

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: P333397-930

Luminaire Tested: **S125DIW-S610D1560U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333397-930  
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-S610D1560U930-4F0-1E-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: 6369.5 lumens  
Efficiency: N/A  
Efficacy: 105.1 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

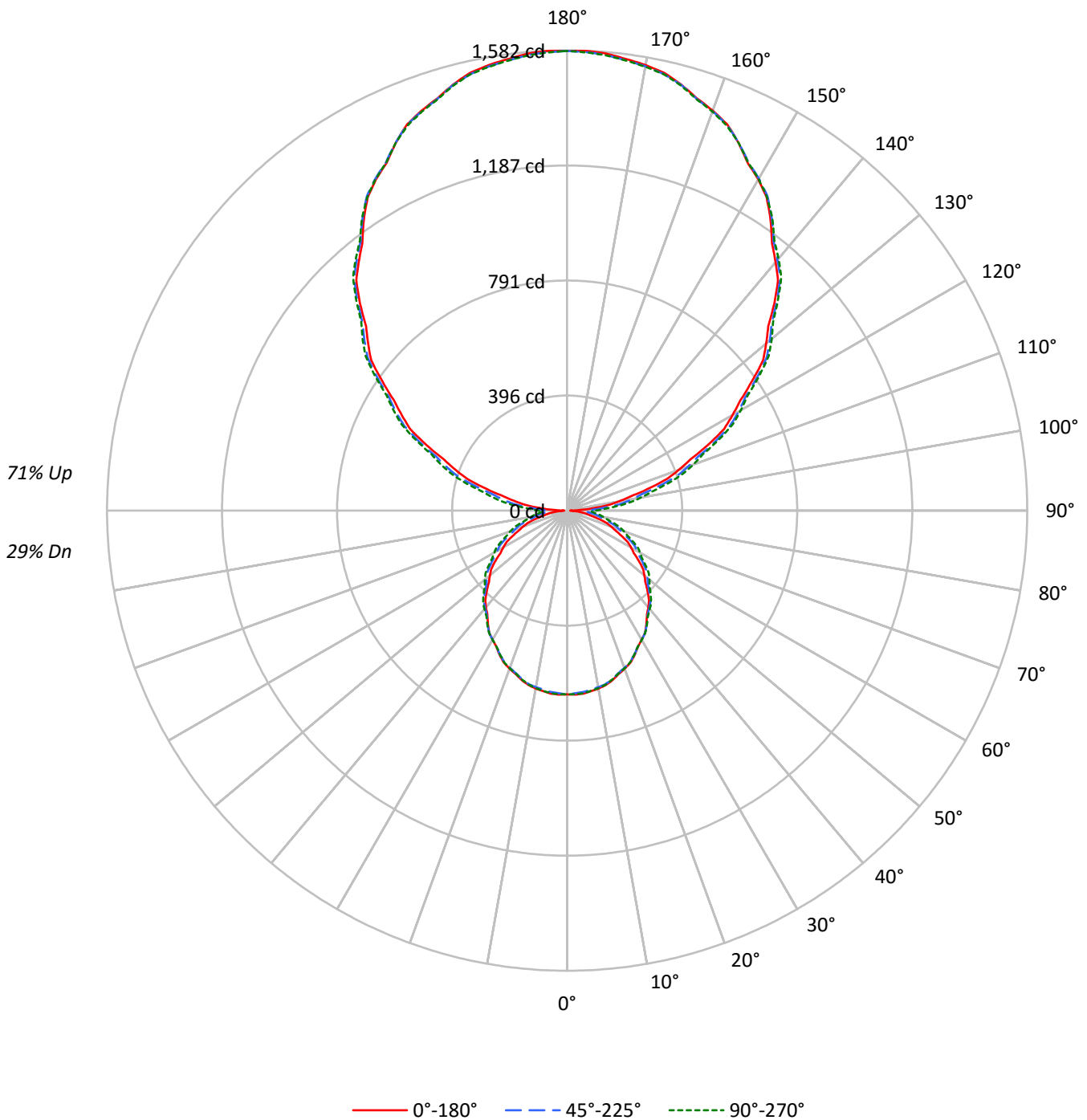
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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°	4081	4081	4081
5°	4089	4005	4018
10°	4060	3934	3927
15°	4011	3849	3813
20°	3946	3742	3698
25°	3869	3629	3558
30°	3775	3505	3429
35°	3687	3390	3311
40°	3598	3269	3193
45°	3497	3166	3089
50°	3401	3054	2996
55°	3285	2948	2886
60°	3159	2827	2775
65°	3027	2702	2650
70°	2876	2529	2521
75°	2639	2363	2363
80°	2328	2164	2190
85°	2041	2028	2136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	0.9
10°-20°	169.6	2.7
20°-30°	252.2	4.0
30°-40°	298.8	4.7
40°-50°	308.9	4.8
50°-60°	284.6	4.5
60°-70°	230.0	3.6
70°-80°	154.0	2.4
80°-90°	83.3	1.3
90°-100°	150.7	2.4
100°-110°	345.6	5.4
110°-120°	551.5	8.7
120°-130°	709.2	11.1
130°-140°	786.1	12.3
140°-150°	766.1	12.0
150°-160°	642.6	10.1
160°-170°	427.1	6.7
170°-180°	149.5	2.3
0°-30°	481.6	7.6
0°-40°	780.4	12.3
0°-60°	1373.8	21.6
0°-90°	1841.2	28.9
90°-120°	1047.7	16.4
90°-150°	3309.1	52.0
90°-180°	4528.0	71.1
0°-180°	6369.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	626	631	631	60
15°	603	604	600	603	601	170
25°	548	550	546	548	546	252
35°	474	478	477	479	479	297
45°	391	398	401	405	406	302
55°	300	310	320	327	330	268
65°	207	221	236	245	248	205
75°	114	130	150	162	165	121
85°	34	55	76	89	95	36
90°	11	41	70	90	99	11
95°	88	107	140	161	169	92
105°	286	302	328	347	356	305
115°	534	543	562	571	574	528
125°	776	783	796	803	806	695
135°	1007	1014	1019	1027	1026	776
145°	1219	1223	1227	1230	1229	762
155°	1394	1394	1396	1400	1394	642
165°	1516	1514	1515	1519	1512	428
175°	1576	1572	1571	1578	1570	150
180°	1580	1580	1580	1580	1580	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	633.3	633.1	632.9	632.7	632.4	631.9	631.2	630.4	629.7	628.8	629.7
5°	631.9	631.5	631.3	631.0	630.7	630.1	629.2	628.2	627.2	626.2	627.4
7.5°	626.2	626.1	626.1	625.9	625.8	625.3	624.3	623.3	622.3	621.3	622.2
10°	621.3	621.3	621.3	621.3	621.3	620.8	619.6	618.6	617.4	616.4	617.3
12.5°	614.4	614.5	614.6	614.7	614.8	614.4	613.5	612.7	611.8	610.9	611.6
15°	603.3	603.5	603.6	603.7	603.9	603.5	602.5	601.5	600.6	599.7	600.5
17.5°	589.0	589.2	589.5	589.8	590.1	589.7	588.8	587.8	586.9	585.9	586.5
20°	578.5	578.9	579.1	579.4	579.7	579.4	578.4	577.4	576.4	575.4	575.8
22.5°	566.7	567.2	567.7	568.2	568.7	568.3	567.3	566.2	565.2	564.1	564.6
25°	548.2	548.6	549.0	549.4	549.8	549.7	548.9	548.0	547.1	546.3	546.9
27.5°	527.7	528.2	528.9	529.5	530.1	529.9	529.0	528.1	527.1	526.2	526.5
30°	512.3	513.1	514.0	514.8	515.6	515.6	514.8	514.0	513.1	512.3	512.6
32.5°	498.4	499.1	499.9	500.6	501.2	501.3	500.8	500.1	499.5	498.9	499.2
35°	474.5	475.5	476.5	477.4	478.3	478.7	478.3	477.8	477.4	477.0	477.4
37.5°	450.6	451.5	452.3	453.2	454.1	454.4	454.4	454.2	454.0	454.0	454.4
40°	434.2	435.4	436.4	437.6	438.6	439.1	439.0	438.9	438.7	438.5	439.1
42.5°	416.4	417.8	419.2	420.7	422.2	423.0	423.3	423.6	423.9	424.2	424.9
45°	390.9	392.4	393.9	395.4	397.0	398.0	398.8	399.4	400.1	400.8	401.8
47.5°	364.8	366.2	367.5	368.9	370.4	371.6	372.8	374.0	375.2	376.3	377.8
50°	346.9	348.4	349.9	351.5	352.9	354.5	356.0	357.5	359.0	360.5	362.1
52.5°	328.1	329.9	331.7	333.6	335.4	337.3	339.2	341.0	342.8	344.6	346.3
55°	300.4	302.6	304.8	307.0	309.2	311.4	313.6	315.8	318.0	320.2	321.8
57.5°	272.2	274.8	277.4	280.1	282.7	285.4	287.9	290.4	292.9	295.5	297.2
60°	253.4	256.1	258.9	261.6	264.4	267.1	269.9	272.6	275.4	278.1	280.2
62.5°	235.1	237.7	240.5	243.3	246.1	248.9	251.8	254.9	257.8	260.8	263.1
65°	206.9	210.1	213.2	216.4	219.6	222.8	226.1	229.4	232.7	236.0	238.1
67.5°	180.4	183.4	186.5	189.6	192.6	195.8	199.2	202.5	205.9	209.3	211.7
70°	161.0	164.2	167.4	170.6	173.7	177.1	180.7	184.3	187.8	191.4	194.0
72.5°	142.2	145.5	148.8	152.1	155.3	158.9	162.8	166.7	170.6	174.6	177.4
75°	114.0	117.6	121.2	124.7	128.3	132.3	136.7	141.1	145.5	149.9	152.6
77.5°	86.8	91.0	95.1	99.2	103.4	107.5	111.8	116.0	120.3	124.5	127.5
80°	70.0	74.1	78.3	82.4	86.5	90.9	95.6	100.3	104.9	109.7	112.7
82.5°	54.6	58.9	63.3	67.7	72.1	76.6	81.4	86.2	91.0	95.8	98.7
85°	34.1	38.6	43.1	47.7	52.3	56.9	61.7	66.5	71.3	76.2	79.2
87.5°	19.6	24.4	29.3	34.1	39.0	43.9	48.9	54.1	59.1	64.2	67.6
90°	11.2	17.7	24.3	30.9	37.5	44.1	50.7	57.3	63.8	70.4	75.0
92.5°	38.6	44.3	49.9	55.5	61.1	67.5	74.6	81.8	88.9	96.0	100.9
95°	88.0	92.1	96.2	100.4	104.4	110.2	117.6	125.1	132.5	139.9	144.9
97.5°	140.1	143.6	147.0	150.4	153.8	159.7	168.0	176.3	184.6	192.9	197.5
100°	179.0	181.8	184.7	187.6	190.5	195.9	203.9	211.9	219.8	227.8	233.1
102.5°	220.8	224.5	228.3	232.0	235.8	240.8	246.9	252.9	259.0	265.1	270.6
105°	285.9	289.5	293.1	296.6	300.2	304.8	310.6	316.4	322.2	327.9	332.3
107.5°	358.0	361.2	364.4	367.7	371.0	375.1	380.4	385.6	390.9	396.1	399.6
110°	407.6	410.7	413.7	416.7	419.7	423.5	428.3	432.9	437.6	442.3	445.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	458.8	460.8	462.8	464.9	466.9	470.3	475.1	479.9	484.7	489.4	492.4
115°	533.7	535.7	537.8	539.8	541.9	545.0	549.1	553.3	557.3	561.5	563.7
117.5°	608.8	609.9	611.1	612.2	613.3	615.8	619.7	623.5	627.5	631.3	633.9
120°	656.0	657.8	659.6	661.4	663.2	665.8	669.2	672.6	676.0	679.5	681.8
122.5°	706.7	707.4	708.0	708.7	709.4	711.7	715.4	719.2	722.9	726.7	728.7
125°	775.9	777.4	778.9	780.4	781.9	784.2	787.2	790.2	793.3	796.3	797.9
127.5°	849.1	849.9	850.6	851.4	852.2	853.9	856.5	859.1	861.7	864.2	866.0
130°	893.3	894.5	895.8	897.0	898.2	900.1	902.5	905.1	907.5	910.0	911.7
132.5°	937.1	939.3	941.5	943.7	945.9	947.7	949.1	950.5	951.9	953.2	954.9
135°	1007.1	1008.5	1010.1	1011.5	1013.1	1014.4	1015.7	1016.9	1018.1	1019.4	1021.2
137.5°	1072.9	1074.3	1075.8	1077.3	1078.7	1080.0	1081.1	1082.1	1083.2	1084.3	1086.2
140°	1114.7	1116.0	1117.4	1118.8	1120.1	1121.3	1122.3	1123.2	1124.1	1125.1	1127.2
142.5°	1156.9	1158.0	1159.0	1160.1	1161.1	1162.1	1163.2	1164.2	1165.3	1166.4	1168.0
145°	1219.1	1220.1	1221.1	1222.1	1222.9	1223.8	1224.7	1225.5	1226.3	1227.1	1227.8
147.5°	1276.1	1276.7	1277.2	1277.9	1278.5	1279.1	1279.8	1280.4	1281.1	1281.7	1282.6
150°	1314.4	1314.2	1313.9	1313.6	1313.4	1313.8	1314.8	1316.0	1317.0	1318.2	1318.2
152.5°	1345.9	1346.3	1346.7	1347.0	1347.4	1347.9	1348.3	1348.7	1349.2	1349.6	1350.3
155°	1394.4	1394.4	1394.4	1394.4	1394.4	1394.5	1394.8	1395.1	1395.3	1395.6	1396.7
157.5°	1437.6	1437.0	1436.5	1435.8	1435.3	1435.1	1435.3	1435.7	1435.9	1436.1	1437.3
160°	1463.2	1462.4	1461.6	1460.8	1460.0	1459.7	1460.0	1460.2	1460.5	1460.8	1461.8
162.5°	1485.9	1485.2	1484.7	1484.1	1483.4	1483.2	1483.2	1483.3	1483.4	1483.4	1484.7
165°	1516.1	1515.6	1515.0	1514.5	1513.9	1513.8	1514.1	1514.3	1514.6	1514.9	1516.0
167.5°	1541.6	1540.6	1539.5	1538.4	1537.3	1536.8	1536.8	1536.8	1536.8	1536.8	1538.4
170°	1555.4	1554.4	1553.2	1552.2	1551.1	1550.5	1550.5	1550.5	1550.5	1550.5	1552.2
172.5°	1565.3	1564.2	1563.1	1562.0	1560.9	1560.4	1560.4	1560.4	1560.4	1560.4	1562.0
175°	1576.4	1575.2	1574.2	1573.0	1572.0	1571.4	1571.4	1571.4	1571.4	1571.4	1573.0
177.5°	1582.0	1581.1	1580.3	1579.4	1578.5	1577.9	1577.8	1577.5	1577.3	1577.1	1578.4
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	630.4	631.2	631.9	632.3	632.2	632.1	631.9	631.9
5°	628.4	629.6	630.6	631.1	631.0	630.9	630.7	630.6
7.5°	623.2	624.2	625.2	625.6	625.4	625.3	625.2	625.0
10°	618.3	619.2	620.2	620.6	620.5	620.4	620.2	620.0
12.5°	612.4	613.1	613.9	614.1	613.7	613.3	613.0	612.6
15°	601.3	602.1	602.9	603.1	602.5	601.9	601.4	600.9
17.5°	587.2	587.7	588.4	588.6	588.2	587.9	587.6	587.3
20°	576.3	576.7	577.2	577.3	577.3	577.3	577.3	577.3
22.5°	565.1	565.7	566.1	566.2	565.9	565.6	565.2	564.9
25°	547.5	548.0	548.5	548.5	547.8	547.1	546.4	545.8
27.5°	526.9	527.3	527.7	527.7	527.5	527.3	527.0	526.8
30°	512.8	513.1	513.4	513.5	513.3	513.1	513.1	512.9
32.5°	499.5	499.7	500.0	500.1	499.9	499.8	499.7	499.5
35°	477.8	478.3	478.7	478.8	478.8	478.8	478.8	478.8
37.5°	455.0	455.6	456.2	456.4	456.3	456.2	456.2	456.2
40°	439.7	440.3	440.8	441.2	441.5	441.7	442.1	442.3
42.5°	425.5	426.2	426.8	427.2	427.3	427.3	427.4	427.5
45°	402.7	403.7	404.6	405.2	405.4	405.4	405.6	405.8
47.5°	379.2	380.6	382.0	382.9	383.2	383.4	383.8	384.1
50°	363.5	365.1	366.6	367.5	367.9	368.4	368.8	369.2
52.5°	347.9	349.5	351.1	352.1	352.5	352.7	353.0	353.4
55°	323.3	324.8	326.3	327.3	327.9	328.5	329.0	329.5
57.5°	299.0	300.7	302.4	303.5	303.9	304.4	304.8	305.2
60°	282.3	284.3	286.4	287.6	288.0	288.5	288.9	289.3
62.5°	265.4	267.7	269.9	271.3	271.8	272.4	272.9	273.5
65°	240.1	242.2	244.3	245.6	246.1	246.7	247.2	247.8
67.5°	214.3	216.8	219.2	220.9	221.6	222.3	223.1	223.7
70°	196.7	199.3	201.9	203.6	204.4	205.2	206.1	206.9
72.5°	180.3	183.0	185.9	187.6	188.3	188.8	189.5	190.0
75°	155.4	158.2	160.9	162.7	163.3	164.0	164.7	165.4
77.5°	130.5	133.6	136.6	138.4	138.9	139.5	140.1	140.6
80°	115.7	118.7	121.7	123.5	124.1	124.7	125.2	125.7
82.5°	101.6	104.5	107.5	109.4	110.4	111.4	112.3	113.3
85°	82.3	85.3	88.3	90.3	91.5	92.5	93.7	94.7
87.5°	71.0	74.4	77.9	80.2	81.3	82.4	83.6	84.7
90°	79.6	84.1	88.6	91.7	93.5	95.3	97.1	98.9
92.5°	105.7	110.6	115.4	118.7	120.3	121.8	123.4	124.9
95°	149.8	154.7	159.6	162.9	164.4	165.9	167.4	168.9
97.5°	202.3	206.9	211.7	214.7	215.9	217.2	218.4	219.7
100°	238.5	243.9	249.2	252.5	253.9	255.3	256.7	258.0
102.5°	276.1	281.5	287.0	290.5	292.1	293.7	295.3	296.9
105°	336.7	341.1	345.5	348.6	350.4	352.2	353.9	355.7
107.5°	403.2	406.7	410.3	412.4	413.2	414.0	414.8	415.6
110°	449.1	452.6	456.0	458.0	458.8	459.4	460.2	460.8





TEST NUMBER: P333397-930

CATALOG NUMBER: S125DIW-S610D1560U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	495.2	498.1	501.0	502.7	503.2	503.6	504.1	504.6
115°	565.9	568.1	570.3	571.7	572.3	572.8	573.3	573.9
117.5°	636.4	639.0	641.6	642.8	642.6	642.5	642.3	642.1
120°	684.2	686.5	688.8	689.9	689.7	689.3	689.1	688.8
122.5°	730.8	732.7	734.7	735.7	735.6	735.6	735.6	735.6
125°	799.6	801.3	802.9	804.0	804.4	804.8	805.2	805.6
127.5°	867.8	869.5	871.3	872.3	872.5	872.9	873.1	873.3
130°	913.3	914.9	916.6	917.5	917.6	917.8	917.9	918.0
132.5°	956.6	958.2	959.9	960.6	960.4	960.3	960.0	959.9
135°	1023.0	1024.7	1026.5	1027.2	1026.8	1026.4	1026.1	1025.6
137.5°	1088.2	1090.1	1092.1	1092.7	1091.8	1091.0	1090.2	1089.4
140°	1129.2	1131.3	1133.3	1134.0	1133.2	1132.4	1131.6	1130.7
142.5°	1169.6	1171.3	1172.9	1173.3	1172.5	1171.7	1170.9	1170.0
145°	1228.5	1229.2	1229.9	1230.1	1229.9	1229.6	1229.3	1229.1
147.5°	1283.5	1284.3	1285.2	1284.9	1283.3	1281.7	1280.0	1278.5
150°	1318.2	1318.2	1318.2	1317.9	1317.5	1317.1	1316.7	1316.3
152.5°	1351.0	1351.6	1352.3	1352.1	1351.1	1350.1	1349.2	1348.3
155°	1397.7	1398.9	1400.0	1399.9	1398.5	1397.1	1395.7	1394.4
157.5°	1438.4	1439.5	1440.6	1440.2	1438.4	1436.6	1434.8	1433.0
160°	1463.0	1464.0	1465.2	1465.0	1463.6	1462.2	1460.9	1459.5
162.5°	1486.0	1487.4	1488.7	1488.5	1486.9	1485.3	1483.8	1482.1
165°	1517.0	1518.2	1519.2	1519.0	1517.4	1515.7	1514.1	1512.4
167.5°	1540.0	1541.6	1543.3	1543.3	1541.6	1539.9	1538.2	1536.5
170°	1553.8	1555.4	1557.1	1557.0	1555.0	1553.1	1551.2	1549.3
172.5°	1563.7	1565.3	1566.9	1566.9	1565.2	1563.5	1561.8	1560.2
175°	1574.8	1576.4	1578.0	1577.8	1576.0	1574.0	1572.1	1570.2
177.5°	1579.7	1581.0	1582.3	1582.3	1580.7	1579.2	1577.6	1576.1
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1

(END OF REPORT)