

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: P332916

Luminaire Tested: **SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332916
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

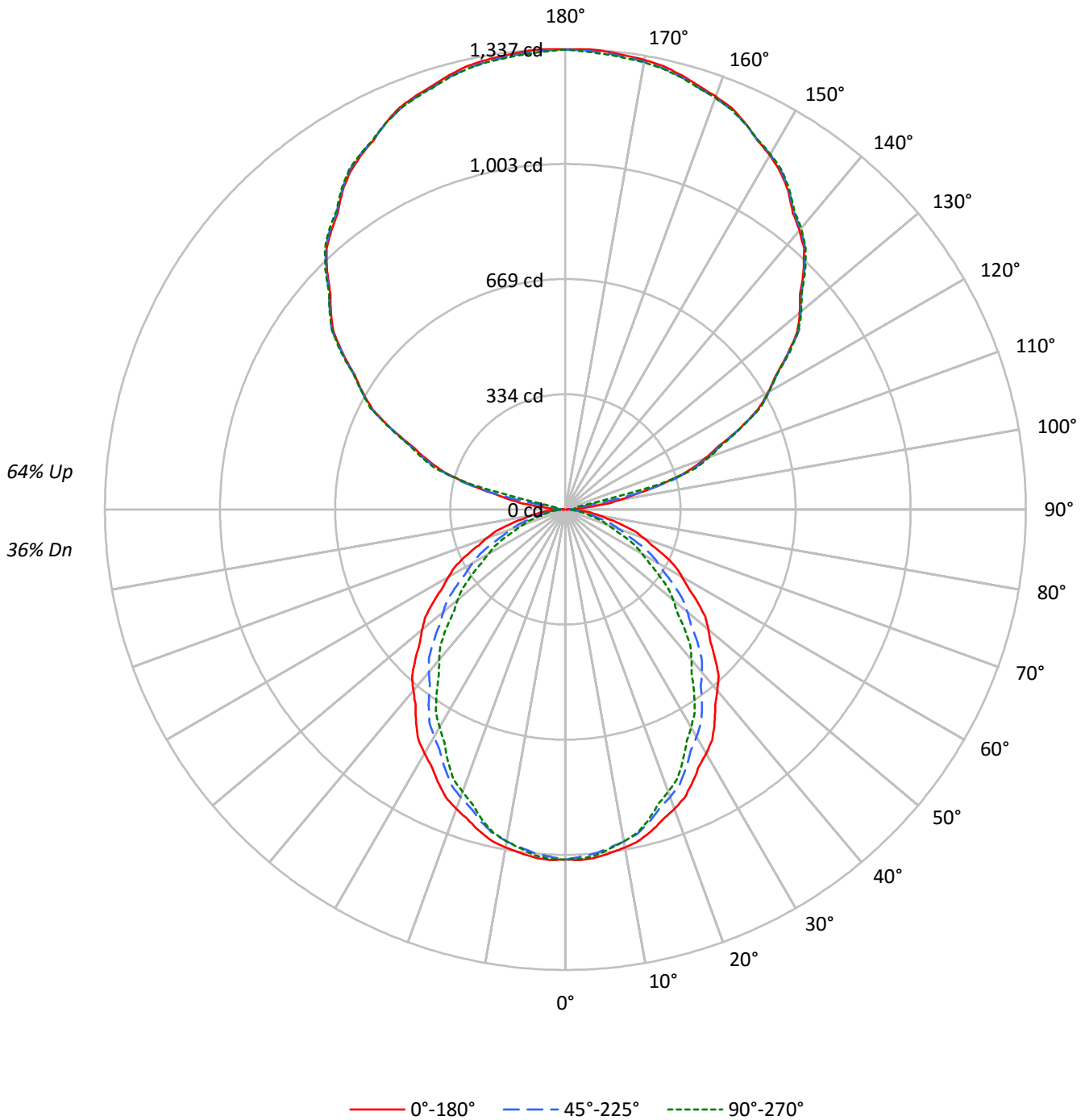
Lumens per Lamp: N/A
Luminaire Lumens: 6480.5 lumens
Efficiency: N/A
Efficacy: 145.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 44.5
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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36				
1	95	91	87	84	86	82	79	76	67	64	62	52	51	49	39	38	37	31				
2	87	79	74	69	78	72	67	63	59	55	52	46	44	41	34	33	32	26				
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	31	29	27	22				
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19				
5	66	55	47	42	60	50	44	38	41	36	32	33	29	26	25	22	20	17				
6	61	49	42	36	55	45	38	33	37	32	28	30	26	23	22	20	18	15				
7	56	45	37	31	51	41	34	29	34	29	25	27	23	20	21	18	16	13				
8	52	40	33	28	47	37	30	26	31	26	22	25	21	18	19	16	14	12				
9	49	37	30	25	44	34	27	23	28	23	20	23	19	16	17	15	13	11				
10	45	34	27	22	41	31	25	21	26	21	18	21	17	15	16	14	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8205	8205	8205
5°	8223	8122	8173
10°	8171	8025	8025
15°	8078	7856	7798
20°	7948	7635	7494
25°	7784	7375	7187
30°	7623	7101	6804
35°	7447	6818	6419
40°	7233	6495	6003
45°	7036	6174	5579
50°	6812	5805	5130
55°	6572	5422	4643
60°	6307	5000	4146
65°	6065	4474	3656
70°	5712	3895	3104
75°	5268	3228	2523
80°	4593	2459	2315
85°	3890	2232	2093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.5
10°-20°	266.2	4.1
20°-30°	384.4	5.9
30°-40°	435.7	6.7
40°-50°	420.8	6.5
50°-60°	349.9	5.4
60°-70°	241.6	3.7
70°-80°	122.5	1.9
80°-90°	35.3	0.5
90°-100°	45.7	0.7
100°-110°	291.1	4.5
110°-120°	556.8	8.6
120°-130°	706.8	10.9
130°-140°	756.2	11.7
140°-150°	707.2	10.9
150°-160°	570.3	8.8
160°-170°	367.8	5.7
170°-180°	126.8	2.0
0°-30°	746.1	11.5
0°-40°	1181.8	18.2
0°-60°	1952.5	30.1
0°-90°	2351.9	36.3
90°-120°	893.5	13.8
90°-150°	3063.7	47.3
90°-180°	4129.0	63.7
0°-180°	6480.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1015	1011	1002	1010	1008	96
15°	966	959	940	938	933	272
25°	874	859	828	815	807	402
35°	756	730	692	666	651	472
45°	616	586	541	504	489	475
55°	467	435	385	346	330	418
65°	318	283	234	202	191	313
75°	169	140	104	86	81	178
85°	42	27	24	23	23	47
90°	3	14	22	28	30	5
95°	55	23	22	28	29	71
105°	300	306	312	318	284	314
115°	561	564	563	565	565	552
125°	789	792	791	794	795	704
135°	978	978	981	983	985	753
145°	1128	1131	1131	1132	1134	705
155°	1237	1238	1235	1238	1236	570
165°	1305	1300	1300	1307	1299	369
175°	1335	1329	1330	1338	1327	127
180°	1335	1335	1335	1335	1335	



TEST NUMBER: P332916

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1018.8	1018.2	1017.7	1017.1	1016.6	1015.5	1014.0	1012.5	1010.9	1009.4	1010.9
5°	1014.7	1014.0	1013.3	1012.6	1012.0	1010.6	1008.5	1006.4	1004.3	1002.3	1004.0
7.5°	1005.5	1004.8	1004.1	1003.4	1002.6	1000.9	998.2	995.5	992.8	990.1	991.2
10°	996.8	996.0	995.1	994.2	993.4	991.4	988.3	985.1	982.0	978.9	979.6
12.5°	985.6	984.6	983.6	982.6	981.6	979.3	975.6	971.9	968.3	964.6	965.0
15°	966.5	964.9	963.4	961.8	960.2	957.3	953.0	948.7	944.3	940.0	939.7
17.5°	943.3	941.0	938.8	936.5	934.3	930.6	925.4	920.2	915.0	909.8	908.9
20°	925.2	923.0	920.7	918.5	916.2	912.2	906.3	900.4	894.5	888.7	887.3
22.5°	905.3	902.8	900.3	897.7	895.2	890.8	884.5	878.2	871.9	865.6	863.5
25°	873.9	870.8	867.6	864.5	861.4	856.3	849.2	842.1	835.0	828.0	825.0
27.5°	840.9	837.0	833.1	829.2	825.2	819.5	811.9	804.4	796.8	789.2	785.6
30°	817.8	813.5	809.2	804.9	800.6	794.3	786.2	778.1	769.9	761.8	757.5
32.5°	793.6	788.7	783.8	778.9	774.1	767.4	759.0	750.6	742.2	733.8	728.8
35°	755.6	750.1	744.5	739.0	733.5	726.4	717.7	709.1	700.4	691.8	685.9
37.5°	715.0	709.3	703.6	697.9	692.1	684.5	674.9	665.3	655.8	646.2	639.6
40°	686.3	680.6	674.9	669.2	663.5	655.7	645.9	636.0	626.2	616.3	609.0
42.5°	658.9	653.0	647.0	641.0	635.0	626.9	616.6	606.3	596.1	585.8	578.4
45°	616.3	609.9	603.5	597.1	590.7	582.3	571.9	561.6	551.2	540.8	532.3
47.5°	572.3	565.7	559.0	552.4	545.8	537.1	526.3	515.6	504.8	494.0	485.2
50°	542.4	535.6	528.9	522.1	515.4	506.5	495.4	484.4	473.3	462.2	453.6
52.5°	511.9	505.3	498.7	492.1	485.4	476.5	465.1	453.8	442.4	431.1	422.3
55°	466.9	460.0	453.1	446.1	439.2	430.1	418.9	407.7	396.4	385.2	376.2
57.5°	422.4	415.2	408.0	400.8	393.6	384.5	373.4	362.3	351.3	340.2	331.1
60°	390.6	383.7	376.8	369.9	363.0	354.0	342.9	331.8	320.8	309.7	300.7
62.5°	362.0	354.8	347.6	340.4	333.2	324.0	312.6	301.3	289.9	278.6	270.3
65°	317.5	310.1	302.6	295.2	287.7	278.5	267.4	256.4	245.3	234.2	226.8
67.5°	271.3	264.1	257.0	249.9	242.8	234.1	223.8	213.5	203.3	193.0	186.6
70°	242.0	234.7	227.5	220.2	213.0	204.4	194.5	184.7	174.8	165.0	159.3
72.5°	210.9	204.3	197.7	191.2	184.6	176.7	167.4	158.1	148.7	139.4	134.6
75°	168.9	162.5	156.1	149.7	143.3	136.0	127.9	119.7	111.6	103.5	99.5
77.5°	126.2	120.8	115.4	109.9	104.5	98.5	91.9	85.4	78.8	72.2	69.9
80°	98.8	93.8	88.8	83.8	78.8	73.7	68.5	63.3	58.1	52.9	52.4
82.5°	75.2	70.6	66.0	61.4	56.8	53.0	50.0	47.0	44.1	41.1	40.7
85°	42.0	38.6	35.1	31.6	28.2	26.2	25.7	25.2	24.6	24.1	23.8
87.5°	14.9	14.3	13.7	13.1	12.4	12.2	12.5	12.7	12.9	13.1	13.2
90°	3.0	5.4	7.9	10.3	12.8	14.9	16.6	18.4	20.2	22.0	23.3
92.5°	12.6	12.7	12.8	13.0	13.1	14.1	15.8	17.6	19.4	21.2	22.5
95°	54.9	47.4	39.8	32.3	24.7	21.1	21.3	21.5	21.7	22.0	23.3
97.5°	116.6	121.3	126.0	130.7	135.4	125.4	100.6	75.9	51.1	26.4	26.5
100°	163.7	167.7	171.7	175.7	179.7	166.4	135.8	105.2	74.5	43.9	40.2
102.5°	216.4	219.4	222.3	225.2	228.1	227.6	223.6	219.6	215.6	211.6	170.9
105°	300.5	301.8	303.1	304.5	305.8	307.0	308.1	309.2	310.4	311.5	313.5
107.5°	378.5	379.2	379.9	380.5	381.2	382.3	383.8	385.3	386.8	388.3	389.3
110°	431.3	431.9	432.6	433.2	433.9	434.9	436.2	437.6	438.9	440.2	440.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	482.4	483.6	484.8	486.0	487.2	488.1	488.7	489.3	489.9	490.5	490.5
115°	561.0	561.7	562.4	563.0	563.7	563.9	563.7	563.5	563.2	563.0	563.5
117.5°	631.9	632.8	633.7	634.6	635.5	636.1	636.6	637.1	637.6	638.1	638.0
120°	679.8	680.7	681.6	682.5	683.4	683.7	683.5	683.3	683.0	682.8	683.3
122.5°	724.5	725.1	725.6	726.1	726.7	727.1	727.4	727.7	728.0	728.3	728.6
125°	788.6	789.5	790.4	791.3	792.2	792.4	792.0	791.5	791.1	790.6	791.3
127.5°	849.3	849.5	849.8	850.0	850.2	850.8	851.9	852.9	853.9	854.9	854.8
130°	888.5	888.7	888.9	889.1	889.3	889.8	890.5	891.1	891.8	892.5	892.7
132.5°	924.4	924.8	925.2	925.6	926.0	926.6	927.5	928.3	929.1	930.0	930.2
135°	978.3	978.1	977.9	977.6	977.4	977.7	978.6	979.5	980.4	981.3	981.7
137.5°	1026.0	1026.1	1026.2	1026.3	1026.4	1026.9	1027.9	1028.9	1029.8	1030.8	1031.3
140°	1057.2	1057.6	1058.1	1058.5	1058.9	1059.4	1059.8	1060.3	1060.7	1061.2	1061.8
142.5°	1085.1	1085.9	1086.7	1087.5	1088.3	1088.8	1089.1	1089.4	1089.6	1089.9	1090.4
145°	1128.0	1128.7	1129.4	1130.0	1130.7	1131.0	1131.0	1131.0	1131.0	1131.0	1131.3
147.5°	1162.2	1163.4	1164.7	1165.9	1167.2	1167.7	1167.4	1167.2	1167.0	1166.8	1167.0
150°	1186.9	1187.8	1188.7	1189.6	1190.5	1190.8	1190.6	1190.4	1190.2	1189.9	1189.9
152.5°	1207.7	1208.4	1209.1	1209.8	1210.5	1210.7	1210.3	1209.9	1209.5	1209.1	1209.5
155°	1236.9	1237.1	1237.3	1237.5	1237.7	1237.5	1236.9	1236.2	1235.5	1234.9	1235.7
157.5°	1261.4	1261.3	1261.1	1261.0	1260.9	1260.4	1259.7	1258.9	1258.2	1257.4	1258.6
160°	1275.8	1275.1	1274.5	1273.8	1273.1	1272.7	1272.5	1272.2	1272.0	1271.8	1273.1
162.5°	1288.6	1287.7	1286.9	1286.0	1285.2	1284.7	1284.4	1284.2	1284.0	1283.8	1285.1
165°	1304.7	1303.6	1302.5	1301.4	1300.3	1299.7	1299.7	1299.7	1299.7	1299.7	1301.5
167.5°	1317.5	1316.4	1315.2	1314.1	1312.9	1312.3	1312.1	1312.0	1311.9	1311.7	1313.7
170°	1324.7	1323.4	1322.0	1320.7	1319.4	1318.8	1319.0	1319.3	1319.5	1319.7	1321.5
172.5°	1329.5	1328.2	1326.8	1325.5	1324.2	1323.6	1323.8	1324.1	1324.3	1324.5	1326.3
175°	1334.7	1333.4	1332.0	1330.7	1329.4	1328.8	1329.0	1329.3	1329.5	1329.7	1331.7
177.5°	1337.1	1335.8	1334.6	1333.4	1332.1	1331.7	1332.0	1332.4	1332.7	1333.1	1334.5
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1012.5	1014.0	1015.5	1016.2	1016.1	1015.9	1015.8	1015.7
5°	1005.7	1007.5	1009.2	1009.9	1009.5	1009.2	1008.8	1008.5
7.5°	992.3	993.4	994.6	994.8	994.3	993.7	993.2	992.6
10°	980.3	981.0	981.7	981.7	981.0	980.3	979.6	978.9
12.5°	965.4	965.8	966.3	966.0	965.0	964.1	963.1	962.1
15°	939.3	939.0	938.6	937.9	936.6	935.4	934.2	933.0
17.5°	907.9	906.9	905.9	904.5	902.7	900.9	899.0	897.2
20°	885.9	884.5	883.1	881.3	879.1	876.8	874.6	872.3
22.5°	861.5	859.4	857.3	855.4	853.5	851.7	849.9	848.0
25°	822.1	819.1	816.2	813.9	812.1	810.4	808.7	806.9
27.5°	781.9	778.3	774.7	771.6	769.1	766.6	764.2	761.7
30°	753.2	748.8	744.5	741.0	738.2	735.4	732.7	729.9
32.5°	723.8	718.8	713.7	709.9	707.3	704.7	702.0	699.4
35°	680.0	674.1	668.3	663.8	660.7	657.5	654.4	651.3
37.5°	633.0	626.5	619.9	615.1	611.9	608.8	605.7	602.6
40°	601.8	594.5	587.2	582.1	578.9	575.8	572.7	569.6
42.5°	571.0	563.6	556.2	550.9	547.6	544.4	541.1	537.9
45°	523.9	515.4	506.9	501.1	498.0	494.9	491.8	488.7
47.5°	476.4	467.6	458.8	452.7	449.3	445.9	442.5	439.0
50°	444.9	436.3	427.6	421.7	418.4	415.1	411.8	408.5
52.5°	413.5	404.7	396.0	389.9	386.4	383.0	379.6	376.2
55°	367.2	358.2	349.2	343.1	339.8	336.5	333.2	329.9
57.5°	321.9	312.8	303.7	297.9	295.4	292.9	290.4	287.9
60°	291.7	282.7	273.7	267.9	265.1	262.3	259.6	256.8
62.5°	262.0	253.7	245.4	240.1	237.9	235.7	233.5	231.3
65°	219.4	211.9	204.5	199.7	197.7	195.6	193.5	191.4
67.5°	180.2	173.8	167.4	163.1	160.8	158.5	156.2	153.9
70°	153.6	147.9	142.1	138.4	136.7	135.0	133.2	131.5
72.5°	129.7	124.8	119.9	116.7	115.1	113.5	111.9	110.3
75°	95.5	91.6	87.6	85.1	84.0	83.0	82.0	80.9
77.5°	67.6	65.3	62.9	61.6	61.3	61.0	60.7	60.4
80°	51.9	51.4	50.8	50.5	50.3	50.1	50.0	49.8
82.5°	40.3	39.9	39.6	39.3	39.1	38.9	38.8	38.6
85°	23.4	23.1	22.7	22.6	22.6	22.6	22.6	22.6
87.5°	13.4	13.5	13.6	13.8	14.0	14.3	14.5	14.7
90°	24.6	26.0	27.3	28.2	28.6	29.1	29.5	29.9
92.5°	23.8	25.2	26.5	27.2	27.3	27.4	27.5	27.6
95°	24.6	26.0	27.3	28.1	28.3	28.5	28.7	28.9
97.5°	26.6	26.8	26.9	27.1	27.3	27.5	27.7	28.0
100°	36.4	32.6	28.8	27.1	27.3	27.5	27.7	28.0
102.5°	130.3	89.6	48.9	28.6	28.6	28.7	28.7	28.8
105°	315.5	317.4	319.4	316.5	308.5	300.5	292.5	284.5
107.5°	390.3	391.3	392.2	393.1	394.0	394.8	395.7	396.5
110°	441.1	441.6	442.0	442.6	443.2	443.9	444.6	445.2



TEST NUMBER: P332916

CATALOG NUMBER: SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	490.4	490.3	490.2	490.6	491.4	492.3	493.1	493.9
115°	563.9	564.4	564.8	565.0	565.0	565.0	565.0	565.0
117.5°	637.9	637.8	637.7	637.7	637.6	637.5	637.4	637.3
120°	683.7	684.1	684.6	684.6	684.1	683.7	683.3	682.8
122.5°	728.9	729.1	729.4	729.3	728.9	728.4	728.0	727.5
125°	792.0	792.6	793.3	793.7	794.0	794.2	794.4	794.6
127.5°	854.7	854.5	854.4	854.2	854.1	853.9	853.7	853.5
130°	892.9	893.1	893.3	893.5	893.5	893.5	893.5	893.5
132.5°	930.4	930.7	930.9	930.9	930.7	930.5	930.4	930.2
135°	982.2	982.6	983.1	983.5	984.0	984.4	984.8	985.3
137.5°	1031.8	1032.3	1032.8	1032.9	1032.8	1032.7	1032.5	1032.4
140°	1062.5	1063.2	1063.8	1064.3	1064.5	1064.7	1064.9	1065.2
142.5°	1090.9	1091.4	1091.9	1092.1	1092.2	1092.2	1092.3	1092.3
145°	1131.5	1131.7	1131.9	1132.3	1132.7	1133.1	1133.6	1134.0
147.5°	1167.1	1167.3	1167.5	1167.7	1167.9	1168.1	1168.4	1168.6
150°	1189.9	1189.9	1189.9	1190.0	1190.3	1190.5	1190.7	1190.9
152.5°	1209.8	1210.2	1210.5	1210.6	1210.5	1210.4	1210.2	1210.1
155°	1236.6	1237.5	1238.4	1238.5	1237.9	1237.2	1236.5	1235.9
157.5°	1259.7	1260.9	1262.0	1262.0	1260.9	1259.7	1258.6	1257.4
160°	1274.5	1275.8	1277.1	1277.1	1275.8	1274.5	1273.1	1271.8
162.5°	1286.4	1287.8	1289.1	1289.0	1287.5	1286.0	1284.5	1283.0
165°	1303.3	1305.1	1306.8	1306.7	1304.7	1302.7	1300.7	1298.7
167.5°	1315.6	1317.6	1319.5	1319.4	1317.2	1315.0	1312.7	1310.5
170°	1323.3	1325.0	1326.8	1326.6	1324.4	1322.2	1319.9	1317.7
172.5°	1328.1	1329.8	1331.6	1331.3	1328.9	1326.5	1324.1	1321.7
175°	1333.7	1335.7	1337.7	1337.3	1334.7	1332.0	1329.4	1326.7
177.5°	1335.9	1337.3	1338.8	1338.4	1336.3	1334.2	1332.0	1329.9
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7

(END OF REPORT)