

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: P333435-927

Luminaire Tested: **S125DIW-S1090D470U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333435-927
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: S125DIW-S1090D470U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4806.0 lumens
Efficiency: N/A
Efficacy: 104.0 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

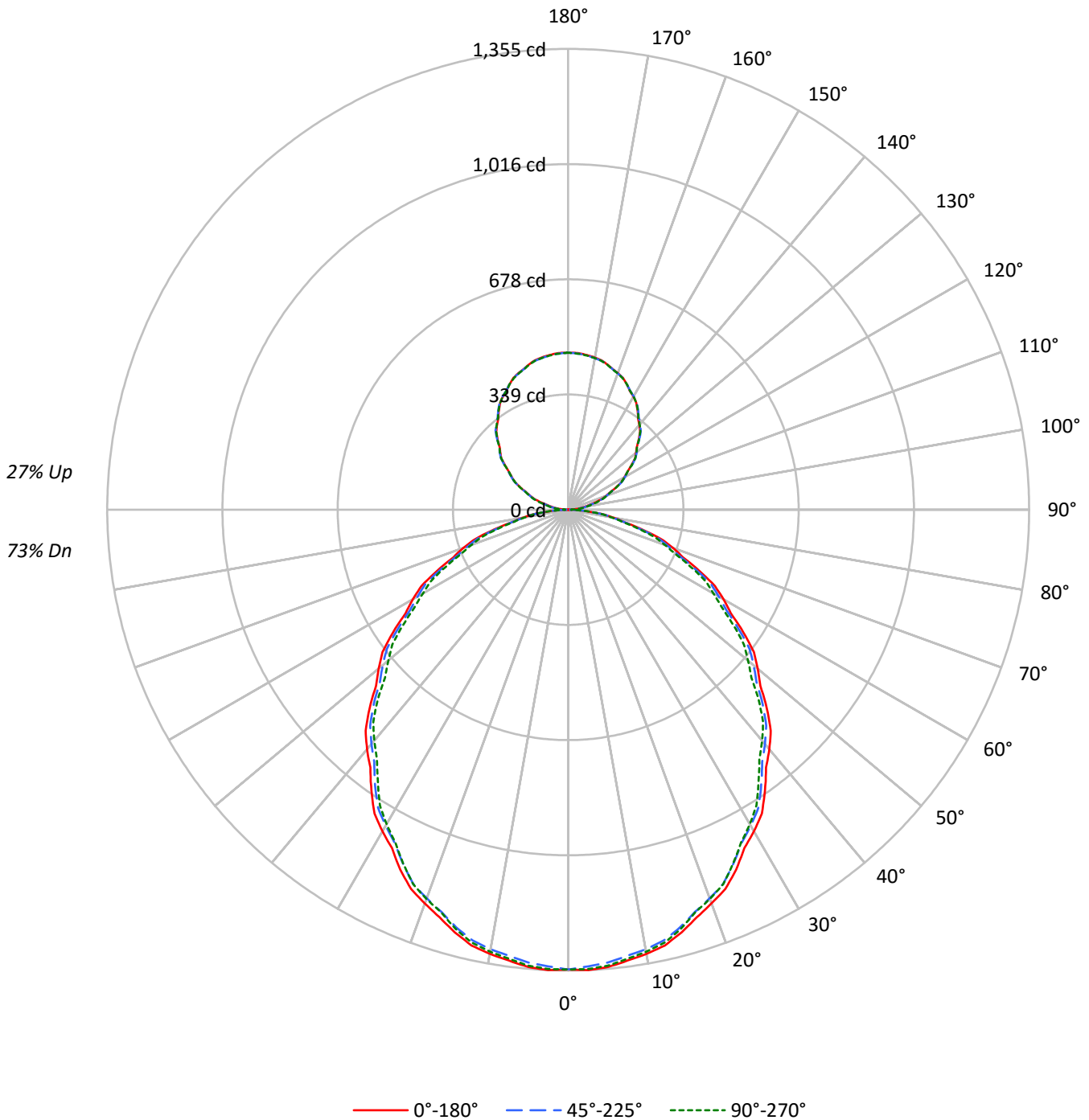
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	96	96	96	86	86	86	77	77	77	73
1	103	98	94	91	97	94	90	87	84	82	79	76	74	72	68	67	65	61
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51
3	85	76	68	62	81	72	65	59	65	60	55	59	55	51	53	50	47	44
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	48	44	40	37
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	32
6	66	54	45	39	63	51	44	38	47	40	36	43	37	33	39	34	31	28
7	62	49	40	35	58	47	39	34	43	36	31	39	34	29	36	31	28	25
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25	23
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22	20
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20	18

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	7.5
20°-30°	531.6	11.1
30°-40°	620.3	12.9
40°-50°	623.0	13.0
50°-60°	546.9	11.4
60°-70°	407.5	8.5
70°-80°	233.0	4.8
80°-90°	68.8	1.4
90°-100°	30.9	0.6
100°-110°	91.2	1.9
110°-120°	154.6	3.2
120°-130°	203.4	4.2
130°-140°	227.9	4.7
140°-150°	223.4	4.6
150°-160°	187.6	3.9
160°-170°	124.7	2.6
170°-180°	43.6	0.9
0°-30°	1019.1	21.2
0°-40°	1639.4	34.1
0°-60°	2809.2	58.5
0°-90°	3518.5	73.2
90°-120°	276.7	5.8
90°-150°	931.5	19.4
90°-180°	1287.0	26.8
0°-180°	4806.0	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	6	8	9	4
95°	23	24	28	30	31	25
105°	82	84	86	88	89	87
115°	155	156	157	157	156	153
125°	226	228	228	228	227	202
135°	294	296	296	296	295	226
145°	356	357	358	358	357	222
155°	407	407	408	409	407	187
165°	443	442	442	444	442	125
175°	460	459	459	461	458	44
180°	461	461	461	461	461	



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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	23.5	23.7	23.7	23.6	23.5	23.4	23.4	23.4
90°	0.4	1.0	1.7	2.3	2.9	3.5	4.0	4.6	5.1	5.8	6.2
92.5°	8.7	9.1	9.6	10.1	10.5	11.0	11.7	12.4	13.1	13.8	14.3
95°	23.4	23.5	23.7	23.8	24.0	24.5	25.3	26.1	26.9	27.6	28.2
97.5°	38.7	38.8	38.9	39.0	39.1	39.6	40.7	41.8	42.9	44.0	44.5
100°	50.3	50.3	50.3	50.3	50.3	50.8	51.8	52.8	53.9	54.9	55.7
102.5°	62.6	62.9	63.3	63.6	63.9	64.3	64.9	65.4	65.9	66.4	67.2
105°	81.8	82.2	82.6	83.0	83.5	83.9	84.4	84.8	85.3	85.8	86.3
107.5°	103.1	103.5	103.9	104.3	104.7	105.1	105.4	105.8	106.2	106.5	106.8
110°	117.8	118.2	118.6	119.0	119.4	119.7	119.9	120.2	120.4	120.6	120.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	132.7	132.9	133.1	133.3	133.6	133.8	134.1	134.4	134.7	135.0	135.1
115°	154.7	155.0	155.4	155.7	156.1	156.3	156.5	156.6	156.8	156.9	156.9
117.5°	176.9	177.0	177.1	177.3	177.4	177.6	177.8	177.8	178.0	178.2	178.2
120°	190.7	191.1	191.5	191.9	192.3	192.5	192.6	192.7	192.7	192.8	192.8
122.5°	205.6	205.7	205.9	206.0	206.1	206.4	206.5	206.8	207.0	207.2	207.1
125°	225.9	226.3	226.8	227.3	227.8	228.1	228.1	228.2	228.3	228.4	228.2
127.5°	247.4	247.6	248.0	248.2	248.5	248.7	248.7	248.8	248.9	249.1	249.0
130°	260.3	260.7	261.1	261.5	261.9	262.2	262.4	262.5	262.7	262.8	262.8
132.5°	273.2	273.9	274.6	275.2	275.8	276.2	276.2	276.1	276.1	276.0	275.9
135°	293.7	294.2	294.7	295.2	295.6	295.9	296.0	296.0	296.1	296.2	296.2
137.5°	312.9	313.4	313.9	314.3	314.8	315.1	315.3	315.4	315.6	315.8	315.9
140°	325.3	325.7	326.1	326.5	326.9	327.3	327.5	327.7	328.0	328.2	328.4
142.5°	337.6	337.9	338.3	338.7	339.0	339.3	339.6	339.9	340.2	340.6	340.6
145°	355.8	356.2	356.5	356.8	357.1	357.4	357.6	357.8	358.1	358.3	358.3
147.5°	372.6	372.8	373.0	373.1	373.4	373.5	373.7	373.9	374.1	374.3	374.5
150°	383.8	383.7	383.7	383.6	383.5	383.7	384.0	384.3	384.6	384.9	384.9
152.5°	393.0	393.2	393.2	393.3	393.5	393.6	393.7	393.9	394.0	394.1	394.3
155°	407.2	407.2	407.2	407.2	407.2	407.2	407.3	407.3	407.4	407.5	407.8
157.5°	419.8	419.6	419.5	419.3	419.1	419.1	419.1	419.2	419.3	419.4	419.7
160°	427.3	427.1	426.7	426.5	426.3	426.2	426.3	426.4	426.4	426.5	426.9
162.5°	433.9	433.7	433.6	433.3	433.2	433.1	433.1	433.1	433.2	433.2	433.6
165°	442.7	442.5	442.4	442.2	442.0	442.0	442.1	442.2	442.3	442.4	442.7
167.5°	450.2	449.9	449.6	449.2	448.9	448.8	448.8	448.8	448.8	448.8	449.2
170°	454.2	453.8	453.5	453.2	452.9	452.7	452.7	452.7	452.7	452.7	453.2
172.5°	457.1	456.8	456.5	456.1	455.8	455.7	455.7	455.7	455.7	455.7	456.1
175°	460.3	459.9	459.6	459.3	459.0	458.8	458.8	458.8	458.8	458.8	459.3
177.5°	461.9	461.7	461.4	461.2	460.9	460.7	460.7	460.7	460.6	460.5	460.9
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4



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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°	23.5	23.6	23.7	23.6	23.3	22.9	22.6	22.3
90°	6.6	7.0	7.4	7.7	7.9	8.2	8.4	8.6
92.5°	14.8	15.4	15.9	16.2	16.4	16.6	16.8	17.0
95°	28.8	29.3	29.9	30.3	30.4	30.6	30.7	30.9
97.5°	45.1	45.6	46.1	46.4	46.5	46.7	46.7	46.8
100°	56.4	57.1	57.8	58.2	58.4	58.5	58.7	58.9
102.5°	68.0	68.8	69.6	70.0	70.3	70.5	70.7	71.0
105°	86.7	87.2	87.7	88.1	88.3	88.6	88.8	89.0
107.5°	107.0	107.3	107.5	107.7	107.7	107.6	107.6	107.6
110°	121.1	121.4	121.6	121.7	121.6	121.5	121.4	121.4



TEST NUMBER: P333435-927

CATALOG NUMBER: S125DIW-S1090D470U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	135.2	135.3	135.5	135.5	135.3	135.1	135.0	134.8
115°	156.8	156.7	156.6	156.5	156.5	156.4	156.3	156.2
117.5°	178.3	178.3	178.4	178.3	178.0	177.7	177.3	177.0
120°	192.8	192.8	192.8	192.7	192.3	192.0	191.7	191.4
122.5°	207.1	207.0	206.9	206.8	206.5	206.3	206.0	205.7
125°	228.1	227.9	227.8	227.6	227.5	227.4	227.4	227.3
127.5°	248.9	248.8	248.7	248.6	248.4	248.3	248.1	248.0
130°	262.7	262.6	262.5	262.4	262.2	262.1	261.9	261.7
132.5°	275.8	275.8	275.7	275.6	275.4	275.1	274.9	274.6
135°	296.2	296.2	296.2	296.0	295.7	295.4	295.1	294.8
137.5°	316.0	316.1	316.2	316.1	315.7	315.3	314.8	314.4
140°	328.5	328.7	328.8	328.7	328.3	327.9	327.5	327.1
142.5°	340.7	340.8	340.9	340.7	340.3	339.9	339.5	339.1
145°	358.3	358.3	358.3	358.2	358.0	357.7	357.5	357.3
147.5°	374.6	374.9	375.0	374.9	374.3	373.8	373.2	372.7
150°	384.9	384.9	384.9	384.8	384.7	384.5	384.4	384.2
152.5°	394.5	394.7	394.8	394.8	394.5	394.3	394.0	393.6
155°	408.1	408.4	408.8	408.8	408.4	408.0	407.6	407.2
157.5°	420.0	420.3	420.6	420.6	420.0	419.5	419.0	418.4
160°	427.2	427.5	427.9	427.8	427.4	427.0	426.6	426.2
162.5°	434.0	434.3	434.7	434.7	434.2	433.7	433.2	432.8
165°	443.0	443.3	443.6	443.5	443.1	442.6	442.1	441.6
167.5°	449.7	450.2	450.7	450.7	450.1	449.6	449.2	448.7
170°	453.7	454.2	454.7	454.6	454.1	453.5	453.0	452.4
172.5°	456.6	457.1	457.6	457.6	457.0	456.5	456.1	455.6
175°	459.8	460.3	460.8	460.7	460.2	459.6	459.1	458.5
177.5°	461.3	461.7	462.1	462.0	461.6	461.1	460.7	460.3
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4

(END OF REPORT)