

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: P332804-930

Luminaire Tested: **S124DIW-S795D1560U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332804-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1560U930-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

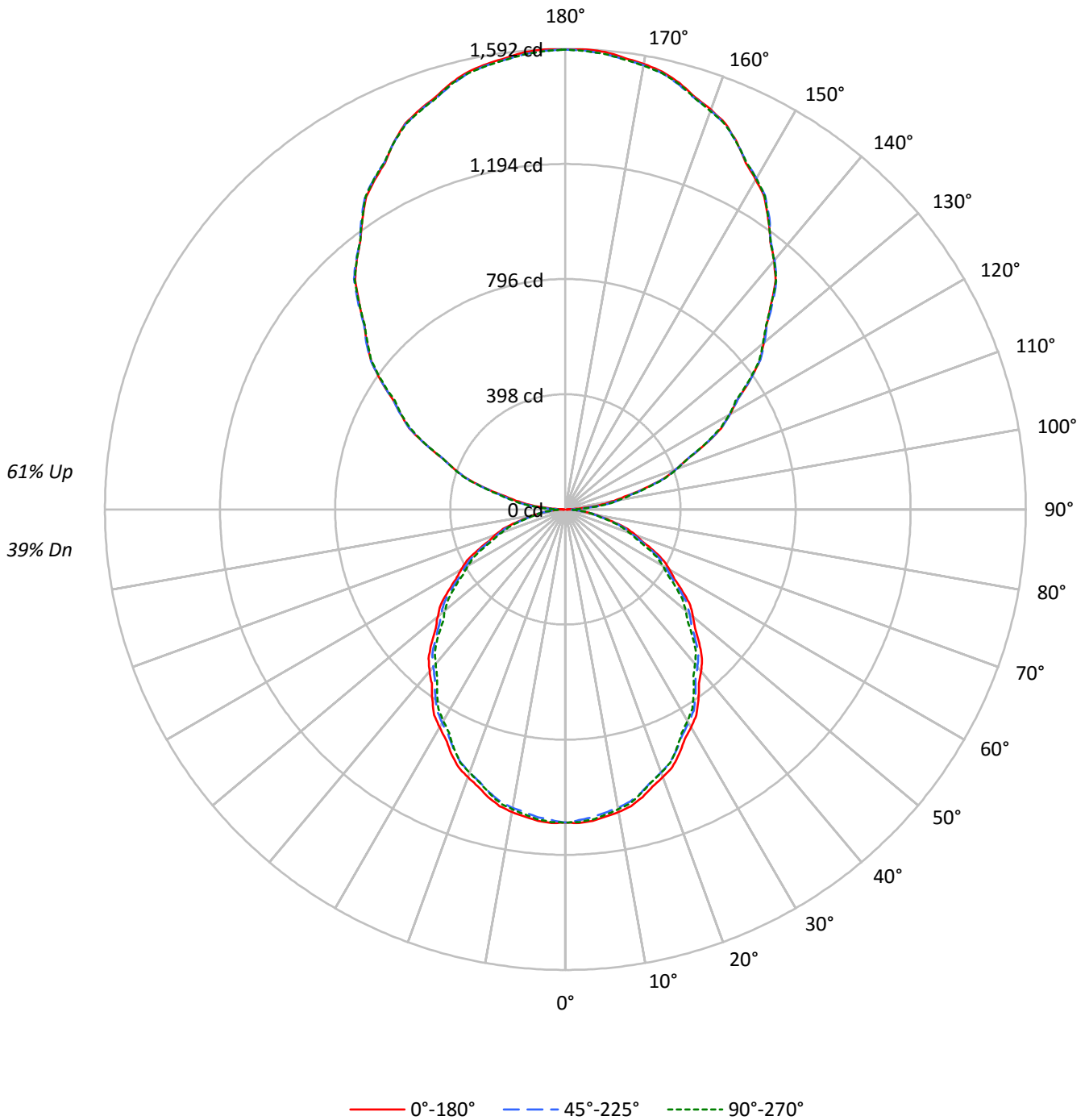
Lumens per Lamp: N/A
Luminaire Lumens: 7192.1 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 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



TEST NUMBER: P332804-930
CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

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	79	77	67	65	63	53	52	50	40	39	38	32
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32	27
3	79	70	63	57	71	64	57	52	52	48	44	41	38	36	31	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	16	14	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	24	20	26	21	17	21	17	15	16	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8737	8737	8737
5°	8763	8658	8721
10°	8708	8588	8630
15°	8603	8466	8487
20°	8463	8314	8322
25°	8304	8141	8118
30°	8108	7938	7866
35°	7906	7727	7624
40°	7695	7484	7347
45°	7476	7247	7108
50°	7232	7036	6818
55°	6970	6763	6542
60°	6707	6455	6260
65°	6411	6162	5914
70°	6080	5773	5549
75°	5571	5303	5168
80°	4956	4756	4635
85°	4335	4177	4094



TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	1.4
10°-20°	287.2	4.0
20°-30°	422.7	5.9
30°-40°	491.4	6.8
40°-50°	491.4	6.8
50°-60°	429.8	6.0
60°-70°	319.2	4.4
70°-80°	181.4	2.5
80°-90°	57.1	0.8
90°-100°	104.8	1.5
100°-110°	310.6	4.3
110°-120°	527.1	7.3
120°-130°	695.1	9.7
130°-140°	780.6	10.9
140°-150°	767.1	10.7
150°-160°	645.2	9.0
160°-170°	429.2	6.0
170°-180°	150.3	2.1
0°-30°	811.8	11.3
0°-40°	1303.1	18.1
0°-60°	2224.4	30.9
0°-90°	2782.0	38.7
90°-120°	942.5	13.1
90°-150°	3185.3	44.3
90°-180°	4410.0	61.3
0°-180°	7192.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1081	1078	1068	1077	1076	103
15°	1029	1025	1013	1018	1016	290
25°	932	926	914	915	911	429
35°	802	796	784	778	774	501
45°	655	648	635	626	623	505
55°	495	492	480	470	465	443
65°	336	331	323	314	310	332
75°	179	174	170	167	166	190
85°	47	47	45	45	44	52
90°	4	17	27	34	37	7
95°	74	85	93	97	97	82
105°	286	288	293	296	300	304
115°	536	536	534	532	531	528
125°	781	781	779	777	774	695
135°	1007	1014	1014	1012	1008	779
145°	1223	1228	1229	1228	1224	765
155°	1401	1401	1400	1405	1400	645
165°	1526	1522	1520	1526	1522	430
175°	1587	1581	1580	1587	1580	151
180°	1590	1590	1590	1590	1590	



TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3
2.5°	1085.1	1084.6	1084.1	1083.7	1083.2	1082.1	1080.4	1078.7	1077.0	1075.4	1076.8
5°	1081.4	1080.7	1079.9	1079.1	1078.3	1076.8	1074.7	1072.6	1070.5	1068.4	1070.5
7.5°	1071.4	1070.6	1069.8	1069.0	1068.3	1066.7	1064.4	1062.0	1059.6	1057.3	1059.0
10°	1062.3	1061.6	1060.8	1060.1	1059.2	1057.6	1055.1	1052.6	1050.1	1047.6	1049.1
12.5°	1050.5	1049.8	1049.0	1048.2	1047.5	1045.7	1043.1	1040.4	1037.8	1035.1	1036.8
15°	1029.4	1028.6	1027.8	1027.0	1026.3	1024.5	1021.6	1018.7	1015.8	1012.9	1014.1
17.5°	1003.9	1002.9	1001.9	1001.0	1000.0	998.2	995.5	992.7	989.9	987.2	988.0
20°	985.1	984.1	983.3	982.3	981.3	979.3	976.5	973.5	970.7	967.8	968.4
22.5°	965.1	963.8	962.5	961.2	959.9	957.9	955.0	952.1	949.2	946.3	947.4
25°	932.2	930.9	929.5	928.2	926.8	924.8	922.1	919.4	916.7	914.0	914.2
27.5°	894.8	893.4	892.0	890.6	889.2	887.3	884.8	882.3	879.8	877.3	876.8
30°	869.8	868.3	866.7	865.2	863.6	861.6	859.1	856.6	854.1	851.6	850.8
32.5°	843.4	842.0	840.7	839.3	837.9	835.8	833.2	830.5	827.9	825.2	824.3
35°	802.2	800.8	799.5	798.1	796.8	794.8	792.1	789.4	786.7	784.0	782.6
37.5°	758.6	757.4	756.2	755.0	753.7	751.6	748.8	745.8	743.0	740.0	738.6
40°	730.2	728.6	727.1	725.5	724.0	721.8	718.9	716.0	713.1	710.2	708.3
42.5°	699.7	698.7	697.8	696.9	695.9	693.9	690.7	687.5	684.3	681.1	678.9
45°	654.8	653.4	652.1	650.7	649.4	647.1	644.1	641.0	637.9	634.8	632.7
47.5°	607.7	606.8	605.9	605.0	604.1	602.2	599.3	596.5	593.6	590.8	588.3
50°	575.8	575.0	574.3	573.5	572.7	571.0	568.3	565.7	562.9	560.2	557.5
52.5°	544.6	543.7	542.7	541.8	540.9	539.0	536.1	533.3	530.4	527.6	525.2
55°	495.2	494.6	494.0	493.4	492.8	491.2	488.5	485.8	483.1	480.5	478.1
57.5°	448.0	447.4	446.7	446.1	445.4	443.7	441.1	438.4	435.8	433.1	430.9
60°	415.4	414.4	413.4	412.5	411.6	409.8	407.3	404.8	402.3	399.8	398.0
62.5°	383.5	382.7	381.9	381.1	380.3	378.5	375.9	373.2	370.6	367.9	366.3
65°	335.6	334.7	333.7	332.7	331.7	330.3	328.4	326.4	324.5	322.6	320.7
67.5°	287.4	286.5	285.6	284.7	283.9	282.5	280.6	278.8	277.0	275.1	273.2
70°	257.6	256.2	254.9	253.5	252.2	250.7	249.2	247.6	246.1	244.6	243.0
72.5°	225.7	224.3	223.0	221.6	220.2	219.0	217.8	216.5	215.2	214.0	212.8
75°	178.6	177.7	176.8	175.8	174.8	173.8	172.8	171.9	171.0	170.0	169.2
77.5°	133.7	133.3	132.9	132.5	132.0	131.4	130.5	129.7	128.8	128.0	127.8
80°	106.6	106.1	105.5	104.9	104.4	103.9	103.5	103.1	102.7	102.3	101.9
82.5°	80.3	80.1	79.7	79.5	79.2	79.1	79.0	78.9	78.8	78.8	78.5
85°	46.8	46.8	46.8	46.8	46.8	46.6	46.2	45.9	45.5	45.1	45.1
87.5°	18.8	19.2	19.6	20.1	20.5	21.0	21.2	21.5	21.8	22.1	22.4
90°	3.7	6.7	9.7	12.7	15.7	18.3	20.5	22.7	24.9	27.1	28.7
92.5°	26.3	29.8	33.2	36.6	40.1	42.6	44.1	45.7	47.1	48.7	49.7
95°	73.8	76.2	78.7	81.1	83.6	85.8	87.7	89.6	91.6	93.4	94.2
97.5°	128.8	130.8	132.7	134.8	136.7	138.8	141.0	143.2	145.5	147.7	148.7
100°	172.1	173.2	174.3	175.4	176.5	178.2	180.8	183.2	185.6	188.1	188.7
102.5°	217.4	217.8	218.3	218.7	219.1	220.5	222.7	224.9	227.1	229.4	230.2
105°	286.4	286.7	287.0	287.2	287.6	288.2	289.3	290.4	291.5	292.6	293.4
107.5°	359.0	359.3	359.6	360.0	360.3	360.5	360.7	360.9	361.0	361.2	361.9
110°	408.1	408.7	409.2	409.8	410.3	410.5	410.2	409.9	409.6	409.4	408.8



TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	459.3	459.4	459.5	459.6	459.7	459.5	459.0	458.5	458.0	457.5	457.5
115°	536.0	536.0	536.0	536.0	536.0	535.7	535.2	534.6	534.1	533.5	533.3
117.5°	608.3	608.5	608.7	608.9	609.2	609.1	608.7	608.3	607.9	607.6	606.6
120°	656.5	657.5	658.7	659.7	660.8	661.0	660.1	659.3	658.5	657.7	656.3
122.5°	706.6	707.0	707.5	707.9	708.3	708.4	708.0	707.6	707.3	706.9	706.0
125°	780.6	780.6	780.6	780.6	780.6	780.5	780.2	779.9	779.7	779.4	778.9
127.5°	847.7	848.6	849.4	850.2	851.0	851.3	850.8	850.4	849.9	849.5	848.9
130°	895.0	895.8	896.6	897.4	898.2	898.6	898.6	898.6	898.6	898.6	898.1
132.5°	943.1	943.8	944.4	944.9	945.6	945.7	945.5	945.3	945.1	944.9	944.4
135°	1006.8	1008.4	1010.1	1011.8	1013.4	1014.2	1014.2	1014.2	1014.2	1014.2	1013.7
137.5°	1076.2	1076.9	1077.7	1078.5	1079.2	1079.9	1080.3	1080.7	1081.2	1081.6	1080.8
140°	1122.4	1122.9	1123.5	1124.1	1124.5	1124.9	1124.9	1124.9	1124.9	1124.9	1124.5
142.5°	1164.7	1165.2	1165.8	1166.3	1166.9	1167.0	1166.8	1166.6	1166.4	1166.1	1166.1
145°	1223.2	1224.3	1225.4	1226.5	1227.6	1228.2	1228.5	1228.8	1229.1	1229.3	1229.1
147.5°	1281.2	1282.5	1283.9	1285.2	1286.5	1287.0	1286.8	1286.5	1286.4	1286.1	1285.9
150°	1316.6	1317.7	1318.8	1319.9	1321.0	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5
152.5°	1350.1	1350.7	1351.4	1352.0	1352.7	1353.2	1353.3	1353.6	1353.8	1354.0	1354.6
155°	1401.4	1401.4	1401.4	1401.4	1401.4	1401.3	1401.0	1400.8	1400.5	1400.2	1401.3
157.5°	1444.7	1444.2	1443.7	1443.2	1442.8	1442.5	1442.4	1442.3	1442.3	1442.3	1443.1
160°	1470.3	1470.0	1469.7	1469.5	1469.2	1468.9	1468.7	1468.4	1468.1	1467.9	1468.7
162.5°	1493.9	1493.2	1492.5	1491.8	1491.0	1490.5	1490.3	1490.0	1489.7	1489.5	1490.9
165°	1525.6	1524.8	1524.0	1523.1	1522.3	1521.7	1521.1	1520.5	1520.0	1519.5	1521.1
167.5°	1550.0	1548.8	1547.7	1546.5	1545.4	1544.8	1544.9	1544.9	1545.0	1545.1	1546.7
170°	1563.7	1562.4	1561.0	1559.6	1558.3	1557.7	1558.0	1558.3	1558.5	1558.8	1560.4
172.5°	1573.5	1572.4	1571.2	1570.1	1569.0	1568.4	1568.5	1568.6	1568.6	1568.6	1570.5
175°	1587.1	1585.7	1584.4	1583.0	1581.6	1580.8	1580.5	1580.2	1580.0	1579.7	1581.6
177.5°	1591.5	1590.4	1589.3	1588.2	1587.1	1586.6	1586.6	1586.6	1586.6	1586.6	1588.1
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3	1082.3
2.5°	1078.4	1079.9	1081.5	1082.2	1082.1	1081.9	1081.7	1081.6
5°	1072.6	1074.7	1076.8	1077.7	1077.3	1077.0	1076.6	1076.2
7.5°	1060.7	1062.4	1064.0	1064.8	1064.6	1064.4	1064.1	1063.9
10°	1050.7	1052.2	1053.8	1054.3	1053.9	1053.5	1053.2	1052.8
12.5°	1038.5	1040.2	1041.9	1042.4	1042.0	1041.4	1040.8	1040.3
15°	1015.2	1016.4	1017.5	1017.8	1017.2	1016.7	1016.1	1015.5
17.5°	988.7	989.4	990.2	990.3	989.9	989.5	989.2	988.8
20°	969.0	969.6	970.1	970.2	969.8	969.5	969.1	968.7
22.5°	948.4	949.4	950.5	950.6	949.9	949.3	948.5	947.9
25°	914.4	914.6	914.8	914.5	913.8	913.0	912.2	911.4
27.5°	876.4	875.9	875.4	874.7	873.8	872.8	871.8	870.8
30°	850.0	849.3	848.5	847.7	846.7	845.7	844.7	843.8
32.5°	823.4	822.5	821.6	820.6	819.6	818.6	817.7	816.8
35°	781.3	779.9	778.5	777.4	776.4	775.5	774.5	773.6
37.5°	737.1	735.6	734.3	732.9	731.6	730.3	729.0	727.7
40°	706.4	704.5	702.5	701.1	700.1	699.2	698.2	697.2
42.5°	676.6	674.4	672.1	670.7	670.1	669.4	668.8	668.1
45°	630.6	628.4	626.3	625.0	624.4	623.8	623.2	622.6
47.5°	586.0	583.6	581.1	579.3	577.8	576.3	574.9	573.4
50°	554.8	552.1	549.4	547.5	546.3	545.2	544.0	542.9
52.5°	522.9	520.4	518.0	516.2	514.7	513.2	511.8	510.3
55°	475.8	473.5	471.2	469.4	468.3	467.2	465.9	464.8
57.5°	428.7	426.5	424.3	422.7	421.5	420.4	419.3	418.2
60°	396.3	394.6	392.8	391.5	390.5	389.6	388.6	387.7
62.5°	364.7	363.1	361.6	360.3	359.3	358.3	357.4	356.4
65°	318.8	316.8	314.9	313.5	312.5	311.5	310.5	309.6
67.5°	271.4	269.5	267.7	266.6	266.4	266.1	265.8	265.5
70°	241.5	239.9	238.4	237.3	236.8	236.2	235.6	235.1
72.5°	211.6	210.3	209.1	208.2	207.6	207.0	206.4	205.9
75°	168.4	167.6	166.9	166.4	166.2	166.0	165.8	165.7
77.5°	127.5	127.3	127.1	126.7	126.2	125.7	125.2	124.7
80°	101.6	101.2	100.8	100.5	100.3	100.1	100.0	99.7
82.5°	78.3	78.0	77.8	77.6	77.5	77.2	77.0	76.8
85°	45.1	45.1	45.1	45.0	44.8	44.6	44.4	44.2
87.5°	22.7	23.1	23.4	23.6	23.7	23.8	23.9	24.1
90°	30.3	32.0	33.6	34.7	35.2	35.8	36.4	36.9
92.5°	50.6	51.6	52.6	53.2	53.6	53.9	54.2	54.5
95°	95.1	95.9	96.7	97.1	97.1	97.1	97.1	97.1
97.5°	149.8	150.7	151.7	152.2	152.2	152.2	152.2	152.2
100°	189.1	189.7	190.3	190.5	190.5	190.5	190.5	190.5
102.5°	230.9	231.7	232.4	232.9	233.2	233.4	233.6	233.8
105°	294.2	295.1	295.9	296.7	297.5	298.3	299.1	299.9
107.5°	362.7	363.5	364.3	364.6	364.5	364.5	364.4	364.4
110°	408.3	407.7	407.2	407.3	408.1	409.0	409.8	410.6



TEST NUMBER: P332804-930

CATALOG NUMBER: S124DIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	457.3	457.2	457.1	457.1	457.3	457.5	457.6	457.8
115°	533.0	532.7	532.5	532.1	531.9	531.7	531.3	531.1
117.5°	605.7	604.8	603.8	603.1	602.5	602.0	601.4	600.9
120°	654.9	653.6	652.2	651.8	652.4	652.9	653.5	654.0
122.5°	705.0	704.1	703.2	702.2	701.2	700.3	699.3	698.3
125°	778.3	777.8	777.2	776.7	776.1	775.6	775.0	774.5
127.5°	848.4	847.8	847.3	846.8	846.4	846.0	845.5	845.1
130°	897.6	897.0	896.4	895.6	894.5	893.5	892.3	891.3
132.5°	943.8	943.2	942.6	942.2	941.8	941.3	940.9	940.4
135°	1013.1	1012.6	1012.0	1011.3	1010.5	1009.7	1008.9	1008.0
137.5°	1080.2	1079.5	1078.7	1078.5	1078.6	1078.8	1079.0	1079.1
140°	1124.3	1124.1	1123.7	1123.5	1123.2	1122.9	1122.7	1122.4
142.5°	1166.0	1166.0	1166.0	1165.9	1165.8	1165.8	1165.7	1165.6
145°	1228.8	1228.5	1228.2	1227.7	1226.9	1226.0	1225.2	1224.4
147.5°	1285.7	1285.5	1285.2	1285.0	1284.7	1284.5	1284.2	1283.9
150°	1321.5	1321.5	1321.5	1321.4	1321.1	1320.9	1320.6	1320.3
152.5°	1355.3	1355.9	1356.6	1356.6	1355.8	1355.2	1354.5	1353.7
155°	1402.4	1403.5	1404.6	1404.6	1403.5	1402.4	1401.3	1400.2
157.5°	1443.9	1444.7	1445.5	1445.4	1444.5	1443.7	1442.7	1441.8
160°	1469.5	1470.3	1471.1	1470.8	1469.5	1468.1	1466.7	1465.3
162.5°	1492.4	1493.9	1495.3	1495.4	1494.0	1492.7	1491.3	1490.0
165°	1522.7	1524.4	1526.0	1526.3	1525.2	1524.1	1523.0	1521.9
167.5°	1548.3	1550.0	1551.6	1551.6	1549.9	1548.2	1546.5	1544.7
170°	1562.1	1563.7	1565.4	1565.2	1563.3	1561.4	1559.5	1557.5
172.5°	1572.4	1574.2	1576.1	1576.1	1574.1	1572.2	1570.3	1568.4
175°	1583.6	1585.4	1587.4	1587.4	1585.4	1583.6	1581.6	1579.7
177.5°	1589.7	1591.1	1592.7	1592.6	1590.8	1589.1	1587.4	1585.6
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5

(END OF REPORT)