6	1299.0	1300.4	1300.2	1298.7	1297.1	1295.5	1293.9
177.5°	1301.8	1302.9	1303.9	1303.8	1302.6	1301.3	1300.1	1298.8
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0

(END OF REPORT)