

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: P332533

Luminaire Tested: **SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332533
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-C350D1205U835-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 350 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

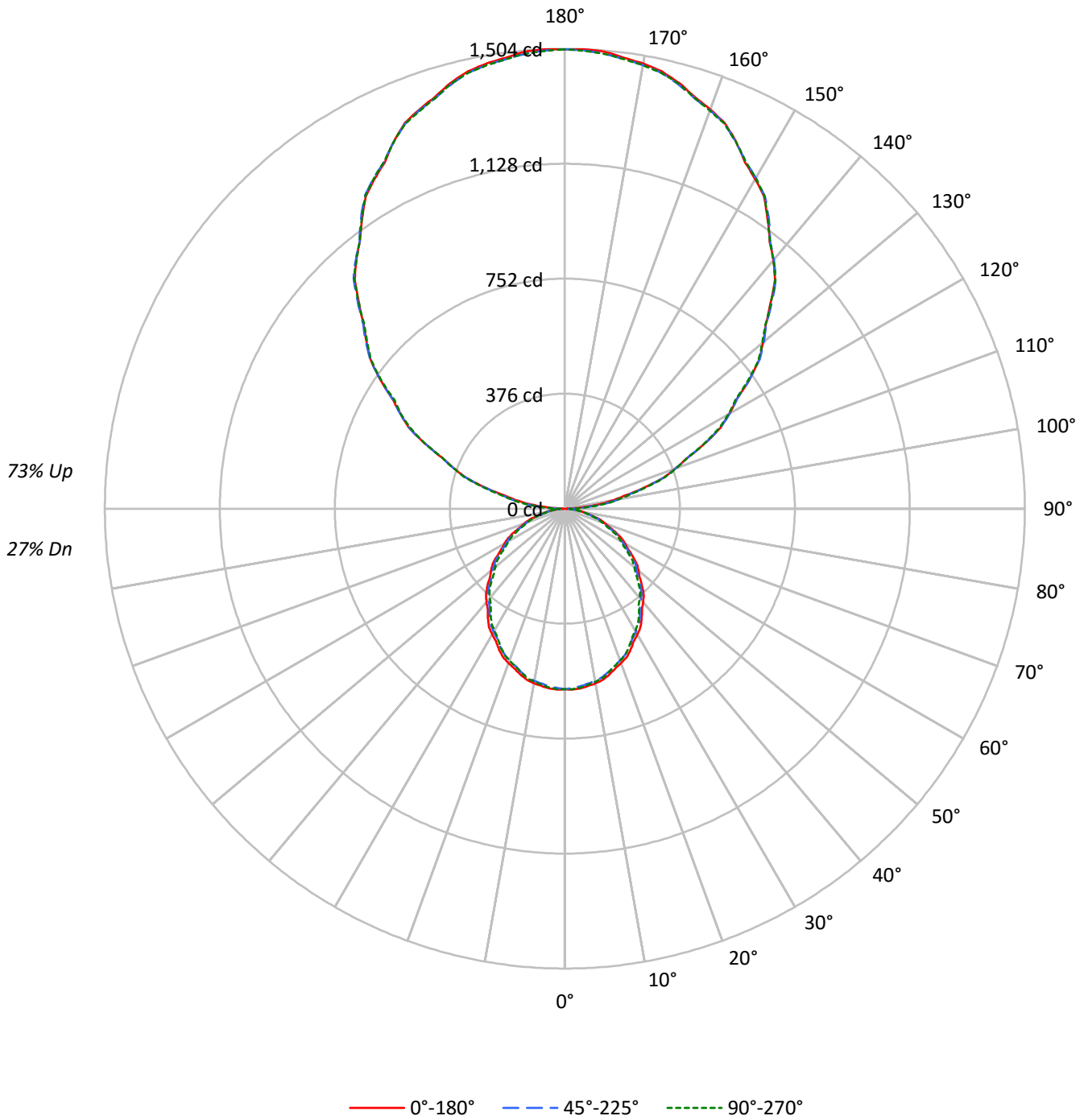
Lumens per Lamp: N/A
Luminaire Lumens: 5688.1 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 42.2
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: P332533
CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

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	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27				27
1	93	88	85	81	82	79	76	73	61	59	57	45	44	43	31	30	29	22				22
2	84	77	71	66	75	69	64	60	54	50	48	40	38	36	27	26	25	19				19
3	77	68	61	55	68	61	55	50	47	43	40	35	32	30	24	22	21	16				16
4	70	60	52	46	62	54	47	42	42	37	34	31	28	26	21	19	18	14				14
5	64	53	45	40	57	48	41	36	37	33	29	28	25	22	19	17	16	12				12
6	59	47	40	34	53	43	36	31	34	29	25	25	22	19	17	15	14	10				10
7	54	43	35	30	48	38	32	27	30	26	22	23	20	17	16	14	12	9				9
8	50	39	31	26	45	35	28	24	28	23	19	21	18	15	14	12	11	8				8
9	47	35	28	23	42	32	25	21	25	21	17	19	16	14	13	11	10	7				7
10	44	32	25	21	39	29	23	19	23	19	15	18	14	12	12	10	9	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4769	4769	4769
5°	4783	4725	4760
10°	4753	4687	4710
15°	4695	4621	4633
20°	4619	4538	4542
25°	4532	4444	4431
30°	4426	4333	4294
35°	4315	4217	4161
40°	4200	4086	4011
45°	4080	3956	3881
50°	3947	3841	3721
55°	3804	3690	3571
60°	3660	3523	3416
65°	3500	3364	3228
70°	3319	3151	3028
75°	3041	2895	2820
80°	2706	2599	2529
85°	2371	2279	2232



TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.0
10°-20°	156.7	2.8
20°-30°	230.7	4.1
30°-40°	268.2	4.7
40°-50°	268.2	4.7
50°-60°	234.6	4.1
60°-70°	174.2	3.1
70°-80°	99.0	1.7
80°-90°	33.1	0.6
90°-100°	99.1	1.7
100°-110°	293.5	5.2
110°-120°	498.2	8.8
120°-130°	656.9	11.5
130°-140°	737.7	13.0
140°-150°	724.9	12.7
150°-160°	609.7	10.7
160°-170°	405.7	7.1
170°-180°	142.1	2.5
0°-30°	443.1	7.8
0°-40°	711.3	12.5
0°-60°	1214.1	21.3
0°-90°	1520.4	26.7
90°-120°	890.8	15.7
90°-150°	3010.3	52.9
90°-180°	4168.0	73.3
0°-180°	5688.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	591	591	591	591	591	
5°	590	588	583	588	587	56
15°	562	560	553	555	554	158
25°	509	505	499	499	498	234
35°	438	434	428	425	422	274
45°	357	354	346	342	340	275
55°	270	269	262	257	254	242
65°	183	181	176	172	169	181
75°	98	95	93	91	90	104
85°	26	26	25	25	24	28
90°	4	16	26	32	35	6
95°	70	80	88	92	92	78
105°	271	272	276	280	284	287
115°	506	506	504	503	502	499
125°	738	738	737	734	732	657
135°	952	958	958	956	953	736
145°	1156	1160	1162	1160	1157	723
155°	1324	1324	1323	1327	1323	609
165°	1442	1438	1436	1442	1438	406
175°	1500	1494	1493	1500	1493	142
180°	1502	1502	1502	1502	1502	



TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7
2.5°	592.2	592.0	591.7	591.5	591.2	590.6	589.7	588.8	587.9	586.9	587.8
5°	590.2	589.8	589.4	589.0	588.6	587.8	586.6	585.5	584.3	583.1	584.3
7.5°	584.8	584.3	583.9	583.5	583.1	582.2	580.9	579.7	578.4	577.1	578.0
10°	579.8	579.4	579.0	578.6	578.2	577.3	575.9	574.5	573.2	571.8	572.6
12.5°	573.4	573.0	572.6	572.1	571.7	570.8	569.3	567.9	566.4	565.0	565.9
15°	561.8	561.4	561.0	560.6	560.2	559.2	557.6	556.0	554.4	552.9	553.5
17.5°	547.9	547.4	546.9	546.4	545.8	544.8	543.3	541.8	540.3	538.8	539.2
20°	537.7	537.2	536.7	536.1	535.6	534.6	533.0	531.4	529.8	528.2	528.6
22.5°	526.7	526.0	525.3	524.6	523.9	522.8	521.2	519.7	518.1	516.5	517.1
25°	508.8	508.1	507.4	506.6	505.9	504.8	503.3	501.8	500.4	498.9	499.0
27.5°	488.4	487.6	486.9	486.1	485.4	484.3	482.9	481.6	480.2	478.8	478.6
30°	474.8	473.9	473.1	472.2	471.4	470.3	468.9	467.5	466.2	464.8	464.4
32.5°	460.4	459.6	458.8	458.1	457.3	456.2	454.8	453.3	451.9	450.4	449.9
35°	437.8	437.1	436.4	435.6	434.9	433.8	432.3	430.8	429.4	427.9	427.2
37.5°	414.1	413.4	412.7	412.1	411.4	410.3	408.7	407.1	405.5	403.9	403.1
40°	398.5	397.7	396.9	396.0	395.2	394.0	392.4	390.8	389.2	387.7	386.6
42.5°	381.9	381.4	380.9	380.4	379.9	378.7	377.0	375.2	373.5	371.8	370.5
45°	357.4	356.6	355.9	355.2	354.4	353.2	351.5	349.8	348.2	346.5	345.3
47.5°	331.7	331.2	330.7	330.2	329.7	328.7	327.1	325.5	324.0	322.4	321.1
50°	314.3	313.9	313.5	313.0	312.6	311.7	310.2	308.7	307.2	305.8	304.3
52.5°	297.3	296.7	296.2	295.7	295.2	294.2	292.6	291.1	289.5	288.0	286.7
55°	270.3	270.0	269.6	269.3	269.0	268.1	266.6	265.2	263.7	262.2	261.0
57.5°	244.5	244.2	243.8	243.5	243.1	242.2	240.7	239.3	237.8	236.4	235.2
60°	226.7	226.2	225.7	225.1	224.6	223.7	222.3	220.9	219.6	218.2	217.3
62.5°	209.3	208.9	208.4	208.0	207.5	206.6	205.1	203.7	202.2	200.8	199.9
65°	183.2	182.7	182.1	181.6	181.1	180.3	179.2	178.2	177.1	176.1	175.0
67.5°	156.9	156.4	155.9	155.4	154.9	154.2	153.2	152.2	151.2	150.1	149.1
70°	140.6	139.8	139.1	138.4	137.6	136.8	136.0	135.2	134.3	133.5	132.6
72.5°	123.2	122.4	121.7	121.0	120.2	119.5	118.8	118.2	117.5	116.8	116.1
75°	97.5	97.0	96.5	95.9	95.4	94.9	94.4	93.8	93.3	92.8	92.4
77.5°	73.0	72.8	72.5	72.3	72.1	71.7	71.3	70.8	70.3	69.9	69.7
80°	58.2	57.9	57.6	57.3	57.0	56.7	56.5	56.3	56.1	55.9	55.6
82.5°	43.8	43.7	43.5	43.4	43.2	43.1	43.1	43.1	43.0	43.0	42.9
85°	25.6	25.6	25.6	25.6	25.6	25.5	25.2	25.0	24.8	24.6	24.6
87.5°	10.5	11.0	11.5	12.0	12.5	12.9	13.2	13.5	13.9	14.2	14.5
90°	3.5	6.3	9.2	12.0	14.8	17.3	19.4	21.4	23.5	25.6	27.1
92.5°	24.9	28.1	31.4	34.6	37.9	40.2	41.7	43.1	44.6	46.0	46.9
95°	69.7	72.0	74.4	76.7	79.0	81.1	82.9	84.7	86.5	88.3	89.1
97.5°	121.8	123.6	125.5	127.3	129.2	131.2	133.3	135.4	137.5	139.6	140.6
100°	162.7	163.7	164.7	165.7	166.8	168.5	170.8	173.1	175.4	177.8	178.3
102.5°	205.4	205.8	206.2	206.6	207.1	208.3	210.4	212.6	214.7	216.8	217.5
105°	270.7	271.0	271.2	271.5	271.7	272.4	273.4	274.4	275.5	276.5	277.3
107.5°	339.2	339.6	339.9	340.2	340.5	340.7	340.9	341.0	341.2	341.3	342.1
110°	385.7	386.2	386.7	387.3	387.8	387.9	387.7	387.4	387.1	386.9	386.4



TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	434.0	434.2	434.3	434.4	434.5	434.3	433.8	433.4	432.9	432.4	432.3
115°	506.5	506.5	506.5	506.5	506.5	506.3	505.8	505.3	504.7	504.2	504.0
117.5°	574.9	575.1	575.3	575.5	575.7	575.6	575.2	574.9	574.5	574.2	573.3
120°	620.4	621.4	622.5	623.5	624.5	624.7	623.9	623.1	622.3	621.6	620.3
122.5°	667.8	668.2	668.6	669.0	669.5	669.5	669.1	668.8	668.4	668.0	667.2
125°	737.7	737.7	737.7	737.7	737.7	737.6	737.4	737.1	736.8	736.6	736.1
127.5°	801.2	802.0	802.7	803.5	804.3	804.5	804.0	803.6	803.2	802.8	802.3
130°	845.8	846.6	847.3	848.1	848.9	849.3	849.3	849.3	849.3	849.3	848.8
132.5°	891.3	891.9	892.5	893.0	893.6	893.8	893.6	893.4	893.2	893.0	892.4
135°	951.5	953.1	954.6	956.2	957.7	958.5	958.5	958.5	958.5	958.5	958.0
137.5°	1017.0	1017.8	1018.5	1019.2	1019.9	1020.5	1020.9	1021.3	1021.7	1022.1	1021.5
140°	1060.7	1061.2	1061.8	1062.3	1062.8	1063.0	1063.0	1063.0	1063.0	1063.0	1062.8
142.5°	1100.7	1101.2	1101.7	1102.2	1102.8	1102.9	1102.7	1102.5	1102.3	1102.1	1102.0
145°	1156.0	1157.0	1158.1	1159.1	1160.1	1160.8	1161.0	1161.3	1161.5	1161.8	1161.5
147.5°	1210.8	1212.1	1213.3	1214.5	1215.8	1216.3	1216.1	1215.9	1215.7	1215.5	1215.3
150°	1244.3	1245.3	1246.4	1247.4	1248.4	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
152.5°	1275.9	1276.5	1277.1	1277.7	1278.4	1278.8	1279.0	1279.2	1279.4	1279.6	1280.2
155°	1324.4	1324.4	1324.4	1324.4	1324.4	1324.3	1324.1	1323.8	1323.5	1323.3	1324.3
157.5°	1365.3	1364.9	1364.4	1364.0	1363.5	1363.2	1363.2	1363.1	1363.1	1363.0	1363.8
160°	1389.5	1389.3	1389.0	1388.7	1388.5	1388.2	1388.0	1387.7	1387.4	1387.2	1388.0
162.5°	1411.8	1411.1	1410.5	1409.8	1409.1	1408.7	1408.4	1408.2	1407.9	1407.6	1409.0
165°	1441.8	1441.0	1440.2	1439.5	1438.7	1438.0	1437.5	1437.0	1436.5	1436.0	1437.5
167.5°	1464.8	1463.7	1462.6	1461.5	1460.5	1459.9	1460.0	1460.0	1460.1	1460.1	1461.7
170°	1477.8	1476.5	1475.2	1473.9	1472.6	1472.1	1472.4	1472.6	1472.9	1473.2	1474.7
172.5°	1487.1	1486.0	1484.9	1483.8	1482.8	1482.2	1482.3	1482.4	1482.4	1482.5	1484.2
175°	1499.9	1498.6	1497.3	1496.0	1494.7	1493.9	1493.7	1493.4	1493.2	1492.9	1494.7
177.5°	1504.1	1503.0	1502.0	1501.0	1499.9	1499.4	1499.4	1499.4	1499.4	1499.4	1500.9
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2



TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7
2.5°	588.6	589.5	590.3	590.7	590.6	590.5	590.4	590.3
5°	585.5	586.6	587.8	588.2	588.0	587.8	587.6	587.4
7.5°	578.9	579.9	580.8	581.2	581.1	580.9	580.8	580.7
10°	573.5	574.3	575.2	575.5	575.3	575.0	574.8	574.6
12.5°	566.8	567.7	568.7	569.0	568.7	568.4	568.1	567.8
15°	554.1	554.7	555.4	555.5	555.2	554.9	554.6	554.3
17.5°	539.6	540.0	540.4	540.5	540.3	540.1	539.9	539.7
20°	528.9	529.2	529.5	529.6	529.3	529.1	528.9	528.7
22.5°	517.6	518.2	518.8	518.9	518.5	518.1	517.7	517.4
25°	499.1	499.2	499.3	499.2	498.7	498.3	497.9	497.5
27.5°	478.3	478.1	477.8	477.4	476.9	476.4	475.8	475.3
30°	464.0	463.6	463.1	462.7	462.1	461.6	461.1	460.6
32.5°	449.4	448.9	448.4	447.9	447.4	446.8	446.3	445.8
35°	426.4	425.7	424.9	424.3	423.8	423.3	422.7	422.2
37.5°	402.3	401.5	400.7	400.0	399.3	398.6	397.9	397.2
40°	385.6	384.5	383.5	382.7	382.1	381.6	381.1	380.6
42.5°	369.3	368.1	366.9	366.1	365.7	365.4	365.0	364.7
45°	344.2	343.0	341.9	341.1	340.8	340.5	340.2	339.9
47.5°	319.8	318.5	317.2	316.2	315.4	314.6	313.8	313.0
50°	302.8	301.4	299.9	298.8	298.2	297.6	296.9	296.3
52.5°	285.4	284.1	282.8	281.7	280.9	280.1	279.3	278.5
55°	259.7	258.4	257.2	256.2	255.6	255.0	254.3	253.7
57.5°	234.0	232.8	231.6	230.7	230.1	229.5	228.9	228.2
60°	216.3	215.4	214.4	213.7	213.2	212.6	212.1	211.6
62.5°	199.1	198.2	197.3	196.6	196.1	195.6	195.1	194.5
65°	174.0	172.9	171.9	171.1	170.6	170.0	169.5	169.0
67.5°	148.1	147.1	146.1	145.5	145.4	145.2	145.1	144.9
70°	131.8	131.0	130.1	129.5	129.2	128.9	128.6	128.3
72.5°	115.5	114.8	114.1	113.6	113.3	113.0	112.7	112.4
75°	91.9	91.5	91.1	90.8	90.7	90.6	90.5	90.4
77.5°	69.6	69.5	69.4	69.2	68.9	68.6	68.3	68.1
80°	55.4	55.2	55.0	54.9	54.7	54.6	54.5	54.4
82.5°	42.7	42.6	42.5	42.4	42.3	42.1	42.0	41.9
85°	24.6	24.6	24.6	24.6	24.5	24.4	24.2	24.1
87.5°	14.8	15.1	15.4	15.6	15.7	15.9	16.0	16.1
90°	28.7	30.2	31.8	32.8	33.3	33.8	34.3	34.9
92.5°	47.9	48.8	49.7	50.3	50.7	51.0	51.3	51.6
95°	89.8	90.6	91.4	91.8	91.8	91.8	91.8	91.8
97.5°	141.5	142.4	143.4	143.8	143.8	143.8	143.8	143.8
100°	178.8	179.3	179.8	180.1	180.1	180.1	180.1	180.1
102.5°	218.2	219.0	219.7	220.1	220.4	220.6	220.8	221.0
105°	278.1	278.8	279.6	280.4	281.2	281.9	282.7	283.5
107.5°	342.8	343.5	344.2	344.6	344.5	344.5	344.4	344.4
110°	385.8	385.3	384.8	384.9	385.7	386.5	387.3	388.0



TEST NUMBER: P332533

CATALOG NUMBER: SA4XXDIP-C350D1205U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	432.2	432.1	432.0	432.0	432.2	432.3	432.5	432.7
115°	503.7	503.4	503.2	502.9	502.7	502.4	502.2	501.9
117.5°	572.4	571.5	570.6	570.0	569.4	568.9	568.4	567.9
120°	619.0	617.7	616.4	616.0	616.5	617.0	617.6	618.1
122.5°	666.3	665.4	664.5	663.6	662.7	661.8	660.8	659.9
125°	735.5	735.0	734.5	734.0	733.5	733.0	732.4	731.9
127.5°	801.8	801.3	800.7	800.3	799.9	799.4	799.0	798.6
130°	848.2	847.7	847.2	846.4	845.4	844.4	843.3	842.3
132.5°	891.9	891.4	890.9	890.4	890.0	889.6	889.2	888.8
135°	957.5	956.9	956.4	955.8	955.0	954.2	953.4	952.7
137.5°	1020.8	1020.1	1019.5	1019.2	1019.4	1019.5	1019.7	1019.8
140°	1062.5	1062.3	1062.0	1061.8	1061.5	1061.2	1061.0	1060.7
142.5°	1102.0	1101.9	1101.9	1101.8	1101.8	1101.7	1101.7	1101.6
145°	1161.3	1161.0	1160.8	1160.2	1159.5	1158.7	1157.9	1157.2
147.5°	1215.1	1214.9	1214.6	1214.4	1214.2	1213.9	1213.6	1213.4
150°	1248.9	1248.9	1248.9	1248.8	1248.5	1248.3	1248.0	1247.8
152.5°	1280.8	1281.5	1282.1	1282.1	1281.4	1280.7	1280.0	1279.4
155°	1325.4	1326.4	1327.4	1327.4	1326.4	1325.4	1324.3	1323.3
157.5°	1364.6	1365.3	1366.1	1366.1	1365.2	1364.3	1363.4	1362.6
160°	1388.7	1389.5	1390.3	1390.0	1388.7	1387.4	1386.2	1384.9
162.5°	1410.4	1411.8	1413.2	1413.3	1412.0	1410.7	1409.4	1408.1
165°	1439.1	1440.6	1442.2	1442.4	1441.4	1440.4	1439.3	1438.3
167.5°	1463.2	1464.8	1466.3	1466.3	1464.7	1463.1	1461.5	1459.9
170°	1476.3	1477.8	1479.4	1479.2	1477.4	1475.6	1473.8	1472.0
172.5°	1486.0	1487.7	1489.5	1489.5	1487.6	1485.8	1484.0	1482.2
175°	1496.5	1498.3	1500.1	1500.1	1498.3	1496.5	1494.7	1492.9
177.5°	1502.3	1503.8	1505.2	1505.1	1503.4	1501.8	1500.1	1498.5
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2

(END OF REPORT)