

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: P332796

Luminaire Tested: **S124DIW-S795D1340U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332796
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-S795D1340U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7895.3 lumens
Efficiency: N/A
Efficacy: 128.6 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

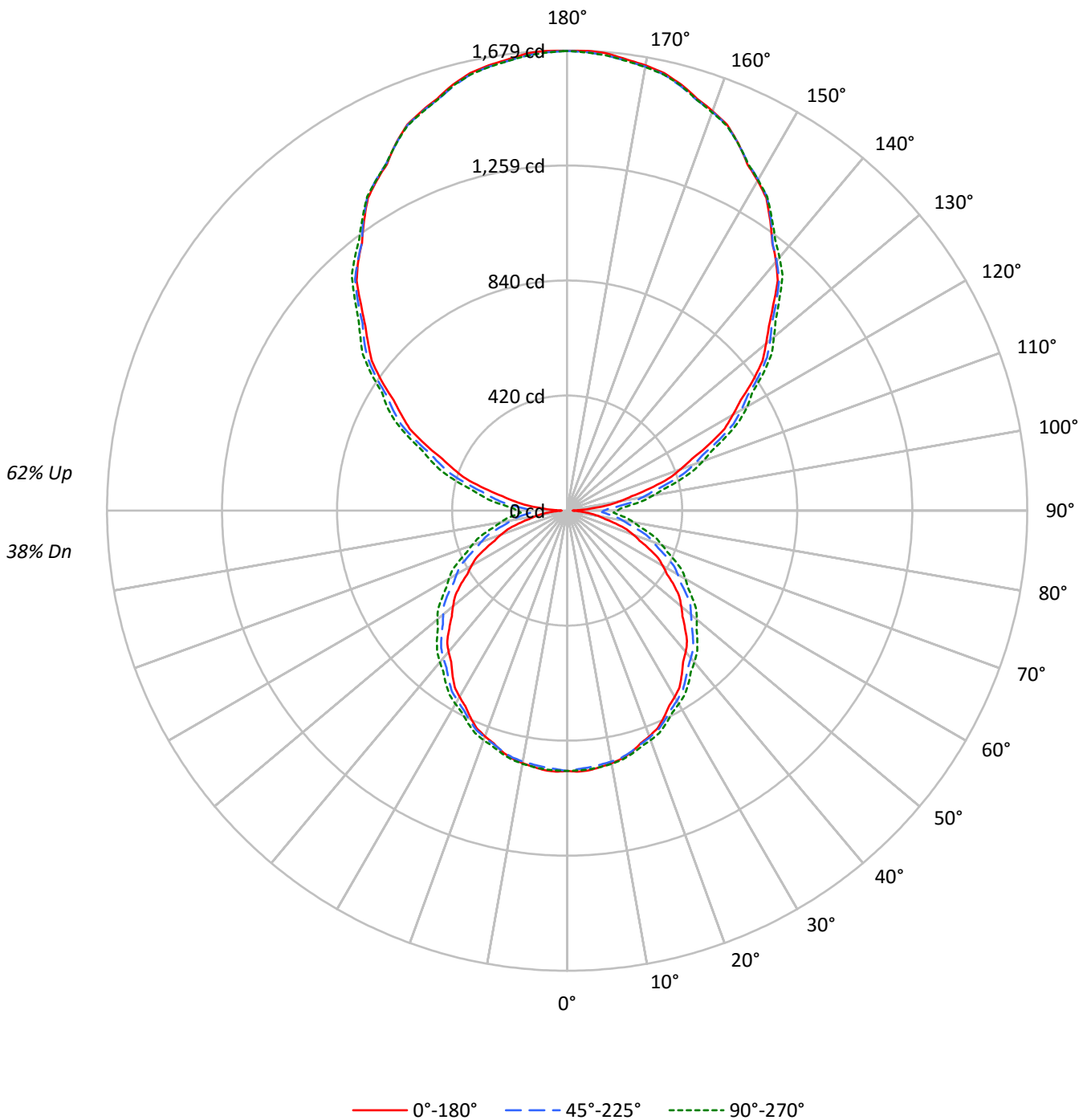
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38				
1	94	90	86	82	85	81	78	75	66	63	61	52	50	48	39	37	36	30				
2	86	78	72	66	77	71	65	61	57	53	50	45	42	40	33	32	30	25				
3	78	68	61	55	70	62	55	50	50	46	42	39	36	33	29	27	25	21				
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	24	21	17				
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	23	21	19	15				
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13				
7	55	43	35	29	50	39	32	27	32	27	23	25	21	19	19	16	14	12				
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	18	15	13	10				
9	47	35	28	23	43	32	26	21	27	21	18	21	17	15	16	13	11	9				
10	44	32	25	20	40	30	23	19	24	19	16	20	16	13	15	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.1
10°-20°	257.7	3.3
20°-30°	389.7	4.9
30°-40°	471.5	6.0
40°-50°	498.5	6.3
50°-60°	469.1	5.9
60°-70°	389.2	4.9
70°-80°	273.4	3.5
80°-90°	159.6	2.0
90°-100°	202.4	2.6
100°-110°	395.6	5.0
110°-120°	601.7	7.6
120°-130°	759.0	9.6
130°-140°	834.6	10.6
140°-150°	811.5	10.3
150°-160°	680.6	8.6
160°-170°	452.8	5.7
170°-180°	158.6	2.0
0°-30°	737.4	9.3
0°-40°	1208.8	15.3
0°-60°	2176.4	27.6
0°-90°	2998.6	38.0
90°-120°	1199.6	15.2
90°-150°	3604.7	45.7
90°-180°	4897.0	62.0
0°-180°	7895.3	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	16
95°	92	139	191	222	233	98
105°	312	336	379	408	422	331
115°	572	583	613	634	641	564
125°	828	828	852	869	873	738
135°	1064	1072	1080	1093	1096	823
145°	1292	1295	1297	1302	1302	808
155°	1478	1478	1477	1482	1477	680
165°	1609	1606	1603	1610	1606	453
175°	1674	1668	1666	1675	1666	159
180°	1677	1677	1677	1677	1677	



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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°	43.9	56.1	68.2	80.3	92.5	104.4	116.2	128.0	139.8	151.6	159.3
95°	91.6	102.0	112.4	122.8	133.2	144.3	156.0	167.7	179.4	191.1	198.3
97.5°	148.5	157.3	166.0	174.8	183.6	194.0	206.0	217.9	229.9	241.8	249.1
100°	193.3	200.6	207.9	215.2	222.5	232.0	243.8	255.6	267.4	279.3	286.2
102.5°	241.0	246.8	252.7	258.5	264.4	273.0	284.4	295.8	307.2	318.6	325.6
105°	311.7	316.8	321.8	326.8	331.8	339.3	349.2	359.1	369.0	378.9	385.6
107.5°	388.1	392.3	396.5	400.7	404.9	411.3	419.7	428.2	436.6	445.1	451.7
110°	439.1	443.0	446.8	450.7	454.6	460.6	468.5	476.5	484.5	492.5	497.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	492.2	495.2	498.3	501.3	504.4	509.6	516.9	524.3	531.7	539.1	544.2
115°	571.8	574.0	576.1	578.2	580.3	584.9	591.9	598.9	605.9	612.8	617.8
117.5°	647.9	649.4	650.9	652.4	653.9	658.0	664.6	671.2	677.9	684.5	688.5
120°	697.9	699.7	701.6	703.4	705.3	709.2	715.2	721.2	727.2	733.2	736.5
122.5°	750.8	751.4	752.0	752.6	753.2	756.5	762.6	768.7	774.7	780.8	784.6
125°	827.8	827.5	827.3	827.1	826.8	829.5	835.1	840.8	846.4	852.0	855.9
127.5°	898.4	899.0	899.6	900.3	900.9	903.2	907.3	911.4	915.5	919.5	923.2
130°	947.3	948.0	948.6	949.2	949.8	952.0	955.8	959.6	963.4	967.2	970.8
132.5°	998.2	998.6	999.0	999.4	999.8	1001.3	1004.1	1006.9	1009.7	1012.5	1016.0
135°	1064.3	1066.0	1067.7	1069.5	1071.2	1072.9	1074.5	1076.2	1077.8	1079.5	1082.7
137.5°	1137.4	1138.0	1138.6	1139.1	1139.7	1140.6	1141.9	1143.1	1144.4	1145.7	1148.4
140°	1186.2	1186.5	1186.9	1187.2	1187.5	1187.8	1188.1	1188.3	1188.5	1188.8	1191.6
142.5°	1229.9	1230.5	1231.0	1231.5	1232.1	1232.1	1231.8	1231.4	1231.0	1230.6	1233.3
145°	1291.5	1292.4	1293.3	1294.2	1295.1	1295.7	1296.0	1296.3	1296.6	1296.9	1298.0
147.5°	1352.7	1353.8	1355.0	1356.1	1357.3	1357.7	1357.5	1357.3	1357.0	1356.8	1356.8
150°	1390.0	1390.9	1391.9	1392.8	1393.7	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1
152.5°	1424.5	1425.1	1425.7	1426.4	1427.0	1427.5	1427.7	1427.9	1428.2	1428.4	1429.1
155°	1478.4	1478.4	1478.4	1478.4	1478.4	1478.3	1478.0	1477.7	1477.4	1477.2	1478.3
157.5°	1524.1	1523.6	1523.1	1522.5	1522.0	1521.7	1521.7	1521.6	1521.6	1521.5	1522.4
160°	1551.1	1550.8	1550.5	1550.2	1549.9	1549.6	1549.3	1549.1	1548.8	1548.5	1549.3
162.5°	1576.0	1575.2	1574.5	1573.7	1573.0	1572.5	1572.2	1571.9	1571.6	1571.3	1572.9
165°	1609.4	1608.6	1607.7	1606.8	1606.0	1605.3	1604.7	1604.1	1603.5	1602.9	1604.7
167.5°	1635.1	1633.9	1632.7	1631.5	1630.3	1629.7	1629.8	1629.8	1629.9	1629.9	1631.7
170°	1649.6	1648.2	1646.8	1645.3	1643.9	1643.3	1643.6	1643.9	1644.2	1644.4	1646.2
172.5°	1660.0	1658.8	1657.6	1656.4	1655.2	1654.6	1654.7	1654.7	1654.8	1654.8	1656.8
175°	1674.3	1672.8	1671.4	1670.0	1668.5	1667.6	1667.4	1667.1	1666.8	1666.5	1668.5
177.5°	1678.9	1677.8	1676.6	1675.5	1674.3	1673.8	1673.8	1673.8	1673.8	1673.8	1675.4
180°	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9



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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°	167.0	174.7	182.4	187.3	189.6	191.8	194.0	196.3
95°	205.6	212.8	220.1	224.8	226.9	229.0	231.2	233.3
97.5°	256.3	263.5	270.8	275.4	277.4	279.4	281.5	283.5
100°	293.2	300.1	307.1	311.4	313.1	314.7	316.4	318.0
102.5°	332.6	339.6	346.6	351.1	353.2	355.3	357.3	359.4
105°	392.4	399.2	406.0	410.7	413.5	416.2	419.0	421.7
107.5°	458.3	464.9	471.5	475.7	477.3	479.0	480.6	482.3
110°	502.2	507.1	511.9	515.7	518.5	521.3	524.0	526.8



TEST NUMBER: P332796

CATALOG NUMBER: S124DIW-S795D1340U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	549.3	554.5	559.6	563.2	565.3	567.3	569.4	571.5
115°	622.7	627.6	632.5	635.6	637.0	638.4	639.7	641.1
117.5°	692.4	696.3	700.3	702.9	704.2	705.5	706.8	708.2
120°	739.8	743.0	746.3	749.2	751.7	754.1	756.6	759.1
122.5°	788.3	792.1	795.8	798.0	798.7	799.3	800.0	800.7
125°	859.8	863.8	867.7	870.0	870.9	871.7	872.6	873.4
127.5°	926.9	930.6	934.3	936.7	937.8	939.0	940.1	941.3
130°	974.5	978.2	981.9	983.9	984.1	984.4	984.6	984.9
132.5°	1019.5	1023.0	1026.5	1028.7	1029.7	1030.6	1031.6	1032.5
135°	1085.9	1089.1	1092.3	1094.2	1094.8	1095.3	1095.9	1096.4
137.5°	1151.1	1153.8	1156.5	1158.5	1159.9	1161.2	1162.6	1163.9
140°	1194.3	1197.1	1199.9	1201.8	1202.6	1203.5	1204.4	1205.3
142.5°	1235.9	1238.6	1241.2	1243.0	1243.9	1244.9	1245.8	1246.7
145°	1299.1	1300.3	1301.4	1302.0	1302.1	1302.2	1302.3	1302.3
147.5°	1356.7	1356.7	1356.6	1356.8	1357.3	1357.8	1358.3	1358.7
150°	1394.1	1394.1	1394.1	1394.0	1393.7	1393.4	1393.1	1392.9
152.5°	1429.8	1430.5	1431.2	1431.1	1430.4	1429.6	1428.9	1428.1
155°	1479.5	1480.6	1481.8	1481.8	1480.6	1479.5	1478.3	1477.2
157.5°	1523.2	1524.1	1525.0	1524.9	1523.9	1522.9	1522.0	1521.0
160°	1550.2	1551.1	1551.9	1551.6	1550.2	1548.8	1547.3	1545.9
162.5°	1574.4	1576.0	1577.5	1577.6	1576.1	1574.7	1573.3	1571.8
165°	1606.4	1608.1	1609.9	1610.2	1609.0	1607.8	1606.7	1605.5
167.5°	1633.4	1635.1	1636.8	1636.8	1635.0	1633.2	1631.5	1629.7
170°	1647.9	1649.6	1651.4	1651.2	1649.2	1647.2	1645.2	1643.2
172.5°	1658.7	1660.7	1662.7	1662.6	1660.6	1658.6	1656.6	1654.6
175°	1670.5	1672.5	1674.6	1674.6	1672.5	1670.5	1668.5	1666.5
177.5°	1677.0	1678.6	1680.2	1680.1	1678.3	1676.4	1674.6	1672.7
180°	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9	1676.9

(END OF REPORT)