

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: P333391-840

Luminaire Tested: **S125DIW-S610D1340U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333391-840  
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-S610D1340U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7124.9 lumens  
Efficiency: N/A  
Efficacy: 132.4 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

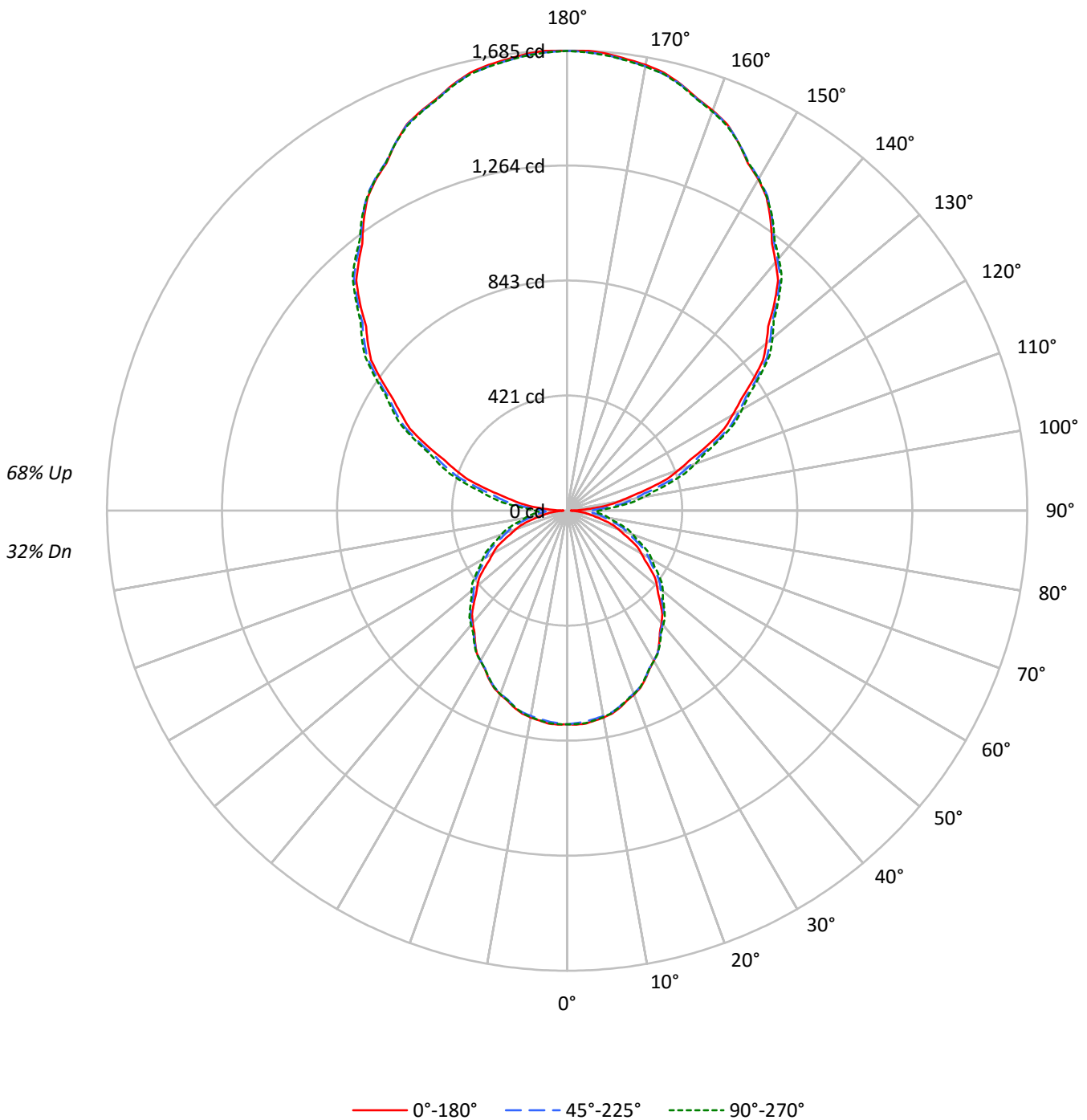
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-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	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32
1	93	89	85	81	84	80	77	74	63	61	59	48	47	45	34	33	32	26
2	85	77	71	66	76	70	64	60	55	52	48	42	40	37	30	28	27	21
3	77	68	60	55	69	61	55	50	49	44	40	37	34	31	26	24	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	29	27	23	21	19	15
5	64	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17	13
6	59	47	39	34	53	43	36	31	34	29	25	26	23	20	19	17	15	11
7	55	43	35	29	49	39	32	27	31	26	22	24	20	18	17	15	13	10
8	51	39	31	26	45	35	28	24	28	23	20	22	18	16	16	13	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	19	24	19	16	18	15	12	13	11	9	7

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

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	1.0
10°-20°	210.1	2.9
20°-30°	312.4	4.4
30°-40°	370.1	5.2
40°-50°	382.6	5.4
50°-60°	352.5	4.9
60°-70°	284.9	4.0
70°-80°	190.8	2.7
80°-90°	102.6	1.4
90°-100°	168.3	2.4
100°-110°	373.9	5.2
110°-120°	591.3	8.3
120°-130°	757.7	10.6
130°-140°	838.4	11.8
140°-150°	816.4	11.5
150°-160°	684.6	9.6
160°-170°	455.0	6.4
170°-180°	159.2	2.2
0°-30°	596.5	8.4
0°-40°	966.6	13.6
0°-60°	1701.7	23.9
0°-90°	2280.1	32.0
90°-120°	1133.5	15.9
90°-150°	3546.0	49.8
90°-180°	4845.0	68.0
0°-180°	7124.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	14	49	84	107	117	13
95°	95	119	157	182	191	99
105°	306	325	355	378	388	326
115°	569	580	602	614	618	563
125°	827	835	851	860	863	740
135°	1073	1080	1087	1096	1095	827
145°	1299	1303	1307	1311	1310	811
155°	1486	1486	1487	1491	1486	684
165°	1615	1613	1614	1618	1611	455
175°	1679	1674	1674	1681	1673	160
180°	1683	1683	1683	1683	1683	



TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.2	30.1	36.1	42.0	47.9	53.9	60.2	66.3	72.6	78.8	83.0
90°	13.6	21.4	29.2	37.0	44.7	52.5	60.4	68.2	76.0	83.9	89.3
92.5°	42.7	49.4	56.1	62.8	69.5	77.1	85.4	93.9	102.3	110.8	116.4
95°	95.1	100.2	105.1	110.2	115.2	122.1	130.8	139.5	148.1	156.8	162.7
97.5°	150.6	154.7	159.0	163.2	167.4	174.3	183.9	193.6	203.2	212.8	218.2
100°	191.9	195.4	199.0	202.6	206.1	212.6	221.8	231.1	240.2	249.5	255.7
102.5°	236.3	240.8	245.2	249.7	254.2	260.0	267.3	274.5	281.8	289.0	295.3
105°	305.6	309.7	314.0	318.1	322.3	327.8	334.7	341.5	348.4	355.3	360.4
107.5°	382.2	386.0	389.7	393.5	397.3	402.3	408.6	414.9	421.1	427.3	431.5
110°	435.0	438.6	442.0	445.6	449.1	453.6	459.3	464.9	470.6	476.3	480.3



TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	489.5	491.9	494.3	496.8	499.1	503.2	508.9	514.6	520.4	526.1	529.7
115°	569.2	571.6	573.9	576.2	578.7	582.3	587.3	592.4	597.3	602.4	605.1
117.5°	649.1	650.5	651.8	653.1	654.4	657.3	662.1	666.8	671.6	676.2	679.3
120°	699.4	701.4	703.4	705.3	707.3	710.3	714.6	718.8	723.1	727.2	730.1
122.5°	753.3	754.1	754.9	755.6	756.4	759.0	763.6	768.1	772.6	777.2	779.7
125°	827.1	828.6	830.2	831.7	833.3	836.0	839.7	843.3	847.1	850.8	852.9
127.5°	904.8	905.6	906.5	907.4	908.2	910.1	913.2	916.5	919.6	922.7	924.9
130°	952.0	953.3	954.6	955.8	957.2	959.3	962.3	965.2	968.2	971.2	973.3
132.5°	998.6	1000.9	1003.3	1005.6	1007.9	1010.1	1011.8	1013.5	1015.2	1016.9	1019.1
135°	1073.1	1074.7	1076.2	1077.8	1079.3	1081.0	1082.4	1083.9	1085.4	1086.8	1089.0
137.5°	1143.2	1144.7	1146.2	1147.8	1149.3	1150.7	1152.0	1153.2	1154.4	1155.6	1158.0
140°	1187.6	1189.0	1190.5	1191.9	1193.5	1194.7	1195.7	1196.8	1197.8	1198.8	1201.3
142.5°	1232.6	1233.8	1234.9	1235.9	1237.0	1238.1	1239.2	1240.4	1241.5	1242.6	1244.7
145°	1298.9	1299.9	1300.9	1301.9	1302.9	1303.8	1304.7	1305.6	1306.5	1307.4	1308.2
147.5°	1359.5	1360.1	1360.8	1361.4	1362.0	1362.7	1363.4	1364.1	1364.8	1365.5	1366.4
150°	1400.4	1400.1	1399.8	1399.5	1399.2	1399.6	1400.8	1402.0	1403.1	1404.3	1404.3
152.5°	1433.9	1434.3	1434.7	1435.1	1435.5	1435.9	1436.4	1436.8	1437.3	1437.8	1438.6
155°	1485.5	1485.5	1485.5	1485.5	1485.5	1485.6	1485.9	1486.2	1486.5	1486.8	1487.9
157.5°	1531.6	1531.0	1530.3	1529.6	1529.0	1528.8	1529.1	1529.4	1529.7	1530.0	1531.2
160°	1558.8	1558.0	1557.1	1556.2	1555.4	1555.1	1555.4	1555.7	1555.9	1556.2	1557.4
162.5°	1583.0	1582.4	1581.7	1581.0	1580.4	1580.1	1580.1	1580.2	1580.2	1580.3	1581.8
165°	1615.2	1614.6	1614.0	1613.5	1612.9	1612.8	1613.0	1613.3	1613.6	1613.9	1615.1
167.5°	1642.4	1641.2	1640.1	1638.9	1637.8	1637.2	1637.2	1637.2	1637.2	1637.2	1638.9
170°	1657.1	1656.0	1654.8	1653.7	1652.4	1651.8	1651.8	1651.8	1651.8	1651.8	1653.7
172.5°	1667.6	1666.4	1665.3	1664.1	1662.9	1662.3	1662.3	1662.3	1662.3	1662.3	1664.1
175°	1679.4	1678.2	1677.1	1675.9	1674.8	1674.2	1674.2	1674.2	1674.2	1674.2	1675.9
177.5°	1685.4	1684.5	1683.5	1682.6	1681.6	1681.1	1680.8	1680.6	1680.4	1680.1	1681.5
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3



TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	87.2	91.4	95.6	98.5	99.8	101.2	102.5	103.9
90°	94.6	100.0	105.4	109.1	111.2	113.2	115.3	117.3
92.5°	122.2	127.8	133.6	137.3	139.2	141.1	142.9	144.7
95°	168.4	174.2	180.1	183.8	185.6	187.3	189.1	191.0
97.5°	223.8	229.2	234.8	238.3	239.8	241.3	242.8	244.3
100°	262.0	268.1	274.4	278.2	279.8	281.4	283.1	284.7
102.5°	301.5	307.9	314.2	318.2	320.1	321.9	323.8	325.6
105°	365.6	370.7	375.9	379.5	381.6	383.6	385.8	387.8
107.5°	435.9	440.1	444.3	447.0	448.0	448.9	449.9	450.9
110°	484.4	488.6	492.6	495.1	496.0	497.0	497.9	498.8





TEST NUMBER: P333391-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	533.2	536.6	540.2	542.3	543.0	543.6	544.3	544.9
115°	607.9	610.7	613.5	615.2	616.0	616.7	617.4	618.1
117.5°	682.5	685.6	688.7	690.3	690.3	690.3	690.3	690.3
120°	733.1	735.9	738.8	740.2	740.0	739.9	739.8	739.6
122.5°	782.2	784.8	787.3	788.6	788.7	788.8	788.9	789.0
125°	855.1	857.2	859.4	860.7	861.3	861.8	862.4	862.9
127.5°	927.2	929.4	931.6	932.9	933.3	933.7	934.1	934.6
130°	975.3	977.4	979.6	980.8	981.0	981.3	981.6	981.8
132.5°	1021.1	1023.2	1025.3	1026.3	1026.2	1026.1	1026.0	1025.9
135°	1091.3	1093.5	1095.7	1096.7	1096.4	1096.0	1095.7	1095.4
137.5°	1160.3	1162.7	1165.1	1165.9	1165.1	1164.3	1163.6	1162.8
140°	1203.8	1206.2	1208.7	1209.5	1208.7	1208.0	1207.2	1206.4
142.5°	1246.6	1248.5	1250.5	1251.0	1250.3	1249.5	1248.8	1248.0
145°	1309.1	1309.9	1310.7	1311.1	1310.9	1310.7	1310.5	1310.3
147.5°	1367.5	1368.4	1369.4	1369.1	1367.4	1365.7	1364.0	1362.3
150°	1404.3	1404.3	1404.3	1404.1	1403.6	1403.2	1402.8	1402.4
152.5°	1439.2	1439.9	1440.6	1440.5	1439.5	1438.5	1437.4	1436.4
155°	1489.1	1490.3	1491.5	1491.3	1489.9	1488.4	1486.9	1485.5
157.5°	1532.4	1533.5	1534.7	1534.3	1532.4	1530.5	1528.5	1526.6
160°	1558.5	1559.7	1560.8	1560.7	1559.3	1557.8	1556.4	1554.9
162.5°	1583.2	1584.5	1585.9	1585.8	1584.1	1582.4	1580.7	1579.0
165°	1616.2	1617.4	1618.5	1618.2	1616.5	1614.8	1613.0	1611.2
167.5°	1640.7	1642.4	1644.2	1644.2	1642.3	1640.5	1638.7	1636.9
170°	1655.4	1657.1	1658.8	1658.7	1656.7	1654.7	1652.5	1650.5
172.5°	1665.9	1667.6	1669.3	1669.3	1667.5	1665.7	1663.9	1662.0
175°	1677.6	1679.4	1681.1	1680.9	1678.9	1676.9	1674.9	1672.8
177.5°	1682.9	1684.4	1685.8	1685.7	1683.9	1682.3	1680.7	1679.1
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3

(END OF REPORT)