

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: P331433-940

Luminaire Tested: **SA2XXDIP-C1005D530U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331433-940
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-C1005D530U940-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

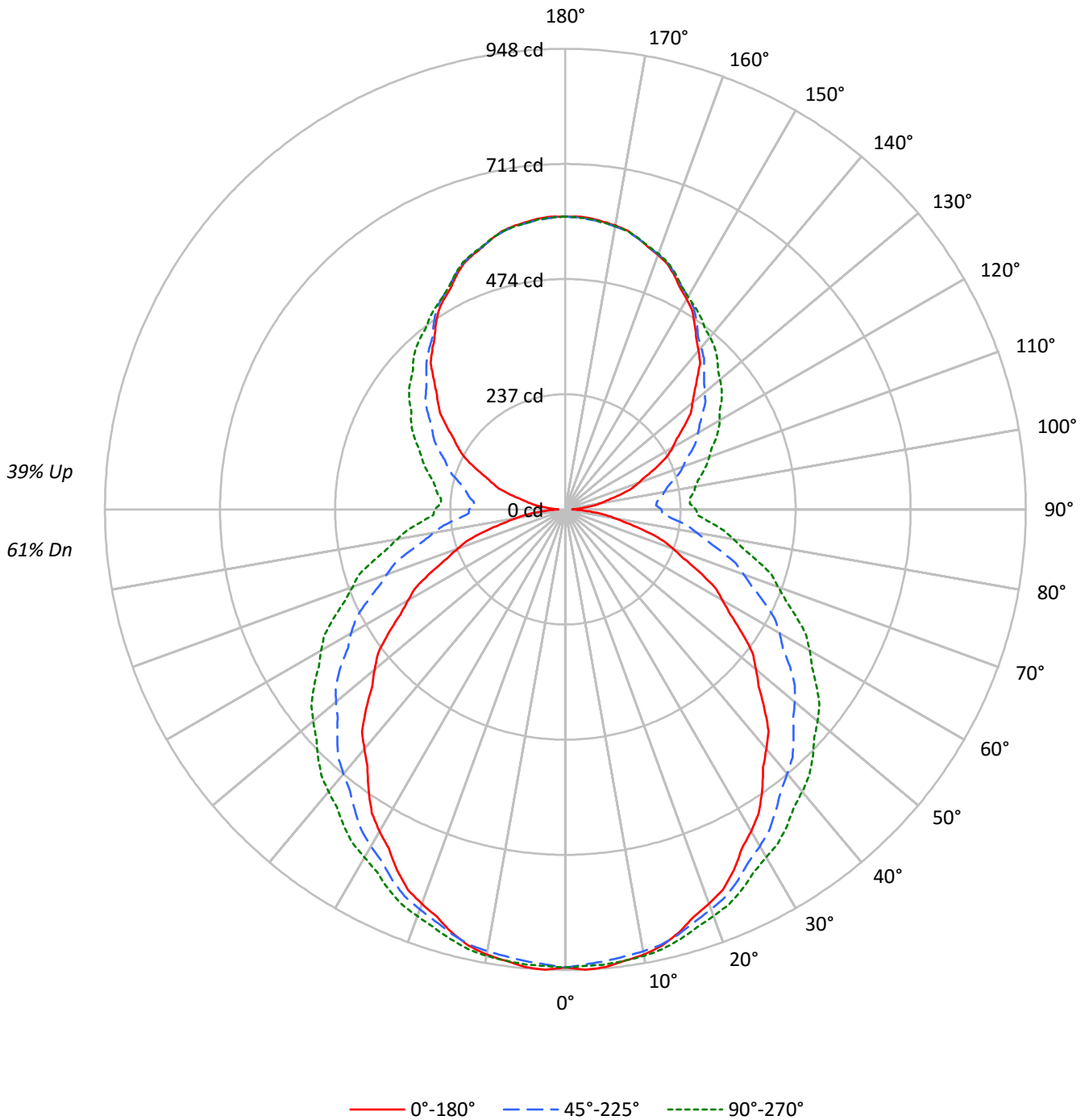
Lumens per Lamp: N/A
Luminaire Lumens: 5284.6 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

Input Watts (W): 55.1
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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	98	93	88	84	92	87	83	79	76	72	70	65	63	60	55	54	52	47
2	89	80	73	67	82	75	69	64	65	60	56	56	52	49	48	45	42	38
3	81	70	62	55	75	65	58	52	57	51	46	49	44	41	42	38	35	31
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30	26
5	67	55	46	39	62	51	43	37	45	38	33	39	34	30	33	29	26	23
6	62	49	40	34	57	46	38	32	40	34	29	35	30	26	30	26	22	20
7	57	44	36	30	53	41	34	28	36	30	25	32	26	23	27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	18	15
9	49	37	29	23	46	34	27	22	30	24	20	27	22	18	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15224	15224	15224
5°	15300	14656	14600
10°	15203	14222	14063
15°	14994	13763	13496
20°	14728	13272	12952
25°	14466	12799	12457
30°	14098	12312	11962
35°	13725	11842	11611
40°	13332	11442	11262
45°	12960	11082	10962
50°	12561	10760	10668
55°	12143	10411	10368
60°	11628	10049	10051
65°	11095	9625	9675
70°	10498	9170	9268
75°	9730	8725	8894
80°	8523	8267	8514
85°	7361	7873	8218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	1.7
10°-20°	256.2	4.8
20°-30°	388.3	7.3
30°-40°	472.9	8.9
40°-50°	508.8	9.6
50°-60°	494.1	9.3
60°-70°	431.4	8.2
70°-80°	332.1	6.3
80°-90°	225.3	4.3
90°-100°	191.7	3.6
100°-110°	230.7	4.4
110°-120°	276.8	5.2
120°-130°	307.9	5.8
130°-140°	316.5	6.0
140°-150°	296.4	5.6
150°-160°	246.1	4.7
160°-170°	163.2	3.1
170°-180°	57.0	1.1
0°-30°	733.8	13.9
0°-40°	1206.7	22.8
0°-60°	2209.5	41.8
0°-90°	3198.3	60.5
90°-120°	699.2	13.2
90°-150°	1620.0	30.7
90°-180°	2086.0	39.5
0°-180°	5284.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	946	941	933	941	940	90
15°	902	904	905	916	916	254
25°	820	830	842	858	862	377
35°	706	730	756	785	795	441
45°	579	617	664	705	720	447
55°	444	495	564	612	631	397
65°	303	371	451	505	525	301
75°	168	245	332	389	409	178
85°	49	134	221	277	298	53
90°	14	100	198	250	269	11
95°	37	107	190	240	257	39
105°	116	159	229	276	293	123
115°	209	229	287	326	341	206
125°	299	305	345	380	393	267
135°	384	390	405	432	442	297
145°	465	468	471	480	485	291
155°	531	533	534	537	536	244
165°	578	578	578	581	579	163
175°	602	600	599	602	600	57
180°	602	602	602	602	602	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	948.4	947.7	946.9	946.2	945.5	944.2	942.5	940.8	939.1	937.5	938.7
5°	945.7	944.8	943.9	942.9	942.0	940.7	938.9	937.0	935.2	933.4	935.2
7.5°	937.2	936.6	935.9	935.4	934.8	933.8	932.4	930.9	929.6	928.2	930.3
10°	930.7	930.1	929.4	928.8	928.2	927.5	926.6	925.6	924.7	923.8	926.2
12.5°	919.7	919.8	920.0	920.1	920.2	919.9	919.3	918.6	917.9	917.2	919.7
15°	902.0	902.6	903.1	903.7	904.4	904.6	904.6	904.6	904.6	904.6	907.4
17.5°	879.0	880.3	881.5	882.8	884.0	885.2	886.2	887.2	888.1	889.1	892.0
20°	863.7	865.2	866.7	868.3	869.8	871.1	872.4	873.5	874.8	876.0	879.3
22.5°	847.3	849.0	850.8	852.6	854.3	856.0	857.7	859.4	861.1	862.8	866.2
25°	819.9	822.1	824.2	826.3	828.5	830.9	833.6	836.3	839.1	841.8	845.4
27.5°	787.1	790.6	794.1	797.5	801.0	804.3	807.5	810.7	814.0	817.3	821.8
30°	765.3	769.2	773.2	777.1	781.0	785.1	789.0	792.9	796.8	800.8	805.7
32.5°	741.2	745.6	750.1	754.6	758.9	763.5	768.2	772.8	777.6	782.2	787.8
35°	706.5	711.7	716.8	722.0	727.2	732.6	738.4	744.1	749.9	755.7	762.4
37.5°	668.8	674.8	680.7	686.6	692.6	699.3	706.8	714.3	721.8	729.2	736.6
40°	643.6	650.3	657.0	663.7	670.4	677.8	686.0	694.2	702.4	710.6	718.5
42.5°	619.6	626.2	632.9	639.6	646.3	654.3	663.8	673.2	682.6	692.1	700.6
45°	579.4	587.6	595.8	604.0	612.2	621.6	632.3	642.9	653.5	664.1	673.6
47.5°	539.8	548.8	557.7	566.6	575.5	586.2	598.7	611.1	623.6	636.0	645.9
50°	512.5	521.9	531.3	540.7	550.1	561.7	575.3	589.0	602.6	616.4	626.7
52.5°	486.2	496.1	506.0	515.9	525.8	538.0	552.3	566.8	581.1	595.6	606.1
55°	444.2	455.0	466.0	477.0	487.9	501.2	517.0	532.8	548.6	564.4	575.3
57.5°	402.6	414.9	427.2	439.6	451.9	466.1	482.2	498.3	514.4	530.5	542.2
60°	373.1	386.1	399.2	412.2	425.3	440.5	457.8	475.1	492.4	509.7	521.3
62.5°	346.9	360.3	373.9	387.4	401.0	416.4	433.7	451.0	468.4	485.7	497.9
65°	303.4	318.3	333.1	348.0	362.9	379.3	397.3	415.1	433.0	450.9	463.4
67.5°	263.5	279.0	294.5	310.1	325.7	342.6	361.0	379.3	397.6	416.0	428.6
70°	235.1	250.8	266.6	282.4	298.2	315.5	334.4	353.2	372.0	390.8	403.9
72.5°	208.8	225.1	241.4	257.6	273.9	291.6	310.7	329.8	348.8	367.9	380.7
75°	168.1	185.1	202.1	219.1	236.1	254.3	273.8	293.2	312.6	332.1	345.1
77.5°	128.8	146.5	164.3	182.1	199.9	218.6	238.4	258.2	277.9	297.7	310.7
80°	102.5	121.0	139.6	158.1	176.6	195.7	215.4	235.2	254.9	274.6	287.4
82.5°	80.6	98.9	117.2	135.5	153.7	172.9	192.9	212.9	232.8	252.8	265.6
85°	49.2	68.0	86.9	105.7	124.5	143.7	163.1	182.5	202.0	221.4	234.2
87.5°	26.9	45.3	63.7	82.0	100.4	119.5	139.5	159.3	179.3	199.3	211.6
90°	14.2	33.2	52.1	71.1	90.1	110.5	132.4	154.4	176.3	198.2	210.1
92.5°	21.6	39.1	56.4	73.8	91.2	109.5	128.9	148.1	167.5	186.7	198.7
95°	37.4	52.8	68.2	83.6	99.0	115.9	134.4	152.8	171.2	189.7	201.3
97.5°	57.9	71.6	85.2	99.0	112.6	128.4	146.3	164.3	182.2	200.1	211.3
100°	74.1	86.3	98.4	110.6	122.7	137.4	154.8	172.1	189.5	206.8	218.0
102.5°	90.2	101.1	112.1	123.1	134.1	148.0	165.0	182.0	198.9	215.9	226.9
105°	116.2	125.3	134.5	143.6	152.8	165.3	181.4	197.3	213.4	229.4	240.2
107.5°	143.7	151.3	158.8	166.4	173.9	185.3	200.4	215.5	230.6	245.8	256.0
110°	160.6	167.3	174.1	180.8	187.5	198.4	213.3	228.1	243.0	257.9	267.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.1	185.8	191.6	197.4	203.2	213.1	227.2	241.2	255.3	269.4	278.8
115°	208.8	212.9	216.9	220.9	225.0	233.6	247.1	260.6	274.0	287.4	296.4
117.5°	236.2	239.2	242.4	245.5	248.5	256.1	268.0	280.1	292.1	304.1	312.8
120°	255.3	257.4	259.6	261.6	263.8	270.5	281.7	292.9	304.2	315.4	324.0
122.5°	272.8	274.4	275.9	277.5	279.1	285.3	296.0	306.8	317.6	328.4	336.4
125°	298.6	299.7	300.7	301.8	302.7	307.9	317.4	326.7	336.1	345.4	353.3
127.5°	325.2	326.2	327.2	328.1	329.1	333.3	340.8	348.2	355.6	363.1	370.2
130°	341.9	343.0	344.2	345.4	346.5	350.2	356.3	362.5	368.6	374.8	381.9
132.5°	360.6	361.5	362.4	363.3	364.2	367.1	372.1	377.0	382.0	387.0	393.5
135°	384.2	385.5	386.7	388.0	389.2	391.5	394.8	398.0	401.3	404.6	410.8
137.5°	410.6	411.5	412.5	413.5	414.5	415.7	417.3	419.0	420.6	422.2	427.8
140°	426.5	427.2	427.9	428.6	429.4	430.3	431.4	432.6	433.8	435.0	439.8
142.5°	442.7	443.4	444.2	444.9	445.6	446.2	446.7	447.2	447.7	448.3	452.2
145°	464.8	465.6	466.4	467.2	468.0	468.7	469.3	470.0	470.7	471.4	473.3
147.5°	485.6	486.5	487.5	488.5	489.4	490.1	490.5	491.0	491.4	492.0	492.4
150°	499.9	500.5	501.2	501.9	502.6	503.1	503.5	504.0	504.4	505.0	505.2
152.5°	512.5	513.2	513.8	514.5	515.1	515.8	516.3	516.8	517.4	518.0	518.4
155°	531.4	531.7	532.1	532.4	532.7	533.1	533.4	533.8	534.0	534.4	535.0
157.5°	547.5	547.8	548.0	548.2	548.5	548.7	548.8	549.1	549.3	549.5	550.3
160°	557.3	557.5	557.8	557.9	558.2	558.4	558.5	558.6	558.7	558.8	559.5
162.5°	566.2	566.3	566.3	566.4	566.4	566.5	566.6	566.8	566.9	566.9	567.8
165°	578.2	578.0	577.9	577.8	577.7	577.7	577.7	577.7	577.7	577.7	578.5
167.5°	588.1	587.8	587.5	587.1	586.7	586.6	586.6	586.6	586.5	586.5	587.3
170°	593.4	593.1	592.7	592.4	592.1	591.8	591.7	591.6	591.5	591.4	592.2
172.5°	597.1	596.7	596.4	596.0	595.8	595.5	595.4	595.3	595.1	595.0	595.8
175°	601.5	601.2	600.8	600.6	600.2	599.9	599.7	599.5	599.2	599.0	599.8
177.5°	603.4	603.1	602.8	602.5	602.3	602.1	601.9	601.7	601.5	601.4	601.9
180°	602.5	602.5	602.5	602.5	602.5	602.5	602.5	602.5	602.5	602.5	602.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	939.9	941.1	942.4	942.7	942.2	941.7	941.2	940.8
5°	937.0	938.9	940.7	941.4	941.1	940.8	940.5	940.2
7.5°	932.6	934.8	936.9	937.9	937.5	937.3	936.9	936.7
10°	928.6	931.1	933.5	934.6	934.2	934.0	933.7	933.4
12.5°	922.1	924.5	926.9	928.0	927.7	927.4	927.1	926.8
15°	910.2	912.8	915.6	916.9	916.5	916.2	915.9	915.6
17.5°	894.8	897.7	900.5	902.0	902.0	902.0	902.0	902.0
20°	882.6	886.0	889.3	891.0	891.0	891.0	891.0	891.0
22.5°	869.5	872.9	876.2	878.2	878.6	879.1	879.6	880.1
25°	849.1	852.7	856.4	858.6	859.6	860.5	861.4	862.3
27.5°	826.4	831.1	835.7	838.3	839.0	839.6	840.3	841.0
30°	810.6	815.4	820.3	823.1	824.0	824.9	825.9	826.8
32.5°	793.4	799.0	804.6	808.2	809.9	811.5	813.2	814.8
35°	769.1	775.8	782.5	786.8	789.0	791.1	793.3	795.3
37.5°	744.0	751.4	758.8	763.7	765.9	768.2	770.4	772.7
40°	726.4	734.3	742.2	747.5	750.3	753.0	755.7	758.5
42.5°	709.3	717.9	726.6	732.2	734.9	737.7	740.4	743.2
45°	683.0	692.4	701.8	708.0	711.1	714.1	717.1	720.1
47.5°	655.7	665.5	675.4	682.0	685.3	688.7	692.0	695.4
50°	636.9	647.3	657.6	664.5	667.8	671.1	674.5	677.8
52.5°	616.7	627.2	637.8	644.9	648.5	652.1	655.7	659.2
55°	586.3	597.2	608.1	615.5	619.5	623.5	627.4	631.3
57.5°	554.1	565.9	577.7	585.5	589.5	593.5	597.5	601.5
60°	532.8	544.4	555.9	563.8	568.0	572.3	576.6	580.8
62.5°	510.2	522.5	534.8	542.9	546.9	550.9	554.9	558.9
65°	475.9	488.3	500.8	509.0	512.9	516.8	520.8	524.8
67.5°	441.1	453.7	466.3	474.7	478.8	482.9	487.1	491.2
70°	417.0	430.0	443.1	451.4	455.0	458.7	462.4	466.0
72.5°	393.5	406.4	419.1	427.8	432.1	436.5	440.9	445.2
75°	358.2	371.2	384.3	392.8	396.7	400.7	404.7	408.6
77.5°	323.6	336.6	349.6	358.3	362.5	366.8	371.0	375.2
80°	300.1	313.0	325.7	334.2	338.5	342.7	347.0	351.2
82.5°	278.3	291.1	303.8	312.2	316.2	320.2	324.2	328.2
85°	246.9	259.7	272.4	280.9	285.2	289.4	293.6	297.9
87.5°	223.9	236.3	248.6	256.7	260.6	264.6	268.5	272.4
90°	222.0	234.0	245.8	253.7	257.4	261.2	265.0	268.8
92.5°	210.6	222.6	234.5	242.4	246.0	249.7	253.3	257.0
95°	212.8	224.4	235.9	243.3	246.7	250.2	253.6	257.0
97.5°	222.6	233.8	245.0	252.4	256.0	259.6	263.1	266.7
100°	229.3	240.5	251.8	259.0	262.3	265.5	268.7	271.9
102.5°	238.0	249.1	260.2	267.3	270.5	273.8	277.1	280.3
105°	251.1	262.0	272.8	279.9	283.3	286.6	289.9	293.3
107.5°	266.4	276.6	287.0	293.5	296.3	299.1	301.9	304.8
110°	277.3	287.0	296.8	303.1	306.1	309.2	312.1	315.1



TEST NUMBER: P331433-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	288.3	297.7	307.2	313.4	316.6	319.6	322.7	325.8
115°	305.4	314.4	323.4	329.4	332.4	335.5	338.4	341.4
117.5°	321.6	330.2	338.9	344.7	347.4	350.2	352.9	355.7
120°	332.4	340.9	349.5	355.2	358.2	361.2	364.2	367.2
122.5°	344.4	352.3	360.3	365.6	368.3	370.9	373.4	376.0
125°	361.1	369.1	376.9	382.1	384.8	387.4	390.0	392.6
127.5°	377.3	384.4	391.6	396.3	398.6	400.9	403.2	405.6
130°	389.0	396.0	403.1	407.6	409.6	411.5	413.5	415.5
132.5°	400.1	406.6	413.1	417.5	419.5	421.6	423.7	425.8
135°	417.1	423.3	429.6	433.8	435.9	437.9	440.1	442.1
137.5°	433.2	438.7	444.3	447.8	449.4	451.0	452.6	454.2
140°	444.7	449.5	454.4	457.5	458.9	460.2	461.6	463.0
142.5°	456.2	460.1	464.1	466.7	467.8	469.0	470.1	471.2
145°	475.3	477.2	479.1	480.6	481.7	482.8	483.8	484.9
147.5°	492.9	493.4	493.9	494.3	494.5	494.9	495.2	495.4
150°	505.6	506.0	506.3	506.3	506.0	505.6	505.2	505.0
152.5°	518.8	519.2	519.7	519.7	519.2	518.8	518.4	518.0
155°	535.6	536.1	536.7	536.8	536.5	536.1	535.7	535.5
157.5°	551.0	551.8	552.6	552.7	552.1	551.6	551.1	550.5
160°	560.2	560.9	561.5	561.7	561.2	560.8	560.3	559.8
162.5°	568.5	569.3	570.1	570.2	569.6	569.1	568.6	568.0
165°	579.3	580.1	580.8	580.9	580.3	579.8	579.3	578.6
167.5°	588.1	588.9	589.7	589.8	589.2	588.6	588.0	587.4
170°	593.0	593.8	594.5	594.6	593.9	593.3	592.5	591.9
172.5°	596.6	597.4	598.2	598.2	597.6	596.9	596.2	595.6
175°	600.6	601.4	602.2	602.3	601.5	600.8	600.2	599.5
177.5°	602.4	603.0	603.5	603.5	603.0	602.4	601.9	601.4
180°	602.5	602.5	602.5	602.5	602.5	602.5	602.5	602.5

(END OF REPORT)