

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: P333397-940

Luminaire Tested: **S125DIW-S610D1560U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333397-940
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-S610D1560U940-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6966.4 lumens
Efficiency: N/A
Efficacy: 115.0 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

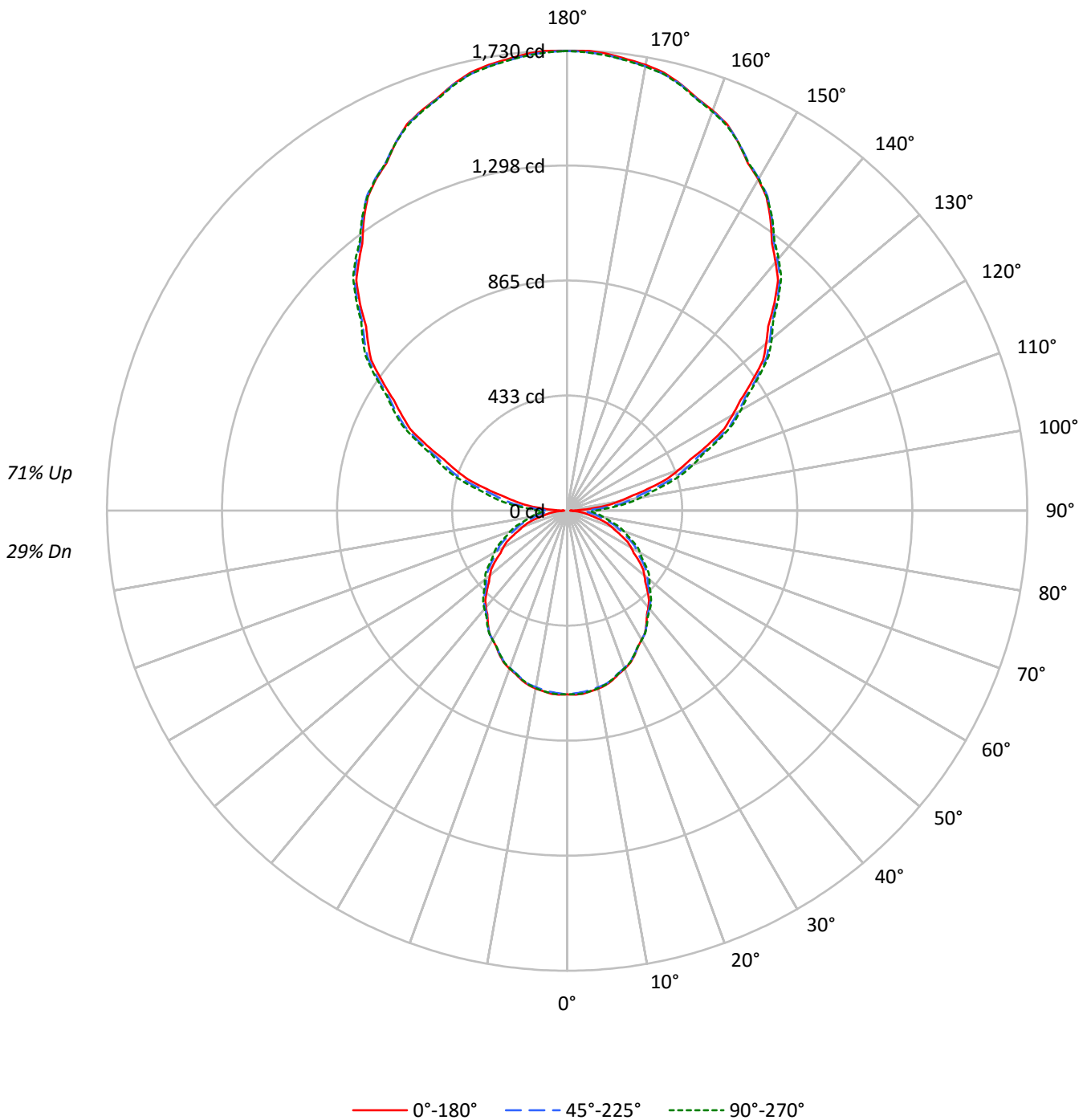
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

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	91	91	91	91	72	72	72	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	77	67	60	54	68	60	54	49	47	43	40	35	33	30	24	23	21	16
4	70	59	52	46	62	53	47	42	42	37	33	31	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	19	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



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

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	4.8
50°-60°	311.2	4.5
60°-70°	251.6	3.6
70°-80°	168.5	2.4
80°-90°	91.1	1.3
90°-100°	164.8	2.4
100°-110°	377.9	5.4
110°-120°	603.2	8.7
120°-130°	775.7	11.1
130°-140°	859.7	12.3
140°-150°	837.9	12.0
150°-160°	702.8	10.1
160°-170°	467.2	6.7
170°-180°	163.5	2.3
0°-30°	526.7	7.6
0°-40°	853.5	12.3
0°-60°	1502.6	21.6
0°-90°	2013.8	28.9
90°-120°	1145.9	16.4
90°-150°	3619.2	52.0
90°-180°	4953.0	71.1
0°-180°	6966.4	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	45	77	99	108	12
95°	96	117	153	176	185	100
105°	313	331	359	380	389	334
115°	584	594	614	625	628	577
125°	849	856	871	879	881	760
135°	1101	1109	1115	1123	1122	849
145°	1333	1338	1342	1345	1344	833
155°	1525	1525	1526	1531	1525	702
165°	1658	1656	1657	1661	1654	468
175°	1724	1719	1719	1726	1717	164
180°	1728	1728	1728	1728	1728	



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

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	26.7	32.0	37.3	42.6	48.0	53.5	59.1	64.6	70.2	73.9
90°	12.2	19.4	26.6	33.8	41.0	48.2	55.5	62.7	69.8	77.0	82.0
92.5°	42.3	48.4	54.6	60.7	66.8	73.8	81.6	89.4	97.2	105.0	110.3
95°	96.2	100.8	105.2	109.8	114.2	120.6	128.7	136.8	144.9	153.0	158.5
97.5°	153.2	157.0	160.8	164.5	168.3	174.7	183.8	192.8	201.9	211.0	216.1
100°	195.7	198.9	202.1	205.2	208.4	214.3	223.0	231.8	240.4	249.1	254.9
102.5°	241.5	245.6	249.7	253.8	257.9	263.3	270.0	276.6	283.3	290.0	296.0
105°	312.7	316.6	320.6	324.4	328.3	333.4	339.7	346.1	352.4	358.6	363.5
107.5°	391.6	395.0	398.6	402.2	405.7	410.3	416.1	421.8	427.5	433.2	437.0
110°	445.9	449.2	452.5	455.8	459.1	463.2	468.4	473.5	478.6	483.8	487.5



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	501.8	504.0	506.2	508.5	510.7	514.4	519.6	524.9	530.1	535.3	538.5
115°	583.7	585.9	588.2	590.4	592.7	596.1	600.6	605.1	609.6	614.1	616.5
117.5°	665.8	667.1	668.3	669.6	670.7	673.5	677.8	682.0	686.3	690.5	693.3
120°	717.5	719.4	721.4	723.4	725.3	728.2	731.9	735.7	739.4	743.2	745.7
122.5°	772.9	773.6	774.4	775.2	775.9	778.4	782.5	786.6	790.7	794.8	797.0
125°	848.6	850.2	851.9	853.5	855.2	857.6	860.9	864.2	867.6	870.9	872.7
127.5°	928.6	929.5	930.3	931.2	932.1	934.0	936.7	939.6	942.4	945.2	947.2
130°	977.0	978.4	979.7	981.1	982.4	984.4	987.1	989.9	992.6	995.2	997.1
132.5°	1024.9	1027.3	1029.7	1032.2	1034.6	1036.5	1038.0	1039.6	1041.1	1042.6	1044.4
135°	1101.4	1103.0	1104.7	1106.3	1108.0	1109.5	1110.9	1112.2	1113.6	1114.9	1116.9
137.5°	1173.4	1175.0	1176.6	1178.2	1179.8	1181.2	1182.4	1183.6	1184.7	1185.9	1188.0
140°	1219.1	1220.6	1222.1	1223.6	1225.1	1226.4	1227.4	1228.4	1229.5	1230.6	1232.8
142.5°	1265.3	1266.5	1267.7	1268.8	1269.9	1271.0	1272.2	1273.4	1274.5	1275.7	1277.5
145°	1333.4	1334.4	1335.5	1336.6	1337.6	1338.5	1339.4	1340.3	1341.2	1342.1	1342.9
147.5°	1395.7	1396.3	1397.0	1397.7	1398.3	1399.0	1399.7	1400.4	1401.1	1401.9	1402.8
150°	1437.6	1437.3	1437.1	1436.7	1436.5	1436.9	1438.1	1439.3	1440.5	1441.7	1441.7
152.5°	1472.0	1472.5	1472.9	1473.3	1473.7	1474.2	1474.7	1475.2	1475.6	1476.1	1476.9
155°	1525.1	1525.1	1525.1	1525.1	1525.1	1525.2	1525.5	1525.8	1526.1	1526.4	1527.6
157.5°	1572.4	1571.7	1571.1	1570.4	1569.8	1569.6	1569.9	1570.2	1570.5	1570.7	1572.0
160°	1600.4	1599.5	1598.6	1597.7	1596.8	1596.5	1596.8	1597.1	1597.4	1597.7	1598.8
162.5°	1625.1	1624.4	1623.8	1623.2	1622.5	1622.2	1622.2	1622.3	1622.4	1622.4	1623.9
165°	1658.2	1657.6	1657.0	1656.4	1655.8	1655.6	1656.0	1656.3	1656.5	1656.9	1658.0
167.5°	1686.1	1685.0	1683.8	1682.6	1681.4	1680.8	1680.8	1680.8	1680.8	1680.8	1682.6
170°	1701.2	1700.0	1698.8	1697.6	1696.5	1695.9	1695.9	1695.9	1695.9	1695.9	1697.6
172.5°	1712.0	1710.8	1709.6	1708.4	1707.2	1706.6	1706.6	1706.6	1706.6	1706.6	1708.4
175°	1724.1	1722.9	1721.7	1720.5	1719.3	1718.7	1718.7	1718.7	1718.7	1718.7	1720.5
177.5°	1730.3	1729.3	1728.4	1727.4	1726.4	1725.8	1725.6	1725.4	1725.1	1724.9	1726.4
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

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°	77.7	81.4	85.2	87.7	88.9	90.2	91.4	92.6
90°	87.0	91.9	96.9	100.3	102.3	104.2	106.2	108.2
92.5°	115.7	121.0	126.3	129.8	131.5	133.2	134.9	136.6
95°	163.8	169.2	174.6	178.2	179.8	181.5	183.1	184.8
97.5°	221.2	226.3	231.5	234.8	236.1	237.6	238.9	240.3
100°	260.8	266.7	272.5	276.2	277.7	279.2	280.7	282.2
102.5°	301.9	307.9	313.9	317.7	319.5	321.2	323.0	324.7
105°	368.3	373.1	377.9	381.3	383.3	385.2	387.1	389.1
107.5°	441.0	444.8	448.7	451.0	451.9	452.8	453.7	454.5
110°	491.2	495.0	498.7	501.0	501.8	502.5	503.3	504.0



TEST NUMBER: P333397-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	541.6	544.8	548.0	549.8	550.4	550.8	551.3	551.9
115°	618.9	621.3	623.8	625.3	625.9	626.5	627.1	627.7
117.5°	696.1	698.9	701.7	703.0	702.8	702.7	702.5	702.3
120°	748.3	750.8	753.4	754.6	754.3	753.9	753.7	753.4
122.5°	799.2	801.4	803.6	804.7	804.6	804.6	804.5	804.5
125°	874.5	876.4	878.2	879.3	879.8	880.2	880.7	881.1
127.5°	949.1	951.0	953.0	954.0	954.3	954.7	954.9	955.2
130°	998.9	1000.7	1002.5	1003.4	1003.6	1003.8	1004.0	1004.1
132.5°	1046.2	1048.0	1049.8	1050.6	1050.4	1050.3	1050.0	1049.8
135°	1118.8	1120.8	1122.8	1123.5	1123.0	1122.6	1122.2	1121.8
137.5°	1190.2	1192.3	1194.4	1195.1	1194.2	1193.3	1192.4	1191.5
140°	1235.0	1237.3	1239.6	1240.3	1239.4	1238.5	1237.6	1236.7
142.5°	1279.2	1281.0	1282.8	1283.3	1282.4	1281.5	1280.6	1279.7
145°	1343.6	1344.4	1345.1	1345.4	1345.1	1344.8	1344.5	1344.3
147.5°	1403.8	1404.7	1405.7	1405.3	1403.6	1401.8	1400.0	1398.3
150°	1441.7	1441.7	1441.7	1441.5	1441.0	1440.6	1440.1	1439.7
152.5°	1477.6	1478.3	1479.0	1478.8	1477.7	1476.7	1475.7	1474.6
155°	1528.7	1530.0	1531.2	1531.1	1529.6	1528.0	1526.5	1525.1
157.5°	1573.2	1574.4	1575.6	1575.2	1573.2	1571.2	1569.2	1567.3
160°	1600.1	1601.2	1602.5	1602.3	1600.8	1599.3	1597.9	1596.3
162.5°	1625.3	1626.7	1628.2	1628.0	1626.3	1624.5	1622.8	1621.0
165°	1659.2	1660.5	1661.6	1661.3	1659.6	1657.8	1656.0	1654.1
167.5°	1684.4	1686.1	1687.9	1687.9	1686.0	1684.3	1682.4	1680.5
170°	1699.4	1701.2	1703.0	1702.9	1700.8	1698.7	1696.6	1694.5
172.5°	1710.2	1712.0	1713.8	1713.8	1711.9	1710.0	1708.2	1706.4
175°	1722.3	1724.1	1725.9	1725.7	1723.7	1721.5	1719.5	1717.3
177.5°	1727.8	1729.2	1730.6	1730.5	1728.8	1727.2	1725.5	1723.9
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1

(END OF REPORT)