

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: P333399

Luminaire Tested: **S125DIW-S610D1560U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333399
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-S610D1560U835-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH 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: 7911.1 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

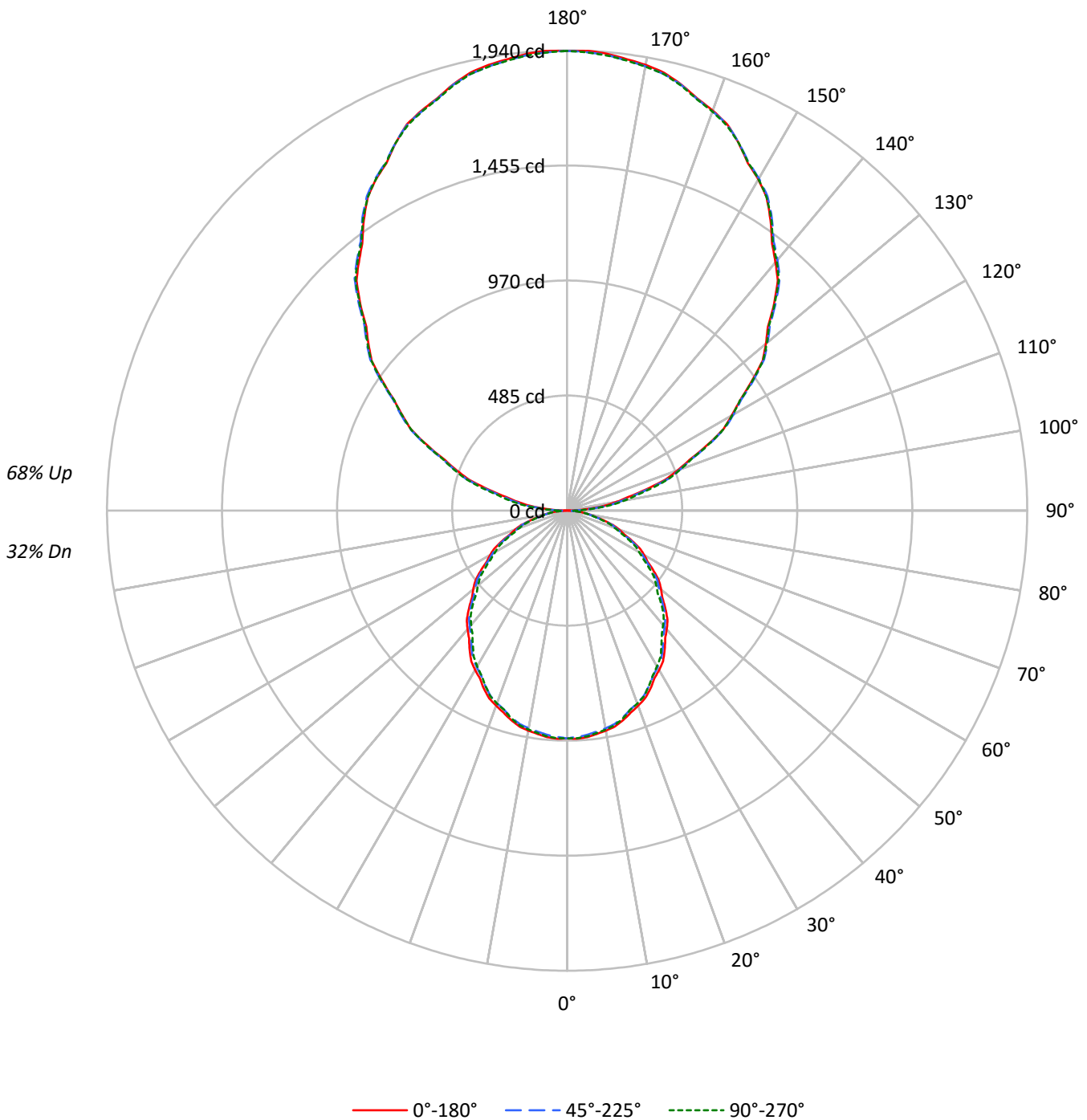
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	32
1	94	89	86	82	84	81	77	74	64	62	60	49	47	46	35	34	33	27
2	85	78	72	67	76	70	65	61	56	52	49	43	40	38	30	29	28	22
3	78	68	61	56	70	62	56	51	49	45	41	38	35	32	27	25	24	19
4	71	60	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20	16
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18	14
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	15	12
7	55	43	36	30	49	39	33	28	32	27	23	25	21	18	18	16	14	11
8	51	39	32	27	46	36	29	24	29	24	20	22	19	16	16	14	12	10
9	48	36	28	23	43	32	26	22	26	21	18	21	17	15	15	13	11	9
10	44	33	26	21	40	30	24	19	24	19	16	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6203	6203	6203
5°	6217	6157	6196
10°	6178	6114	6149
15°	6111	6040	6066
20°	6016	5937	5948
25°	5912	5815	5810
30°	5785	5683	5655
35°	5649	5541	5463
40°	5509	5387	5311
45°	5358	5246	5142
50°	5191	5077	4924
55°	5031	4884	4748
60°	4839	4691	4525
65°	4609	4459	4308
70°	4390	4190	4047
75°	4000	3868	3735
80°	3559	3503	3418
85°	3097	3149	2986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	1.1
10°-20°	255.8	3.2
20°-30°	377.7	4.8
30°-40°	440.7	5.6
40°-50°	442.6	5.6
50°-60°	388.5	4.9
60°-70°	289.5	3.7
70°-80°	165.5	2.1
80°-90°	52.4	0.7
90°-100°	129.8	1.6
100°-110°	383.3	4.8
110°-120°	649.2	8.2
120°-130°	854.4	10.8
130°-140°	957.4	12.1
140°-150°	938.3	11.9
150°-160°	788.1	10.0
160°-170°	523.9	6.6
170°-180°	183.3	2.3
0°-30°	724.0	9.2
0°-40°	1164.7	14.7
0°-60°	1995.9	25.2
0°-90°	2503.3	31.6
90°-120°	1162.3	14.7
90°-150°	3912.5	49.5
90°-180°	5408.0	68.4
0°-180°	7911.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	957	950	956	956	91
15°	914	911	903	907	907	257
25°	830	826	816	817	815	382
35°	716	713	703	699	693	448
45°	587	583	574	566	563	452
55°	447	444	434	427	422	399
65°	302	300	292	285	282	299
75°	160	159	155	153	150	171
85°	42	42	42	42	40	47
90°	2	13	24	32	36	8
95°	98	102	116	126	130	105
105°	344	352	360	369	374	367
115°	650	656	659	658	656	643
125°	949	957	959	956	955	849
135°	1234	1242	1244	1244	1238	951
145°	1495	1501	1505	1505	1501	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°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	962.8	962.4	962.0	961.6	961.2	960.3	959.0	957.6	956.3	954.9	956.3
5°	958.9	958.5	958.2	957.8	957.5	956.5	954.8	953.1	951.4	949.7	951.3
7.5°	950.0	949.7	949.4	949.0	948.7	947.6	945.7	943.9	942.0	940.2	941.6
10°	942.1	941.8	941.5	941.1	940.8	939.7	937.8	936.0	934.1	932.3	933.6
12.5°	932.4	931.8	931.2	930.6	930.0	928.8	927.1	925.4	923.6	921.9	923.0
15°	914.0	913.5	913.0	912.5	912.0	910.8	909.0	907.1	905.2	903.4	904.2
17.5°	892.9	892.2	891.4	890.7	889.9	888.6	886.7	884.7	882.8	880.9	881.9
20°	875.3	874.9	874.6	874.3	873.9	872.7	870.5	868.3	866.1	863.9	865.1
22.5°	857.6	857.0	856.4	855.8	855.2	853.9	851.8	849.8	847.7	845.6	846.4
25°	829.7	828.8	828.0	827.2	826.3	824.8	822.6	820.4	818.2	816.0	816.4
27.5°	797.0	796.5	796.0	795.5	795.0	793.6	791.3	789.1	786.8	784.6	784.6
30°	775.7	775.2	774.7	774.2	773.7	772.2	769.7	767.1	764.6	762.1	761.7
32.5°	752.6	751.9	751.1	750.3	749.5	748.0	745.8	743.5	741.2	739.0	738.4
35°	716.5	715.8	715.1	714.5	713.8	712.3	709.9	707.5	705.2	702.8	702.0
37.5°	678.9	678.1	677.3	676.4	675.6	674.0	671.8	669.6	667.3	665.1	663.9
40°	653.4	652.6	651.7	650.9	650.0	648.4	646.1	643.7	641.3	639.0	637.5
42.5°	626.1	625.4	624.6	623.9	623.2	621.7	619.3	617.0	614.6	612.2	610.9
45°	586.6	585.9	585.2	584.5	583.9	582.5	580.5	578.5	576.4	574.4	572.4
47.5°	544.0	544.0	544.1	544.1	544.1	542.9	540.5	538.1	535.7	533.2	531.2
50°	516.7	516.1	515.6	515.1	514.6	513.4	511.3	509.3	507.3	505.3	503.1
52.5°	488.7	488.3	488.0	487.6	487.2	485.9	483.8	481.6	479.5	477.3	475.4
55°	446.8	446.2	445.7	445.2	444.7	443.3	440.9	438.6	436.2	433.8	432.3
57.5°	402.5	402.3	402.0	401.7	401.5	400.3	398.3	396.3	394.3	392.4	390.4
60°	374.6	373.9	373.2	372.5	371.9	370.6	368.8	366.9	365.0	363.2	361.5
62.5°	345.4	344.9	344.3	343.8	343.2	342.2	340.6	339.0	337.4	335.8	334.0
65°	301.6	301.3	301.0	300.6	300.3	299.2	297.3	295.5	293.6	291.8	290.2
67.5°	259.2	258.5	257.8	257.1	256.4	255.4	254.0	252.6	251.2	249.8	248.5
70°	232.5	231.7	230.8	230.0	229.1	227.9	226.4	224.9	223.4	221.9	220.8
72.5°	203.3	202.7	202.2	201.6	201.0	200.2	199.3	198.3	197.3	196.3	195.2
75°	160.3	160.0	159.6	159.3	159.0	158.4	157.5	156.7	155.8	155.0	154.5
77.5°	120.7	120.5	120.4	120.2	120.1	119.8	119.3	118.9	118.4	117.9	117.6
80°	95.7	95.7	95.7	95.7	95.7	95.6	95.2	94.9	94.6	94.2	94.0
82.5°	73.9	73.6	73.3	73.0	72.8	72.6	72.5	72.5	72.4	72.3	72.0
85°	41.8	42.0	42.1	42.3	42.5	42.5	42.5	42.5	42.5	42.5	42.4
87.5°	16.7	17.2	17.8	18.3	18.9	19.3	19.6	20.0	20.3	20.6	21.0
90°	1.5	4.2	6.9	9.6	12.2	14.7	17.1	19.4	21.8	24.1	25.8
92.5°	36.5	38.4	40.3	42.1	44.0	46.4	49.3	52.1	55.0	57.9	60.1
95°	98.0	98.7	99.4	100.0	100.7	102.7	106.1	109.4	112.8	116.1	118.5
97.5°	162.9	163.1	163.4	163.7	164.0	166.4	171.0	175.7	180.3	184.9	187.1
100°	211.1	211.1	211.1	211.1	211.1	213.3	217.7	222.0	226.4	230.7	233.8
102.5°	263.0	264.4	265.7	267.0	268.4	270.2	272.4	274.6	276.8	279.0	282.3
105°	343.9	345.5	347.2	348.9	350.6	352.4	354.4	356.4	358.4	360.5	362.5
107.5°	433.1	434.8	436.5	438.2	439.8	441.5	443.0	444.5	446.1	447.6	448.6
110°	494.7	496.4	498.0	499.7	501.4	502.7	503.7	504.7	505.7	506.7	507.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	557.4	558.3	559.2	560.0	560.9	562.0	563.2	564.5	565.8	567.1	567.5
115°	650.0	651.4	652.7	654.0	655.4	656.4	657.1	657.7	658.4	659.1	658.7
117.5°	742.9	743.5	744.1	744.7	745.3	745.9	746.5	747.1	747.7	748.4	748.6
120°	800.8	802.5	804.2	805.9	807.5	808.5	808.9	809.2	809.5	809.9	809.9
122.5°	863.6	864.2	864.8	865.4	866.0	866.7	867.6	868.5	869.3	870.2	869.9
125°	948.6	950.6	952.7	954.7	956.7	957.9	958.2	958.5	958.9	959.2	958.5
127.5°	1039.1	1040.3	1041.4	1042.5	1043.7	1044.5	1044.9	1045.3	1045.7	1046.1	1045.7
130°	1093.4	1095.1	1096.8	1098.4	1100.1	1101.3	1102.0	1102.6	1103.3	1104.0	1103.6
132.5°	1147.7	1150.5	1153.2	1156.0	1158.7	1160.0	1159.9	1159.7	1159.6	1159.5	1159.1
135°	1233.7	1235.7	1237.7	1239.7	1241.7	1242.9	1243.2	1243.6	1243.9	1244.2	1244.2
137.5°	1314.5	1316.5	1318.4	1320.3	1322.3	1323.6	1324.4	1325.1	1325.8	1326.6	1327.0
140°	1366.4	1368.1	1369.7	1371.4	1373.1	1374.4	1375.4	1376.5	1377.5	1378.5	1379.1
142.5°	1418.3	1419.7	1421.1	1422.5	1423.9	1425.2	1426.5	1427.8	1429.1	1430.3	1430.7
145°	1494.6	1495.9	1497.3	1498.6	1500.0	1501.1	1502.1	1503.1	1504.1	1505.1	1505.1
147.5°	1565.2	1565.9	1566.6	1567.4	1568.1	1568.9	1569.7	1570.5	1571.3	1572.1	1572.9
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°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	957.6	959.0	960.3	960.9	960.8	960.6	960.5	960.4
5°	952.8	954.3	955.8	956.5	956.3	956.2	956.0	955.8
7.5°	943.1	944.6	946.1	946.8	946.6	946.4	946.3	946.1
10°	935.0	936.3	937.7	938.3	938.1	937.9	937.7	937.6
12.5°	924.1	925.2	926.2	926.8	926.7	926.7	926.7	926.6
15°	905.1	905.9	906.8	907.2	907.2	907.2	907.2	907.2
17.5°	883.0	884.0	885.1	885.2	884.3	883.5	882.7	881.8
20°	866.2	867.4	868.6	868.8	867.9	867.1	866.2	865.4
22.5°	847.2	848.0	848.8	848.9	848.3	847.7	847.1	846.6
25°	816.7	817.0	817.4	817.3	816.8	816.3	815.8	815.3
27.5°	784.7	784.8	784.8	784.6	784.1	783.6	783.1	782.6
30°	761.4	761.1	760.7	760.3	759.8	759.3	758.8	758.3
32.5°	737.8	737.1	736.5	735.8	734.9	734.0	733.0	732.1
35°	701.1	700.3	699.4	698.3	697.0	695.6	694.3	692.9
37.5°	662.6	661.4	660.1	659.1	658.3	657.6	656.8	656.0
40°	635.9	634.4	632.9	631.9	631.4	630.9	630.4	629.9
42.5°	609.5	608.1	606.7	605.6	604.8	604.1	603.3	602.5
45°	570.3	568.3	566.3	565.0	564.5	564.0	563.5	563.0
47.5°	529.1	527.0	525.0	523.4	522.2	521.0	519.8	518.6
50°	500.9	498.7	496.5	494.8	493.6	492.4	491.2	490.1
52.5°	473.4	471.5	469.6	468.0	466.7	465.3	464.0	462.7
55°	430.8	429.3	427.8	426.4	425.2	424.0	422.9	421.7
57.5°	388.4	386.5	384.5	383.2	382.6	381.9	381.3	380.7
60°	359.8	358.1	356.4	355.0	353.8	352.6	351.4	350.3
62.5°	332.2	330.4	328.5	327.2	326.3	325.3	324.4	323.5
65°	288.7	287.2	285.7	284.6	283.9	283.2	282.6	281.9
67.5°	247.3	246.0	244.7	243.8	243.4	243.0	242.6	242.2
70°	219.8	218.8	217.8	217.0	216.3	215.6	214.9	214.3
72.5°	194.0	192.9	191.7	190.8	190.1	189.5	188.8	188.1
75°	154.0	153.5	153.0	152.4	151.7	151.0	150.4	149.7
77.5°	117.3	117.0	116.7	116.3	115.8	115.4	114.9	114.4
80°	93.9	93.7	93.5	93.3	92.9	92.6	92.3	91.9
82.5°	71.7	71.4	71.1	70.9	70.9	70.8	70.7	70.7
85°	42.2	42.0	41.9	41.6	41.3	40.9	40.6	40.3
87.5°	21.3	21.6	22.0	22.1	22.0	22.0	21.9	21.8
90°	27.5	29.2	30.8	32.2	33.2	34.2	35.2	36.2
92.5°	62.3	64.5	66.8	68.2	69.0	69.7	70.4	71.2
95°	120.8	123.2	125.5	127.0	127.7	128.4	129.0	129.7
97.5°	189.3	191.5	193.7	195.1	195.5	195.9	196.3	196.7
100°	236.8	239.8	242.8	244.7	245.3	246.0	246.7	247.3
102.5°	285.6	288.9	292.1	294.3	295.2	296.1	297.1	298.0
105°	364.5	366.5	368.5	370.0	371.0	372.0	373.0	374.0
107.5°	449.6	450.6	451.6	452.1	452.0	452.0	451.9	451.8
110°	508.8	509.8	510.8	511.1	510.8	510.4	510.1	509.8



TEST NUMBER: P333399

CATALOG NUMBER: S125DIW-S610D1560U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	568.0	568.5	568.9	568.9	568.3	567.7	567.1	566.5
115°	658.4	658.1	657.7	657.4	657.1	656.7	656.4	656.1
117.5°	748.9	749.2	749.4	748.9	747.5	746.2	744.9	743.5
120°	809.9	809.9	809.9	809.2	807.9	806.5	805.2	803.9
122.5°	869.7	869.4	869.1	868.5	867.4	866.3	865.2	864.2
125°	957.9	957.2	956.5	956.0	955.7	955.3	955.0	954.7
127.5°	1045.4	1045.1	1044.7	1044.2	1043.5	1042.9	1042.2	1041.5
130°	1103.3	1103.0	1102.6	1102.1	1101.5	1100.8	1100.1	1099.5
132.5°	1158.8	1158.5	1158.1	1157.5	1156.6	1155.6	1154.7	1153.7
135°	1244.2	1244.2	1244.2	1243.6	1242.2	1240.9	1239.5	1238.2
137.5°	1327.4	1327.8	1328.2	1327.6	1325.9	1324.2	1322.5	1320.8
140°	1379.8	1380.5	1381.1	1380.6	1379.0	1377.3	1375.6	1373.9
142.5°	1431.1	1431.5	1432.0	1431.3	1429.6	1428.0	1426.3	1424.6
145°	1505.1	1505.1	1505.1	1504.6	1503.6	1502.6	1501.6	1500.6
147.5°	1573.7	1574.5	1575.3	1574.6	1572.3	1570.0	1567.8	1565.5
150°	1616.8	1616.8	1616.8	1616.4	1615.7	1615.1	1614.4	1613.7
152.5°	1657.0	1657.8	1658.6	1658.4	1657.2	1656.0	1654.8	1653.6
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)