

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: P333426-830

Luminaire Tested: **S125DIW-S850D1560U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333426-830
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: S125DIW-S850D1560U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8974.3 lumens
Efficiency: N/A
Efficacy: 131.8 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

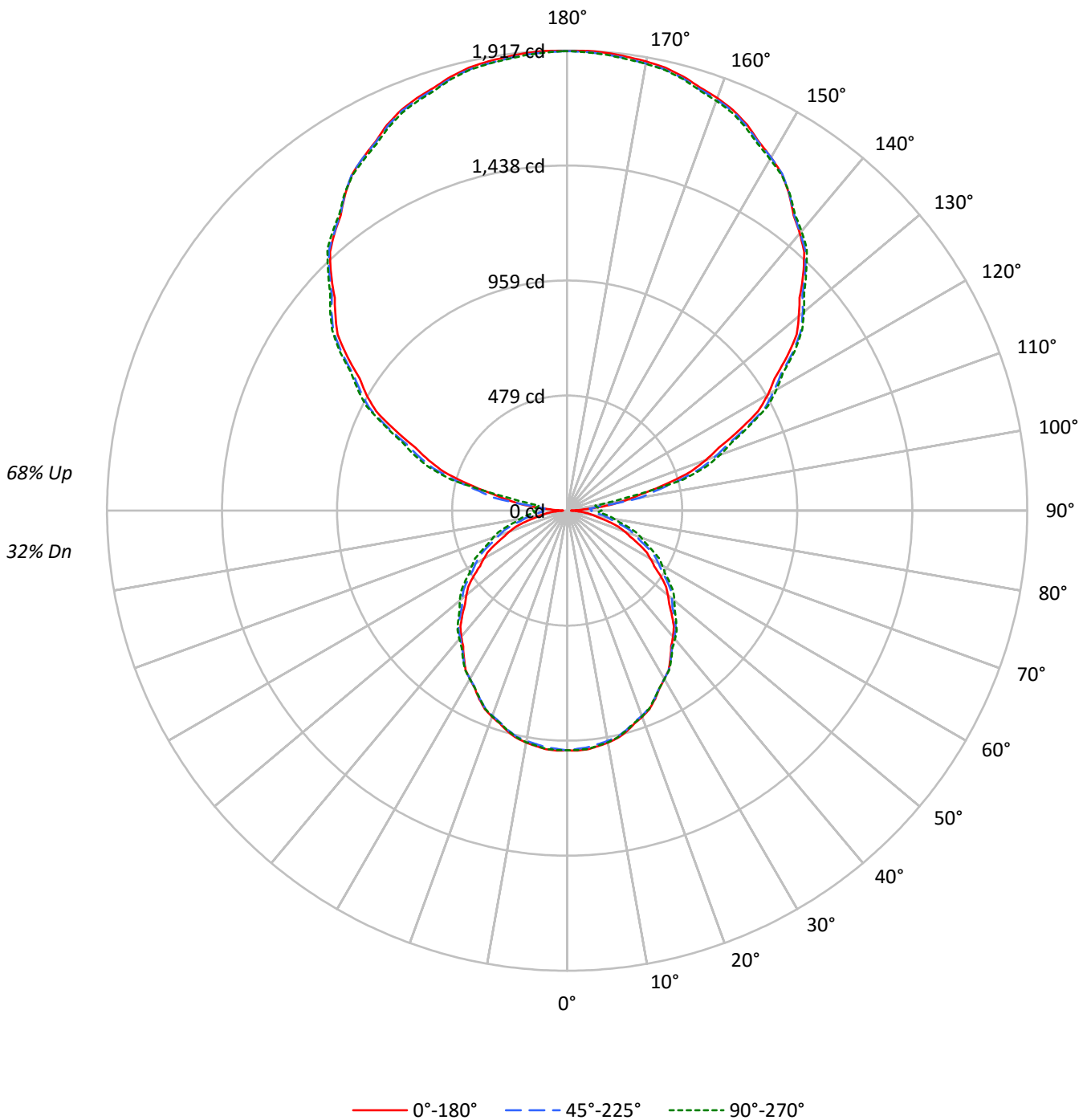
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333426-830

CATALOG NUMBER: S125DIW-S850D1560U830-4F0-1E-UDD-D

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	74	74	74	56	56	56	40	40	40	32
1	93	89	85	81	84	80	77	74	64	61	59	48	47	46	35	34	33	26
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22
3	77	68	60	55	69	61	55	50	49	44	41	37	34	32	26	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	65	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	27	23	20	19	17	15	12
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	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	12	11	8
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6448	6448	6448
5°	6461	6330	6350
10°	6415	6216	6207
15°	6340	6081	6026
20°	6237	5914	5845
25°	6114	5735	5621
30°	5965	5538	5419
35°	5827	5357	5233
40°	5686	5166	5046
45°	5526	5003	4880
50°	5375	4826	4733
55°	5192	4659	4561
60°	4992	4468	4385
65°	4783	4270	4187
70°	4546	3997	3985
75°	4170	3735	3735
80°	3682	3416	3463
85°	3220	3204	3378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.1
10°-20°	268.0	3.0
20°-30°	398.6	4.4
30°-40°	472.1	5.3
40°-50°	488.1	5.4
50°-60°	449.7	5.0
60°-70°	363.5	4.1
70°-80°	243.4	2.7
80°-90°	130.2	1.5
90°-100°	140.4	1.6
100°-110°	480.9	5.4
110°-120°	812.5	9.1
120°-130°	1017.7	11.3
130°-140°	1081.9	12.1
140°-150°	1009.1	11.2
150°-160°	814.9	9.1
160°-170°	527.0	5.9
170°-180°	181.8	2.0
0°-30°	761.0	8.5
0°-40°	1233.2	13.7
0°-60°	2171.0	24.2
0°-90°	2908.2	32.4
90°-120°	1433.8	16.0
90°-150°	4542.4	50.6
90°-180°	6066.0	67.6
0°-180°	8974.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	998	996	990	997	997	95
15°	954	954	948	953	950	268
25°	866	869	863	867	862	399
35°	750	756	754	757	757	469
45°	618	628	633	640	641	477
55°	475	490	506	516	521	424
65°	327	349	373	387	392	324
75°	180	206	237	256	261	191
85°	54	86	120	141	150	57
90°	17	60	103	132	144	14
95°	94	112	94	122	130	113
105°	426	448	477	495	502	451
115°	789	804	830	841	839	782
125°	1118	1127	1146	1156	1157	998
135°	1391	1398	1403	1412	1409	1072
145°	1611	1613	1613	1619	1615	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: P333426-830

CATALOG NUMBER: S125DIW-S850D1560U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	1000.8	1000.5	1000.1	999.8	999.4	998.6	997.4	996.2	994.9	993.7	994.9
5°	998.4	998.1	997.6	997.1	996.7	995.7	994.2	992.7	991.2	989.7	991.4
7.5°	989.7	989.5	989.3	989.1	988.9	988.1	986.6	985.0	983.4	981.8	983.4
10°	981.8	981.8	981.8	981.8	981.8	981.0	979.2	977.5	975.7	974.0	975.5
12.5°	970.8	971.0	971.2	971.4	971.6	970.9	969.6	968.2	966.8	965.4	966.6
15°	953.5	953.7	953.9	954.0	954.3	953.7	952.2	950.6	949.0	947.5	948.9
17.5°	930.8	931.1	931.6	932.0	932.5	931.9	930.4	928.9	927.4	925.9	926.8
20°	914.3	914.7	915.1	915.6	916.1	915.5	914.0	912.5	910.9	909.4	910.0
22.5°	895.5	896.3	897.0	897.9	898.6	898.1	896.5	894.8	893.1	891.4	892.2
25°	866.3	867.0	867.6	868.3	868.9	868.6	867.3	866.0	864.7	863.4	864.2
27.5°	833.8	834.8	835.8	836.7	837.6	837.4	835.9	834.4	832.9	831.5	832.1
30°	809.5	810.9	812.2	813.4	814.7	814.7	813.4	812.2	810.9	809.5	810.0
32.5°	787.6	788.7	789.9	791.0	792.1	792.2	791.3	790.3	789.4	788.4	788.8
35°	749.8	751.4	752.9	754.4	755.9	756.4	755.7	755.1	754.4	753.8	754.4
37.5°	712.0	713.4	714.8	716.2	717.7	718.2	717.9	717.7	717.6	717.4	718.2
40°	686.2	688.0	689.7	691.4	693.1	693.9	693.7	693.5	693.2	693.1	693.9
42.5°	658.0	660.3	662.5	664.8	667.0	668.5	668.9	669.4	669.9	670.3	671.4
45°	617.6	620.1	622.5	624.8	627.3	629.0	630.1	631.1	632.3	633.3	634.9
47.5°	576.4	578.6	580.8	583.1	585.2	587.3	589.2	591.1	592.9	594.7	597.0
50°	548.2	550.5	553.0	555.3	557.7	560.2	562.5	565.0	567.3	569.7	572.1
52.5°	518.4	521.3	524.2	527.2	530.1	533.0	535.9	538.9	541.8	544.7	547.2
55°	474.8	478.2	481.7	485.2	488.7	492.2	495.7	499.2	502.6	506.1	508.5
57.5°	430.1	434.3	438.5	442.6	446.9	450.9	455.0	458.9	462.9	466.9	469.7
60°	400.4	404.7	409.1	413.4	417.7	422.2	426.5	430.8	435.2	439.5	442.8
62.5°	371.4	375.7	380.1	384.5	388.8	393.3	398.0	402.7	407.4	412.1	415.8
65°	327.0	332.0	337.0	342.0	346.9	352.0	357.3	362.5	367.8	373.0	376.3
67.5°	285.0	289.9	294.7	299.5	304.3	309.4	314.7	320.1	325.4	330.6	334.6
70°	254.5	259.5	264.5	269.6	274.6	279.8	285.5	291.2	296.8	302.5	306.6
72.5°	224.8	229.9	235.1	240.3	245.4	251.1	257.3	263.5	269.7	275.9	280.3
75°	180.1	185.8	191.4	197.1	202.7	209.1	216.0	223.0	229.9	236.9	241.2
77.5°	137.2	143.7	150.3	156.8	163.3	169.9	176.6	183.3	190.0	196.8	201.5
80°	110.7	117.2	123.7	130.2	136.8	143.6	151.1	158.4	165.9	173.2	178.0
82.5°	86.3	93.2	100.1	107.0	113.9	121.0	128.7	136.2	143.7	151.4	156.0
85°	53.8	61.0	68.2	75.4	82.6	89.9	97.6	105.2	112.8	120.4	125.2
87.5°	30.8	38.3	45.7	53.3	60.7	68.3	76.2	84.0	91.8	99.7	105.0
90°	17.1	26.6	36.0	45.5	55.0	64.6	74.2	83.8	93.4	102.9	109.5
92.5°	35.9	40.6	45.3	50.0	54.7	61.7	71.3	80.8	90.3	99.8	106.2
95°	93.6	98.3	103.0	107.7	112.4	112.5	107.9	103.3	98.8	94.2	100.6
97.5°	180.4	187.2	194.0	200.8	207.5	202.6	186.1	169.6	153.0	136.4	132.1
100°	247.7	253.3	258.7	264.3	269.8	276.6	284.8	293.1	301.3	309.5	267.1
102.5°	316.1	321.6	327.0	332.4	337.8	344.3	351.9	359.4	366.9	374.5	370.0
105°	425.9	430.7	435.5	440.2	444.9	450.5	457.0	463.6	470.1	476.6	481.0
107.5°	540.0	542.9	545.9	548.8	551.9	556.8	563.6	570.5	577.4	584.4	588.7
110°	614.2	616.7	619.3	622.0	624.5	629.2	635.9	642.7	649.4	656.1	659.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	684.5	687.3	690.2	693.1	695.9	700.4	706.7	713.0	719.3	725.7	728.4
115°	789.1	792.2	795.3	798.4	801.4	806.1	812.0	817.9	824.0	829.9	832.5
117.5°	897.4	898.3	899.2	900.1	901.1	904.8	911.4	917.9	924.5	931.0	933.1
120°	965.4	965.8	966.1	966.5	966.8	970.0	975.9	981.8	987.8	993.7	996.8
122.5°	1024.8	1026.3	1027.8	1029.4	1030.9	1034.3	1039.5	1044.8	1050.1	1055.4	1058.2
125°	1117.8	1119.7	1121.7	1123.7	1125.7	1128.9	1133.2	1137.6	1141.9	1146.2	1148.5
127.5°	1205.6	1206.9	1208.2	1209.7	1211.0	1213.3	1216.7	1220.1	1223.5	1226.9	1229.5
130°	1260.1	1261.4	1262.7	1264.1	1265.5	1267.8	1271.2	1274.6	1277.9	1281.3	1283.4
132.5°	1313.7	1315.5	1317.3	1319.1	1320.9	1322.6	1324.3	1325.9	1327.6	1329.3	1332.1
135°	1391.0	1392.7	1394.4	1396.0	1397.7	1399.0	1399.9	1400.8	1401.7	1402.6	1404.8
137.5°	1462.1	1463.5	1465.0	1466.4	1467.9	1468.8	1468.9	1469.0	1469.2	1469.4	1472.2
140°	1507.8	1508.4	1509.1	1509.7	1510.3	1510.6	1510.5	1510.4	1510.3	1510.2	1513.3
142.5°	1549.8	1550.0	1550.2	1550.4	1550.6	1551.0	1551.4	1551.9	1552.5	1552.9	1555.1
145°	1611.4	1611.8	1612.2	1612.6	1613.1	1613.3	1613.3	1613.3	1613.3	1613.3	1614.7
147.5°	1664.3	1664.2	1664.1	1664.0	1663.8	1664.0	1664.3	1664.7	1665.1	1665.5	1666.2
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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	996.2	997.4	998.6	999.2	999.0	998.8	998.6	998.4
5°	993.2	994.9	996.6	997.4	997.1	996.9	996.7	996.6
7.5°	984.9	986.4	987.9	988.5	988.4	988.2	987.9	987.7
10°	977.0	978.5	980.1	980.7	980.5	980.3	980.1	979.9
12.5°	967.7	968.9	970.1	970.3	969.8	969.2	968.7	968.1
15°	950.2	951.5	952.8	953.0	952.2	951.2	950.4	949.5
17.5°	927.8	928.9	929.8	930.1	929.5	929.1	928.5	928.0
20°	910.7	911.3	912.0	912.3	912.3	912.3	912.3	912.3
22.5°	893.1	893.8	894.7	894.8	894.3	893.8	893.2	892.8
25°	865.2	866.0	866.9	866.8	865.6	864.6	863.5	862.4
27.5°	832.6	833.3	833.9	834.1	833.6	833.2	832.8	832.5
30°	810.4	810.9	811.2	811.4	811.2	811.0	810.8	810.5
32.5°	789.3	789.7	790.1	790.2	790.0	789.9	789.6	789.4
35°	755.1	755.7	756.4	756.7	756.7	756.7	756.7	756.7
37.5°	719.1	719.9	720.8	721.2	721.1	721.0	721.0	720.9
40°	694.7	695.7	696.5	697.2	697.6	698.0	698.5	698.9
42.5°	672.4	673.4	674.5	675.0	675.1	675.2	675.3	675.4
45°	636.4	637.9	639.4	640.3	640.6	640.7	640.9	641.2
47.5°	599.2	601.4	603.6	605.0	605.5	606.0	606.4	606.9
50°	574.5	576.9	579.3	580.8	581.5	582.1	582.8	583.4
52.5°	549.8	552.3	554.9	556.5	556.9	557.4	557.9	558.4
55°	510.9	513.3	515.7	517.3	518.1	519.1	519.9	520.8
57.5°	472.4	475.1	477.9	479.6	480.2	480.9	481.5	482.2
60°	446.0	449.3	452.6	454.5	455.2	455.8	456.5	457.1
62.5°	419.3	422.9	426.6	428.8	429.6	430.5	431.2	432.1
65°	379.5	382.8	386.0	388.0	389.0	389.8	390.7	391.5
67.5°	338.6	342.5	346.5	349.0	350.2	351.3	352.4	353.5
70°	310.8	314.9	319.1	321.7	323.0	324.3	325.6	327.0
72.5°	284.8	289.3	293.8	296.5	297.5	298.4	299.4	300.3
75°	245.6	250.0	254.3	257.0	258.1	259.2	260.2	261.4
77.5°	206.3	211.1	215.9	218.8	219.6	220.5	221.3	222.3
80°	182.9	187.7	192.4	195.2	196.1	197.0	197.8	198.7
82.5°	160.5	165.1	169.8	172.9	174.5	176.0	177.6	179.2
85°	130.0	134.8	139.6	142.8	144.6	146.3	148.1	149.8
87.5°	110.4	115.6	120.9	124.5	126.2	127.9	129.6	131.3
90°	116.1	122.7	129.3	133.8	136.3	138.7	141.2	143.6
92.5°	112.6	119.0	125.5	129.6	131.6	133.6	135.5	137.5
95°	106.9	113.3	119.6	123.6	125.1	126.6	128.1	129.6
97.5°	127.7	123.4	119.0	117.6	119.1	120.6	122.1	123.6
100°	224.7	182.3	139.9	118.7	118.8	118.8	118.9	118.9
102.5°	365.5	361.0	356.5	344.2	324.0	304.0	283.8	263.6
105°	485.3	489.7	494.1	496.8	498.0	499.3	500.5	501.7
107.5°	593.0	597.5	601.8	604.2	604.6	605.0	605.4	605.8
110°	662.5	665.7	668.8	671.4	673.3	675.0	676.9	678.7



TEST NUMBER: P333426-830

CATALOG NUMBER: S125DIW-S850D1560U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	731.1	734.0	736.7	738.6	739.7	740.7	741.9	742.9
115°	835.2	837.8	840.6	841.6	840.9	840.4	839.8	839.2
117.5°	935.2	937.3	939.2	940.7	941.3	942.0	942.6	943.3
120°	999.8	1003.0	1006.0	1007.4	1007.1	1006.9	1006.6	1006.4
122.5°	1061.1	1064.0	1066.9	1068.1	1067.5	1067.1	1066.5	1066.0
125°	1150.7	1152.9	1155.1	1156.3	1156.4	1156.6	1156.7	1156.9
127.5°	1231.9	1234.4	1237.0	1237.7	1236.6	1235.6	1234.5	1233.4
130°	1285.4	1287.6	1289.7	1290.5	1290.0	1289.5	1289.0	1288.5
132.5°	1334.9	1337.8	1340.7	1341.7	1341.0	1340.4	1339.7	1339.1
135°	1406.9	1409.2	1411.4	1412.0	1411.3	1410.4	1409.7	1408.8
137.5°	1474.8	1477.5	1480.2	1481.1	1480.4	1479.6	1478.8	1478.1
140°	1516.3	1519.3	1522.3	1523.3	1522.3	1521.3	1520.2	1519.2
142.5°	1557.3	1559.4	1561.6	1562.2	1561.1	1560.1	1559.1	1558.1
145°	1616.1	1617.5	1618.8	1619.0	1618.1	1617.0	1616.0	1615.0
147.5°	1666.9	1667.6	1668.4	1667.8	1665.9	1664.1	1662.2	1660.3
150°	1699.6	1700.3	1700.9	1700.1	1697.8	1695.4	1693.2	1690.8
152.5°	1729.2	1729.8	1730.4	1729.6	1727.4	1725.1	1723.0	1720.7
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)