

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

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333428
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-S850D1560U835-4F0-1E-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: 9656.2 lumens
Efficiency: N/A
Efficacy: 141.8 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

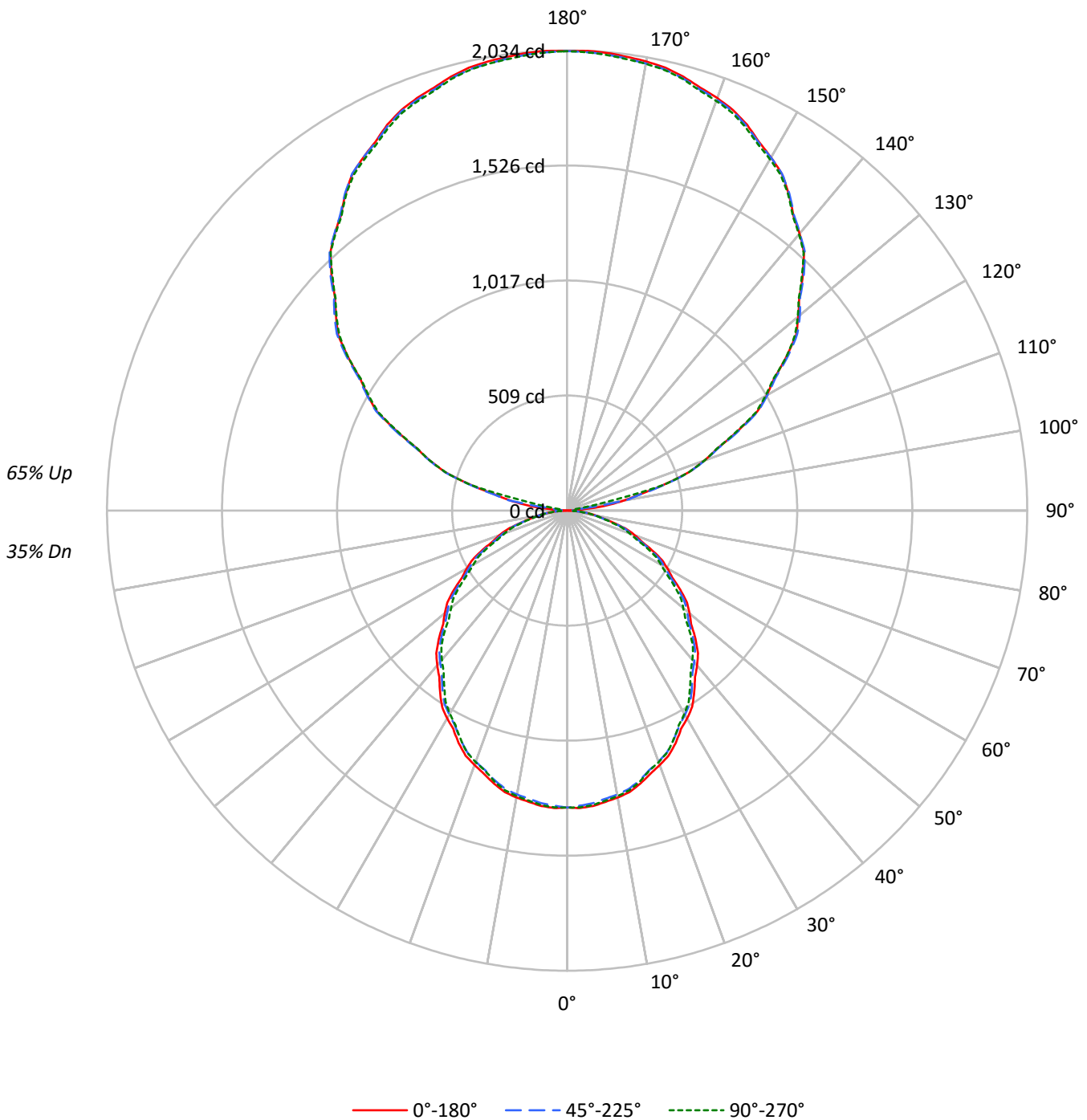
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8478	8478	8478
5°	8497	8416	8470
10°	8445	8357	8405
15°	8354	8256	8291
20°	8223	8115	8130
25°	8082	7948	7941
30°	7908	7768	7730
35°	7722	7574	7468
40°	7530	7363	7259
45°	7323	7172	7029
50°	7095	6939	6731
55°	6876	6677	6490
60°	6613	6412	6185
65°	6301	6094	5888
70°	6001	5727	5531
75°	5467	5288	5105
80°	4868	4790	4675
85°	4231	4313	4076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	1.3
10°-20°	349.6	3.6
20°-30°	516.2	5.3
30°-40°	602.4	6.2
40°-50°	605.0	6.3
50°-60°	531.1	5.5
60°-70°	395.7	4.1
70°-80°	226.3	2.3
80°-90°	70.1	0.7
90°-100°	73.8	0.8
100°-110°	454.8	4.7
110°-120°	824.9	8.5
120°-130°	1058.6	11.0
130°-140°	1138.6	11.8
140°-150°	1068.8	11.1
150°-160°	864.5	9.0
160°-170°	559.1	5.8
170°-180°	192.9	2.0
0°-30°	989.7	10.2
0°-40°	1592.1	16.5
0°-60°	2728.2	28.3
0°-90°	3420.2	35.4
90°-120°	1353.5	14.0
90°-150°	4619.5	47.8
90°-180°	6236.0	64.6
0°-180°	9656.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1313	1313	1313	1313	1313	
5°	1311	1308	1298	1307	1306	124
15°	1249	1246	1235	1240	1240	352
25°	1134	1128	1115	1117	1114	522
35°	979	975	961	955	947	612
45°	802	797	785	773	770	618
55°	611	607	593	584	576	545
65°	412	410	399	390	385	409
75°	219	217	212	209	205	234
85°	57	58	58	57	55	64
90°	2	13	24	31	36	7
95°	86	78	24	31	32	109
105°	443	448	449	448	447	469
115°	831	838	840	834	825	823
125°	1182	1192	1192	1186	1182	1055
135°	1474	1482	1480	1476	1468	1136
145°	1709	1711	1712	1712	1704	1068
155°	1882	1873	1876	1879	1868	867
165°	1986	1977	1978	1986	1975	561
175°	2031	2022	2023	2034	2022	193
180°	2031	2031	2031	2031	2031	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1316.1	1315.5	1315.0	1314.4	1313.8	1312.6	1310.8	1309.0	1307.1	1305.3	1307.1
5°	1310.7	1310.2	1309.7	1309.3	1308.8	1307.4	1305.1	1302.8	1300.5	1298.2	1300.3
7.5°	1298.6	1298.2	1297.7	1297.2	1296.8	1295.3	1292.7	1290.2	1287.7	1285.1	1287.1
10°	1287.8	1287.4	1286.9	1286.4	1286.0	1284.5	1281.9	1279.4	1276.9	1274.3	1276.2
12.5°	1274.5	1273.7	1272.9	1272.0	1271.2	1269.6	1267.3	1264.9	1262.5	1260.2	1261.7
15°	1249.4	1248.7	1248.0	1247.3	1246.6	1245.0	1242.5	1239.9	1237.4	1234.8	1236.0
17.5°	1220.5	1219.5	1218.5	1217.5	1216.5	1214.6	1212.0	1209.4	1206.7	1204.1	1205.5
20°	1196.4	1196.0	1195.5	1195.0	1194.6	1192.8	1189.8	1186.8	1183.8	1180.8	1182.5
22.5°	1172.3	1171.5	1170.7	1169.8	1169.0	1167.2	1164.4	1161.5	1158.7	1155.9	1157.0
25°	1134.1	1133.0	1131.8	1130.6	1129.5	1127.4	1124.4	1121.4	1118.4	1115.4	1115.9
27.5°	1089.4	1088.8	1088.1	1087.4	1086.7	1084.8	1081.7	1078.6	1075.5	1072.4	1072.5
30°	1060.4	1059.7	1059.0	1058.3	1057.6	1055.5	1052.1	1048.6	1045.1	1041.7	1041.2
32.5°	1028.8	1027.7	1026.7	1025.6	1024.6	1022.5	1019.4	1016.3	1013.2	1010.1	1009.3
35°	979.4	978.4	977.5	976.6	975.7	973.6	970.4	967.1	963.9	960.7	959.5
37.5°	928.1	926.9	925.7	924.6	923.4	921.3	918.3	915.2	912.2	909.2	907.4
40°	893.2	892.0	890.9	889.7	888.5	886.4	883.1	879.9	876.7	873.4	871.4
42.5°	855.8	854.8	853.8	852.9	851.9	849.8	846.6	843.3	840.1	836.9	835.0
45°	801.8	800.8	799.9	799.0	798.1	796.2	793.5	790.7	787.9	785.2	782.4
47.5°	743.6	743.7	743.7	743.7	743.8	742.2	738.8	735.5	732.2	728.9	726.0
50°	706.2	705.5	704.8	704.1	703.5	701.7	699.0	696.2	693.4	690.6	687.6
52.5°	668.0	667.5	667.0	666.5	666.0	664.2	661.3	658.3	655.4	652.4	649.8
55°	610.7	610.0	609.3	608.6	607.9	605.9	602.7	599.5	596.2	593.0	590.9
57.5°	550.2	549.9	549.5	549.1	548.8	547.2	544.5	541.8	539.0	536.3	533.6
60°	512.0	511.1	510.2	509.2	508.3	506.6	504.0	501.5	499.0	496.4	494.1
62.5°	472.1	471.4	470.7	469.9	469.2	467.7	465.6	463.4	461.2	459.0	456.6
65°	412.3	411.8	411.4	410.9	410.5	409.0	406.4	403.9	401.3	398.8	396.7
67.5°	354.4	353.4	352.4	351.4	350.5	349.0	347.2	345.3	343.4	341.5	339.7
70°	317.8	316.6	315.5	314.3	313.2	311.6	309.5	307.4	305.3	303.3	301.9
72.5°	277.9	277.1	276.3	275.6	274.8	273.7	272.4	271.0	269.7	268.4	266.8
75°	219.1	218.7	218.2	217.8	217.3	216.5	215.3	214.2	213.0	211.9	211.2
77.5°	164.9	164.7	164.6	164.4	164.2	163.8	163.1	162.5	161.8	161.2	160.8
80°	130.9	130.9	130.9	130.9	130.9	130.6	130.2	129.7	129.2	128.8	128.6
82.5°	100.9	100.6	100.2	99.8	99.5	99.2	99.1	99.1	99.0	98.9	98.5
85°	57.1	57.4	57.6	57.8	58.0	58.2	58.2	58.2	58.2	58.2	57.9
87.5°	22.7	23.3	23.8	24.3	24.9	25.3	25.6	25.9	26.1	26.4	26.8
90°	1.5	4.2	6.9	9.5	12.2	14.7	17.1	19.4	21.7	24.1	25.8
92.5°	23.2	21.3	19.4	17.6	15.7	15.8	17.9	19.9	22.0	24.1	25.8
95°	85.8	84.8	83.8	82.8	81.8	74.9	62.2	49.5	36.8	24.1	25.8
97.5°	179.1	180.9	182.7	184.6	186.4	174.7	149.5	124.4	99.2	74.1	64.6
100°	251.4	252.4	253.4	254.4	255.4	256.6	257.9	259.3	260.6	261.9	212.1
102.5°	324.9	326.1	327.4	328.7	329.9	331.0	331.8	332.6	333.4	334.2	324.8
105°	442.6	443.9	445.3	446.6	447.9	448.6	448.6	448.6	448.6	448.6	448.6
107.5°	564.8	564.8	564.8	564.8	564.8	565.1	565.8	566.5	567.2	567.8	567.9
110°	644.3	644.3	644.3	644.3	644.3	644.6	645.3	646.0	646.6	647.3	646.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	719.0	719.8	720.6	721.4	722.2	722.8	723.2	723.6	724.0	724.4	723.1
115°	831.0	832.6	834.3	836.0	837.6	838.6	839.0	839.3	839.7	840.0	838.6
117.5°	946.9	946.8	946.7	946.7	946.6	947.2	948.5	949.7	951.0	952.3	950.5
120°	1019.1	1018.8	1018.5	1018.1	1017.8	1018.1	1019.1	1020.1	1021.1	1022.1	1021.5
122.5°	1083.0	1084.2	1085.5	1086.8	1088.0	1088.9	1089.4	1089.8	1090.3	1090.8	1090.1
125°	1181.7	1184.0	1186.4	1188.7	1191.1	1192.2	1192.2	1192.2	1192.2	1192.2	1190.9
127.5°	1275.9	1277.6	1279.3	1281.0	1282.6	1283.4	1283.2	1283.0	1282.8	1282.6	1281.8
130°	1333.7	1335.4	1337.1	1338.8	1340.4	1341.4	1341.8	1342.1	1342.4	1342.8	1341.8
132.5°	1391.5	1393.5	1395.4	1397.4	1399.3	1399.9	1399.2	1398.4	1397.7	1397.0	1396.8
135°	1473.7	1475.7	1477.8	1479.8	1481.8	1482.4	1481.8	1481.1	1480.4	1479.8	1479.1
137.5°	1549.3	1551.0	1552.8	1554.5	1556.3	1556.8	1556.2	1555.6	1555.0	1554.4	1554.6
140°	1598.7	1599.4	1600.0	1600.7	1601.4	1601.5	1601.2	1600.9	1600.5	1600.2	1600.9
142.5°	1643.2	1643.6	1644.0	1644.4	1644.8	1645.3	1645.8	1646.2	1646.7	1647.2	1647.3
145°	1708.6	1709.2	1709.9	1710.6	1711.3	1711.6	1711.6	1711.6	1711.6	1711.6	1711.9
147.5°	1765.8	1765.6	1765.5	1765.4	1765.2	1765.4	1765.8	1766.2	1766.6	1767.0	1767.4
150°	1801.9	1801.2	1800.6	1799.9	1799.2	1799.2	1799.9	1800.6	1801.2	1801.9	1802.6
152.5°	1836.8	1835.4	1833.9	1832.4	1830.9	1830.5	1831.2	1831.9	1832.6	1833.2	1833.9
155°	1881.7	1879.7	1877.7	1875.7	1873.7	1873.0	1873.7	1874.3	1875.0	1875.7	1876.7
157.5°	1916.3	1915.1	1913.9	1912.7	1911.5	1910.9	1911.0	1911.1	1911.1	1911.2	1912.3
160°	1940.4	1938.4	1936.4	1934.4	1932.4	1931.5	1931.9	1932.2	1932.5	1932.9	1934.2
162.5°	1959.7	1957.7	1955.7	1953.6	1951.6	1950.8	1951.1	1951.5	1951.8	1952.1	1954.0
165°	1985.6	1983.6	1981.5	1979.5	1977.5	1976.7	1977.0	1977.4	1977.7	1978.0	1980.0
167.5°	2004.8	2002.8	2000.7	1998.6	1996.5	1995.7	1996.0	1996.3	1996.7	1997.0	1999.4
170°	2015.7	2013.3	2011.0	2008.6	2006.3	2005.3	2005.6	2006.0	2006.3	2006.6	2009.3
172.5°	2022.9	2020.6	2018.2	2015.9	2013.5	2012.7	2013.3	2013.9	2014.5	2015.1	2017.5
175°	2030.7	2028.7	2026.7	2024.7	2022.7	2021.9	2022.2	2022.5	2022.9	2023.2	2025.9
177.5°	2034.3	2032.7	2031.1	2029.5	2027.9	2027.2	2027.5	2027.8	2028.0	2028.3	2030.2
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1309.0	1310.8	1312.6	1313.5	1313.3	1313.1	1312.9	1312.7
5°	1302.4	1304.4	1306.5	1307.4	1307.2	1307.0	1306.7	1306.5
7.5°	1289.2	1291.2	1293.2	1294.1	1293.9	1293.7	1293.4	1293.2
10°	1278.0	1279.9	1281.7	1282.5	1282.3	1282.0	1281.8	1281.6
12.5°	1263.1	1264.6	1266.1	1266.8	1266.8	1266.7	1266.7	1266.6
15°	1237.2	1238.3	1239.5	1240.0	1240.0	1240.0	1240.0	1240.0
17.5°	1207.0	1208.4	1209.8	1210.0	1208.8	1207.7	1206.5	1205.4
20°	1184.1	1185.7	1187.3	1187.5	1186.4	1185.2	1184.1	1182.9
22.5°	1158.0	1159.1	1160.2	1160.3	1159.5	1158.7	1157.9	1157.2
25°	1116.3	1116.8	1117.3	1117.1	1116.5	1115.8	1115.1	1114.4
27.5°	1072.6	1072.7	1072.8	1072.5	1071.8	1071.1	1070.4	1069.7
30°	1040.8	1040.3	1039.8	1039.3	1038.6	1037.9	1037.2	1036.5
32.5°	1008.4	1007.6	1006.8	1005.7	1004.5	1003.2	1002.0	1000.8
35°	958.4	957.2	956.1	954.6	952.7	950.9	949.0	947.2
37.5°	905.7	904.0	902.3	900.9	899.9	898.8	897.8	896.7
40°	869.3	867.2	865.1	863.7	863.0	862.4	861.7	861.0
42.5°	833.1	831.2	829.3	827.8	826.8	825.7	824.6	823.6
45°	779.6	776.8	774.1	772.3	771.7	771.0	770.3	769.6
47.5°	723.2	720.4	717.6	715.4	713.8	712.2	710.5	708.9
50°	684.6	681.6	678.6	676.3	674.7	673.1	671.5	669.9
52.5°	647.2	644.5	641.9	639.7	637.9	636.1	634.3	632.5
55°	588.9	586.8	584.7	582.9	581.2	579.6	578.0	576.4
57.5°	531.0	528.3	525.6	523.8	522.9	522.1	521.2	520.3
60°	491.8	489.5	487.2	485.2	483.6	482.0	480.4	478.8
62.5°	454.1	451.6	449.1	447.2	446.0	444.7	443.5	442.2
65°	394.7	392.6	390.5	389.0	388.1	387.2	386.2	385.3
67.5°	338.0	336.2	334.5	333.3	332.8	332.2	331.6	331.1
70°	300.5	299.1	297.7	296.6	295.6	294.7	293.8	292.9
72.5°	265.2	263.7	262.1	260.8	259.9	259.0	258.1	257.1
75°	210.5	209.8	209.1	208.3	207.4	206.4	205.5	204.6
77.5°	160.4	159.9	159.5	159.0	158.3	157.7	157.1	156.4
80°	128.3	128.1	127.9	127.5	127.1	126.6	126.1	125.7
82.5°	98.0	97.6	97.2	97.0	96.9	96.8	96.7	96.6
85°	57.7	57.5	57.2	56.9	56.4	56.0	55.5	55.0
87.5°	27.1	27.4	27.8	27.8	27.7	27.5	27.3	27.2
90°	27.4	29.1	30.8	32.1	33.1	34.1	35.1	36.1
92.5°	27.4	29.1	30.8	31.8	32.3	32.8	33.3	33.7
95°	27.4	29.1	30.8	31.6	31.6	31.6	31.6	31.6
97.5°	55.2	45.8	36.3	31.6	31.6	31.6	31.6	31.6
100°	162.2	112.4	62.6	37.0	35.6	34.3	33.0	31.6
102.5°	315.3	305.9	296.5	280.4	257.6	234.9	212.1	189.4
105°	448.6	448.6	448.6	448.4	448.1	447.8	447.4	447.1
107.5°	568.0	568.0	568.1	567.6	566.6	565.6	564.6	563.6
110°	645.3	644.3	643.3	643.0	643.3	643.6	644.0	644.3



TEST NUMBER: P333428

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	721.8	720.6	719.3	718.4	718.0	717.5	717.0	716.5
115°	837.3	836.0	834.6	833.0	831.0	828.9	826.9	824.9
117.5°	948.8	947.1	945.3	944.0	943.2	942.3	941.4	940.5
120°	1020.8	1020.1	1019.5	1018.3	1016.6	1014.9	1013.3	1011.6
122.5°	1089.4	1088.8	1088.1	1086.8	1084.9	1082.9	1081.0	1079.0
125°	1189.6	1188.2	1186.9	1185.7	1184.7	1183.7	1182.7	1181.7
127.5°	1281.1	1280.4	1279.6	1278.0	1275.5	1273.1	1270.6	1268.1
130°	1340.8	1339.8	1338.8	1337.4	1335.8	1334.1	1332.4	1330.7
132.5°	1396.6	1396.4	1396.2	1395.2	1393.6	1391.9	1390.2	1388.5
135°	1478.4	1477.8	1477.1	1475.7	1473.7	1471.7	1469.7	1467.7
137.5°	1554.7	1554.8	1555.0	1554.2	1552.4	1550.7	1548.9	1547.2
140°	1601.5	1602.2	1602.9	1602.2	1600.2	1598.2	1596.2	1594.2
142.5°	1647.4	1647.6	1647.7	1646.8	1644.7	1642.7	1640.7	1638.7
145°	1712.3	1712.6	1712.9	1712.1	1710.1	1708.1	1706.1	1704.1
147.5°	1767.8	1768.2	1768.6	1767.6	1765.2	1762.8	1760.4	1758.0
150°	1803.2	1803.9	1804.6	1803.6	1800.9	1798.2	1795.6	1792.9
152.5°	1834.6	1835.2	1835.9	1835.0	1832.6	1830.2	1827.8	1825.4
155°	1877.7	1878.7	1879.7	1878.8	1876.2	1873.5	1870.8	1868.1
157.5°	1913.3	1914.4	1915.5	1914.7	1912.0	1909.3	1906.6	1904.0
160°	1935.5	1936.9	1938.2	1937.6	1934.9	1932.2	1929.5	1926.9
162.5°	1955.9	1957.8	1959.6	1959.1	1956.2	1953.2	1950.3	1947.3
165°	1982.0	1984.1	1986.1	1985.7	1983.1	1980.4	1977.7	1975.0
167.5°	2001.8	2004.2	2006.6	2006.3	2003.3	2000.3	1997.3	1994.3
170°	2012.0	2014.7	2017.3	2017.2	2014.2	2011.2	2008.1	2005.1
172.5°	2019.9	2022.3	2024.7	2024.4	2021.4	2018.4	2015.4	2012.4
175°	2028.5	2031.2	2033.9	2033.7	2030.7	2027.7	2024.7	2021.7
177.5°	2032.1	2033.9	2035.8	2035.7	2033.5	2031.4	2029.2	2027.1
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7

(END OF REPORT)