

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: P333450-830

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333450-830
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-S1090D1340U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9078.6 lumens
Efficiency: N/A
Efficacy: 130.1 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

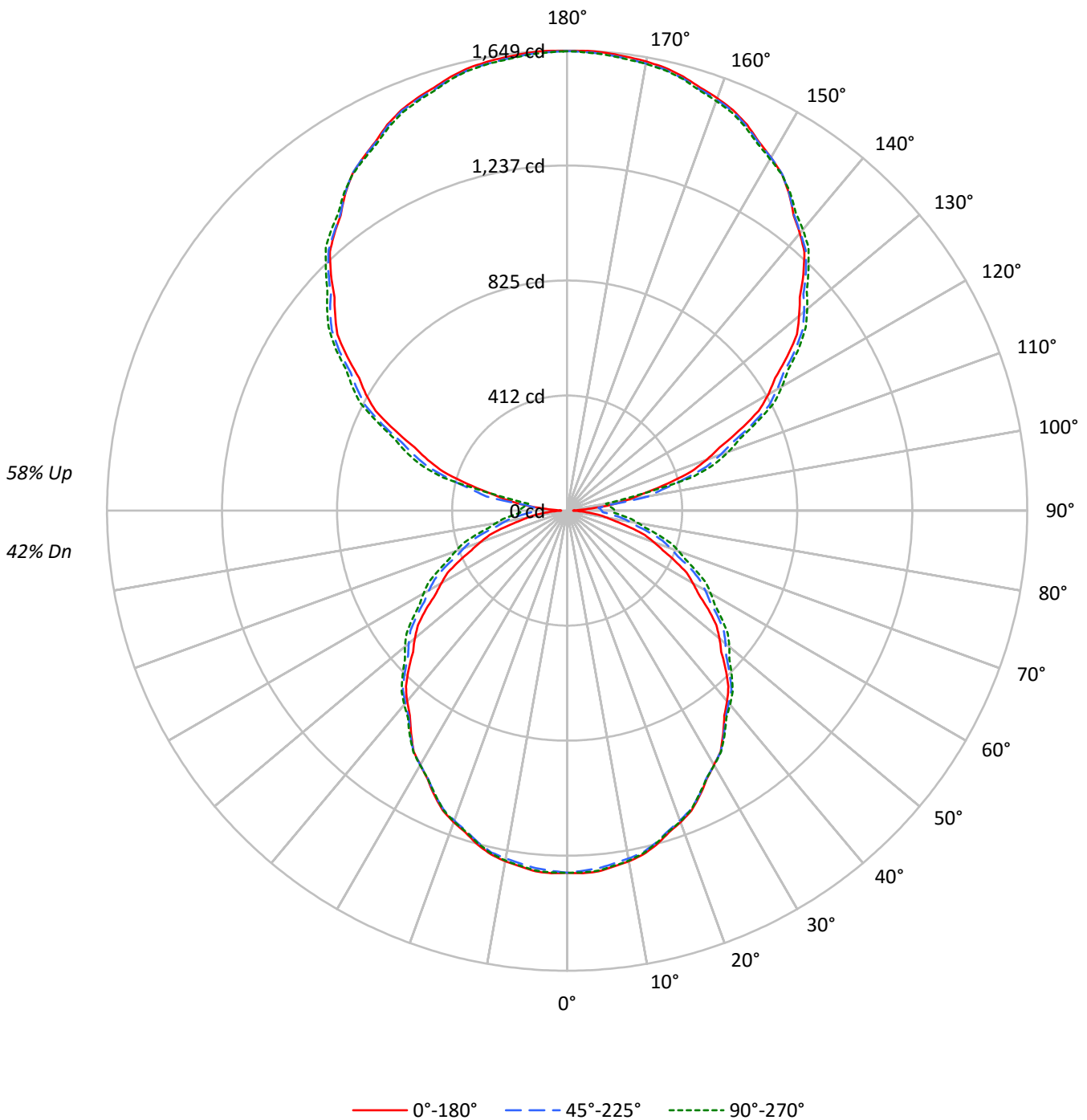
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333450-830

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Luminous Intensity Polar Plot





TEST NUMBER: P333450-830

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

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	42
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	73	67	79	72	67	62	59	55	52	47	45	42	36	35	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	29	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	21	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	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	26	20	17	21	17	14	17	14	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.4
10°-20°	348.4	3.8
20°-30°	518.1	5.7
30°-40°	613.7	6.8
40°-50°	634.5	7.0
50°-60°	584.5	6.4
60°-70°	472.5	5.2
70°-80°	316.4	3.5
80°-90°	167.5	1.8
90°-100°	151.9	1.7
100°-110°	436.6	4.8
110°-120°	714.2	7.9
120°-130°	884.0	9.7
130°-140°	934.4	10.3
140°-150°	868.7	9.6
150°-160°	700.9	7.7
160°-170°	453.3	5.0
170°-180°	156.3	1.7
0°-30°	989.2	10.9
0°-40°	1602.9	17.7
0°-60°	2821.9	31.1
0°-90°	3778.4	41.6
90°-120°	1302.7	14.3
90°-150°	3989.8	43.9
90°-180°	5300.0	58.4
0°-180°	9078.6	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	16
95°	86	114	112	145	155	102
105°	370	396	434	458	467	392
115°	681	697	731	748	749	675
125°	963	971	996	1011	1014	860
135°	1197	1203	1210	1223	1223	923
145°	1386	1387	1388	1395	1393	866
155°	1525	1519	1521	1523	1514	703
165°	1610	1603	1604	1610	1601	455
175°	1646	1639	1640	1649	1639	157
180°	1646	1646	1646	1646	1646	



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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	87.6	97.6	107.6	117.6	127.6	134.3
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°	37.1	43.9	50.8	57.7	64.6	73.7	85.2	96.7	108.3	119.8	127.4
95°	86.1	92.7	99.2	105.8	112.3	115.2	114.5	113.8	113.1	112.4	120.0
97.5°	160.2	168.3	176.4	184.5	192.6	191.1	179.9	168.8	157.7	146.6	144.9
100°	217.8	224.5	231.3	238.1	244.8	253.3	263.3	273.5	283.6	293.8	259.3
102.5°	276.4	282.9	289.4	295.9	302.4	310.4	319.9	329.3	338.8	348.3	346.4
105°	370.2	375.9	381.4	387.1	392.7	399.7	408.2	416.7	425.2	433.7	439.3
107.5°	467.8	471.6	475.5	479.4	483.1	489.5	498.1	506.8	515.5	524.1	529.8
110°	531.2	534.6	538.0	541.4	544.8	550.7	559.2	567.6	576.1	584.6	589.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	591.7	595.1	598.5	601.8	605.2	610.9	618.9	627.0	635.0	643.0	647.1
115°	681.3	684.6	688.0	691.3	694.7	700.1	707.8	715.3	722.9	730.6	734.6
117.5°	773.9	775.2	776.5	777.7	778.9	783.5	791.5	799.6	807.6	815.5	818.9
120°	832.5	833.1	833.7	834.2	834.8	838.8	846.1	853.5	860.7	868.1	872.3
122.5°	883.3	884.7	886.1	887.6	889.0	893.1	899.7	906.3	912.9	919.6	923.7
125°	963.1	964.7	966.3	967.9	969.5	973.2	978.8	984.5	990.1	995.8	999.2
127.5°	1038.2	1039.2	1040.4	1041.4	1042.5	1045.3	1049.7	1054.2	1058.7	1063.2	1066.8
130°	1085.1	1086.1	1087.2	1088.3	1089.3	1092.0	1096.3	1100.4	1104.7	1108.9	1112.0
132.5°	1130.9	1132.4	1134.0	1135.5	1137.0	1139.0	1141.4	1143.9	1146.3	1148.8	1152.5
135°	1197.3	1198.6	1200.0	1201.3	1202.7	1204.0	1205.5	1206.9	1208.3	1209.8	1213.0
137.5°	1258.3	1259.4	1260.7	1261.9	1263.0	1263.9	1264.3	1264.8	1265.3	1265.7	1269.1
140°	1297.3	1297.8	1298.4	1298.9	1299.5	1299.8	1299.8	1299.8	1299.8	1299.8	1303.4
142.5°	1333.4	1333.5	1333.6	1333.7	1333.8	1334.1	1334.5	1334.9	1335.4	1335.9	1338.6
145°	1386.4	1386.7	1386.9	1387.1	1387.4	1387.5	1387.5	1387.5	1387.5	1387.5	1389.2
147.5°	1431.4	1431.3	1431.3	1431.2	1431.1	1431.2	1431.4	1431.8	1432.1	1432.5	1433.2
150°	1460.8	1460.2	1459.7	1459.2	1458.6	1458.6	1459.2	1459.7	1460.2	1460.8	1461.3
152.5°	1489.0	1487.9	1486.7	1485.5	1484.3	1483.9	1484.5	1485.1	1485.6	1486.1	1486.7
155°	1525.4	1523.8	1522.2	1520.6	1518.9	1518.4	1518.9	1519.5	1520.0	1520.6	1521.4
157.5°	1553.5	1552.6	1551.5	1550.6	1549.6	1549.2	1549.2	1549.3	1549.4	1549.4	1550.2
160°	1573.0	1571.4	1569.8	1568.1	1566.5	1565.8	1566.1	1566.4	1566.7	1567.0	1568.0
162.5°	1588.7	1587.1	1585.4	1583.8	1582.2	1581.5	1581.8	1582.1	1582.2	1582.5	1584.0
165°	1609.7	1608.0	1606.4	1604.8	1603.2	1602.4	1602.7	1603.0	1603.3	1603.5	1605.1
167.5°	1625.2	1623.6	1621.9	1620.2	1618.5	1617.9	1618.1	1618.3	1618.6	1618.9	1620.9
170°	1634.1	1632.2	1630.2	1628.3	1626.5	1625.6	1625.9	1626.2	1626.5	1626.7	1628.9
172.5°	1639.9	1638.0	1636.2	1634.2	1632.3	1631.6	1632.1	1632.6	1633.0	1633.5	1635.5
175°	1646.2	1644.6	1643.0	1641.3	1639.7	1639.1	1639.4	1639.6	1639.9	1640.1	1642.3
177.5°	1649.2	1647.8	1646.6	1645.3	1644.0	1643.4	1643.7	1643.9	1644.1	1644.3	1645.9
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2



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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	159.1	161.3	163.4	165.6	167.7
90°	139.6	147.4	155.3	160.6	163.4	166.2	169.0	171.8
92.5°	135.1	142.7	150.3	155.3	157.7	160.0	162.4	164.8
95°	127.5	135.2	142.7	147.5	149.5	151.5	153.4	155.4
97.5°	143.2	141.5	139.7	139.9	141.8	143.6	145.6	147.5
100°	224.8	190.4	155.9	138.9	139.6	140.2	140.8	141.4
102.5°	344.4	342.4	340.5	331.2	314.4	297.7	281.0	264.2
105°	445.0	450.6	456.3	460.0	461.7	463.4	465.1	466.7
107.5°	535.5	541.1	546.8	550.1	551.0	552.0	552.9	553.8
110°	593.7	598.2	602.8	606.1	608.4	610.7	612.9	615.2



TEST NUMBER: P333450-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	651.2	655.3	659.4	662.3	663.9	665.5	667.0	668.6
115°	738.6	742.6	746.6	748.7	748.7	748.8	748.9	748.9
117.5°	822.3	825.7	829.1	831.4	832.6	833.9	835.1	836.3
120°	876.6	880.9	885.1	887.4	887.8	888.1	888.4	888.8
122.5°	927.7	931.8	935.8	937.8	938.0	938.1	938.2	938.4
125°	1002.7	1006.1	1009.6	1011.5	1012.2	1012.8	1013.3	1014.0
127.5°	1070.4	1073.9	1077.5	1079.1	1078.7	1078.4	1078.0	1077.6
130°	1115.2	1118.3	1121.5	1123.1	1123.1	1123.2	1123.2	1123.3
132.5°	1156.4	1160.2	1163.9	1165.7	1165.6	1165.5	1165.3	1165.1
135°	1216.1	1219.2	1222.3	1223.8	1223.6	1223.3	1223.1	1222.9
137.5°	1272.6	1276.1	1279.5	1281.1	1280.8	1280.5	1280.3	1280.0
140°	1307.1	1310.7	1314.4	1316.0	1315.5	1314.9	1314.5	1314.0
142.5°	1341.3	1344.2	1346.9	1348.0	1347.6	1347.0	1346.5	1346.0
145°	1390.9	1392.6	1394.3	1394.9	1394.4	1393.9	1393.4	1392.9
147.5°	1434.0	1434.7	1435.6	1435.2	1433.8	1432.4	1430.9	1429.5
150°	1461.9	1462.4	1462.9	1462.3	1460.4	1458.5	1456.6	1454.7
152.5°	1487.2	1487.8	1488.3	1487.6	1485.7	1483.8	1482.0	1480.1
155°	1522.2	1523.0	1523.8	1523.1	1521.0	1518.8	1516.6	1514.5
157.5°	1551.1	1552.0	1552.8	1552.2	1550.0	1547.8	1545.7	1543.5
160°	1569.1	1570.2	1571.3	1570.7	1568.6	1566.4	1564.2	1562.1
162.5°	1585.5	1587.1	1588.7	1588.2	1585.8	1583.4	1581.0	1578.7
165°	1606.8	1608.4	1610.1	1609.8	1607.6	1605.4	1603.3	1601.1
167.5°	1622.9	1624.8	1626.7	1626.5	1624.0	1621.6	1619.2	1616.7
170°	1631.1	1633.2	1635.4	1635.3	1632.9	1630.4	1628.0	1625.5
172.5°	1637.5	1639.5	1641.3	1641.2	1638.7	1636.3	1633.8	1631.4
175°	1644.5	1646.6	1648.8	1648.7	1646.2	1643.8	1641.3	1638.9
177.5°	1647.4	1648.9	1650.4	1650.3	1648.5	1646.8	1645.0	1643.3
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2

(END OF REPORT)