

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: P333427

Luminaire Tested: **S125DIW-S850D1560U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333427  
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: S125DIW-S850D1560U835-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8693.2 lumens  
Efficiency: N/A  
Efficacy: 127.7 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

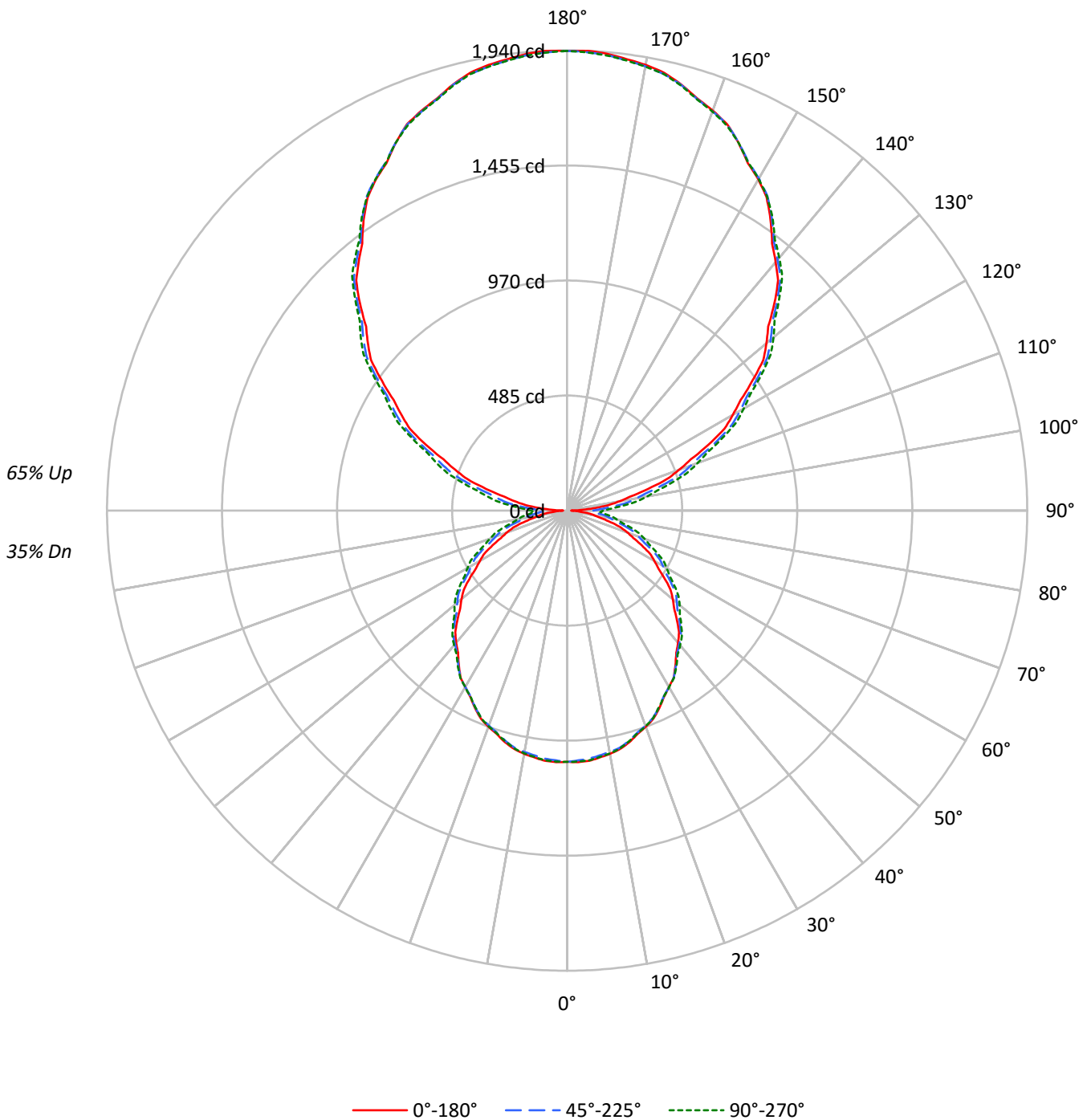
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	50	30	10	50	30	10	0		
RCR																										
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35					35			
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29					29			
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	31	29	24					24			
3	78	68	61	55	70	62	56	50	50	45	41	39	36	33	28	26	25	20					20			
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17					17			
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15					15			
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	20	18	16	13					13			
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11					11			
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	14	13	10					10			
9	47	35	28	23	43	32	26	21	26	21	18	21	17	15	16	13	11	9					9			
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8					8			

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

	0°	45°	90°
0°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.2
10°-20°	284.4	3.3
20°-30°	422.9	4.9
30°-40°	500.9	5.8
40°-50°	517.9	6.0
50°-60°	477.1	5.5
60°-70°	385.7	4.4
70°-80°	258.3	3.0
80°-90°	138.2	1.6
90°-100°	204.9	2.4
100°-110°	438.7	5.0
110°-120°	686.4	7.9
120°-130°	875.5	10.1
130°-140°	966.6	11.1
140°-150°	940.2	10.8
150°-160°	788.1	9.1
160°-170°	523.9	6.0
170°-180°	183.3	2.1
0°-30°	807.4	9.3
0°-40°	1308.3	15.1
0°-60°	2303.3	26.5
0°-90°	3085.4	35.5
90°-120°	1330.0	15.3
90°-150°	4112.4	47.3
90°-180°	5608.0	64.5
0°-180°	8693.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	18	63	109	140	152	16
95°	112	143	192	224	236	115
105°	353	378	418	446	459	377
115°	656	670	700	716	722	649
125°	953	962	983	996	1000	853
135°	1236	1244	1252	1265	1265	952
145°	1496	1501	1505	1510	1510	934
155°	1710	1710	1712	1717	1710	787
165°	1860	1857	1858	1863	1855	524
175°	1934	1928	1927	1935	1926	184
180°	1938	1938	1938	1938	1938	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.7	40.6	48.5	56.5	64.4	72.5	80.8	89.1	97.5	105.8	111.4
90°	18.1	28.2	38.3	48.3	58.4	68.5	78.7	88.9	99.1	109.3	116.3
92.5°	51.5	60.2	68.9	77.6	86.3	96.1	107.0	117.9	128.8	139.8	147.1
95°	111.5	118.2	124.9	131.5	138.2	147.1	158.3	169.5	180.7	191.9	199.4
97.5°	175.1	180.8	186.5	192.1	197.8	206.7	218.9	231.1	243.3	255.5	262.6
100°	222.6	227.4	232.3	237.1	242.0	250.2	262.0	273.7	285.5	297.2	305.1
102.5°	273.6	279.4	285.3	291.1	296.9	304.5	313.9	323.3	332.7	342.2	350.1
105°	353.2	358.6	363.9	369.3	374.7	381.8	390.8	399.7	408.6	417.6	424.2
107.5°	441.2	446.1	450.9	455.7	460.5	467.0	475.2	483.4	491.6	499.8	505.3
110°	501.9	506.4	510.8	515.3	519.7	525.7	533.2	540.6	548.1	555.6	560.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	564.7	567.8	570.9	573.9	577.0	582.4	589.9	597.5	605.0	612.6	617.2
115°	656.2	659.2	662.2	665.1	668.1	672.9	679.6	686.2	692.9	699.6	703.4
117.5°	748.1	749.8	751.4	753.1	754.8	758.7	765.0	771.3	777.6	783.9	788.1
120°	806.0	808.4	810.8	813.1	815.5	819.5	825.1	830.8	836.4	842.1	846.0
122.5°	867.9	868.9	869.8	870.7	871.6	875.1	881.1	887.1	893.1	899.1	902.6
125°	952.8	954.6	956.3	958.1	959.9	963.3	968.2	973.2	978.1	983.1	986.1
127.5°	1042.2	1043.1	1044.1	1045.0	1045.9	1048.4	1052.6	1056.8	1061.0	1065.2	1068.3
130°	1096.5	1098.0	1099.4	1100.9	1102.3	1105.0	1108.9	1112.8	1116.7	1120.6	1123.5
132.5°	1150.0	1152.7	1155.4	1158.1	1160.8	1163.3	1165.7	1168.1	1170.4	1172.8	1175.7
135°	1235.8	1237.5	1239.3	1241.1	1242.9	1244.7	1246.7	1248.6	1250.6	1252.5	1255.5
137.5°	1316.4	1318.1	1319.9	1321.7	1323.4	1325.1	1326.6	1328.1	1329.6	1331.1	1334.3
140°	1367.4	1369.1	1370.8	1372.5	1374.1	1375.6	1376.8	1378.1	1379.3	1380.5	1383.7
142.5°	1419.3	1420.5	1421.8	1423.0	1424.2	1425.5	1426.8	1428.1	1429.4	1430.8	1433.3
145°	1495.6	1496.7	1497.8	1499.0	1500.1	1501.1	1502.1	1503.1	1504.1	1505.1	1506.3
147.5°	1565.2	1565.9	1566.6	1567.4	1568.1	1568.9	1569.7	1570.5	1571.3	1572.1	1573.3
150°	1612.2	1611.9	1611.6	1611.2	1610.9	1611.4	1612.7	1614.1	1615.4	1616.8	1616.8
152.5°	1650.8	1651.3	1651.8	1652.2	1652.7	1653.2	1653.8	1654.3	1654.8	1655.4	1656.2
155°	1710.3	1710.3	1710.3	1710.3	1710.3	1710.4	1710.8	1711.1	1711.4	1711.8	1713.1
157.5°	1763.3	1762.6	1761.9	1761.1	1760.4	1760.2	1760.5	1760.9	1761.2	1761.5	1762.9
160°	1794.7	1793.7	1792.7	1791.7	1790.7	1790.4	1790.7	1791.0	1791.4	1791.7	1793.0
162.5°	1822.5	1821.7	1821.0	1820.3	1819.5	1819.2	1819.2	1819.3	1819.4	1819.4	1821.1
165°	1859.6	1858.9	1858.2	1857.6	1856.9	1856.7	1857.1	1857.4	1857.7	1858.1	1859.4
167.5°	1890.9	1889.6	1888.3	1886.9	1885.6	1884.9	1884.9	1884.9	1884.9	1884.9	1886.9
170°	1907.8	1906.5	1905.1	1903.8	1902.5	1901.8	1901.8	1901.8	1901.8	1901.8	1903.8
172.5°	1919.9	1918.6	1917.2	1915.9	1914.5	1913.9	1913.9	1913.9	1913.9	1913.9	1915.9
175°	1933.5	1932.1	1930.8	1929.4	1928.1	1927.4	1927.4	1927.4	1927.4	1927.4	1929.4
177.5°	1940.4	1939.3	1938.3	1937.2	1936.1	1935.4	1935.2	1934.9	1934.6	1934.4	1936.0
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	117.1	122.7	128.3	132.1	133.9	135.7	137.5	139.3
90°	123.3	130.2	137.2	142.0	144.7	147.3	149.9	152.5
92.5°	154.4	161.8	169.1	173.9	176.3	178.6	181.0	183.3
95°	206.8	214.2	221.6	226.5	228.8	231.1	233.3	235.6
97.5°	269.6	276.7	283.8	288.3	290.2	292.2	294.2	296.2
100°	312.9	320.8	328.7	333.6	335.7	337.7	339.8	341.8
102.5°	358.0	366.0	373.9	379.1	381.4	383.7	386.0	388.4
105°	430.8	437.5	444.1	448.7	451.3	453.9	456.6	459.2
107.5°	510.9	516.5	522.1	525.5	526.9	528.3	529.6	531.0
110°	566.3	571.7	577.1	580.5	581.7	583.0	584.3	585.6





TEST NUMBER: P333427

CATALOG NUMBER: S125DIW-S850D1560U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	621.9	626.6	631.2	634.1	635.1	636.1	637.1	638.1
115°	707.2	711.0	714.8	717.3	718.3	719.4	720.4	721.5
117.5°	792.3	796.4	800.6	802.8	803.1	803.3	803.5	803.8
120°	849.9	853.8	857.8	859.8	859.8	859.8	859.9	859.9
122.5°	906.0	909.5	913.0	914.9	915.2	915.5	915.8	916.1
125°	989.1	992.1	995.2	997.1	997.9	998.7	999.5	1000.4
127.5°	1071.3	1074.4	1077.5	1079.4	1080.0	1080.7	1081.4	1082.0
130°	1126.4	1129.3	1132.2	1133.9	1134.3	1134.8	1135.3	1135.8
132.5°	1178.6	1181.5	1184.4	1185.8	1185.8	1185.9	1185.9	1185.9
135°	1258.5	1261.5	1264.5	1266.0	1265.8	1265.6	1265.4	1265.2
137.5°	1337.4	1340.5	1343.7	1344.8	1344.1	1343.3	1342.6	1341.8
140°	1387.0	1390.2	1393.4	1394.6	1393.8	1393.1	1392.3	1391.6
142.5°	1435.9	1438.5	1441.0	1442.0	1441.2	1440.4	1439.7	1438.9
145°	1507.5	1508.6	1509.8	1510.3	1510.2	1510.1	1510.1	1510.0
147.5°	1574.5	1575.6	1576.8	1576.5	1574.6	1572.7	1570.9	1569.0
150°	1616.8	1616.8	1616.8	1616.5	1616.1	1615.7	1615.2	1614.8
152.5°	1657.0	1657.8	1658.6	1658.4	1657.2	1656.1	1654.9	1653.8
155°	1714.4	1715.8	1717.1	1717.0	1715.3	1713.6	1711.9	1710.3
157.5°	1764.2	1765.6	1766.9	1766.5	1764.2	1762.0	1759.8	1757.6
160°	1794.4	1795.7	1797.1	1796.9	1795.2	1793.5	1791.9	1790.2
162.5°	1822.7	1824.3	1825.9	1825.7	1823.8	1821.8	1819.9	1817.9
165°	1860.7	1862.1	1863.4	1863.1	1861.1	1859.1	1857.1	1855.0
167.5°	1888.9	1890.9	1892.9	1892.9	1890.8	1888.8	1886.7	1884.6
170°	1905.8	1907.8	1909.8	1909.7	1907.3	1905.0	1902.6	1900.3
172.5°	1917.9	1919.9	1921.9	1921.9	1919.8	1917.7	1915.6	1913.6
175°	1931.5	1933.5	1935.5	1935.3	1933.0	1930.6	1928.3	1925.9
177.5°	1937.6	1939.2	1940.8	1940.7	1938.8	1936.9	1935.0	1933.2
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0

(END OF REPORT)