

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: P333678-830

Luminaire Tested: **S125RDIW-S610D1560U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333678-830
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-S610D1560U830-4F0-1E-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: 8121.7 lumens
Efficiency: N/A
Efficacy: 134.0 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

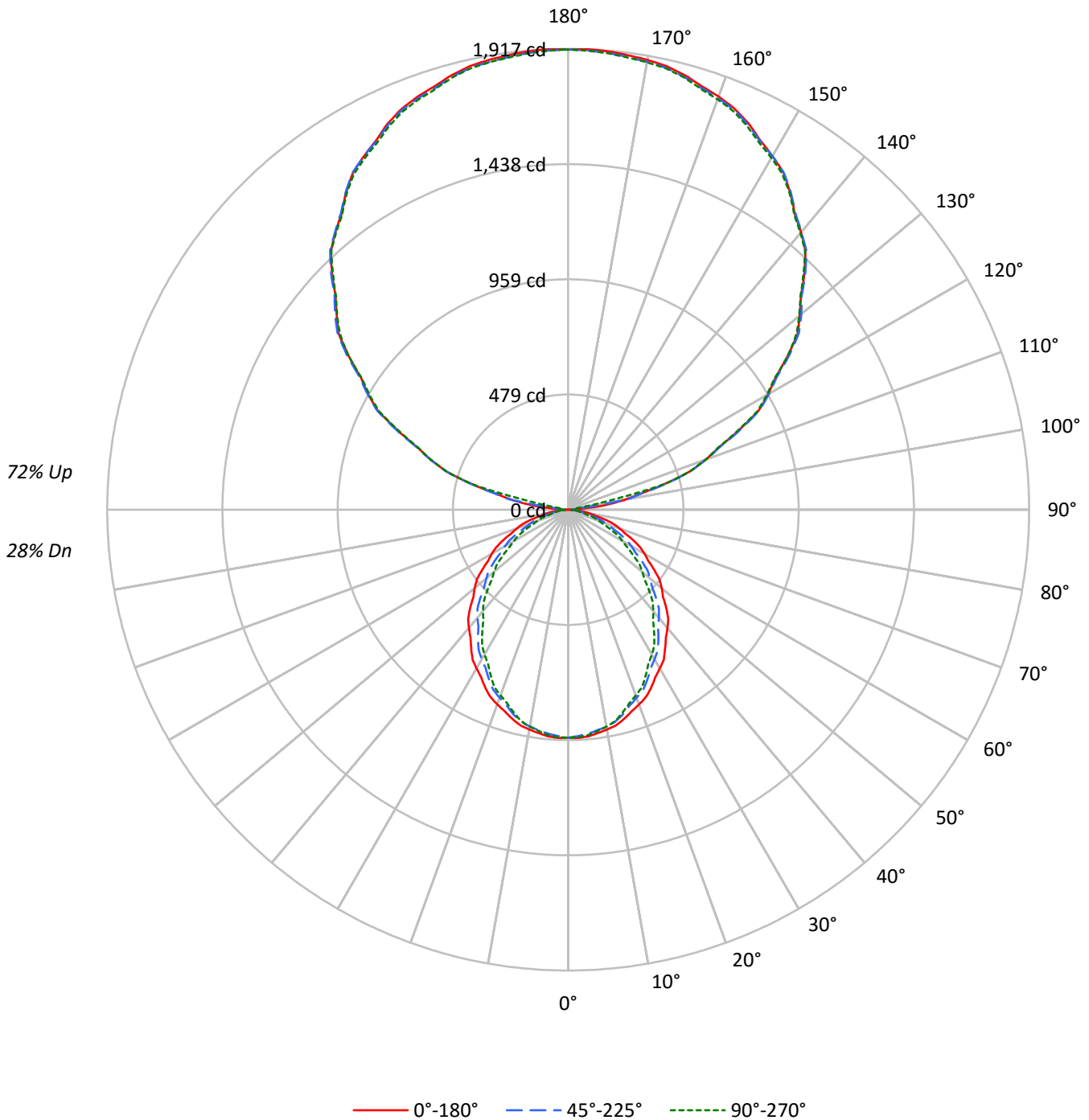
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

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°	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



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	1.1
10°-20°	249.2	3.1
20°-30°	361.3	4.4
30°-40°	411.8	5.1
40°-50°	401.4	4.9
50°-60°	337.9	4.2
60°-70°	236.8	2.9
70°-80°	121.7	1.5
80°-90°	34.7	0.4
90°-100°	69.6	0.9
100°-110°	428.7	5.3
110°-120°	777.5	9.6
120°-130°	997.8	12.3
130°-140°	1073.2	13.2
140°-150°	1007.4	12.4
150°-160°	814.9	10.0
160°-170°	527.0	6.5
170°-180°	181.8	2.2
0°-30°	699.6	8.6
0°-40°	1111.4	13.7
0°-60°	1850.7	22.8
0°-90°	2244.0	27.6
90°-120°	1275.7	15.7
90°-150°	4354.1	53.6
90°-180°	5878.0	72.4
0°-180°	8121.7	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	13	23	30	34	5
95°	81	74	23	29	30	103
105°	417	422	423	423	421	442
115°	783	790	792	786	778	776
125°	1114	1123	1124	1118	1114	994
135°	1389	1397	1395	1392	1383	1070
145°	1610	1613	1613	1614	1606	1007
155°	1774	1766	1768	1771	1761	817
165°	1872	1864	1864	1872	1862	528
175°	1914	1906	1907	1917	1906	182
180°	1914	1914	1914	1914	1914	



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

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°	13.5	13.1	12.7	12.3	11.9	11.9	12.2	12.5	12.8	13.1	13.5
90°	1.4	4.0	6.5	9.0	11.5	13.9	16.1	18.3	20.5	22.7	24.3
92.5°	21.9	20.1	18.3	16.6	14.8	14.9	16.9	18.8	20.7	22.7	24.3
95°	80.9	79.9	79.0	78.0	77.1	70.6	58.6	46.7	34.7	22.7	24.3
97.5°	168.8	170.5	172.2	174.0	175.7	164.7	140.9	117.3	93.5	69.8	60.9
100°	237.0	237.9	238.8	239.8	240.7	241.9	243.1	244.4	245.6	246.9	199.9
102.5°	306.2	307.4	308.6	309.8	310.9	312.0	312.7	313.5	314.2	315.0	306.1
105°	417.2	418.4	419.7	420.9	422.2	422.8	422.8	422.8	422.8	422.8	422.8
107.5°	532.3	532.3	532.3	532.3	532.3	532.6	533.3	534.0	534.6	535.2	535.3
110°	607.3	607.3	607.3	607.3	607.3	607.6	608.2	608.9	609.4	610.1	609.2



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	677.7	678.4	679.2	680.0	680.7	681.3	681.6	682.0	682.4	682.8	681.6
115°	783.3	784.8	786.4	788.0	789.5	790.4	790.8	791.1	791.5	791.7	790.4
117.5°	892.5	892.4	892.3	892.3	892.2	892.8	894.0	895.1	896.4	897.6	895.9
120°	960.5	960.3	960.0	959.6	959.3	959.6	960.5	961.5	962.4	963.4	962.8
122.5°	1020.8	1021.9	1023.1	1024.4	1025.5	1026.3	1026.8	1027.2	1027.7	1028.1	1027.5
125°	1113.8	1116.0	1118.2	1120.4	1122.7	1123.7	1123.7	1123.7	1123.7	1123.7	1122.5
127.5°	1202.6	1204.2	1205.8	1207.4	1208.9	1209.7	1209.5	1209.3	1209.1	1208.9	1208.2
130°	1257.1	1258.7	1260.3	1261.9	1263.4	1264.3	1264.7	1265.0	1265.3	1265.6	1264.7
132.5°	1311.5	1313.4	1315.2	1317.1	1318.9	1319.5	1318.8	1318.1	1317.4	1316.7	1316.5
135°	1389.0	1390.9	1392.9	1394.8	1396.7	1397.2	1396.7	1396.0	1395.3	1394.8	1394.1
137.5°	1460.3	1461.9	1463.6	1465.2	1466.9	1467.4	1466.8	1466.2	1465.7	1465.1	1465.3
140°	1506.8	1507.5	1508.1	1508.7	1509.4	1509.5	1509.2	1508.9	1508.5	1508.3	1508.9
142.5°	1548.8	1549.2	1549.5	1549.9	1550.3	1550.8	1551.2	1551.6	1552.1	1552.6	1552.7
145°	1610.4	1611.0	1611.7	1612.3	1613.0	1613.3	1613.3	1613.3	1613.3	1613.3	1613.5
147.5°	1664.3	1664.2	1664.1	1664.0	1663.8	1664.0	1664.3	1664.7	1665.1	1665.5	1665.8
150°	1698.4	1697.7	1697.1	1696.5	1695.8	1695.8	1696.5	1697.1	1697.7	1698.4	1699.0
152.5°	1731.3	1729.9	1728.5	1727.1	1725.7	1725.3	1726.0	1726.6	1727.3	1727.9	1728.5
155°	1773.6	1771.7	1769.8	1767.9	1766.0	1765.4	1766.0	1766.6	1767.3	1767.9	1768.9
157.5°	1806.2	1805.1	1803.9	1802.8	1801.7	1801.1	1801.2	1801.3	1801.3	1801.4	1802.4
160°	1828.9	1827.0	1825.1	1823.3	1821.4	1820.5	1820.9	1821.2	1821.5	1821.8	1823.1
162.5°	1847.1	1845.2	1843.3	1841.4	1839.5	1838.7	1839.0	1839.4	1839.7	1839.9	1841.7
165°	1871.5	1869.6	1867.6	1865.8	1863.9	1863.1	1863.4	1863.8	1864.1	1864.3	1866.2
167.5°	1889.6	1887.7	1885.7	1883.8	1881.8	1881.0	1881.3	1881.6	1882.0	1882.3	1884.5
170°	1899.9	1897.6	1895.5	1893.2	1891.0	1890.1	1890.4	1890.7	1891.0	1891.3	1893.9
172.5°	1906.7	1904.5	1902.2	1900.1	1897.8	1897.1	1897.6	1898.2	1898.8	1899.3	1901.6
175°	1914.0	1912.1	1910.3	1908.4	1906.5	1905.7	1906.0	1906.3	1906.7	1907.0	1909.5
177.5°	1917.4	1915.9	1914.4	1912.9	1911.4	1910.7	1911.0	1911.3	1911.5	1911.8	1913.5
180°	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

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°	13.8	14.0	14.4	14.6	14.6	14.7	14.8	14.8
90°	25.8	27.4	29.0	30.3	31.2	32.1	33.1	34.0
92.5°	25.8	27.4	29.0	30.0	30.4	30.9	31.4	31.8
95°	25.8	27.4	29.0	29.8	29.8	29.8	29.8	29.8
97.5°	52.0	43.2	34.2	29.8	29.8	29.8	29.8	29.8
100°	152.9	105.9	59.0	34.9	33.6	32.3	31.1	29.8
102.5°	297.2	288.3	279.5	264.3	242.8	221.4	199.9	178.5
105°	422.8	422.8	422.8	422.6	422.4	422.1	421.7	421.4
107.5°	535.4	535.4	535.5	535.0	534.0	533.1	532.2	531.2
110°	608.2	607.3	606.3	606.1	606.3	606.6	607.0	607.3



TEST NUMBER: P333678-830

CATALOG NUMBER: S125RDIW-S610D1560U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	680.3	679.2	678.0	677.1	676.7	676.3	675.8	675.3
115°	789.2	788.0	786.6	785.1	783.3	781.3	779.4	777.5
117.5°	894.3	892.7	891.0	889.8	889.0	888.2	887.3	886.5
120°	962.1	961.5	960.9	959.8	958.2	956.6	955.1	953.5
122.5°	1026.8	1026.2	1025.6	1024.4	1022.6	1020.7	1018.9	1017.0
125°	1121.2	1119.9	1118.7	1117.6	1116.6	1115.7	1114.7	1113.8
127.5°	1207.5	1206.8	1206.1	1204.6	1202.2	1200.0	1197.6	1195.2
130°	1263.8	1262.8	1261.9	1260.6	1259.0	1257.4	1255.8	1254.2
132.5°	1316.4	1316.2	1316.0	1315.0	1313.5	1311.9	1310.3	1308.7
135°	1393.5	1392.9	1392.2	1390.9	1389.0	1387.1	1385.3	1383.4
137.5°	1465.4	1465.5	1465.7	1464.9	1463.2	1461.6	1459.9	1458.3
140°	1509.5	1510.1	1510.8	1510.1	1508.3	1506.4	1504.5	1502.6
142.5°	1552.7	1552.9	1553.0	1552.2	1550.2	1548.3	1546.4	1544.5
145°	1613.9	1614.2	1614.5	1613.7	1611.8	1610.0	1608.1	1606.2
147.5°	1666.2	1666.6	1667.0	1666.0	1663.8	1661.5	1659.3	1657.0
150°	1699.6	1700.3	1700.9	1700.0	1697.4	1694.9	1692.4	1689.9
152.5°	1729.2	1729.8	1730.4	1729.6	1727.3	1725.0	1722.8	1720.5
155°	1769.8	1770.8	1771.7	1770.8	1768.4	1765.9	1763.3	1760.8
157.5°	1803.4	1804.4	1805.4	1804.7	1802.1	1799.6	1797.1	1794.6
160°	1824.3	1825.6	1826.8	1826.3	1823.7	1821.2	1818.6	1816.2
162.5°	1843.5	1845.3	1847.0	1846.5	1843.8	1841.0	1838.2	1835.4
165°	1868.1	1870.1	1872.0	1871.6	1869.2	1866.6	1864.1	1861.5
167.5°	1886.8	1889.0	1891.3	1891.0	1888.2	1885.4	1882.5	1879.7
170°	1896.4	1898.9	1901.4	1901.3	1898.5	1895.6	1892.7	1889.9
172.5°	1903.8	1906.1	1908.4	1908.1	1905.3	1902.4	1899.6	1896.8
175°	1911.9	1914.5	1917.0	1916.8	1914.0	1911.2	1908.4	1905.5
177.5°	1915.3	1917.0	1918.8	1918.7	1916.7	1914.7	1912.6	1910.6
180°	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0

(END OF REPORT)