

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: P332568-830

Luminaire Tested: **SA4XXDIP-C575D1035U830-4F0-1E-UDD-F**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332568-830  
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: SA4XXDIP-C575D1035U830-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6243.9 lumens  
Efficiency: N/A  
Efficacy: 140.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

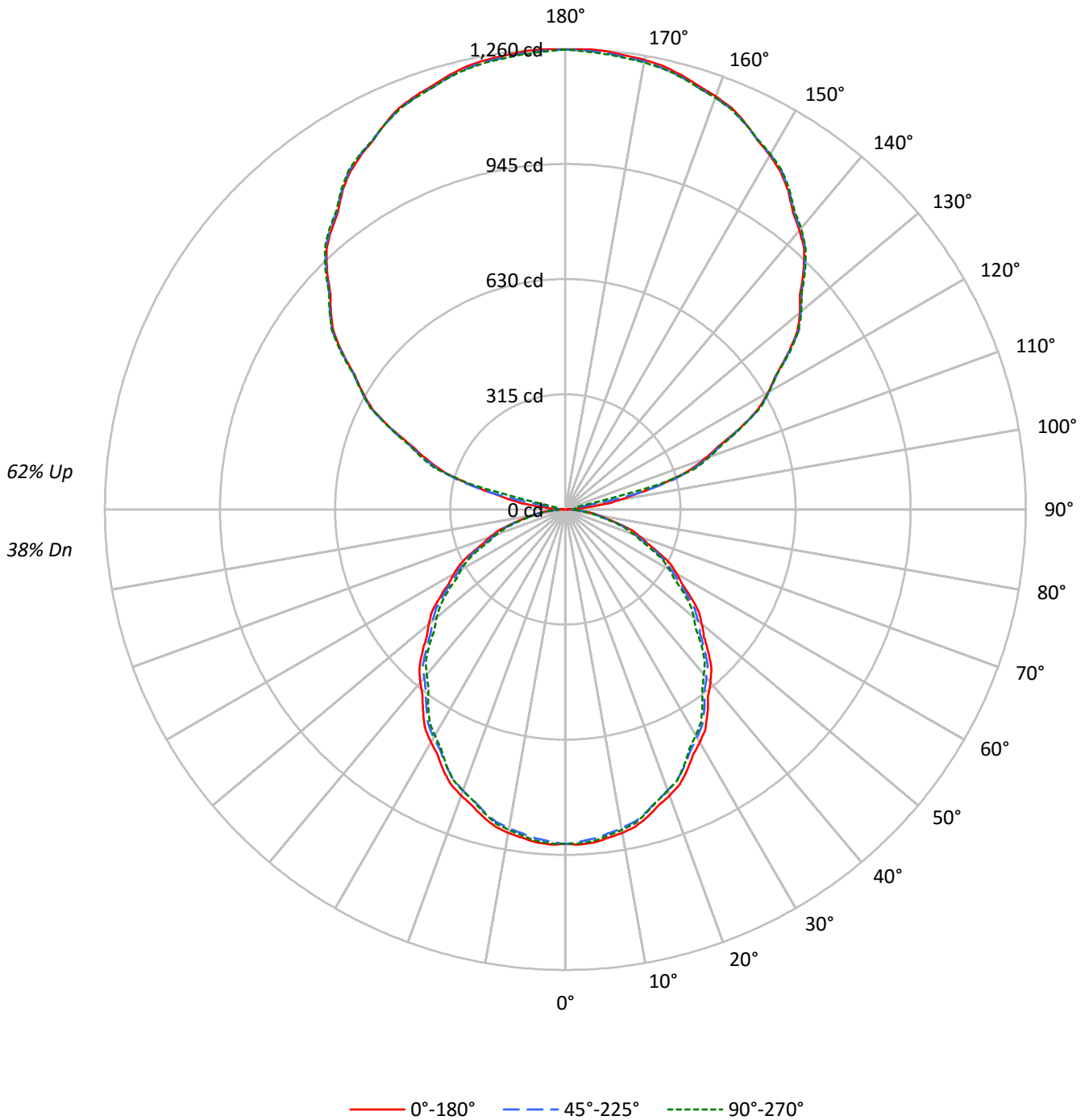
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	104	104	104	104	95	95	95	95	76	76	76	60	60	60	45	45	45	38
1	95	91	87	83	86	82	79	76	67	65	63	53	51	50	40	39	38	32
2	86	79	73	68	78	72	67	63	59	55	52	46	44	42	35	33	32	26
3	79	70	62	57	71	63	57	52	52	47	43	41	38	35	31	29	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10

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

	0°	45°	90°
0°	7389	7389	7389
5°	7412	7323	7376
10°	7365	7263	7299
15°	7276	7160	7178
20°	7158	7032	7039
25°	7023	6886	6866
30°	6858	6715	6652
35°	6686	6535	6447
40°	6509	6330	6215
45°	6322	6130	6012
50°	6116	5951	5766
55°	5895	5719	5533
60°	5672	5459	5293
65°	5421	5213	5001
70°	5141	4881	4692
75°	4713	4482	4370
80°	4193	4021	3924
85°	3668	3538	3464



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.4
10°-20°	242.9	3.9
20°-30°	357.5	5.7
30°-40°	415.6	6.7
40°-50°	415.6	6.7
50°-60°	363.5	5.8
60°-70°	270.0	4.3
70°-80°	153.4	2.5
80°-90°	47.9	0.8
90°-100°	43.0	0.7
100°-110°	274.3	4.4
110°-120°	524.8	8.4
120°-130°	666.2	10.7
130°-140°	712.8	11.4
140°-150°	666.5	10.7
150°-160°	537.5	8.6
160°-170°	346.7	5.6
170°-180°	119.5	1.9
0°-30°	686.6	11.0
0°-40°	1102.1	17.7
0°-60°	1881.3	30.1
0°-90°	2352.5	37.7
90°-120°	842.2	13.5
90°-150°	2887.7	46.2
90°-180°	3891.0	62.3
0°-180°	6243.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	915	911	904	911	910	87
15°	871	867	857	861	859	245
25°	788	783	773	774	771	363
35°	678	673	663	658	654	424
45°	554	548	537	529	527	427
55°	419	416	406	398	393	375
65°	284	280	273	266	262	281
75°	151	147	144	141	140	161
85°	40	40	38	38	37	44
90°	3	13	21	26	28	5
95°	52	22	21	26	27	67
105°	283	289	294	300	268	296
115°	529	531	531	532	532	520
125°	743	747	745	748	749	663
135°	922	921	925	927	929	710
145°	1063	1066	1066	1067	1069	664
155°	1166	1166	1164	1167	1165	537
165°	1230	1225	1225	1232	1224	347
175°	1258	1253	1253	1261	1250	120
180°	1258	1258	1258	1258	1258	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3
2.5°	917.7	917.3	916.9	916.5	916.2	915.2	913.8	912.4	910.9	909.5	910.8
5°	914.6	914.0	913.3	912.7	912.0	910.8	909.0	907.2	905.4	903.6	905.4
7.5°	906.1	905.4	904.8	904.2	903.5	902.2	900.2	898.2	896.2	894.2	895.7
10°	898.4	897.9	897.2	896.5	895.9	894.5	892.4	890.2	888.2	886.0	887.3
12.5°	888.5	887.9	887.2	886.6	885.9	884.5	882.2	880.0	877.7	875.4	876.8
15°	870.6	870.0	869.3	868.6	868.0	866.5	864.0	861.6	859.1	856.7	857.6
17.5°	849.0	848.2	847.4	846.6	845.7	844.2	841.9	839.6	837.3	835.0	835.6
20°	833.2	832.4	831.6	830.8	829.9	828.3	825.9	823.4	821.0	818.5	819.0
22.5°	816.1	815.1	814.1	812.9	811.9	810.1	807.7	805.2	802.8	800.3	801.3
25°	788.4	787.3	786.2	785.0	783.9	782.2	779.9	777.6	775.3	773.1	773.3
27.5°	756.8	755.6	754.4	753.3	752.1	750.5	748.3	746.2	744.0	742.0	741.6
30°	735.7	734.3	733.0	731.7	730.5	728.7	726.6	724.4	722.4	720.3	719.6
32.5°	713.3	712.2	711.0	709.8	708.7	706.9	704.7	702.5	700.2	698.0	697.2
35°	678.4	677.3	676.2	675.0	673.9	672.1	669.9	667.6	665.3	663.1	661.9
37.5°	641.6	640.6	639.5	638.5	637.4	635.7	633.3	630.8	628.4	625.9	624.7
40°	617.6	616.2	614.9	613.7	612.4	610.5	608.0	605.6	603.1	600.7	599.1
42.5°	591.7	591.0	590.2	589.4	588.6	586.8	584.2	581.5	578.7	576.1	574.2
45°	553.7	552.6	551.5	550.4	549.2	547.3	544.7	542.1	539.5	536.9	535.1
47.5°	514.0	513.2	512.5	511.6	510.9	509.3	506.9	504.4	502.0	499.6	497.6
50°	487.0	486.4	485.7	485.0	484.4	483.0	480.7	478.3	476.1	473.8	471.6
52.5°	460.6	459.9	459.0	458.3	457.5	455.9	453.5	451.1	448.7	446.2	444.2
55°	418.8	418.3	417.8	417.4	416.9	415.5	413.2	410.9	408.6	406.3	404.4
57.5°	378.9	378.3	377.8	377.2	376.6	375.3	373.1	370.8	368.5	366.3	364.4
60°	351.3	350.5	349.7	348.8	348.1	346.6	344.5	342.3	340.3	338.1	336.7
62.5°	324.3	323.7	322.9	322.3	321.6	320.1	317.9	315.7	313.4	311.1	309.8
65°	283.8	283.0	282.2	281.4	280.6	279.4	277.8	276.1	274.5	272.9	271.2
67.5°	243.1	242.3	241.6	240.8	240.1	238.9	237.3	235.8	234.2	232.6	231.1
70°	217.8	216.7	215.6	214.4	213.3	212.1	210.8	209.4	208.1	206.8	205.6
72.5°	190.9	189.7	188.6	187.4	186.2	185.2	184.2	183.1	182.1	181.0	179.9
75°	151.1	150.2	149.5	148.6	147.8	147.0	146.2	145.3	144.6	143.7	143.1
77.5°	113.1	112.7	112.4	112.1	111.7	111.1	110.4	109.7	109.0	108.3	108.0
80°	90.2	89.7	89.3	88.8	88.2	87.8	87.6	87.2	86.9	86.5	86.2
82.5°	68.0	67.7	67.5	67.2	67.0	66.8	66.8	66.7	66.6	66.6	66.4
85°	39.6	39.6	39.6	39.6	39.6	39.4	39.1	38.8	38.5	38.2	38.2
87.5°	15.8	16.1	16.5	16.8	17.2	17.4	17.6	17.8	18.0	18.2	18.5
90°	2.8	5.1	7.4	9.7	12.1	14.0	15.6	17.3	19.0	20.7	22.0
92.5°	11.9	12.0	12.1	12.3	12.3	13.3	14.9	16.6	18.3	20.0	21.2
95°	51.7	44.7	37.5	30.4	23.3	19.9	20.1	20.3	20.5	20.7	22.0
97.5°	109.9	114.3	118.8	123.2	127.6	118.2	94.8	71.5	48.2	24.9	25.0
100°	154.3	158.1	161.8	165.6	169.4	156.8	128.0	99.2	70.2	41.4	37.9
102.5°	204.0	206.8	209.5	212.3	215.0	214.5	210.8	207.0	203.2	199.4	161.1
105°	283.2	284.5	285.7	287.0	288.2	289.4	290.4	291.4	292.6	293.6	295.5
107.5°	356.8	357.4	358.1	358.6	359.3	360.3	361.7	363.2	364.6	366.0	366.9
110°	406.5	407.1	407.7	408.3	409.0	409.9	411.1	412.5	413.7	414.9	415.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	454.7	455.8	456.9	458.1	459.2	460.1	460.6	461.2	461.8	462.3	462.3
115°	528.8	529.4	530.1	530.7	531.3	531.5	531.3	531.1	530.8	530.7	531.1
117.5°	595.6	596.4	597.3	598.1	599.0	599.6	600.0	600.5	601.0	601.4	601.3
120°	640.7	641.6	642.4	643.3	644.1	644.4	644.2	644.0	643.8	643.6	644.0
122.5°	682.9	683.4	683.9	684.4	684.9	685.3	685.6	685.9	686.2	686.5	686.7
125°	743.3	744.1	745.0	745.8	746.7	746.9	746.5	746.0	745.6	745.2	745.8
127.5°	800.5	800.7	801.0	801.2	801.3	801.9	803.0	803.9	804.8	805.8	805.7
130°	837.4	837.6	837.8	838.0	838.2	838.7	839.3	839.9	840.6	841.2	841.4
132.5°	871.3	871.7	872.0	872.4	872.8	873.4	874.2	875.0	875.7	876.6	876.8
135°	922.1	921.9	921.7	921.4	921.2	921.5	922.4	923.2	924.1	924.9	925.3
137.5°	967.0	967.1	967.2	967.3	967.4	967.9	968.8	969.8	970.6	971.6	972.0
140°	996.5	996.8	997.3	997.7	998.1	998.5	998.9	999.4	999.8	1000.2	1000.8
142.5°	1022.8	1023.5	1024.3	1025.0	1025.8	1026.2	1026.5	1026.8	1027.0	1027.3	1027.7
145°	1063.2	1063.8	1064.5	1065.1	1065.7	1066.0	1066.0	1066.0	1066.0	1066.0	1066.3
147.5°	1095.4	1096.6	1097.8	1098.9	1100.1	1100.6	1100.3	1100.1	1099.9	1099.8	1099.9
150°	1118.7	1119.6	1120.4	1121.2	1122.1	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5
152.5°	1138.3	1139.0	1139.6	1140.3	1140.9	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0
155°	1165.8	1166.0	1166.2	1166.4	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7
157.5°	1188.9	1188.8	1188.6	1188.5	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3
160°	1202.5	1201.8	1201.3	1200.6	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0
162.5°	1214.6	1213.7	1213.0	1212.1	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3
165°	1229.7	1228.7	1227.7	1226.6	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7
167.5°	1241.8	1240.8	1239.6	1238.6	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2
170°	1248.6	1247.4	1246.0	1244.8	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6
172.5°	1253.1	1251.9	1250.6	1249.3	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1
175°	1258.0	1256.8	1255.5	1254.2	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2
177.5°	1260.3	1259.0	1257.9	1256.8	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3
2.5°	912.1	913.4	914.7	915.3	915.1	915.0	914.9	914.7
5°	907.2	909.0	910.8	911.5	911.2	910.9	910.5	910.2
7.5°	897.1	898.5	899.9	900.6	900.4	900.2	900.0	899.8
10°	888.6	889.9	891.3	891.7	891.4	891.1	890.7	890.4
12.5°	878.4	879.8	881.2	881.7	881.2	880.7	880.3	879.9
15°	858.7	859.6	860.5	860.8	860.4	859.9	859.3	858.8
17.5°	836.2	836.8	837.4	837.5	837.3	836.9	836.6	836.3
20°	819.5	820.0	820.5	820.6	820.2	819.9	819.6	819.3
22.5°	802.1	803.0	803.9	804.0	803.4	802.9	802.3	801.6
25°	773.4	773.5	773.7	773.5	772.8	772.1	771.5	770.8
27.5°	741.2	740.7	740.4	739.8	739.0	738.2	737.4	736.5
30°	719.0	718.3	717.7	716.9	716.0	715.3	714.4	713.6
32.5°	696.4	695.6	694.8	694.0	693.2	692.4	691.5	690.8
35°	660.7	659.6	658.5	657.5	656.7	655.8	655.1	654.2
37.5°	623.5	622.2	620.9	619.8	618.8	617.6	616.6	615.5
40°	597.5	595.8	594.2	593.0	592.1	591.4	590.5	589.7
42.5°	572.3	570.3	568.4	567.2	566.8	566.2	565.6	565.1
45°	533.3	531.5	529.7	528.6	528.1	527.6	527.1	526.6
47.5°	495.6	493.5	491.5	489.9	488.7	487.4	486.2	484.9
50°	469.2	466.9	464.7	463.1	462.0	461.1	460.1	459.1
52.5°	442.1	440.2	438.2	436.5	435.3	434.0	432.8	431.6
55°	402.5	400.5	398.5	397.0	396.1	395.1	394.1	393.1
57.5°	362.6	360.7	358.8	357.4	356.5	355.5	354.6	353.6
60°	335.2	333.8	332.2	331.1	330.3	329.5	328.7	327.8
62.5°	308.5	307.1	305.8	304.7	303.9	303.1	302.3	301.4
65°	269.6	268.0	266.4	265.1	264.3	263.4	262.7	261.8
67.5°	229.5	228.0	226.4	225.5	225.3	225.1	224.8	224.6
70°	204.2	202.9	201.6	200.8	200.2	199.7	199.3	198.8
72.5°	178.9	177.9	176.8	176.1	175.6	175.1	174.7	174.1
75°	142.4	141.8	141.2	140.7	140.5	140.4	140.3	140.1
77.5°	107.8	107.6	107.4	107.2	106.7	106.3	105.8	105.5
80°	85.9	85.6	85.2	85.0	84.8	84.6	84.5	84.4
82.5°	66.2	66.0	65.8	65.6	65.5	65.3	65.1	64.9
85°	38.2	38.2	38.2	38.1	37.9	37.7	37.6	37.4
87.5°	18.8	18.9	19.2	19.4	19.5	19.6	19.6	19.7
90°	23.2	24.5	25.7	26.6	27.0	27.4	27.8	28.2
92.5°	22.4	23.8	25.0	25.6	25.7	25.8	25.9	26.0
95°	23.2	24.5	25.7	26.5	26.7	26.9	27.1	27.2
97.5°	25.1	25.3	25.4	25.5	25.7	25.9	26.1	26.4
100°	34.3	30.7	27.1	25.5	25.7	25.9	26.1	26.4
102.5°	122.8	84.5	46.1	27.0	27.0	27.1	27.1	27.1
105°	297.4	299.2	301.0	298.3	290.8	283.2	275.7	268.2
107.5°	367.9	368.8	369.7	370.5	371.4	372.1	373.0	373.7
110°	415.8	416.2	416.6	417.2	417.7	418.4	419.1	419.6





TEST NUMBER: P332568-830

CATALOG NUMBER: SA4XXDIP-C575D1035U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	462.2	462.1	462.0	462.4	463.2	464.0	464.8	465.5
115°	531.5	532.0	532.3	532.5	532.5	532.5	532.5	532.5
117.5°	601.2	601.2	601.1	601.1	601.0	600.9	600.8	600.7
120°	644.4	644.8	645.3	645.3	644.8	644.4	644.0	643.6
122.5°	687.0	687.2	687.5	687.4	687.0	686.5	686.2	685.7
125°	746.5	747.1	747.7	748.1	748.4	748.6	748.8	748.9
127.5°	805.6	805.4	805.3	805.1	805.0	804.8	804.6	804.5
130°	841.6	841.8	842.0	842.2	842.2	842.2	842.2	842.2
132.5°	876.9	877.2	877.4	877.4	877.2	877.0	876.9	876.8
135°	925.8	926.1	926.6	927.0	927.5	927.8	928.2	928.7
137.5°	972.5	973.0	973.5	973.6	973.5	973.4	973.2	973.1
140°	1001.5	1002.1	1002.7	1003.1	1003.3	1003.5	1003.7	1004.0
142.5°	1028.2	1028.7	1029.2	1029.4	1029.4	1029.4	1029.5	1029.5
145°	1066.5	1066.7	1066.9	1067.2	1067.6	1068.0	1068.5	1068.8
147.5°	1100.0	1100.2	1100.4	1100.6	1100.8	1101.0	1101.3	1101.5
150°	1121.5	1121.5	1121.5	1121.6	1121.9	1122.1	1122.3	1122.5
152.5°	1140.3	1140.7	1140.9	1141.0	1140.9	1140.9	1140.7	1140.6
155°	1165.5	1166.4	1167.2	1167.3	1166.8	1166.1	1165.5	1164.9
157.5°	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2
160°	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7
162.5°	1212.5	1213.8	1215.0	1214.9	1213.5	1212.1	1210.7	1209.3
165°	1228.4	1230.1	1231.7	1231.6	1229.7	1227.9	1226.0	1224.1
167.5°	1240.0	1241.9	1243.7	1243.6	1241.5	1239.4	1237.3	1235.2
170°	1247.3	1248.9	1250.6	1250.4	1248.3	1246.2	1244.1	1242.0
172.5°	1251.8	1253.4	1255.1	1254.8	1252.5	1250.3	1248.0	1245.8
175°	1257.1	1259.0	1260.8	1260.5	1258.0	1255.5	1253.0	1250.5
177.5°	1259.1	1260.5	1261.9	1261.5	1259.5	1257.5	1255.5	1253.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

(END OF REPORT)