

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: P333469-935

Luminaire Tested: **S125DIW-S1270D770U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333469-935  
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-S1270D770U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

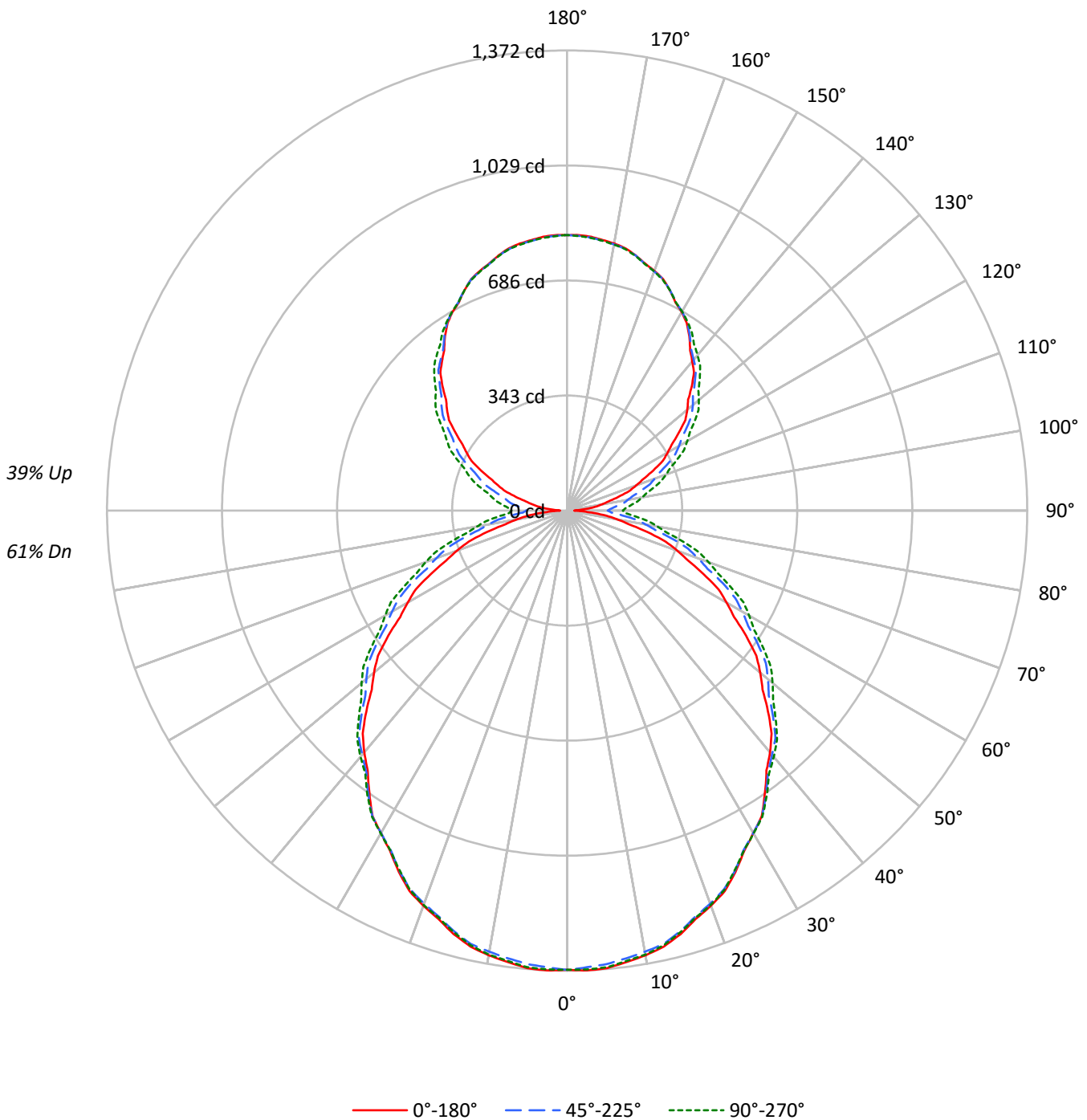
Lumens per Lamp: N/A  
Luminaire Lumens: 6534.6 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct  
  
Input Watts (W): 59.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	89	89	89	77	77	77	66	66	66	61
1	99	95	90	86	93	88	85	81	77	74	72	67	65	63	57	56	54	49
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	47	45	41
3	82	72	64	58	76	67	60	55	59	53	49	51	47	43	44	41	38	34
4	75	63	55	49	70	60	52	46	52	46	41	45	41	37	39	35	32	29
5	69	56	48	42	64	53	45	40	47	40	36	41	36	32	35	31	28	25
6	63	51	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	59	46	37	32	55	43	36	30	38	32	27	33	28	25	29	25	22	19
8	54	42	33	28	51	39	32	27	35	29	24	31	26	22	27	23	20	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	25	21	18	15
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16	14

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

	0°	45°	90°
0°	8843	8843	8843
5°	8860	8680	8707
10°	8797	8525	8512
15°	8694	8339	8263
20°	8552	8110	8015
25°	8384	7865	7709
30°	8181	7595	7431
35°	7991	7346	7176
40°	7797	7085	6920
45°	7579	6861	6693
50°	7370	6618	6491
55°	7119	6390	6255
60°	6846	6128	6014
65°	6558	5855	5742
70°	6233	5481	5463
75°	5719	5122	5121
80°	5046	4687	4749
85°	4423	4393	4630



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.5	2.0
10°-20°	367.5	5.6
20°-30°	546.6	8.4
30°-40°	647.5	9.9
40°-50°	669.4	10.2
50°-60°	616.7	9.4
60°-70°	498.5	7.6
70°-80°	333.8	5.1
80°-90°	174.9	2.7
90°-100°	152.2	2.3
100°-110°	234.1	3.6
110°-120°	323.1	4.9
120°-130°	389.4	6.0
130°-140°	417.6	6.4
140°-150°	400.1	6.1
150°-160°	334.0	5.1
160°-170°	222.0	3.4
170°-180°	77.7	1.2
0°-30°	1043.6	16.0
0°-40°	1691.1	25.9
0°-60°	2977.2	45.6
0°-90°	3984.4	61.0
90°-120°	709.4	10.9
90°-150°	1916.5	29.3
90°-180°	2550.0	39.0
0°-180°	6534.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1369	1366	1357	1367	1367	130
15°	1308	1308	1299	1307	1302	368
25°	1188	1191	1184	1189	1183	547
35°	1028	1037	1034	1037	1038	643
45°	847	861	868	877	879	653
55°	651	672	694	708	714	582
65°	448	479	511	531	537	445
75°	247	282	325	351	358	262
85°	74	118	165	194	205	79
90°	22	70	120	153	166	17
95°	59	96	147	180	192	58
105°	158	184	227	256	268	168
115°	284	297	332	354	363	280
125°	407	411	437	457	464	365
135°	526	528	538	555	560	405
145°	635	636	638	644	648	396
155°	725	725	726	728	725	334
165°	788	787	788	790	786	222
175°	819	817	817	820	816	78
180°	821	821	821	821	821	



TEST NUMBER: P333469-935

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2
2.5°	1372.4	1372.0	1371.5	1371.1	1370.5	1369.5	1367.8	1366.1	1364.5	1362.8	1364.5
5°	1369.2	1368.6	1368.0	1367.4	1366.8	1365.5	1363.4	1361.3	1359.3	1357.2	1359.5
7.5°	1357.2	1356.9	1356.7	1356.4	1356.2	1355.0	1352.9	1350.7	1348.6	1346.4	1348.5
10°	1346.4	1346.4	1346.4	1346.4	1346.4	1345.2	1342.8	1340.5	1338.1	1335.7	1337.7
12.5°	1331.4	1331.6	1331.9	1332.1	1332.3	1331.5	1329.6	1327.7	1325.8	1323.9	1325.5
15°	1307.5	1307.8	1308.1	1308.4	1308.7	1307.8	1305.7	1303.6	1301.6	1299.4	1301.2
17.5°	1276.3	1276.9	1277.6	1278.2	1278.8	1278.0	1275.9	1273.8	1271.7	1269.6	1271.0
20°	1253.8	1254.4	1255.0	1255.6	1256.2	1255.4	1253.4	1251.3	1249.1	1247.1	1248.0
22.5°	1228.0	1229.1	1230.2	1231.2	1232.3	1231.7	1229.3	1227.0	1224.7	1222.4	1223.5
25°	1188.0	1189.0	1189.8	1190.7	1191.6	1191.2	1189.4	1187.6	1185.8	1184.0	1185.2
27.5°	1143.5	1144.8	1146.1	1147.4	1148.7	1148.3	1146.3	1144.3	1142.3	1140.2	1141.1
30°	1110.2	1112.0	1113.7	1115.5	1117.3	1117.3	1115.5	1113.7	1112.0	1110.2	1110.8
32.5°	1080.1	1081.7	1083.2	1084.8	1086.3	1086.4	1085.1	1083.8	1082.4	1081.2	1081.8
35°	1028.3	1030.4	1032.4	1034.6	1036.6	1037.2	1036.3	1035.4	1034.6	1033.6	1034.6
37.5°	976.5	978.4	980.2	982.2	984.1	984.9	984.6	984.3	984.0	983.7	984.9
40°	941.0	943.4	945.8	948.2	950.5	951.6	951.3	951.0	950.7	950.5	951.6
42.5°	902.3	905.4	908.5	911.6	914.8	916.6	917.3	918.0	918.6	919.3	920.7
45°	847.1	850.3	853.6	856.9	860.1	862.5	864.1	865.6	867.0	868.5	870.6
47.5°	790.4	793.4	796.5	799.5	802.5	805.4	808.0	810.5	813.0	815.6	818.7
50°	751.7	755.0	758.3	761.6	764.9	768.2	771.5	774.7	778.0	781.3	784.5
52.5°	710.9	715.0	718.9	722.9	726.9	730.9	734.9	738.9	742.9	746.9	750.4
55°	651.1	655.8	660.6	665.4	670.1	674.9	679.7	684.5	689.2	694.1	697.3
57.5°	589.9	595.6	601.3	607.0	612.8	618.4	623.9	629.3	634.8	640.3	644.1
60°	549.1	555.0	560.9	567.0	572.9	578.9	584.9	590.8	596.8	602.7	607.2
62.5°	509.3	515.3	521.2	527.2	533.1	539.4	545.8	552.2	558.7	565.2	570.1
65°	448.3	455.2	462.1	469.0	475.8	482.8	490.0	497.1	504.3	511.4	515.9
67.5°	390.9	397.5	404.2	410.8	417.4	424.4	431.6	438.9	446.2	453.5	458.9
70°	349.0	355.9	362.7	369.6	376.4	383.7	391.5	399.3	407.1	414.8	420.5
72.5°	308.2	315.3	322.4	329.5	336.7	344.4	352.8	361.4	369.8	378.3	384.4
75°	247.0	254.8	262.5	270.3	278.0	286.7	296.2	305.7	315.3	324.9	330.8
77.5°	188.2	197.2	206.1	215.1	224.0	233.1	242.3	251.4	260.6	269.8	276.4
80°	151.7	160.7	169.6	178.6	187.5	197.0	207.2	217.3	227.5	237.6	244.2
82.5°	118.4	127.9	137.2	146.7	156.1	166.0	176.4	186.8	197.2	207.5	213.9
85°	73.9	83.7	93.5	103.4	113.2	123.4	133.8	144.2	154.6	165.1	171.7
87.5°	42.0	51.7	61.6	71.3	81.1	91.2	101.5	111.8	122.2	132.5	139.6
90°	22.1	32.8	43.5	54.2	64.8	75.8	86.9	98.1	109.2	120.3	127.9
92.5°	34.8	44.4	54.1	63.7	73.3	83.9	95.5	107.1	118.7	130.4	137.8
95°	59.0	67.1	75.1	83.1	91.2	101.0	112.5	124.1	135.6	147.2	154.8
97.5°	84.9	92.0	99.0	106.2	113.2	122.7	134.4	146.2	157.9	169.6	176.8
100°	104.3	110.6	116.8	123.0	129.3	138.1	149.6	160.9	172.3	183.7	191.2
102.5°	125.2	131.5	137.8	144.2	150.6	158.9	169.1	179.3	189.6	199.8	207.2
105°	157.8	163.3	168.8	174.3	179.8	187.4	197.2	207.0	216.8	226.6	233.4
107.5°	194.1	198.8	203.5	208.4	213.1	220.1	229.4	238.6	247.9	257.1	263.5
110°	219.0	223.3	227.6	232.0	236.2	242.7	251.5	260.3	269.1	277.8	284.0



TEST NUMBER: P333469-935

CATALOG NUMBER: S125DIW-S1270D770U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	245.6	248.8	252.1	255.4	258.6	264.5	273.2	281.8	290.5	299.1	304.7
115°	283.5	286.2	288.9	291.5	294.1	299.5	307.5	315.6	323.6	331.7	336.9
117.5°	321.6	323.2	324.9	326.4	328.0	332.7	340.3	347.8	355.5	363.1	368.2
120°	346.1	347.7	349.3	350.9	352.5	356.8	363.9	370.8	377.8	384.9	389.9
122.5°	371.6	372.3	373.0	373.7	374.3	378.2	385.1	392.1	399.2	406.1	410.9
125°	407.4	407.9	408.5	409.1	409.6	412.9	419.0	425.2	431.3	437.4	441.9
127.5°	444.4	444.6	444.8	445.0	445.1	447.8	452.8	457.9	463.0	468.0	472.3
130°	467.4	467.9	468.2	468.6	469.1	471.5	476.0	480.4	484.9	489.3	493.4
132.5°	489.4	490.4	491.5	492.7	493.8	495.9	499.0	502.2	505.4	508.6	512.6
135°	525.6	526.1	526.6	527.2	527.7	529.1	531.3	533.6	535.8	538.0	541.9
137.5°	559.5	560.1	560.7	561.3	561.9	562.8	564.1	565.4	566.8	568.1	571.8
140°	580.4	581.2	581.9	582.6	583.2	584.0	584.7	585.4	586.2	586.9	590.5
142.5°	602.4	602.8	603.1	603.5	603.8	604.3	604.9	605.5	606.1	606.7	609.7
145°	634.7	635.0	635.3	635.6	635.8	636.2	636.6	637.1	637.5	637.9	639.4
147.5°	663.3	663.7	663.9	664.3	664.6	664.9	665.2	665.6	665.9	666.2	667.1
150°	683.3	683.1	682.9	682.9	682.7	682.9	683.5	684.1	684.6	685.2	685.2
152.5°	699.6	699.8	700.0	700.3	700.4	700.6	700.9	701.1	701.3	701.5	701.9
155°	724.8	724.8	724.8	724.8	724.8	724.9	725.0	725.1	725.3	725.5	726.0
157.5°	747.3	747.0	746.7	746.4	746.1	746.0	746.1	746.2	746.4	746.6	747.1
160°	760.6	760.2	759.7	759.3	758.9	758.7	758.9	759.1	759.1	759.3	759.9
162.5°	772.4	772.1	771.7	771.5	771.1	770.9	771.0	771.0	771.0	771.1	771.8
165°	788.1	787.8	787.6	787.2	787.0	786.9	787.0	787.1	787.3	787.5	788.0
167.5°	801.4	800.8	800.2	799.7	799.1	798.8	798.8	798.8	798.8	798.8	799.7
170°	808.6	808.0	807.4	806.8	806.2	806.0	806.0	806.0	806.0	806.0	806.8
172.5°	813.6	813.0	812.5	811.9	811.4	811.1	811.1	811.1	811.1	811.1	811.9
175°	819.4	818.8	818.3	817.7	817.1	816.8	816.8	816.8	816.8	816.8	817.7
177.5°	822.3	821.9	821.4	821.0	820.5	820.3	820.1	820.0	819.9	819.8	820.4
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3



TEST NUMBER: P333469-935

CATALOG NUMBER: S125DIW-S1270D770U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2	1369.2
2.5°	1366.1	1367.8	1369.5	1370.2	1369.9	1369.8	1369.5	1369.2
5°	1361.9	1364.3	1366.8	1367.8	1367.4	1367.2	1366.8	1366.6
7.5°	1350.6	1352.7	1354.8	1355.6	1355.4	1355.0	1354.8	1354.4
10°	1339.9	1342.0	1344.0	1345.0	1344.6	1344.4	1344.0	1343.8
12.5°	1327.1	1328.7	1330.3	1330.8	1330.0	1329.2	1328.4	1327.7
15°	1303.0	1304.8	1306.6	1306.9	1305.7	1304.5	1303.3	1302.1
17.5°	1272.4	1273.8	1275.1	1275.5	1274.7	1274.0	1273.3	1272.6
20°	1248.9	1249.7	1250.7	1251.1	1251.1	1251.1	1251.1	1251.1
22.5°	1224.7	1225.8	1226.9	1227.1	1226.4	1225.7	1224.9	1224.3
25°	1186.4	1187.6	1188.8	1188.6	1187.1	1185.6	1184.1	1182.7
27.5°	1141.9	1142.7	1143.6	1143.8	1143.1	1142.6	1142.1	1141.6
30°	1111.4	1112.0	1112.6	1112.7	1112.4	1112.1	1111.8	1111.5
32.5°	1082.4	1083.0	1083.6	1083.7	1083.4	1083.1	1082.8	1082.5
35°	1035.4	1036.3	1037.2	1037.7	1037.7	1037.7	1037.7	1037.7
37.5°	986.1	987.3	988.5	989.0	988.9	988.8	988.7	988.5
40°	952.8	954.0	955.2	956.1	956.7	957.3	957.9	958.5
42.5°	922.1	923.6	925.0	925.7	925.9	926.0	926.2	926.3
45°	872.7	874.8	876.8	878.0	878.4	878.7	879.0	879.3
47.5°	821.7	824.8	827.9	829.7	830.3	831.0	831.6	832.3
50°	787.8	791.1	794.4	796.5	797.4	798.3	799.2	800.0
52.5°	754.0	757.5	761.0	763.1	763.7	764.4	765.1	765.7
55°	700.6	703.9	707.1	709.4	710.6	711.8	713.0	714.2
57.5°	647.8	651.6	655.4	657.7	658.6	659.4	660.4	661.2
60°	611.7	616.1	620.6	623.3	624.2	625.1	626.0	626.9
62.5°	575.1	580.0	585.0	588.0	589.1	590.3	591.4	592.5
65°	520.4	524.9	529.3	532.2	533.4	534.6	535.8	536.9
67.5°	464.3	469.8	475.2	478.6	480.2	481.7	483.4	484.9
70°	426.1	431.8	437.5	441.2	443.0	444.8	446.6	448.3
72.5°	390.5	396.7	402.9	406.6	407.9	409.2	410.5	411.8
75°	336.8	342.8	348.7	352.5	354.0	355.4	357.0	358.4
77.5°	282.9	289.5	296.1	300.0	301.2	302.3	303.5	304.7
80°	250.7	257.3	263.9	267.8	268.9	270.1	271.3	272.5
82.5°	220.2	226.5	232.8	237.0	239.2	241.3	243.5	245.6
85°	178.2	184.8	191.4	195.9	198.2	200.6	203.0	205.3
87.5°	146.5	153.5	160.6	165.1	167.3	169.4	171.7	173.8
90°	135.4	143.0	150.6	155.7	158.2	160.7	163.2	165.7
92.5°	145.4	153.0	160.6	165.6	168.0	170.3	172.7	175.1
95°	162.3	169.9	177.5	182.4	184.8	187.2	189.5	191.9
97.5°	184.1	191.2	198.5	203.1	205.3	207.6	209.7	212.0
100°	198.8	206.3	213.9	218.7	220.8	222.8	224.9	227.0
102.5°	214.7	222.1	229.5	234.4	236.5	238.7	240.9	243.1
105°	240.2	247.0	253.8	258.6	261.1	263.6	266.0	268.5
107.5°	269.8	276.1	282.4	286.5	288.3	290.2	292.0	293.8
110°	290.1	296.1	302.2	306.3	308.2	310.1	312.1	314.0





TEST NUMBER: P333469-935

CATALOG NUMBER: S125DIW-S1270D770U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	310.4	316.0	321.7	325.4	327.2	329.0	330.9	332.7
115°	342.2	347.3	352.6	356.0	357.7	359.3	360.9	362.6
117.5°	373.4	378.6	383.8	387.1	388.6	390.0	391.5	393.0
120°	395.0	400.0	405.1	408.3	409.5	410.7	411.9	413.2
122.5°	415.5	420.3	425.0	428.0	429.4	430.7	432.0	433.3
125°	446.3	450.8	455.3	458.2	459.6	461.0	462.3	463.6
127.5°	476.6	480.9	485.1	488.0	489.4	490.9	492.3	493.8
130°	497.4	501.4	505.5	508.1	509.3	510.5	511.7	512.9
132.5°	516.6	520.6	524.7	527.2	528.0	528.8	529.7	530.5
135°	545.8	549.7	553.5	555.9	556.9	557.8	558.7	559.6
137.5°	575.5	579.2	582.9	585.0	585.5	585.9	586.4	586.9
140°	594.0	597.5	601.2	603.1	603.6	604.2	604.6	605.1
142.5°	612.7	615.6	618.6	620.4	620.9	621.3	621.8	622.2
145°	640.8	642.4	643.9	645.0	645.8	646.5	647.3	648.1
147.5°	667.9	668.7	669.5	669.7	669.3	668.9	668.5	668.0
150°	685.2	685.2	685.2	685.2	685.2	685.2	685.3	685.3
152.5°	702.2	702.6	702.9	702.8	702.4	702.0	701.5	701.0
155°	726.6	727.1	727.7	727.6	726.9	726.3	725.5	724.8
157.5°	747.7	748.2	748.8	748.6	747.7	746.7	745.8	744.9
160°	760.4	761.0	761.6	761.6	760.8	760.1	759.4	758.7
162.5°	772.5	773.1	773.8	773.8	772.9	772.1	771.3	770.4
165°	788.6	789.2	789.7	789.5	788.8	787.9	787.0	786.2
167.5°	800.6	801.4	802.2	802.2	801.3	800.5	799.6	798.7
170°	807.7	808.6	809.4	809.3	808.3	807.4	806.3	805.4
172.5°	812.8	813.6	814.5	814.5	813.6	812.7	811.8	811.0
175°	818.6	819.4	820.3	820.2	819.2	818.2	817.2	816.2
177.5°	821.1	821.8	822.5	822.4	821.7	820.9	820.1	819.2
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3

(END OF REPORT)