

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: P333678-930

Luminaire Tested: **S125RDIW-S610D1560U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333678-930
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: S125RDIW-S610D1560U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7025.2 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

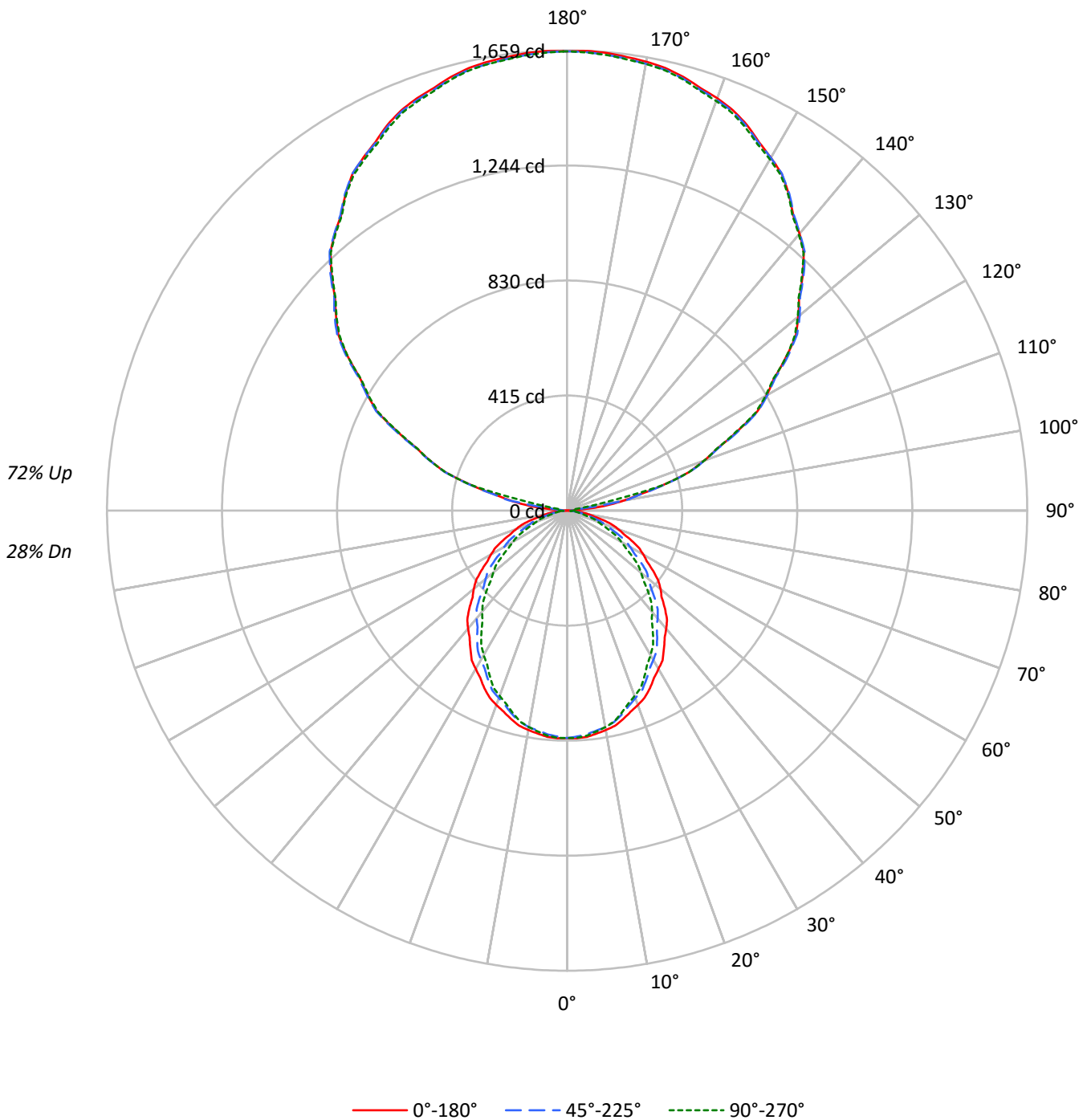
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	91	91	91	91	71	71	71	52	52	52	36	36	36	28
1	93	89	85	82	83	80	76	74	62	60	58	46	45	44	32	31	30	24
2	85	78	72	67	75	70	65	61	55	51	48	41	39	37	28	27	26	20
3	77	68	61	56	69	61	55	51	48	44	41	36	33	31	25	23	22	17
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	22	20	19	15
5	65	54	46	40	58	48	42	37	38	33	30	29	26	23	20	18	16	13
6	60	48	40	35	53	43	37	32	34	29	26	26	23	20	18	16	15	11
7	55	43	36	30	49	39	32	28	31	26	23	24	20	18	17	15	13	10
8	51	39	32	27	45	35	29	24	28	23	20	22	18	16	15	13	12	9
9	47	36	28	24	42	32	26	22	26	21	18	20	16	14	14	12	10	8
10	44	33	26	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5297	5297	5297
5°	5309	5249	5281
10°	5269	5200	5200
15°	5207	5094	5053
20°	5126	4947	4887
25°	5032	4802	4697
30°	4915	4633	4486
35°	4796	4459	4249
40°	4684	4278	4016
45°	4549	4074	3763
50°	4413	3852	3497
55°	4255	3640	3216
60°	4097	3384	2913
65°	3909	3085	2566
70°	3697	2713	2211
75°	3401	2286	1839
80°	2998	1796	1543
85°	2527	1467	1378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	1.1
10°-20°	215.5	3.1
20°-30°	312.5	4.4
30°-40°	356.2	5.1
40°-50°	347.2	4.9
50°-60°	292.3	4.2
60°-70°	204.9	2.9
70°-80°	105.3	1.5
80°-90°	30.0	0.4
90°-100°	60.2	0.9
100°-110°	370.8	5.3
110°-120°	672.5	9.6
120°-130°	863.1	12.3
130°-140°	928.3	13.2
140°-150°	871.4	12.4
150°-160°	704.9	10.0
160°-170°	455.9	6.5
170°-180°	157.2	2.2
0°-30°	605.2	8.6
0°-40°	961.4	13.7
0°-60°	1600.8	22.8
0°-90°	1941.0	27.6
90°-120°	1103.5	15.7
90°-150°	3766.2	53.6
90°-180°	5084.0	72.4
0°-180°	7025.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	819	816	810	815	815	78
15°	779	774	762	761	756	219
25°	706	696	674	666	659	325
35°	608	593	566	548	539	381
45°	498	479	446	422	412	384
55°	378	357	323	296	286	338
65°	256	234	202	178	168	253
75°	136	117	92	79	74	144
85°	34	23	20	19	19	38
90°	1	11	20	26	29	5
95°	70	64	20	25	26	89
105°	361	365	366	366	364	383
115°	678	683	685	680	672	671
125°	963	972	972	967	963	860
135°	1202	1208	1206	1204	1197	926
145°	1393	1395	1396	1396	1389	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	820.2	820.2	820.2	820.2	820.2	820.2	820.2	820.2	820.2	820.2	820.2
2.5°	821.7	821.3	821.0	820.7	820.4	819.6	818.5	817.4	816.3	815.2	816.3
5°	818.9	818.4	817.8	817.3	816.7	815.7	814.2	812.7	811.1	809.6	811.0
7.5°	810.9	810.3	809.8	809.3	808.8	807.6	805.8	804.0	802.2	800.3	801.3
10°	803.4	803.0	802.6	802.2	801.8	800.6	798.7	796.8	794.8	792.9	793.3
12.5°	795.0	794.5	793.9	793.4	792.9	791.3	788.8	786.2	783.6	781.0	781.3
15°	778.7	777.8	777.0	776.2	775.3	773.5	770.6	767.7	764.8	761.9	761.8
17.5°	760.2	759.0	757.7	756.4	755.1	752.7	749.0	745.4	741.8	738.2	737.4
20°	745.8	744.4	743.1	741.7	740.3	737.4	733.0	728.6	724.2	719.8	719.1
22.5°	729.9	728.6	727.2	725.9	724.5	721.5	716.8	712.2	707.6	703.0	701.6
25°	706.2	704.1	702.1	700.0	697.9	694.3	689.3	684.1	679.1	673.9	672.2
27.5°	678.9	676.5	673.9	671.4	668.9	665.0	659.5	654.0	648.6	643.1	640.6
30°	659.1	656.5	653.9	651.3	648.7	644.4	638.6	632.9	627.1	621.3	618.2
32.5°	639.8	636.7	633.7	630.6	627.5	623.1	617.2	611.3	605.4	599.5	596.0
35°	608.3	605.0	601.7	598.4	595.1	590.4	584.2	578.0	571.8	565.6	561.6
37.5°	577.5	573.4	569.4	565.4	561.4	556.2	549.8	543.4	537.0	530.6	525.9
40°	555.6	551.5	547.4	543.2	539.2	533.8	527.2	520.6	514.0	507.4	502.1
42.5°	532.9	528.6	524.4	520.2	515.9	510.4	503.5	496.7	489.9	483.1	478.0
45°	498.1	494.1	490.1	486.1	482.1	476.3	468.7	461.1	453.6	446.0	440.5
47.5°	462.0	457.8	453.6	449.4	445.2	439.2	431.6	424.0	416.4	408.7	403.1
50°	439.2	434.6	430.1	425.6	421.0	414.8	407.0	399.2	391.3	383.4	377.6
52.5°	414.4	409.8	405.1	400.5	395.8	389.8	382.4	375.0	367.5	360.1	353.9
55°	377.9	373.5	369.1	364.7	360.3	354.2	346.5	338.8	331.1	323.3	317.2
57.5°	341.0	336.2	331.5	326.9	322.1	316.0	308.6	301.2	293.8	286.3	280.2
60°	317.2	312.3	307.5	302.7	297.9	291.8	284.3	276.9	269.5	262.0	256.0
62.5°	291.9	287.3	282.7	278.1	273.5	267.4	259.9	252.3	244.8	237.3	231.6
65°	255.8	251.2	246.5	241.8	237.1	231.1	223.8	216.5	209.2	201.9	196.4
67.5°	220.0	215.3	210.7	206.0	201.3	195.5	188.5	181.5	174.5	167.5	162.5
70°	195.8	191.1	186.4	181.7	177.0	171.2	164.4	157.5	150.6	143.7	139.4
72.5°	171.9	167.4	162.8	158.2	153.7	148.1	141.7	135.3	128.8	122.4	118.5
75°	136.3	132.2	128.0	123.9	119.8	114.8	109.0	103.2	97.4	91.6	88.6
77.5°	100.9	97.5	94.2	90.9	87.6	83.6	79.0	74.4	69.8	65.1	63.0
80°	80.6	77.2	73.9	70.6	67.3	63.8	59.8	56.0	52.2	48.3	47.0
82.5°	60.7	57.7	54.8	51.8	48.8	46.0	43.4	40.7	38.1	35.5	34.9
85°	34.1	31.6	29.1	26.7	24.1	22.6	21.9	21.2	20.5	19.8	19.6
87.5°	11.7	11.3	11.0	10.7	10.3	10.3	10.5	10.8	11.1	11.3	11.7
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.8	17.7	19.6	21.0
92.5°	18.9	17.4	15.8	14.3	12.8	12.9	14.6	16.2	17.9	19.6	21.0
95°	70.0	69.1	68.3	67.5	66.7	61.1	50.7	40.4	30.0	19.6	21.0
97.5°	146.0	147.5	149.0	150.5	152.0	142.4	121.9	101.4	80.9	60.4	52.7
100°	205.0	205.8	206.6	207.4	208.2	209.2	210.3	211.4	212.5	213.5	172.9
102.5°	264.9	265.9	266.9	268.0	269.0	269.9	270.5	271.2	271.8	272.5	264.8
105°	360.9	361.9	363.1	364.1	365.2	365.7	365.7	365.7	365.7	365.7	365.7
107.5°	460.5	460.5	460.5	460.5	460.5	460.7	461.3	461.9	462.4	462.9	463.0
110°	525.3	525.3	525.3	525.3	525.3	525.5	526.1	526.7	527.2	527.7	526.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	586.2	586.9	587.5	588.2	588.8	589.3	589.6	590.0	590.3	590.6	589.5
115°	677.5	678.8	680.2	681.6	682.9	683.7	684.0	684.3	684.6	684.9	683.7
117.5°	772.0	771.9	771.8	771.8	771.8	772.3	773.3	774.3	775.3	776.4	774.9
120°	830.9	830.6	830.4	830.1	829.8	830.1	830.9	831.7	832.5	833.3	832.8
122.5°	883.0	883.9	885.0	886.1	887.0	887.8	888.2	888.5	888.9	889.3	888.8
125°	963.4	965.3	967.3	969.1	971.1	972.0	972.0	972.0	972.0	972.0	970.9
127.5°	1040.2	1041.6	1043.0	1044.4	1045.7	1046.4	1046.2	1046.0	1045.9	1045.7	1045.1
130°	1087.4	1088.8	1090.1	1091.5	1092.8	1093.6	1094.0	1094.2	1094.5	1094.8	1094.0
132.5°	1134.5	1136.1	1137.7	1139.3	1140.8	1141.3	1140.8	1140.1	1139.5	1139.0	1138.8
135°	1201.5	1203.1	1204.8	1206.5	1208.1	1208.6	1208.1	1207.5	1207.0	1206.5	1205.9
137.5°	1263.1	1264.5	1266.0	1267.4	1268.9	1269.3	1268.8	1268.3	1267.8	1267.3	1267.5
140°	1303.4	1304.0	1304.5	1305.0	1305.6	1305.7	1305.5	1305.2	1304.9	1304.6	1305.2
142.5°	1339.7	1340.0	1340.4	1340.7	1341.0	1341.4	1341.8	1342.1	1342.6	1343.0	1343.0
145°	1393.0	1393.5	1394.1	1394.7	1395.2	1395.5	1395.5	1395.5	1395.5	1395.5	1395.7
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.0
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	820.2	820.2	820.2	820.2	820.2	820.2	820.2	820.2
2.5°	817.4	818.5	819.6	820.1	820.0	819.9	819.8	819.7
5°	812.4	813.8	815.1	815.7	815.4	815.1	814.9	814.6
7.5°	802.3	803.2	804.2	804.5	804.2	803.9	803.6	803.3
10°	793.7	794.1	794.6	794.6	794.1	793.7	793.3	792.9
12.5°	781.6	782.0	782.2	782.0	781.4	780.8	780.2	779.5
15°	761.7	761.5	761.4	760.7	759.5	758.2	757.0	755.7
17.5°	736.8	736.1	735.4	734.5	733.5	732.5	731.5	730.4
20°	718.4	717.7	717.1	716.1	714.9	713.6	712.4	711.1
22.5°	700.3	698.9	697.6	696.3	695.4	694.3	693.3	692.3
25°	670.4	668.6	666.8	665.1	663.7	662.1	660.6	659.1
27.5°	638.1	635.6	633.1	631.1	629.7	628.2	626.7	625.3
30°	615.0	611.8	608.6	606.4	605.2	604.0	602.8	601.5
32.5°	592.5	589.1	585.5	583.0	581.4	579.8	578.3	576.7
35°	557.6	553.6	549.6	546.7	544.7	542.7	540.9	538.9
37.5°	521.1	516.2	511.4	508.1	506.2	504.4	502.6	500.7
40°	496.8	491.6	486.4	483.0	481.4	479.6	478.0	476.4
42.5°	473.0	468.0	463.0	459.3	456.9	454.4	452.0	449.6
45°	435.0	429.5	424.0	420.2	418.2	416.0	414.0	412.0
47.5°	397.4	391.7	386.0	382.0	379.8	377.5	375.2	372.9
50°	371.9	366.1	360.3	356.4	354.3	352.3	350.2	348.1
52.5°	347.7	341.4	335.3	331.1	329.1	327.0	324.9	322.9
55°	311.0	304.8	298.6	294.4	292.2	290.0	287.8	285.6
57.5°	274.2	268.2	262.1	258.0	256.1	254.1	252.3	250.3
60°	249.9	243.9	237.8	233.7	231.7	229.6	227.6	225.5
62.5°	226.0	220.4	214.7	210.9	208.9	206.8	204.7	202.7
65°	190.9	185.4	179.9	176.1	174.1	172.0	169.9	167.9
67.5°	157.4	152.4	147.3	144.0	142.4	140.7	139.0	137.4
70°	135.2	130.9	126.6	123.7	122.1	120.4	118.7	117.1
72.5°	114.5	110.6	106.6	104.1	103.1	101.9	100.9	99.7
75°	85.6	82.6	79.6	77.5	76.6	75.7	74.7	73.7
77.5°	60.9	58.8	56.7	55.3	54.5	53.8	53.2	52.4
80°	45.8	44.6	43.4	42.6	42.3	42.1	41.7	41.5
82.5°	34.2	33.7	33.1	32.8	32.6	32.4	32.3	32.1
85°	19.6	19.4	19.2	19.2	19.0	18.8	18.8	18.6
87.5°	11.9	12.1	12.5	12.6	12.6	12.7	12.8	12.8
90°	22.3	23.7	25.1	26.2	27.0	27.8	28.6	29.4
92.5°	22.3	23.7	25.1	25.9	26.3	26.7	27.1	27.5
95°	22.3	23.7	25.1	25.8	25.8	25.8	25.8	25.8
97.5°	45.0	37.3	29.6	25.8	25.8	25.8	25.8	25.8
100°	132.2	91.6	51.0	30.2	29.0	28.0	26.9	25.8
102.5°	257.1	249.4	241.7	228.6	210.0	191.5	172.9	154.4
105°	365.7	365.7	365.7	365.6	365.3	365.1	364.8	364.5
107.5°	463.1	463.1	463.2	462.8	461.9	461.1	460.3	459.5
110°	526.1	525.3	524.5	524.2	524.5	524.7	525.1	525.3



TEST NUMBER: P333678-930

CATALOG NUMBER: S125RDIW-S610D1560U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	588.5	587.5	586.4	585.7	585.4	585.0	584.6	584.2
115°	682.7	681.6	680.4	679.1	677.5	675.8	674.2	672.5
117.5°	773.6	772.2	770.7	769.6	769.0	768.3	767.5	766.8
120°	832.3	831.7	831.2	830.2	828.8	827.4	826.1	824.8
122.5°	888.2	887.7	887.1	886.1	884.5	882.9	881.3	879.7
125°	969.9	968.7	967.7	966.7	965.9	965.1	964.3	963.4
127.5°	1044.5	1043.9	1043.3	1042.0	1039.9	1038.0	1035.9	1033.9
130°	1093.2	1092.3	1091.5	1090.4	1089.1	1087.7	1086.3	1084.9
132.5°	1138.6	1138.5	1138.3	1137.5	1136.2	1134.8	1133.4	1132.0
135°	1205.3	1204.8	1204.3	1203.1	1201.5	1199.9	1198.2	1196.6
137.5°	1267.5	1267.6	1267.8	1267.1	1265.7	1264.3	1262.8	1261.4
140°	1305.7	1306.3	1306.8	1306.3	1304.6	1303.0	1301.4	1299.8
142.5°	1343.1	1343.3	1343.4	1342.6	1340.9	1339.3	1337.7	1336.0
145°	1396.0	1396.3	1396.5	1395.9	1394.2	1392.6	1391.0	1389.4
147.5°	1441.3	1441.6	1441.9	1441.1	1439.2	1437.2	1435.3	1433.3
150°	1470.1	1470.7	1471.3	1470.5	1468.3	1466.1	1464.0	1461.8
152.5°	1495.7	1496.2	1496.8	1496.1	1494.1	1492.2	1490.2	1488.2
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)