

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: P331343-830

Luminaire Tested: **SA2XXDIP-C675D530U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331343-830
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-C675D530U830-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP 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: 4316.3 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

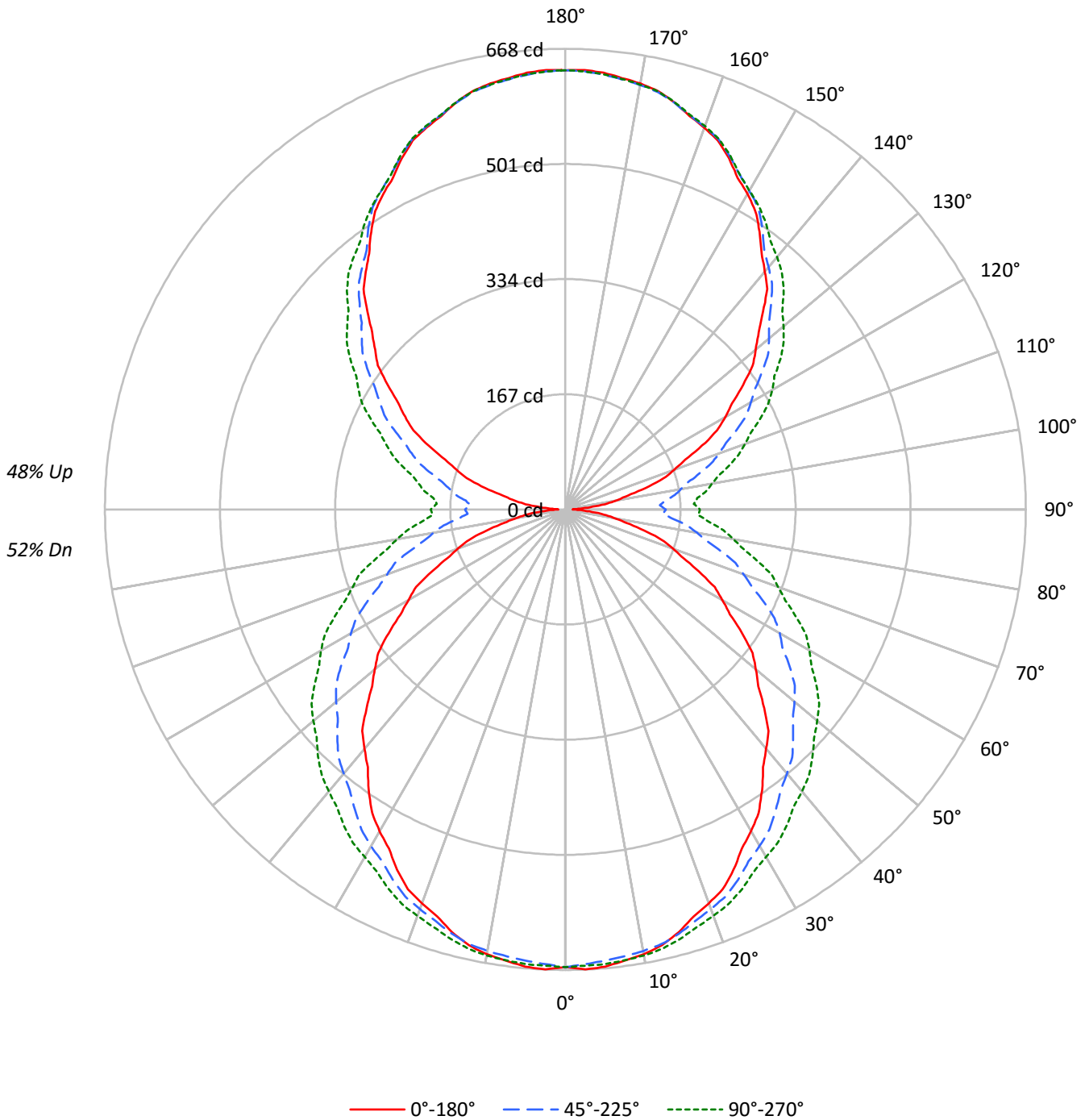
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331343-830

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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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52				
1	97	92	87	83	89	85	81	77	72	69	66	60	58	56	49	47	46	41				
2	87	79	72	67	80	73	67	62	62	57	54	52	48	45	42	40	37	33				
3	79	69	61	55	73	64	57	51	54	49	44	45	41	38	37	34	31	27				
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	33	29	26	23				
5	66	54	45	39	61	50	42	37	43	37	32	36	31	27	29	26	23	20				
6	61	48	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17				
7	56	43	35	29	52	40	33	28	35	29	24	29	24	21	24	20	18	15				
8	52	39	31	26	48	37	29	24	31	26	21	27	22	18	22	18	16	13				
9	49	36	28	23	45	33	26	22	29	23	19	24	20	17	20	17	14	12				
10	45	33	25	20	42	31	24	19	26	21	17	23	18	15	19	15	13	11				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10719	10719	10719
5°	10771	10318	10278
10°	10704	10013	9900
15°	10557	9691	9503
20°	10370	9345	9120
25°	10186	9011	8772
30°	9928	8668	8421
35°	9665	8338	8176
40°	9388	8055	7929
45°	9124	7803	7719
50°	8843	7574	7511
55°	8548	7331	7300
60°	8188	7076	7078
65°	7811	6777	6812
70°	7390	6457	6525
75°	6853	6143	6262
80°	6004	5822	5995
85°	5192	5544	5785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	1.5
10°-20°	180.4	4.2
20°-30°	273.4	6.3
30°-40°	333.0	7.7
40°-50°	358.2	8.3
50°-60°	347.9	8.1
60°-70°	303.7	7.0
70°-80°	233.8	5.4
80°-90°	159.5	3.7
90°-100°	148.5	3.4
100°-110°	204.3	4.7
110°-120°	266.4	6.2
120°-130°	310.9	7.2
130°-140°	328.4	7.6
140°-150°	312.2	7.2
150°-160°	260.1	6.0
160°-170°	172.5	4.0
170°-180°	60.3	1.4
0°-30°	516.7	12.0
0°-40°	849.6	19.7
0°-60°	1555.7	36.0
0°-90°	2252.8	52.2
90°-120°	619.2	14.3
90°-150°	1570.7	36.4
90°-180°	2064.0	47.8
0°-180°	4316.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	666	663	657	663	662	63
15°	635	637	637	645	645	179
25°	577	584	593	604	607	265
35°	498	514	532	552	560	311
45°	408	434	468	496	507	315
55°	313	348	397	431	444	279
65°	214	261	318	356	370	212
75°	118	173	234	274	288	125
85°	35	94	156	195	210	37
90°	10	73	146	182	195	8
95°	36	87	145	180	192	38
105°	120	151	201	234	246	128
115°	219	234	275	302	312	216
125°	315	321	349	372	381	281
135°	406	412	422	441	448	314
145°	491	495	498	504	507	307
155°	562	563	565	567	566	258
165°	611	611	611	614	612	172
175°	636	634	633	637	634	60
180°	637	637	637	637	637	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	667.8	667.2	666.8	666.2	665.7	664.9	663.6	662.4	661.3	660.1	660.9
5°	665.8	665.2	664.6	663.9	663.3	662.3	661.0	659.8	658.5	657.1	658.5
7.5°	659.9	659.4	659.0	658.6	658.2	657.4	656.5	655.4	654.5	653.6	655.1
10°	655.3	654.8	654.4	653.9	653.6	653.0	652.3	651.8	651.1	650.4	652.1
12.5°	647.5	647.6	647.7	647.8	647.9	647.7	647.2	646.8	646.3	645.8	647.5
15°	635.1	635.5	635.9	636.3	636.8	637.0	637.0	637.0	637.0	637.0	638.9
17.5°	618.9	619.8	620.7	621.6	622.5	623.3	624.0	624.6	625.3	626.0	628.0
20°	608.1	609.2	610.2	611.3	612.4	613.3	614.2	615.1	616.0	616.8	619.2
22.5°	596.5	597.8	599.1	600.3	601.5	602.8	604.0	605.1	606.3	607.6	609.9
25°	577.3	578.8	580.3	581.8	583.3	585.0	586.9	588.9	590.8	592.7	595.3
27.5°	554.2	556.7	559.1	561.6	564.0	566.4	568.6	570.9	573.2	575.4	578.6
30°	538.9	541.6	544.4	547.1	550.0	552.7	555.5	558.3	561.1	563.8	567.2
32.5°	521.9	525.0	528.1	531.2	534.4	537.6	540.9	544.1	547.4	550.7	554.7
35°	497.5	501.1	504.7	508.3	512.0	515.9	519.9	524.0	528.0	532.1	536.8
37.5°	470.9	475.1	479.3	483.4	487.7	492.4	497.7	502.9	508.1	513.4	518.7
40°	453.2	457.9	462.6	467.3	472.0	477.2	483.1	488.8	494.6	500.3	505.9
42.5°	436.3	440.9	445.6	450.3	455.1	460.7	467.4	474.0	480.6	487.3	493.3
45°	407.9	413.8	419.5	425.3	431.0	437.7	445.2	452.7	460.1	467.6	474.3
47.5°	380.0	386.3	392.7	398.9	405.2	412.7	421.5	430.3	439.0	447.8	454.8
50°	360.8	367.5	374.1	380.7	387.3	395.5	405.1	414.7	424.3	433.9	441.2
52.5°	342.3	349.3	356.3	363.3	370.2	378.8	388.9	399.1	409.2	419.3	426.8
55°	312.7	320.4	328.1	335.8	343.5	352.9	364.0	375.1	386.3	397.4	405.1
57.5°	283.4	292.2	300.9	309.5	318.2	328.2	339.5	350.8	362.2	373.5	381.8
60°	262.7	271.8	281.1	290.3	299.4	310.2	322.3	334.5	346.7	358.9	367.0
62.5°	244.2	253.7	263.3	272.8	282.4	293.2	305.4	317.5	329.8	342.0	350.6
65°	213.6	224.0	234.6	245.1	255.5	267.0	279.7	292.3	304.9	317.5	326.3
67.5°	185.5	196.4	207.5	218.4	229.3	241.2	254.1	267.0	279.9	292.8	301.7
70°	165.5	176.6	187.8	198.9	210.0	222.2	235.4	248.6	261.9	275.2	284.4
72.5°	147.0	158.4	169.9	181.4	192.8	205.3	218.8	232.1	245.6	259.0	268.1
75°	118.4	130.4	142.3	154.3	166.3	179.1	192.7	206.4	220.1	233.8	243.0
77.5°	90.7	103.2	115.7	128.2	140.7	154.0	167.9	181.8	195.7	209.5	218.8
80°	72.2	85.2	98.2	111.3	124.3	137.8	151.7	165.6	179.5	193.4	202.4
82.5°	56.7	69.7	82.5	95.4	108.3	121.7	135.8	149.9	163.9	178.0	187.0
85°	34.7	47.9	61.2	74.4	87.7	101.1	114.8	128.5	142.2	155.9	164.9
87.5°	18.9	32.0	45.1	58.1	71.1	84.7	98.9	113.1	127.3	141.6	150.2
90°	10.2	24.0	37.8	51.7	65.5	80.6	96.9	113.2	129.5	145.8	154.1
92.5°	18.4	31.0	43.6	56.2	68.8	82.0	95.8	109.6	123.4	137.1	145.6
95°	35.6	46.8	58.2	69.4	80.6	92.7	105.8	118.9	132.0	145.1	153.2
97.5°	57.8	67.8	77.8	87.8	97.7	109.1	121.9	134.7	147.4	160.2	168.1
100°	75.0	83.9	92.7	101.6	110.5	121.0	133.4	145.7	158.1	170.4	178.3
102.5°	92.3	100.3	108.3	116.2	124.2	134.3	146.4	158.4	170.5	182.7	190.5
105°	120.4	127.0	133.5	140.1	146.6	155.5	166.9	178.2	189.6	201.0	208.7
107.5°	149.7	155.1	160.6	166.1	171.5	179.6	190.3	201.0	211.6	222.3	229.5
110°	167.8	172.8	177.8	182.8	187.8	195.5	205.9	216.4	227.0	237.4	244.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	188.4	192.7	197.0	201.3	205.7	212.7	222.6	232.5	242.3	252.2	258.7
115°	218.9	221.9	225.0	228.0	231.1	237.3	246.8	256.1	265.5	274.8	281.2
117.5°	248.2	250.7	253.2	255.7	258.2	263.5	271.7	280.0	288.2	296.4	302.5
120°	268.4	270.2	272.0	273.8	275.6	280.3	287.9	295.6	303.1	310.8	316.7
122.5°	286.9	288.4	289.8	291.3	292.8	297.3	304.6	312.0	319.4	326.8	332.2
125°	314.7	315.8	316.9	317.9	319.1	322.8	329.3	335.8	342.2	348.7	354.2
127.5°	342.8	343.9	345.1	346.2	347.4	350.5	355.6	360.7	365.8	370.9	375.7
130°	360.4	361.7	363.1	364.5	365.8	368.5	372.9	377.1	381.4	385.6	390.5
132.5°	380.2	381.3	382.3	383.3	384.4	386.7	390.2	393.7	397.2	400.8	405.2
135°	405.7	407.0	408.3	409.6	410.9	412.7	415.2	417.5	419.9	422.3	426.7
137.5°	433.6	434.5	435.5	436.6	437.6	438.8	440.1	441.3	442.5	443.8	447.6
140°	450.3	451.2	452.0	452.9	453.7	454.7	455.7	456.8	457.8	458.7	462.2
142.5°	467.5	468.3	469.2	470.0	470.9	471.6	472.1	472.6	473.1	473.6	476.5
145°	491.3	492.1	492.9	493.8	494.6	495.4	496.1	496.8	497.6	498.2	499.6
147.5°	513.3	514.3	515.3	516.3	517.3	518.0	518.5	519.0	519.4	520.0	520.4
150°	528.4	529.0	529.8	530.5	531.2	531.8	532.3	532.7	533.2	533.8	534.0
152.5°	541.7	542.4	543.1	543.8	544.5	545.2	545.7	546.3	546.9	547.5	547.9
155°	561.7	562.0	562.4	562.7	563.1	563.5	563.8	564.2	564.5	564.9	565.5
157.5°	578.7	579.0	579.2	579.5	579.8	579.9	580.1	580.4	580.6	580.8	581.6
160°	589.1	589.3	589.6	589.7	590.0	590.2	590.3	590.4	590.6	590.7	591.4
162.5°	598.5	598.6	598.6	598.7	598.7	598.8	598.9	599.1	599.2	599.3	600.1
165°	611.1	611.0	610.9	610.8	610.7	610.6	610.6	610.6	610.6	610.6	611.4
167.5°	621.6	621.3	620.9	620.6	620.2	620.0	620.0	620.0	619.9	619.9	620.8
170°	627.3	626.9	626.5	626.1	625.8	625.6	625.5	625.3	625.2	625.1	625.9
172.5°	631.1	630.7	630.4	630.0	629.7	629.4	629.3	629.2	629.1	629.0	629.8
175°	635.8	635.5	635.1	634.8	634.4	634.1	633.9	633.7	633.4	633.1	634.0
177.5°	637.8	637.4	637.2	636.9	636.6	636.4	636.2	636.0	635.8	635.7	636.2
180°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	661.8	662.6	663.5	663.7	663.4	663.1	662.7	662.4
5°	659.8	661.0	662.3	662.9	662.6	662.4	662.2	661.9
7.5°	656.6	658.2	659.7	660.3	660.2	659.9	659.7	659.5
10°	653.8	655.5	657.3	658.0	657.8	657.6	657.4	657.1
12.5°	649.2	650.9	652.7	653.4	653.2	653.0	652.8	652.5
15°	640.8	642.7	644.7	645.5	645.4	645.1	644.9	644.7
17.5°	630.0	632.1	634.0	635.1	635.1	635.1	635.1	635.1
20°	621.5	623.9	626.1	627.4	627.4	627.4	627.4	627.4
22.5°	612.3	614.6	616.9	618.3	618.6	619.0	619.3	619.6
25°	597.9	600.4	602.9	604.5	605.2	605.9	606.5	607.2
27.5°	581.9	585.1	588.4	590.2	590.7	591.2	591.6	592.1
30°	570.7	574.1	577.5	579.6	580.2	580.9	581.5	582.1
32.5°	558.6	562.6	566.5	569.0	570.2	571.4	572.5	573.6
35°	541.5	546.2	550.9	554.0	555.5	557.0	558.5	560.0
37.5°	523.9	529.0	534.3	537.7	539.3	540.8	542.4	544.0
40°	511.4	517.0	522.5	526.3	528.2	530.2	532.1	534.0
42.5°	499.4	505.5	511.5	515.6	517.5	519.4	521.3	523.2
45°	480.9	487.5	494.2	498.5	500.7	502.8	504.9	507.1
47.5°	461.7	468.6	475.5	480.1	482.5	484.8	487.2	489.6
50°	448.5	455.7	463.1	467.9	470.2	472.6	474.9	477.2
52.5°	434.2	441.7	449.1	454.1	456.6	459.1	461.7	464.2
55°	412.7	420.5	428.2	433.4	436.2	438.9	441.8	444.5
57.5°	390.1	398.4	406.7	412.3	415.1	417.9	420.8	423.6
60°	375.1	383.2	391.4	397.0	399.9	402.9	406.0	409.0
62.5°	359.2	367.9	376.5	382.3	385.0	387.9	390.7	393.5
65°	335.1	343.8	352.6	358.4	361.2	363.9	366.7	369.5
67.5°	310.6	319.4	328.3	334.2	337.1	340.0	342.9	345.8
70°	293.6	302.7	312.0	317.8	320.4	323.0	325.6	328.1
72.5°	277.1	286.1	295.1	301.1	304.3	307.4	310.4	313.5
75°	252.2	261.4	270.6	276.5	279.4	282.1	284.9	287.7
77.5°	227.9	237.0	246.2	252.2	255.2	258.3	261.2	264.2
80°	211.3	220.4	229.3	235.4	238.3	241.3	244.3	247.3
82.5°	196.0	204.9	214.0	219.8	222.6	225.5	228.3	231.1
85°	173.8	182.9	191.8	197.7	200.8	203.8	206.8	209.7
87.5°	158.9	167.6	176.3	182.0	184.7	187.5	190.3	193.0
90°	162.5	170.8	179.1	184.5	187.3	189.9	192.7	195.3
92.5°	154.0	162.5	170.9	176.4	179.0	181.6	184.2	186.7
95°	161.3	169.5	177.6	182.8	185.1	187.5	189.7	192.1
97.5°	176.1	184.0	191.9	197.1	199.5	202.1	204.5	207.1
100°	186.2	194.2	202.1	207.1	209.3	211.6	213.8	216.0
102.5°	198.3	206.1	214.0	219.0	221.2	223.5	225.7	227.9
105°	216.4	224.1	231.9	237.0	239.3	241.7	244.0	246.3
107.5°	236.8	244.1	251.4	255.9	257.7	259.5	261.3	263.1
110°	251.1	257.9	264.8	269.2	271.2	273.1	275.1	277.2



TEST NUMBER: P331343-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	265.3	271.9	278.4	282.8	284.8	286.9	289.0	291.2
115°	287.5	293.8	300.0	304.2	306.2	308.2	310.2	312.2
117.5°	308.5	314.5	320.7	324.5	326.4	328.2	330.0	331.9
120°	322.7	328.7	334.7	338.7	340.6	342.7	344.7	346.7
122.5°	337.8	343.4	348.8	352.5	354.3	356.0	357.8	359.5
125°	359.6	365.0	370.4	374.0	375.8	377.7	379.5	381.3
127.5°	380.6	385.5	390.3	393.5	395.0	396.5	398.0	399.5
130°	395.4	400.3	405.1	408.2	409.4	410.7	411.9	413.1
132.5°	409.6	414.1	418.5	421.3	422.7	424.0	425.4	426.7
135°	431.0	435.4	439.8	442.6	444.0	445.4	446.7	448.1
137.5°	451.5	455.3	459.1	461.6	462.5	463.5	464.5	465.4
140°	465.6	469.0	472.5	474.6	475.4	476.2	477.0	477.8
142.5°	479.3	482.1	484.9	486.6	487.3	488.0	488.5	489.2
145°	501.1	502.5	503.9	504.8	505.5	506.1	506.6	507.2
147.5°	520.8	521.2	521.7	522.0	522.0	522.1	522.1	522.2
150°	534.4	534.8	535.2	535.2	534.8	534.4	534.0	533.8
152.5°	548.4	548.8	549.3	549.3	548.8	548.4	547.9	547.5
155°	566.1	566.7	567.3	567.4	567.0	566.7	566.3	566.0
157.5°	582.4	583.2	584.1	584.2	583.6	583.1	582.5	581.8
160°	592.1	592.9	593.5	593.7	593.2	592.8	592.2	591.7
162.5°	600.9	601.7	602.6	602.7	602.1	601.5	601.0	600.4
165°	612.3	613.1	613.9	614.1	613.4	612.8	612.3	611.6
167.5°	621.6	622.5	623.3	623.4	622.7	622.2	621.5	620.9
170°	626.8	627.6	628.4	628.5	627.7	627.1	626.3	625.7
172.5°	630.7	631.5	632.3	632.4	631.7	630.9	630.2	629.5
175°	634.8	635.7	636.5	636.6	635.8	635.1	634.4	633.7
177.5°	636.8	637.3	637.9	637.9	637.3	636.8	636.2	635.7
180°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9

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