

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: P333674-840

Luminaire Tested: **S125RDIW-S610D1340U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333674-840  
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-S610D1340U840-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7820.1 lumens  
Efficiency: N/A  
Efficacy: 145.4 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

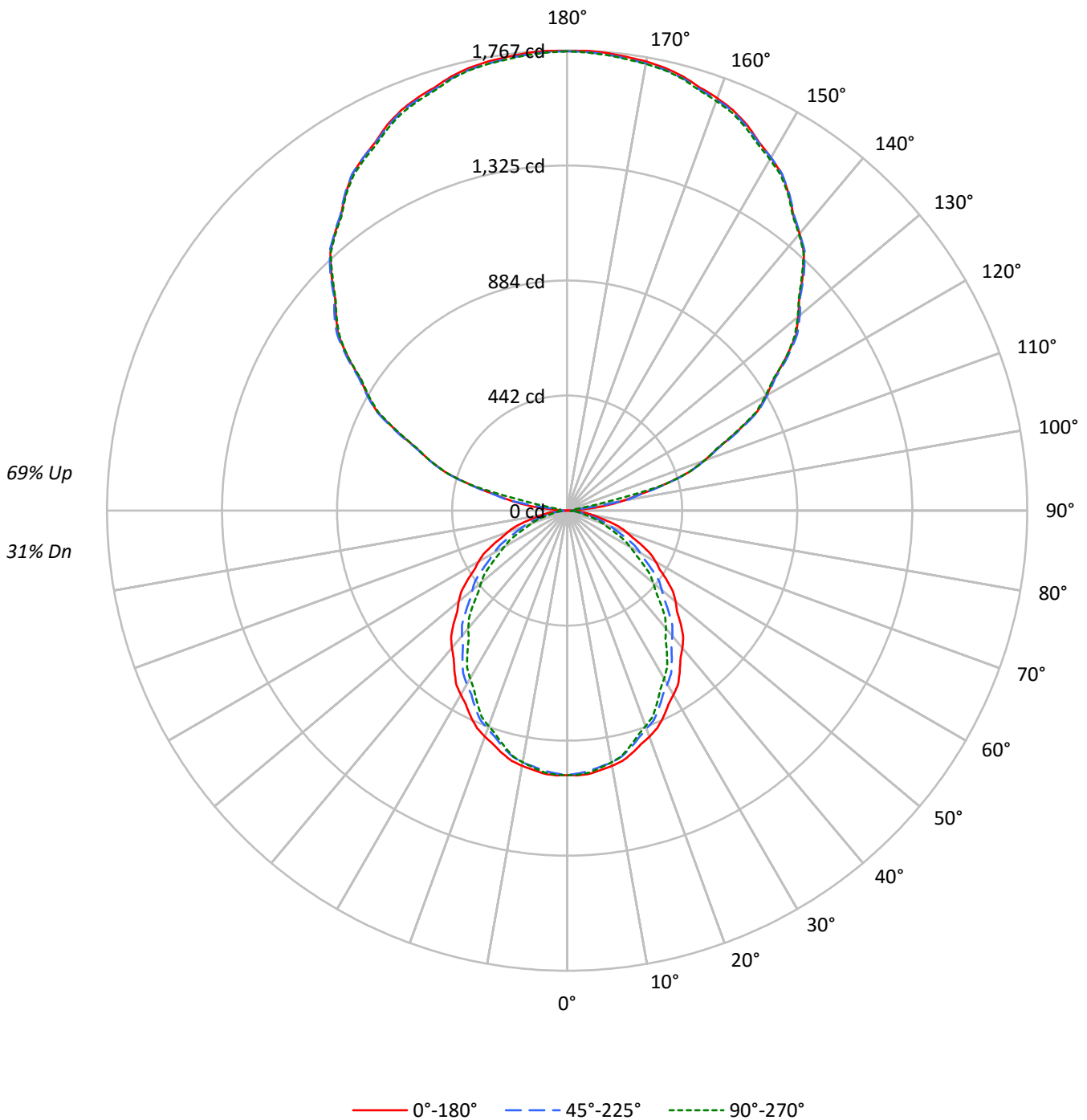
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20	
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	92	92	92	92	73	73	73	55	55	55	38	38	38	31
1	94	89	86	82	84	81	77	75	64	62	60	48	47	46	34	33	33	26
2	85	78	72	67	76	70	66	61	56	53	50	43	40	38	30	29	28	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	33	27	25	24	19
4	71	61	53	48	64	55	48	43	44	39	36	34	30	28	24	22	20	16
5	65	54	46	41	58	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	17	16	13
7	55	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	40	32	27	46	36	29	25	29	24	21	23	19	17	16	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

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

	0°	45°	90°
0°	6561	6561	6561
5°	6576	6501	6541
10°	6526	6441	6441
15°	6449	6310	6258
20°	6349	6128	6054
25°	6233	5949	5818
30°	6088	5739	5557
35°	5941	5523	5263
40°	5802	5298	4975
45°	5634	5045	4661
50°	5466	4772	4332
55°	5271	4510	3984
60°	5074	4193	3608
65°	4843	3822	3177
70°	4579	3361	2738
75°	4212	2832	2278
80°	3712	2228	1912
85°	3127	1815	1704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	1.2
10°-20°	267.0	3.4
20°-30°	387.1	5.0
30°-40°	441.2	5.6
40°-50°	430.0	5.5
50°-60°	362.0	4.6
60°-70°	253.8	3.2
70°-80°	130.4	1.7
80°-90°	36.6	0.5
90°-100°	64.1	0.8
100°-110°	395.0	5.1
110°-120°	716.5	9.2
120°-130°	919.5	11.8
130°-140°	989.0	12.6
140°-150°	928.3	11.9
150°-160°	750.9	9.6
160°-170°	485.7	6.2
170°-180°	167.5	2.1
0°-30°	749.6	9.6
0°-40°	1190.8	15.2
0°-60°	1982.8	25.4
0°-90°	2403.6	30.7
90°-120°	1175.6	15.0
90°-150°	4012.4	51.3
90°-180°	5416.0	69.3
0°-180°	7820.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1014	1011	1003	1010	1009	96
15°	964	959	944	943	936	272
25°	875	862	835	825	816	402
35°	754	734	700	679	668	472
45°	617	594	552	523	510	476
55°	468	442	400	367	354	418
65°	317	290	250	220	208	314
75°	169	145	114	97	91	179
85°	42	29	24	24	23	47
90°	1	12	21	27	31	5
95°	74	68	21	27	28	95
105°	384	389	390	390	388	408
115°	722	728	730	724	716	715
125°	1026	1035	1036	1030	1026	916
135°	1280	1287	1285	1282	1275	986
145°	1484	1486	1487	1487	1480	928
155°	1634	1627	1629	1632	1623	753
165°	1725	1717	1718	1725	1716	487
175°	1764	1757	1757	1767	1756	168
180°	1764	1764	1764	1764	1764	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1017.7	1017.3	1016.9	1016.5	1016.1	1015.2	1013.8	1012.5	1011.1	1009.8	1011.1
5°	1014.3	1013.7	1013.0	1012.3	1011.6	1010.4	1008.5	1006.6	1004.7	1002.8	1004.5
7.5°	1004.4	1003.7	1003.1	1002.4	1001.8	1000.4	998.0	995.8	993.6	991.3	992.5
10°	995.1	994.6	994.1	993.6	993.1	991.7	989.3	986.9	984.5	982.1	982.6
12.5°	984.7	984.1	983.4	982.8	982.1	980.2	977.0	973.8	970.6	967.3	967.8
15°	964.5	963.4	962.4	961.4	960.4	958.1	954.5	950.9	947.4	943.7	943.6
17.5°	941.6	940.1	938.5	937.0	935.3	932.3	927.8	923.3	918.8	914.3	913.4
20°	923.8	922.1	920.4	918.7	917.0	913.4	908.0	902.5	897.1	891.6	890.7
22.5°	904.1	902.4	900.8	899.1	897.4	893.6	887.9	882.2	876.5	870.7	869.1
25°	874.7	872.1	869.6	867.1	864.4	860.0	853.7	847.4	841.1	834.8	832.6
27.5°	840.9	837.9	834.8	831.6	828.5	823.6	816.9	810.1	803.3	796.6	793.5
30°	816.4	813.1	809.9	806.7	803.4	798.2	791.0	784.0	776.8	769.6	765.7
32.5°	792.4	788.7	784.9	781.1	777.3	771.7	764.5	757.2	749.8	742.6	738.2
35°	753.5	749.4	745.3	741.2	737.1	731.2	723.6	715.9	708.2	700.5	695.6
37.5°	715.3	710.2	705.3	700.3	695.4	688.9	681.0	673.1	665.2	657.2	651.4
40°	688.2	683.2	678.0	672.9	667.8	661.2	653.0	644.8	636.6	628.4	622.0
42.5°	660.0	654.8	649.5	644.3	639.0	632.2	623.7	615.2	606.8	598.3	592.1
45°	616.9	612.0	607.0	602.1	597.1	590.0	580.6	571.2	561.8	552.4	545.6
47.5°	572.3	567.0	561.8	556.6	551.4	544.0	534.6	525.1	515.7	506.2	499.3
50°	544.0	538.4	532.7	527.1	521.5	513.8	504.1	494.4	484.6	474.9	467.8
52.5°	513.3	507.6	501.8	496.0	490.3	482.8	473.6	464.4	455.2	446.1	438.4
55°	468.1	462.6	457.2	451.7	446.3	438.7	429.2	419.6	410.1	400.5	392.8
57.5°	422.3	416.5	410.6	404.9	399.0	391.4	382.2	373.0	363.9	354.7	347.1
60°	392.8	386.9	380.9	375.0	369.0	361.4	352.1	343.0	333.8	324.6	317.1
62.5°	361.5	355.9	350.1	344.5	338.8	331.2	321.9	312.6	303.3	293.9	286.9
65°	316.9	311.1	305.3	299.5	293.7	286.3	277.2	268.2	259.1	250.1	243.3
67.5°	272.6	266.7	260.9	255.2	249.3	242.2	233.5	224.8	216.1	207.4	201.3
70°	242.5	236.7	230.9	225.1	219.2	212.1	203.6	195.1	186.5	178.0	172.7
72.5°	213.0	207.3	201.7	196.0	190.4	183.5	175.5	167.5	159.6	151.6	146.7
75°	168.8	163.7	158.5	153.5	148.3	142.2	135.0	127.8	120.7	113.5	109.8
77.5°	124.9	120.8	116.7	112.6	108.6	103.6	97.9	92.2	86.4	80.7	78.1
80°	99.8	95.6	91.6	87.5	83.4	79.0	74.1	69.4	64.6	59.9	58.3
82.5°	75.2	71.5	67.9	64.1	60.5	57.0	53.7	50.4	47.2	43.9	43.2
85°	42.2	39.1	36.1	33.0	29.9	28.0	27.1	26.3	25.4	24.5	24.3
87.5°	14.3	13.9	13.4	12.9	12.4	12.3	12.6	12.8	13.1	13.4	13.6
90°	1.3	3.6	6.0	8.3	10.6	12.8	14.8	16.9	18.9	20.9	22.4
92.5°	20.1	18.5	16.9	15.2	13.6	13.7	15.6	17.3	19.1	20.9	22.4
95°	74.5	73.6	72.8	71.9	71.0	65.0	54.0	43.0	31.9	20.9	22.4
97.5°	155.6	157.1	158.8	160.3	161.9	151.7	129.9	108.1	86.1	64.3	56.1
100°	218.3	219.2	220.0	221.0	221.9	222.9	224.0	225.2	226.3	227.5	184.2
102.5°	282.2	283.3	284.4	285.5	286.6	287.5	288.2	288.9	289.5	290.2	282.1
105°	384.5	385.6	386.8	387.9	389.1	389.6	389.6	389.6	389.6	389.6	389.6
107.5°	490.6	490.6	490.6	490.6	490.6	490.9	491.5	492.0	492.6	493.2	493.2
110°	559.7	559.7	559.7	559.7	559.7	559.9	560.5	561.1	561.7	562.2	561.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	624.5	625.2	625.9	626.5	627.2	627.8	628.1	628.4	628.8	629.1	628.0
115°	721.8	723.2	724.7	726.1	727.6	728.4	728.7	729.0	729.3	729.6	728.4
117.5°	822.4	822.3	822.3	822.2	822.2	822.7	823.8	825.0	826.1	827.2	825.7
120°	885.1	884.9	884.6	884.3	884.0	884.3	885.1	886.1	887.0	887.8	887.3
122.5°	940.6	941.7	942.8	943.9	945.0	945.8	946.2	946.6	947.1	947.5	946.8
125°	1026.4	1028.4	1030.5	1032.5	1034.5	1035.5	1035.5	1035.5	1035.5	1035.5	1034.4
127.5°	1108.2	1109.7	1111.2	1112.6	1114.1	1114.7	1114.5	1114.4	1114.2	1114.0	1113.4
130°	1158.4	1159.9	1161.3	1162.9	1164.3	1165.2	1165.5	1165.7	1166.0	1166.3	1165.5
132.5°	1208.7	1210.3	1212.0	1213.8	1215.4	1216.0	1215.3	1214.7	1214.1	1213.4	1213.3
135°	1280.1	1281.8	1283.5	1285.3	1287.1	1287.6	1287.1	1286.5	1285.9	1285.3	1284.8
137.5°	1345.7	1347.2	1348.7	1350.2	1351.7	1352.2	1351.7	1351.2	1350.7	1350.2	1350.3
140°	1388.6	1389.2	1389.8	1390.3	1390.9	1391.1	1390.8	1390.5	1390.2	1389.9	1390.5
142.5°	1427.2	1427.6	1427.9	1428.4	1428.7	1429.1	1429.5	1429.9	1430.3	1430.7	1430.8
145°	1484.0	1484.6	1485.2	1485.8	1486.3	1486.6	1486.6	1486.6	1486.6	1486.6	1486.9
147.5°	1533.7	1533.6	1533.5	1533.4	1533.3	1533.4	1533.7	1534.1	1534.4	1534.8	1535.1
150°	1565.1	1564.5	1564.0	1563.4	1562.8	1562.8	1563.4	1564.0	1564.5	1565.1	1565.7
152.5°	1595.4	1594.2	1592.9	1591.6	1590.3	1589.9	1590.5	1591.1	1591.7	1592.3	1592.9
155°	1634.4	1632.6	1630.9	1629.2	1627.4	1626.9	1627.4	1628.0	1628.6	1629.2	1630.0
157.5°	1664.5	1663.4	1662.3	1661.3	1660.3	1659.8	1659.8	1659.9	1660.0	1660.0	1660.9
160°	1685.4	1683.6	1681.9	1680.1	1678.4	1677.7	1678.0	1678.3	1678.6	1678.9	1680.0
162.5°	1702.1	1700.4	1698.6	1696.9	1695.2	1694.5	1694.8	1695.1	1695.3	1695.6	1697.2
165°	1724.6	1722.8	1721.1	1719.4	1717.7	1716.9	1717.2	1717.5	1717.8	1718.1	1719.8
167.5°	1741.3	1739.6	1737.8	1736.0	1734.1	1733.4	1733.6	1733.9	1734.2	1734.5	1736.7
170°	1750.8	1748.8	1746.7	1744.6	1742.6	1741.7	1742.0	1742.3	1742.6	1742.9	1745.2
172.5°	1757.1	1755.0	1753.0	1750.9	1748.9	1748.2	1748.7	1749.2	1749.7	1750.2	1752.3
175°	1763.8	1762.1	1760.4	1758.6	1756.9	1756.2	1756.5	1756.8	1757.1	1757.3	1759.6
177.5°	1767.0	1765.5	1764.2	1762.8	1761.4	1760.8	1761.1	1761.3	1761.5	1761.7	1763.4
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1012.5	1013.8	1015.2	1015.8	1015.7	1015.5	1015.4	1015.3
5°	1006.2	1007.9	1009.7	1010.4	1010.0	1009.7	1009.4	1009.0
7.5°	993.7	994.9	996.1	996.5	996.1	995.7	995.4	995.0
10°	983.1	983.6	984.2	984.2	983.6	983.1	982.6	982.1
12.5°	968.2	968.6	968.9	968.7	967.9	967.1	966.3	965.5
15°	943.4	943.2	943.1	942.2	940.7	939.2	937.7	936.0
17.5°	912.6	911.7	910.9	909.8	908.6	907.3	906.1	904.7
20°	889.9	889.0	888.2	887.0	885.4	883.9	882.4	880.8
22.5°	867.4	865.7	864.0	862.5	861.3	860.0	858.8	857.5
25°	830.4	828.2	826.0	823.8	822.0	820.1	818.3	816.4
27.5°	790.4	787.3	784.2	781.7	779.9	778.1	776.3	774.5
30°	761.7	757.8	753.9	751.1	749.6	748.1	746.6	745.1
32.5°	733.9	729.6	725.3	722.2	720.1	718.2	716.3	714.4
35°	690.6	685.7	680.8	677.1	674.7	672.3	669.9	667.5
37.5°	645.4	639.4	633.5	629.3	627.0	624.8	622.5	620.2
40°	615.4	608.9	602.5	598.2	596.2	594.1	592.1	590.1
42.5°	585.9	579.7	573.5	568.9	565.9	562.9	559.9	556.9
45°	538.8	532.0	525.1	520.5	518.0	515.3	512.8	510.3
47.5°	492.2	485.1	478.2	473.2	470.4	467.6	464.7	461.9
50°	460.6	453.4	446.3	441.4	438.9	436.4	433.7	431.2
52.5°	430.7	422.9	415.3	410.1	407.6	405.1	402.4	399.9
55°	385.2	377.5	369.8	364.7	361.9	359.2	356.5	353.8
57.5°	339.6	332.1	324.7	319.6	317.2	314.8	312.5	310.0
60°	309.5	302.1	294.6	289.5	287.0	284.4	281.9	279.3
62.5°	279.9	273.0	266.0	261.3	258.7	256.2	253.6	251.1
65°	236.5	229.6	222.9	218.1	215.6	213.1	210.5	207.9
67.5°	195.0	188.7	182.5	178.3	176.3	174.3	172.2	170.2
70°	167.4	162.2	156.8	153.2	151.2	149.2	147.0	145.0
72.5°	141.9	136.9	132.1	129.0	127.6	126.2	124.9	123.5
75°	106.0	102.3	98.6	96.0	94.9	93.7	92.5	91.3
77.5°	75.4	72.8	70.2	68.5	67.6	66.7	65.8	64.9
80°	56.8	55.2	53.7	52.8	52.4	52.1	51.7	51.4
82.5°	42.4	41.7	41.0	40.6	40.4	40.2	40.0	39.8
85°	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0
87.5°	13.9	14.2	14.5	14.7	14.7	14.7	14.8	14.8
90°	23.8	25.2	26.8	27.9	28.8	29.6	30.5	31.4
92.5°	23.8	25.2	26.8	27.7	28.1	28.5	28.9	29.3
95°	23.8	25.2	26.8	27.5	27.5	27.5	27.5	27.5
97.5°	48.0	39.8	31.5	27.5	27.5	27.5	27.5	27.5
100°	140.9	97.7	54.3	32.1	30.9	29.8	28.6	27.5
102.5°	273.9	265.7	257.5	243.5	223.8	204.0	184.2	164.5
105°	389.6	389.6	389.6	389.5	389.2	388.9	388.6	388.3
107.5°	493.3	493.4	493.4	493.0	492.1	491.3	490.4	489.6
110°	560.5	559.7	558.8	558.5	558.8	559.1	559.4	559.7





TEST NUMBER: P333674-840

CATALOG NUMBER: S125RDIW-S610D1340U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	626.9	625.9	624.8	624.0	623.6	623.2	622.8	622.4
115°	727.3	726.1	725.0	723.5	721.8	720.0	718.2	716.5
117.5°	824.2	822.6	821.1	819.9	819.2	818.5	817.7	817.0
120°	886.7	886.1	885.4	884.4	883.0	881.5	880.1	878.7
122.5°	946.2	945.6	945.1	943.9	942.3	940.6	938.9	937.3
125°	1033.2	1032.1	1030.9	1029.9	1029.1	1028.1	1027.2	1026.4
127.5°	1112.8	1112.1	1111.5	1110.0	1107.9	1105.8	1103.6	1101.5
130°	1164.6	1163.7	1162.9	1161.6	1160.2	1158.7	1157.3	1155.9
132.5°	1213.0	1212.8	1212.6	1211.8	1210.4	1209.0	1207.5	1206.1
135°	1284.1	1283.5	1282.9	1281.8	1280.1	1278.3	1276.6	1274.9
137.5°	1350.4	1350.5	1350.6	1349.9	1348.4	1346.9	1345.3	1343.8
140°	1391.1	1391.6	1392.2	1391.6	1389.9	1388.2	1386.4	1384.6
142.5°	1430.9	1431.1	1431.2	1430.4	1428.6	1426.8	1425.1	1423.4
145°	1487.2	1487.5	1487.8	1487.1	1485.3	1483.6	1481.9	1480.2
147.5°	1535.5	1535.8	1536.2	1535.3	1533.2	1531.1	1529.0	1526.9
150°	1566.3	1566.8	1567.4	1566.5	1564.2	1561.9	1559.5	1557.2
152.5°	1593.5	1594.1	1594.6	1593.9	1591.7	1589.7	1587.6	1585.5
155°	1630.9	1631.7	1632.6	1631.9	1629.6	1627.3	1625.0	1622.7
157.5°	1661.9	1662.8	1663.8	1663.0	1660.7	1658.4	1656.1	1653.8
160°	1681.2	1682.3	1683.5	1682.9	1680.6	1678.3	1676.0	1673.6
162.5°	1698.8	1700.5	1702.1	1701.6	1699.1	1696.5	1693.9	1691.4
165°	1721.5	1723.3	1725.1	1724.7	1722.4	1720.1	1717.8	1715.5
167.5°	1738.8	1740.8	1742.9	1742.6	1740.0	1737.5	1734.8	1732.2
170°	1747.6	1749.9	1752.2	1752.1	1749.5	1746.9	1744.2	1741.6
172.5°	1754.4	1756.6	1758.6	1758.4	1755.8	1753.1	1750.5	1747.9
175°	1761.9	1764.2	1766.6	1766.5	1763.8	1761.2	1758.6	1756.0
177.5°	1765.0	1766.7	1768.3	1768.2	1766.3	1764.4	1762.5	1760.7
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8

(END OF REPORT)