

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: P333428-930

Luminaire Tested: **S125DIW-S850D1560U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333428-930
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-S850D1560U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7872.7 lumens
Efficiency: N/A
Efficacy: 115.6 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

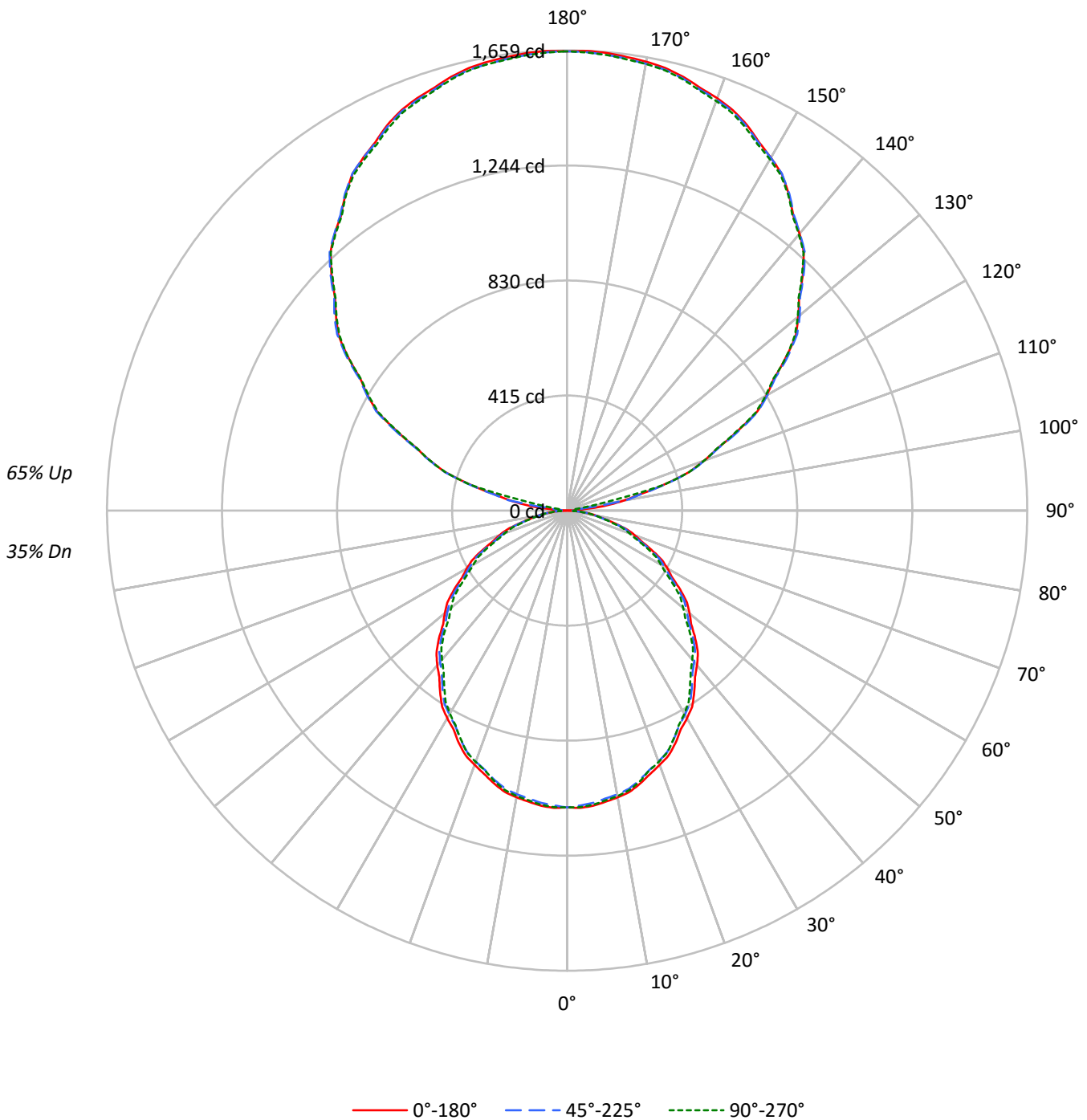
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	90	86	83	85	82	78	76	66	64	62	51	50	48	38	37	36	30
2	86	79	73	68	77	71	66	62	58	54	51	45	42	40	33	32	30	25
3	78	69	62	56	71	63	57	52	51	46	43	40	37	34	29	27	26	21
4	72	61	53	47	64	56	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	43	37	40	35	31	32	28	25	24	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	28	33	28	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	22	18	15	16	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	1.3
10°-20°	285.1	3.6
20°-30°	420.9	5.3
30°-40°	491.1	6.2
40°-50°	493.3	6.3
50°-60°	433.0	5.5
60°-70°	322.6	4.1
70°-80°	184.5	2.3
80°-90°	57.1	0.7
90°-100°	60.2	0.8
100°-110°	370.8	4.7
110°-120°	672.5	8.5
120°-130°	863.1	11.0
130°-140°	928.3	11.8
140°-150°	871.4	11.1
150°-160°	704.9	9.0
160°-170°	455.9	5.8
170°-180°	157.2	2.0
0°-30°	806.9	10.2
0°-40°	1298.0	16.5
0°-60°	2224.3	28.3
0°-90°	2788.5	35.4
90°-120°	1103.5	14.0
90°-150°	3766.2	47.8
90°-180°	5084.0	64.6
0°-180°	7872.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	1	11	20	26	29	5
95°	70	64	20	25	26	89
105°	361	365	366	366	364	383
115°	678	683	685	680	672	671
125°	963	972	972	967	963	860
135°	1202	1208	1206	1204	1197	926
145°	1393	1395	1396	1396	1389	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.5	19.0	19.4	19.8	20.3	20.6	20.9	21.1	21.3	21.5	21.9
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.8	17.7	19.6	21.0
92.5°	18.9	17.4	15.8	14.3	12.8	12.9	14.6	16.2	17.9	19.6	21.0
95°	70.0	69.1	68.3	67.5	66.7	61.1	50.7	40.4	30.0	19.6	21.0
97.5°	146.0	147.5	149.0	150.5	152.0	142.4	121.9	101.4	80.9	60.4	52.7
100°	205.0	205.8	206.6	207.4	208.2	209.2	210.3	211.4	212.5	213.5	172.9
102.5°	264.9	265.9	266.9	268.0	269.0	269.9	270.5	271.2	271.8	272.5	264.8
105°	360.9	361.9	363.1	364.1	365.2	365.7	365.7	365.7	365.7	365.7	365.7
107.5°	460.5	460.5	460.5	460.5	460.5	460.7	461.3	461.9	462.4	462.9	463.0
110°	525.3	525.3	525.3	525.3	525.3	525.5	526.1	526.7	527.2	527.7	526.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	586.2	586.9	587.5	588.2	588.8	589.3	589.6	590.0	590.3	590.6	589.5
115°	677.5	678.8	680.2	681.6	682.9	683.7	684.0	684.3	684.6	684.9	683.7
117.5°	772.0	771.9	771.8	771.8	771.8	772.3	773.3	774.3	775.3	776.4	774.9
120°	830.9	830.6	830.4	830.1	829.8	830.1	830.9	831.7	832.5	833.3	832.8
122.5°	883.0	883.9	885.0	886.1	887.0	887.8	888.2	888.5	888.9	889.3	888.8
125°	963.4	965.3	967.3	969.1	971.1	972.0	972.0	972.0	972.0	972.0	970.9
127.5°	1040.2	1041.6	1043.0	1044.4	1045.7	1046.4	1046.2	1046.0	1045.9	1045.7	1045.1
130°	1087.4	1088.8	1090.1	1091.5	1092.8	1093.6	1094.0	1094.2	1094.5	1094.8	1094.0
132.5°	1134.5	1136.1	1137.7	1139.3	1140.8	1141.3	1140.8	1140.1	1139.5	1139.0	1138.8
135°	1201.5	1203.1	1204.8	1206.5	1208.1	1208.6	1208.1	1207.5	1207.0	1206.5	1205.9
137.5°	1263.1	1264.5	1266.0	1267.4	1268.9	1269.3	1268.8	1268.3	1267.8	1267.3	1267.5
140°	1303.4	1304.0	1304.5	1305.0	1305.6	1305.7	1305.5	1305.2	1304.9	1304.6	1305.2
142.5°	1339.7	1340.0	1340.4	1340.7	1341.0	1341.4	1341.8	1342.1	1342.6	1343.0	1343.0
145°	1393.0	1393.5	1394.1	1394.7	1395.2	1395.5	1395.5	1395.5	1395.5	1395.5	1395.7
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.0
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	22.1	22.3	22.7	22.7	22.6	22.4	22.3	22.2
90°	22.3	23.7	25.1	26.2	27.0	27.8	28.6	29.4
92.5°	22.3	23.7	25.1	25.9	26.3	26.7	27.1	27.5
95°	22.3	23.7	25.1	25.8	25.8	25.8	25.8	25.8
97.5°	45.0	37.3	29.6	25.8	25.8	25.8	25.8	25.8
100°	132.2	91.6	51.0	30.2	29.0	28.0	26.9	25.8
102.5°	257.1	249.4	241.7	228.6	210.0	191.5	172.9	154.4
105°	365.7	365.7	365.7	365.6	365.3	365.1	364.8	364.5
107.5°	463.1	463.1	463.2	462.8	461.9	461.1	460.3	459.5
110°	526.1	525.3	524.5	524.2	524.5	524.7	525.1	525.3



TEST NUMBER: P333428-930

CATALOG NUMBER: S125DIW-S850D1560U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	588.5	587.5	586.4	585.7	585.4	585.0	584.6	584.2
115°	682.7	681.6	680.4	679.1	677.5	675.8	674.2	672.5
117.5°	773.6	772.2	770.7	769.6	769.0	768.3	767.5	766.8
120°	832.3	831.7	831.2	830.2	828.8	827.4	826.1	824.8
122.5°	888.2	887.7	887.1	886.1	884.5	882.9	881.3	879.7
125°	969.9	968.7	967.7	966.7	965.9	965.1	964.3	963.4
127.5°	1044.5	1043.9	1043.3	1042.0	1039.9	1038.0	1035.9	1033.9
130°	1093.2	1092.3	1091.5	1090.4	1089.1	1087.7	1086.3	1084.9
132.5°	1138.6	1138.5	1138.3	1137.5	1136.2	1134.8	1133.4	1132.0
135°	1205.3	1204.8	1204.3	1203.1	1201.5	1199.9	1198.2	1196.6
137.5°	1267.5	1267.6	1267.8	1267.1	1265.7	1264.3	1262.8	1261.4
140°	1305.7	1306.3	1306.8	1306.3	1304.6	1303.0	1301.4	1299.8
142.5°	1343.1	1343.3	1343.4	1342.6	1340.9	1339.3	1337.7	1336.0
145°	1396.0	1396.3	1396.5	1395.9	1394.2	1392.6	1391.0	1389.4
147.5°	1441.3	1441.6	1441.9	1441.1	1439.2	1437.2	1435.3	1433.3
150°	1470.1	1470.7	1471.3	1470.5	1468.3	1466.1	1464.0	1461.8
152.5°	1495.7	1496.2	1496.8	1496.1	1494.1	1492.2	1490.2	1488.2
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)