

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: P331301-930

Luminaire Tested: **SA2XXDIP-C485D530U930-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331301-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3153.8 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

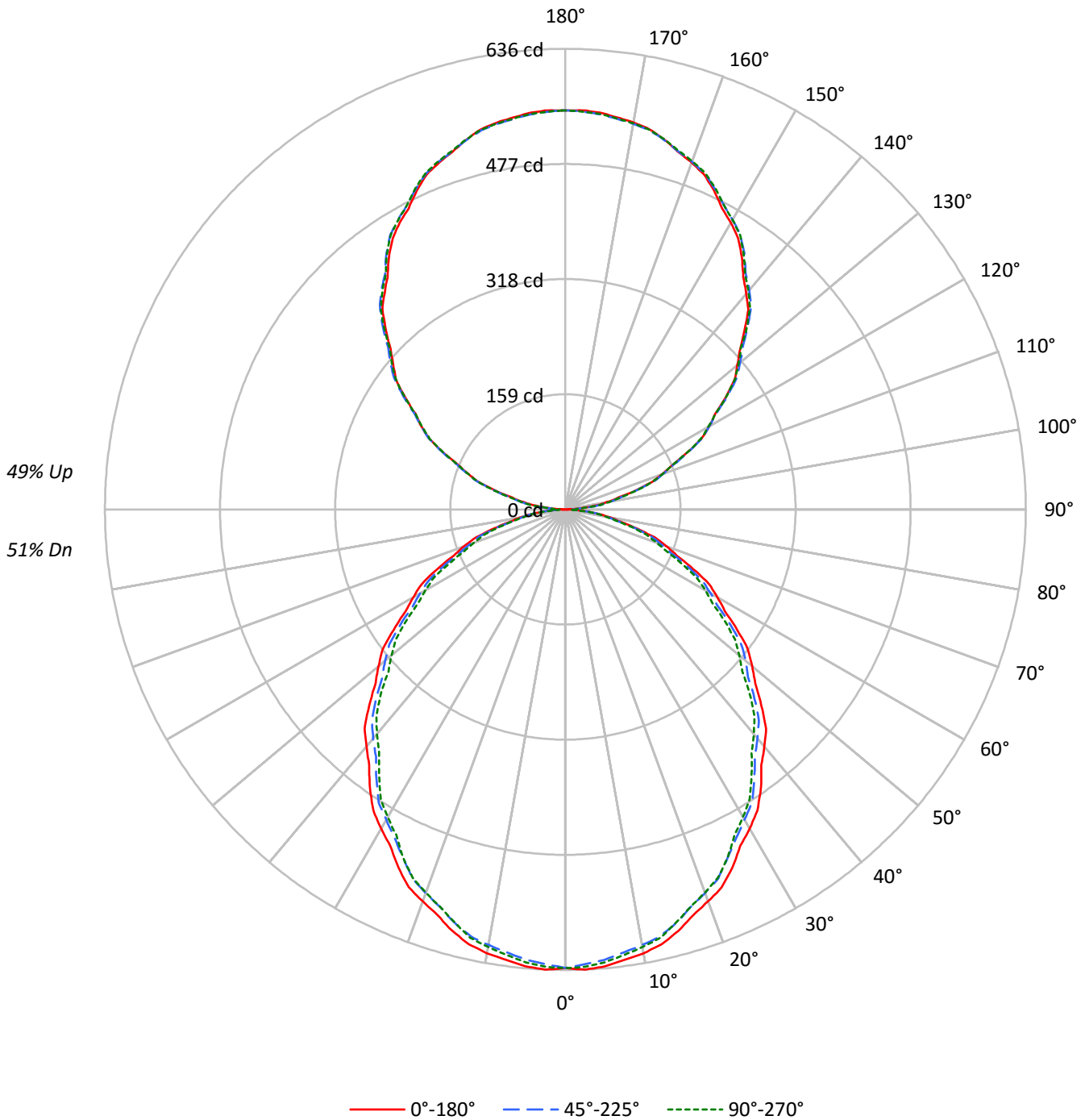
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

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	84	84	84	70	70	70	57	57	57	51	51	51	51	
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	49	48	43	43	43	43	
2	89	82	76	70	82	76	70	66	65	61	57	54	51	49	44	42	41	36	36	36	36	
3	81	72	65	59	75	67	60	55	57	52	48	48	44	41	39	37	35	31	31	31	31	
4	75	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26	26	26	26	
5	68	57	49	43	63	53	46	40	45	40	35	38	34	31	32	29	26	23	23	23	23	
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20	20	20	20	
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	18	18	18	18	
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16	16	16	16	
9	50	38	31	26	47	36	29	24	31	25	22	27	22	19	22	19	16	14	14	14	14	
10	47	35	28	23	44	33	26	22	29	23	19	24	20	17	21	17	15	13	13	13	13	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10224	10224	10224
5°	10263	10115	10175
10°	10203	10012	10063
15°	10076	9884	9872
20°	9897	9689	9677
25°	9720	9449	9449
30°	9491	9229	9148
35°	9278	8966	8834
40°	9010	8703	8534
45°	8745	8439	8229
50°	8457	8166	7877
55°	8158	7848	7561
60°	7824	7472	7195
65°	7465	7095	6770
70°	7010	6637	6326
75°	6382	6114	5964
80°	5662	5486	5207
85°	4613	4390	3946



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	1.9
10°-20°	167.6	5.3
20°-30°	246.3	7.8
30°-40°	286.1	9.1
40°-50°	285.8	9.1
50°-60°	249.2	7.9
60°-70°	184.3	5.8
70°-80°	104.4	3.3
80°-90°	30.3	1.0
90°-100°	34.9	1.1
100°-110°	108.4	3.4
110°-120°	185.3	5.9
120°-130°	243.7	7.7
130°-140°	273.5	8.7
140°-150°	268.2	8.5
150°-160°	225.0	7.1
160°-170°	149.2	4.7
170°-180°	52.2	1.7
0°-30°	473.4	15.0
0°-40°	759.4	24.1
0°-60°	1294.4	41.0
0°-90°	1613.3	51.2
90°-120°	328.7	10.4
90°-150°	1114.2	35.3
90°-180°	1540.0	48.8
0°-180°	3153.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	633	631	624	629	628	60
15°	603	599	591	593	591	170
25°	546	540	530	531	530	251
35°	471	464	455	451	448	294
45°	383	378	370	363	360	295
55°	290	286	279	272	269	259
65°	195	192	186	180	177	193
75°	102	101	98	95	96	109
85°	25	24	24	22	21	29
90°	0	6	16	15	16	2
95°	24	29	30	30	29	28
105°	100	101	102	103	103	106
115°	186	189	188	187	186	184
125°	271	274	273	272	272	242
135°	350	355	356	356	354	270
145°	425	428	431	431	430	265
155°	486	487	489	491	490	224
165°	529	528	528	531	529	149
175°	550	549	548	551	548	52
180°	551	551	551	551	551	



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2
2.5°	636.2	635.6	635.1	634.5	634.0	633.2	631.9	630.8	629.6	628.4	629.5
5°	633.2	632.7	632.2	631.6	631.1	630.1	628.6	627.1	625.6	624.1	625.2
7.5°	627.6	626.8	626.0	625.1	624.3	623.1	621.6	620.1	618.6	617.0	618.2
10°	622.3	621.3	620.4	619.5	618.5	617.2	615.6	614.0	612.4	610.7	611.8
12.5°	615.0	614.2	613.3	612.5	611.6	610.4	608.8	607.2	605.5	603.9	604.6
15°	602.8	602.0	601.2	600.4	599.6	598.3	596.5	594.8	593.0	591.3	591.7
17.5°	587.2	586.4	585.6	584.8	584.0	582.7	580.9	579.1	577.3	575.5	576.2
20°	576.0	575.2	574.4	573.6	572.7	571.4	569.5	567.6	565.7	563.9	564.3
22.5°	564.8	563.7	562.6	561.4	560.3	558.8	557.0	555.2	553.4	551.6	551.7
25°	545.6	544.5	543.4	542.3	541.3	539.6	537.3	534.9	532.6	530.4	530.6
27.5°	523.7	522.7	521.7	520.7	519.8	518.4	516.6	514.7	512.9	511.1	510.7
30°	509.1	507.9	506.9	505.8	504.7	503.1	501.1	499.1	497.1	495.0	494.6
32.5°	493.4	492.6	491.7	490.8	490.0	488.4	486.3	484.2	482.1	480.0	479.2
35°	470.7	469.3	468.0	466.6	465.3	463.5	461.4	459.2	457.0	454.9	454.0
37.5°	445.0	443.8	442.6	441.4	440.2	438.5	436.3	434.2	432.0	429.9	428.8
40°	427.5	426.3	425.3	424.2	423.1	421.5	419.3	417.2	415.0	412.9	411.6
42.5°	410.4	409.3	408.2	407.2	406.1	404.5	402.3	400.1	397.9	395.7	394.4
45°	383.0	382.0	381.1	380.2	379.2	377.7	375.7	373.7	371.6	369.6	368.1
47.5°	355.7	354.8	353.9	353.0	352.1	350.7	348.5	346.4	344.3	342.2	340.6
50°	336.7	336.1	335.3	334.7	334.0	332.7	330.8	329.0	327.0	325.1	323.3
52.5°	318.2	317.3	316.4	315.5	314.6	313.3	311.5	309.7	307.9	306.1	304.6
55°	289.8	289.0	288.2	287.4	286.6	285.4	283.7	282.1	280.5	278.8	277.3
57.5°	261.3	260.7	260.0	259.4	258.8	257.6	255.8	254.0	252.2	250.4	248.7
60°	242.3	241.8	241.2	240.7	240.2	239.0	237.1	235.1	233.3	231.4	229.9
62.5°	223.8	223.0	222.1	221.2	220.4	219.2	217.8	216.3	214.8	213.4	212.0
65°	195.4	194.6	193.8	193.0	192.2	191.1	189.8	188.4	187.0	185.7	184.5
67.5°	166.6	165.9	165.3	164.6	164.0	163.1	161.8	160.6	159.4	158.2	157.3
70°	148.5	148.1	147.5	146.9	146.4	145.5	144.3	143.1	141.9	140.6	139.7
72.5°	130.0	129.6	129.0	128.4	127.9	127.3	126.5	125.6	124.9	124.1	123.1
75°	102.3	102.0	101.7	101.5	101.2	100.8	100.0	99.4	98.7	98.0	97.2
77.5°	77.5	77.0	76.6	76.1	75.6	75.3	75.0	74.7	74.4	74.2	73.8
80°	60.9	60.7	60.7	60.5	60.3	60.2	59.8	59.6	59.4	59.0	58.6
82.5°	45.3	45.2	45.2	45.2	45.2	45.1	44.9	44.8	44.6	44.4	43.9
85°	24.9	24.9	24.7	24.5	24.5	24.3	24.1	24.1	23.9	23.7	23.3
87.5°	8.9	8.9	8.9	9.0	9.0	9.1	9.4	9.6	9.9	10.1	9.7
90°	0.5	1.7	2.9	4.2	5.5	7.2	9.5	11.7	14.0	16.3	16.1
92.5°	8.3	9.2	10.1	11.0	11.9	12.6	13.2	13.7	14.3	14.8	14.8
95°	24.2	25.2	26.3	27.3	28.3	28.9	29.1	29.4	29.5	29.8	29.8
97.5°	44.2	45.1	46.0	46.9	47.8	48.4	48.8	49.2	49.7	50.1	50.1
100°	59.0	59.8	60.7	61.6	62.4	62.9	63.3	63.5	63.8	64.2	64.2
102.5°	74.7	75.3	76.0	76.6	77.3	77.9	78.3	78.6	79.0	79.4	79.5
105°	100.0	100.3	100.6	100.9	101.2	101.4	101.7	101.8	102.1	102.3	102.5
107.5°	125.5	125.9	126.4	126.8	127.3	127.5	127.5	127.5	127.5	127.5	127.6
110°	141.8	142.4	143.0	143.7	144.3	144.6	144.6	144.6	144.6	144.6	144.6



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.6	160.3	160.9	161.5	162.2	162.4	162.3	162.2	162.2	162.1	161.8
115°	186.0	186.6	187.2	187.8	188.4	188.7	188.4	188.3	188.0	187.8	187.8
117.5°	212.2	213.0	213.9	214.7	215.5	215.6	215.1	214.4	213.9	213.3	213.0
120°	229.7	230.5	231.3	232.1	233.0	233.0	232.1	231.3	230.5	229.7	229.7
122.5°	245.6	246.6	247.7	248.7	249.6	249.8	249.2	248.7	248.1	247.5	247.3
125°	270.6	271.5	272.5	273.4	274.3	274.6	274.3	274.0	273.7	273.4	273.0
127.5°	294.8	296.0	297.2	298.4	299.5	299.9	299.6	299.2	298.9	298.5	298.1
130°	310.1	311.4	312.7	314.1	315.4	316.0	315.8	315.6	315.4	315.2	315.0
132.5°	327.2	328.3	329.4	330.5	331.6	332.2	332.2	332.2	332.3	332.3	331.9
135°	350.1	351.2	352.4	353.5	354.7	355.3	355.5	355.7	356.0	356.1	356.0
137.5°	374.1	375.1	376.0	377.0	377.9	378.5	378.8	379.0	379.3	379.5	379.4
140°	388.7	389.6	390.5	391.4	392.4	393.1	393.6	394.1	394.7	395.2	395.2
142.5°	403.6	404.5	405.4	406.3	407.2	407.9	408.3	408.6	409.0	409.3	409.4
145°	424.9	425.7	426.4	427.1	427.9	428.5	429.1	429.7	430.4	431.0	431.0
147.5°	444.0	444.8	445.7	446.6	447.4	448.1	448.5	448.9	449.3	449.8	450.0
150°	457.1	457.6	458.3	458.9	459.5	460.0	460.4	460.8	461.2	461.7	461.9
152.5°	468.6	469.2	469.8	470.4	471.0	471.6	472.1	472.5	473.0	473.6	473.9
155°	485.8	486.2	486.5	486.7	487.1	487.4	487.7	488.0	488.3	488.6	489.2
157.5°	500.6	500.8	501.0	501.2	501.5	501.7	501.8	502.1	502.2	502.4	503.1
160°	509.6	509.7	510.0	510.1	510.4	510.5	510.6	510.7	510.9	510.9	511.6
162.5°	517.7	517.8	517.8	517.9	517.9	518.0	518.0	518.2	518.3	518.4	519.1
165°	528.6	528.5	528.4	528.3	528.2	528.2	528.2	528.2	528.2	528.2	528.9
167.5°	537.7	537.4	537.1	536.8	536.5	536.3	536.3	536.3	536.2	536.2	537.0
170°	542.6	542.3	541.9	541.6	541.4	541.1	541.0	540.9	540.8	540.7	541.4
172.5°	545.9	545.6	545.3	544.9	544.7	544.5	544.4	544.3	544.1	544.0	544.8
175°	550.0	549.7	549.3	549.1	548.8	548.5	548.3	548.1	547.9	547.6	548.4
177.5°	551.7	551.4	551.1	550.9	550.7	550.5	550.3	550.2	550.0	549.8	550.3
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2
2.5°	630.6	631.6	632.7	633.2	632.9	632.7	632.5	632.3
5°	626.3	627.4	628.4	628.8	628.6	628.3	628.0	627.8
7.5°	619.2	620.3	621.4	621.7	621.5	621.2	620.9	620.6
10°	612.9	614.0	615.1	615.4	615.0	614.6	614.2	613.8
12.5°	605.4	606.2	606.9	607.2	606.8	606.6	606.3	605.9
15°	592.3	592.9	593.4	593.3	592.6	592.0	591.3	590.6
17.5°	576.7	577.4	578.0	578.0	577.3	576.7	576.1	575.4
20°	564.7	565.1	565.5	565.4	564.8	564.3	563.8	563.2
22.5°	551.8	551.9	552.0	551.9	551.5	551.2	550.9	550.6
25°	530.9	531.2	531.4	531.4	531.2	530.9	530.6	530.4
27.5°	510.3	509.9	509.5	509.0	508.3	507.7	507.0	506.4
30°	494.2	493.8	493.4	492.9	492.4	491.9	491.3	490.7
32.5°	478.5	477.8	477.0	476.4	475.8	475.3	474.7	474.2
35°	453.2	452.4	451.6	450.9	450.2	449.5	448.8	448.2
37.5°	427.9	426.9	425.9	425.0	424.4	423.7	423.1	422.5
40°	410.4	409.2	408.0	407.1	406.5	406.0	405.4	404.9
42.5°	393.1	391.8	390.4	389.5	388.7	387.9	387.2	386.4
45°	366.6	365.2	363.6	362.6	362.1	361.6	361.0	360.4
47.5°	339.1	337.5	335.9	334.8	333.9	333.2	332.4	331.6
50°	321.4	319.4	317.6	316.3	315.6	315.0	314.2	313.6
52.5°	303.0	301.4	299.9	298.6	297.7	296.9	296.0	295.1
55°	275.7	274.0	272.4	271.3	270.5	269.9	269.2	268.6
57.5°	247.2	245.6	244.0	243.0	242.4	241.9	241.4	240.8
60°	228.4	226.9	225.4	224.5	224.0	223.6	223.2	222.8
62.5°	210.6	209.2	207.8	206.9	206.4	205.9	205.4	204.8
65°	183.3	182.1	180.8	179.9	179.2	178.6	177.9	177.2
67.5°	156.3	155.3	154.4	153.7	153.1	152.5	152.1	151.5
70°	138.8	137.8	136.9	136.2	135.6	135.0	134.5	134.0
72.5°	122.2	121.2	120.3	119.6	119.2	118.7	118.3	117.9
75°	96.4	95.6	94.8	94.5	94.8	95.1	95.3	95.6
77.5°	73.4	73.0	72.6	72.2	71.7	71.4	71.0	70.6
80°	58.2	57.8	57.5	57.1	56.8	56.6	56.3	56.0
82.5°	43.5	42.9	42.4	42.1	42.1	42.0	41.9	41.9
85°	22.9	22.5	22.1	21.9	21.7	21.6	21.4	21.3
87.5°	9.4	9.0	8.6	8.4	8.3	8.2	8.2	8.1
90°	15.9	15.7	15.4	15.4	15.5	15.6	15.7	15.8
92.5°	14.8	14.9	14.9	15.0	15.0	15.0	15.1	15.1
95°	29.8	29.8	29.8	29.7	29.4	29.3	29.0	28.9
97.5°	50.1	50.1	50.1	50.0	50.0	50.0	50.0	49.9
100°	64.2	64.2	64.2	64.1	64.0	63.9	63.8	63.7
102.5°	79.6	79.7	79.7	79.7	79.7	79.5	79.4	79.3
105°	102.7	102.9	103.1	103.2	103.2	103.2	103.2	103.2
107.5°	127.7	127.8	127.8	127.6	127.1	126.7	126.2	125.7
110°	144.6	144.6	144.6	144.5	144.1	143.8	143.5	143.2



TEST NUMBER: P331301-930

CATALOG NUMBER: SA2XXDIP-C485D530U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	161.6	161.3	161.1	160.9	160.6	160.4	160.1	160.0
115°	187.6	187.5	187.4	187.2	186.9	186.6	186.3	186.0
117.5°	212.8	212.5	212.3	212.1	211.7	211.4	211.1	210.8
120°	229.7	229.7	229.7	229.5	229.2	228.9	228.6	228.3
122.5°	247.0	246.8	246.5	246.3	246.1	245.8	245.6	245.4
125°	272.7	272.5	272.1	271.9	271.8	271.7	271.6	271.5
127.5°	297.7	297.3	297.0	296.6	296.3	296.0	295.6	295.3
130°	314.8	314.6	314.4	314.1	313.6	313.2	312.8	312.4
132.5°	331.4	330.9	330.5	330.1	329.8	329.5	329.1	328.8
135°	356.0	355.8	355.7	355.5	355.2	354.9	354.6	354.2
137.5°	379.4	379.3	379.2	379.0	378.5	378.1	377.7	377.3
140°	395.2	395.2	395.2	395.0	394.5	394.1	393.7	393.3
142.5°	409.4	409.5	409.6	409.4	409.0	408.6	408.2	407.8
145°	431.2	431.3	431.4	431.2	430.8	430.4	430.0	429.6
147.5°	450.2	450.5	450.7	450.6	450.2	449.8	449.4	449.0
150°	462.3	462.6	462.9	462.9	462.6	462.3	461.9	461.7
152.5°	474.3	474.7	475.2	475.2	474.7	474.3	473.9	473.6
155°	489.7	490.2	490.7	490.8	490.5	490.2	489.8	489.6
157.5°	503.8	504.5	505.2	505.3	504.8	504.3	503.9	503.3
160°	512.2	512.8	513.4	513.6	513.1	512.7	512.3	511.8
162.5°	519.8	520.5	521.2	521.3	520.8	520.3	519.8	519.3
165°	529.6	530.4	531.0	531.2	530.6	530.1	529.6	529.0
167.5°	537.7	538.4	539.2	539.2	538.7	538.2	537.6	537.0
170°	542.2	542.9	543.6	543.6	543.0	542.4	541.8	541.2
172.5°	545.5	546.3	546.9	547.0	546.4	545.8	545.1	544.5
175°	549.1	549.8	550.6	550.7	550.0	549.3	548.8	548.1
177.5°	550.8	551.3	551.8	551.8	551.3	550.8	550.3	549.8
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9

(END OF REPORT)