

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: P333276-927

Luminaire Tested: **S125DIP-S1090D810U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333276-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
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-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5823.1 lumens
Efficiency: N/A
Efficacy: 107.0 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

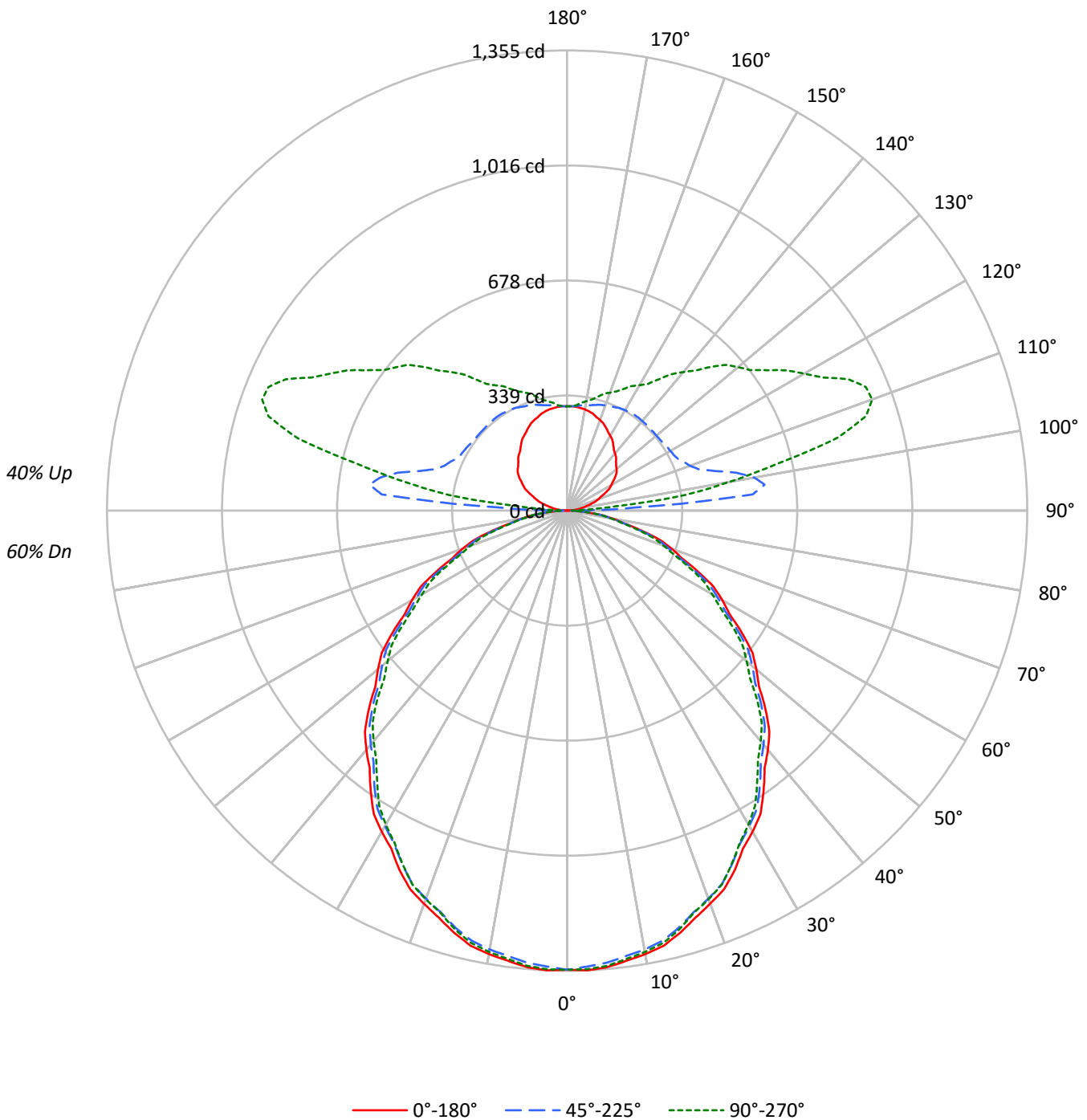
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	100	96	92	88	93	90	86	83	78	76	73	68	66	64	58	57	55	51
2	91	83	77	72	85	78	73	68	68	64	61	59	56	53	51	49	47	42
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	45	42	40	36
4	76	65	57	51	71	61	54	48	54	48	43	47	42	39	40	37	34	31
5	70	58	50	43	65	55	47	41	48	42	37	42	37	34	36	33	30	27
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23
7	60	47	39	33	56	44	37	32	39	33	29	35	30	26	30	26	23	21
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	36	29	24	45	34	27	23	30	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	6.2
20°-30°	531.6	9.1
30°-40°	620.3	10.7
40°-50°	623.0	10.7
50°-60°	546.9	9.4
60°-70°	407.5	7.0
70°-80°	233.0	4.0
80°-90°	69.5	1.2
90°-100°	222.7	3.8
100°-110°	478.7	8.2
110°-120°	449.3	7.7
120°-130°	364.1	6.3
130°-140°	292.2	5.0
140°-150°	220.5	3.8
150°-160°	155.2	2.7
160°-170°	91.5	1.6
170°-180°	29.8	0.5
0°-30°	1019.1	17.5
0°-40°	1639.4	28.2
0°-60°	2809.2	48.2
0°-90°	3519.2	60.4
90°-120°	1150.7	19.8
90°-150°	2027.5	34.8
90°-180°	2304.0	39.6
0°-180°	5823.1	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	14	4
95°	20	60	549	249	146	22
105°	70	98	449	884	821	74
115°	125	151	360	777	914	123
125°	173	203	346	618	720	154
135°	203	244	343	518	598	158
145°	237	271	344	429	472	148
155°	270	290	336	379	396	124
165°	295	303	322	342	347	83
175°	307	307	309	313	312	29
180°	307	307	307	307	307	



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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	23.6	23.8	24.1	24.2	24.2	24.2	24.2	24.2	24.3
90°	0.6	1.3	2.5	3.7	5.0	6.2	6.8	8.1	8.6	9.9	10.5
92.5°	7.5	9.2	14.3	22.0	32.7	50.8	84.6	141.3	202.9	199.7	161.7
95°	20.4	21.1	26.0	32.8	46.4	74.3	140.6	276.9	447.8	548.8	537.0
97.5°	33.9	34.7	38.2	45.0	57.2	77.3	121.1	221.0	399.9	586.1	679.5
100°	43.3	44.6	47.1	53.9	65.7	84.2	120.2	200.7	356.8	559.4	714.2
102.5°	53.8	54.5	56.5	63.8	74.5	92.7	124.6	192.3	324.1	512.2	693.4
105°	70.0	70.0	73.1	79.3	89.2	106.5	133.8	188.9	292.4	449.1	626.9
107.5°	85.9	87.1	90.1	95.1	105.4	121.0	147.4	194.6	279.0	405.6	559.0
110°	97.3	98.5	100.9	106.5	115.8	131.9	157.3	200.1	275.0	385.2	520.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	108.6	109.9	111.9	117.4	126.7	142.4	166.8	207.0	275.0	373.4	491.5
115°	125.1	126.4	128.3	133.8	143.1	158.6	181.5	217.4	276.9	360.5	460.2
117.5°	140.0	141.9	143.9	149.4	159.9	174.9	196.6	229.3	281.0	354.2	441.5
120°	149.9	151.8	154.2	159.8	170.3	185.8	207.5	237.3	284.9	351.2	431.1
122.5°	160.3	161.7	163.7	169.2	180.8	196.2	217.9	246.1	288.4	348.7	422.2
125°	173.4	174.7	177.8	183.3	195.1	211.2	231.6	258.3	294.2	345.6	410.0
127.5°	183.7	185.6	189.6	196.6	209.1	225.2	244.9	269.4	300.8	344.1	398.9
130°	190.1	192.0	196.9	205.0	218.0	234.2	253.3	276.9	304.8	343.2	391.5
132.5°	195.1	197.5	203.4	212.5	225.9	242.1	261.3	283.3	309.2	343.2	385.6
135°	203.2	205.7	213.1	223.0	236.0	252.7	272.0	292.4	315.3	343.2	378.4
137.5°	213.3	215.2	222.1	232.0	244.8	262.0	279.5	299.0	320.8	343.9	372.2
140°	219.3	221.1	228.5	238.4	250.3	267.0	284.9	303.5	323.3	344.4	369.2
142.5°	226.2	227.6	234.5	244.4	255.7	271.4	288.4	306.0	324.8	344.9	366.7
145°	236.6	237.8	244.1	252.7	263.9	278.1	294.2	309.7	326.5	344.4	363.0
147.5°	247.5	248.3	253.6	261.7	271.3	283.8	297.9	312.0	327.0	342.8	359.1
150°	254.0	255.2	259.5	267.6	276.2	286.8	300.4	313.4	327.0	341.3	356.2
152.5°	260.9	261.7	265.5	272.5	280.7	290.3	302.9	314.4	326.5	339.3	352.7
155°	270.1	270.1	273.8	280.0	286.1	294.9	305.4	315.3	325.2	335.7	346.9
157.5°	278.2	278.1	281.1	286.4	291.8	298.4	307.4	315.9	323.6	332.0	341.4
160°	283.7	283.0	285.6	289.9	294.9	300.4	308.5	315.9	322.1	329.5	337.0
162.5°	288.1	287.6	290.0	293.8	297.8	302.4	309.4	315.4	320.6	326.5	333.0
165°	294.9	293.6	295.5	298.6	301.0	304.8	309.7	314.7	318.4	322.1	327.0
167.5°	299.3	298.7	299.8	301.5	303.2	305.6	309.7	313.1	314.9	317.7	321.2
170°	302.3	301.7	302.3	303.5	304.8	306.6	309.7	312.2	313.4	315.3	317.7
172.5°	304.3	303.2	303.7	305.0	305.7	306.6	309.2	311.2	311.4	312.3	314.3
175°	306.6	305.4	306.0	306.6	306.6	306.6	308.5	309.7	309.1	309.1	309.7
177.5°	307.7	306.7	306.7	307.2	306.7	306.7	307.7	308.2	307.2	307.2	307.7
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2



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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	24.7	24.8	24.4	24.0	23.8	23.4
90°	11.2	11.8	12.4	13.6	13.6	13.6	14.3	14.3
92.5°	109.8	79.7	60.0	50.8	42.9	41.4	40.5	39.5
95°	445.4	351.2	275.0	223.0	179.0	160.4	155.5	145.5
97.5°	663.3	597.2	523.0	450.7	412.4	377.7	359.7	351.8
100°	761.8	731.5	667.7	603.3	560.5	515.9	493.1	483.2
102.5°	795.0	813.8	783.2	739.6	693.9	662.1	637.2	629.8
105°	775.5	860.4	887.6	880.8	860.9	840.5	828.1	820.7
107.5°	705.6	818.9	888.8	921.1	931.2	931.1	927.0	922.0
110°	654.1	771.7	859.1	911.7	939.6	951.4	955.8	955.8



TEST NUMBER: P333276-927

CATALOG NUMBER: S125DIP-S1090D810U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	613.5	725.2	813.5	875.6	916.3	936.5	947.3	951.8
115°	562.4	658.5	743.3	810.8	859.1	888.8	906.2	914.3
117.5°	529.5	612.2	685.3	747.3	795.6	826.2	843.5	848.4
120°	511.6	586.0	654.1	708.6	754.4	784.2	800.9	805.8
122.5°	498.3	567.1	627.8	678.9	719.8	747.0	763.7	768.2
125°	478.8	542.0	595.9	640.5	675.2	700.5	714.2	720.3
127.5°	459.0	517.9	568.2	610.0	641.4	663.8	676.8	679.5
130°	446.6	501.1	549.4	589.7	620.7	641.1	653.5	657.2
132.5°	434.2	485.2	529.1	567.8	598.8	619.2	630.7	634.9
135°	418.1	460.8	500.5	535.8	563.0	583.4	594.6	598.3
137.5°	404.5	439.0	472.0	501.9	526.4	544.9	555.2	559.4
140°	397.0	426.1	454.6	480.6	503.6	519.7	528.9	532.0
142.5°	390.6	415.3	439.7	462.3	481.8	495.4	504.2	506.8
145°	382.1	401.4	420.6	437.3	452.2	462.7	469.5	472.0
147.5°	374.2	389.8	404.6	417.2	429.0	437.4	441.4	442.5
150°	369.8	383.4	395.1	406.3	415.7	423.0	425.6	426.1
152.5°	364.8	377.0	387.8	396.4	404.3	410.2	412.6	413.3
155°	357.4	367.3	376.0	382.8	389.0	393.3	395.1	395.8
157.5°	350.0	358.1	364.8	370.2	375.0	378.6	380.3	380.2
160°	345.0	351.2	357.4	361.7	366.1	369.2	370.4	369.8
162.5°	339.5	345.2	350.5	354.3	357.7	360.2	360.5	360.4
165°	332.0	336.4	340.1	343.2	345.6	346.9	346.9	346.9
167.5°	324.8	327.6	330.5	332.7	334.0	335.1	334.6	334.5
170°	320.8	322.7	324.6	325.8	327.0	327.6	327.6	327.0
172.5°	316.4	318.2	319.6	320.4	320.6	321.7	320.8	320.1
175°	311.6	311.6	312.8	312.8	312.8	313.4	312.2	311.6
177.5°	308.2	308.7	308.7	308.7	308.2	308.7	307.2	307.2
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2

(END OF REPORT)