

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: P332621-935

Luminaire Tested: **S124DIP-S795D1205U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332621-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D1205U935-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6494.4 lumens  
Efficiency: N/A  
Efficacy: 114.1 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

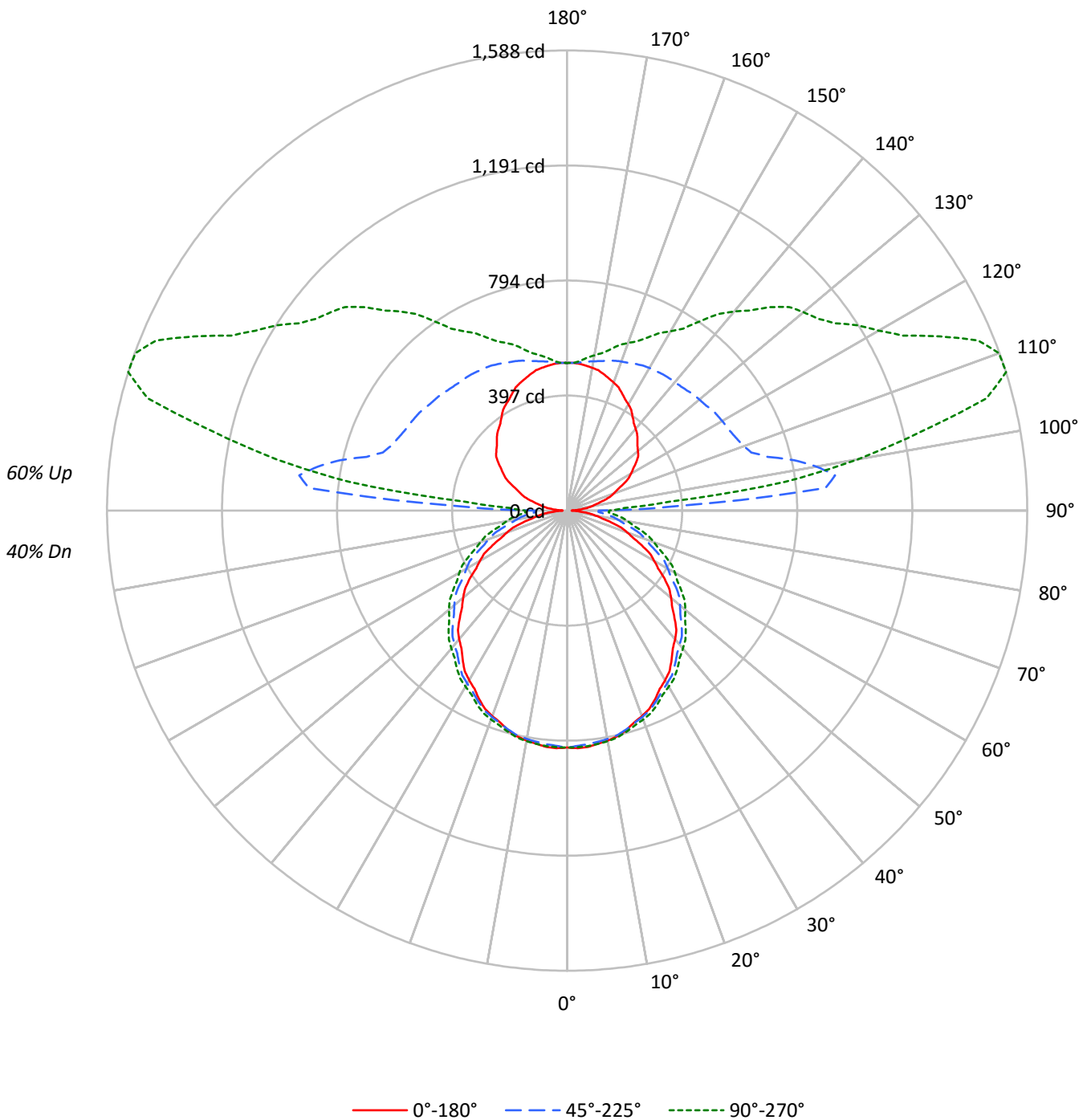
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	78	75	67	64	62	53	51	49	40	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	22
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	24	22	18
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	31	36	30	26	29	25	22	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	1.2
10°-20°	221.9	3.4
20°-30°	335.5	5.2
30°-40°	405.9	6.3
40°-50°	429.2	6.6
50°-60°	403.9	6.2
60°-70°	335.1	5.2
70°-80°	235.4	3.6
80°-90°	135.9	2.1
90°-100°	446.8	6.9
100°-110°	824.0	12.7
110°-120°	724.9	11.2
120°-130°	598.9	9.2
130°-140°	490.5	7.6
140°-150°	369.3	5.7
150°-160°	258.3	4.0
160°-170°	151.9	2.3
170°-180°	49.4	0.8
0°-30°	634.9	9.8
0°-40°	1040.8	16.0
0°-60°	1873.9	28.9
0°-90°	2580.3	39.7
90°-120°	1995.8	30.7
90°-150°	3454.5	53.2
90°-180°	3914.0	60.3
0°-180°	6494.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	16	59	109	136	146	12
95°	45	147	895	507	357	46
105°	125	197	717	1496	1498	134
115°	212	274	628	1187	1421	210
125°	291	345	608	999	1127	259
135°	343	408	586	872	993	265
145°	394	450	574	722	796	247
155°	447	483	558	632	659	206
165°	487	502	535	567	575	138
175°	508	509	513	520	518	48
180°	509	509	509	509	509	



TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.3	36.0	44.9	53.4	61.9	70.5	80.7	89.5	98.8	108.2	113.9
90°	15.7	25.8	36.9	46.1	55.2	63.6	78.4	87.1	97.9	108.7	113.6
92.5°	25.3	37.9	54.6	74.1	96.1	124.9	184.5	270.9	355.2	403.6	356.4
95°	44.9	54.7	71.4	91.1	121.8	171.3	266.7	439.2	686.6	895.1	923.6
97.5°	70.0	75.9	90.2	108.0	134.4	176.6	251.9	395.6	641.6	932.8	1132.6
100°	86.1	91.4	103.7	121.0	145.3	183.9	250.9	371.9	583.9	874.0	1135.6
102.5°	102.1	108.4	119.2	135.1	157.9	194.5	255.7	362.9	544.4	802.3	1071.8
105°	125.3	132.3	141.5	157.5	179.6	214.4	269.9	360.5	508.2	716.8	957.0
107.5°	152.7	158.1	166.4	182.5	203.1	236.9	288.1	370.8	497.7	666.6	863.5
110°	170.4	175.2	183.1	197.9	218.8	250.8	302.0	379.1	496.3	648.5	816.2



TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	187.3	191.8	200.1	213.9	234.4	266.0	315.3	388.1	497.7	637.7	787.6
115°	211.6	216.5	225.2	237.1	258.0	289.1	335.6	402.2	501.8	628.4	758.9
117.5°	237.8	241.7	249.0	261.1	280.0	311.6	355.7	417.0	506.5	621.8	742.7
120°	254.7	257.4	264.9	276.6	294.1	325.5	369.4	427.3	510.2	618.2	733.3
122.5°	270.7	272.9	280.0	290.2	309.0	339.1	382.6	437.0	514.1	613.7	723.2
125°	290.8	294.6	300.4	311.2	330.0	360.5	401.6	452.7	520.8	608.0	707.8
127.5°	309.2	312.2	319.3	331.7	351.2	381.3	420.0	466.1	525.1	600.2	687.9
130°	318.9	322.7	330.5	345.3	364.1	394.7	432.0	474.2	528.5	595.7	675.5
132.5°	329.3	332.3	342.5	356.5	376.9	405.5	442.1	482.9	531.8	592.0	664.3
135°	343.0	347.0	357.0	374.0	395.0	421.7	456.2	493.6	536.1	585.5	646.8
137.5°	357.6	361.2	372.0	388.0	409.6	434.6	466.1	500.5	537.6	581.1	631.9
140°	368.0	370.8	381.6	398.4	419.2	443.2	473.5	505.7	539.8	578.1	623.8
142.5°	378.5	381.4	391.6	407.8	427.9	451.1	480.2	509.6	541.9	576.6	617.2
145°	394.1	396.9	406.7	420.5	439.3	461.2	487.2	514.3	543.3	574.3	607.5
147.5°	411.9	412.7	421.3	435.5	451.1	470.8	495.2	518.8	544.2	570.7	599.1
150°	423.1	424.0	431.7	443.5	458.3	477.3	499.2	521.2	544.2	568.3	593.3
152.5°	432.8	432.9	440.9	452.1	465.5	482.8	502.5	522.9	542.7	564.3	586.9
155°	447.2	448.2	454.2	464.3	475.3	490.3	507.2	524.3	540.3	558.3	577.3
157.5°	461.4	461.4	467.0	474.8	484.4	496.3	510.7	524.3	537.7	552.1	567.5
160°	470.2	470.2	474.2	481.2	489.2	500.2	512.2	524.3	535.3	547.3	560.3
162.5°	478.2	477.4	480.6	486.8	494.0	502.7	513.8	524.3	532.9	542.4	553.9
165°	487.2	487.2	489.2	494.2	499.2	505.2	514.3	522.3	528.2	535.3	543.3
167.5°	496.3	495.2	496.3	500.1	502.8	507.5	514.0	519.9	523.5	528.1	533.6
170°	500.2	499.2	500.2	503.3	505.2	508.2	513.2	518.2	520.2	523.2	527.3
172.5°	504.2	503.3	503.4	505.7	506.9	509.0	512.5	516.7	517.0	518.4	521.7
175°	508.2	507.2	507.2	508.2	509.3	509.3	511.3	514.3	513.2	513.2	515.2
177.5°	510.1	509.3	508.4	509.3	509.3	509.3	510.1	511.6	510.1	510.1	510.8
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3



TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	120.0	126.1	132.2	136.0	138.0	140.0	141.6	143.4
90°	120.5	127.3	134.3	138.0	140.7	143.3	144.0	145.6
92.5°	294.2	251.3	226.9	210.5	200.4	196.6	194.8	196.5
95°	832.0	682.4	553.9	460.5	413.3	384.1	367.9	356.8
97.5°	1180.0	1127.7	1035.2	934.3	864.2	805.7	777.5	758.4
100°	1287.2	1312.7	1269.1	1198.6	1112.9	1053.3	1024.8	1018.2
102.5°	1277.6	1382.2	1401.7	1374.3	1322.5	1279.9	1249.8	1245.0
105°	1191.2	1369.3	1473.4	1517.9	1521.5	1515.1	1502.7	1498.3
107.5°	1071.4	1260.8	1405.2	1497.7	1548.6	1572.9	1584.3	1588.4
110°	999.0	1176.8	1326.5	1439.8	1512.4	1556.1	1575.7	1586.3





TEST NUMBER: P332621-935

CATALOG NUMBER: S124DIP-S795D1205U935-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	944.6	1102.2	1243.8	1356.9	1439.2	1491.6	1518.5	1534.7
115°	888.4	1016.0	1137.5	1236.5	1316.9	1378.4	1411.9	1421.3
117.5°	857.6	963.7	1060.0	1144.4	1213.4	1265.4	1299.5	1307.3
120°	842.4	939.5	1023.6	1097.5	1156.2	1201.8	1229.4	1242.1
122.5°	829.1	923.1	1000.0	1065.0	1114.7	1153.7	1177.2	1189.6
125°	807.8	897.7	970.5	1028.1	1069.4	1099.6	1119.8	1127.0
127.5°	781.9	867.7	940.2	995.0	1036.6	1063.8	1081.2	1088.6
130°	762.2	844.9	916.5	972.1	1014.3	1040.5	1057.7	1065.0
132.5°	742.1	819.8	889.8	945.1	986.6	1016.1	1032.4	1039.7
135°	713.1	781.4	845.7	897.9	939.2	968.4	985.7	992.8
137.5°	687.3	745.3	799.7	846.9	885.4	914.0	928.2	936.4
140°	672.4	722.1	769.8	813.6	849.6	872.7	887.7	896.7
142.5°	659.1	702.8	743.8	781.8	813.6	834.9	848.2	854.6
145°	640.8	676.0	707.2	736.2	762.1	779.9	790.7	796.5
147.5°	625.6	652.8	677.0	699.4	718.4	733.7	742.0	744.4
150°	617.3	640.3	660.3	678.3	694.3	707.3	713.3	714.4
152.5°	608.5	628.3	646.7	661.5	675.1	685.7	689.3	690.3
155°	595.3	611.3	626.3	638.3	648.3	656.3	659.4	659.4
157.5°	581.1	594.5	607.1	616.7	624.3	630.3	632.1	632.1
160°	572.3	583.2	594.3	602.3	608.3	614.3	615.3	615.3
162.5°	563.4	572.9	581.5	588.7	593.1	599.1	600.1	599.3
165°	551.3	557.2	564.3	569.3	573.3	577.3	576.3	575.3
167.5°	539.5	544.1	549.7	552.7	554.7	557.2	557.1	556.3
170°	532.3	535.3	539.2	542.3	544.2	545.3	544.2	544.2
172.5°	525.8	528.1	530.5	532.6	533.8	534.9	533.8	532.3
175°	517.3	518.2	520.2	520.2	520.2	522.3	520.2	518.2
177.5°	511.6	512.5	512.5	513.2	512.5	513.2	511.6	510.1
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3

(END OF REPORT)