

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: P333679-840

Luminaire Tested: **S125RDIW-S610D1560U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333679-840
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: S125RDIW-S610D1560U840-4F0-1E-UDD-F1
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, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7865.4 lumens
Efficiency: N/A
Efficacy: 129.8 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

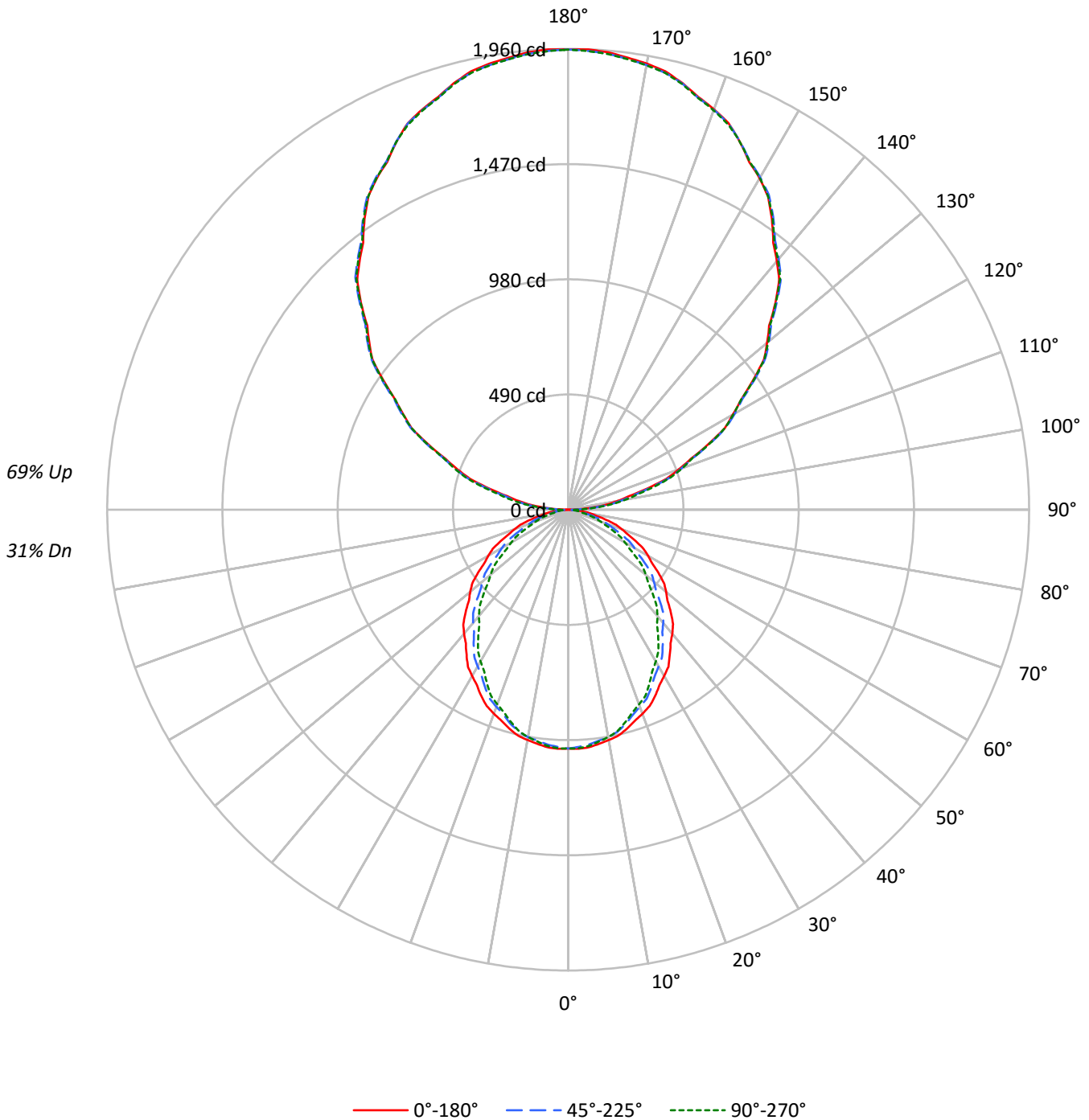
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	77	75	64	62	60	48	47	46	34	33	33	26
2	85	78	72	67	76	70	65	61	56	52	50	42	40	38	30	29	28	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	32	27	25	24	19
4	71	61	53	47	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	19	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	17	16	12
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	12	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	4.9
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°	37.2	0.5
90°-100°	131.1	1.7
100°-110°	387.1	4.9
110°-120°	655.6	8.3
120°-130°	862.9	11.0
130°-140°	966.8	12.3
140°-150°	947.6	12.0
150°-160°	795.9	10.1
160°-170°	529.1	6.7
170°-180°	185.2	2.4
0°-30°	749.6	9.5
0°-40°	1190.8	15.1
0°-60°	1982.8	25.2
0°-90°	2404.2	30.6
90°-120°	1173.8	14.9
90°-150°	3951.1	50.2
90°-180°	5461.0	69.4
0°-180°	7865.4	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°	2	14	24	32	37	7
95°	99	103	117	128	131	106
105°	347	355	364	373	378	371
115°	656	662	666	664	663	649
125°	958	967	969	966	964	858
135°	1246	1255	1256	1256	1250	960
145°	1509	1515	1520	1520	1515	943
155°	1727	1727	1729	1734	1727	795
165°	1878	1875	1876	1882	1873	530
175°	1953	1947	1946	1954	1945	185
180°	1957	1957	1957	1957	1957	



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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°	14.4	14.0	13.6	13.2	12.7	12.7	13.0	13.4	13.7	14.0	14.4
90°	1.5	4.2	7.0	9.7	12.3	14.8	17.3	19.6	22.0	24.3	26.1
92.5°	36.9	38.8	40.7	42.5	44.4	46.9	49.8	52.6	55.5	58.5	60.7
95°	99.0	99.7	100.4	101.0	101.7	103.7	107.1	110.5	113.9	117.2	119.7
97.5°	164.5	164.7	165.0	165.3	165.6	168.0	172.7	177.4	182.1	186.7	188.9
100°	213.2	213.2	213.2	213.2	213.2	215.4	219.8	224.2	228.6	233.0	236.1
102.5°	265.6	267.0	268.3	269.6	271.0	272.9	275.1	277.3	279.5	281.8	285.1
105°	347.3	348.9	350.6	352.3	354.1	355.9	357.9	359.9	361.9	364.1	366.1
107.5°	437.4	439.1	440.8	442.5	444.1	445.9	447.4	448.9	450.5	452.0	453.0
110°	499.6	501.3	502.9	504.6	506.3	507.7	508.7	509.7	510.7	511.7	512.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	562.9	563.8	564.7	565.5	566.4	567.5	568.8	570.1	571.4	572.7	573.1
115°	656.4	657.8	659.1	660.5	661.9	662.9	663.6	664.2	664.9	665.6	665.2
117.5°	750.2	750.8	751.4	752.0	752.7	753.3	753.9	754.5	755.1	755.8	756.0
120°	808.7	810.4	812.1	813.9	815.5	816.5	816.9	817.2	817.5	817.9	817.9
122.5°	872.1	872.7	873.3	873.9	874.5	875.3	876.2	877.1	877.9	878.8	878.5
125°	958.0	960.0	962.1	964.1	966.1	967.3	967.7	968.0	968.4	968.7	968.0
127.5°	1049.4	1050.6	1051.7	1052.8	1054.0	1054.8	1055.2	1055.6	1056.0	1056.4	1056.0
130°	1104.2	1105.9	1107.6	1109.2	1111.0	1112.2	1112.9	1113.5	1114.2	1114.9	1114.5
132.5°	1159.0	1161.8	1164.6	1167.4	1170.1	1171.4	1171.3	1171.1	1171.0	1170.9	1170.5
135°	1245.9	1247.9	1249.9	1251.9	1253.9	1255.2	1255.5	1255.9	1256.2	1256.5	1256.5
137.5°	1327.5	1329.5	1331.4	1333.3	1335.3	1336.7	1337.5	1338.2	1338.9	1339.7	1340.1
140°	1379.9	1381.6	1383.2	1384.9	1386.6	1388.0	1389.0	1390.1	1391.1	1392.1	1392.7
142.5°	1432.3	1433.7	1435.1	1436.5	1437.9	1439.3	1440.6	1441.9	1443.2	1444.4	1444.8
145°	1509.3	1510.7	1512.1	1513.4	1514.8	1515.9	1516.9	1517.9	1518.9	1519.9	1519.9
147.5°	1580.6	1581.3	1582.1	1582.9	1583.6	1584.4	1585.2	1586.0	1586.8	1587.6	1588.4
150°	1628.1	1627.8	1627.5	1627.1	1626.8	1627.3	1628.6	1630.0	1631.3	1632.7	1632.7
152.5°	1667.1	1667.6	1668.1	1668.5	1669.0	1669.5	1670.1	1670.6	1671.1	1671.7	1672.5
155°	1727.2	1727.2	1727.2	1727.2	1727.2	1727.3	1727.7	1728.0	1728.3	1728.7	1730.0
157.5°	1780.7	1780.0	1779.3	1778.5	1777.8	1777.6	1777.9	1778.3	1778.6	1778.9	1780.3
160°	1812.4	1811.4	1810.4	1809.4	1808.4	1808.1	1808.4	1808.7	1809.1	1809.4	1810.7
162.5°	1840.5	1839.7	1839.0	1838.3	1837.4	1837.1	1837.1	1837.2	1837.3	1837.3	1839.1
165°	1877.9	1877.2	1876.5	1875.9	1875.2	1875.0	1875.4	1875.7	1876.0	1876.4	1877.7
167.5°	1909.6	1908.2	1906.9	1905.5	1904.2	1903.5	1903.5	1903.5	1903.5	1903.5	1905.5
170°	1926.6	1925.3	1923.9	1922.6	1921.3	1920.6	1920.6	1920.6	1920.6	1920.6	1922.6
172.5°	1938.8	1937.5	1936.1	1934.8	1933.4	1932.8	1932.8	1932.8	1932.8	1932.8	1934.8
175°	1952.6	1951.2	1949.8	1948.4	1947.1	1946.4	1946.4	1946.4	1946.4	1946.4	1948.4
177.5°	1959.5	1958.4	1957.4	1956.3	1955.2	1954.5	1954.3	1954.0	1953.7	1953.5	1955.1
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1



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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°	14.7	15.0	15.5	15.7	15.8	15.8	15.9	15.9
90°	27.8	29.5	31.1	32.5	33.5	34.5	35.5	36.6
92.5°	62.9	65.1	67.5	68.9	69.7	70.4	71.1	71.9
95°	122.0	124.4	126.7	128.3	129.0	129.7	130.3	131.0
97.5°	191.2	193.4	195.6	197.0	197.4	197.8	198.2	198.6
100°	239.1	242.2	245.2	247.1	247.7	248.4	249.1	249.7
102.5°	288.4	291.8	295.0	297.2	298.1	299.0	300.0	300.9
105°	368.1	370.1	372.1	373.7	374.7	375.7	376.7	377.7
107.5°	454.0	455.0	456.1	456.6	456.5	456.5	456.4	456.3
110°	513.8	514.8	515.8	516.1	515.8	515.4	515.1	514.8



TEST NUMBER: P333679-840

CATALOG NUMBER: S125RDIW-S610D1560U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	573.6	574.1	574.5	574.5	573.9	573.3	572.7	572.1
115°	664.9	664.6	664.2	663.9	663.6	663.2	662.9	662.6
117.5°	756.3	756.6	756.8	756.3	754.9	753.6	752.2	750.8
120°	817.9	817.9	817.9	817.2	815.9	814.5	813.1	811.8
122.5°	878.3	878.0	877.7	877.1	876.0	874.8	873.7	872.7
125°	967.3	966.6	965.9	965.4	965.1	964.7	964.4	964.1
127.5°	1055.7	1055.4	1055.0	1054.5	1053.8	1053.2	1052.5	1051.8
130°	1114.2	1113.9	1113.5	1113.0	1112.4	1111.7	1111.0	1110.3
132.5°	1170.2	1169.9	1169.5	1168.9	1168.0	1167.0	1166.1	1165.1
135°	1256.5	1256.5	1256.5	1255.9	1254.5	1253.1	1251.7	1250.4
137.5°	1340.5	1340.9	1341.3	1340.7	1339.0	1337.3	1335.5	1333.8
140°	1393.4	1394.1	1394.7	1394.2	1392.6	1390.9	1389.2	1387.5
142.5°	1445.2	1445.6	1446.1	1445.4	1443.7	1442.1	1440.4	1438.7
145°	1519.9	1519.9	1519.9	1519.4	1518.4	1517.4	1516.4	1515.4
147.5°	1589.2	1590.0	1590.8	1590.1	1587.8	1585.5	1583.3	1580.9
150°	1632.7	1632.7	1632.7	1632.3	1631.6	1631.0	1630.3	1629.6
152.5°	1673.3	1674.2	1675.0	1674.8	1673.5	1672.3	1671.1	1669.9
155°	1731.3	1732.7	1734.0	1733.9	1732.2	1730.5	1728.8	1727.2
157.5°	1781.6	1783.0	1784.3	1783.9	1781.6	1779.4	1777.2	1774.9
160°	1812.1	1813.4	1814.8	1814.6	1812.9	1811.2	1809.6	1807.9
162.5°	1840.7	1842.3	1843.9	1843.7	1841.8	1839.8	1837.9	1835.8
165°	1879.1	1880.5	1881.8	1881.5	1879.5	1877.4	1875.4	1873.3
167.5°	1907.5	1909.6	1911.6	1911.6	1909.5	1907.4	1905.3	1903.2
170°	1924.6	1926.6	1928.6	1928.5	1926.1	1923.8	1921.4	1919.0
172.5°	1936.8	1938.8	1940.9	1940.9	1938.7	1936.6	1934.5	1932.5
175°	1950.6	1952.6	1954.6	1954.4	1952.1	1949.6	1947.3	1944.9
177.5°	1956.7	1958.3	1959.9	1959.8	1957.9	1956.0	1954.1	1952.3
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1

(END OF REPORT)