

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: P332795

Luminaire Tested: **S124DIW-S795D1340U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332795
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-S795D1340U835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8607.3 lumens
Efficiency: N/A
Efficacy: 140.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

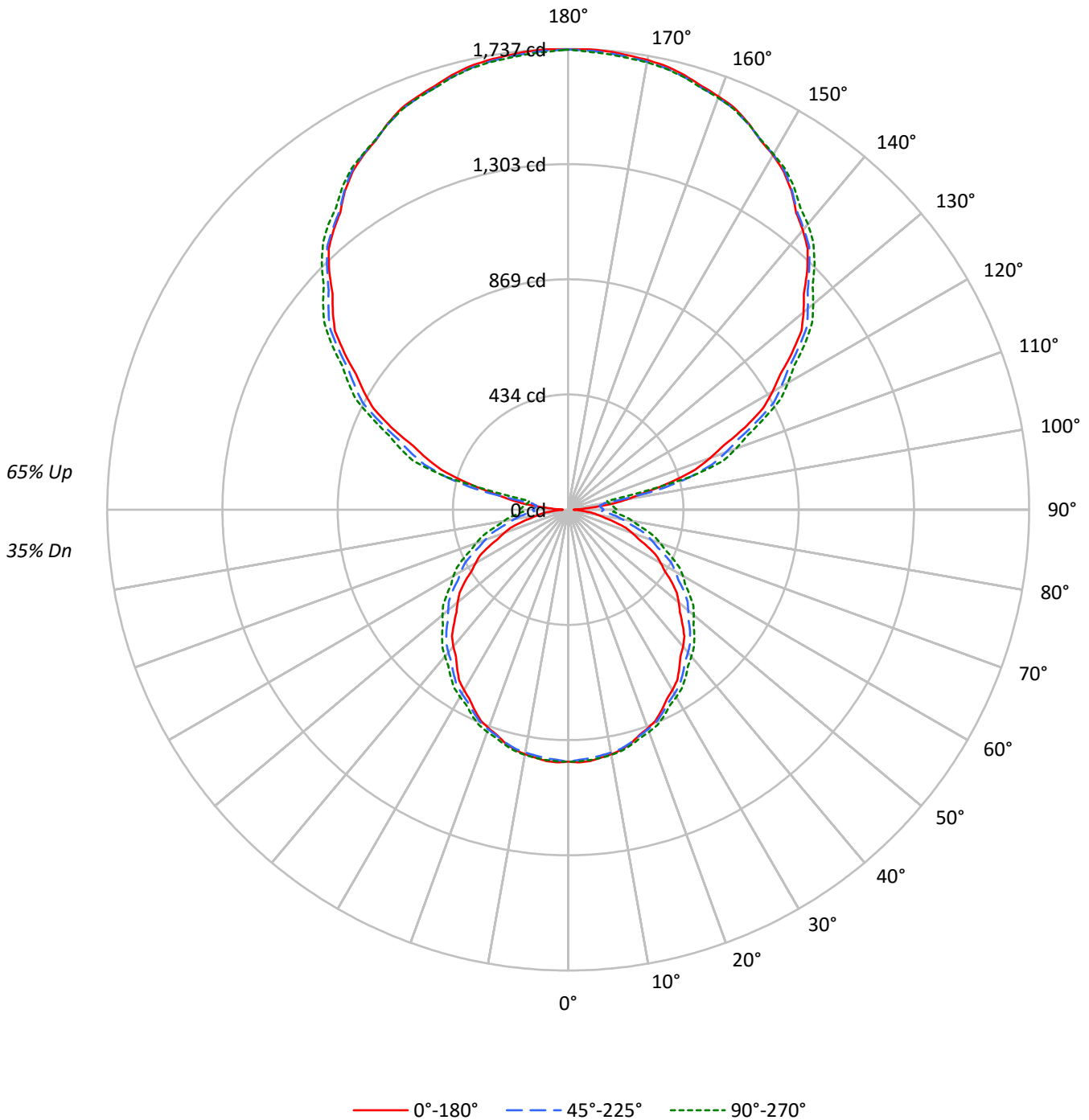
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35				
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28				
2	85	77	71	66	76	70	65	60	56	52	49	43	41	38	31	30	28	23				
3	77	68	60	54	69	61	55	50	49	45	41	38	35	32	28	25	24	19				
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12				
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	11				
8	51	38	31	26	46	35	28	24	28	23	20	22	19	16	16	14	12	9				
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	13	11	8				
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.0
10°-20°	257.7	3.0
20°-30°	389.7	4.5
30°-40°	471.5	5.5
40°-50°	498.5	5.8
50°-60°	469.1	5.5
60°-70°	389.2	4.5
70°-80°	273.4	3.2
80°-90°	159.6	1.9
90°-100°	151.1	1.8
100°-110°	446.1	5.2
110°-120°	769.0	8.9
120°-130°	944.1	11.0
130°-140°	993.7	11.5
140°-150°	921.1	10.7
150°-160°	741.0	8.6
160°-170°	477.9	5.6
170°-180°	164.7	1.9
0°-30°	737.4	8.6
0°-40°	1208.8	14.0
0°-60°	2176.4	25.3
0°-90°	2998.6	34.8
90°-120°	1366.2	15.9
90°-150°	4225.1	49.1
90°-180°	5609.0	65.2
0°-180°	8607.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	21	78	134	171	184	15
95°	85	79	121	156	168	103
105°	400	430	475	509	475	419
115°	735	750	782	806	815	724
125°	1029	1034	1057	1080	1089	919
135°	1273	1273	1285	1304	1313	981
145°	1467	1469	1470	1477	1484	916
155°	1607	1608	1604	1609	1606	741
165°	1695	1689	1689	1698	1688	479
175°	1734	1727	1728	1738	1724	165
180°	1734	1734	1734	1734	1734	



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	32.3	42.5	52.8	63.1	73.4	83.9	94.7	105.5	116.4	127.2	134.4
90°	20.9	33.5	46.2	58.8	71.4	84.0	96.4	108.9	121.4	133.8	142.4
92.5°	32.5	41.2	49.9	58.6	67.2	77.8	90.3	102.8	115.2	127.7	136.1
95°	85.2	83.2	81.2	79.2	77.2	81.2	91.1	101.1	111.1	121.1	129.2
97.5°	164.0	176.9	189.7	202.5	215.3	210.5	187.9	165.3	142.8	120.2	126.6
100°	224.4	235.8	247.1	258.4	269.8	260.1	229.6	199.0	168.5	137.9	139.4
102.5°	292.9	302.1	311.3	320.5	329.7	336.2	340.0	343.9	347.7	351.6	304.9
105°	400.0	406.4	412.9	419.4	425.8	434.1	444.3	454.5	464.7	474.9	483.4
107.5°	501.2	505.9	510.7	515.4	520.2	527.7	537.9	548.1	558.4	568.6	575.7
110°	568.8	573.0	577.2	581.4	585.5	592.6	602.6	612.6	622.6	632.6	638.6



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	634.4	638.9	643.4	647.9	652.3	658.9	667.6	676.3	685.0	693.7	698.9
115°	735.3	738.3	741.3	744.3	747.3	752.4	759.7	767.0	774.3	781.5	787.3
117.5°	827.2	829.6	832.1	834.5	836.9	842.0	849.7	857.3	865.0	872.7	877.5
120°	888.6	890.5	892.3	894.2	896.1	900.3	906.8	913.4	920.0	926.5	931.8
122.5°	946.7	947.6	948.4	949.2	950.1	953.9	960.8	967.7	974.6	981.4	986.5
125°	1028.9	1029.8	1030.8	1031.7	1032.6	1035.7	1041.1	1046.4	1051.7	1057.1	1062.4
127.5°	1107.6	1107.6	1107.7	1107.7	1107.8	1110.7	1116.6	1122.5	1128.3	1134.2	1138.3
130°	1157.6	1157.6	1157.7	1157.7	1157.8	1160.1	1164.8	1169.4	1174.1	1178.7	1183.3
132.5°	1204.3	1204.5	1204.8	1205.1	1205.4	1207.6	1211.7	1215.8	1220.0	1224.1	1228.4
135°	1273.2	1273.0	1272.7	1272.4	1272.1	1273.3	1276.2	1279.0	1281.8	1284.6	1288.9
137.5°	1335.2	1335.1	1335.0	1334.9	1334.8	1335.7	1337.8	1339.9	1341.9	1344.0	1348.1
140°	1375.7	1376.1	1376.4	1376.7	1377.1	1377.6	1378.5	1379.3	1380.1	1380.9	1384.8
142.5°	1411.2	1412.2	1413.2	1414.1	1415.1	1415.7	1415.9	1416.1	1416.3	1416.6	1419.9
145°	1466.7	1467.4	1468.0	1468.6	1469.3	1469.6	1469.6	1469.6	1469.6	1469.6	1471.3
147.5°	1511.1	1512.5	1513.9	1515.2	1516.6	1517.2	1516.9	1516.6	1516.3	1516.0	1516.4
150°	1543.3	1544.2	1545.1	1546.0	1546.9	1547.2	1547.0	1546.7	1546.4	1546.1	1546.1
152.5°	1569.4	1570.3	1571.1	1572.0	1572.9	1573.1	1572.6	1572.0	1571.5	1571.0	1571.5
155°	1607.1	1607.3	1607.6	1607.9	1608.2	1607.9	1607.1	1606.2	1605.3	1604.5	1605.6
157.5°	1639.0	1638.8	1638.6	1638.4	1638.3	1637.7	1636.7	1635.7	1634.8	1633.8	1635.3
160°	1657.6	1656.8	1655.9	1655.0	1654.2	1653.6	1653.3	1653.0	1652.7	1652.5	1654.2
162.5°	1674.2	1673.1	1672.1	1671.0	1669.9	1669.2	1668.9	1668.6	1668.3	1668.0	1669.7
165°	1695.3	1693.8	1692.4	1690.9	1689.5	1688.8	1688.8	1688.8	1688.8	1688.8	1691.1
167.5°	1711.9	1710.4	1708.9	1707.4	1705.9	1705.0	1704.9	1704.7	1704.5	1704.3	1706.9
170°	1721.2	1719.5	1717.7	1716.0	1714.3	1713.6	1713.8	1714.1	1714.4	1714.7	1717.0
172.5°	1727.4	1725.7	1724.0	1722.2	1720.5	1719.8	1720.1	1720.4	1720.6	1720.9	1723.2
175°	1734.2	1732.4	1730.7	1729.0	1727.2	1726.5	1726.8	1727.1	1727.4	1727.7	1730.3
177.5°	1737.3	1735.7	1734.0	1732.4	1730.8	1730.2	1730.7	1731.2	1731.6	1732.1	1733.9
180°	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	141.6	148.8	156.0	160.7	162.9	165.1	167.3	169.5
90°	151.0	159.6	168.2	173.7	176.2	178.6	181.1	183.6
92.5°	144.5	152.9	161.3	166.5	168.5	170.5	172.5	174.5
95°	137.3	145.4	153.5	158.8	161.2	163.6	166.0	168.4
97.5°	132.9	139.3	145.7	150.0	152.3	154.6	157.0	159.3
100°	140.9	142.4	143.8	145.5	147.5	149.4	151.4	153.3
102.5°	258.2	211.6	164.9	142.5	144.4	146.3	148.2	150.1
105°	491.9	500.4	508.9	508.9	500.4	491.9	483.4	475.0
107.5°	582.8	589.8	596.9	601.9	604.7	607.5	610.3	613.0
110°	644.7	650.7	656.7	661.1	663.8	666.6	669.3	672.1



TEST NUMBER: P332795

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	704.0	709.1	714.3	718.3	721.3	724.3	727.3	730.3
115°	793.1	798.9	804.6	808.4	810.0	811.7	813.3	815.0
117.5°	882.3	887.1	891.9	895.2	897.0	898.7	900.5	902.3
120°	937.2	942.5	947.8	951.1	952.4	953.7	955.0	956.3
122.5°	991.6	996.7	1001.7	1004.8	1006.0	1007.1	1008.2	1009.3
125°	1067.8	1073.1	1078.5	1082.0	1083.7	1085.4	1087.1	1088.8
127.5°	1142.4	1146.4	1150.5	1153.3	1154.6	1156.0	1157.4	1158.8
130°	1187.8	1192.3	1196.9	1199.9	1201.3	1202.7	1204.1	1205.5
132.5°	1232.8	1237.1	1241.5	1244.3	1245.5	1246.6	1247.8	1249.0
135°	1293.3	1297.7	1302.0	1305.2	1307.2	1309.2	1311.2	1313.2
137.5°	1352.2	1356.3	1360.4	1362.9	1363.9	1364.9	1365.9	1366.9
140°	1388.8	1392.7	1396.6	1399.4	1400.8	1402.3	1403.8	1405.2
142.5°	1423.2	1426.5	1429.9	1432.1	1433.1	1434.2	1435.2	1436.3
145°	1473.0	1474.7	1476.4	1478.0	1479.5	1481.0	1482.6	1484.1
147.5°	1516.8	1517.3	1517.7	1518.4	1519.5	1520.5	1521.5	1522.6
150°	1546.1	1546.1	1546.1	1546.2	1546.5	1546.8	1547.1	1547.4
152.5°	1571.9	1572.4	1572.8	1573.0	1572.8	1572.6	1572.5	1572.3
155°	1606.8	1607.9	1609.1	1609.2	1608.4	1607.5	1606.6	1605.8
157.5°	1636.8	1638.3	1639.8	1639.8	1638.3	1636.8	1635.3	1633.8
160°	1655.9	1657.6	1659.4	1659.4	1657.6	1655.9	1654.2	1652.5
162.5°	1671.5	1673.2	1674.9	1674.8	1672.9	1670.9	1668.9	1667.0
165°	1693.4	1695.7	1698.0	1697.8	1695.3	1692.7	1690.1	1687.5
167.5°	1709.4	1711.9	1714.5	1714.3	1711.4	1708.5	1705.7	1702.8
170°	1719.3	1721.6	1723.9	1723.6	1720.8	1717.9	1715.0	1712.1
172.5°	1725.5	1727.9	1730.2	1729.8	1726.6	1723.5	1720.4	1717.3
175°	1732.9	1735.5	1738.1	1737.6	1734.2	1730.7	1727.2	1723.8
177.5°	1735.8	1737.6	1739.5	1739.0	1736.2	1733.5	1730.7	1727.9
180°	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2	1734.2

(END OF REPORT)