

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: P332795-930

Luminaire Tested: **S124DIW-S795D1340U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332795-930
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-S795D1340U930-4F0-1E-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

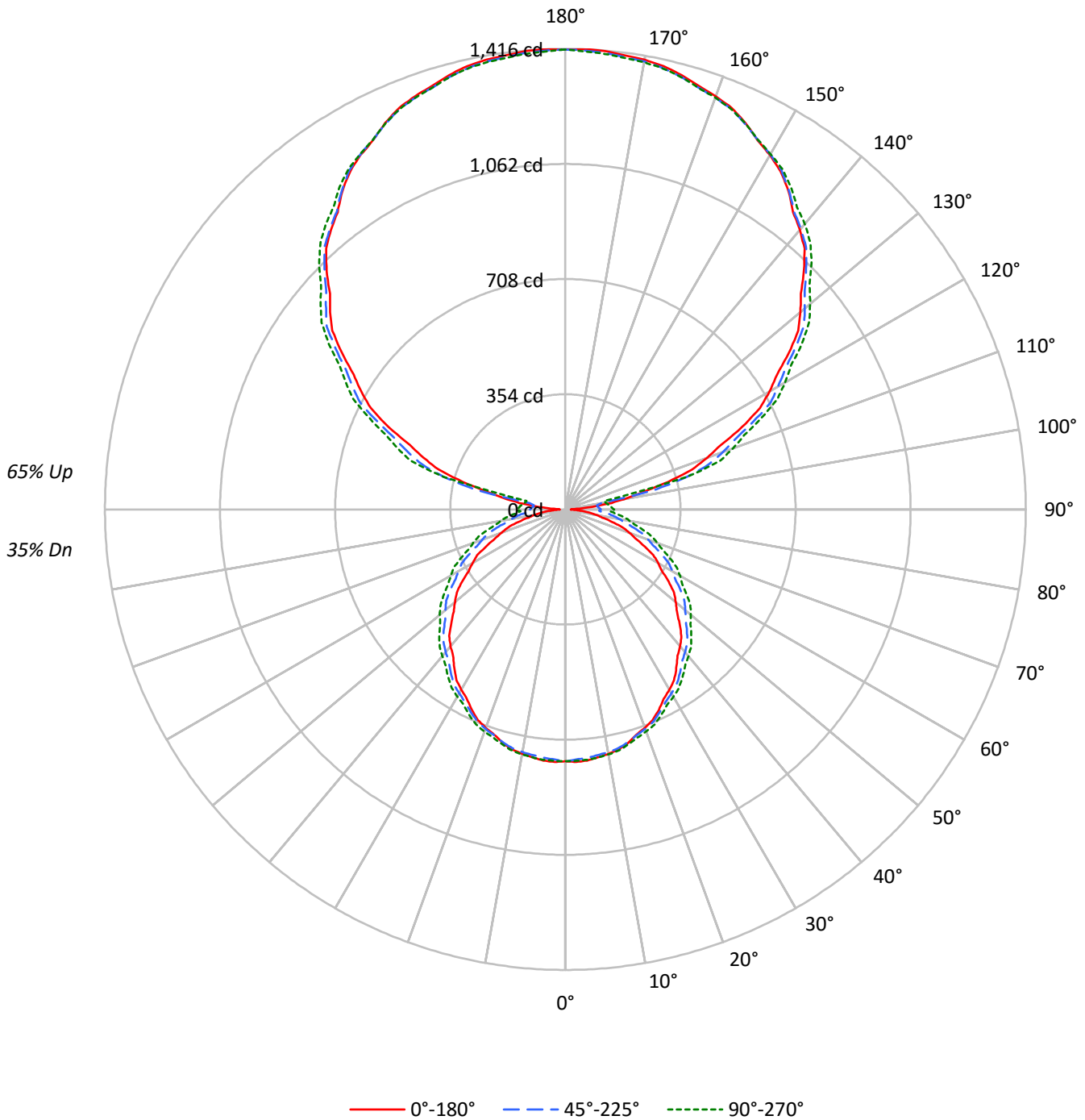
Lumens per Lamp: N/A
Luminaire Lumens: 7017.5 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (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: P332795-930
CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-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	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°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.0
10°-20°	210.1	3.0
20°-30°	317.7	4.5
30°-40°	384.4	5.5
40°-50°	406.4	5.8
50°-60°	382.5	5.5
60°-70°	317.3	4.5
70°-80°	222.9	3.2
80°-90°	130.1	1.9
90°-100°	123.2	1.8
100°-110°	363.7	5.2
110°-120°	627.0	8.9
120°-130°	769.7	11.0
130°-140°	810.2	11.5
140°-150°	751.0	10.7
150°-160°	604.1	8.6
160°-170°	389.6	5.6
170°-180°	134.3	1.9
0°-30°	601.2	8.6
0°-40°	985.6	14.0
0°-60°	1774.4	25.3
0°-90°	2444.7	34.8
90°-120°	1113.9	15.9
90°-150°	3444.7	49.1
90°-180°	4573.0	65.2
0°-180°	7017.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	17	63	109	139	150	12
95°	70	65	99	127	137	84
105°	326	351	387	415	387	342
115°	600	611	637	658	664	590
125°	839	843	862	881	888	749
135°	1038	1038	1047	1063	1071	800
145°	1196	1198	1198	1204	1210	747
155°	1310	1311	1308	1312	1309	604
165°	1382	1377	1377	1384	1376	390
175°	1414	1408	1409	1417	1405	135
180°	1414	1414	1414	1414	1414	



TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	26.3	34.7	43.0	51.4	59.8	68.4	77.2	86.0	94.9	103.7	109.6
90°	17.0	27.3	37.7	47.9	58.2	68.5	78.6	88.8	99.0	109.1	116.1
92.5°	26.5	33.6	40.7	47.8	54.8	63.4	73.6	83.8	93.9	104.1	111.0
95°	69.5	67.8	66.2	64.6	62.9	66.2	74.3	82.4	90.6	98.7	105.3
97.5°	133.7	144.2	154.7	165.1	175.5	171.6	153.2	134.8	116.4	98.0	103.2
100°	183.0	192.2	201.5	210.7	220.0	212.1	187.2	162.2	137.4	112.4	113.7
102.5°	238.8	246.3	253.8	261.3	268.8	274.1	277.2	280.4	283.5	286.7	248.6
105°	326.1	331.3	336.6	341.9	347.2	353.9	362.2	370.6	378.9	387.2	394.1
107.5°	408.6	412.5	416.4	420.2	424.1	430.2	438.5	446.9	455.3	463.6	469.4
110°	463.7	467.2	470.6	474.0	477.4	483.1	491.3	499.5	507.6	515.8	520.7



TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	517.2	520.9	524.6	528.2	531.8	537.2	544.3	551.4	558.5	565.6	569.8
115°	599.5	601.9	604.4	606.8	609.3	613.4	619.4	625.3	631.3	637.2	641.9
117.5°	674.4	676.4	678.4	680.4	682.3	686.5	692.8	699.0	705.2	711.5	715.4
120°	724.5	726.0	727.5	729.0	730.6	734.0	739.3	744.7	750.1	755.4	759.7
122.5°	771.8	772.6	773.2	773.9	774.6	777.7	783.3	789.0	794.6	800.1	804.3
125°	838.9	839.6	840.4	841.1	841.9	844.4	848.8	853.1	857.5	861.9	866.2
127.5°	903.0	903.0	903.1	903.1	903.2	905.6	910.4	915.2	919.9	924.7	928.1
130°	943.8	943.8	943.9	943.9	944.0	945.8	949.7	953.4	957.2	961.0	964.7
132.5°	981.9	982.0	982.3	982.5	982.8	984.6	987.9	991.2	994.7	998.0	1001.5
135°	1038.0	1037.9	1037.6	1037.4	1037.1	1038.1	1040.5	1042.8	1045.1	1047.3	1050.8
137.5°	1088.6	1088.5	1088.4	1088.3	1088.3	1089.0	1090.7	1092.4	1094.1	1095.8	1099.1
140°	1121.6	1121.9	1122.2	1122.4	1122.7	1123.2	1123.9	1124.5	1125.2	1125.8	1129.0
142.5°	1150.6	1151.4	1152.2	1152.9	1153.7	1154.2	1154.4	1154.5	1154.7	1155.0	1157.6
145°	1195.8	1196.4	1196.9	1197.3	1197.9	1198.2	1198.2	1198.2	1198.2	1198.2	1199.5
147.5°	1232.0	1233.1	1234.3	1235.3	1236.5	1237.0	1236.7	1236.5	1236.2	1236.0	1236.3
150°	1258.3	1259.0	1259.7	1260.5	1261.2	1261.4	1261.3	1261.0	1260.8	1260.5	1260.5
152.5°	1279.5	1280.3	1280.9	1281.7	1282.4	1282.5	1282.1	1281.7	1281.2	1280.8	1281.2
155°	1310.3	1310.4	1310.7	1310.9	1311.2	1310.9	1310.3	1309.5	1308.8	1308.1	1309.0
157.5°	1336.3	1336.1	1335.9	1335.8	1335.7	1335.2	1334.4	1333.6	1332.9	1332.0	1333.3
160°	1351.4	1350.8	1350.1	1349.3	1348.7	1348.2	1347.9	1347.7	1347.4	1347.3	1348.7
162.5°	1365.0	1364.1	1363.3	1362.4	1361.5	1360.9	1360.7	1360.4	1360.2	1359.9	1361.3
165°	1382.2	1381.0	1379.8	1378.6	1377.4	1376.9	1376.9	1376.9	1376.9	1376.9	1378.8
167.5°	1395.7	1394.5	1393.3	1392.0	1390.8	1390.1	1390.0	1389.8	1389.7	1389.5	1391.6
170°	1403.3	1401.9	1400.4	1399.1	1397.7	1397.1	1397.3	1397.5	1397.7	1398.0	1399.9
172.5°	1408.3	1407.0	1405.6	1404.1	1402.7	1402.2	1402.4	1402.6	1402.8	1403.0	1404.9
175°	1413.9	1412.4	1411.0	1409.7	1408.2	1407.6	1407.9	1408.1	1408.3	1408.6	1410.7
177.5°	1416.4	1415.1	1413.7	1412.4	1411.1	1410.6	1411.0	1411.4	1411.8	1412.2	1413.6
180°	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9



TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	115.4	121.3	127.2	131.0	132.8	134.6	136.4	138.2
90°	123.1	130.1	137.1	141.6	143.7	145.6	147.7	149.7
92.5°	117.8	124.7	131.5	135.7	137.4	139.0	140.6	142.3
95°	111.9	118.5	125.1	129.5	131.4	133.4	135.3	137.3
97.5°	108.4	113.6	118.8	122.3	124.2	126.0	128.0	129.9
100°	114.9	116.1	117.2	118.6	120.3	121.8	123.4	125.0
102.5°	210.5	172.5	134.4	116.2	117.7	119.3	120.8	122.4
105°	401.0	408.0	414.9	414.9	408.0	401.0	394.1	387.3
107.5°	475.2	480.9	486.7	490.7	493.0	495.3	497.6	499.8
110°	525.6	530.5	535.4	539.0	541.2	543.5	545.7	548.0



TEST NUMBER: P332795-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	574.0	578.1	582.4	585.6	588.1	590.5	593.0	595.4
115°	646.6	651.3	656.0	659.1	660.4	661.8	663.1	664.5
117.5°	719.3	723.3	727.2	729.9	731.3	732.7	734.2	735.6
120°	764.1	768.4	772.7	775.4	776.5	777.6	778.6	779.7
122.5°	808.5	812.6	816.7	819.2	820.2	821.1	822.0	822.9
125°	870.6	874.9	879.3	882.2	883.5	884.9	886.3	887.7
127.5°	931.4	934.7	938.0	940.3	941.3	942.5	943.6	944.8
130°	968.4	972.1	975.8	978.3	979.4	980.6	981.7	982.8
132.5°	1005.1	1008.6	1012.2	1014.5	1015.5	1016.4	1017.3	1018.3
135°	1054.4	1058.0	1061.5	1064.1	1065.8	1067.4	1069.0	1070.7
137.5°	1102.4	1105.8	1109.1	1111.2	1112.0	1112.8	1113.6	1114.4
140°	1132.3	1135.5	1138.6	1140.9	1142.1	1143.3	1144.5	1145.7
142.5°	1160.3	1163.0	1165.8	1167.6	1168.4	1169.3	1170.1	1171.0
145°	1200.9	1202.3	1203.7	1205.0	1206.2	1207.5	1208.8	1210.0
147.5°	1236.6	1237.1	1237.4	1238.0	1238.8	1239.7	1240.5	1241.4
150°	1260.5	1260.5	1260.5	1260.6	1260.9	1261.1	1261.3	1261.6
152.5°	1281.6	1282.0	1282.3	1282.5	1282.3	1282.1	1282.1	1281.9
155°	1310.0	1310.9	1311.9	1312.0	1311.3	1310.6	1309.9	1309.2
157.5°	1334.5	1335.7	1336.9	1336.9	1335.7	1334.5	1333.3	1332.0
160°	1350.1	1351.4	1352.9	1352.9	1351.4	1350.1	1348.7	1347.3
162.5°	1362.8	1364.2	1365.5	1365.5	1363.9	1362.3	1360.7	1359.1
165°	1380.6	1382.5	1384.4	1384.2	1382.2	1380.1	1377.9	1375.8
167.5°	1393.7	1395.7	1397.8	1397.7	1395.3	1392.9	1390.7	1388.3
170°	1401.7	1403.6	1405.5	1405.2	1403.0	1400.6	1398.2	1395.9
172.5°	1406.8	1408.8	1410.6	1410.3	1407.7	1405.2	1402.6	1400.1
175°	1412.8	1415.0	1417.1	1416.7	1413.9	1411.0	1408.2	1405.4
177.5°	1415.2	1416.7	1418.2	1417.8	1415.5	1413.3	1411.0	1408.8
180°	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9

(END OF REPORT)