

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: P333438

Luminaire Tested: **S125DIW-S1090D770U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333438
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: S125DIW-S1090D770U835-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7336.5 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

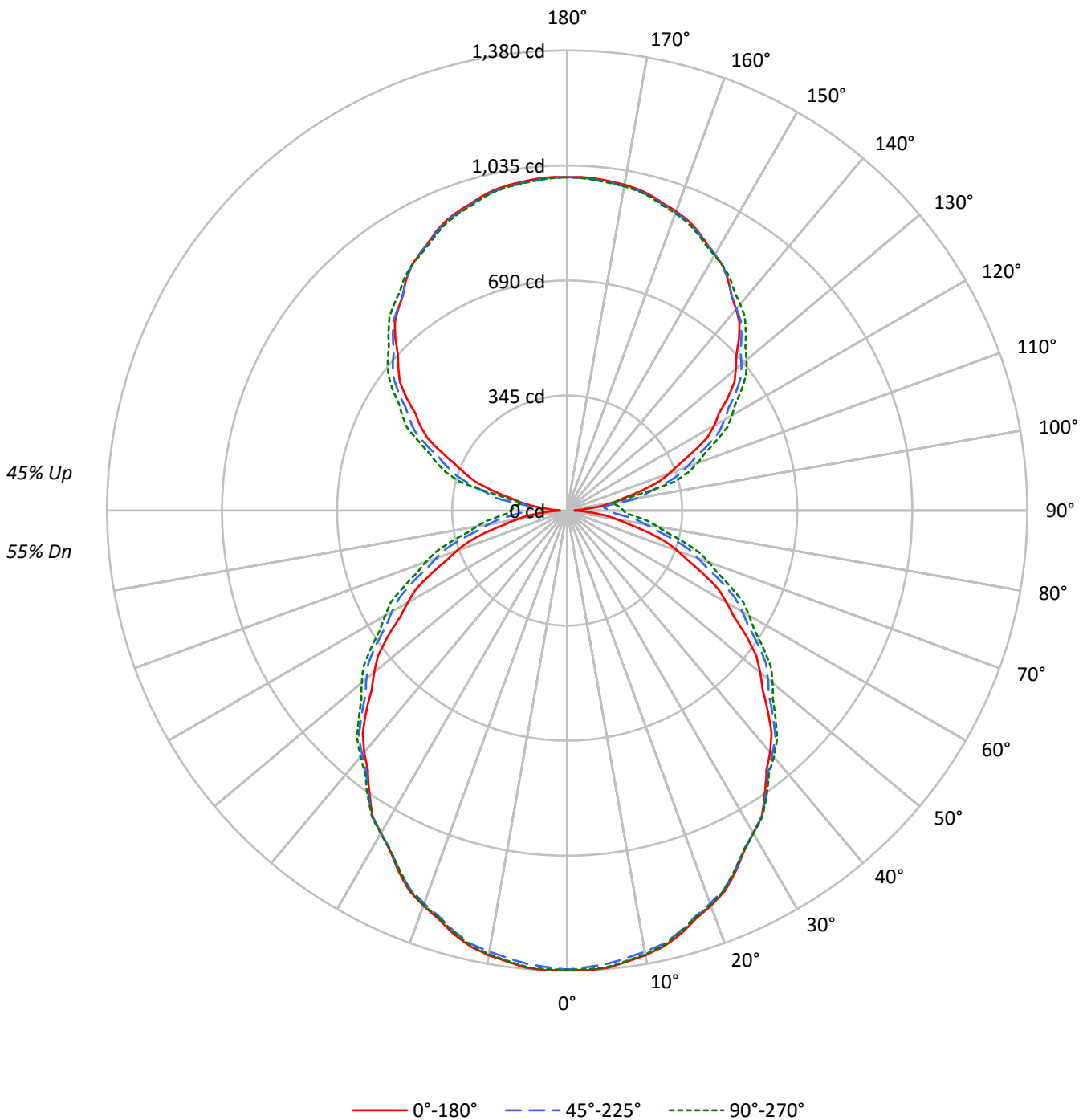
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	93	89	85	91	87	83	80	74	71	69	63	61	59	52	51	49	44
2	89	81	74	69	82	75	70	65	64	60	56	55	51	49	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	35	31
4	74	63	54	48	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	56	47	41	63	52	44	39	45	39	34	38	34	30	32	28	26	22
6	62	50	42	36	58	47	39	34	40	34	30	34	30	26	29	25	22	20
7	58	45	37	31	53	42	35	29	37	31	26	31	27	23	26	23	20	17
8	54	41	33	27	50	38	31	26	33	27	23	29	24	21	24	21	18	15
9	50	37	30	24	46	35	28	23	31	25	21	26	22	18	22	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8893	8893	8893
5°	8911	8729	8756
10°	8847	8573	8560
15°	8743	8387	8310
20°	8601	8156	8061
25°	8432	7909	7752
30°	8227	7637	7473
35°	8036	7388	7217
40°	7841	7125	6959
45°	7621	6900	6730
50°	7412	6656	6528
55°	7159	6425	6290
60°	6883	6162	6048
65°	6596	5888	5775
70°	6269	5512	5495
75°	5751	5151	5149
80°	5072	4712	4775
85°	4441	4417	4657



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	1.8
10°-20°	369.6	5.0
20°-30°	549.7	7.5
30°-40°	651.1	8.9
40°-50°	673.2	9.2
50°-60°	620.1	8.5
60°-70°	501.3	6.8
70°-80°	335.7	4.6
80°-90°	176.2	2.4
90°-100°	134.0	1.8
100°-110°	295.9	4.0
110°-120°	454.3	6.2
120°-130°	548.5	7.5
130°-140°	572.4	7.8
140°-150°	528.5	7.2
150°-160°	425.6	5.8
160°-170°	275.2	3.8
170°-180°	94.9	1.3
0°-30°	1049.5	14.3
0°-40°	1700.6	23.2
0°-60°	2994.0	40.8
0°-90°	4007.1	54.6
90°-120°	884.2	12.1
90°-150°	2533.6	34.5
90°-180°	3329.0	45.4
0°-180°	7336.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1374	1365	1375	1374	131
15°	1315	1316	1307	1314	1310	370
25°	1195	1198	1191	1195	1189	550
35°	1034	1043	1040	1043	1044	647
45°	852	866	873	882	884	657
55°	655	676	698	712	718	585
65°	451	482	514	534	540	447
75°	248	284	327	353	360	263
85°	74	119	166	195	206	79
90°	22	72	123	156	169	16
95°	60	92	110	142	153	68
105°	230	255	295	321	331	244
115°	417	432	466	486	491	413
125°	587	592	618	636	641	524
135°	728	732	739	754	758	561
145°	842	842	842	850	851	526
155°	926	922	923	925	920	427
165°	977	973	974	978	972	276
175°	1000	995	996	1001	995	95
180°	1000	1000	1000	1000	1000	



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1380.2	1379.7	1379.2	1378.8	1378.3	1377.2	1375.5	1373.8	1372.2	1370.5	1372.2
5°	1377.0	1376.4	1375.8	1375.2	1374.6	1373.2	1371.1	1369.0	1366.9	1364.8	1367.2
7.5°	1364.8	1364.6	1364.3	1364.1	1363.9	1362.7	1360.5	1358.3	1356.2	1354.0	1356.1
10°	1354.0	1354.0	1354.0	1354.0	1354.0	1352.8	1350.4	1348.0	1345.6	1343.2	1345.3
12.5°	1338.9	1339.1	1339.4	1339.6	1339.9	1339.0	1337.1	1335.2	1333.3	1331.3	1333.0
15°	1314.9	1315.2	1315.5	1315.8	1316.1	1315.2	1313.1	1311.0	1308.9	1306.8	1308.6
17.5°	1283.5	1284.1	1284.7	1285.3	1285.9	1285.2	1283.1	1281.0	1278.9	1276.8	1278.2
20°	1260.9	1261.5	1262.1	1262.7	1263.3	1262.5	1260.4	1258.3	1256.2	1254.1	1255.0
22.5°	1234.9	1236.0	1237.1	1238.2	1239.3	1238.6	1236.3	1234.0	1231.6	1229.3	1230.4
25°	1194.7	1195.6	1196.5	1197.4	1198.3	1197.9	1196.1	1194.3	1192.5	1190.7	1191.9
27.5°	1149.9	1151.2	1152.5	1153.9	1155.2	1154.8	1152.8	1150.7	1148.7	1146.7	1147.5
30°	1116.4	1118.2	1120.0	1121.8	1123.6	1123.6	1121.8	1120.0	1118.2	1116.4	1117.0
32.5°	1086.2	1087.7	1089.3	1090.9	1092.4	1092.5	1091.2	1089.9	1088.6	1087.3	1087.9
35°	1034.1	1036.2	1038.3	1040.4	1042.5	1043.1	1042.2	1041.3	1040.4	1039.5	1040.4
37.5°	982.0	983.9	985.8	987.7	989.6	990.5	990.2	989.9	989.6	989.3	990.5
40°	946.3	948.7	951.1	953.5	955.9	957.0	956.7	956.4	956.1	955.8	957.0
42.5°	907.4	910.6	913.7	916.8	919.9	921.8	922.5	923.1	923.8	924.5	925.9
45°	851.8	855.1	858.4	861.7	865.0	867.4	868.9	870.4	871.9	873.4	875.5
47.5°	794.9	797.9	801.0	804.0	807.1	809.9	812.5	815.1	817.7	820.2	823.3
50°	756.0	759.3	762.6	765.9	769.2	772.5	775.8	779.1	782.4	785.7	789.0
52.5°	714.9	719.0	723.0	727.0	731.0	735.0	739.1	743.1	747.1	751.1	754.7
55°	654.7	659.5	664.3	669.1	673.9	678.7	683.5	688.3	693.1	697.9	701.2
57.5°	593.2	598.9	604.7	610.5	616.2	621.9	627.4	632.9	638.4	643.9	647.7
60°	552.1	558.1	564.1	570.1	576.1	582.1	588.1	594.1	600.1	606.1	610.6
62.5°	512.2	518.2	524.2	530.2	536.2	542.4	548.9	555.4	561.9	568.3	573.3
65°	450.9	457.8	464.7	471.6	478.5	485.5	492.7	499.9	507.1	514.3	518.8
67.5°	393.1	399.8	406.4	413.1	419.7	426.7	434.1	441.4	448.7	456.0	461.5
70°	351.0	357.9	364.8	371.7	378.6	385.9	393.7	401.5	409.3	417.1	422.8
72.5°	310.0	317.1	324.2	331.4	338.5	346.3	354.9	363.4	371.9	380.4	386.6
75°	248.4	256.2	264.0	271.8	279.6	288.3	297.9	307.5	317.1	326.7	332.7
77.5°	189.3	198.3	207.3	216.3	225.3	234.4	243.6	252.9	262.1	271.3	277.9
80°	152.5	161.5	170.5	179.5	188.5	198.1	208.3	218.5	228.7	238.9	245.5
82.5°	119.1	128.5	138.0	147.5	157.0	166.9	177.4	187.8	198.3	208.7	215.1
85°	74.2	84.1	94.0	103.9	113.8	124.0	134.5	145.0	155.5	166.0	172.6
87.5°	42.3	52.1	62.0	71.9	81.7	91.9	102.3	112.7	123.2	133.6	140.7
90°	22.3	33.3	44.2	55.1	66.0	77.1	88.5	99.8	111.2	122.6	130.3
92.5°	30.9	38.8	46.8	54.7	62.7	72.4	83.9	95.3	106.8	118.2	125.7
95°	59.8	67.1	74.4	81.7	89.0	94.6	98.6	102.5	106.5	110.4	117.8
97.5°	104.1	112.0	119.9	127.8	135.7	138.4	135.9	133.3	130.8	128.3	129.9
100°	138.6	145.4	152.2	159.0	165.8	174.3	184.6	194.8	205.1	215.3	197.1
102.5°	173.7	180.1	186.6	193.0	199.5	207.6	217.3	227.1	236.8	246.6	248.0
105°	230.0	235.5	240.9	246.4	251.8	259.1	268.1	277.1	286.1	295.1	301.1
107.5°	288.5	292.6	296.7	300.8	304.9	311.4	320.4	329.3	338.3	347.3	353.2
110°	326.6	330.2	333.8	337.4	341.0	347.1	355.9	364.6	373.3	382.1	387.3



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	363.3	366.6	369.9	373.2	376.4	382.3	390.6	399.0	407.3	415.7	420.5
115°	417.1	420.0	423.0	425.9	428.8	434.2	442.2	450.2	458.1	466.1	470.8
117.5°	472.8	474.2	475.5	476.9	478.2	482.9	490.9	498.9	506.9	514.9	519.1
120°	508.4	509.1	509.9	510.6	511.3	515.4	522.8	530.2	537.6	545.0	549.7
122.5°	538.7	539.8	540.8	541.9	542.9	546.9	553.8	560.7	567.5	574.4	579.0
125°	587.1	587.9	588.8	589.6	590.5	593.9	599.9	605.9	611.9	617.9	622.0
127.5°	632.1	632.6	633.1	633.7	634.2	636.9	641.7	646.5	651.3	656.1	660.2
130°	660.5	661.1	661.6	662.1	662.6	665.1	669.4	673.8	678.2	682.5	686.2
132.5°	687.9	688.8	689.7	690.6	691.5	693.4	696.3	699.1	702.0	704.9	709.0
135°	728.1	728.8	729.5	730.2	730.9	732.1	733.9	735.6	737.4	739.2	742.7
137.5°	765.0	765.6	766.3	766.9	767.5	768.2	768.9	769.6	770.3	771.1	774.7
140°	788.3	788.6	788.9	789.2	789.6	789.8	789.9	790.1	790.2	790.3	794.0
142.5°	810.2	810.1	810.1	810.1	810.0	810.1	810.4	810.7	811.0	811.3	814.2
145°	842.3	842.4	842.4	842.4	842.5	842.5	842.5	842.5	842.5	842.5	844.1
147.5°	869.2	869.1	869.0	869.0	868.9	869.0	869.2	869.3	869.5	869.7	870.4
150°	886.9	886.6	886.3	885.9	885.6	885.6	885.9	886.3	886.6	886.9	887.3
152.5°	904.1	903.4	902.7	902.0	901.2	901.0	901.4	901.7	902.0	902.3	902.7
155°	926.2	925.2	924.2	923.2	922.3	921.9	922.3	922.6	922.9	923.2	923.7
157.5°	943.2	942.7	942.1	941.5	940.9	940.6	940.6	940.7	940.7	940.7	941.3
160°	955.1	954.1	953.1	952.1	951.2	950.7	950.9	951.1	951.2	951.4	952.1
162.5°	964.6	963.6	962.6	961.6	960.6	960.2	960.4	960.6	960.7	960.9	961.8
165°	977.3	976.3	975.4	974.4	973.4	973.0	973.1	973.3	973.5	973.6	974.6
167.5°	986.8	985.8	984.8	983.8	982.7	982.3	982.5	982.6	982.8	983.0	984.1
170°	992.2	991.0	989.8	988.7	987.5	987.0	987.2	987.4	987.5	987.7	989.0
172.5°	995.7	994.6	993.4	992.2	991.1	990.7	991.0	991.3	991.6	991.9	993.0
175°	999.6	998.6	997.6	996.6	995.6	995.2	995.4	995.5	995.7	995.9	997.2
177.5°	1001.3	1000.5	999.8	999.0	998.2	997.8	998.0	998.1	998.2	998.4	999.3
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1373.8	1375.5	1377.2	1377.9	1377.7	1377.4	1377.2	1377.0
5°	1369.6	1372.0	1374.4	1375.5	1375.2	1374.9	1374.6	1374.3
7.5°	1358.2	1360.3	1362.4	1363.3	1363.0	1362.7	1362.4	1362.1
10°	1347.4	1349.5	1351.6	1352.5	1352.2	1351.9	1351.6	1351.3
12.5°	1334.6	1336.2	1337.8	1338.2	1337.5	1336.7	1335.9	1335.1
15°	1310.4	1312.2	1314.0	1314.3	1313.1	1311.9	1310.7	1309.5
17.5°	1279.6	1280.9	1282.3	1282.6	1281.9	1281.2	1280.5	1279.8
20°	1255.9	1256.8	1257.7	1258.2	1258.2	1258.2	1258.2	1258.2
22.5°	1231.6	1232.7	1233.8	1234.0	1233.3	1232.6	1231.9	1231.2
25°	1193.1	1194.3	1195.5	1195.3	1193.8	1192.3	1190.8	1189.3
27.5°	1148.3	1149.2	1150.0	1150.2	1149.6	1149.1	1148.5	1148.0
30°	1117.6	1118.2	1118.8	1119.0	1118.7	1118.4	1118.1	1117.8
32.5°	1088.5	1089.1	1089.7	1089.8	1089.5	1089.2	1088.9	1088.6
35°	1041.3	1042.2	1043.1	1043.5	1043.5	1043.5	1043.5	1043.5
37.5°	991.7	992.9	994.1	994.6	994.5	994.4	994.2	994.1
40°	958.2	959.4	960.6	961.5	962.1	962.7	963.3	963.9
42.5°	927.3	928.8	930.2	931.0	931.1	931.2	931.4	931.5
45°	877.6	879.7	881.8	883.0	883.3	883.6	883.9	884.2
47.5°	826.4	829.4	832.5	834.3	835.0	835.7	836.3	837.0
50°	792.3	795.6	798.9	801.0	801.9	802.8	803.7	804.6
52.5°	758.2	761.7	765.3	767.4	768.0	768.7	769.4	770.0
55°	704.5	707.8	711.1	713.4	714.6	715.8	717.0	718.2
57.5°	651.5	655.3	659.1	661.4	662.3	663.2	664.1	665.0
60°	615.1	619.6	624.1	626.8	627.7	628.6	629.5	630.4
62.5°	578.3	583.3	588.3	591.3	592.5	593.6	594.7	595.9
65°	523.3	527.8	532.3	535.2	536.4	537.6	538.8	540.0
67.5°	466.9	472.4	477.9	481.4	482.9	484.5	486.0	487.6
70°	428.5	434.2	439.9	443.7	445.5	447.3	449.1	450.9
72.5°	392.8	399.0	405.1	408.9	410.2	411.5	412.8	414.2
75°	338.7	344.7	350.7	354.4	355.9	357.4	358.9	360.4
77.5°	284.5	291.1	297.7	301.6	302.8	304.0	305.2	306.4
80°	252.1	258.7	265.3	269.2	270.4	271.6	272.8	274.0
82.5°	221.4	227.8	234.1	238.4	240.6	242.7	244.9	247.0
85°	179.2	185.8	192.4	196.9	199.3	201.7	204.1	206.5
87.5°	147.7	154.8	161.8	166.5	168.7	170.9	173.1	175.3
90°	138.0	145.7	153.4	158.6	161.2	163.8	166.4	169.0
92.5°	133.2	140.7	148.2	153.1	155.4	157.7	160.1	162.4
95°	125.2	132.7	140.1	144.9	147.0	149.1	151.2	153.3
97.5°	131.6	133.2	134.9	136.7	138.8	140.8	142.8	144.9
100°	178.9	160.6	142.4	133.8	135.0	136.1	137.3	138.4
102.5°	249.4	250.8	252.2	248.2	238.9	229.5	220.1	210.7
105°	307.1	313.1	319.1	323.0	325.0	326.9	328.8	330.8
107.5°	359.2	365.2	371.2	374.8	376.2	377.6	378.9	380.3
110°	392.5	397.7	402.9	406.6	408.9	411.2	413.4	415.7



TEST NUMBER: P333438

CATALOG NUMBER: S125DIW-S1090D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	425.3	430.2	435.0	438.4	440.2	442.1	444.0	445.8
115°	475.6	480.3	485.1	487.8	488.7	489.5	490.3	491.1
117.5°	523.4	527.6	531.9	534.8	536.4	538.0	539.6	541.3
120°	554.5	559.3	564.0	566.9	567.9	568.9	569.8	570.8
122.5°	583.5	588.0	592.6	595.2	596.1	596.9	597.8	598.6
125°	626.2	630.3	634.5	637.0	638.0	639.0	640.0	641.1
127.5°	664.3	668.4	672.5	674.8	675.3	675.8	676.3	676.8
130°	690.0	693.7	697.4	699.6	700.2	700.9	701.6	702.3
132.5°	713.1	717.2	721.3	723.6	724.0	724.4	724.9	725.3
135°	746.3	749.9	753.4	755.5	756.0	756.5	757.0	757.5
137.5°	778.3	781.9	785.5	787.5	787.8	788.1	788.5	788.8
140°	797.6	801.2	804.9	806.8	807.0	807.2	807.4	807.6
142.5°	817.1	820.0	822.8	824.4	824.6	824.8	825.0	825.2
145°	845.8	847.5	849.1	850.1	850.3	850.5	850.7	850.9
147.5°	871.1	871.8	872.5	872.5	871.8	871.2	870.5	869.9
150°	887.6	887.9	888.3	887.9	886.9	885.9	884.9	883.8
152.5°	903.0	903.3	903.7	903.3	902.1	901.0	899.9	898.8
155°	924.2	924.7	925.2	924.8	923.5	922.2	920.9	919.5
157.5°	941.8	942.3	942.8	942.4	941.1	939.8	938.5	937.2
160°	952.7	953.4	954.0	953.7	952.4	951.1	949.8	948.4
162.5°	962.7	963.6	964.6	964.3	962.9	961.4	960.0	958.5
165°	975.6	976.6	977.6	977.4	976.1	974.8	973.5	972.1
167.5°	985.3	986.5	987.7	987.6	986.1	984.6	983.1	981.6
170°	990.3	991.7	993.0	992.9	991.4	989.9	988.4	987.0
172.5°	994.2	995.4	996.6	996.4	995.0	993.5	992.0	990.5
175°	998.5	999.8	1001.1	1001.0	999.6	998.1	996.6	995.1
177.5°	1000.2	1001.1	1002.1	1002.0	1000.9	999.9	998.8	997.8
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6

(END OF REPORT)