

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: P333457

Luminaire Tested: **S125DIW-S1090D1560U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333457
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-S1090D1560U835-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9676.9 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

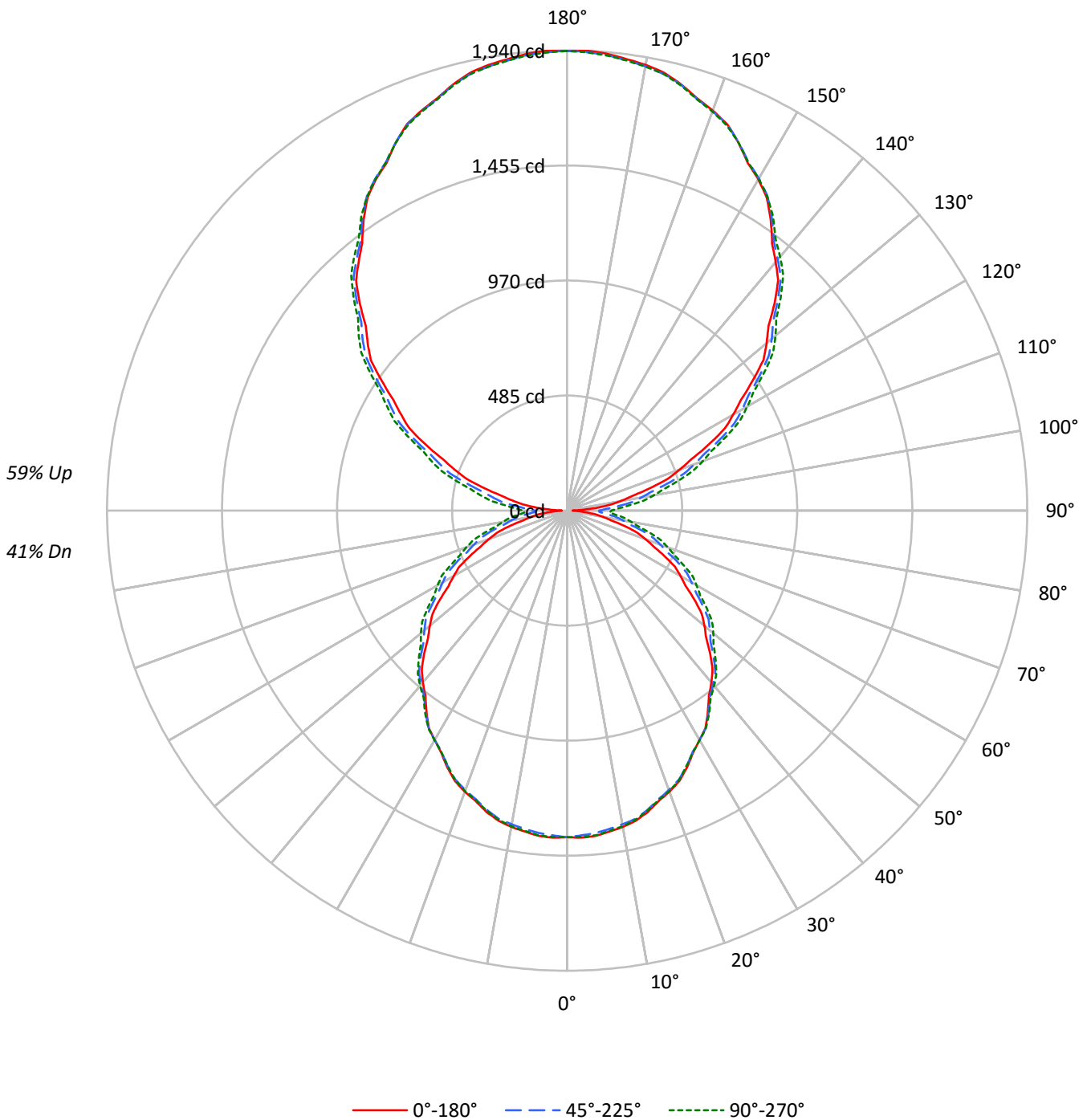
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	39	34
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8893	8893	8893
5°	8911	8729	8756
10°	8847	8573	8560
15°	8743	8387	8310
20°	8601	8156	8061
25°	8432	7909	7752
30°	8227	7637	7473
35°	8036	7388	7217
40°	7841	7125	6959
45°	7621	6900	6730
50°	7412	6656	6528
55°	7159	6425	6290
60°	6883	6162	6048
65°	6596	5888	5775
70°	6269	5512	5495
75°	5751	5151	5149
80°	5072	4712	4775
85°	4441	4417	4657



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	1.3
10°-20°	369.6	3.8
20°-30°	549.7	5.7
30°-40°	651.1	6.7
40°-50°	673.2	7.0
50°-60°	620.1	6.4
60°-70°	501.3	5.2
70°-80°	335.7	3.5
80°-90°	178.3	1.8
90°-100°	227.5	2.4
100°-110°	455.3	4.7
110°-120°	697.5	7.2
120°-130°	881.8	9.1
130°-140°	969.4	10.0
140°-150°	940.8	9.7
150°-160°	788.1	8.1
160°-170°	523.9	5.4
170°-180°	183.3	1.9
0°-30°	1049.5	10.8
0°-40°	1700.6	17.6
0°-60°	2994.0	30.9
0°-90°	4009.3	41.4
90°-120°	1380.3	14.3
90°-150°	4172.3	43.1
90°-180°	5668.0	58.6
0°-180°	9676.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1374	1365	1375	1374	131
15°	1315	1316	1307	1314	1310	370
25°	1195	1198	1191	1195	1189	550
35°	1034	1043	1040	1043	1044	647
45°	852	866	873	882	884	657
55°	655	676	698	712	718	585
65°	451	482	514	534	540	447
75°	248	284	327	353	360	263
85°	74	119	166	195	206	79
90°	23	78	135	172	187	20
95°	116	155	215	253	267	118
105°	356	386	435	470	485	380
115°	658	675	712	734	741	651
125°	954	963	990	1008	1014	854
135°	1236	1244	1255	1272	1273	953
145°	1496	1501	1505	1512	1513	934
155°	1710	1710	1712	1717	1710	787
165°	1860	1857	1858	1863	1855	524
175°	1934	1928	1927	1935	1926	184
180°	1938	1938	1938	1938	1938	



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1380.2	1379.7	1379.2	1378.8	1378.3	1377.2	1375.5	1373.8	1372.2	1370.5	1372.2
5°	1377.0	1376.4	1375.8	1375.2	1374.6	1373.2	1371.1	1369.0	1366.9	1364.8	1367.2
7.5°	1364.8	1364.6	1364.3	1364.1	1363.9	1362.7	1360.5	1358.3	1356.2	1354.0	1356.1
10°	1354.0	1354.0	1354.0	1354.0	1354.0	1352.8	1350.4	1348.0	1345.6	1343.2	1345.3
12.5°	1338.9	1339.1	1339.4	1339.6	1339.9	1339.0	1337.1	1335.2	1333.3	1331.3	1333.0
15°	1314.9	1315.2	1315.5	1315.8	1316.1	1315.2	1313.1	1311.0	1308.9	1306.8	1308.6
17.5°	1283.5	1284.1	1284.7	1285.3	1285.9	1285.2	1283.1	1281.0	1278.9	1276.8	1278.2
20°	1260.9	1261.5	1262.1	1262.7	1263.3	1262.5	1260.4	1258.3	1256.2	1254.1	1255.0
22.5°	1234.9	1236.0	1237.1	1238.2	1239.3	1238.6	1236.3	1234.0	1231.6	1229.3	1230.4
25°	1194.7	1195.6	1196.5	1197.4	1198.3	1197.9	1196.1	1194.3	1192.5	1190.7	1191.9
27.5°	1149.9	1151.2	1152.5	1153.9	1155.2	1154.8	1152.8	1150.7	1148.7	1146.7	1147.5
30°	1116.4	1118.2	1120.0	1121.8	1123.6	1123.6	1121.8	1120.0	1118.2	1116.4	1117.0
32.5°	1086.2	1087.7	1089.3	1090.9	1092.4	1092.5	1091.2	1089.9	1088.6	1087.3	1087.9
35°	1034.1	1036.2	1038.3	1040.4	1042.5	1043.1	1042.2	1041.3	1040.4	1039.5	1040.4
37.5°	982.0	983.9	985.8	987.7	989.6	990.5	990.2	989.9	989.6	989.3	990.5
40°	946.3	948.7	951.1	953.5	955.9	957.0	956.7	956.4	956.1	955.8	957.0
42.5°	907.4	910.6	913.7	916.8	919.9	921.8	922.5	923.1	923.8	924.5	925.9
45°	851.8	855.1	858.4	861.7	865.0	867.4	868.9	870.4	871.9	873.4	875.5
47.5°	794.9	797.9	801.0	804.0	807.1	809.9	812.5	815.1	817.7	820.2	823.3
50°	756.0	759.3	762.6	765.9	769.2	772.5	775.8	779.1	782.4	785.7	789.0
52.5°	714.9	719.0	723.0	727.0	731.0	735.0	739.1	743.1	747.1	751.1	754.7
55°	654.7	659.5	664.3	669.1	673.9	678.7	683.5	688.3	693.1	697.9	701.2
57.5°	593.2	598.9	604.7	610.5	616.2	621.9	627.4	632.9	638.4	643.9	647.7
60°	552.1	558.1	564.1	570.1	576.1	582.1	588.1	594.1	600.1	606.1	610.6
62.5°	512.2	518.2	524.2	530.2	536.2	542.4	548.9	555.4	561.9	568.3	573.3
65°	450.9	457.8	464.7	471.6	478.5	485.5	492.7	499.9	507.1	514.3	518.8
67.5°	393.1	399.8	406.4	413.1	419.7	426.7	434.1	441.4	448.7	456.0	461.5
70°	351.0	357.9	364.8	371.7	378.6	385.9	393.7	401.5	409.3	417.1	422.8
72.5°	310.0	317.1	324.2	331.4	338.5	346.3	354.9	363.4	371.9	380.4	386.6
75°	248.4	256.2	264.0	271.8	279.6	288.3	297.9	307.5	317.1	326.7	332.7
77.5°	189.3	198.3	207.3	216.3	225.3	234.4	243.6	252.9	262.1	271.3	277.9
80°	152.5	161.5	170.5	179.5	188.5	198.1	208.3	218.5	228.7	238.9	245.5
82.5°	119.1	128.5	138.0	147.5	157.0	166.9	177.4	187.8	198.3	208.7	215.1
85°	74.2	84.1	94.0	103.9	113.8	124.0	134.5	145.0	155.5	166.0	172.6
87.5°	42.4	52.6	62.7	72.8	83.0	93.4	104.0	114.7	125.4	136.0	143.3
90°	23.1	35.4	47.7	60.0	72.2	84.6	97.2	109.7	122.3	134.8	143.4
92.5°	55.9	66.7	77.5	88.2	99.0	111.0	124.3	137.6	151.0	164.3	173.2
95°	115.6	124.1	132.5	141.0	149.5	160.5	174.0	187.6	201.1	214.7	223.6
97.5°	178.8	186.1	193.4	200.7	208.0	218.8	233.3	247.8	262.2	276.7	285.2
100°	226.0	232.3	238.6	244.9	251.2	261.3	275.3	289.2	303.2	317.1	326.5
102.5°	276.8	284.0	291.1	298.3	305.4	314.8	326.4	337.9	349.5	361.1	370.4
105°	356.0	362.5	369.0	375.4	381.9	390.7	401.7	412.7	423.7	434.7	442.7
107.5°	443.7	449.4	455.2	460.9	466.7	474.7	484.8	495.0	505.2	515.4	522.3
110°	504.1	509.4	514.7	520.0	525.2	532.6	542.0	551.4	560.8	570.2	576.9



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	566.9	570.6	574.4	578.1	581.9	588.5	597.9	607.3	616.8	626.2	632.1
115°	658.1	661.6	665.0	668.4	671.9	677.8	686.3	694.8	703.2	711.7	716.8
117.5°	749.7	751.7	753.6	755.6	757.6	762.6	770.6	778.6	786.5	794.5	799.9
120°	807.6	810.2	812.7	815.3	817.9	822.8	830.0	837.3	844.5	851.7	856.8
122.5°	869.2	870.3	871.3	872.3	873.3	877.6	885.1	892.7	900.2	907.7	912.3
125°	954.0	955.7	957.5	959.2	960.9	964.9	971.2	977.6	983.9	990.2	994.4
127.5°	1043.2	1044.0	1044.9	1045.7	1046.5	1049.6	1054.9	1060.3	1065.6	1070.9	1075.0
130°	1097.5	1098.8	1100.2	1101.6	1103.0	1106.1	1111.0	1115.8	1120.7	1125.6	1129.4
132.5°	1150.7	1153.4	1156.1	1158.7	1161.4	1164.3	1167.4	1170.5	1173.6	1176.8	1180.6
135°	1236.4	1238.1	1239.8	1241.5	1243.2	1245.3	1247.7	1250.2	1252.6	1255.0	1258.9
137.5°	1316.9	1318.6	1320.4	1322.1	1323.8	1325.5	1327.2	1329.0	1330.8	1332.5	1336.5
140°	1367.7	1369.4	1371.1	1372.8	1374.4	1375.9	1377.2	1378.6	1379.9	1381.2	1385.1
142.5°	1419.6	1420.8	1422.0	1423.1	1424.3	1425.5	1426.9	1428.2	1429.5	1430.9	1434.1
145°	1495.9	1497.0	1498.0	1499.1	1500.1	1501.1	1502.1	1503.1	1504.1	1505.1	1506.6
147.5°	1565.2	1565.9	1566.6	1567.4	1568.1	1568.9	1569.7	1570.5	1571.3	1572.1	1573.4
150°	1612.2	1611.9	1611.6	1611.2	1610.9	1611.4	1612.7	1614.1	1615.4	1616.8	1616.8
152.5°	1650.8	1651.3	1651.8	1652.2	1652.7	1653.2	1653.8	1654.3	1654.8	1655.4	1656.2
155°	1710.3	1710.3	1710.3	1710.3	1710.3	1710.4	1710.8	1711.1	1711.4	1711.8	1713.1
157.5°	1763.3	1762.6	1761.9	1761.1	1760.4	1760.2	1760.5	1760.9	1761.2	1761.5	1762.9
160°	1794.7	1793.7	1792.7	1791.7	1790.7	1790.4	1790.7	1791.0	1791.4	1791.7	1793.0
162.5°	1822.5	1821.7	1821.0	1820.3	1819.5	1819.2	1819.2	1819.3	1819.4	1819.4	1821.1
165°	1859.6	1858.9	1858.2	1857.6	1856.9	1856.7	1857.1	1857.4	1857.7	1858.1	1859.4
167.5°	1890.9	1889.6	1888.3	1886.9	1885.6	1884.9	1884.9	1884.9	1884.9	1884.9	1886.9
170°	1907.8	1906.5	1905.1	1903.8	1902.5	1901.8	1901.8	1901.8	1901.8	1901.8	1903.8
172.5°	1919.9	1918.6	1917.2	1915.9	1914.5	1913.9	1913.9	1913.9	1913.9	1913.9	1915.9
175°	1933.5	1932.1	1930.8	1929.4	1928.1	1927.4	1927.4	1927.4	1927.4	1927.4	1929.4
177.5°	1940.4	1939.3	1938.3	1937.2	1936.1	1935.4	1935.2	1934.9	1934.6	1934.4	1936.0
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1373.8	1375.5	1377.2	1377.9	1377.7	1377.4	1377.2	1377.0
5°	1369.6	1372.0	1374.4	1375.5	1375.2	1374.9	1374.6	1374.3
7.5°	1358.2	1360.3	1362.4	1363.3	1363.0	1362.7	1362.4	1362.1
10°	1347.4	1349.5	1351.6	1352.5	1352.2	1351.9	1351.6	1351.3
12.5°	1334.6	1336.2	1337.8	1338.2	1337.5	1336.7	1335.9	1335.1
15°	1310.4	1312.2	1314.0	1314.3	1313.1	1311.9	1310.7	1309.5
17.5°	1279.6	1280.9	1282.3	1282.6	1281.9	1281.2	1280.5	1279.8
20°	1255.9	1256.8	1257.7	1258.2	1258.2	1258.2	1258.2	1258.2
22.5°	1231.6	1232.7	1233.8	1234.0	1233.3	1232.6	1231.9	1231.2
25°	1193.1	1194.3	1195.5	1195.3	1193.8	1192.3	1190.8	1189.3
27.5°	1148.3	1149.2	1150.0	1150.2	1149.6	1149.1	1148.5	1148.0
30°	1117.6	1118.2	1118.8	1119.0	1118.7	1118.4	1118.1	1117.8
32.5°	1088.5	1089.1	1089.7	1089.8	1089.5	1089.2	1088.9	1088.6
35°	1041.3	1042.2	1043.1	1043.5	1043.5	1043.5	1043.5	1043.5
37.5°	991.7	992.9	994.1	994.6	994.5	994.4	994.2	994.1
40°	958.2	959.4	960.6	961.5	962.1	962.7	963.3	963.9
42.5°	927.3	928.8	930.2	931.0	931.1	931.2	931.4	931.5
45°	877.6	879.7	881.8	883.0	883.3	883.6	883.9	884.2
47.5°	826.4	829.4	832.5	834.3	835.0	835.7	836.3	837.0
50°	792.3	795.6	798.9	801.0	801.9	802.8	803.7	804.6
52.5°	758.2	761.7	765.3	767.4	768.0	768.7	769.4	770.0
55°	704.5	707.8	711.1	713.4	714.6	715.8	717.0	718.2
57.5°	651.5	655.3	659.1	661.4	662.3	663.2	664.1	665.0
60°	615.1	619.6	624.1	626.8	627.7	628.6	629.5	630.4
62.5°	578.3	583.3	588.3	591.3	592.5	593.6	594.7	595.9
65°	523.3	527.8	532.3	535.2	536.4	537.6	538.8	540.0
67.5°	466.9	472.4	477.9	481.4	482.9	484.5	486.0	487.6
70°	428.5	434.2	439.9	443.7	445.5	447.3	449.1	450.9
72.5°	392.8	399.0	405.1	408.9	410.2	411.5	412.8	414.2
75°	338.7	344.7	350.7	354.4	355.9	357.4	358.9	360.4
77.5°	284.5	291.1	297.7	301.6	302.8	304.0	305.2	306.4
80°	252.1	258.7	265.3	269.2	270.4	271.6	272.8	274.0
82.5°	221.4	227.8	234.1	238.4	240.6	242.7	244.9	247.0
85°	179.2	185.8	192.4	196.9	199.3	201.7	204.1	206.5
87.5°	150.5	157.7	165.0	169.8	172.1	174.4	176.7	179.0
90°	152.0	160.6	169.1	175.0	178.1	181.2	184.3	187.4
92.5°	182.0	190.9	199.8	205.6	208.5	211.3	214.1	217.0
95°	232.6	241.5	250.5	256.3	259.1	261.9	264.6	267.4
97.5°	293.7	302.2	310.7	316.2	318.7	321.1	323.5	326.0
100°	335.8	345.1	354.4	360.3	362.8	365.2	367.7	370.2
102.5°	379.8	389.1	398.5	404.5	407.2	410.0	412.7	415.5
105°	450.7	458.7	466.7	472.3	475.4	478.5	481.6	484.7
107.5°	529.3	536.2	543.2	547.5	549.3	551.1	552.9	554.7
110°	583.6	590.3	597.0	601.2	603.0	604.8	606.5	608.3



TEST NUMBER: P333457

CATALOG NUMBER: S125DIW-S1090D1560U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	638.1	644.0	649.9	653.6	655.1	656.6	658.1	659.6
115°	721.8	726.9	732.0	735.2	736.7	738.2	739.6	741.1
117.5°	805.3	810.6	816.0	819.0	819.7	820.4	821.1	821.8
120°	861.9	867.0	872.1	874.9	875.4	875.8	876.3	876.7
122.5°	916.9	921.5	926.1	928.8	929.5	930.2	930.9	931.7
125°	998.5	1002.6	1006.8	1009.4	1010.6	1011.7	1012.9	1014.1
127.5°	1079.1	1083.2	1087.3	1089.9	1091.0	1092.0	1093.1	1094.2
130°	1133.3	1137.2	1141.0	1143.4	1144.2	1145.0	1145.9	1146.7
132.5°	1184.5	1188.3	1192.2	1194.3	1194.6	1195.0	1195.3	1195.6
135°	1262.8	1266.7	1270.6	1272.7	1272.8	1273.0	1273.1	1273.3
137.5°	1340.4	1344.3	1348.3	1350.0	1349.5	1349.1	1348.6	1348.1
140°	1389.1	1393.1	1397.0	1398.8	1398.3	1397.8	1397.4	1396.9
142.5°	1437.3	1440.5	1443.8	1445.1	1444.7	1444.2	1443.7	1443.2
145°	1508.1	1509.6	1511.1	1512.0	1512.2	1512.4	1512.6	1512.8
147.5°	1574.7	1576.0	1577.2	1577.0	1575.3	1573.5	1571.8	1570.1
150°	1616.8	1616.8	1616.8	1616.6	1616.2	1615.8	1615.5	1615.1
152.5°	1657.0	1657.8	1658.6	1658.4	1657.3	1656.1	1655.0	1653.8
155°	1714.4	1715.8	1717.1	1717.0	1715.3	1713.6	1711.9	1710.3
157.5°	1764.2	1765.6	1766.9	1766.5	1764.2	1762.0	1759.8	1757.6
160°	1794.4	1795.7	1797.1	1796.9	1795.2	1793.5	1791.9	1790.2
162.5°	1822.7	1824.3	1825.9	1825.7	1823.8	1821.8	1819.9	1817.9
165°	1860.7	1862.1	1863.4	1863.1	1861.1	1859.1	1857.1	1855.0
167.5°	1888.9	1890.9	1892.9	1892.9	1890.8	1888.8	1886.7	1884.6
170°	1905.8	1907.8	1909.8	1909.7	1907.3	1905.0	1902.6	1900.3
172.5°	1917.9	1919.9	1921.9	1921.9	1919.8	1917.7	1915.6	1913.6
175°	1931.5	1933.5	1935.5	1935.3	1933.0	1930.6	1928.3	1925.9
177.5°	1937.6	1939.2	1940.8	1940.7	1938.8	1936.9	1935.0	1933.2
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0

(END OF REPORT)