

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: P332797-830

Luminaire Tested: **S124DIW-S795D1340U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332797-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1340U830-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8271.5 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

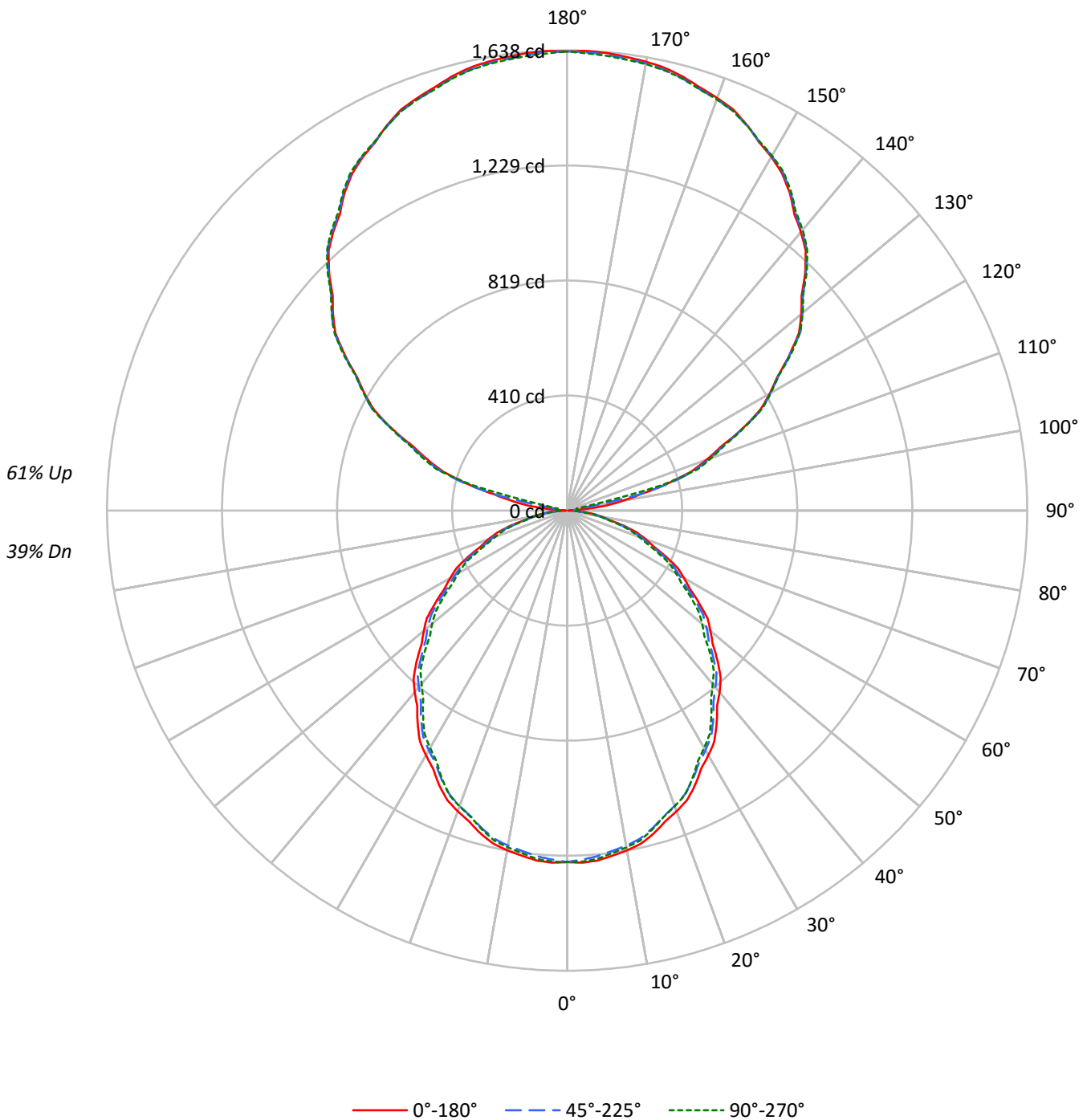
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

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	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	84	86	83	80	77	67	65	63	53	52	51	40	40	39	33
2	87	79	73	68	79	72	67	63	59	55	52	47	44	42	36	34	33	27
3	79	70	63	57	72	64	57	52	52	48	44	41	38	36	32	29	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	30	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	18	16	13
8	52	40	33	27	47	37	30	25	31	25	22	25	21	18	19	17	15	12
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13	11
10	45	33	26	22	41	31	25	20	26	21	17	21	17	15	16	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10101	10101	10101
5°	10131	10009	10083
10°	10067	9928	9977
15°	9947	9787	9812
20°	9784	9613	9620
25°	9600	9413	9386
30°	9374	9177	9093
35°	9140	8932	8814
40°	8896	8652	8495
45°	8643	8379	8218
50°	8361	8133	7882
55°	8058	7817	7562
60°	7753	7463	7237
65°	7412	7125	6837
70°	7027	6675	6413
75°	6441	6129	5973
80°	5732	5500	5360
85°	5011	4826	4733



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	1.4
10°-20°	332.0	4.0
20°-30°	488.6	5.9
30°-40°	568.1	6.9
40°-50°	568.1	6.9
50°-60°	496.9	6.0
60°-70°	369.0	4.5
70°-80°	209.7	2.5
80°-90°	65.2	0.8
90°-100°	55.9	0.7
100°-110°	356.4	4.3
110°-120°	681.9	8.2
120°-130°	865.6	10.5
130°-140°	926.1	11.2
140°-150°	866.0	10.5
150°-160°	698.4	8.4
160°-170°	450.5	5.4
170°-180°	155.3	1.9
0°-30°	938.5	11.3
0°-40°	1506.5	18.2
0°-60°	2571.5	31.1
0°-90°	3215.5	38.9
90°-120°	1094.2	13.2
90°-150°	3752.0	45.4
90°-180°	5056.0	61.1
0°-180°	8271.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1246	1235	1245	1244	119
15°	1190	1185	1171	1176	1174	335
25°	1078	1070	1057	1057	1054	496
35°	927	920	906	899	894	580
45°	757	749	734	723	720	583
55°	572	569	555	544	537	513
65°	388	383	373	363	358	384
75°	206	202	196	193	192	219
85°	54	54	52	52	51	60
90°	4	17	27	34	37	6
95°	67	28	27	34	35	86
105°	368	375	381	389	348	385
115°	687	690	690	692	692	676
125°	966	970	968	972	973	862
135°	1198	1197	1202	1204	1207	923
145°	1382	1385	1385	1386	1389	863
155°	1515	1516	1512	1517	1514	698
165°	1598	1592	1592	1600	1590	451
175°	1635	1628	1628	1638	1625	156
180°	1635	1635	1635	1635	1635	



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1254.4	1253.9	1253.3	1252.8	1252.3	1251.0	1249.1	1247.1	1245.1	1243.2	1244.9
5°	1250.2	1249.3	1248.4	1247.5	1246.6	1244.9	1242.5	1240.0	1237.6	1235.1	1237.6
7.5°	1238.6	1237.7	1236.8	1235.9	1235.0	1233.2	1230.5	1227.8	1225.0	1222.3	1224.3
10°	1228.1	1227.3	1226.3	1225.5	1224.6	1222.7	1219.7	1216.9	1214.0	1211.1	1212.9
12.5°	1214.5	1213.6	1212.7	1211.8	1211.0	1208.9	1205.9	1202.8	1199.8	1196.7	1198.6
15°	1190.1	1189.1	1188.3	1187.3	1186.5	1184.4	1181.0	1177.7	1174.3	1171.0	1172.3
17.5°	1160.6	1159.4	1158.3	1157.3	1156.1	1154.0	1150.8	1147.6	1144.4	1141.3	1142.2
20°	1138.9	1137.7	1136.7	1135.6	1134.4	1132.2	1128.9	1125.5	1122.2	1118.9	1119.6
22.5°	1115.7	1114.2	1112.7	1111.3	1109.7	1107.4	1104.0	1100.7	1097.3	1094.0	1095.2
25°	1077.7	1076.2	1074.6	1073.1	1071.5	1069.1	1066.0	1062.9	1059.8	1056.7	1056.9
27.5°	1034.4	1032.8	1031.2	1029.6	1028.0	1025.8	1022.8	1020.0	1017.1	1014.2	1013.6
30°	1005.6	1003.8	1002.0	1000.2	998.4	996.1	993.2	990.3	987.4	984.5	983.6
32.5°	975.1	973.5	971.9	970.3	968.7	966.3	963.3	960.2	957.2	954.0	953.0
35°	927.4	925.8	924.3	922.7	921.1	918.8	915.7	912.6	909.5	906.3	904.7
37.5°	877.0	875.6	874.2	872.8	871.3	868.9	865.6	862.2	858.9	855.5	853.8
40°	844.1	842.4	840.6	838.8	837.0	834.4	831.1	827.7	824.4	821.0	818.9
42.5°	808.9	807.8	806.7	805.7	804.6	802.2	798.5	794.8	791.1	787.4	784.9
45°	757.0	755.4	753.8	752.2	750.7	748.1	744.6	741.0	737.4	733.9	731.4
47.5°	702.6	701.5	700.5	699.4	698.3	696.2	692.9	689.6	686.3	683.0	680.1
50°	665.7	664.8	663.9	663.0	662.1	660.2	657.0	653.9	650.7	647.6	644.5
52.5°	629.6	628.6	627.5	626.4	625.3	623.1	619.8	616.5	613.2	609.9	607.2
55°	572.5	571.7	571.1	570.4	569.8	567.9	564.8	561.7	558.6	555.4	552.7
57.5°	517.9	517.2	516.4	515.7	514.9	512.9	509.9	506.8	503.8	500.7	498.1
60°	480.2	479.1	478.0	476.9	475.8	473.7	470.9	468.0	465.1	462.2	460.1
62.5°	443.4	442.4	441.5	440.5	439.6	437.6	434.5	431.4	428.4	425.3	423.5
65°	388.0	386.9	385.8	384.7	383.5	381.8	379.7	377.4	375.1	373.0	370.7
67.5°	332.2	331.2	330.2	329.1	328.2	326.6	324.4	322.3	320.2	318.0	315.8
70°	297.7	296.2	294.6	293.0	291.5	289.8	288.0	286.3	284.5	282.8	281.0
72.5°	260.9	259.3	257.8	256.2	254.6	253.2	251.8	250.2	248.8	247.4	246.0
75°	206.5	205.4	204.3	203.2	202.1	201.0	199.8	198.7	197.7	196.5	195.6
77.5°	154.6	154.1	153.6	153.2	152.6	151.9	150.9	150.0	148.9	148.0	147.7
80°	123.3	122.6	122.0	121.3	120.6	120.1	119.6	119.2	118.8	118.3	117.8
82.5°	92.8	92.6	92.2	91.9	91.6	91.4	91.3	91.2	91.1	91.0	90.8
85°	54.1	54.1	54.1	54.1	54.1	53.9	53.4	53.1	52.6	52.1	52.1
87.5°	21.6	22.0	22.4	22.8	23.3	23.6	23.8	24.1	24.4	24.6	25.0
90°	3.7	6.7	9.6	12.6	15.6	18.2	20.4	22.5	24.7	26.9	28.6
92.5°	15.4	15.6	15.7	15.9	16.0	17.2	19.4	21.6	23.8	25.9	27.5
95°	67.2	58.0	48.7	39.5	30.3	25.8	26.1	26.4	26.6	26.9	28.6
97.5°	142.8	148.5	154.3	160.0	165.8	153.5	123.2	92.9	62.6	32.2	32.4
100°	200.5	205.4	210.3	215.2	220.1	203.8	166.3	128.8	91.2	53.8	49.2
102.5°	265.0	268.6	272.2	275.8	279.4	278.7	273.8	269.0	264.1	259.2	209.3
105°	368.0	369.6	371.3	372.9	374.5	376.0	377.4	378.7	380.0	381.4	383.9
107.5°	463.5	464.4	465.2	466.0	466.8	468.2	470.0	471.8	473.7	475.6	476.7
110°	528.1	529.0	529.8	530.6	531.4	532.6	534.2	535.8	537.5	539.1	539.7



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	590.7	592.2	593.7	595.1	596.6	597.7	598.5	599.3	600.0	600.8	600.7
115°	687.0	687.9	688.7	689.5	690.3	690.6	690.3	690.0	689.8	689.5	690.0
117.5°	773.8	775.0	776.0	777.1	778.2	779.0	779.7	780.2	780.8	781.5	781.4
120°	832.5	833.6	834.7	835.8	836.9	837.3	837.1	836.8	836.5	836.2	836.8
122.5°	887.3	888.0	888.6	889.3	889.9	890.4	890.8	891.2	891.6	891.9	892.3
125°	965.8	966.9	968.0	969.0	970.2	970.4	969.9	969.3	968.7	968.3	969.0
127.5°	1040.1	1040.4	1040.7	1040.9	1041.2	1042.0	1043.2	1044.4	1045.8	1047.0	1046.8
130°	1088.1	1088.4	1088.6	1088.8	1089.1	1089.7	1090.5	1091.3	1092.1	1093.0	1093.3
132.5°	1132.1	1132.6	1133.0	1133.5	1134.0	1134.8	1135.9	1136.8	1137.8	1138.9	1139.2
135°	1198.1	1197.8	1197.5	1197.3	1197.0	1197.4	1198.4	1199.6	1200.7	1201.7	1202.3
137.5°	1256.5	1256.6	1256.7	1256.9	1257.0	1257.6	1258.8	1260.0	1261.2	1262.3	1263.0
140°	1294.7	1295.2	1295.7	1296.3	1296.8	1297.4	1297.9	1298.4	1299.0	1299.6	1300.3
142.5°	1328.9	1329.8	1330.9	1331.8	1332.8	1333.4	1333.8	1334.1	1334.5	1334.7	1335.4
145°	1381.5	1382.2	1383.1	1383.9	1384.7	1385.2	1385.2	1385.2	1385.2	1385.2	1385.4
147.5°	1423.2	1424.7	1426.3	1427.9	1429.4	1430.0	1429.7	1429.5	1429.2	1428.9	1429.1
150°	1453.6	1454.7	1455.8	1456.9	1457.9	1458.3	1458.1	1457.8	1457.5	1457.3	1457.3
152.5°	1479.0	1479.9	1480.7	1481.6	1482.5	1482.7	1482.2	1481.7	1481.2	1480.7	1481.2
155°	1514.8	1514.9	1515.2	1515.5	1515.8	1515.5	1514.8	1513.9	1513.1	1512.3	1513.3
157.5°	1544.8	1544.6	1544.5	1544.3	1544.2	1543.6	1542.7	1541.7	1540.9	1539.9	1541.3
160°	1562.4	1561.6	1560.8	1559.9	1559.2	1558.6	1558.3	1558.0	1557.7	1557.6	1559.2
162.5°	1578.0	1577.0	1576.0	1575.0	1574.0	1573.3	1573.0	1572.7	1572.4	1572.2	1573.8
165°	1597.9	1596.5	1595.2	1593.7	1592.4	1591.8	1591.8	1591.8	1591.8	1591.8	1593.9
167.5°	1613.5	1612.1	1610.7	1609.3	1607.9	1607.0	1606.9	1606.8	1606.6	1606.4	1608.8
170°	1622.3	1620.7	1619.0	1617.4	1615.8	1615.1	1615.3	1615.6	1615.9	1616.2	1618.3
172.5°	1628.1	1626.5	1624.9	1623.2	1621.6	1621.0	1621.3	1621.6	1621.7	1622.0	1624.2
175°	1634.6	1632.9	1631.3	1629.7	1628.0	1627.3	1627.6	1627.9	1628.1	1628.4	1630.9
177.5°	1637.5	1636.0	1634.4	1632.9	1631.4	1630.8	1631.3	1631.7	1632.1	1632.6	1634.3
180°	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1246.7	1248.5	1250.3	1251.1	1250.9	1250.8	1250.6	1250.4
5°	1240.0	1242.5	1244.9	1245.9	1245.5	1245.1	1244.6	1244.2
7.5°	1226.2	1228.2	1230.1	1231.0	1230.8	1230.5	1230.2	1229.9
10°	1214.7	1216.4	1218.2	1218.9	1218.4	1218.0	1217.6	1217.1
12.5°	1200.6	1202.5	1204.5	1205.1	1204.6	1203.9	1203.2	1202.7
15°	1173.7	1175.0	1176.3	1176.7	1176.0	1175.4	1174.7	1174.0
17.5°	1143.0	1143.9	1144.7	1144.9	1144.4	1144.0	1143.6	1143.1
20°	1120.2	1120.9	1121.5	1121.6	1121.2	1120.8	1120.3	1119.8
22.5°	1096.4	1097.6	1098.8	1099.0	1098.2	1097.4	1096.6	1095.8
25°	1057.2	1057.3	1057.6	1057.2	1056.4	1055.5	1054.6	1053.7
27.5°	1013.1	1012.6	1012.0	1011.3	1010.1	1009.0	1007.9	1006.7
30°	982.7	981.8	980.9	980.0	978.8	977.7	976.6	975.5
32.5°	951.9	950.8	949.8	948.7	947.5	946.4	945.3	944.2
35°	903.2	901.6	900.0	898.7	897.6	896.5	895.4	894.3
37.5°	852.2	850.5	848.9	847.3	845.7	844.3	842.8	841.3
40°	816.6	814.5	812.2	810.5	809.4	808.3	807.2	806.1
42.5°	782.2	779.7	777.0	775.4	774.7	773.9	773.2	772.4
45°	729.0	726.5	724.1	722.6	721.8	721.1	720.5	719.8
47.5°	677.4	674.7	671.8	669.7	668.0	666.3	664.6	662.9
50°	641.4	638.3	635.2	632.9	631.6	630.3	629.0	627.6
52.5°	604.5	601.6	598.9	596.7	595.0	593.3	591.6	589.9
55°	550.1	547.4	544.7	542.7	541.4	540.1	538.7	537.3
57.5°	495.6	493.0	490.5	488.6	487.3	486.0	484.7	483.4
60°	458.2	456.2	454.1	452.6	451.5	450.3	449.2	448.2
62.5°	421.6	419.8	418.0	416.5	415.4	414.2	413.2	412.1
65°	368.5	366.3	364.0	362.4	361.3	360.1	359.0	357.9
67.5°	313.8	311.6	309.4	308.2	307.9	307.6	307.3	307.0
70°	279.2	277.4	275.6	274.4	273.7	273.1	272.4	271.7
72.5°	244.6	243.2	241.8	240.7	240.0	239.3	238.7	238.0
75°	194.7	193.8	192.9	192.4	192.2	191.9	191.7	191.5
77.5°	147.4	147.1	146.9	146.5	145.9	145.3	144.8	144.2
80°	117.4	117.0	116.5	116.2	115.9	115.7	115.6	115.3
82.5°	90.5	90.2	89.9	89.7	89.5	89.3	89.1	88.8
85°	52.1	52.1	52.1	52.0	51.8	51.6	51.4	51.1
87.5°	25.3	25.6	25.9	26.1	26.3	26.4	26.5	26.6
90°	30.2	31.8	33.5	34.5	35.1	35.6	36.1	36.7
92.5°	29.2	30.8	32.4	33.3	33.5	33.6	33.6	33.7
95°	30.2	31.8	33.5	34.4	34.6	34.9	35.2	35.4
97.5°	32.6	32.8	32.9	33.2	33.5	33.6	33.9	34.2
100°	44.6	40.0	35.3	33.2	33.5	33.6	33.9	34.2
102.5°	159.6	109.7	59.9	35.0	35.1	35.1	35.2	35.3
105°	386.3	388.8	391.2	387.6	377.8	368.0	358.2	348.5
107.5°	478.0	479.2	480.3	481.5	482.5	483.5	484.6	485.6
110°	540.3	540.7	541.3	542.0	542.8	543.7	544.4	545.3



TEST NUMBER: P332797-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	600.5	600.4	600.3	600.8	601.8	602.9	603.9	604.9
115°	690.6	691.2	691.6	691.9	691.9	691.9	691.9	691.9
117.5°	781.2	781.1	781.0	780.9	780.8	780.7	780.6	780.4
120°	837.3	837.8	838.4	838.4	837.8	837.3	836.8	836.2
122.5°	892.6	893.0	893.2	893.2	892.6	892.0	891.6	891.0
125°	969.9	970.7	971.5	972.0	972.3	972.6	972.9	973.2
127.5°	1046.7	1046.5	1046.3	1046.1	1045.9	1045.7	1045.5	1045.3
130°	1093.4	1093.7	1094.0	1094.2	1094.2	1094.2	1094.2	1094.2
132.5°	1139.4	1139.7	1140.0	1140.0	1139.8	1139.6	1139.3	1139.2
135°	1202.9	1203.3	1203.9	1204.5	1205.0	1205.5	1206.1	1206.6
137.5°	1263.6	1264.1	1264.8	1265.0	1264.8	1264.7	1264.5	1264.3
140°	1301.2	1302.0	1302.8	1303.3	1303.6	1303.9	1304.2	1304.5
142.5°	1336.0	1336.5	1337.2	1337.5	1337.6	1337.6	1337.7	1337.7
145°	1385.6	1385.9	1386.2	1386.7	1387.1	1387.7	1388.3	1388.8
147.5°	1429.4	1429.6	1429.7	1430.0	1430.3	1430.6	1430.8	1431.1
150°	1457.3	1457.3	1457.3	1457.4	1457.6	1457.9	1458.2	1458.5
152.5°	1481.6	1482.1	1482.4	1482.6	1482.4	1482.2	1482.1	1482.0
155°	1514.5	1515.5	1516.6	1516.7	1516.0	1515.1	1514.3	1513.5
157.5°	1542.8	1544.2	1545.6	1545.6	1544.2	1542.8	1541.3	1539.9
160°	1560.8	1562.4	1564.1	1564.1	1562.4	1560.8	1559.2	1557.6
162.5°	1575.5	1577.1	1578.7	1578.6	1576.8	1574.9	1573.0	1571.2
165°	1596.1	1598.3	1600.4	1600.2	1597.9	1595.4	1593.0	1590.5
167.5°	1611.2	1613.5	1616.0	1615.8	1613.1	1610.3	1607.7	1605.0
170°	1620.5	1622.7	1624.8	1624.6	1621.9	1619.2	1616.5	1613.7
172.5°	1626.4	1628.6	1630.8	1630.4	1627.4	1624.5	1621.6	1618.6
175°	1633.3	1635.8	1638.2	1637.8	1634.6	1631.3	1628.0	1624.8
177.5°	1636.1	1637.8	1639.6	1639.1	1636.4	1633.9	1631.3	1628.6
180°	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6

(END OF REPORT)