

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: P333256-927

Luminaire Tested: **S125DIP-S1090D365U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333256-927  
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-S1090D365U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4678.3 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

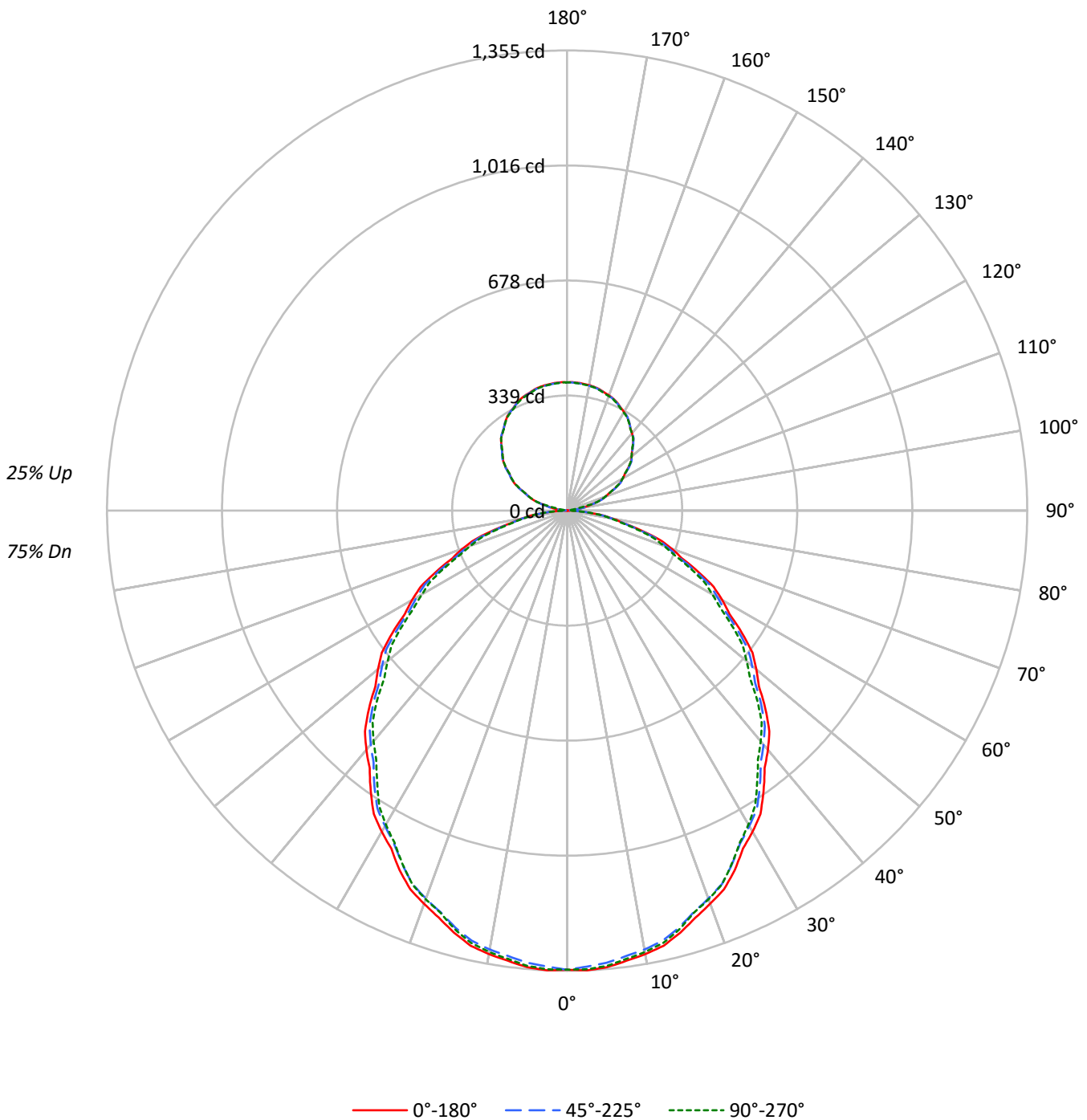
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67	63
2	94	86	80	74	89	82	77	72	75	70	66	68	64	61	62	59	56	53
3	86	76	68	62	81	72	65	60	66	60	56	60	56	52	55	51	48	45
4	79	67	59	53	74	64	57	51	59	52	48	54	48	44	49	45	41	38
5	72	60	52	45	68	58	50	44	53	46	41	48	43	39	44	39	36	33
6	67	54	46	39	63	52	44	38	48	41	36	44	38	34	40	35	32	29
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28	26
8	57	45	36	31	55	43	35	30	40	33	28	36	31	27	33	29	25	23
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	23	21
10	50	38	30	25	48	36	29	24	34	27	23	31	26	22	29	24	21	19

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

	0°	45°	90°
0°	8730	8730	8730
5°	8749	8666	8722
10°	8697	8605	8655
15°	8602	8501	8538
20°	8467	8357	8372
25°	8322	8185	8177
30°	8143	7999	7959
35°	7950	7799	7689
40°	7754	7583	7474
45°	7541	7384	7237
50°	7306	7145	6931
55°	7080	6875	6683
60°	6810	6603	6368
65°	6487	6276	6062
70°	6180	5897	5695
75°	5629	5445	5255
80°	5013	4932	4813
85°	4357	4439	4194



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	2.7
10°-20°	360.0	7.7
20°-30°	531.6	11.4
30°-40°	620.3	13.3
40°-50°	623.0	13.3
50°-60°	546.9	11.7
60°-70°	407.5	8.7
70°-80°	233.0	5.0
80°-90°	68.6	1.5
90°-100°	13.7	0.3
100°-110°	84.6	1.8
110°-120°	153.4	3.3
120°-130°	196.9	4.2
130°-140°	211.8	4.5
140°-150°	198.8	4.2
150°-160°	160.8	3.4
160°-170°	104.0	2.2
170°-180°	35.9	0.8
0°-30°	1019.1	21.8
0°-40°	1639.4	35.0
0°-60°	2809.2	60.0
0°-90°	3518.3	75.2
90°-120°	251.8	5.4
90°-150°	859.3	18.4
90°-180°	1160.0	24.8
0°-180°	4678.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1350	1347	1337	1346	1345	128
15°	1286	1283	1272	1277	1277	362
25°	1168	1162	1149	1150	1148	537
35°	1008	1004	989	984	975	631
45°	826	821	808	796	792	636
55°	629	625	611	601	594	561
65°	424	422	411	401	397	421
75°	226	223	218	215	211	241
85°	59	60	60	59	57	66
90°	0	3	4	6	7	4
95°	16	15	4	6	6	20
105°	82	83	83	83	83	87
115°	155	156	156	155	153	153
125°	220	222	222	221	220	196
135°	274	276	275	275	273	211
145°	318	318	318	319	317	199
155°	350	348	349	350	348	161
165°	369	368	368	369	367	104
175°	378	376	376	378	376	36
180°	378	378	378	378	378	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1355.2	1354.6	1354.0	1353.4	1352.9	1351.6	1349.7	1347.8	1345.9	1344.0	1345.9
5°	1349.6	1349.2	1348.7	1348.2	1347.7	1346.3	1343.9	1341.6	1339.2	1336.8	1338.9
7.5°	1337.2	1336.7	1336.3	1335.8	1335.3	1333.7	1331.1	1328.5	1325.9	1323.3	1325.4
10°	1326.1	1325.6	1325.2	1324.7	1324.2	1322.6	1320.0	1317.4	1314.8	1312.2	1314.1
12.5°	1312.4	1311.5	1310.7	1309.8	1309.0	1307.3	1304.9	1302.5	1300.1	1297.6	1299.2
15°	1286.5	1285.8	1285.1	1284.4	1283.7	1282.0	1279.4	1276.8	1274.1	1271.5	1272.7
17.5°	1256.8	1255.8	1254.7	1253.6	1252.6	1250.7	1248.0	1245.3	1242.6	1239.8	1241.3
20°	1232.0	1231.5	1231.1	1230.6	1230.1	1228.3	1225.2	1222.1	1219.0	1215.9	1217.6
22.5°	1207.1	1206.3	1205.5	1204.6	1203.7	1201.8	1199.0	1196.0	1193.2	1190.3	1191.4
25°	1167.8	1166.6	1165.5	1164.3	1163.1	1160.9	1157.9	1154.8	1151.7	1148.6	1149.1
27.5°	1121.8	1121.1	1120.4	1119.7	1119.0	1117.1	1113.8	1110.6	1107.5	1104.3	1104.4
30°	1091.9	1091.2	1090.4	1089.7	1089.0	1086.9	1083.3	1079.7	1076.2	1072.6	1072.1
32.5°	1059.4	1058.3	1057.2	1056.1	1055.0	1052.9	1049.6	1046.5	1043.3	1040.1	1039.3
35°	1008.4	1007.5	1006.5	1005.6	1004.6	1002.5	999.2	995.9	992.5	989.2	988.0
37.5°	955.6	954.4	953.2	952.0	950.9	948.7	945.5	942.5	939.3	936.2	934.4
40°	919.7	918.5	917.3	916.2	915.0	912.7	909.3	906.0	902.7	899.4	897.2
42.5°	881.2	880.2	879.2	878.2	877.2	875.0	871.7	868.4	865.1	861.7	859.8
45°	825.6	824.7	823.7	822.8	821.8	819.9	817.1	814.2	811.4	808.5	805.6
47.5°	765.7	765.7	765.8	765.9	765.9	764.2	760.8	757.3	753.9	750.5	747.6
50°	727.2	726.5	725.8	725.1	724.4	722.5	719.7	716.8	714.0	711.1	708.1
52.5°	687.9	687.3	686.8	686.3	685.8	684.0	681.0	677.9	674.9	671.8	669.1
55°	628.8	628.1	627.4	626.7	626.0	623.9	620.6	617.3	613.9	610.6	608.5
57.5°	566.6	566.2	565.9	565.5	565.1	563.5	560.6	557.9	555.1	552.2	549.5
60°	527.2	526.2	525.3	524.3	523.4	521.7	519.0	516.4	513.8	511.2	508.8
62.5°	486.2	485.4	484.7	483.9	483.2	481.6	479.3	477.1	474.9	472.7	470.1
65°	424.5	424.1	423.6	423.1	422.6	421.1	418.5	415.9	413.3	410.7	408.5
67.5°	364.9	363.8	362.9	361.9	360.9	359.4	357.4	355.5	353.6	351.6	349.8
70°	327.3	326.1	324.9	323.7	322.5	320.8	318.7	316.6	314.4	312.3	310.9
72.5°	286.2	285.3	284.6	283.8	283.0	281.9	280.5	279.1	277.7	276.3	274.7
75°	225.6	225.1	224.7	224.2	223.7	222.9	221.7	220.5	219.4	218.2	217.5
77.5°	169.8	169.6	169.4	169.3	169.1	168.7	167.9	167.3	166.7	166.0	165.6
80°	134.8	134.8	134.8	134.8	134.8	134.5	134.0	133.6	133.1	132.6	132.4
82.5°	103.9	103.5	103.2	102.8	102.4	102.2	102.1	102.0	101.9	101.8	101.4
85°	58.8	59.0	59.3	59.5	59.7	59.9	59.9	59.9	59.9	59.9	59.7
87.5°	23.1	23.3	23.4	23.4	23.5	23.5	23.4	23.4	23.2	23.1	23.2
90°	0.3	0.8	1.3	1.7	2.3	2.8	3.2	3.6	4.0	4.5	4.8
92.5°	4.3	4.0	3.6	3.2	2.9	2.9	3.3	3.7	4.1	4.5	4.8
95°	15.9	15.8	15.6	15.4	15.2	13.9	11.6	9.2	6.8	4.5	4.8
97.5°	33.4	33.7	34.0	34.3	34.7	32.5	27.8	23.1	18.5	13.8	12.0
100°	46.7	47.0	47.1	47.3	47.5	47.7	48.0	48.2	48.5	48.7	39.5
102.5°	60.4	60.7	60.9	61.2	61.4	61.6	61.7	61.9	62.0	62.2	60.4
105°	82.3	82.5	82.9	83.1	83.3	83.4	83.4	83.4	83.4	83.4	83.4
107.5°	105.0	105.0	105.0	105.0	105.0	105.1	105.3	105.4	105.5	105.6	105.6
110°	119.9	119.9	119.9	119.9	119.9	119.9	120.0	120.2	120.3	120.4	120.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	133.7	133.9	134.0	134.2	134.4	134.4	134.5	134.6	134.7	134.8	134.5
115°	154.6	154.9	155.2	155.5	155.8	156.0	156.1	156.1	156.2	156.2	156.0
117.5°	176.1	176.1	176.1	176.1	176.1	176.2	176.4	176.7	176.9	177.1	176.8
120°	189.6	189.5	189.5	189.4	189.3	189.4	189.6	189.7	190.0	190.1	190.0
122.5°	201.5	201.7	201.9	202.2	202.4	202.6	202.6	202.7	202.8	202.9	202.8
125°	219.8	220.2	220.7	221.1	221.6	221.8	221.8	221.8	221.8	221.8	221.5
127.5°	237.3	237.7	238.0	238.3	238.6	238.8	238.7	238.7	238.6	238.6	238.4
130°	248.1	248.4	248.7	249.1	249.4	249.5	249.6	249.6	249.7	249.8	249.6
132.5°	258.9	259.2	259.6	259.9	260.3	260.4	260.3	260.2	260.0	259.8	259.8
135°	274.2	274.5	274.9	275.3	275.6	275.8	275.6	275.5	275.4	275.3	275.1
137.5°	288.2	288.5	288.8	289.1	289.5	289.6	289.5	289.4	289.2	289.1	289.1
140°	297.4	297.5	297.6	297.8	297.9	297.9	297.9	297.8	297.7	297.7	297.8
142.5°	305.7	305.8	305.9	305.9	305.9	306.0	306.2	306.3	306.3	306.4	306.4
145°	317.8	318.0	318.1	318.2	318.3	318.4	318.4	318.4	318.4	318.4	318.5
147.5°	328.4	328.4	328.4	328.4	328.4	328.4	328.4	328.5	328.6	328.7	328.8
150°	335.2	335.1	334.9	334.8	334.7	334.7	334.8	334.9	335.1	335.2	335.3
152.5°	341.7	341.4	341.1	340.9	340.6	340.5	340.6	340.8	340.9	341.0	341.1
155°	350.1	349.7	349.3	348.9	348.6	348.4	348.6	348.6	348.8	348.9	349.1
157.5°	356.5	356.2	356.0	355.8	355.6	355.5	355.5	355.5	355.5	355.5	355.7
160°	360.9	360.6	360.2	359.8	359.5	359.3	359.3	359.4	359.5	359.6	359.8
162.5°	364.6	364.2	363.8	363.4	363.1	362.9	363.0	363.0	363.1	363.1	363.5
165°	369.3	369.0	368.6	368.2	367.9	367.7	367.7	367.8	367.9	368.0	368.3
167.5°	373.0	372.6	372.2	371.8	371.4	371.2	371.3	371.4	371.5	371.5	371.9
170°	374.9	374.5	374.1	373.7	373.2	373.0	373.1	373.1	373.2	373.3	373.8
172.5°	376.3	375.9	375.4	375.0	374.5	374.4	374.5	374.6	374.7	374.9	375.3
175°	377.7	377.4	377.0	376.6	376.3	376.1	376.1	376.2	376.3	376.4	376.8
177.5°	378.4	378.1	377.8	377.6	377.2	377.1	377.2	377.2	377.2	377.3	377.6
180°	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1347.8	1349.7	1351.6	1352.5	1352.3	1352.1	1351.9	1351.8
5°	1341.1	1343.2	1345.4	1346.3	1346.1	1345.8	1345.6	1345.4
7.5°	1327.5	1329.6	1331.7	1332.6	1332.4	1332.1	1331.9	1331.7
10°	1316.0	1317.9	1319.8	1320.6	1320.4	1320.2	1319.9	1319.7
12.5°	1300.7	1302.2	1303.7	1304.5	1304.4	1304.3	1304.3	1304.2
15°	1273.9	1275.1	1276.3	1276.9	1276.9	1276.9	1276.9	1276.9
17.5°	1242.9	1244.3	1245.8	1245.9	1244.8	1243.6	1242.4	1241.2
20°	1219.2	1220.9	1222.6	1222.8	1221.6	1220.4	1219.2	1218.1
22.5°	1192.5	1193.6	1194.6	1194.8	1194.0	1193.2	1192.4	1191.5
25°	1149.5	1150.0	1150.5	1150.3	1149.6	1148.9	1148.2	1147.5
27.5°	1104.5	1104.5	1104.7	1104.4	1103.7	1103.0	1102.2	1101.5
30°	1071.7	1071.2	1070.7	1070.2	1069.4	1068.7	1068.0	1067.3
32.5°	1038.4	1037.5	1036.7	1035.6	1034.4	1033.1	1031.7	1030.5
35°	986.8	985.6	984.4	982.9	981.0	979.1	977.2	975.3
37.5°	932.6	930.9	929.2	927.7	926.6	925.5	924.4	923.4
40°	895.1	892.9	890.8	889.4	888.7	888.0	887.2	886.5
42.5°	857.9	855.9	854.0	852.4	851.4	850.2	849.1	848.0
45°	802.8	799.9	797.1	795.3	794.6	793.8	793.1	792.4
47.5°	744.7	741.8	738.9	736.7	735.0	733.3	731.7	730.0
50°	705.0	701.9	698.8	696.4	694.7	693.1	691.4	689.8
52.5°	666.4	663.7	661.0	658.7	656.8	655.0	653.2	651.3
55°	606.3	604.2	602.1	600.2	598.5	596.8	595.2	593.5
57.5°	546.8	544.0	541.2	539.4	538.5	537.6	536.7	535.8
60°	506.4	504.1	501.7	499.6	498.0	496.3	494.6	493.0
62.5°	467.5	465.0	462.4	460.5	459.2	458.0	456.6	455.3
65°	406.4	404.3	402.1	400.5	399.6	398.6	397.7	396.7
67.5°	348.0	346.2	344.4	343.2	342.6	342.1	341.5	341.0
70°	309.4	308.0	306.6	305.4	304.4	303.5	302.5	301.6
72.5°	273.1	271.5	269.9	268.6	267.7	266.7	265.8	264.8
75°	216.7	216.0	215.3	214.4	213.5	212.5	211.6	210.6
77.5°	165.1	164.7	164.3	163.7	163.0	162.4	161.7	161.1
80°	132.1	131.9	131.7	131.3	130.8	130.3	129.8	129.4
82.5°	100.9	100.5	100.1	99.8	99.7	99.7	99.6	99.4
85°	59.4	59.2	58.9	58.5	58.1	57.6	57.1	56.6
87.5°	23.3	23.3	23.4	23.2	22.9	22.6	22.2	21.9
90°	5.1	5.4	5.7	5.9	6.2	6.3	6.5	6.7
92.5°	5.1	5.4	5.7	5.9	6.0	6.1	6.2	6.3
95°	5.1	5.4	5.7	5.9	5.9	5.9	5.9	5.9
97.5°	10.3	8.5	6.7	5.9	5.9	5.9	5.9	5.9
100°	30.2	20.9	11.6	6.9	6.7	6.4	6.1	5.9
102.5°	58.6	56.9	55.1	52.1	47.9	43.7	39.5	35.3
105°	83.4	83.4	83.4	83.4	83.3	83.3	83.3	83.2
107.5°	105.7	105.7	105.7	105.6	105.4	105.2	105.0	104.8
110°	120.0	119.9	119.7	119.6	119.7	119.7	119.8	119.9





TEST NUMBER: P333256-927

CATALOG NUMBER: S125DIP-S1090D365U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	134.3	134.0	133.8	133.6	133.6	133.5	133.4	133.3
115°	155.7	155.5	155.3	155.0	154.6	154.2	153.8	153.4
117.5°	176.5	176.2	175.9	175.6	175.5	175.3	175.2	175.0
120°	189.9	189.7	189.6	189.4	189.1	188.8	188.5	188.1
122.5°	202.6	202.6	202.4	202.2	201.8	201.5	201.1	200.7
125°	221.3	221.0	220.8	220.5	220.4	220.2	220.0	219.8
127.5°	238.3	238.1	238.1	237.7	237.3	236.8	236.4	235.9
130°	249.4	249.2	249.1	248.7	248.5	248.2	247.9	247.6
132.5°	259.8	259.8	259.7	259.5	259.2	258.9	258.6	258.3
135°	275.0	274.9	274.7	274.5	274.2	273.8	273.4	273.0
137.5°	289.2	289.2	289.2	289.1	288.8	288.4	288.1	287.8
140°	297.9	298.0	298.2	298.0	297.7	297.3	296.9	296.5
142.5°	306.4	306.5	306.5	306.3	305.9	305.5	305.2	304.8
145°	318.5	318.5	318.6	318.5	318.1	317.7	317.3	317.0
147.5°	328.8	328.9	329.0	328.8	328.4	327.9	327.5	327.0
150°	335.4	335.6	335.6	335.5	335.0	334.5	334.0	333.5
152.5°	341.3	341.4	341.5	341.4	340.9	340.5	340.0	339.5
155°	349.3	349.4	349.7	349.5	349.0	348.5	348.0	347.5
157.5°	355.9	356.1	356.3	356.2	355.7	355.1	354.7	354.2
160°	360.0	360.3	360.5	360.4	359.9	359.4	358.9	358.5
162.5°	363.8	364.2	364.6	364.4	363.8	363.3	362.8	362.3
165°	368.7	369.1	369.5	369.4	368.9	368.4	367.9	367.4
167.5°	372.4	372.8	373.3	373.2	372.6	372.1	371.5	371.0
170°	374.2	374.8	375.3	375.3	374.7	374.1	373.5	373.0
172.5°	375.7	376.2	376.6	376.6	376.0	375.4	374.9	374.3
175°	377.3	377.9	378.3	378.3	377.7	377.2	376.6	376.0
177.5°	378.0	378.3	378.7	378.7	378.3	377.9	377.5	377.1
180°	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7

(END OF REPORT)