

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: P333390-940

Luminaire Tested: **S125DIW-S610D1340U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333390-940  
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-S610D1340U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6926.4 lumens  
Efficiency: N/A  
Efficacy: 128.7 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-Indirect

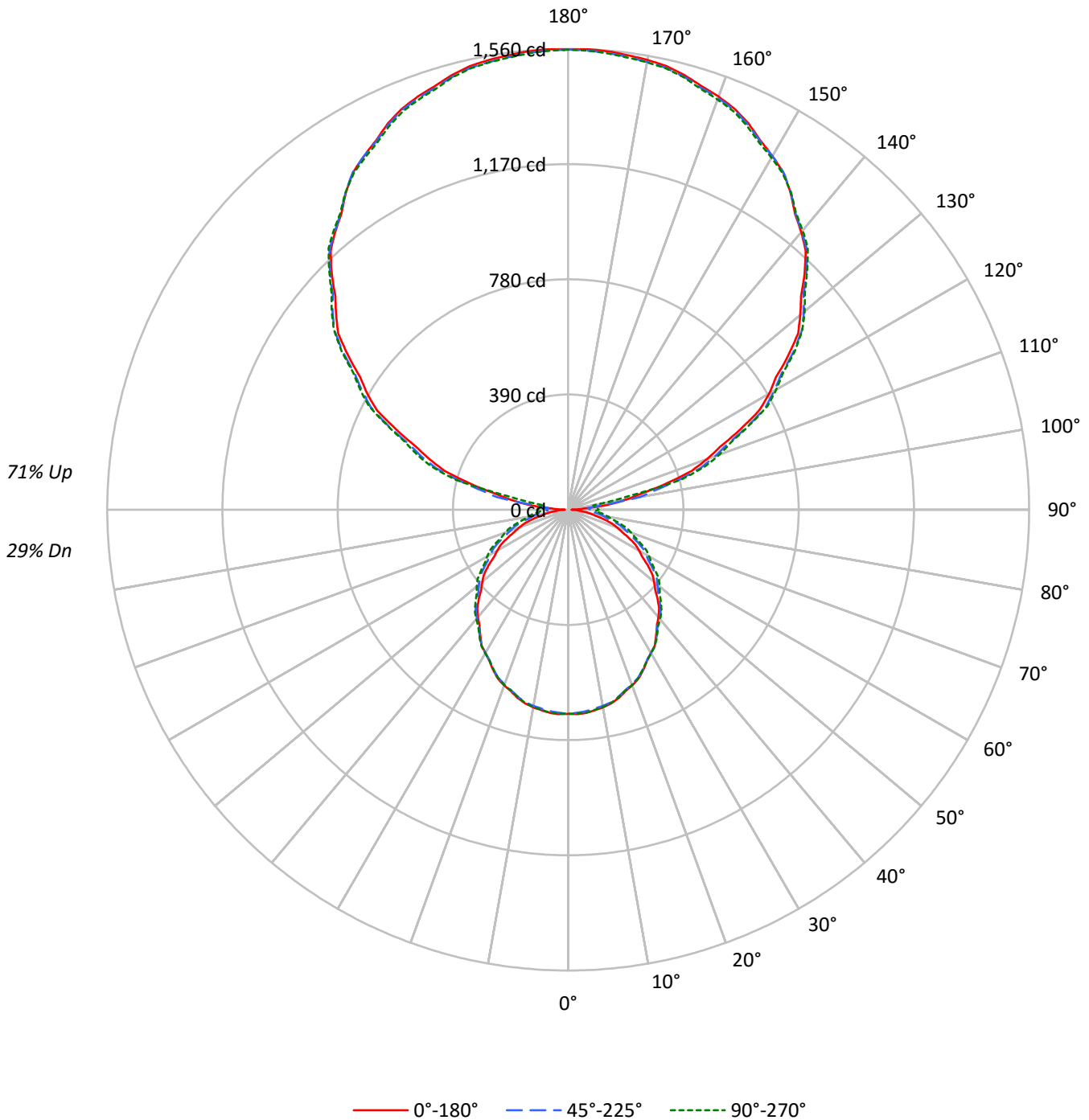
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	24
2	84	77	71	66	75	69	64	59	54	51	47	40	38	36	28	26	25	19
3	77	67	60	54	68	60	54	49	48	43	40	36	33	30	24	23	21	16
4	70	59	52	46	62	53	47	42	42	37	34	32	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	20	17	16	12
6	59	47	39	33	52	42	36	31	34	29	25	25	22	19	18	15	14	10
7	54	42	35	29	48	38	31	27	30	25	22	23	19	17	16	14	12	9
8	50	38	31	26	45	35	28	23	28	23	19	21	17	15	15	12	11	8
9	47	35	27	23	42	31	25	21	25	20	17	19	16	13	14	11	10	7
10	43	32	25	20	39	29	23	18	23	18	15	18	14	12	13	10	9	7

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

	0°	45°	90°
0°	4463	4463	4463
5°	4472	4380	4394
10°	4440	4302	4295
15°	4388	4209	4171
20°	4316	4093	4045
25°	4232	3969	3891
30°	4129	3833	3751
35°	4033	3708	3622
40°	3935	3576	3493
45°	3825	3463	3378
50°	3720	3340	3276
55°	3593	3225	3156
60°	3455	3093	3035
65°	3310	2956	2898
70°	3145	2767	2758
75°	2887	2586	2585
80°	2548	2365	2396
85°	2232	2219	2336



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.3	0.9
10°-20°	185.5	2.7
20°-30°	275.9	4.0
30°-40°	326.8	4.7
40°-50°	337.9	4.9
50°-60°	311.2	4.5
60°-70°	251.6	3.6
70°-80°	168.5	2.4
80°-90°	90.6	1.3
90°-100°	105.6	1.5
100°-110°	385.0	5.6
110°-120°	656.9	9.5
120°-130°	825.7	11.9
130°-140°	879.3	12.7
140°-150°	820.9	11.9
150°-160°	663.1	9.6
160°-170°	428.8	6.2
170°-180°	147.9	2.1
0°-30°	526.7	7.6
0°-40°	853.5	12.3
0°-60°	1502.6	21.7
0°-90°	2013.3	29.1
90°-120°	1147.5	16.6
90°-150°	3673.3	53.0
90°-180°	4913.0	70.9
0°-180°	6926.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	691	690	685	690	690	66
15°	660	660	656	660	657	186
25°	600	601	598	600	597	276
35°	519	523	522	524	524	325
45°	428	435	438	443	444	330
55°	329	339	350	357	360	294
65°	226	242	258	268	271	224
75°	125	143	164	177	181	132
85°	37	60	83	98	104	40
90°	12	43	74	95	104	10
95°	75	87	68	88	93	91
105°	346	361	381	394	398	366
115°	641	652	671	678	675	636
125°	909	917	930	936	936	811
135°	1132	1138	1140	1146	1143	872
145°	1311	1313	1313	1317	1313	819
155°	1443	1437	1439	1441	1433	665
165°	1523	1516	1517	1523	1515	430
175°	1558	1551	1552	1560	1550	148
180°	1558	1558	1558	1558	1558	



TEST NUMBER: P333390-940

CATALOG NUMBER: S125DIW-S610D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	692.7	692.4	692.2	692.0	691.7	691.2	690.4	689.5	688.7	687.8	688.7
5°	691.1	690.7	690.5	690.2	689.8	689.2	688.1	687.1	686.0	684.9	686.2
7.5°	684.9	684.8	684.7	684.6	684.5	683.9	682.8	681.7	680.6	679.6	680.6
10°	679.6	679.6	679.6	679.6	679.6	678.9	677.7	676.5	675.3	674.1	675.2
12.5°	672.0	672.1	672.2	672.3	672.4	672.0	671.0	670.1	669.1	668.2	669.0
15°	659.9	660.0	660.2	660.3	660.5	660.0	659.0	657.9	656.9	655.9	656.7
17.5°	644.2	644.4	644.8	645.1	645.4	645.0	644.0	642.9	641.9	640.8	641.5
20°	632.8	633.1	633.4	633.7	634.0	633.6	632.6	631.5	630.4	629.4	629.8
22.5°	619.8	620.4	620.9	621.4	622.0	621.6	620.5	619.3	618.1	617.0	617.5
25°	599.6	600.0	600.5	600.9	601.4	601.2	600.3	599.4	598.4	597.5	598.2
27.5°	577.1	577.7	578.5	579.1	579.8	579.6	578.5	577.6	576.5	575.5	575.9
30°	560.3	561.2	562.1	563.0	563.9	563.9	563.0	562.1	561.2	560.3	560.6
32.5°	545.1	545.9	546.7	547.5	548.2	548.3	547.7	547.0	546.4	545.6	546.0
35°	519.0	520.0	521.1	522.1	523.2	523.5	523.1	522.5	522.1	521.7	522.1
37.5°	492.8	493.8	494.7	495.7	496.7	497.0	497.0	496.8	496.6	496.5	497.0
40°	474.9	476.2	477.3	478.6	479.7	480.3	480.1	480.0	479.8	479.7	480.3
42.5°	455.4	457.0	458.5	460.1	461.7	462.6	463.0	463.3	463.6	464.0	464.7
45°	427.5	429.2	430.8	432.5	434.2	435.3	436.1	436.8	437.6	438.4	439.4
47.5°	399.0	400.5	402.0	403.5	405.1	406.4	407.8	409.0	410.4	411.6	413.2
50°	379.4	381.0	382.7	384.4	386.0	387.7	389.3	391.0	392.6	394.3	396.0
52.5°	358.8	360.8	362.8	364.9	366.8	368.9	371.0	372.9	375.0	376.9	378.7
55°	328.6	331.0	333.4	335.8	338.2	340.6	343.0	345.4	347.9	350.3	352.0
57.5°	297.7	300.6	303.4	306.4	309.2	312.1	314.9	317.6	320.4	323.2	325.0
60°	277.1	280.1	283.1	286.1	289.2	292.1	295.2	298.2	301.2	304.2	306.5
62.5°	257.1	260.0	263.1	266.1	269.1	272.2	275.4	278.7	282.0	285.3	287.8
65°	226.3	229.8	233.2	236.7	240.1	243.7	247.3	250.9	254.5	258.2	260.4
67.5°	197.3	200.6	203.9	207.3	210.6	214.2	217.8	221.5	225.2	228.9	231.6
70°	176.1	179.6	183.1	186.5	190.0	193.7	197.6	201.5	205.5	209.4	212.2
72.5°	155.5	159.2	162.7	166.3	169.9	173.8	178.1	182.4	186.6	190.9	194.0
75°	124.7	128.6	132.5	136.4	140.4	144.7	149.5	154.4	159.2	164.0	166.9
77.5°	95.0	99.5	104.1	108.5	113.1	117.6	122.3	126.9	131.5	136.2	139.5
80°	76.6	81.1	85.6	90.2	94.6	99.4	104.6	109.7	114.8	119.9	123.2
82.5°	59.7	64.5	69.3	74.0	78.8	83.8	89.0	94.3	99.5	104.8	107.9
85°	37.3	42.3	47.2	52.2	57.2	62.2	67.5	72.8	78.0	83.4	86.7
87.5°	21.4	26.6	31.8	37.1	42.3	47.6	53.1	58.6	64.1	69.6	73.3
90°	12.0	18.9	25.8	32.6	39.5	46.4	53.3	60.2	67.1	74.0	78.7
92.5°	27.6	30.6	33.6	36.6	39.6	44.5	51.4	58.2	65.0	71.9	76.5
95°	74.6	77.8	80.9	84.1	87.2	86.5	81.9	77.2	72.6	67.9	72.5
97.5°	145.3	150.3	155.2	160.2	165.1	160.3	146.0	131.6	117.3	102.9	98.8
100°	200.3	204.2	208.1	212.0	216.0	220.9	226.8	232.6	238.4	244.2	209.2
102.5°	256.1	259.9	263.9	267.8	271.6	276.3	281.6	286.9	292.2	297.5	293.3
105°	345.5	348.9	352.4	355.9	359.3	363.3	367.7	372.3	376.8	381.3	384.3
107.5°	438.5	440.5	442.6	444.6	446.7	450.1	455.0	459.8	464.7	469.5	472.5
110°	498.9	500.7	502.5	504.3	506.1	509.3	514.1	518.8	523.5	528.3	530.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	556.2	558.2	560.3	562.3	564.4	567.7	572.0	576.4	580.9	585.2	587.0
115°	641.4	643.7	646.0	648.4	650.7	654.0	658.2	662.3	666.5	670.7	672.3
117.5°	729.6	730.2	730.8	731.6	732.2	734.9	739.5	744.1	748.9	753.5	754.7
120°	785.0	785.2	785.4	785.6	785.8	788.0	792.2	796.5	800.7	804.9	807.0
122.5°	833.4	834.6	835.8	837.0	838.2	840.6	844.3	848.0	851.7	855.4	857.4
125°	909.0	910.7	912.3	914.0	915.6	917.9	921.0	924.0	926.9	930.0	931.4
127.5°	980.6	981.8	982.8	984.0	985.2	986.9	989.2	991.5	993.8	996.1	997.8
130°	1024.9	1026.1	1027.3	1028.3	1029.5	1031.3	1033.6	1036.0	1038.3	1040.7	1042.1
132.5°	1068.7	1070.2	1071.7	1073.1	1074.6	1075.8	1076.9	1078.0	1079.1	1080.0	1082.0
135°	1131.7	1133.0	1134.4	1135.8	1137.2	1138.2	1138.7	1139.2	1139.8	1140.3	1141.7
137.5°	1189.5	1190.7	1191.9	1193.1	1194.4	1195.0	1195.0	1195.1	1195.1	1195.2	1197.0
140°	1226.8	1227.4	1227.8	1228.3	1228.9	1229.0	1229.0	1228.9	1228.8	1228.6	1230.8
142.5°	1261.0	1261.1	1261.3	1261.5	1261.7	1262.0	1262.4	1262.8	1263.2	1263.6	1265.1
145°	1311.1	1311.4	1311.8	1312.2	1312.5	1312.7	1312.7	1312.7	1312.7	1312.7	1313.8
147.5°	1354.2	1354.2	1354.1	1354.0	1353.9	1354.0	1354.2	1354.6	1354.9	1355.2	1355.8
150°	1382.0	1381.4	1381.0	1380.5	1379.9	1379.9	1380.5	1381.0	1381.4	1382.0	1382.5
152.5°	1408.7	1407.7	1406.5	1405.4	1404.3	1403.9	1404.4	1405.0	1405.5	1406.0	1406.5
155°	1443.1	1441.6	1440.1	1438.6	1437.0	1436.5	1437.0	1437.5	1438.1	1438.6	1439.3
157.5°	1469.7	1468.8	1467.8	1467.0	1466.1	1465.6	1465.6	1465.7	1465.8	1465.8	1466.6
160°	1488.2	1486.7	1485.1	1483.5	1482.0	1481.4	1481.7	1481.9	1482.2	1482.5	1483.5
162.5°	1503.0	1501.5	1499.9	1498.3	1496.8	1496.2	1496.5	1496.7	1496.9	1497.2	1498.6
165°	1522.9	1521.3	1519.7	1518.2	1516.7	1516.0	1516.3	1516.5	1516.8	1517.1	1518.6
167.5°	1537.6	1536.1	1534.5	1532.9	1531.2	1530.6	1530.8	1531.1	1531.3	1531.6	1533.5
170°	1546.0	1544.2	1542.3	1540.5	1538.7	1537.9	1538.2	1538.5	1538.7	1539.0	1541.1
172.5°	1551.5	1549.7	1547.9	1546.0	1544.3	1543.6	1544.1	1544.5	1545.0	1545.4	1547.3
175°	1557.5	1555.9	1554.4	1552.8	1551.3	1550.7	1551.0	1551.2	1551.5	1551.7	1553.7
177.5°	1560.2	1559.0	1557.8	1556.6	1555.3	1554.8	1555.1	1555.2	1555.4	1555.6	1557.1
180°	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	689.5	690.4	691.2	691.5	691.4	691.3	691.2	691.1
5°	687.3	688.6	689.7	690.3	690.2	690.0	689.8	689.7
7.5°	681.6	682.7	683.8	684.2	684.0	683.9	683.8	683.6
10°	676.3	677.3	678.3	678.8	678.7	678.5	678.3	678.1
12.5°	669.8	670.6	671.5	671.6	671.2	670.8	670.5	670.0
15°	657.6	658.5	659.4	659.6	659.0	658.4	657.8	657.2
17.5°	642.2	642.8	643.5	643.7	643.4	643.0	642.7	642.3
20°	630.4	630.8	631.2	631.4	631.4	631.4	631.4	631.4
22.5°	618.0	618.7	619.2	619.3	618.9	618.6	618.2	617.9
25°	598.8	599.4	599.9	599.9	599.1	598.4	597.6	596.9
27.5°	576.3	576.8	577.2	577.2	576.9	576.7	576.4	576.1
30°	560.9	561.2	561.5	561.6	561.4	561.2	561.2	561.0
32.5°	546.3	546.5	546.9	547.0	546.8	546.6	546.5	546.4
35°	522.5	523.1	523.5	523.7	523.7	523.7	523.7	523.7
37.5°	497.7	498.3	498.9	499.2	499.1	499.0	499.0	498.9
40°	480.9	481.5	482.1	482.5	482.9	483.1	483.5	483.8
42.5°	465.4	466.1	466.8	467.3	467.3	467.3	467.4	467.5
45°	440.4	441.5	442.6	443.2	443.4	443.4	443.6	443.8
47.5°	414.7	416.3	417.8	418.7	419.1	419.4	419.7	420.1
50°	397.6	399.3	400.9	402.0	402.4	402.9	403.3	403.8
52.5°	380.5	382.3	384.1	385.1	385.5	385.8	386.1	386.5
55°	353.6	355.3	356.9	358.0	358.6	359.3	359.8	360.4
57.5°	327.0	328.9	330.7	331.9	332.4	332.9	333.3	333.8
60°	308.7	310.9	313.3	314.6	315.0	315.5	315.9	316.4
62.5°	290.3	292.7	295.2	296.8	297.3	297.9	298.5	299.1
65°	262.6	264.9	267.2	268.6	269.2	269.8	270.4	271.0
67.5°	234.3	237.1	239.8	241.6	242.4	243.2	244.0	244.7
70°	215.1	217.9	220.8	222.7	223.6	224.4	225.4	226.3
72.5°	197.2	200.2	203.3	205.2	205.9	206.5	207.2	207.9
75°	170.0	173.0	176.0	177.9	178.6	179.4	180.1	180.9
77.5°	142.8	146.2	149.5	151.4	151.9	152.6	153.2	153.8
80°	126.5	129.8	133.1	135.1	135.7	136.3	137.0	137.5
82.5°	111.1	114.3	117.5	119.7	120.7	121.8	122.9	123.9
85°	90.0	93.3	96.6	98.8	100.0	101.2	102.5	103.6
87.5°	77.0	80.7	84.4	86.9	88.1	89.3	90.5	91.8
90°	83.6	88.3	93.0	96.3	98.1	100.0	101.7	103.6
92.5°	81.1	85.7	90.3	93.4	94.8	96.2	97.6	99.1
95°	77.1	81.7	86.3	89.2	90.2	91.2	92.3	93.4
97.5°	94.7	90.7	86.6	85.1	86.1	87.1	88.1	89.2
100°	174.2	139.0	104.0	86.4	86.2	86.1	86.1	85.9
102.5°	289.1	284.9	280.7	270.4	253.8	237.3	220.7	204.2
105°	387.4	390.4	393.3	395.3	396.1	396.9	397.6	398.4
107.5°	475.5	478.6	481.6	483.2	483.4	483.6	483.8	483.8
110°	532.4	534.6	536.6	538.3	539.7	541.0	542.2	543.6





TEST NUMBER: P333390-940

CATALOG NUMBER: S125DIW-S610D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	588.8	590.5	592.3	593.5	594.2	594.9	595.6	596.3
115°	674.0	675.7	677.4	677.9	677.3	676.6	676.0	675.4
117.5°	756.0	757.2	758.4	759.2	759.6	759.9	760.3	760.6
120°	809.0	811.1	813.2	814.0	813.6	813.2	812.8	812.4
122.5°	859.3	861.2	863.1	863.8	863.2	862.6	862.0	861.5
125°	932.7	934.2	935.5	936.2	936.2	936.1	936.1	936.1
127.5°	999.4	1001.1	1002.8	1003.1	1002.1	1001.0	1000.1	999.0
130°	1043.4	1044.7	1046.1	1046.4	1045.9	1045.4	1044.8	1044.3
132.5°	1084.0	1085.9	1087.9	1088.5	1087.9	1087.3	1086.6	1085.9
135°	1143.3	1144.7	1146.1	1146.5	1145.7	1144.9	1144.1	1143.3
137.5°	1198.9	1200.8	1202.7	1203.3	1202.6	1201.8	1201.0	1200.3
140°	1233.0	1235.1	1237.3	1238.0	1237.0	1236.1	1235.1	1234.2
142.5°	1266.6	1268.1	1269.6	1269.9	1269.0	1268.0	1267.1	1266.1
145°	1314.7	1315.7	1316.8	1316.8	1315.8	1314.9	1313.9	1313.0
147.5°	1356.3	1356.8	1357.4	1356.9	1355.3	1353.7	1352.2	1350.6
150°	1383.0	1383.5	1384.0	1383.3	1381.4	1379.6	1377.6	1375.7
152.5°	1407.0	1407.6	1408.0	1407.4	1405.6	1403.7	1401.9	1400.2
155°	1440.1	1440.8	1441.6	1441.0	1439.0	1436.9	1434.9	1432.8
157.5°	1467.5	1468.3	1469.1	1468.5	1466.4	1464.4	1462.3	1460.3
160°	1484.5	1485.5	1486.6	1486.0	1484.0	1481.9	1479.9	1477.8
162.5°	1500.0	1501.6	1503.0	1502.5	1500.3	1498.0	1495.8	1493.5
165°	1520.1	1521.7	1523.2	1523.0	1520.9	1518.9	1516.8	1514.7
167.5°	1535.3	1537.1	1539.0	1538.7	1536.4	1534.2	1531.9	1529.6
170°	1543.1	1545.2	1547.2	1547.1	1544.8	1542.5	1540.2	1537.8
172.5°	1549.2	1551.0	1552.8	1552.6	1550.3	1548.0	1545.7	1543.4
175°	1555.8	1557.8	1559.9	1559.8	1557.5	1555.1	1552.8	1550.5
177.5°	1558.5	1560.0	1561.4	1561.3	1559.6	1558.0	1556.3	1554.7
180°	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5

(END OF REPORT)