

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: P333289-830

Luminaire Tested: **S125DIP-S1090D1205U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333289-830  
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: S125DIP-S1090D1205U830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8560.7 lumens  
Efficiency: N/A  
Efficacy: 130.9 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

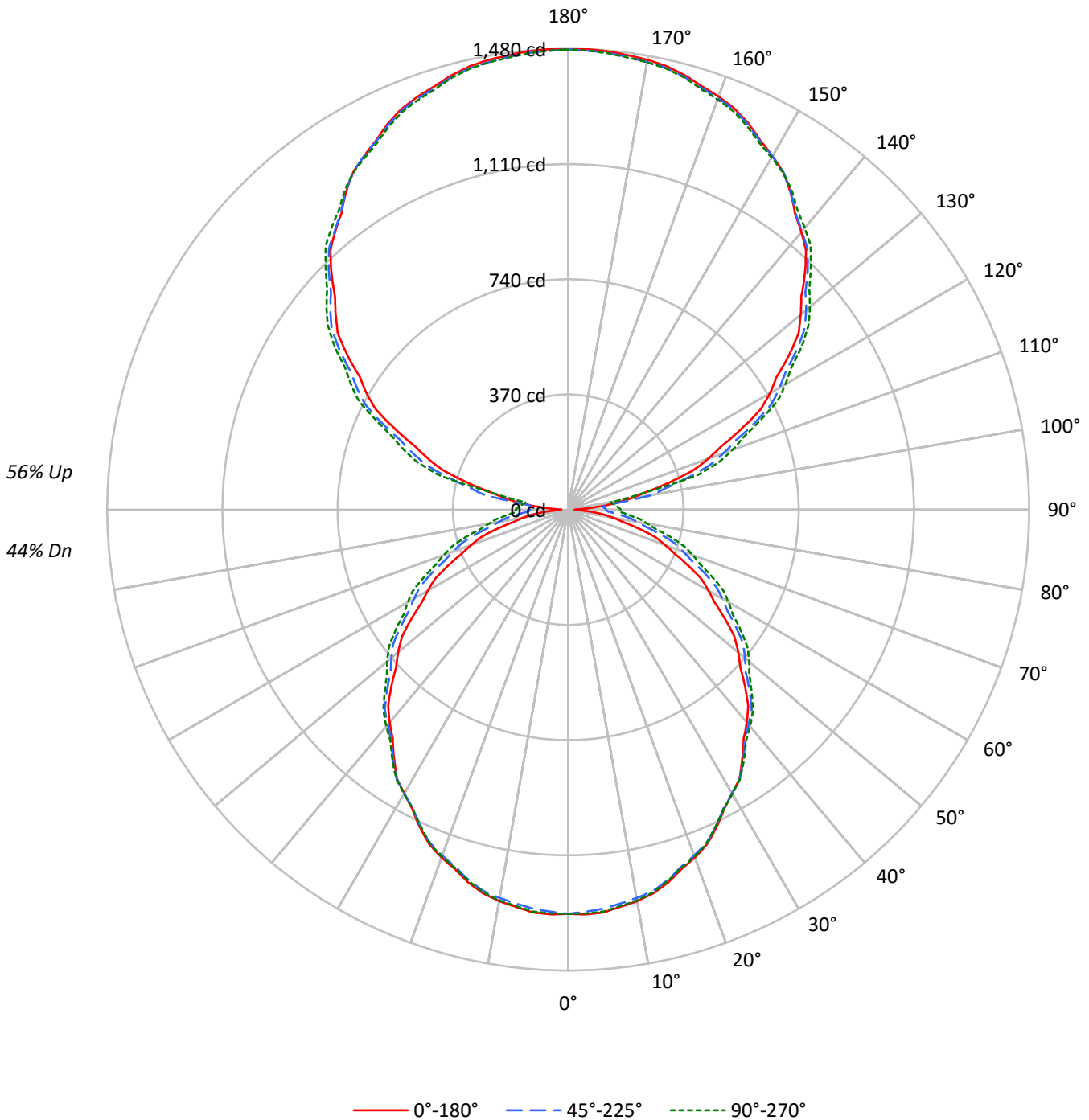
Input Watts (W): 65.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333289-830

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### Luminous Intensity Polar Plot





TEST NUMBER: P333289-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	83	87	84	80	77	69	67	64	56	54	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	29
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	55	45	38	32	38	32	28	31	26	23	24	21	19	16
7	56	44	36	30	51	41	33	28	34	28	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	25	22	25	21	18	20	17	15	12
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	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	4.1
20°-30°	518.1	6.1
30°-40°	613.7	7.2
40°-50°	634.5	7.4
50°-60°	584.5	6.8
60°-70°	472.5	5.5
70°-80°	316.4	3.7
80°-90°	167.2	2.0
90°-100°	145.8	1.7
100°-110°	398.9	4.7
110°-120°	645.7	7.5
120°-130°	796.2	9.3
130°-140°	839.8	9.8
140°-150°	780.0	9.1
150°-160°	629.1	7.3
160°-170°	406.9	4.8
170°-180°	140.3	1.6
0°-30°	989.2	11.6
0°-40°	1602.9	18.7
0°-60°	2821.9	33.0
0°-90°	3778.0	44.1
90°-120°	1190.4	13.9
90°-150°	3606.4	42.1
90°-180°	4783.0	55.9
0°-180°	8560.7	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	71	122	155	169	16
95°	79	107	110	143	153	93
105°	334	359	396	421	430	354
115°	612	628	661	678	680	607
125°	865	872	897	912	916	772
135°	1075	1080	1087	1101	1101	828
145°	1244	1245	1246	1252	1251	778
155°	1369	1363	1365	1368	1359	631
165°	1445	1439	1439	1445	1437	408
175°	1478	1472	1472	1480	1471	141
180°	1478	1478	1478	1478	1478	



TEST NUMBER: P333289-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-D

**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	58.8	68.2	77.7	87.4	97.4	107.3	117.3	127.1	133.9
90°	21.5	32.4	43.5	54.5	65.4	76.6	87.9	99.2	110.6	121.9	129.6
92.5°	35.2	42.2	49.2	56.2	63.2	72.4	83.7	95.1	106.4	117.8	125.3
95°	79.0	85.6	92.2	98.9	105.5	109.0	109.3	109.7	110.1	110.4	117.8
97.5°	145.3	153.3	161.3	169.2	177.1	176.5	167.5	158.4	149.5	140.4	139.5
100°	196.9	203.6	210.3	217.0	223.6	232.0	242.0	252.0	262.0	272.0	241.7
102.5°	249.4	255.8	262.2	268.6	275.0	283.0	292.3	301.7	311.1	320.6	319.4
105°	333.5	339.0	344.5	350.0	355.5	362.5	371.0	379.5	388.0	396.4	402.1
107.5°	420.9	424.8	428.6	432.4	436.3	442.5	451.2	459.8	468.4	477.0	482.7
110°	477.8	481.2	484.6	488.0	491.3	497.2	505.6	514.1	522.5	530.8	535.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	532.1	535.4	538.7	542.0	545.3	550.9	558.9	566.8	574.9	582.9	587.0
115°	612.3	615.5	618.7	621.9	625.1	630.5	638.1	645.6	653.3	660.8	665.0
117.5°	695.4	696.6	697.9	699.1	700.4	704.9	712.8	720.7	728.6	736.5	740.0
120°	747.9	748.6	749.1	749.8	750.4	754.3	761.5	768.7	776.0	783.3	787.6
122.5°	793.3	794.7	796.0	797.3	798.6	802.7	809.3	815.9	822.5	829.1	833.2
125°	865.0	866.4	867.8	869.2	870.6	874.2	879.9	885.5	891.2	896.8	900.4
127.5°	932.3	933.2	934.2	935.1	936.0	938.8	943.2	947.7	952.3	956.7	960.4
130°	974.3	975.2	976.2	977.1	978.1	980.6	984.9	989.0	993.3	997.5	1000.7
132.5°	1015.4	1016.7	1018.1	1019.5	1020.8	1022.8	1025.3	1027.7	1030.3	1032.8	1036.6
135°	1075.0	1076.1	1077.3	1078.5	1079.7	1081.0	1082.5	1084.0	1085.4	1086.9	1090.1
137.5°	1129.6	1130.8	1131.8	1132.8	1133.9	1134.6	1135.1	1135.7	1136.2	1136.7	1140.2
140°	1164.6	1165.1	1165.5	1166.0	1166.6	1166.8	1166.9	1166.9	1167.0	1167.0	1170.5
142.5°	1197.0	1197.1	1197.1	1197.2	1197.3	1197.5	1197.9	1198.3	1198.7	1199.1	1201.8
145°	1244.5	1244.7	1245.0	1245.2	1245.4	1245.5	1245.5	1245.5	1245.5	1245.5	1247.2
147.5°	1284.9	1284.8	1284.7	1284.6	1284.5	1284.6	1284.9	1285.2	1285.5	1285.8	1286.6
150°	1311.2	1310.7	1310.2	1309.8	1309.3	1309.3	1309.8	1310.2	1310.7	1311.2	1311.6
152.5°	1336.6	1335.6	1334.5	1333.4	1332.3	1332.0	1332.6	1333.0	1333.5	1334.0	1334.5
155°	1369.2	1367.8	1366.3	1364.9	1363.4	1362.9	1363.4	1363.9	1364.4	1364.9	1365.6
157.5°	1394.5	1393.5	1392.7	1391.9	1390.9	1390.5	1390.6	1390.6	1390.7	1390.7	1391.5
160°	1412.0	1410.5	1409.1	1407.6	1406.2	1405.5	1405.8	1406.0	1406.3	1406.5	1407.5
162.5°	1426.0	1424.6	1423.1	1421.6	1420.1	1419.6	1419.8	1420.0	1420.3	1420.5	1421.9
165°	1444.8	1443.4	1441.9	1440.5	1439.0	1438.4	1438.6	1438.9	1439.1	1439.4	1440.9
167.5°	1458.9	1457.4	1455.9	1454.3	1452.8	1452.2	1452.5	1452.6	1452.9	1453.2	1454.9
170°	1466.8	1465.1	1463.3	1461.6	1459.9	1459.2	1459.4	1459.7	1459.9	1460.2	1462.2
172.5°	1472.0	1470.3	1468.6	1466.9	1465.2	1464.5	1465.0	1465.5	1465.8	1466.3	1468.1
175°	1477.7	1476.2	1474.8	1473.3	1471.9	1471.2	1471.5	1471.8	1472.0	1472.3	1474.1
177.5°	1480.4	1479.1	1478.0	1476.9	1475.6	1475.2	1475.4	1475.6	1475.7	1475.9	1477.3
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7



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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°	140.7	147.4	154.2	158.6	160.7	162.9	164.9	167.1
90°	137.3	145.1	152.8	158.0	160.7	163.3	166.1	168.8
92.5°	132.8	140.3	147.8	152.7	155.0	157.3	159.7	161.9
95°	125.3	132.7	140.2	144.9	146.8	148.8	150.8	152.8
97.5°	138.6	137.6	136.7	137.2	139.1	141.1	143.0	144.9
100°	211.4	181.1	150.7	135.9	136.7	137.3	138.1	138.8
102.5°	318.2	317.1	315.9	307.9	293.0	278.2	263.3	248.5
105°	407.7	413.4	419.1	422.7	424.4	426.2	427.9	429.7
107.5°	488.3	494.0	499.6	502.9	504.0	505.0	506.1	507.1
110°	540.1	544.8	549.4	552.8	555.1	557.2	559.5	561.8





TEST NUMBER: P333289-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	591.3	595.5	599.7	602.7	604.3	606.0	607.6	609.2
115°	669.1	673.2	677.3	679.5	679.8	680.0	680.2	680.4
117.5°	743.6	747.1	750.6	753.1	754.3	755.6	757.0	758.2
120°	791.8	796.2	800.5	803.0	803.4	803.9	804.4	804.8
122.5°	837.3	841.4	845.5	847.6	847.9	848.2	848.5	848.9
125°	903.9	907.5	911.1	913.1	913.8	914.5	915.2	915.9
127.5°	964.0	967.6	971.3	973.1	972.9	972.7	972.5	972.4
130°	1003.9	1007.1	1010.4	1012.1	1012.3	1012.5	1012.7	1012.9
132.5°	1040.5	1044.2	1048.1	1050.0	1049.9	1049.9	1049.9	1049.8
135°	1093.3	1096.6	1099.8	1101.3	1101.3	1101.2	1101.2	1101.1
137.5°	1143.6	1147.0	1150.5	1152.1	1152.0	1151.8	1151.7	1151.6
140°	1174.1	1177.7	1181.4	1183.0	1182.6	1182.3	1182.0	1181.7
142.5°	1204.6	1207.4	1210.1	1211.4	1211.0	1210.7	1210.3	1210.0
145°	1248.8	1250.5	1252.1	1252.7	1252.5	1252.1	1251.8	1251.4
147.5°	1287.2	1288.0	1288.7	1288.5	1287.2	1286.0	1284.8	1283.6
150°	1312.2	1312.7	1313.2	1312.6	1310.9	1309.2	1307.6	1305.9
152.5°	1334.9	1335.5	1336.0	1335.3	1333.6	1331.9	1330.2	1328.5
155°	1366.3	1367.1	1367.8	1367.2	1365.3	1363.3	1361.3	1359.4
157.5°	1392.3	1393.1	1393.8	1393.3	1391.3	1389.4	1387.4	1385.4
160°	1408.4	1409.4	1410.4	1409.9	1408.0	1406.0	1404.1	1402.1
162.5°	1423.2	1424.7	1426.0	1425.6	1423.4	1421.3	1419.2	1417.0
165°	1442.3	1443.8	1445.2	1444.9	1443.0	1441.1	1439.1	1437.2
167.5°	1456.7	1458.4	1460.2	1460.0	1457.7	1455.6	1453.4	1451.2
170°	1464.1	1466.0	1468.0	1467.8	1465.7	1463.5	1461.3	1459.1
172.5°	1469.8	1471.6	1473.3	1473.1	1470.9	1468.8	1466.5	1464.3
175°	1476.1	1478.1	1480.0	1479.9	1477.7	1475.6	1473.3	1471.1
177.5°	1478.7	1480.1	1481.4	1481.3	1479.8	1478.2	1476.6	1475.1
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7

(END OF REPORT)