

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: P333444-830

Luminaire Tested: **S125DIW-S1090D1050U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333444-830
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-S1090D1050U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7971.4 lumens
Efficiency: N/A
Efficacy: 130.3 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

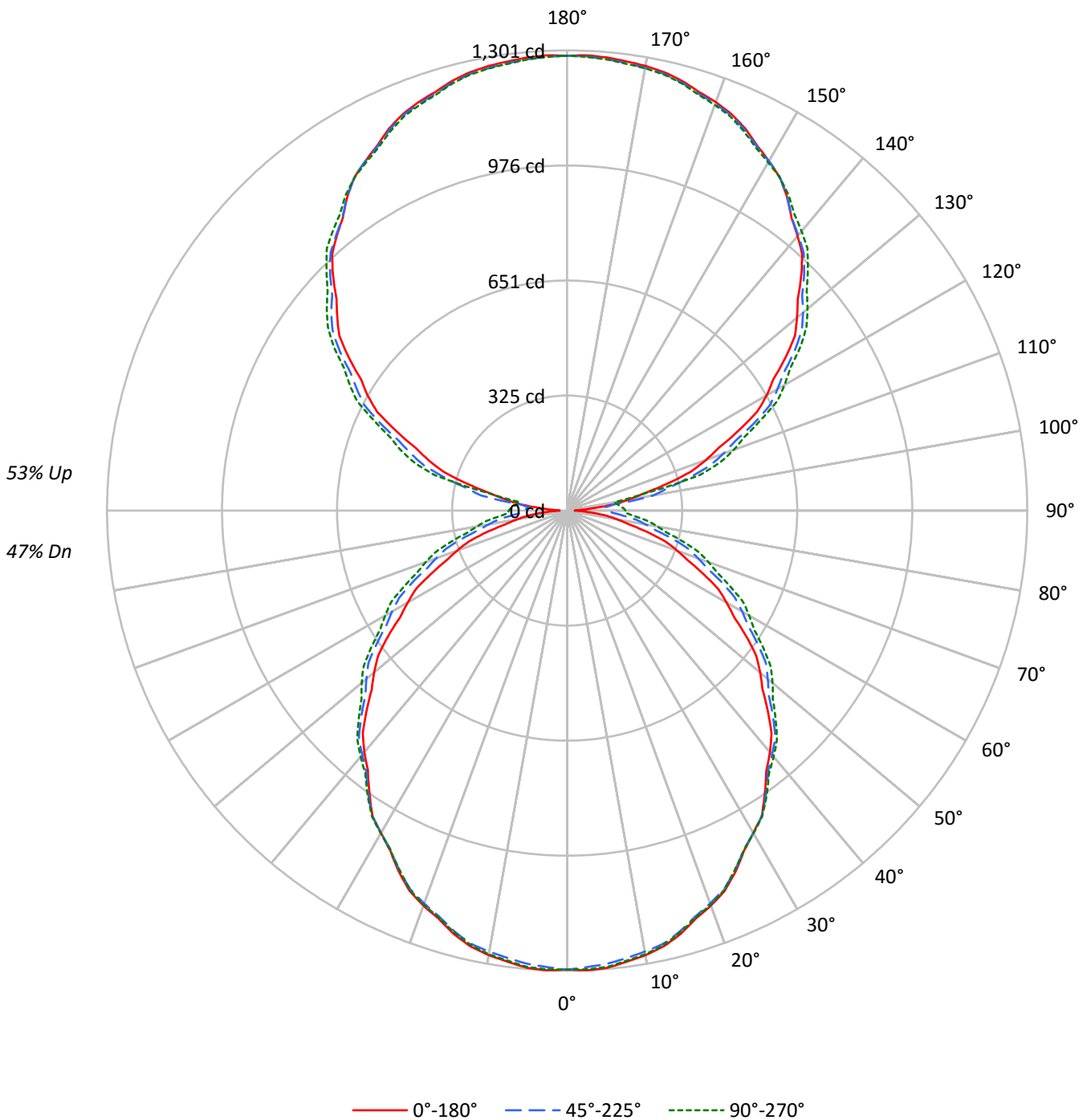
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	96	92	88	84	88	85	81	78	71	68	66	58	56	55	46	45	44	38
2	88	80	73	68	80	73	68	63	62	57	54	51	48	45	40	38	36	32
3	80	70	62	56	73	64	58	52	54	49	45	44	41	38	36	33	31	26
4	73	62	54	47	67	57	50	44	48	42	38	39	35	32	32	29	26	23
5	67	55	47	40	61	51	43	38	43	37	33	35	31	28	28	25	23	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	26	22	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	21	23	20	18	15
8	53	40	32	27	48	37	30	25	32	26	22	26	22	19	22	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	20	17	14	12
10	46	34	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

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: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.5
10°-20°	348.4	4.4
20°-30°	518.1	6.5
30°-40°	613.7	7.7
40°-50°	634.5	8.0
50°-60°	584.5	7.3
60°-70°	472.5	5.9
70°-80°	316.4	4.0
80°-90°	166.8	2.1
90°-100°	138.8	1.7
100°-110°	355.9	4.5
110°-120°	567.8	7.1
120°-130°	696.2	8.7
130°-140°	732.3	9.2
140°-150°	679.1	8.5
150°-160°	547.5	6.9
160°-170°	354.1	4.4
170°-180°	122.1	1.5
0°-30°	989.2	12.4
0°-40°	1602.9	20.1
0°-60°	2821.9	35.4
0°-90°	3777.6	47.4
90°-120°	1062.5	13.3
90°-150°	3170.1	39.8
90°-180°	4194.0	52.6
0°-180°	7971.4	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°	21	70	120	152	165	16
95°	71	100	108	140	150	82
105°	292	317	354	378	388	309
115°	534	549	582	600	603	529
125°	753	760	784	800	804	672
135°	936	940	947	961	962	721
145°	1083	1084	1084	1091	1090	677
155°	1192	1186	1188	1190	1183	549
165°	1257	1252	1252	1258	1251	355
175°	1286	1281	1281	1288	1280	122
180°	1286	1286	1286	1286	1286	



TEST NUMBER: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-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°	39.9	49.3	58.6	68.1	77.5	87.1	97.0	106.9	116.8	126.8	133.5
90°	21.3	32.0	42.8	53.5	64.3	75.2	86.3	97.4	108.5	119.6	127.1
92.5°	33.0	40.2	47.4	54.6	61.7	70.9	82.1	93.2	104.3	115.6	122.8
95°	70.9	77.6	84.3	91.0	97.7	101.9	103.5	105.0	106.6	108.1	115.5
97.5°	128.5	136.2	143.9	151.7	159.5	160.0	153.4	146.8	140.1	133.5	133.4
100°	173.1	179.7	186.3	192.9	199.4	207.7	217.6	227.5	237.4	247.3	221.7
102.5°	218.7	225.0	231.3	237.5	243.8	251.7	261.0	270.3	279.7	289.0	288.7
105°	291.7	297.1	302.5	307.8	313.2	320.1	328.6	337.1	345.5	354.0	359.7
107.5°	367.6	371.5	375.3	379.1	383.0	389.2	397.8	406.3	414.9	423.5	429.0
110°	416.9	420.3	423.7	427.1	430.5	436.3	444.7	453.0	461.4	469.7	474.5



TEST NUMBER: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	464.2	467.4	470.6	473.8	477.1	482.7	490.6	498.5	506.5	514.4	518.8
115°	533.9	536.9	539.9	542.9	546.0	551.3	558.8	566.4	574.0	581.5	585.8
117.5°	606.0	607.2	608.5	609.7	611.0	615.5	623.3	631.0	638.8	646.6	650.3
120°	651.7	652.3	653.0	653.7	654.2	658.2	665.2	672.4	679.6	686.7	691.1
122.5°	691.2	692.3	693.5	694.7	695.9	699.8	706.3	712.9	719.5	726.1	730.3
125°	753.4	754.6	755.8	757.0	758.2	761.7	767.3	773.0	778.6	784.3	788.0
127.5°	811.8	812.6	813.3	814.2	814.9	817.6	822.1	826.6	831.0	835.6	839.3
130°	848.4	849.1	850.0	850.7	851.5	853.9	858.2	862.3	866.5	870.6	874.0
132.5°	884.0	885.1	886.4	887.5	888.7	890.6	893.2	895.7	898.3	900.9	904.7
135°	935.8	936.8	937.7	938.8	939.7	941.0	942.5	944.1	945.7	947.3	950.5
137.5°	983.4	984.3	985.1	986.0	986.8	987.6	988.2	988.8	989.4	990.0	993.3
140°	1013.6	1014.1	1014.5	1014.9	1015.3	1015.6	1015.7	1015.7	1015.8	1015.9	1019.4
142.5°	1041.9	1041.9	1041.9	1042.0	1042.0	1042.2	1042.5	1042.8	1043.2	1043.6	1046.3
145°	1083.3	1083.4	1083.5	1083.6	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1085.5
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.6
150°	1141.0	1140.7	1140.2	1139.8	1139.3	1139.3	1139.8	1140.2	1140.7	1141.0	1141.5
152.5°	1163.2	1162.2	1161.3	1160.4	1159.4	1159.2	1159.6	1160.1	1160.5	1160.8	1161.3
155°	1191.6	1190.3	1189.0	1187.8	1186.5	1186.1	1186.5	1186.9	1187.3	1187.8	1188.4
157.5°	1213.5	1212.8	1212.0	1211.3	1210.4	1210.1	1210.1	1210.1	1210.2	1210.2	1211.0
160°	1228.8	1227.5	1226.2	1224.9	1223.7	1223.1	1223.3	1223.6	1223.8	1224.0	1224.8
162.5°	1241.0	1239.7	1238.4	1237.2	1235.9	1235.3	1235.6	1235.8	1236.0	1236.1	1237.4
165°	1257.4	1256.1	1254.8	1253.6	1252.3	1251.7	1252.0	1252.2	1252.4	1252.5	1253.9
167.5°	1269.5	1268.3	1267.0	1265.6	1264.3	1263.8	1263.9	1264.1	1264.4	1264.6	1266.1
170°	1276.4	1275.0	1273.5	1272.0	1270.5	1269.9	1270.1	1270.3	1270.5	1270.7	1272.4
172.5°	1281.0	1279.5	1278.0	1276.6	1275.1	1274.5	1274.9	1275.3	1275.6	1276.0	1277.5
175°	1285.9	1284.7	1283.4	1282.1	1280.8	1280.3	1280.5	1280.7	1281.0	1281.2	1282.9
177.5°	1288.3	1287.2	1286.2	1285.2	1284.2	1283.7	1283.9	1284.1	1284.2	1284.4	1285.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9



TEST NUMBER: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-D

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°	140.2	146.8	153.6	158.0	160.1	162.2	164.3	166.5
90°	134.7	142.2	149.9	155.0	157.5	160.1	162.8	165.4
92.5°	130.2	137.5	144.9	149.7	151.9	154.2	156.5	158.8
95°	122.7	130.0	137.2	141.9	143.8	145.8	147.8	149.8
97.5°	133.4	133.3	133.3	134.2	136.1	138.1	140.0	141.9
100°	196.0	170.4	144.8	132.4	133.3	134.1	135.0	135.8
102.5°	288.4	288.2	287.9	281.4	268.7	256.0	243.4	230.6
105°	365.3	371.0	376.6	380.4	382.1	383.9	385.7	387.5
107.5°	434.7	440.4	446.0	449.4	450.5	451.7	452.7	453.8
110°	479.2	483.9	488.6	492.1	494.3	496.5	498.7	500.9



TEST NUMBER: P333444-830

CATALOG NUMBER: S125DIW-S1090D1050U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	523.1	527.4	531.8	534.8	536.5	538.2	539.9	541.6
115°	590.0	594.3	598.5	600.9	601.2	601.7	602.1	602.6
117.5°	653.9	657.7	661.4	663.9	665.2	666.7	668.0	669.4
120°	695.5	699.8	704.3	706.7	707.4	708.0	708.7	709.3
122.5°	734.4	738.6	742.7	745.1	745.6	746.0	746.5	747.0
125°	791.6	795.3	799.0	801.2	801.9	802.8	803.5	804.3
127.5°	843.0	846.8	850.5	852.3	852.4	852.5	852.6	852.6
130°	877.3	880.6	883.9	885.8	886.2	886.5	886.8	887.2
132.5°	908.6	912.4	916.2	918.2	918.3	918.5	918.6	918.7
135°	953.8	957.0	960.3	962.0	962.1	962.2	962.3	962.5
137.5°	996.7	1000.2	1003.6	1005.3	1005.4	1005.4	1005.4	1005.5
140°	1022.9	1026.4	1030.0	1031.7	1031.5	1031.4	1031.2	1031.1
142.5°	1049.0	1051.8	1054.5	1055.8	1055.7	1055.6	1055.5	1055.3
145°	1087.1	1088.7	1090.3	1091.1	1091.0	1090.8	1090.7	1090.5
147.5°	1120.3	1121.1	1121.7	1121.6	1120.6	1119.6	1118.5	1117.6
150°	1141.9	1142.4	1142.7	1142.3	1140.9	1139.4	1138.0	1136.6
152.5°	1161.7	1162.2	1162.5	1162.1	1160.6	1159.1	1157.6	1156.2
155°	1189.0	1189.7	1190.3	1189.8	1188.1	1186.4	1184.7	1183.0
157.5°	1211.6	1212.3	1213.0	1212.5	1210.8	1209.1	1207.4	1205.7
160°	1225.7	1226.5	1227.4	1226.9	1225.3	1223.6	1221.9	1220.2
162.5°	1238.6	1239.7	1241.0	1240.6	1238.7	1236.9	1235.0	1233.1
165°	1255.1	1256.4	1257.6	1257.4	1255.7	1254.1	1252.4	1250.7
167.5°	1267.6	1269.1	1270.7	1270.5	1268.6	1266.7	1264.8	1262.9
170°	1274.1	1275.8	1277.5	1277.3	1275.4	1273.6	1271.7	1269.7
172.5°	1279.1	1280.6	1282.1	1282.0	1280.1	1278.1	1276.2	1274.3
175°	1284.6	1286.3	1288.0	1287.9	1285.9	1284.0	1282.1	1280.3
177.5°	1286.8	1288.0	1289.2	1289.1	1287.7	1286.4	1285.1	1283.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9

(END OF REPORT)