

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: P333451-830

Luminaire Tested: **S125DIW-S1090D1340U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333451-830
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-S1090D1340U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8407.3 lumens
Efficiency: N/A
Efficacy: 120.4 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

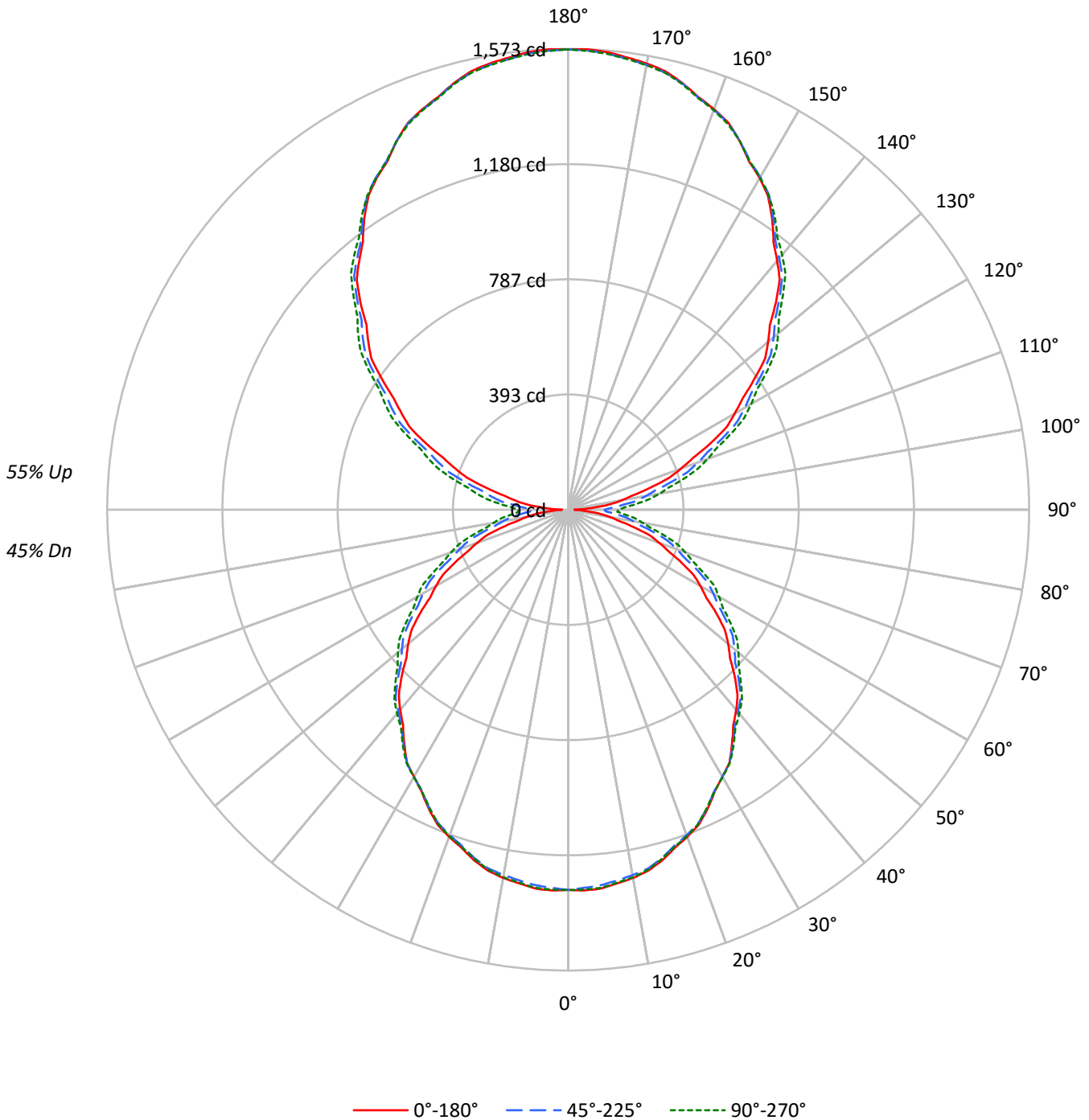
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333451-830

CATALOG NUMBER: S125DIW-S1090D1340U830-4F0-1E-UDD-D1

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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	70	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



TEST NUMBER: P333451-830

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.5
10°-20°	348.4	4.1
20°-30°	518.1	6.2
30°-40°	613.7	7.3
40°-50°	634.5	7.5
50°-60°	584.5	7.0
60°-70°	472.5	5.6
70°-80°	316.4	3.8
80°-90°	167.5	2.0
90°-100°	197.3	2.3
100°-110°	378.6	4.5
110°-120°	571.8	6.8
120°-130°	718.5	8.5
130°-140°	787.4	9.4
140°-150°	763.0	9.1
150°-160°	638.9	7.6
160°-170°	424.7	5.1
170°-180°	148.6	1.8
0°-30°	989.2	11.8
0°-40°	1602.9	19.1
0°-60°	2821.9	33.6
0°-90°	3778.4	44.9
90°-120°	1147.8	13.7
90°-150°	3416.7	40.6
90°-180°	4629.0	55.1
0°-180°	8407.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	22	72	124	158	172	18
95°	96	133	187	222	235	98
105°	290	318	362	394	408	310
115°	535	550	584	605	612	529
125°	774	781	807	824	830	693
135°	1003	1009	1019	1035	1037	773
145°	1213	1217	1220	1226	1228	758
155°	1386	1387	1388	1392	1386	638
165°	1508	1505	1506	1510	1504	425
175°	1567	1563	1562	1569	1561	149
180°	1571	1571	1571	1571	1571	



TEST NUMBER: P333451-830

CATALOG NUMBER: S125DIW-S1090D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	40.0	49.4	58.9	68.4	77.9	87.7	97.6	107.6	117.6	127.6	134.4
90°	21.6	32.8	44.0	55.2	66.4	77.9	89.4	100.9	112.4	123.9	131.8
92.5°	47.9	57.8	67.7	77.6	87.5	98.5	110.7	122.9	135.1	147.2	155.3
95°	96.0	103.9	111.8	119.7	127.6	137.7	150.1	162.4	174.7	187.0	195.1
97.5°	147.0	153.9	160.7	167.6	174.4	184.4	197.4	210.4	223.4	236.4	244.1
100°	185.2	191.1	197.1	203.0	209.0	218.2	230.7	243.4	255.9	268.5	276.9
102.5°	226.2	232.8	239.3	245.9	252.5	261.1	271.7	282.3	292.9	303.6	311.9
105°	290.2	296.1	302.0	307.8	313.8	321.8	331.9	342.0	352.0	362.2	369.5
107.5°	361.1	366.3	371.5	376.6	381.9	389.2	398.6	407.9	417.4	426.8	433.2
110°	409.9	414.7	419.4	424.1	429.0	435.6	444.4	453.2	461.8	470.6	476.8



TEST NUMBER: P333451-830

CATALOG NUMBER: S125DIW-S1090D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	460.8	464.2	467.6	471.1	474.5	480.5	489.3	498.0	506.7	515.5	520.9
115°	534.6	537.6	540.7	543.8	546.9	552.3	560.2	568.2	576.0	583.9	588.7
117.5°	608.6	610.4	612.2	614.0	615.8	620.4	627.8	635.3	642.7	650.2	655.3
120°	655.5	657.8	660.0	662.2	664.4	668.9	675.7	682.4	689.2	696.0	700.8
122.5°	705.4	706.3	707.2	708.0	709.0	712.9	719.9	726.9	733.9	740.8	745.2
125°	774.1	775.4	776.8	778.2	779.5	783.2	789.1	795.0	801.0	806.8	810.9
127.5°	846.2	846.9	847.5	848.1	848.8	851.6	856.6	861.5	866.5	871.5	875.3
130°	890.2	891.3	892.4	893.4	894.6	897.3	901.8	906.3	910.8	915.3	919.0
132.5°	933.2	935.4	937.5	939.7	941.9	944.4	947.4	950.4	953.3	956.2	960.0
135°	1002.7	1004.0	1005.3	1006.7	1008.0	1009.8	1012.1	1014.4	1016.6	1018.9	1022.6
137.5°	1067.9	1069.3	1070.6	1072.0	1073.4	1074.8	1076.4	1077.9	1079.5	1081.0	1084.7
140°	1109.0	1110.3	1111.7	1113.0	1114.4	1115.6	1116.7	1117.9	1118.9	1120.0	1123.7
142.5°	1151.0	1152.0	1152.8	1153.8	1154.7	1155.7	1156.8	1157.9	1159.0	1160.1	1163.0
145°	1212.9	1213.7	1214.5	1215.3	1216.2	1216.9	1217.8	1218.5	1219.4	1220.2	1221.6
147.5°	1268.9	1269.4	1270.1	1270.6	1271.2	1271.9	1272.5	1273.2	1273.8	1274.5	1275.5
150°	1307.0	1306.7	1306.5	1306.2	1305.9	1306.3	1307.4	1308.5	1309.6	1310.7	1310.7
152.5°	1338.3	1338.7	1339.1	1339.4	1339.8	1340.2	1340.7	1341.0	1341.5	1342.0	1342.7
155°	1386.5	1386.5	1386.5	1386.5	1386.5	1386.6	1386.9	1387.1	1387.4	1387.7	1388.7
157.5°	1429.5	1428.9	1428.3	1427.7	1427.1	1426.9	1427.2	1427.5	1427.8	1428.0	1429.1
160°	1454.9	1454.2	1453.3	1452.5	1451.7	1451.4	1451.7	1452.0	1452.2	1452.5	1453.6
162.5°	1477.4	1476.9	1476.2	1475.6	1475.1	1474.8	1474.8	1474.9	1474.9	1475.0	1476.3
165°	1507.5	1506.9	1506.4	1505.9	1505.3	1505.2	1505.4	1505.7	1506.0	1506.3	1507.4
167.5°	1533.0	1531.8	1530.8	1529.7	1528.6	1528.0	1528.0	1528.0	1528.0	1528.0	1529.7
170°	1546.6	1545.6	1544.5	1543.4	1542.3	1541.7	1541.7	1541.7	1541.7	1541.7	1543.4
172.5°	1556.4	1555.3	1554.3	1553.1	1552.1	1551.5	1551.5	1551.5	1551.5	1551.5	1553.1
175°	1567.4	1566.3	1565.3	1564.1	1563.1	1562.5	1562.5	1562.5	1562.5	1562.5	1564.1
177.5°	1573.0	1572.2	1571.3	1570.5	1569.5	1569.1	1568.8	1568.6	1568.4	1568.1	1569.4
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1



TEST NUMBER: P333451-830

CATALOG NUMBER: S125DIW-S1090D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	141.1	147.9	154.7	159.2	161.3	163.4	165.6	167.7
90°	139.6	147.5	155.3	160.7	163.4	166.3	169.1	171.8
92.5°	163.3	171.4	179.5	184.8	187.4	190.0	192.6	195.1
95°	203.3	211.4	219.5	224.8	227.3	229.9	232.4	235.0
97.5°	251.8	259.6	267.3	272.3	274.6	276.8	279.1	281.3
100°	285.3	293.6	302.0	307.4	309.6	311.8	314.1	316.3
102.5°	320.3	328.7	337.1	342.4	344.9	347.4	349.9	352.3
105°	376.7	384.1	391.3	396.3	399.2	402.0	404.7	407.6
107.5°	439.6	446.0	452.4	456.5	458.2	459.9	461.6	463.3
110°	483.0	489.2	495.4	499.3	501.1	502.8	504.4	506.1



TEST NUMBER: P333451-830

CATALOG NUMBER: S125DIW-S1090D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	526.5	532.1	537.5	541.0	542.5	544.0	545.5	547.1
115°	593.5	598.3	603.2	606.3	607.8	609.2	610.6	612.0
117.5°	660.3	665.2	670.2	673.3	674.0	674.9	675.7	676.6
120°	705.6	710.4	715.2	717.9	718.5	719.2	719.7	720.4
122.5°	749.6	753.9	758.3	760.9	761.7	762.5	763.4	764.2
125°	814.8	818.8	822.7	825.4	826.5	827.6	828.8	829.9
127.5°	879.3	883.2	887.1	889.6	890.7	891.7	892.9	894.0
130°	922.7	926.4	930.1	932.4	933.2	934.1	935.0	935.9
132.5°	963.7	967.3	971.0	973.1	973.5	973.9	974.3	974.8
135°	1026.2	1029.9	1033.6	1035.6	1035.9	1036.2	1036.5	1036.9
137.5°	1088.4	1092.0	1095.7	1097.4	1097.1	1096.9	1096.7	1096.5
140°	1127.4	1131.0	1134.6	1136.3	1136.1	1135.9	1135.7	1135.5
142.5°	1166.0	1169.0	1172.0	1173.4	1173.2	1172.9	1172.7	1172.4
145°	1223.0	1224.5	1225.9	1226.7	1227.0	1227.4	1227.7	1227.9
147.5°	1276.7	1277.8	1278.8	1278.7	1277.4	1276.1	1274.8	1273.4
150°	1310.7	1310.7	1310.7	1310.5	1310.2	1310.0	1309.8	1309.5
152.5°	1343.2	1343.9	1344.5	1344.4	1343.5	1342.6	1341.7	1340.8
155°	1389.9	1390.9	1392.0	1391.9	1390.5	1389.2	1387.8	1386.5
157.5°	1430.2	1431.3	1432.4	1432.0	1430.2	1428.4	1426.6	1424.8
160°	1454.6	1455.8	1456.8	1456.7	1455.4	1454.0	1452.6	1451.2
162.5°	1477.6	1478.8	1480.2	1480.1	1478.5	1476.9	1475.4	1473.8
165°	1508.4	1509.6	1510.6	1510.3	1508.7	1507.1	1505.4	1503.8
167.5°	1531.3	1533.0	1534.6	1534.6	1532.9	1531.2	1529.5	1527.8
170°	1545.0	1546.6	1548.2	1548.1	1546.2	1544.4	1542.4	1540.5
172.5°	1554.8	1556.4	1558.0	1558.0	1556.3	1554.6	1552.9	1551.2
175°	1565.8	1567.4	1569.1	1568.9	1567.0	1565.1	1563.2	1561.3
177.5°	1570.7	1572.1	1573.4	1573.3	1571.7	1570.2	1568.7	1567.2
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1

(END OF REPORT)