

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: P332710-927

Luminaire Tested: **SA4XXDIP-C1195D1205U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332710-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C1195D1205U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7155.9 lumens
Efficiency: N/A
Efficacy: 99.8 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: General Diffuse

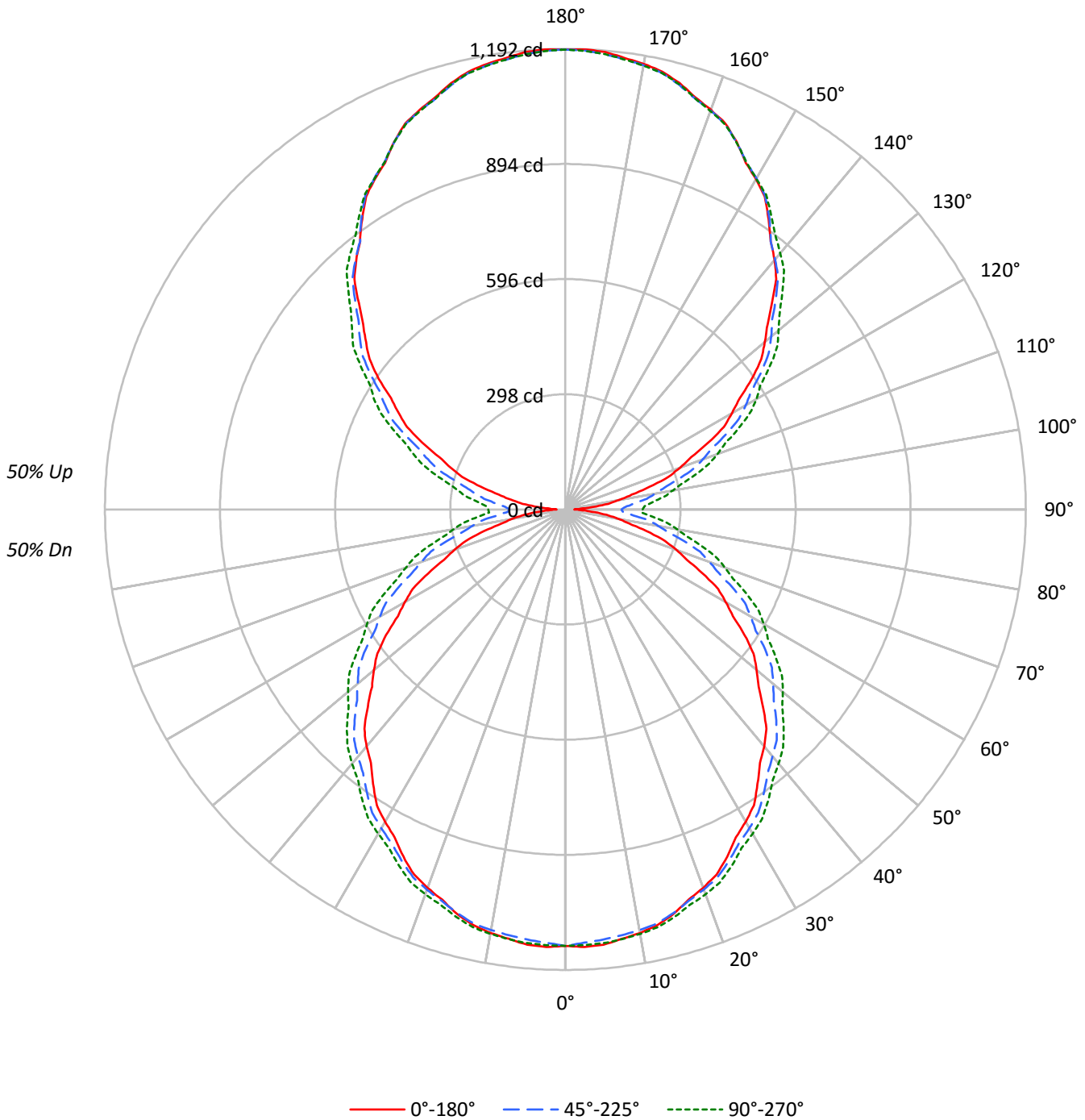
Input Watts (W): 71.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	46	45	40				
2	88	80	73	68	80	74	68	63	62	58	54	51	48	45	41	39	37	33				
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	36	34	31	27				
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	27	23				
5	67	55	46	40	61	51	43	37	43	37	32	36	31	28	29	26	23	20				
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17				
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15				
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13				
9	49	36	29	24	45	34	27	22	29	23	19	24	20	17	20	17	14	12				
10	46	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9120	9120	9120
5°	9147	8912	8938
10°	9092	8767	8760
15°	9010	8598	8551
20°	8888	8412	8347
25°	8749	8203	8124
30°	8599	7995	7894
35°	8429	7783	7692
40°	8293	7580	7482
45°	8093	7394	7302
50°	7922	7178	7111
55°	7746	6976	6888
60°	7471	6718	6685
65°	7170	6440	6434
70°	6805	6123	6141
75°	6298	5775	5878
80°	5734	5442	5618
85°	5012	5144	5468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	1.5
10°-20°	306.5	4.3
20°-30°	463.4	6.5
30°-40°	560.7	7.8
40°-50°	592.8	8.3
50°-60°	557.9	7.8
60°-70°	462.9	6.5
70°-80°	325.1	4.5
80°-90°	187.4	2.6
90°-100°	187.6	2.6
100°-110°	313.3	4.4
110°-120°	448.9	6.3
120°-130°	551.0	7.7
130°-140°	597.6	8.4
140°-150°	577.0	8.1
150°-160°	483.0	6.8
160°-170°	321.4	4.5
170°-180°	112.5	1.6
0°-30°	876.9	12.3
0°-40°	1437.6	20.1
0°-60°	2588.3	36.2
0°-90°	3563.6	49.8
90°-120°	949.8	13.3
90°-150°	2675.4	37.4
90°-180°	3592.0	50.2
0°-180°	7155.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1131	1127	1118	1128	1127	107
15°	1084	1085	1082	1092	1092	305
25°	992	999	1003	1016	1018	457
35°	868	883	896	912	917	543
45°	724	748	772	792	800	559
55°	567	594	631	656	664	505
65°	392	433	476	506	517	389
75°	218	265	318	352	364	231
85°	67	120	177	214	228	71
90°	23	84	145	186	200	17
95°	72	122	180	216	228	75
105°	226	253	302	336	350	240
115°	409	422	459	485	494	404
125°	590	590	619	640	647	525
135°	756	762	771	788	794	585
145°	917	919	920	927	929	574
155°	1049	1049	1048	1052	1048	483
165°	1142	1139	1138	1143	1139	322
175°	1188	1184	1183	1188	1183	113
180°	1190	1190	1190	1190	1190	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1133.7	1133.0	1132.3	1131.6	1131.0	1129.7	1127.9	1126.2	1124.3	1122.5	1124.1
5°	1130.8	1130.0	1129.2	1128.4	1127.5	1126.1	1124.1	1122.1	1120.2	1118.2	1120.5
7.5°	1121.3	1120.8	1120.2	1119.7	1119.3	1118.2	1116.6	1114.9	1113.3	1111.7	1114.2
10°	1113.2	1112.9	1112.6	1112.3	1112.1	1111.2	1109.8	1108.4	1107.0	1105.6	1108.1
12.5°	1102.0	1102.0	1101.9	1101.8	1101.8	1101.3	1100.3	1099.4	1098.4	1097.5	1099.8
15°	1084.1	1084.3	1084.7	1084.9	1085.2	1084.9	1084.1	1083.2	1082.4	1081.6	1084.1
17.5°	1059.5	1060.4	1061.2	1062.1	1062.9	1063.3	1063.1	1062.9	1062.7	1062.6	1065.2
20°	1042.4	1043.1	1044.0	1044.9	1045.7	1046.2	1046.6	1046.9	1047.1	1047.4	1050.2
22.5°	1023.1	1024.1	1025.2	1026.3	1027.4	1028.2	1028.6	1029.2	1029.7	1030.2	1033.0
25°	991.7	993.4	995.1	996.8	998.5	999.7	1000.6	1001.4	1002.3	1003.1	1006.2
27.5°	956.8	959.3	961.8	964.2	966.7	968.6	969.9	971.2	972.5	973.8	976.6
30°	933.5	935.8	938.0	940.3	942.5	944.7	946.6	948.6	950.5	952.5	955.6
32.5°	908.2	910.9	913.6	916.3	919.0	921.5	923.7	925.9	928.0	930.3	933.8
35°	867.8	871.2	874.5	877.9	881.2	884.3	887.2	889.9	892.8	895.6	899.5
37.5°	827.0	830.9	834.8	838.7	842.6	846.2	849.7	853.2	856.7	860.2	864.2
40°	800.7	804.4	808.0	811.7	815.3	819.1	823.1	827.0	830.9	834.9	839.1
42.5°	770.4	774.4	778.6	782.7	786.8	791.2	795.7	800.3	804.9	809.6	814.3
45°	723.6	728.9	734.3	739.6	744.9	750.3	755.6	761.0	766.3	771.7	776.4
47.5°	678.7	684.3	689.8	695.3	700.8	706.7	712.9	719.1	725.2	731.4	736.3
50°	646.4	652.6	658.8	665.0	671.1	677.3	683.5	689.7	695.9	702.0	707.7
52.5°	614.0	620.2	626.4	632.6	638.7	645.4	652.4	659.6	666.6	673.8	679.4
55°	566.7	572.6	578.5	584.4	590.3	597.5	605.9	614.3	622.8	631.2	636.8
57.5°	513.8	521.2	528.5	535.8	543.0	550.9	559.3	567.7	576.1	584.4	591.1
60°	479.4	486.7	494.0	501.4	508.7	517.0	526.2	535.5	544.8	554.1	560.5
62.5°	446.0	454.0	462.0	470.0	477.9	486.6	495.9	505.2	514.4	523.7	530.1
65°	392.1	401.2	410.1	419.1	428.1	437.4	446.9	456.5	466.0	475.6	482.7
67.5°	340.2	349.8	359.4	368.9	378.5	388.4	398.6	408.8	419.1	429.4	436.5
70°	304.8	314.4	324.0	333.5	343.1	353.2	363.8	374.5	385.2	395.9	403.5
72.5°	270.5	280.2	290.0	299.8	309.6	320.1	331.5	342.9	354.2	365.6	373.0
75°	217.6	228.0	238.4	248.7	259.2	270.3	282.1	293.9	305.7	317.5	325.3
77.5°	168.3	179.3	190.3	201.3	212.3	224.0	236.4	248.7	261.1	273.5	281.5
80°	137.9	149.1	160.3	171.6	182.8	194.6	207.0	219.4	231.8	244.2	252.5
82.5°	107.5	119.2	130.9	142.6	154.3	166.4	178.7	191.1	203.4	215.8	224.4
85°	67.0	78.8	90.6	102.4	114.2	126.5	139.1	151.8	164.5	177.1	185.5
87.5°	38.0	49.9	61.9	73.8	85.6	97.9	110.6	123.3	135.9	148.5	156.9
90°	23.0	36.5	50.0	63.5	77.0	90.5	104.3	118.0	131.7	145.4	154.9
92.5°	38.9	51.7	64.3	77.0	89.7	102.7	115.9	129.1	142.4	155.6	164.3
95°	71.7	82.8	93.9	105.0	116.1	128.2	141.2	154.1	167.1	180.0	188.2
97.5°	111.4	120.8	130.3	139.7	149.2	160.5	173.6	186.6	199.7	212.9	220.9
100°	142.8	150.9	159.0	167.2	175.3	185.8	198.5	211.4	224.2	236.9	244.9
102.5°	176.7	183.4	190.1	196.9	203.6	213.2	225.5	238.0	250.4	262.8	270.8
105°	225.9	231.6	237.5	243.3	249.1	257.6	268.9	280.1	291.3	302.5	310.1
107.5°	279.9	284.7	289.6	294.5	299.3	306.7	316.6	326.6	336.6	346.6	354.0
110°	315.7	320.0	324.4	328.7	333.0	340.1	349.7	359.3	368.9	378.6	384.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	352.9	356.5	360.1	363.7	367.3	373.5	382.5	391.6	400.6	409.6	415.7
115°	408.8	411.4	413.9	416.5	419.0	424.5	433.2	441.7	450.3	458.9	464.9
117.5°	462.7	464.4	466.1	467.8	469.4	474.4	482.4	490.5	498.6	506.7	511.8
120°	497.8	499.5	501.1	502.8	504.5	509.1	516.6	524.1	531.6	539.2	543.8
122.5°	535.4	535.8	536.3	536.9	537.3	541.3	548.7	556.1	563.6	570.9	575.8
125°	589.5	589.2	588.9	588.7	588.4	591.6	598.5	605.3	612.1	618.9	623.8
127.5°	639.4	639.8	640.2	640.5	640.8	643.5	648.6	653.6	658.7	663.8	668.4
130°	673.8	674.1	674.5	674.8	675.2	677.6	682.1	686.6	691.0	695.5	700.2
132.5°	709.9	710.0	710.2	710.4	710.6	712.3	715.8	719.2	722.7	726.1	730.6
135°	756.3	757.6	758.8	760.0	761.2	762.8	764.8	766.8	768.7	770.7	774.8
137.5°	808.2	808.5	808.8	809.1	809.4	810.2	811.4	812.7	814.0	815.3	818.9
140°	842.8	843.0	843.0	843.2	843.4	843.5	843.8	844.1	844.4	844.6	848.1
142.5°	873.5	873.8	874.2	874.5	874.9	874.9	874.6	874.3	873.9	873.5	876.7
145°	917.0	917.6	918.1	918.6	919.2	919.6	919.7	920.0	920.1	920.4	921.9
147.5°	960.4	961.2	961.9	962.6	963.3	963.5	963.4	963.2	963.1	962.9	963.0
150°	987.0	987.5	988.0	988.6	989.1	989.4	989.4	989.4	989.4	989.4	989.4
152.5°	1011.0	1011.5	1011.9	1012.3	1012.7	1013.0	1013.2	1013.4	1013.5	1013.7	1014.2
155°	1049.2	1049.2	1049.2	1049.2	1049.2	1049.1	1048.9	1048.7	1048.5	1048.3	1049.1
157.5°	1081.6	1081.2	1080.9	1080.5	1080.1	1079.9	1079.9	1079.8	1079.8	1079.7	1080.4
160°	1100.7	1100.6	1100.3	1100.1	1099.9	1099.7	1099.5	1099.3	1099.1	1098.9	1099.5
162.5°	1118.4	1117.8	1117.4	1116.8	1116.3	1115.9	1115.7	1115.6	1115.3	1115.1	1116.2
165°	1142.2	1141.5	1140.9	1140.3	1139.7	1139.2	1138.8	1138.4	1138.0	1137.6	1138.8
167.5°	1160.4	1159.5	1158.6	1157.8	1157.0	1156.5	1156.6	1156.6	1156.7	1156.7	1157.9
170°	1170.7	1169.7	1168.6	1167.6	1166.6	1166.2	1166.4	1166.6	1166.8	1167.0	1168.2
172.5°	1178.1	1177.2	1176.3	1175.4	1174.6	1174.2	1174.3	1174.3	1174.3	1174.4	1175.8
175°	1188.2	1187.2	1186.1	1185.1	1184.1	1183.4	1183.3	1183.0	1182.9	1182.6	1184.1
177.5°	1191.5	1190.6	1189.9	1189.1	1188.2	1187.8	1187.8	1187.8	1187.8	1187.8	1189.0
180°	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1125.7	1127.3	1128.9	1129.5	1129.3	1129.0	1128.9	1128.6
5°	1122.8	1125.0	1127.2	1128.2	1127.9	1127.7	1127.4	1127.1
7.5°	1116.7	1119.3	1121.8	1122.9	1122.6	1122.4	1122.0	1121.8
10°	1110.6	1113.2	1115.7	1116.8	1116.6	1116.3	1115.9	1115.7
12.5°	1102.1	1104.4	1106.7	1107.9	1107.8	1107.7	1107.6	1107.6
15°	1086.6	1089.2	1091.6	1092.8	1092.5	1092.3	1091.9	1091.6
17.5°	1067.8	1070.3	1072.9	1074.1	1073.9	1073.6	1073.4	1073.2
20°	1053.0	1055.8	1058.7	1060.0	1060.0	1060.0	1060.0	1060.0
22.5°	1035.8	1038.6	1041.4	1043.1	1043.5	1043.9	1044.4	1044.9
25°	1009.3	1012.4	1015.5	1017.2	1017.5	1017.7	1018.0	1018.3
27.5°	979.5	982.4	985.2	986.8	987.2	987.5	987.9	988.2
30°	958.7	961.8	964.9	966.7	967.3	967.8	968.4	969.0
32.5°	937.3	940.9	944.4	946.5	947.1	947.6	948.2	948.7
35°	903.5	907.4	911.3	913.7	914.6	915.4	916.2	917.1
37.5°	868.2	872.1	876.2	878.6	879.5	880.4	881.3	882.2
40°	843.3	847.6	851.8	854.4	855.6	856.7	857.8	858.9
42.5°	818.9	823.6	828.2	831.0	831.9	832.8	833.7	834.6
45°	781.2	786.0	790.8	793.8	795.3	796.6	798.0	799.5
47.5°	741.3	746.2	751.2	754.5	756.2	757.9	759.5	761.3
50°	713.3	718.9	724.5	728.2	729.9	731.6	733.2	734.9
52.5°	685.0	690.6	696.2	699.9	701.6	703.2	704.9	706.6
55°	642.5	648.1	653.7	657.4	659.0	660.8	662.4	664.1
57.5°	597.8	604.5	611.2	615.3	616.9	618.5	620.0	621.6
60°	567.0	573.5	579.9	584.2	586.5	588.7	591.0	593.3
62.5°	536.6	543.1	549.5	553.9	556.2	558.4	560.6	562.9
65°	489.6	496.7	503.7	508.3	510.6	512.9	515.2	517.4
67.5°	443.6	450.8	457.9	462.6	464.8	466.9	469.1	471.3
70°	411.1	418.7	426.3	431.1	433.0	435.0	437.0	438.9
72.5°	380.3	387.7	395.1	399.8	402.0	404.2	406.4	408.6
75°	333.3	341.1	349.0	354.2	356.7	359.3	361.8	364.3
77.5°	289.5	297.5	305.4	310.8	313.5	316.2	318.9	321.5
80°	261.0	269.4	277.9	283.2	285.4	287.7	289.9	292.2
82.5°	233.1	241.8	250.4	256.0	258.5	260.9	263.4	265.9
85°	193.9	202.4	210.8	216.4	219.3	222.0	224.9	227.7
87.5°	165.3	173.7	182.1	187.6	190.1	192.7	195.3	197.8
90°	164.2	173.6	183.0	189.0	191.7	194.3	197.0	199.6
92.5°	172.9	181.6	190.3	195.8	198.4	200.8	203.4	205.8
95°	196.4	204.6	212.8	218.2	220.7	223.2	225.8	228.3
97.5°	229.0	237.1	245.3	250.5	252.9	255.3	257.8	260.2
100°	252.9	260.9	268.9	273.9	275.9	277.9	279.8	281.8
102.5°	278.7	286.6	294.5	299.7	302.1	304.4	306.8	309.1
105°	317.8	325.4	333.1	338.3	341.2	344.0	346.9	349.8
107.5°	361.6	369.0	376.5	381.3	383.3	385.2	387.2	389.2
110°	390.7	396.7	402.8	407.3	410.1	413.0	415.8	418.7



TEST NUMBER: P332710-927

CATALOG NUMBER: SA4XXDIP-C1195D1205U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	421.9	428.1	434.2	438.5	440.8	443.2	445.6	448.0
115°	470.9	476.8	482.8	486.7	488.5	490.2	491.9	493.8
117.5°	517.0	522.1	527.3	530.8	532.7	534.5	536.3	538.1
120°	548.4	553.0	557.6	561.2	563.9	566.6	569.2	571.9
122.5°	580.8	585.7	590.7	593.7	595.1	596.4	597.6	598.9
125°	628.8	633.7	638.7	641.7	643.0	644.3	645.6	646.9
127.5°	673.1	677.7	682.4	685.6	687.1	688.7	690.3	691.9
130°	704.9	709.5	714.2	716.9	717.8	718.7	719.5	720.4
132.5°	735.0	739.4	743.8	746.7	748.1	749.4	750.8	752.2
135°	778.9	782.9	787.0	789.6	790.7	791.8	792.8	793.9
137.5°	822.4	826.0	829.6	832.1	833.7	835.2	836.7	838.2
140°	851.5	855.0	858.5	860.8	862.0	863.2	864.4	865.6
142.5°	879.9	883.0	886.2	888.4	889.5	890.7	891.8	892.9
145°	923.3	924.8	926.3	927.2	927.8	928.3	928.8	929.3
147.5°	963.0	963.1	963.1	963.5	964.2	964.9	965.6	966.3
150°	989.4	989.4	989.4	989.3	989.0	988.9	988.6	988.5
152.5°	1014.6	1015.2	1015.7	1015.7	1015.1	1014.5	1014.0	1013.5
155°	1050.0	1050.8	1051.5	1051.5	1050.8	1050.0	1049.1	1048.3
157.5°	1081.0	1081.6	1082.2	1082.2	1081.5	1080.8	1080.1	1079.4
160°	1100.1	1100.7	1101.4	1101.1	1100.1	1099.1	1098.1	1097.1
162.5°	1117.3	1118.4	1119.5	1119.6	1118.6	1117.5	1116.5	1115.5
165°	1140.0	1141.2	1142.5	1142.6	1141.9	1141.1	1140.2	1139.4
167.5°	1159.1	1160.4	1161.6	1161.6	1160.3	1159.0	1157.8	1156.5
170°	1169.5	1170.7	1172.0	1171.8	1170.4	1168.9	1167.5	1166.1
172.5°	1177.2	1178.5	1180.0	1180.0	1178.5	1177.0	1175.6	1174.2
175°	1185.5	1186.9	1188.4	1188.4	1186.9	1185.5	1184.1	1182.6
177.5°	1190.1	1191.3	1192.4	1192.3	1191.0	1189.7	1188.4	1187.1
180°	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0

(END OF REPORT)