

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: P332796-930

Luminaire Tested: **S124DIW-S795D1340U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332796-930
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-S795D1340U930-4F0-1E-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: 6437.1 lumens
Efficiency: N/A
Efficacy: 104.8 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

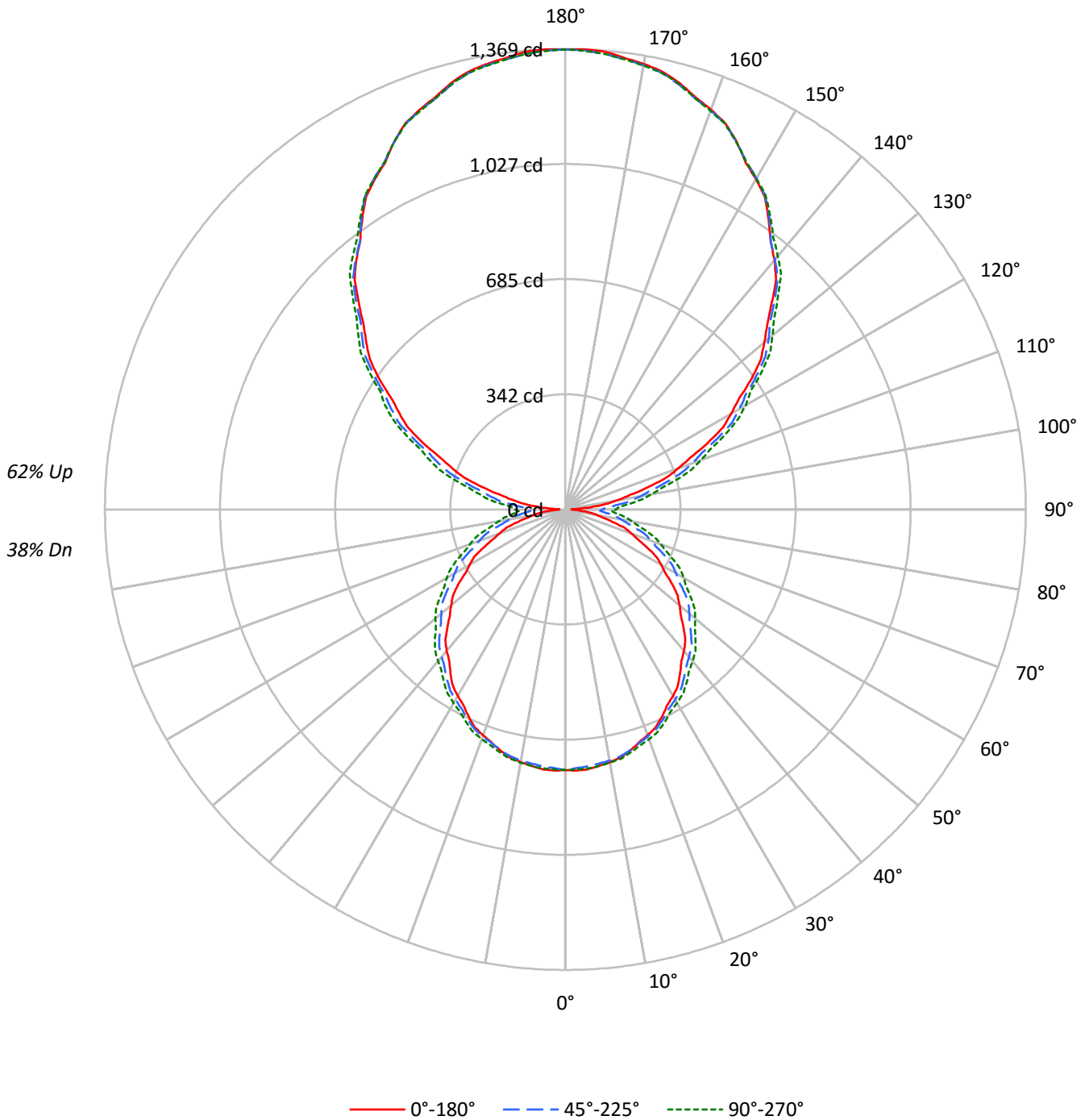
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

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°	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: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.1
10°-20°	210.1	3.3
20°-30°	317.7	4.9
30°-40°	384.4	6.0
40°-50°	406.4	6.3
50°-60°	382.5	5.9
60°-70°	317.3	4.9
70°-80°	222.9	3.5
80°-90°	130.1	2.0
90°-100°	165.0	2.6
100°-110°	322.5	5.0
110°-120°	490.6	7.6
120°-130°	618.8	9.6
130°-140°	680.5	10.6
140°-150°	661.6	10.3
150°-160°	554.9	8.6
160°-170°	369.2	5.7
170°-180°	129.3	2.0
0°-30°	601.2	9.3
0°-40°	985.6	15.3
0°-60°	1774.4	27.6
0°-90°	2444.7	38.0
90°-120°	978.1	15.2
90°-150°	2938.9	45.7
90°-180°	3992.0	62.0
0°-180°	6437.1	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	13
95°	75	113	156	181	190	80
105°	254	274	309	333	344	270
115°	466	475	500	517	523	460
125°	675	675	695	708	712	602
135°	868	874	880	891	894	671
145°	1053	1056	1057	1061	1062	659
155°	1205	1205	1204	1208	1204	554
165°	1312	1309	1307	1313	1309	370
175°	1365	1360	1359	1365	1359	130
180°	1367	1367	1367	1367	1367	



TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

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°	35.8	45.7	55.6	65.5	75.4	85.1	94.7	104.4	114.0	123.6	129.9
95°	74.7	83.2	91.6	100.1	108.6	117.6	127.2	136.7	146.3	155.8	161.7
97.5°	121.1	128.2	135.3	142.5	149.7	158.2	168.0	177.7	187.4	197.1	203.1
100°	157.6	163.5	169.5	175.5	181.4	189.1	198.8	208.4	218.0	227.7	233.3
102.5°	196.5	201.2	206.0	210.8	215.6	222.6	231.9	241.2	250.5	259.8	265.5
105°	254.1	258.3	262.4	266.4	270.5	276.6	284.7	292.8	300.8	308.9	314.4
107.5°	316.4	319.8	323.3	326.7	330.1	335.3	342.2	349.1	356.0	362.9	368.3
110°	358.0	361.2	364.3	367.5	370.6	375.5	382.0	388.5	395.0	401.5	405.5



TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	401.3	403.7	406.3	408.7	411.2	415.5	421.4	427.5	433.5	439.5	443.7
115°	466.2	468.0	469.7	471.4	473.1	476.9	482.6	488.3	494.0	499.6	503.7
117.5°	528.2	529.5	530.7	531.9	533.1	536.5	541.8	547.2	552.7	558.1	561.3
120°	569.0	570.5	572.0	573.5	575.0	578.2	583.1	588.0	592.9	597.8	600.5
122.5°	612.1	612.6	613.1	613.6	614.1	616.8	621.7	626.7	631.6	636.6	639.7
125°	674.9	674.7	674.5	674.3	674.1	676.3	680.9	685.5	690.1	694.6	697.8
127.5°	732.5	733.0	733.4	734.0	734.5	736.4	739.7	743.1	746.4	749.7	752.7
130°	772.3	772.9	773.4	773.9	774.4	776.2	779.3	782.4	785.5	788.6	791.5
132.5°	813.8	814.2	814.5	814.8	815.1	816.4	818.6	820.9	823.2	825.5	828.3
135°	867.7	869.1	870.5	872.0	873.3	874.7	876.0	877.4	878.7	880.1	882.7
137.5°	927.3	927.8	928.3	928.7	929.2	929.9	931.0	932.0	933.0	934.1	936.3
140°	967.1	967.4	967.7	967.9	968.2	968.4	968.7	968.8	969.0	969.2	971.5
142.5°	1002.7	1003.2	1003.6	1004.0	1004.5	1004.5	1004.3	1004.0	1003.6	1003.3	1005.5
145°	1053.0	1053.7	1054.4	1055.2	1055.9	1056.4	1056.6	1056.9	1057.1	1057.4	1058.3
147.5°	1102.9	1103.8	1104.7	1105.6	1106.6	1106.9	1106.8	1106.6	1106.4	1106.2	1106.2
150°	1133.3	1134.0	1134.8	1135.5	1136.3	1136.6	1136.6	1136.6	1136.6	1136.6	1136.6
152.5°	1161.4	1161.9	1162.4	1162.9	1163.4	1163.8	1164.0	1164.2	1164.4	1164.6	1165.1
155°	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.0	1204.8	1204.5	1204.4	1205.3
157.5°	1242.6	1242.2	1241.8	1241.3	1240.9	1240.6	1240.6	1240.6	1240.6	1240.5	1241.2
160°	1264.6	1264.4	1264.1	1263.9	1263.6	1263.4	1263.1	1263.0	1262.7	1262.5	1263.1
162.5°	1284.9	1284.3	1283.7	1283.0	1282.5	1282.1	1281.8	1281.6	1281.3	1281.1	1282.4
165°	1312.1	1311.5	1310.8	1310.0	1309.4	1308.8	1308.3	1307.8	1307.3	1306.8	1308.3
167.5°	1333.1	1332.1	1331.1	1330.2	1329.2	1328.7	1328.8	1328.8	1328.9	1328.9	1330.3
170°	1344.9	1343.8	1342.6	1341.4	1340.3	1339.8	1340.0	1340.3	1340.5	1340.7	1342.1
172.5°	1353.4	1352.4	1351.4	1350.5	1349.5	1349.0	1349.1	1349.1	1349.2	1349.2	1350.8
175°	1365.1	1363.8	1362.7	1361.5	1360.3	1359.6	1359.4	1359.2	1358.9	1358.7	1360.3
177.5°	1368.8	1367.9	1366.9	1366.0	1365.1	1364.6	1364.6	1364.6	1364.6	1364.6	1366.0
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2



TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

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°	136.2	142.4	148.7	152.7	154.6	156.4	158.2	160.0
95°	167.6	173.5	179.4	183.3	185.0	186.7	188.5	190.2
97.5°	209.0	214.8	220.8	224.5	226.2	227.8	229.5	231.1
100°	239.0	244.7	250.4	253.9	255.3	256.6	258.0	259.3
102.5°	271.2	276.9	282.6	286.3	288.0	289.7	291.3	293.0
105°	319.9	325.5	331.0	334.8	337.1	339.3	341.6	343.8
107.5°	373.7	379.0	384.4	387.8	389.1	390.5	391.8	393.2
110°	409.4	413.4	417.4	420.4	422.7	425.0	427.2	429.5



TEST NUMBER: P332796-930

CATALOG NUMBER: S124DIW-S795D1340U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	447.8	452.1	456.2	459.2	460.9	462.5	464.2	465.9
115°	507.7	511.7	515.7	518.2	519.3	520.5	521.5	522.7
117.5°	564.5	567.7	571.0	573.1	574.1	575.2	576.3	577.4
120°	603.2	605.8	608.5	610.8	612.9	614.8	616.9	618.9
122.5°	642.7	645.8	648.8	650.6	651.2	651.7	652.2	652.8
125°	701.0	704.3	707.4	709.3	710.0	710.7	711.4	712.1
127.5°	755.7	758.7	761.7	763.7	764.6	765.6	766.5	767.4
130°	794.5	797.5	800.5	802.2	802.3	802.6	802.7	803.0
132.5°	831.2	834.1	836.9	838.7	839.5	840.2	841.1	841.8
135°	885.3	887.9	890.6	892.1	892.6	893.0	893.5	893.9
137.5°	938.5	940.7	942.9	944.5	945.7	946.7	947.9	948.9
140°	973.7	976.0	978.3	979.8	980.5	981.2	981.9	982.7
142.5°	1007.6	1009.8	1011.9	1013.4	1014.2	1015.0	1015.7	1016.4
145°	1059.2	1060.1	1061.0	1061.5	1061.6	1061.7	1061.8	1061.8
147.5°	1106.1	1106.1	1106.0	1106.2	1106.6	1107.0	1107.4	1107.7
150°	1136.6	1136.6	1136.6	1136.5	1136.3	1136.0	1135.8	1135.6
152.5°	1165.7	1166.3	1166.9	1166.8	1166.2	1165.6	1165.0	1164.3
155°	1206.2	1207.1	1208.1	1208.1	1207.1	1206.2	1205.3	1204.4
157.5°	1241.9	1242.6	1243.3	1243.2	1242.4	1241.6	1240.9	1240.1
160°	1263.9	1264.6	1265.3	1265.0	1263.9	1262.7	1261.5	1260.4
162.5°	1283.6	1284.9	1286.1	1286.2	1285.0	1283.9	1282.7	1281.5
165°	1309.7	1311.1	1312.6	1312.8	1311.8	1310.8	1309.9	1309.0
167.5°	1331.7	1333.1	1334.5	1334.5	1333.0	1331.5	1330.2	1328.7
170°	1343.5	1344.9	1346.4	1346.2	1344.6	1343.0	1341.3	1339.7
172.5°	1352.3	1354.0	1355.6	1355.5	1353.9	1352.3	1350.6	1349.0
175°	1362.0	1363.6	1365.3	1365.3	1363.6	1362.0	1360.3	1358.7
177.5°	1367.3	1368.6	1369.9	1369.8	1368.3	1366.8	1365.3	1363.8
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2

(END OF REPORT)