

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: P333590-930

Luminaire Tested: **S125RDIP-S1090D590U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333590-930  
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: S125RDIP-S1090D590U930-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5111.7 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

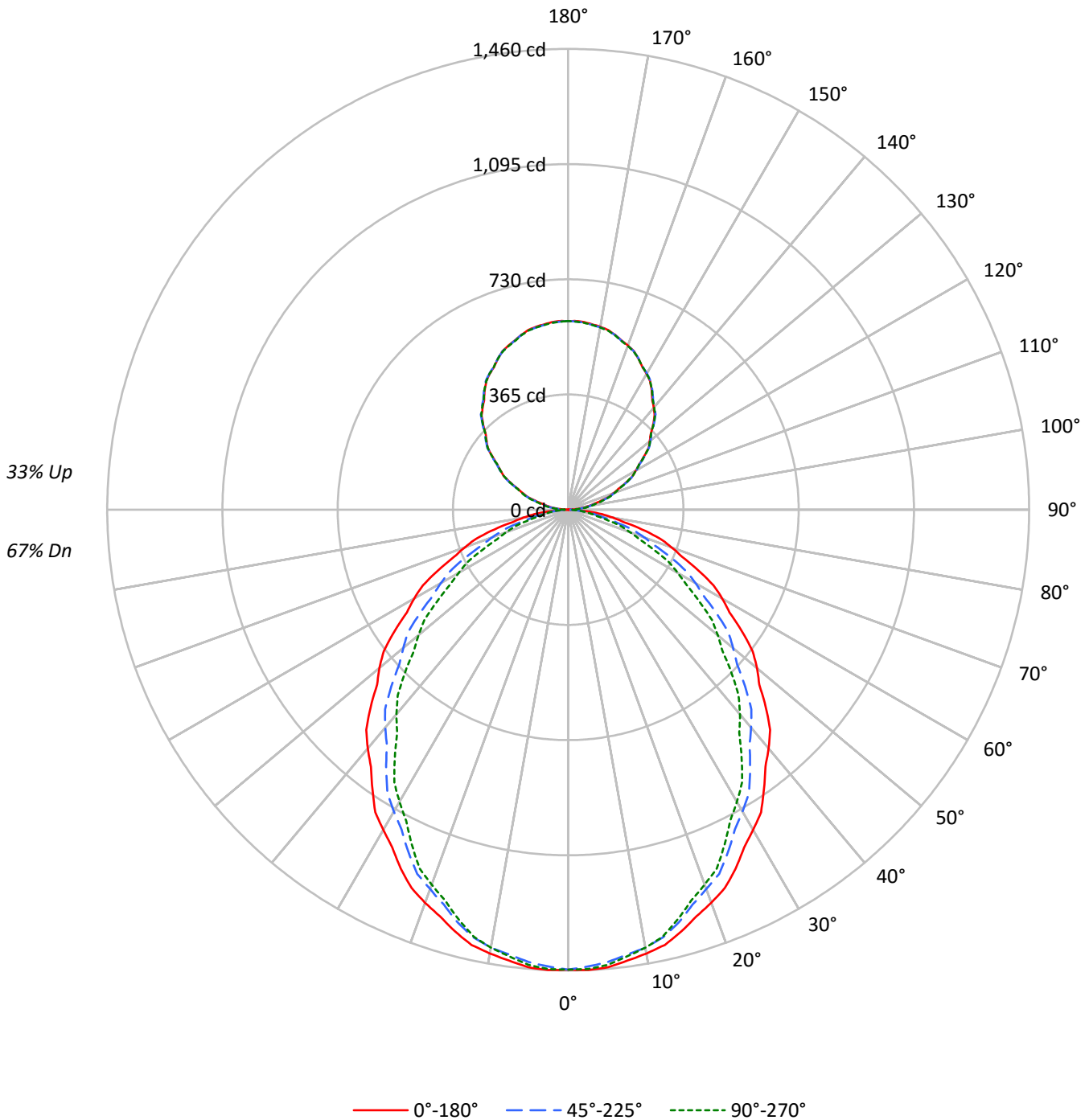
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	111	111	111	111		105	105	105	105		93	93	93		82	82	82		72	72	72	67	
1	102	98	94	90		96	92	89	86		82	80	77		73	71	69		64	63	62	57	
2	93	86	79	74		88	81	76	71		72	68	64		64	61	58		57	54	52	49	
3	85	76	68	62		80	72	65	60		64	59	54		57	53	50		51	47	45	41	
4	78	67	59	53		73	64	56	51		57	51	47		51	46	43		45	42	39	36	
5	72	60	52	46		68	57	50	44		51	45	41		46	41	37		41	37	34	31	
6	66	54	46	40		62	51	44	38		46	40	36		42	37	33		37	33	30	27	
7	61	49	41	35		58	47	39	34		42	36	32		38	33	29		34	30	27	24	
8	57	45	37	31		54	43	35	30		39	33	28		35	30	26		31	27	24	22	
9	53	41	33	28		50	39	32	27		36	30	25		32	27	24		29	25	22	20	
10	50	38	30	25		47	36	29	25		33	27	23		30	25	21		27	23	20	18	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9412	9412	9412
5°	9433	9326	9383
10°	9362	9239	9239
15°	9250	9052	8978
20°	9108	8790	8685
25°	8941	8533	8345
30°	8733	8232	7970
35°	8521	7923	7550
40°	8323	7599	7136
45°	8082	7238	6685
50°	7840	6845	6215
55°	7560	6469	5713
60°	7279	6013	5174
65°	6946	5483	4557
70°	6567	4823	3928
75°	6041	4065	3266
80°	5322	3195	2741
85°	4483	2608	2445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	2.7
10°-20°	382.9	7.5
20°-30°	555.3	10.9
30°-40°	632.9	12.4
40°-50°	616.9	12.1
50°-60°	519.3	10.2
60°-70°	364.0	7.1
70°-80°	187.1	3.7
80°-90°	48.6	0.9
90°-100°	40.0	0.8
100°-110°	118.2	2.3
110°-120°	200.2	3.9
120°-130°	263.5	5.2
130°-140°	295.3	5.8
140°-150°	289.4	5.7
150°-160°	243.0	4.8
160°-170°	161.6	3.2
170°-180°	56.5	1.1
0°-30°	1075.3	21.0
0°-40°	1708.1	33.4
0°-60°	2844.3	55.6
0°-90°	3443.9	67.4
90°-120°	358.5	7.0
90°-150°	1206.6	23.6
90°-180°	1668.0	32.6
0°-180°	5111.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1455	1450	1438	1449	1447	138
15°	1384	1376	1354	1352	1343	390
25°	1255	1237	1198	1183	1171	577
35°	1081	1053	1005	974	958	676
45°	885	851	792	750	732	682
55°	671	635	574	527	507	600
65°	454	416	359	316	298	450
75°	242	208	163	140	131	256
85°	60	42	35	34	33	68
90°	0	4	7	10	11	4
95°	30	31	36	39	40	32
105°	106	108	111	114	115	113
115°	200	202	203	203	202	198
125°	292	295	296	295	294	262
135°	380	383	384	384	382	293
145°	461	463	464	464	463	288
155°	527	527	528	530	527	243
165°	574	573	573	575	572	162
175°	596	594	594	597	594	57
180°	598	598	598	598	598	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1459.9	1459.3	1458.7	1458.1	1457.5	1456.3	1454.3	1452.4	1450.4	1448.5	1450.4
5°	1455.1	1454.1	1453.1	1452.1	1451.2	1449.3	1446.6	1443.9	1441.2	1438.5	1441.0
7.5°	1440.7	1439.8	1438.8	1437.9	1437.0	1434.9	1431.7	1428.5	1425.2	1422.0	1423.8
10°	1427.5	1426.8	1426.0	1425.3	1424.6	1422.5	1419.1	1415.7	1412.3	1408.8	1409.6
12.5°	1412.5	1411.6	1410.7	1409.7	1408.8	1406.1	1401.5	1396.9	1392.3	1387.6	1388.2
15°	1383.5	1382.0	1380.5	1379.1	1377.6	1374.4	1369.2	1364.1	1358.9	1353.8	1353.6
17.5°	1350.7	1348.4	1346.2	1343.9	1341.7	1337.3	1330.9	1324.5	1317.9	1311.5	1310.3
20°	1325.2	1322.7	1320.3	1317.8	1315.4	1310.3	1302.4	1294.6	1286.8	1279.0	1277.7
22.5°	1297.0	1294.5	1292.1	1289.6	1287.2	1281.9	1273.7	1265.4	1257.2	1249.0	1246.6
25°	1254.7	1251.1	1247.4	1243.7	1240.1	1233.7	1224.7	1215.6	1206.6	1197.5	1194.3
27.5°	1206.3	1201.8	1197.3	1192.9	1188.5	1181.5	1171.7	1162.0	1152.3	1142.6	1138.2
30°	1171.1	1166.4	1161.8	1157.2	1152.5	1145.0	1134.7	1124.5	1114.2	1103.9	1098.3
32.5°	1136.7	1131.3	1125.8	1120.5	1115.0	1107.1	1096.6	1086.1	1075.6	1065.2	1059.0
35°	1080.8	1075.0	1069.1	1063.2	1057.4	1048.9	1037.9	1026.9	1015.9	1004.9	997.8
37.5°	1026.0	1018.9	1011.7	1004.6	997.4	988.2	976.8	965.5	954.1	942.8	934.3
40°	987.2	979.9	972.6	965.2	957.9	948.4	936.6	924.9	913.1	901.4	892.1
42.5°	946.7	939.2	931.7	924.1	916.6	906.8	894.6	882.6	870.4	858.3	849.4
45°	884.9	877.8	870.7	863.6	856.6	846.3	832.8	819.4	805.9	792.5	782.7
47.5°	820.8	813.3	805.8	798.4	790.9	780.4	766.9	753.3	739.7	726.2	716.1
50°	780.3	772.3	764.2	756.1	748.0	737.0	723.1	709.1	695.2	681.3	671.0
52.5°	736.3	728.1	719.7	711.5	703.3	692.5	679.4	666.2	653.1	639.9	628.8
55°	671.4	663.6	655.7	647.9	640.1	629.3	615.6	601.9	588.2	574.5	563.5
57.5°	605.8	597.5	589.1	580.7	572.3	561.6	548.4	535.2	522.0	508.7	498.0
60°	563.5	555.0	546.4	537.9	529.3	518.4	505.2	492.0	478.7	465.5	454.8
62.5°	518.6	510.5	502.3	494.1	485.9	475.2	461.8	448.3	435.0	421.5	411.6
65°	454.5	446.2	437.9	429.6	421.3	410.7	397.7	384.7	371.8	358.8	349.0
67.5°	390.9	382.6	374.3	366.0	357.7	347.3	334.8	322.5	310.1	297.6	288.7
70°	347.8	339.5	331.2	322.9	314.5	304.3	292.0	279.8	267.6	255.4	247.8
72.5°	305.6	297.4	289.3	281.2	273.0	263.3	251.8	240.4	228.9	217.5	210.5
75°	242.1	234.8	227.5	220.1	212.8	204.0	193.7	183.4	173.2	162.9	157.5
77.5°	179.2	173.3	167.5	161.6	155.7	148.6	140.5	132.2	124.0	115.8	112.0
80°	143.1	137.2	131.3	125.5	119.6	113.2	106.4	99.5	92.7	85.9	83.6
82.5°	107.9	102.6	97.3	92.0	86.7	81.8	77.0	72.3	67.7	62.9	62.0
85°	60.5	56.1	51.7	47.3	42.9	40.1	38.9	37.7	36.4	35.2	35.0
87.5°	20.4	19.2	17.9	16.7	15.5	14.9	14.8	14.8	14.8	14.7	14.8
90°	0.5	1.3	2.1	2.9	3.8	4.6	5.3	6.0	6.7	7.4	8.0
92.5°	11.3	11.8	12.4	13.0	13.5	14.3	15.2	16.1	17.0	17.9	18.5
95°	30.2	30.4	30.7	30.8	31.1	31.7	32.7	33.8	34.8	35.8	36.5
97.5°	50.2	50.3	50.4	50.5	50.5	51.3	52.7	54.1	55.6	57.0	57.7
100°	65.1	65.1	65.1	65.1	65.1	65.8	67.1	68.5	69.8	71.2	72.1
102.5°	81.1	81.5	81.9	82.3	82.8	83.3	84.0	84.7	85.4	86.0	87.1
105°	106.1	106.6	107.0	107.6	108.1	108.7	109.3	109.9	110.6	111.1	111.8
107.5°	133.5	134.1	134.6	135.1	135.7	136.2	136.6	137.1	137.5	138.0	138.4
110°	152.5	153.0	153.6	154.1	154.7	155.1	155.3	155.6	156.0	156.3	156.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.9	172.2	172.4	172.7	173.0	173.3	173.7	174.1	174.5	174.9	175.0
115°	200.5	200.9	201.3	201.7	202.1	202.4	202.6	202.8	203.0	203.3	203.2
117.5°	229.1	229.3	229.5	229.7	229.8	230.1	230.2	230.4	230.6	230.8	230.9
120°	247.0	247.5	248.0	248.5	249.1	249.3	249.5	249.6	249.6	249.7	249.7
122.5°	266.4	266.5	266.7	266.8	267.1	267.3	267.6	267.8	268.1	268.4	268.3
125°	292.5	293.2	293.8	294.4	295.1	295.4	295.5	295.6	295.7	295.8	295.6
127.5°	320.5	320.8	321.1	321.5	321.9	322.1	322.2	322.4	322.5	322.6	322.5
130°	337.2	337.7	338.3	338.8	339.2	339.7	339.8	340.1	340.2	340.5	340.4
132.5°	353.9	354.8	355.6	356.4	357.3	357.8	357.7	357.7	357.6	357.6	357.5
135°	380.4	381.1	381.7	382.3	382.9	383.3	383.4	383.5	383.6	383.7	383.7
137.5°	405.4	406.0	406.6	407.2	407.8	408.2	408.5	408.6	408.9	409.1	409.2
140°	421.3	421.9	422.4	422.9	423.5	423.9	424.2	424.5	424.8	425.1	425.3
142.5°	437.4	437.8	438.2	438.7	439.1	439.5	439.9	440.3	440.8	441.1	441.2
145°	460.9	461.3	461.8	462.2	462.6	462.9	463.3	463.6	463.9	464.1	464.1
147.5°	482.7	482.9	483.1	483.4	483.6	483.8	484.0	484.4	484.6	484.9	485.1
150°	497.2	497.1	497.0	496.9	496.8	496.9	497.3	497.7	498.1	498.6	498.6
152.5°	509.1	509.2	509.4	509.6	509.6	509.8	510.0	510.1	510.3	510.5	510.8
155°	527.4	527.4	527.4	527.4	527.4	527.5	527.6	527.7	527.8	527.9	528.3
157.5°	543.8	543.6	543.3	543.2	542.9	542.8	542.9	543.1	543.2	543.2	543.6
160°	553.5	553.2	552.9	552.5	552.2	552.1	552.2	552.4	552.4	552.5	552.9
162.5°	562.1	561.8	561.6	561.3	561.1	561.0	561.0	561.1	561.1	561.1	561.6
165°	573.5	573.2	573.1	572.8	572.7	572.6	572.7	572.8	572.9	573.0	573.4
167.5°	583.2	582.8	582.3	581.9	581.5	581.3	581.3	581.3	581.3	581.3	581.9
170°	588.3	587.9	587.5	587.1	586.7	586.5	586.5	586.5	586.5	586.5	587.1
172.5°	592.1	591.7	591.3	590.8	590.4	590.2	590.2	590.2	590.2	590.2	590.8
175°	596.2	595.8	595.4	595.0	594.6	594.4	594.4	594.4	594.4	594.4	595.0
177.5°	598.4	598.1	597.8	597.5	597.0	596.9	596.8	596.7	596.6	596.6	597.0
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1452.4	1454.3	1456.3	1457.1	1456.9	1456.8	1456.5	1456.4
5°	1443.4	1445.9	1448.3	1449.3	1448.8	1448.3	1447.8	1447.3
7.5°	1425.5	1427.2	1428.9	1429.5	1428.9	1428.4	1427.8	1427.3
10°	1410.3	1411.0	1411.8	1411.8	1411.0	1410.3	1409.6	1408.8
12.5°	1388.8	1389.3	1389.8	1389.5	1388.4	1387.3	1386.2	1385.0
15°	1353.3	1353.1	1352.8	1351.6	1349.4	1347.2	1345.0	1342.8
17.5°	1309.0	1307.8	1306.6	1305.1	1303.3	1301.5	1299.7	1297.9
20°	1276.5	1275.3	1274.1	1272.4	1270.2	1268.0	1265.8	1263.6
22.5°	1244.2	1241.8	1239.4	1237.3	1235.5	1233.7	1231.8	1230.0
25°	1191.2	1188.0	1184.8	1181.9	1179.2	1176.5	1173.8	1171.1
27.5°	1133.8	1129.4	1124.9	1121.4	1118.8	1116.1	1113.5	1111.0
30°	1092.7	1087.0	1081.4	1077.5	1075.3	1073.1	1070.9	1068.7
32.5°	1052.8	1046.5	1040.3	1035.8	1033.1	1030.3	1027.4	1024.7
35°	990.7	983.6	976.5	971.3	967.8	964.4	961.0	957.6
37.5°	925.8	917.3	908.7	902.9	899.5	896.2	892.8	889.5
40°	882.8	873.5	864.2	858.1	855.2	852.2	849.3	846.4
42.5°	840.5	831.5	822.6	816.0	811.7	807.5	803.2	798.8
45°	772.9	763.1	753.3	746.6	742.9	739.2	735.6	731.9
47.5°	706.0	695.9	685.9	678.8	674.7	670.7	666.7	662.6
50°	660.7	650.4	640.2	633.2	629.6	625.9	622.2	618.6
52.5°	617.8	606.7	595.7	588.3	584.7	581.0	577.3	573.6
55°	552.5	541.5	530.5	523.0	519.1	515.2	511.3	507.4
57.5°	487.2	476.5	465.7	458.5	455.1	451.6	448.1	444.7
60°	444.0	433.3	422.5	415.3	411.6	408.0	404.3	400.6
62.5°	401.6	391.6	381.6	374.8	371.1	367.5	363.8	360.1
65°	339.2	329.5	319.7	312.9	309.2	305.6	301.9	298.2
67.5°	279.7	270.8	261.8	255.8	252.9	250.0	247.0	244.1
70°	240.2	232.6	225.0	219.7	216.8	213.9	210.9	208.0
72.5°	203.5	196.5	189.5	185.0	183.0	181.1	179.1	177.2
75°	152.1	146.8	141.4	137.8	136.1	134.4	132.6	130.9
77.5°	108.3	104.5	100.7	98.2	96.9	95.6	94.4	93.1
80°	81.4	79.2	77.0	75.7	75.2	74.7	74.2	73.7
82.5°	60.9	59.8	58.9	58.2	57.9	57.6	57.3	57.0
85°	34.7	34.5	34.2	34.0	33.8	33.5	33.3	33.0
87.5°	14.9	15.0	15.1	15.1	14.9	14.8	14.7	14.6
90°	8.5	9.0	9.5	9.9	10.3	10.5	10.8	11.2
92.5°	19.2	19.9	20.6	21.0	21.3	21.5	21.7	21.9
95°	37.3	38.0	38.7	39.1	39.4	39.6	39.8	40.0
97.5°	58.4	59.1	59.8	60.2	60.3	60.4	60.5	60.7
100°	73.1	73.9	74.8	75.4	75.7	75.9	76.1	76.3
102.5°	88.1	89.1	90.1	90.7	91.1	91.3	91.6	91.9
105°	112.4	113.0	113.7	114.1	114.4	114.7	115.0	115.4
107.5°	138.7	139.0	139.3	139.4	139.4	139.4	139.3	139.3
110°	156.9	157.2	157.5	157.6	157.5	157.4	157.3	157.2





TEST NUMBER: P333590-930

CATALOG NUMBER: S125RDIP-S1090D590U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	175.2	175.3	175.5	175.5	175.3	175.0	174.9	174.7
115°	203.0	202.9	202.8	202.8	202.6	202.5	202.4	202.4
117.5°	231.0	231.1	231.1	231.0	230.6	230.2	229.8	229.3
120°	249.7	249.7	249.7	249.6	249.2	248.7	248.3	247.9
122.5°	268.2	268.2	268.1	267.8	267.5	267.2	266.8	266.5
125°	295.4	295.2	295.0	294.8	294.7	294.6	294.5	294.4
127.5°	322.4	322.3	322.2	322.0	321.8	321.6	321.4	321.2
130°	340.2	340.1	340.1	339.9	339.7	339.5	339.2	339.1
132.5°	357.3	357.3	357.2	356.9	356.7	356.4	356.1	355.8
135°	383.7	383.7	383.7	383.5	383.1	382.7	382.3	381.9
137.5°	409.4	409.4	409.6	409.4	408.9	408.4	407.9	407.3
140°	425.5	425.7	425.9	425.7	425.3	424.8	424.2	423.7
142.5°	441.3	441.5	441.6	441.4	440.9	440.3	439.9	439.4
145°	464.1	464.1	464.1	464.0	463.7	463.4	463.1	462.8
147.5°	485.3	485.6	485.8	485.6	484.9	484.2	483.5	482.8
150°	498.6	498.6	498.6	498.5	498.3	498.1	497.9	497.7
152.5°	511.0	511.3	511.5	511.4	511.0	510.7	510.3	510.0
155°	528.7	529.1	529.5	529.5	529.0	528.5	527.9	527.4
157.5°	544.0	544.5	544.9	544.8	544.0	543.4	542.7	542.0
160°	553.3	553.8	554.2	554.2	553.7	553.1	552.6	552.1
162.5°	562.1	562.6	563.1	563.0	562.5	561.8	561.3	560.6
165°	573.8	574.2	574.7	574.5	574.0	573.3	572.7	572.1
167.5°	582.5	583.2	583.8	583.8	583.1	582.4	581.8	581.2
170°	587.7	588.3	589.0	588.9	588.2	587.5	586.8	586.0
172.5°	591.5	592.1	592.7	592.7	592.1	591.4	590.8	590.1
175°	595.7	596.2	596.9	596.8	596.1	595.4	594.7	593.9
177.5°	597.5	598.0	598.5	598.5	597.9	597.4	596.7	596.1
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7

(END OF REPORT)