

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: P333274-930

Luminaire Tested: **S125DIP-S1090D810U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333274-930  
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-S1090D810U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

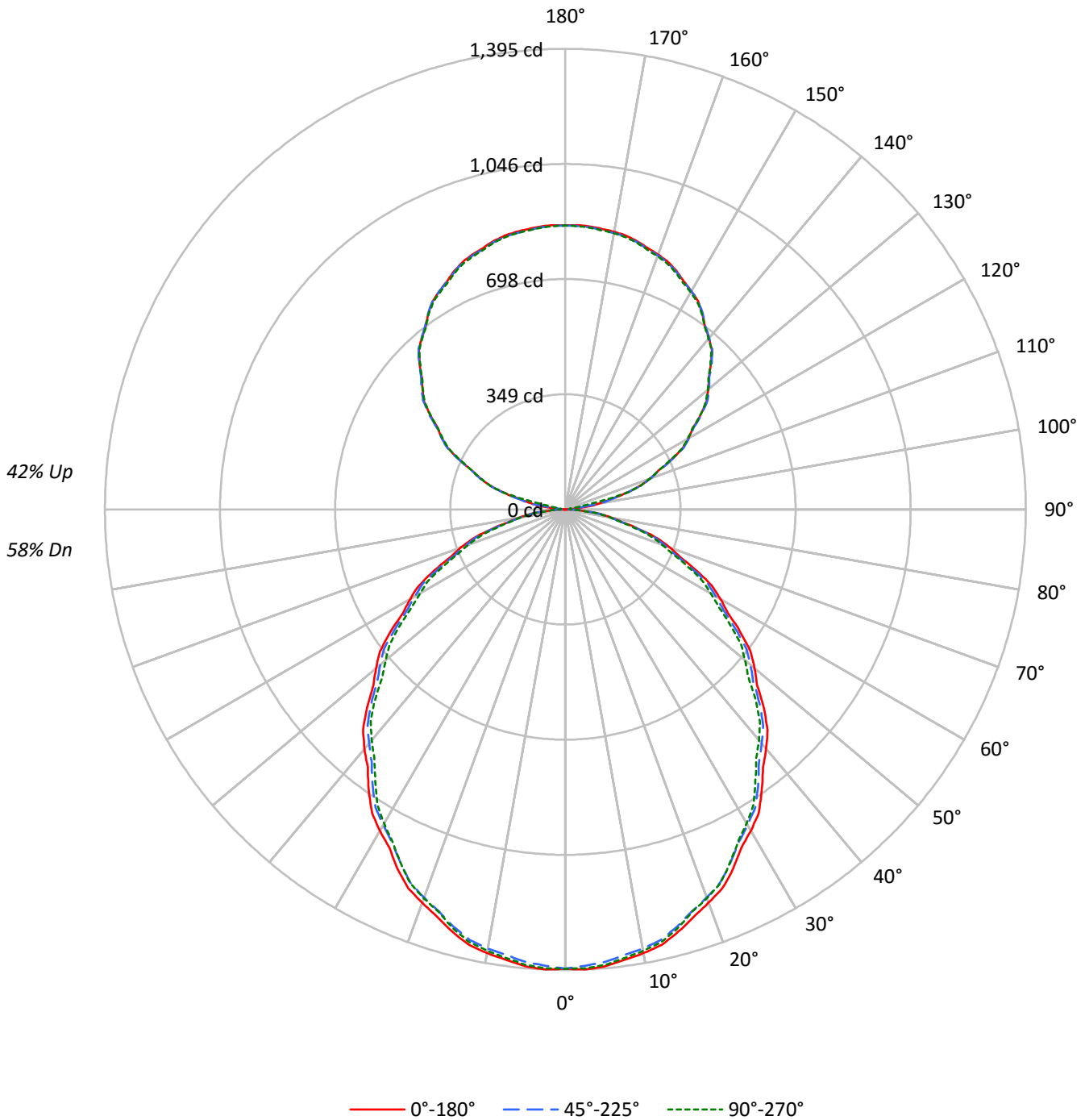
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6263.2 lumens  
Efficiency: N/A  
Efficacy: 115.1 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: General Diffuse  
  
Input Watts (W): 54.4  
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



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR	0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58																		
	1	99	95	91	88	93	89	85	82	77	74	72	66	64	62	56	55	53	49																		
	2	91	83	77	71	84	78	72	67	67	63	60	58	55	52	49	47	45	41																		
	3	83	73	65	59	77	68	62	56	59	54	50	51	47	44	43	41	38	34																		
	4	76	65	57	50	70	60	53	48	53	47	43	46	41	38	39	36	33	29																		
	5	69	58	49	43	64	54	47	41	47	41	37	41	36	33	35	31	29	26																		
	6	64	52	43	38	59	49	41	36	43	37	32	37	32	29	32	28	25	22																		
	7	59	47	39	33	55	44	37	31	39	33	28	34	29	25	29	25	22	20																		
	8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18																		
	9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	25	21	18	16																		
	10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	17	15																		

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

	0°	45°	90°
0°	8985	8985	8985
5°	9005	8919	8976
10°	8950	8857	8907
15°	8852	8750	8787
20°	8715	8601	8616
25°	8565	8424	8416
30°	8380	8232	8192
35°	8183	8027	7914
40°	7981	7804	7692
45°	7761	7600	7448
50°	7519	7354	7133
55°	7287	7076	6877
60°	7009	6795	6554
65°	6677	6460	6240
70°	6360	6069	5861
75°	5794	5602	5410
80°	5159	5077	4950
85°	4483	4565	4320



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.2	2.1
10°-20°	370.5	5.9
20°-30°	547.1	8.7
30°-40°	638.4	10.2
40°-50°	641.2	10.2
50°-60°	562.8	9.0
60°-70°	419.4	6.7
70°-80°	239.8	3.8
80°-90°	71.5	1.1
90°-100°	31.3	0.5
100°-110°	192.6	3.1
110°-120°	349.4	5.6
120°-130°	448.4	7.2
130°-140°	482.3	7.7
140°-150°	452.7	7.2
150°-160°	366.2	5.8
160°-170°	236.8	3.8
170°-180°	81.7	1.3
0°-30°	1048.8	16.7
0°-40°	1687.2	26.9
0°-60°	2891.2	46.2
0°-90°	3621.9	57.8
90°-120°	573.3	9.2
90°-150°	1956.6	31.2
90°-180°	2641.0	42.2
0°-180°	6263.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1389	1386	1376	1385	1385	132
15°	1324	1320	1309	1314	1314	373
25°	1202	1196	1182	1184	1181	553
35°	1038	1033	1018	1012	1004	649
45°	850	845	832	819	816	655
55°	647	643	628	619	611	578
65°	437	434	423	413	408	433
75°	232	230	224	221	217	248
85°	60	62	62	60	58	68
90°	1	6	10	13	15	5
95°	36	33	10	13	13	46
105°	187	190	190	190	189	199
115°	352	355	356	353	349	349
125°	500	505	505	502	500	447
135°	624	628	627	625	622	481
145°	724	725	725	725	722	452
155°	797	793	794	796	791	367
165°	841	837	838	841	836	237
175°	860	857	857	861	856	82
180°	860	860	860	860	860	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1394.7	1394.2	1393.5	1392.9	1392.4	1391.1	1389.1	1387.2	1385.2	1383.2	1385.2
5°	1389.0	1388.5	1388.0	1387.6	1387.1	1385.6	1383.2	1380.7	1378.3	1375.8	1378.0
7.5°	1376.2	1375.7	1375.2	1374.8	1374.3	1372.6	1369.9	1367.3	1364.6	1361.9	1364.1
10°	1364.8	1364.3	1363.8	1363.3	1362.9	1361.2	1358.5	1355.8	1353.2	1350.5	1352.4
12.5°	1350.7	1349.8	1348.9	1348.0	1347.2	1345.5	1343.0	1340.5	1338.0	1335.5	1337.1
15°	1324.0	1323.3	1322.6	1321.8	1321.1	1319.4	1316.7	1314.0	1311.3	1308.6	1309.9
17.5°	1293.5	1292.4	1291.3	1290.2	1289.2	1287.2	1284.4	1281.7	1278.9	1276.0	1277.6
20°	1268.0	1267.5	1267.0	1266.5	1266.0	1264.1	1260.9	1257.8	1254.6	1251.4	1253.1
22.5°	1242.4	1241.5	1240.6	1239.7	1238.8	1236.9	1234.0	1230.9	1228.0	1225.0	1226.1
25°	1201.9	1200.7	1199.5	1198.2	1197.0	1194.8	1191.6	1188.5	1185.3	1182.1	1182.6
27.5°	1154.5	1153.8	1153.1	1152.3	1151.6	1149.7	1146.3	1143.0	1139.8	1136.5	1136.6
30°	1123.7	1123.0	1122.3	1121.5	1120.8	1118.6	1114.9	1111.3	1107.6	1103.9	1103.4
32.5°	1090.3	1089.2	1088.0	1086.9	1085.8	1083.6	1080.3	1077.0	1073.7	1070.5	1069.6
35°	1037.9	1036.9	1035.9	1034.9	1034.0	1031.8	1028.3	1024.9	1021.5	1018.1	1016.8
37.5°	983.5	982.3	981.0	979.8	978.6	976.4	973.1	970.0	966.7	963.5	961.6
40°	946.6	945.3	944.1	942.9	941.7	939.3	935.9	932.5	929.0	925.6	923.4
42.5°	906.9	905.9	904.9	903.8	902.8	900.6	897.2	893.7	890.3	886.9	884.8
45°	849.7	848.7	847.7	846.8	845.8	843.8	840.9	838.0	835.0	832.1	829.2
47.5°	788.1	788.1	788.1	788.2	788.2	786.5	783.0	779.4	775.9	772.4	769.4
50°	748.4	747.7	747.0	746.2	745.5	743.6	740.7	737.8	734.8	731.9	728.7
52.5°	707.9	707.4	706.9	706.3	705.8	703.9	700.8	697.7	694.6	691.4	688.6
55°	647.2	646.5	645.7	645.0	644.2	642.1	638.7	635.3	631.9	628.4	626.2
57.5°	583.1	582.7	582.4	582.0	581.6	579.9	577.0	574.1	571.3	568.3	565.5
60°	542.6	541.6	540.6	539.6	538.7	536.9	534.2	531.5	528.8	526.1	523.7
62.5°	500.3	499.5	498.8	498.0	497.3	495.7	493.3	491.1	488.8	486.5	483.8
65°	436.9	436.4	435.9	435.5	435.0	433.4	430.7	428.0	425.3	422.7	420.4
67.5°	375.5	374.5	373.5	372.4	371.5	369.9	367.9	365.9	363.9	361.9	360.0
70°	336.8	335.6	334.4	333.1	331.9	330.2	328.0	325.8	323.6	321.4	319.9
72.5°	294.6	293.7	292.9	292.0	291.2	290.1	288.7	287.2	285.8	284.4	282.7
75°	232.2	231.7	231.2	230.7	230.2	229.4	228.2	227.0	225.8	224.5	223.8
77.5°	174.8	174.6	174.4	174.2	174.0	173.6	172.8	172.2	171.5	170.8	170.4
80°	138.7	138.7	138.7	138.7	138.7	138.4	137.9	137.5	137.0	136.5	136.2
82.5°	107.0	106.6	106.2	105.8	105.4	105.2	105.1	105.0	104.8	104.8	104.4
85°	60.5	60.7	61.0	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.4
87.5°	23.9	24.1	24.4	24.5	24.8	24.9	24.9	24.9	24.9	24.9	25.1
90°	0.7	1.8	2.9	4.1	5.1	6.2	7.3	8.2	9.2	10.2	10.9
92.5°	9.8	9.0	8.2	7.4	6.7	6.7	7.6	8.5	9.3	10.2	10.9
95°	36.4	36.0	35.5	35.1	34.7	31.7	26.3	21.0	15.6	10.2	10.9
97.5°	75.9	76.6	77.4	78.2	78.9	74.0	63.3	52.7	42.0	31.4	27.4
100°	106.5	106.9	107.3	107.8	108.2	108.7	109.3	109.8	110.4	111.0	89.8
102.5°	137.6	138.1	138.7	139.2	139.7	140.1	140.6	140.9	141.2	141.5	137.5
105°	187.4	188.0	188.6	189.1	189.7	190.0	190.0	190.0	190.0	190.0	190.0
107.5°	239.2	239.2	239.2	239.2	239.2	239.4	239.6	239.9	240.2	240.5	240.5
110°	272.9	272.9	272.9	272.9	272.9	273.0	273.3	273.6	273.9	274.2	273.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	304.5	304.8	305.2	305.6	305.9	306.1	306.3	306.5	306.6	306.8	306.3
115°	352.0	352.7	353.4	354.1	354.8	355.2	355.4	355.5	355.6	355.8	355.2
117.5°	401.0	401.0	401.0	401.0	401.0	401.2	401.7	402.3	402.8	403.3	402.6
120°	431.6	431.5	431.4	431.2	431.0	431.2	431.6	432.1	432.5	432.9	432.7
122.5°	458.7	459.3	459.7	460.3	460.8	461.2	461.4	461.6	461.8	462.0	461.7
125°	500.5	501.5	502.5	503.5	504.5	505.0	505.0	505.0	505.0	505.0	504.4
127.5°	540.5	541.1	541.8	542.6	543.2	543.6	543.5	543.4	543.3	543.2	542.9
130°	564.9	565.7	566.3	567.0	567.8	568.2	568.3	568.4	568.6	568.8	568.3
132.5°	589.4	590.2	591.0	591.8	592.7	593.0	592.6	592.3	592.0	591.7	591.6
135°	624.2	625.1	625.9	626.8	627.6	627.9	627.6	627.3	627.0	626.8	626.5
137.5°	656.2	657.0	657.7	658.4	659.2	659.4	659.2	658.9	658.7	658.4	658.4
140°	677.1	677.4	677.7	678.0	678.2	678.3	678.2	678.1	677.9	677.8	678.1
142.5°	696.0	696.2	696.3	696.5	696.7	696.8	697.1	697.2	697.5	697.7	697.7
145°	723.7	724.0	724.2	724.6	724.8	725.0	725.0	725.0	725.0	725.0	725.1
147.5°	747.9	747.9	747.8	747.7	747.7	747.7	747.9	748.0	748.3	748.4	748.6
150°	763.2	763.0	762.6	762.4	762.1	762.1	762.4	762.6	763.0	763.2	763.5
152.5°	778.0	777.4	776.7	776.2	775.5	775.3	775.6	775.9	776.2	776.5	776.7
155°	797.0	796.1	795.3	794.4	793.6	793.3	793.6	793.9	794.2	794.4	794.8
157.5°	811.6	811.1	810.7	810.2	809.6	809.3	809.4	809.4	809.4	809.5	809.9
160°	821.9	821.0	820.2	819.3	818.5	818.2	818.2	818.4	818.6	818.6	819.2
162.5°	830.1	829.2	828.3	827.4	826.6	826.3	826.4	826.6	826.7	826.9	827.6
165°	841.0	840.2	839.3	838.5	837.6	837.2	837.4	837.6	837.6	837.8	838.7
167.5°	849.1	848.3	847.4	846.5	845.6	845.3	845.4	845.5	845.7	845.9	846.9
170°	853.8	852.7	851.7	850.8	849.8	849.4	849.5	849.6	849.8	849.9	851.1
172.5°	856.8	855.8	854.8	853.9	852.8	852.5	852.7	853.0	853.2	853.5	854.5
175°	860.1	859.2	858.4	857.6	856.7	856.4	856.5	856.6	856.8	857.0	858.1
177.5°	861.7	861.0	860.3	859.7	858.9	858.7	858.8	858.8	859.0	859.1	859.9
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1387.2	1389.1	1391.1	1392.0	1391.8	1391.6	1391.4	1391.2
5°	1380.2	1382.4	1384.6	1385.6	1385.4	1385.1	1384.9	1384.6
7.5°	1366.2	1368.4	1370.5	1371.5	1371.3	1371.0	1370.8	1370.5
10°	1354.4	1356.3	1358.3	1359.2	1358.9	1358.7	1358.5	1358.2
12.5°	1338.6	1340.2	1341.7	1342.6	1342.5	1342.4	1342.4	1342.3
15°	1311.1	1312.3	1313.5	1314.2	1314.2	1314.2	1314.2	1314.2
17.5°	1279.1	1280.6	1282.1	1282.3	1281.1	1279.9	1278.6	1277.4
20°	1254.8	1256.5	1258.3	1258.5	1257.3	1256.1	1254.8	1253.6
22.5°	1227.3	1228.4	1229.5	1229.6	1228.8	1228.0	1227.2	1226.3
25°	1183.1	1183.6	1184.1	1183.9	1183.2	1182.4	1181.7	1181.0
27.5°	1136.7	1136.8	1136.9	1136.6	1135.9	1135.1	1134.4	1133.7
30°	1102.9	1102.4	1102.0	1101.4	1100.7	1099.9	1099.2	1098.5
32.5°	1068.7	1067.8	1067.0	1065.8	1064.5	1063.2	1061.8	1060.5
35°	1015.6	1014.4	1013.2	1011.6	1009.7	1007.7	1005.8	1003.8
37.5°	959.9	958.1	956.3	954.8	953.7	952.5	951.4	950.3
40°	921.2	919.0	916.8	915.3	914.6	913.9	913.1	912.4
42.5°	882.9	880.8	878.9	877.3	876.2	875.1	873.9	872.8
45°	826.2	823.3	820.4	818.5	817.7	817.0	816.3	815.5
47.5°	766.5	763.4	760.5	758.1	756.4	754.7	753.0	751.3
50°	725.5	722.4	719.2	716.7	715.0	713.3	711.6	709.9
52.5°	685.8	683.1	680.3	677.9	676.0	674.1	672.2	670.3
55°	624.0	621.8	619.6	617.7	616.0	614.2	612.5	610.8
57.5°	562.7	559.9	557.0	555.1	554.2	553.3	552.4	551.4
60°	521.2	518.8	516.3	514.2	512.5	510.8	509.1	507.4
62.5°	481.2	478.6	475.9	473.9	472.6	471.3	469.9	468.6
65°	418.2	416.0	413.8	412.2	411.2	410.3	409.3	408.3
67.5°	358.2	356.3	354.4	353.2	352.6	352.0	351.5	350.9
70°	318.5	317.0	315.5	314.3	313.3	312.3	311.4	310.4
72.5°	281.1	279.4	277.8	276.5	275.5	274.5	273.5	272.6
75°	223.1	222.3	221.6	220.7	219.7	218.7	217.8	216.8
77.5°	169.9	169.5	169.1	168.5	167.8	167.1	166.4	165.8
80°	136.0	135.7	135.5	135.1	134.6	134.1	133.6	133.1
82.5°	103.9	103.5	103.1	102.7	102.6	102.6	102.5	102.3
85°	61.1	60.9	60.7	60.3	59.8	59.3	58.8	58.3
87.5°	25.2	25.4	25.5	25.4	25.1	24.8	24.5	24.2
90°	11.7	12.3	13.0	13.6	14.0	14.4	14.8	15.3
92.5°	11.7	12.3	13.0	13.5	13.7	13.9	14.1	14.3
95°	11.7	12.3	13.0	13.4	13.4	13.4	13.4	13.4
97.5°	23.4	19.4	15.4	13.4	13.4	13.4	13.4	13.4
100°	68.7	47.6	26.5	15.7	15.1	14.5	13.9	13.4
102.5°	133.5	129.6	125.6	118.8	109.1	99.5	89.8	80.2
105°	190.0	190.0	190.0	190.0	189.8	189.6	189.5	189.4
107.5°	240.6	240.6	240.6	240.4	240.0	239.5	239.1	238.7
110°	273.3	272.9	272.5	272.3	272.5	272.6	272.7	272.9





TEST NUMBER: P333274-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	305.7	305.2	304.7	304.3	304.1	303.9	303.7	303.5
115°	354.7	354.1	353.5	352.8	352.0	351.1	350.3	349.4
117.5°	401.9	401.1	400.4	399.8	399.5	399.1	398.8	398.4
120°	432.4	432.1	431.8	431.3	430.6	429.9	429.2	428.4
122.5°	461.5	461.1	460.9	460.3	459.5	458.7	457.9	457.1
125°	503.9	503.3	502.7	502.2	501.8	501.3	500.9	500.5
127.5°	542.6	542.3	542.0	541.3	540.3	539.2	538.2	537.1
130°	567.9	567.4	567.0	566.5	565.7	565.1	564.4	563.6
132.5°	591.5	591.4	591.3	590.9	590.3	589.5	588.8	588.2
135°	626.2	625.9	625.7	625.1	624.2	623.4	622.5	621.7
137.5°	658.5	658.5	658.6	658.3	657.5	656.8	656.1	655.3
140°	678.3	678.7	678.9	678.7	677.8	676.9	676.0	675.2
142.5°	697.8	697.8	697.9	697.5	696.7	695.8	695.0	694.1
145°	725.2	725.4	725.5	725.1	724.3	723.5	722.6	721.8
147.5°	748.8	748.9	749.1	748.7	747.6	746.7	745.6	744.6
150°	763.8	764.1	764.3	763.9	762.8	761.7	760.5	759.4
152.5°	777.1	777.3	777.6	777.2	776.2	775.2	774.2	773.1
155°	795.3	795.7	796.1	795.8	794.7	793.5	792.4	791.2
157.5°	810.4	810.9	811.3	811.0	809.8	808.7	807.6	806.4
160°	819.8	820.4	820.9	820.7	819.5	818.4	817.3	816.1
162.5°	828.4	829.2	830.0	829.8	828.5	827.3	826.1	824.8
165°	839.5	840.3	841.2	841.1	839.9	838.8	837.6	836.5
167.5°	847.9	848.9	849.9	849.8	848.5	847.3	846.0	844.7
170°	852.2	853.3	854.4	854.4	853.1	851.8	850.5	849.3
172.5°	855.5	856.6	857.6	857.5	856.1	854.9	853.6	852.3
175°	859.2	860.3	861.4	861.4	860.1	858.8	857.6	856.3
177.5°	860.7	861.4	862.3	862.3	861.3	860.4	859.5	858.6
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1

(END OF REPORT)