

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: P333674-830

Luminaire Tested: **S125RDIW-S610D1340U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333674-830  
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-S610D1340U830-4F0-1E-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: 7298.8 lumens  
Efficiency: N/A  
Efficacy: 135.7 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

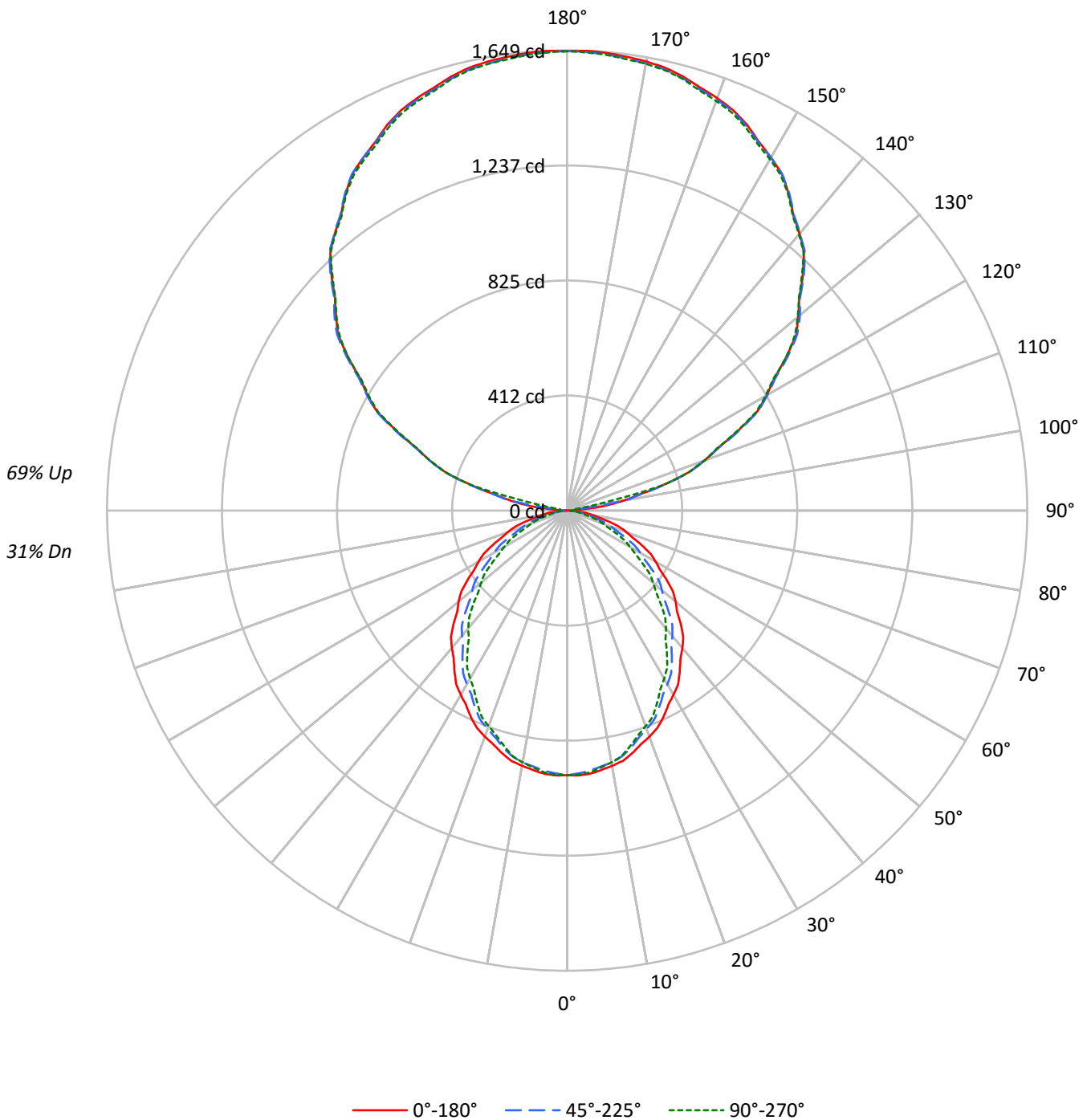
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6124	6124	6124
5°	6137	6067	6105
10°	6091	6011	6011
15°	6019	5889	5841
20°	5926	5720	5650
25°	5818	5552	5430
30°	5683	5357	5186
35°	5544	5155	4912
40°	5415	4945	4643
45°	5259	4709	4350
50°	5101	4454	4044
55°	4919	4209	3718
60°	4735	3912	3367
65°	4520	3568	2966
70°	4273	3138	2555
75°	3933	2643	2126
80°	3463	2079	1785
85°	2920	1697	1593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.2	1.2
10°-20°	249.2	3.4
20°-30°	361.3	5.0
30°-40°	411.8	5.6
40°-50°	401.4	5.5
50°-60°	337.9	4.6
60°-70°	236.8	3.2
70°-80°	121.7	1.7
80°-90°	34.2	0.5
90°-100°	59.8	0.8
100°-110°	368.7	5.1
110°-120°	668.7	9.2
120°-130°	858.2	11.8
130°-140°	923.1	12.6
140°-150°	866.4	11.9
150°-160°	700.9	9.6
160°-170°	453.3	6.2
170°-180°	156.3	2.1
0°-30°	699.6	9.6
0°-40°	1111.4	15.2
0°-60°	1850.7	25.4
0°-90°	2243.4	30.7
90°-120°	1097.2	15.0
90°-150°	3744.9	51.3
90°-180°	5055.0	69.3
0°-180°	7298.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	947	944	936	943	942	90
15°	900	895	881	880	874	254
25°	816	805	779	770	762	375
35°	703	685	654	634	623	440
45°	576	554	516	488	476	444
55°	437	413	374	343	330	391
65°	296	271	234	206	194	293
75°	158	136	106	91	85	167
85°	39	27	23	22	22	44
90°	1	11	20	26	29	5
95°	70	64	20	25	26	89
105°	359	363	364	364	362	380
115°	674	680	681	676	669	668
125°	958	966	966	962	958	855
135°	1195	1202	1200	1197	1190	921
145°	1385	1387	1388	1388	1382	866
155°	1525	1519	1521	1523	1514	703
165°	1610	1603	1604	1610	1601	455
175°	1646	1639	1640	1649	1639	157
180°	1646	1646	1646	1646	1646	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	949.9	949.5	949.1	948.8	948.4	947.5	946.2	945.0	943.7	942.4	943.7
5°	946.7	946.1	945.5	944.8	944.1	943.0	941.2	939.5	937.7	935.9	937.5
7.5°	937.5	936.8	936.2	935.6	935.0	933.7	931.5	929.4	927.4	925.2	926.3
10°	928.8	928.3	927.8	927.4	926.9	925.6	923.3	921.1	918.9	916.6	917.1
12.5°	919.1	918.5	917.8	917.3	916.6	914.8	911.9	908.9	905.9	902.9	903.2
15°	900.2	899.2	898.2	897.3	896.4	894.2	890.9	887.5	884.2	880.8	880.7
17.5°	878.8	877.4	875.9	874.5	873.0	870.2	865.9	861.8	857.5	853.4	852.5
20°	862.2	860.6	859.0	857.4	855.8	852.5	847.4	842.4	837.3	832.2	831.3
22.5°	843.9	842.3	840.7	839.1	837.5	834.1	828.7	823.4	818.0	812.7	811.2
25°	816.4	814.0	811.6	809.3	806.8	802.7	796.8	790.9	785.0	779.1	777.1
27.5°	784.9	782.0	779.1	776.2	773.3	768.7	762.4	756.1	749.8	743.5	740.6
30°	762.0	758.9	755.9	752.9	749.9	745.0	738.3	731.7	725.0	718.3	714.6
32.5°	739.6	736.1	732.5	729.1	725.5	720.3	713.5	706.7	699.8	693.1	689.0
35°	703.2	699.5	695.6	691.8	688.0	682.5	675.3	668.2	661.0	653.8	649.2
37.5°	667.6	662.9	658.3	653.7	649.0	643.0	635.6	628.2	620.9	613.4	607.9
40°	642.3	637.6	632.8	628.0	623.3	617.1	609.4	601.8	594.2	586.5	580.5
42.5°	616.0	611.1	606.2	601.3	596.4	590.0	582.1	574.2	566.4	558.5	552.6
45°	575.8	571.2	566.6	561.9	557.3	550.6	541.9	533.1	524.3	515.6	509.3
47.5°	534.1	529.2	524.3	519.5	514.6	507.7	499.0	490.1	481.4	472.5	466.0
50°	507.7	502.5	497.2	492.0	486.7	479.6	470.5	461.5	452.3	443.3	436.6
52.5°	479.1	473.7	468.3	463.0	457.6	450.6	442.1	433.5	424.9	416.3	409.2
55°	436.9	431.8	426.7	421.6	416.5	409.4	400.6	391.6	382.8	373.8	366.6
57.5°	394.2	388.7	383.2	377.9	372.4	365.3	356.8	348.2	339.6	331.0	324.0
60°	366.6	361.1	355.5	350.0	344.4	337.3	328.7	320.1	311.5	302.9	296.0
62.5°	337.4	332.2	326.8	321.5	316.2	309.2	300.5	291.7	283.0	274.3	267.8
65°	295.8	290.4	284.9	279.6	274.1	267.2	258.7	250.3	241.9	233.5	227.1
67.5°	254.4	248.9	243.6	238.2	232.7	226.0	217.9	209.8	201.7	193.6	187.8
70°	226.3	220.9	215.5	210.1	204.6	197.9	190.0	182.1	174.1	166.2	161.2
72.5°	198.8	193.5	188.2	182.9	177.7	171.3	163.8	156.4	148.9	141.5	137.0
75°	157.6	152.8	148.0	143.3	138.5	132.7	126.0	119.3	112.6	105.9	102.5
77.5°	116.6	112.7	109.0	105.1	101.3	96.7	91.3	86.1	80.7	75.3	72.9
80°	93.1	89.3	85.5	81.6	77.9	73.7	69.2	64.8	60.3	55.9	54.4
82.5°	70.2	66.7	63.3	59.9	56.5	53.2	50.1	47.0	44.0	41.0	40.3
85°	39.4	36.5	33.6	30.8	27.9	26.1	25.3	24.5	23.8	22.9	22.7
87.5°	13.4	13.0	12.5	12.1	11.6	11.5	11.8	12.0	12.3	12.5	12.7
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.7	17.6	19.5	20.9
92.5°	18.8	17.2	15.7	14.2	12.7	12.8	14.5	16.1	17.8	19.5	20.9
95°	69.6	68.7	68.0	67.1	66.3	60.7	50.4	40.2	29.8	19.5	20.9
97.5°	145.2	146.7	148.2	149.6	151.1	141.6	121.2	100.9	80.4	60.0	52.4
100°	203.8	204.6	205.4	206.2	207.1	208.0	209.1	210.2	211.2	212.4	171.9
102.5°	263.3	264.4	265.4	266.5	267.5	268.3	269.0	269.7	270.2	270.9	263.3
105°	358.8	359.9	361.0	362.0	363.2	363.6	363.6	363.6	363.6	363.6	363.6
107.5°	457.9	457.9	457.9	457.9	457.9	458.2	458.7	459.2	459.8	460.3	460.3
110°	522.4	522.4	522.4	522.4	522.4	522.5	523.1	523.7	524.2	524.7	524.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	582.9	583.5	584.2	584.8	585.4	586.0	586.3	586.5	586.9	587.2	586.2
115°	673.6	675.0	676.4	677.7	679.1	679.9	680.1	680.4	680.7	681.0	679.9
117.5°	767.6	767.5	767.5	767.4	767.4	767.9	768.9	770.0	771.0	772.0	770.6
120°	826.1	826.0	825.7	825.4	825.1	825.4	826.1	827.0	827.8	828.6	828.1
122.5°	877.9	878.9	880.0	881.0	882.0	882.8	883.2	883.5	883.9	884.3	883.7
125°	958.0	959.9	961.8	963.7	965.5	966.5	966.5	966.5	966.5	966.5	965.4
127.5°	1034.3	1035.8	1037.1	1038.4	1039.8	1040.4	1040.2	1040.1	1039.9	1039.7	1039.2
130°	1081.2	1082.6	1083.9	1085.3	1086.7	1087.5	1087.8	1088.0	1088.3	1088.5	1087.8
132.5°	1128.1	1129.6	1131.2	1132.8	1134.3	1134.9	1134.3	1133.7	1133.1	1132.5	1132.4
135°	1194.8	1196.4	1198.0	1199.6	1201.3	1201.7	1201.3	1200.7	1200.1	1199.6	1199.1
137.5°	1256.0	1257.4	1258.8	1260.2	1261.6	1262.1	1261.6	1261.1	1260.7	1260.2	1260.3
140°	1296.0	1296.6	1297.1	1297.6	1298.2	1298.4	1298.1	1297.8	1297.5	1297.2	1297.8
142.5°	1332.1	1332.5	1332.8	1333.1	1333.4	1333.8	1334.2	1334.5	1334.9	1335.3	1335.4
145°	1385.1	1385.6	1386.2	1386.8	1387.2	1387.5	1387.5	1387.5	1387.5	1387.5	1387.8
147.5°	1431.4	1431.3	1431.3	1431.2	1431.1	1431.2	1431.4	1431.8	1432.1	1432.5	1432.8
150°	1460.8	1460.2	1459.7	1459.2	1458.6	1458.6	1459.2	1459.7	1460.2	1460.8	1461.3
152.5°	1489.0	1487.9	1486.7	1485.5	1484.3	1483.9	1484.5	1485.1	1485.6	1486.1	1486.7
155°	1525.4	1523.8	1522.2	1520.6	1518.9	1518.4	1518.9	1519.5	1520.0	1520.6	1521.4
157.5°	1553.5	1552.6	1551.5	1550.6	1549.6	1549.2	1549.2	1549.3	1549.4	1549.4	1550.2
160°	1573.0	1571.4	1569.8	1568.1	1566.5	1565.8	1566.1	1566.4	1566.7	1567.0	1568.0
162.5°	1588.7	1587.1	1585.4	1583.8	1582.2	1581.5	1581.8	1582.1	1582.2	1582.5	1584.0
165°	1609.7	1608.0	1606.4	1604.8	1603.2	1602.4	1602.7	1603.0	1603.3	1603.5	1605.1
167.5°	1625.2	1623.6	1621.9	1620.2	1618.5	1617.9	1618.1	1618.3	1618.6	1618.9	1620.9
170°	1634.1	1632.2	1630.2	1628.3	1626.5	1625.6	1625.9	1626.2	1626.5	1626.7	1628.9
172.5°	1639.9	1638.0	1636.2	1634.2	1632.3	1631.6	1632.1	1632.6	1633.0	1633.5	1635.5
175°	1646.2	1644.6	1643.0	1641.3	1639.7	1639.1	1639.4	1639.6	1639.9	1640.1	1642.3
177.5°	1649.2	1647.8	1646.6	1645.3	1644.0	1643.4	1643.7	1643.9	1644.1	1644.3	1645.9
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	945.0	946.2	947.5	948.1	948.0	947.8	947.7	947.6
5°	939.1	940.8	942.4	943.0	942.6	942.4	942.1	941.7
7.5°	927.5	928.6	929.7	930.1	929.7	929.3	929.1	928.7
10°	917.6	918.0	918.6	918.6	918.0	917.6	917.1	916.6
12.5°	903.6	904.0	904.3	904.1	903.3	902.7	901.9	901.2
15°	880.5	880.3	880.2	879.4	878.0	876.6	875.2	873.6
17.5°	851.8	850.9	850.2	849.1	848.0	846.8	845.6	844.4
20°	830.6	829.7	829.0	827.8	826.4	825.0	823.6	822.1
22.5°	809.5	807.9	806.4	805.0	803.9	802.7	801.5	800.3
25°	775.1	773.0	770.9	768.9	767.2	765.4	763.7	762.0
27.5°	737.7	734.8	731.9	729.6	727.9	726.2	724.5	722.8
30°	711.0	707.3	703.6	701.1	699.6	698.2	696.8	695.4
32.5°	684.9	681.0	676.9	674.0	672.1	670.3	668.5	666.8
35°	644.6	640.0	635.4	632.0	629.7	627.5	625.3	623.0
37.5°	602.4	596.8	591.3	587.4	585.2	583.2	581.0	578.8
40°	574.4	568.4	562.3	558.4	556.5	554.5	552.6	550.7
42.5°	546.9	541.0	535.3	530.9	528.2	525.4	522.5	519.8
45°	502.8	496.5	490.1	485.8	483.4	481.0	478.6	476.3
47.5°	459.4	452.8	446.3	441.7	439.0	436.4	433.8	431.1
50°	429.9	423.2	416.5	412.0	409.6	407.3	404.8	402.5
52.5°	402.0	394.7	387.6	382.8	380.4	378.1	375.6	373.2
55°	359.5	352.3	345.2	340.4	337.8	335.3	332.7	330.2
57.5°	317.0	310.0	303.0	298.3	296.1	293.8	291.6	289.4
60°	288.9	281.9	274.9	270.2	267.9	265.4	263.1	260.7
62.5°	261.3	254.8	248.3	243.8	241.5	239.1	236.7	234.3
65°	220.7	214.3	208.0	203.6	201.2	198.9	196.4	194.1
67.5°	182.0	176.2	170.3	166.5	164.6	162.7	160.7	158.8
70°	156.3	151.4	146.4	143.0	141.1	139.2	137.2	135.3
72.5°	132.4	127.8	123.3	120.4	119.1	117.8	116.6	115.3
75°	99.0	95.5	92.0	89.6	88.6	87.5	86.3	85.2
77.5°	70.4	68.0	65.5	63.9	63.1	62.2	61.5	60.6
80°	53.0	51.6	50.1	49.3	48.9	48.6	48.3	48.0
82.5°	39.6	38.9	38.3	37.9	37.7	37.5	37.3	37.1
85°	22.6	22.4	22.2	22.1	22.0	21.8	21.7	21.5
87.5°	13.0	13.3	13.6	13.8	13.8	13.8	13.9	13.9
90°	22.2	23.6	25.0	26.0	26.9	27.6	28.5	29.3
92.5°	22.2	23.6	25.0	25.8	26.2	26.6	27.0	27.3
95°	22.2	23.6	25.0	25.6	25.6	25.6	25.6	25.6
97.5°	44.8	37.1	29.4	25.6	25.6	25.6	25.6	25.6
100°	131.5	91.1	50.7	30.0	28.8	27.8	26.7	25.6
102.5°	255.6	248.0	240.3	227.2	208.9	190.4	171.9	153.5
105°	363.6	363.6	363.6	363.5	363.3	363.0	362.7	362.4
107.5°	460.4	460.5	460.5	460.1	459.3	458.5	457.7	456.9
110°	523.1	522.4	521.5	521.2	521.5	521.8	522.1	522.4





TEST NUMBER: P333674-830

CATALOG NUMBER: S125RDIW-S610D1340U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	585.1	584.2	583.2	582.4	582.0	581.6	581.3	580.9
115°	678.8	677.7	676.7	675.2	673.6	672.0	670.3	668.7
117.5°	769.2	767.8	766.4	765.3	764.6	763.9	763.2	762.5
120°	827.6	827.0	826.4	825.5	824.2	822.7	821.4	820.1
122.5°	883.2	882.6	882.1	881.0	879.5	877.9	876.3	874.8
125°	964.3	963.3	962.1	961.2	960.5	959.6	958.8	958.0
127.5°	1038.6	1037.9	1037.4	1036.0	1034.1	1032.1	1030.0	1028.0
130°	1086.9	1086.1	1085.3	1084.2	1082.9	1081.5	1080.2	1078.8
132.5°	1132.2	1132.0	1131.8	1131.1	1129.7	1128.4	1127.0	1125.7
135°	1198.5	1198.0	1197.4	1196.4	1194.8	1193.1	1191.5	1189.9
137.5°	1260.4	1260.5	1260.6	1259.9	1258.5	1257.1	1255.7	1254.2
140°	1298.4	1298.8	1299.4	1298.8	1297.2	1295.6	1294.0	1292.3
142.5°	1335.5	1335.7	1335.8	1335.0	1333.3	1331.7	1330.1	1328.5
145°	1388.1	1388.4	1388.6	1388.0	1386.3	1384.7	1383.1	1381.5
147.5°	1433.1	1433.4	1433.8	1432.9	1431.0	1429.0	1427.1	1425.1
150°	1461.9	1462.4	1462.9	1462.1	1459.9	1457.7	1455.6	1453.4
152.5°	1487.2	1487.8	1488.3	1487.6	1485.6	1483.8	1481.8	1479.8
155°	1522.2	1523.0	1523.8	1523.1	1521.0	1518.8	1516.6	1514.5
157.5°	1551.1	1552.0	1552.8	1552.2	1550.0	1547.8	1545.7	1543.5
160°	1569.1	1570.2	1571.3	1570.7	1568.6	1566.4	1564.2	1562.1
162.5°	1585.5	1587.1	1588.7	1588.2	1585.8	1583.4	1581.0	1578.7
165°	1606.8	1608.4	1610.1	1609.8	1607.6	1605.4	1603.3	1601.1
167.5°	1622.9	1624.8	1626.7	1626.5	1624.0	1621.6	1619.2	1616.7
170°	1631.1	1633.2	1635.4	1635.3	1632.9	1630.4	1628.0	1625.5
172.5°	1637.5	1639.5	1641.3	1641.2	1638.7	1636.3	1633.8	1631.4
175°	1644.5	1646.6	1648.8	1648.7	1646.2	1643.8	1641.3	1638.9
177.5°	1647.4	1648.9	1650.4	1650.3	1648.5	1646.8	1645.0	1643.3
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2

(END OF REPORT)