

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: P332041-927

Luminaire Tested: **S123DIP-S1000D1195U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332041-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D1195U927-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6750.4 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

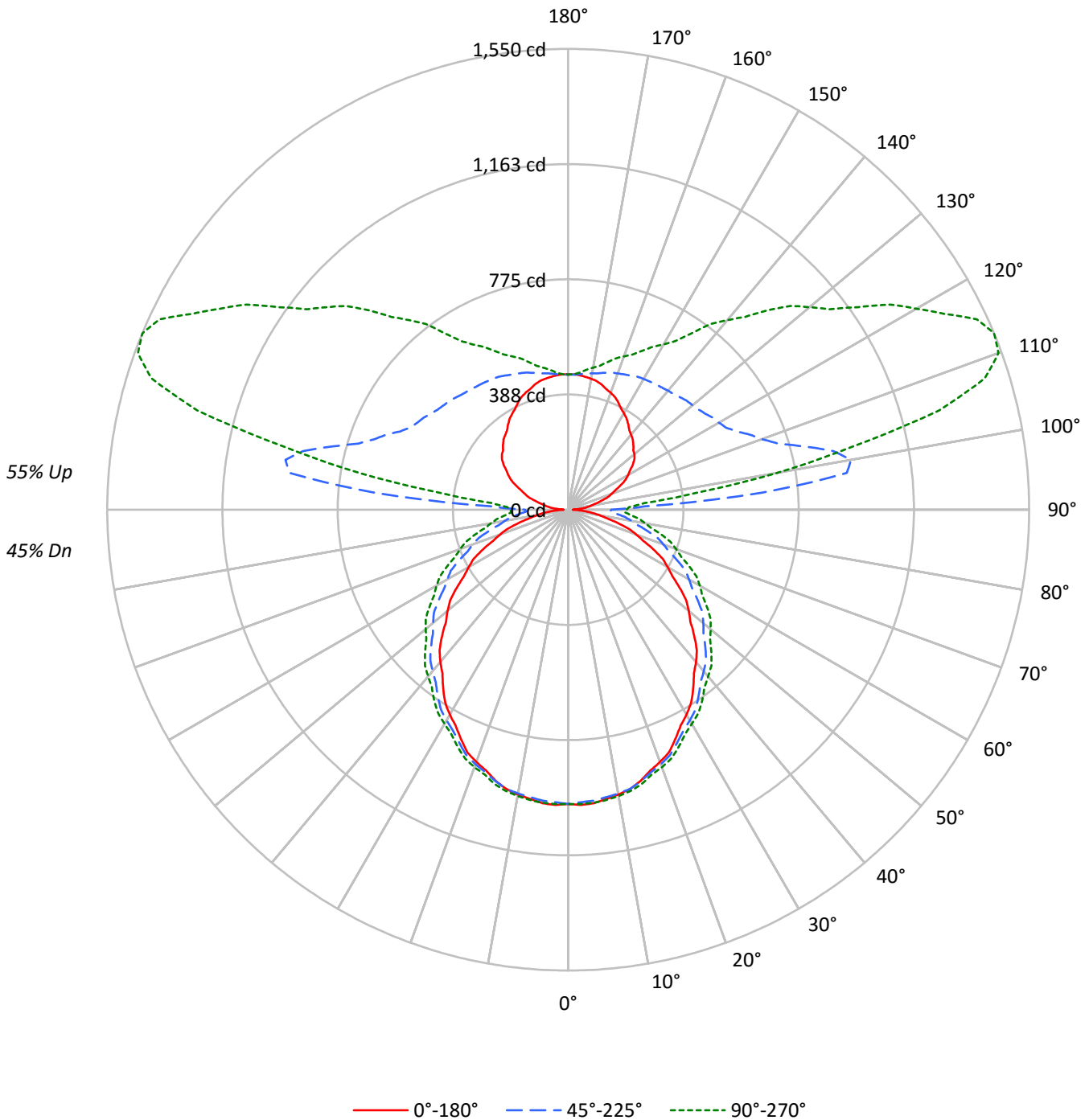
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	96	91	87	83	87	83	80	77	69	67	64	56	54	53	44	43	42	36
2	87	79	72	67	79	72	67	62	60	56	52	49	46	43	38	36	34	29
3	79	69	61	55	72	63	57	51	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	42	37	42	36	32	34	30	26	27	24	21	18
6	61	48	40	34	55	45	37	32	37	32	27	31	26	23	24	21	19	16
7	56	44	35	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	39	32	26	47	36	29	25	31	25	21	25	21	18	20	17	15	12
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10654	10654	10654
5°	10687	10385	10392
10°	10592	10146	10095
15°	10455	9874	9773
20°	10260	9565	9418
25°	10019	9208	9043
30°	9772	8886	8665
35°	9496	8547	8362
40°	9231	8238	8039
45°	8938	7941	7779
50°	8650	7648	7494
55°	8332	7348	7238
60°	8020	7044	6974
65°	7702	6718	6661
70°	7222	6352	6341
75°	6614	5933	6016
80°	5915	5522	5642
85°	5267	5241	5428



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	1.4
10°-20°	267.5	4.0
20°-30°	400.0	5.9
30°-40°	477.7	7.1
40°-50°	499.9	7.4
50°-60°	469.1	6.9
60°-70°	391.8	5.8
70°-80°	280.3	4.2
80°-90°	170.7	2.5
90°-100°	357.9	5.3
100°-110°	793.6	11.8
110°-120°	756.3	11.2
120°-130°	591.6	8.8
130°-140°	456.5	6.8
140°-150°	333.7	4.9
150°-160°	230.6	3.4
160°-170°	135.5	2.0
170°-180°	44.1	0.7
0°-30°	761.3	11.3
0°-40°	1239.1	18.4
0°-60°	2208.0	32.7
0°-90°	3050.7	45.2
90°-120°	1907.8	28.3
90°-150°	3289.5	48.7
90°-180°	3700.0	54.8
0°-180°	6750.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	991	988	982	990	990	94
15°	943	946	946	956	955	266
25°	852	862	866	879	880	392
35°	733	750	764	780	785	458
45°	599	625	652	672	681	462
55°	457	493	532	560	569	409
65°	316	358	405	436	448	312
75°	171	222	276	310	325	183
85°	53	107	164	199	211	56
90°	16	78	145	183	196	12
95°	43	156	652	298	258	43
105°	115	194	821	1404	1292	122
115°	194	255	623	1323	1516	192
125°	266	315	563	1014	1188	236
135°	310	369	534	820	948	239
145°	352	402	514	655	724	220
155°	398	430	498	566	590	183
165°	435	448	477	506	514	123
175°	454	454	457	464	463	43
180°	455	455	455	455	455	



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	994.1	993.6	992.9	992.4	991.8	990.7	989.2	987.7	986.1	984.6	986.1
5°	990.9	990.4	989.9	989.4	989.0	988.0	986.6	985.1	983.7	982.2	984.1
7.5°	981.1	981.3	981.4	981.4	981.5	980.9	979.5	978.1	976.7	975.3	977.7
10°	972.6	973.0	973.5	974.0	974.5	974.1	972.9	971.7	970.5	969.3	971.7
12.5°	962.2	962.8	963.5	964.2	964.9	964.8	964.0	963.1	962.3	961.6	963.8
15°	943.4	944.1	944.8	945.5	946.3	946.5	946.3	946.0	945.8	945.5	948.0
17.5°	919.7	921.1	922.6	924.0	925.4	926.1	926.1	925.9	925.8	925.7	927.9
20°	902.5	903.9	905.3	906.7	908.2	909.2	909.7	910.1	910.6	911.1	913.2
22.5°	884.3	885.7	887.2	888.7	890.1	891.1	891.8	892.5	893.2	893.8	896.5
25°	851.8	854.1	856.6	859.0	861.3	862.9	863.6	864.4	865.1	865.8	868.9
27.5°	819.0	821.7	824.4	827.2	829.9	832.0	833.6	835.1	836.6	838.2	840.9
30°	795.7	798.8	801.9	805.0	808.2	810.6	812.6	814.5	816.4	818.3	821.3
32.5°	769.8	773.3	776.8	780.3	783.8	786.8	789.3	791.8	794.3	796.8	799.9
35°	733.2	737.0	740.8	744.7	748.5	751.9	755.1	758.2	761.3	764.5	768.0
37.5°	694.3	698.7	703.0	707.3	711.6	715.7	719.5	723.3	727.1	731.0	735.1
40°	668.4	672.8	677.1	681.4	685.7	690.3	695.1	699.9	704.6	709.5	713.5
42.5°	640.0	645.3	650.5	655.8	661.1	666.2	671.2	676.2	681.2	686.2	690.6
45°	599.4	605.2	611.0	616.7	622.5	628.4	634.3	640.3	646.3	652.3	656.9
47.5°	557.0	563.5	570.1	576.6	583.0	589.8	596.6	603.5	610.3	617.2	622.3
50°	529.4	536.1	542.8	549.5	556.2	563.3	570.7	578.1	585.6	593.0	598.5
52.5°	500.0	507.2	514.3	521.3	528.5	536.1	544.3	552.5	560.6	568.9	574.6
55°	457.2	465.1	472.9	480.9	488.8	497.0	505.6	514.3	522.9	531.6	538.1
57.5°	415.3	423.6	431.8	440.1	448.3	457.2	466.6	476.0	485.4	494.9	501.4
60°	386.0	394.6	403.2	411.9	420.5	429.7	439.5	449.4	459.2	469.1	475.7
62.5°	358.4	367.2	376.0	384.8	393.6	403.3	413.7	424.1	434.4	444.9	451.5
65°	315.9	325.3	334.6	344.0	353.3	363.2	373.8	384.3	394.8	405.4	412.6
67.5°	272.7	282.7	292.6	302.5	312.4	322.8	333.5	344.3	355.0	365.8	373.6
70°	242.6	252.9	263.2	273.5	283.8	294.7	306.2	317.7	329.2	340.7	348.4
72.5°	215.0	225.3	235.6	245.9	256.2	267.3	279.2	291.0	302.9	314.8	322.7
75°	171.4	182.7	193.9	205.3	216.5	228.1	240.1	252.1	264.0	276.0	283.9
77.5°	133.5	144.8	156.2	167.5	178.9	190.6	202.7	214.8	226.9	238.9	247.2
80°	106.7	118.5	130.2	142.0	153.7	165.8	178.2	190.8	203.2	215.6	223.8
82.5°	83.4	95.4	107.3	119.2	131.2	143.5	156.1	168.7	181.4	194.1	202.2
85°	52.8	64.8	76.8	88.8	100.8	113.1	125.8	138.5	151.1	163.9	172.1
87.5°	29.1	41.4	53.6	66.1	78.4	90.9	103.6	116.5	129.2	142.0	150.0
90°	15.8	29.5	43.0	57.5	71.1	84.9	99.9	114.9	129.8	144.8	152.1
92.5°	24.6	40.7	59.0	76.8	95.1	120.0	156.1	207.8	258.6	256.5	229.7
95°	43.2	55.3	74.7	99.7	133.0	179.4	269.4	418.3	581.0	652.5	556.9
97.5°	63.9	73.3	89.7	111.7	143.7	192.3	278.3	444.2	707.0	944.8	1011.1
100°	77.8	86.4	100.5	121.0	150.8	196.1	271.5	418.7	671.8	965.4	1153.7
102.5°	92.4	101.0	113.6	132.6	159.4	201.2	269.8	396.2	622.7	912.4	1155.7
105°	115.4	123.9	135.1	151.9	175.2	211.8	271.8	376.8	561.1	820.9	1091.7
107.5°	138.8	146.4	156.6	172.4	193.7	227.5	280.9	369.5	519.5	739.3	985.6
110°	155.6	162.6	171.6	186.0	206.0	238.7	289.7	369.2	502.2	693.0	919.2



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.7	178.1	186.2	199.9	219.1	250.5	298.2	372.2	490.0	659.9	860.2
115°	194.1	200.7	209.1	221.1	239.6	270.2	313.9	378.6	481.1	623.2	788.1
117.5°	217.2	223.2	229.7	239.9	259.1	287.1	329.8	387.9	475.7	597.9	741.3
120°	232.6	236.5	242.3	252.7	271.4	299.0	340.0	395.8	474.6	585.6	716.2
122.5°	246.5	249.9	255.2	265.7	283.1	311.6	351.6	403.3	475.8	576.1	694.8
125°	265.5	267.4	272.9	283.0	300.6	328.8	368.0	415.4	477.6	562.8	666.3
127.5°	280.8	283.4	289.9	300.0	319.1	346.7	383.6	425.7	481.2	553.0	640.4
130°	290.4	292.9	301.0	311.8	330.9	358.0	393.2	432.9	483.7	546.5	625.6
132.5°	296.9	300.3	309.3	322.5	341.8	367.8	401.3	439.3	484.8	541.5	611.6
135°	309.6	313.0	322.9	336.4	355.5	381.6	412.7	446.7	486.2	533.9	592.5
137.5°	321.5	325.2	334.9	349.4	368.4	392.1	421.0	452.3	486.6	526.6	575.9
140°	328.8	333.4	342.5	357.3	375.7	399.0	426.4	454.8	486.8	522.5	565.7
142.5°	337.5	341.3	351.0	364.1	382.3	403.8	429.9	456.9	486.2	517.6	556.0
145°	351.7	354.3	362.3	375.9	391.3	412.3	436.3	461.1	486.9	514.5	545.9
147.5°	365.0	366.7	374.8	386.7	401.9	419.9	441.8	464.1	486.9	511.0	536.8
150°	374.6	375.5	382.9	394.8	407.7	424.3	445.4	464.8	486.9	508.0	531.1
152.5°	384.2	384.4	391.7	402.2	413.6	429.4	447.7	466.3	484.7	504.4	525.2
155°	398.5	398.5	404.1	413.3	423.3	436.3	451.9	466.7	482.3	498.0	516.3
157.5°	410.0	410.7	415.1	423.2	431.8	441.8	454.3	467.5	479.2	492.3	506.4
160°	418.7	418.7	422.5	429.8	436.3	445.4	456.5	467.5	477.7	487.8	499.8
162.5°	425.4	425.4	428.3	434.3	440.0	447.7	457.2	466.8	474.8	483.4	493.1
165°	435.4	434.4	436.3	440.8	444.6	451.0	458.4	464.8	470.3	476.7	484.1
167.5°	442.9	441.8	442.7	446.2	448.8	452.8	458.2	463.3	465.9	470.2	475.5
170°	447.3	445.4	446.4	449.2	451.0	452.8	457.4	461.1	463.0	465.7	470.3
172.5°	450.3	449.2	449.3	451.4	452.5	453.6	457.4	460.4	460.7	462.0	465.2
175°	453.8	452.8	451.9	453.8	453.8	454.7	456.5	458.4	457.4	457.4	459.3
177.5°	455.4	454.7	453.9	454.7	454.7	454.7	455.4	456.9	455.4	454.7	455.4
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	987.7	989.2	990.7	991.4	991.2	991.0	990.9	990.6
5°	986.0	988.0	989.9	990.7	990.5	990.2	990.0	989.8
7.5°	980.1	982.5	984.9	986.0	985.7	985.4	985.1	984.8
10°	974.1	976.4	978.9	979.9	979.4	978.9	978.4	977.9
12.5°	965.9	968.1	970.3	971.2	970.7	970.3	969.8	969.3
15°	950.4	952.8	955.1	956.2	956.0	955.8	955.5	955.3
17.5°	930.0	932.2	934.4	935.3	934.9	934.6	934.3	933.9
20°	915.4	917.5	919.7	920.9	921.1	921.4	921.6	921.9
22.5°	899.3	902.0	904.8	906.0	905.9	905.8	905.6	905.5
25°	872.0	875.1	878.2	879.8	879.8	879.8	879.8	879.8
27.5°	843.5	846.2	848.9	850.3	850.6	850.7	851.0	851.1
30°	824.1	827.0	829.8	831.3	831.3	831.3	831.3	831.3
32.5°	803.0	806.0	809.1	810.9	811.4	812.0	812.6	813.2
35°	771.6	775.2	778.8	781.1	782.0	783.0	783.9	784.9
37.5°	739.2	743.2	747.3	749.7	750.5	751.2	752.0	752.8
40°	717.6	721.7	725.7	728.3	729.2	730.2	731.1	732.1
42.5°	695.1	699.5	704.0	706.9	708.2	709.6	710.9	712.3
45°	661.4	666.0	670.5	673.8	675.7	677.6	679.5	681.4
47.5°	627.4	632.6	637.6	641.0	642.5	644.0	645.4	646.9
50°	604.0	609.5	615.1	618.6	620.4	622.0	623.7	625.3
52.5°	580.3	586.0	591.7	595.6	597.6	599.7	601.7	603.8
55°	544.5	551.0	557.5	561.6	563.6	565.5	567.4	569.3
57.5°	507.9	514.4	520.9	525.4	527.6	529.8	532.1	534.3
60°	482.4	489.2	495.8	500.5	503.2	505.8	508.4	511.0
62.5°	458.3	465.0	471.7	476.3	478.7	481.2	483.6	486.1
65°	419.8	427.0	434.1	438.9	441.3	443.7	446.2	448.5
67.5°	381.4	389.3	397.1	402.1	404.1	406.2	408.1	410.1
70°	356.0	363.7	371.4	376.4	378.8	381.2	383.6	386.0
72.5°	330.6	338.4	346.3	351.4	353.8	356.2	358.6	361.0
75°	291.8	299.8	307.6	313.1	315.9	318.8	321.6	324.6
77.5°	255.6	264.0	272.3	277.6	279.7	281.9	284.2	286.4
80°	232.0	240.1	248.2	253.5	255.9	258.3	260.7	263.1
82.5°	210.4	218.5	226.6	232.0	234.3	236.7	239.1	241.5
85°	180.1	188.3	196.5	201.8	204.1	206.5	208.9	211.4
87.5°	158.3	166.6	174.9	180.5	182.8	185.4	187.9	190.1
90°	161.1	170.2	179.3	186.4	187.8	191.2	194.5	196.0
92.5°	208.3	200.3	201.1	201.4	201.9	201.4	204.5	205.0
95°	453.0	353.6	312.3	284.0	268.9	263.1	259.0	257.7
97.5°	939.2	782.0	670.4	565.1	499.6	460.5	438.1	432.5
100°	1192.9	1125.2	1024.5	898.5	807.9	743.1	709.6	713.0
102.5°	1273.4	1277.8	1221.8	1143.5	1073.6	1022.8	995.1	976.4
105°	1290.8	1389.6	1413.7	1394.2	1354.1	1321.3	1294.0	1291.5
107.5°	1210.1	1366.0	1453.1	1490.1	1492.9	1483.3	1475.4	1469.1
110°	1136.2	1311.9	1434.0	1502.5	1530.2	1539.4	1539.5	1539.6



TEST NUMBER: P332041-927

CATALOG NUMBER: S123DIP-S1000D1195U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1062.2	1241.3	1377.3	1464.2	1513.4	1538.3	1547.4	1549.9
115°	964.2	1130.1	1271.1	1375.3	1446.2	1488.7	1508.9	1515.5
117.5°	890.8	1034.7	1162.0	1267.6	1341.4	1389.6	1418.0	1426.2
120°	851.5	981.3	1097.3	1193.8	1268.2	1321.4	1345.2	1352.4
122.5°	819.6	937.4	1045.0	1134.9	1201.2	1249.2	1275.2	1283.9
125°	776.3	881.6	975.0	1052.0	1112.6	1154.8	1179.5	1187.6
127.5°	737.6	831.8	916.2	986.4	1040.5	1076.7	1099.2	1106.7
130°	713.0	800.4	879.5	945.1	995.3	1029.8	1050.6	1059.5
132.5°	689.9	770.5	844.2	906.9	954.3	989.1	1007.8	1014.6
135°	658.5	728.2	792.3	847.5	893.8	922.6	940.4	948.0
137.5°	629.6	687.0	742.3	790.3	829.3	858.6	873.7	879.2
140°	612.5	663.1	710.8	752.8	788.9	815.9	831.9	832.1
142.5°	595.8	639.3	680.8	717.4	748.5	772.5	787.0	787.2
145°	577.3	609.5	640.9	669.0	693.0	713.3	721.6	724.4
147.5°	562.2	586.9	611.2	630.9	649.3	663.2	671.1	672.6
150°	552.2	573.4	592.7	610.5	624.7	635.3	641.4	641.8
152.5°	544.2	562.4	579.5	594.1	605.0	614.5	617.9	618.0
155°	532.0	546.7	560.5	571.6	579.9	587.2	589.1	589.9
157.5°	519.1	531.5	542.1	550.7	557.9	563.5	564.9	564.7
160°	511.7	521.9	531.1	537.5	544.0	549.5	549.5	548.6
162.5°	502.9	511.6	520.0	525.7	530.0	534.7	534.7	533.9
165°	491.5	497.0	503.4	508.0	511.7	515.4	514.5	514.5
167.5°	481.6	485.8	489.5	492.8	494.4	497.0	496.1	496.1
170°	474.9	477.7	481.3	483.2	484.1	486.0	485.1	485.1
172.5°	469.1	471.0	474.0	475.1	475.3	477.1	475.5	474.8
175°	461.1	462.0	463.9	463.9	463.9	464.8	463.9	463.0
177.5°	456.1	456.9	457.6	457.6	456.9	457.6	456.1	456.1
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7

(END OF REPORT)