

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: P333275-927

Luminaire Tested: **S125DIP-S1090D810U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333275-927
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: S125DIP-S1090D810U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5740.4 lumens
Efficiency: N/A
Efficacy: 105.5 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

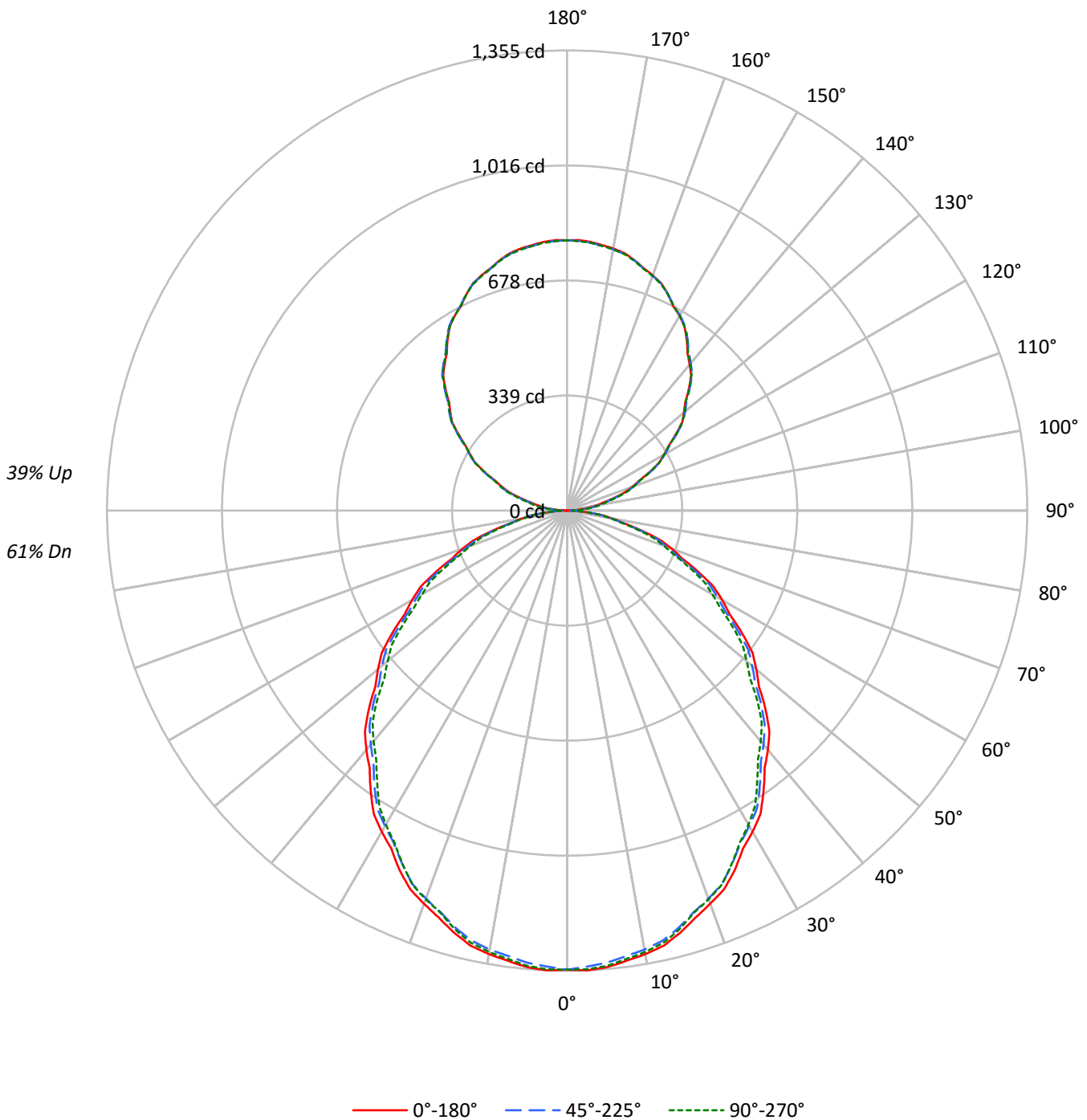
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	96	92	88	94	90	86	83	79	76	74	68	66	65	59	57	56	51
2	91	84	77	72	85	78	73	68	69	65	61	60	57	54	52	49	47	43
3	83	74	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	36
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	37	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	33	29	35	30	26	30	27	24	21
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	32	26	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	22	19	24	20	17	15

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	2.2
10°-20°	360.0	6.3
20°-30°	531.6	9.3
30°-40°	620.3	10.8
40°-50°	623.0	10.9
50°-60°	546.9	9.5
60°-70°	407.5	7.1
70°-80°	233.0	4.1
80°-90°	69.5	1.2
90°-100°	53.3	0.9
100°-110°	157.4	2.7
110°-120°	266.7	4.6
120°-130°	350.9	6.1
130°-140°	393.2	6.9
140°-150°	385.4	6.7
150°-160°	323.7	5.6
160°-170°	215.2	3.7
170°-180°	75.3	1.3
0°-30°	1019.1	17.8
0°-40°	1639.4	28.6
0°-60°	2809.2	48.9
0°-90°	3519.2	61.3
90°-120°	477.4	8.3
90°-150°	1607.0	28.0
90°-180°	2221.0	38.7
0°-180°	5740.4	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°	1	6	10	13	15	5
95°	40	42	48	52	53	43
105°	141	144	148	152	154	151
115°	267	269	271	270	270	264
125°	390	393	394	393	392	349
135°	507	510	511	511	509	390
145°	614	616	618	618	616	384
155°	702	702	703	705	702	323
165°	764	763	763	765	762	215
175°	794	792	792	795	791	75
180°	796	796	796	796	796	



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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°	23.2	23.4	23.7	23.8	24.1	24.2	24.2	24.2	24.2	24.2	24.4
90°	0.6	1.7	2.9	4.0	5.0	6.0	7.1	8.0	9.0	9.9	10.6
92.5°	15.0	15.8	16.6	17.3	18.1	19.0	20.2	21.4	22.6	23.8	24.7
95°	40.2	40.6	40.8	41.1	41.4	42.2	43.6	44.9	46.3	47.7	48.6
97.5°	66.9	67.0	67.1	67.3	67.3	68.4	70.3	72.2	74.1	76.0	76.8
100°	86.7	86.7	86.7	86.7	86.7	87.6	89.4	91.2	93.0	94.7	96.0
102.5°	108.1	108.6	109.2	109.7	110.3	111.0	111.9	112.8	113.7	114.6	116.0
105°	141.2	142.0	142.6	143.3	144.0	144.7	145.6	146.4	147.2	148.1	148.9
107.5°	177.9	178.6	179.3	180.0	180.7	181.3	182.0	182.6	183.2	183.9	184.3
110°	203.2	203.9	204.5	205.3	206.0	206.5	206.9	207.3	207.7	208.1	208.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	228.9	229.3	229.7	230.0	230.4	230.8	231.3	231.9	232.4	232.9	233.1
115°	267.0	267.5	268.1	268.6	269.2	269.6	269.9	270.1	270.5	270.7	270.5
117.5°	305.1	305.4	305.6	305.9	306.1	306.4	306.7	306.9	307.1	307.4	307.4
120°	328.9	329.6	330.3	331.0	331.7	332.1	332.2	332.4	332.5	332.6	332.6
122.5°	354.7	355.0	355.2	355.5	355.7	356.0	356.3	356.7	357.0	357.4	357.3
125°	389.6	390.5	391.3	392.1	392.9	393.4	393.6	393.7	393.8	394.0	393.7
127.5°	426.8	427.3	427.7	428.2	428.6	429.0	429.1	429.3	429.5	429.7	429.5
130°	449.1	449.8	450.5	451.1	451.9	452.3	452.6	452.9	453.1	453.4	453.3
132.5°	471.4	472.5	473.6	474.8	475.9	476.4	476.4	476.3	476.3	476.3	476.1
135°	506.7	507.6	508.3	509.2	510.0	510.5	510.6	510.8	510.9	511.0	511.0
137.5°	540.0	540.7	541.5	542.3	543.1	543.7	544.0	544.2	544.5	544.9	545.0
140°	561.3	561.9	562.6	563.3	564.0	564.5	564.9	565.4	565.8	566.2	566.5
142.5°	582.6	583.1	583.7	584.2	584.9	585.4	585.9	586.5	586.9	587.5	587.6
145°	613.9	614.4	615.0	615.5	616.1	616.6	617.0	617.3	617.8	618.2	618.2
147.5°	642.9	643.2	643.5	643.8	644.0	644.4	644.8	645.1	645.4	645.7	646.0
150°	662.2	662.0	661.9	661.8	661.6	661.9	662.4	663.0	663.5	664.1	664.1
152.5°	678.0	678.3	678.4	678.7	678.8	679.1	679.2	679.5	679.7	679.9	680.2
155°	702.4	702.4	702.4	702.4	702.4	702.5	702.7	702.8	702.9	703.1	703.6
157.5°	724.3	724.0	723.7	723.3	723.0	722.9	723.1	723.3	723.3	723.5	724.1
160°	737.1	736.7	736.3	735.9	735.5	735.4	735.5	735.6	735.8	735.9	736.5
162.5°	748.5	748.2	747.9	747.7	747.3	747.2	747.2	747.3	747.3	747.3	748.0
165°	763.8	763.5	763.3	763.0	762.7	762.6	762.7	762.9	763.0	763.2	763.7
167.5°	776.7	776.1	775.5	775.0	774.4	774.2	774.2	774.2	774.2	774.2	775.0
170°	783.6	783.1	782.5	782.0	781.4	781.1	781.1	781.1	781.1	781.1	782.0
172.5°	788.5	788.0	787.4	786.9	786.3	786.1	786.1	786.1	786.1	786.1	786.9
175°	794.2	793.6	793.1	792.5	791.9	791.6	791.6	791.6	791.6	791.6	792.5
177.5°	797.0	796.5	796.1	795.7	795.2	795.0	794.9	794.7	794.6	794.5	795.2
180°	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0



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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°	24.5	24.6	24.8	24.7	24.4	24.1	23.8	23.5
90°	11.2	12.0	12.7	13.2	13.6	14.0	14.4	14.9
92.5°	25.6	26.5	27.4	28.0	28.4	28.6	28.9	29.2
95°	49.6	50.6	51.6	52.2	52.4	52.8	53.0	53.2
97.5°	77.8	78.7	79.6	80.1	80.2	80.4	80.6	80.8
100°	97.3	98.5	99.7	100.5	100.8	101.0	101.3	101.6
102.5°	117.3	118.7	120.0	120.9	121.3	121.6	122.0	122.4
105°	149.7	150.5	151.4	151.9	152.4	152.8	153.2	153.6
107.5°	184.7	185.1	185.5	185.7	185.7	185.6	185.6	185.6
110°	209.0	209.4	209.8	209.9	209.8	209.6	209.5	209.4



TEST NUMBER: P333275-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	233.3	233.5	233.7	233.7	233.4	233.1	232.9	232.7
115°	270.5	270.3	270.1	270.0	269.9	269.7	269.6	269.5
117.5°	307.6	307.7	307.8	307.6	307.0	306.5	305.9	305.4
120°	332.6	332.6	332.6	332.4	331.8	331.3	330.7	330.2
122.5°	357.2	357.1	357.0	356.7	356.2	355.8	355.4	355.0
125°	393.4	393.2	392.8	392.7	392.5	392.4	392.3	392.1
127.5°	429.4	429.2	429.1	428.9	428.6	428.3	428.1	427.8
130°	453.1	453.0	452.9	452.7	452.4	452.1	451.9	451.5
132.5°	475.9	475.8	475.7	475.4	475.1	474.7	474.3	473.9
135°	511.0	511.0	511.0	510.8	510.2	509.7	509.1	508.6
137.5°	545.2	545.3	545.5	545.3	544.5	543.9	543.2	542.5
140°	566.7	567.0	567.3	567.0	566.4	565.7	565.0	564.4
142.5°	587.8	588.0	588.1	587.9	587.2	586.5	585.8	585.1
145°	618.2	618.2	618.2	618.0	617.6	617.2	616.8	616.3
147.5°	646.3	646.7	647.1	646.7	645.8	644.8	644.0	643.0
150°	664.1	664.1	664.1	663.9	663.6	663.4	663.1	662.8
152.5°	680.6	680.9	681.2	681.1	680.6	680.2	679.7	679.1
155°	704.2	704.7	705.3	705.2	704.5	703.9	703.1	702.4
157.5°	724.6	725.2	725.7	725.6	724.6	723.7	722.8	721.9
160°	737.0	737.5	738.1	738.1	737.4	736.7	735.9	735.3
162.5°	748.6	749.3	750.0	749.9	749.1	748.3	747.5	746.7
165°	764.3	764.9	765.3	765.2	764.4	763.6	762.7	761.9
167.5°	775.9	776.7	777.5	777.4	776.7	775.8	774.9	774.0
170°	782.8	783.6	784.4	784.3	783.4	782.4	781.5	780.5
172.5°	787.7	788.5	789.4	789.4	788.5	787.7	786.8	785.9
175°	793.3	794.2	795.0	794.9	793.9	793.0	792.0	791.1
177.5°	795.8	796.5	797.2	797.1	796.3	795.6	794.8	794.0
180°	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0

(END OF REPORT)