

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: P331441-940

Luminaire Tested: **SA2XXDIP-C1005D725U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331441-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D725U940-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

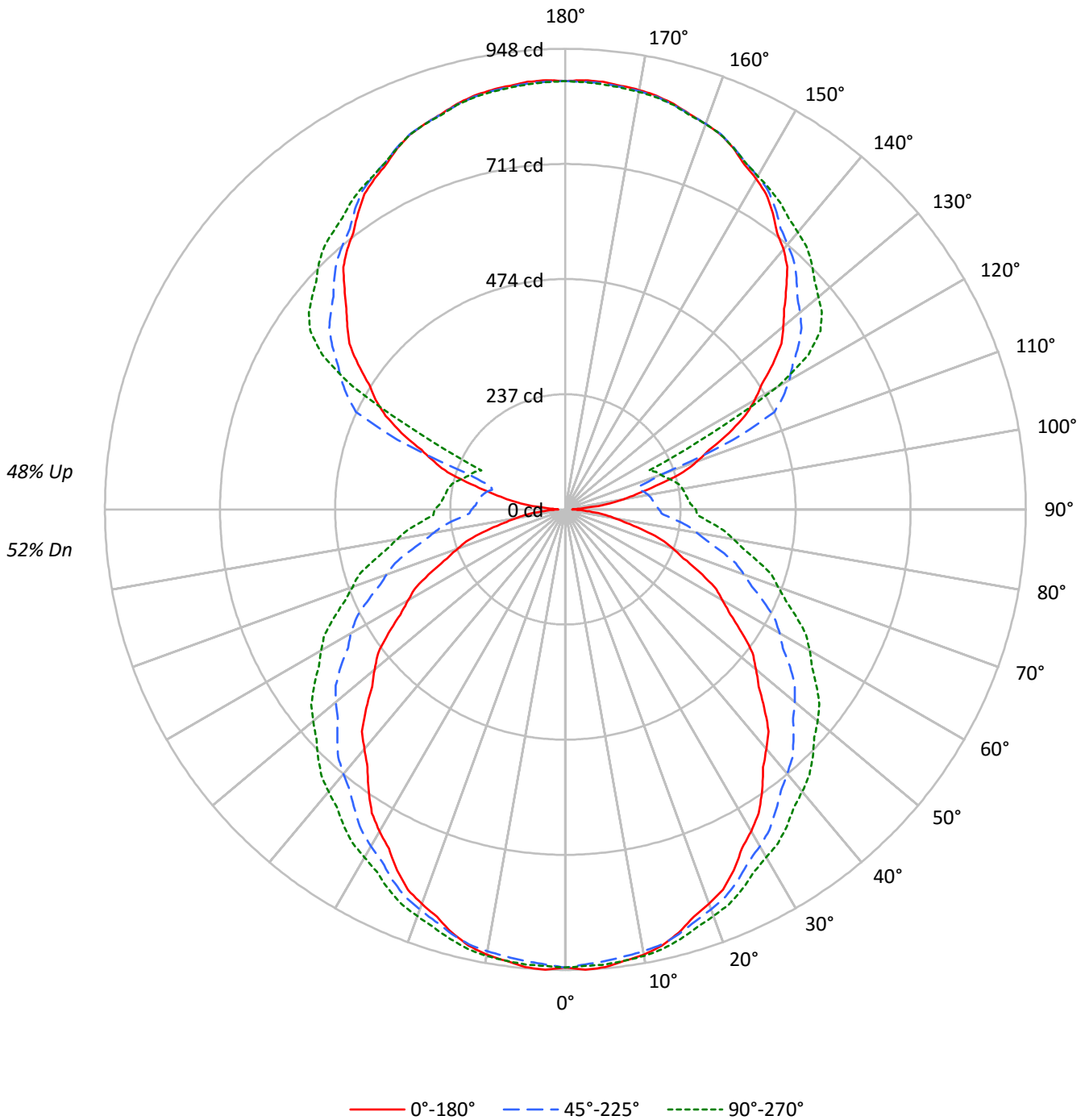
Lumens per Lamp: N/A
Luminaire Lumens: 6182.9 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 60.7
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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	97	92	87	83	89	85	81	77	72	69	66	60	57	56	49	47	46	40
2	87	79	72	67	80	73	67	62	62	57	53	51	48	45	42	39	37	33
3	79	69	61	55	73	64	57	51	54	49	44	45	41	37	37	34	31	27
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	32	29	26	23
5	66	54	45	39	61	50	42	37	42	36	32	35	31	27	29	25	23	19
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	34	28	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	26	21	26	22	18	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	13	11

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	1.4
10°-20°	256.2	4.1
20°-30°	388.3	6.3
30°-40°	472.9	7.6
40°-50°	508.8	8.2
50°-60°	494.1	8.0
60°-70°	431.4	7.0
70°-80°	332.1	5.4
80°-90°	225.1	3.6
90°-100°	183.0	3.0
100°-110°	220.0	3.6
110°-120°	362.3	5.9
120°-130°	517.2	8.4
130°-140°	523.4	8.5
140°-150°	473.4	7.7
150°-160°	378.1	6.1
160°-170°	243.7	3.9
170°-180°	83.9	1.4
0°-30°	733.8	11.9
0°-40°	1206.7	19.5
0°-60°	2209.5	35.7
0°-90°	3198.1	51.7
90°-120°	765.2	12.4
90°-150°	2279.1	36.9
90°-180°	2985.0	48.3
0°-180°	6182.9	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	101	193	249	269	11
95°	52	98	182	235	253	59
105°	201	251	156	209	229	215
115°	372	401	476	234	190	366
125°	521	532	586	625	641	465
135°	643	654	673	706	717	497
145°	744	744	755	767	771	466
155°	820	815	822	825	820	378
165°	864	860	862	866	862	244
175°	883	879	880	884	878	84
180°	882	882	882	882	882	



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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	63.8	82.1	100.6	119.6	139.3	158.9	178.6	198.2	210.8
90°	14.3	33.4	52.6	71.8	91.0	110.8	131.4	152.0	172.5	193.1	206.0
92.5°	25.4	41.7	58.0	74.2	90.5	108.3	127.5	146.8	166.0	185.4	197.6
95°	52.4	62.0	71.6	81.1	90.8	105.2	124.4	143.6	162.8	182.0	194.3
97.5°	91.8	91.4	90.9	90.4	89.9	99.5	119.3	139.1	158.9	178.7	190.5
100°	122.4	114.3	106.1	97.9	89.7	95.3	114.8	134.2	153.6	173.0	185.4
102.5°	155.1	161.2	167.4	173.5	179.7	180.9	177.3	173.6	170.0	166.4	178.9
105°	200.7	213.8	226.9	240.0	253.0	248.1	225.2	202.2	179.3	156.4	168.6
107.5°	254.4	264.9	275.4	285.9	296.3	286.0	254.7	223.4	192.1	160.8	169.4
110°	288.0	297.1	306.1	315.2	324.2	315.8	289.6	263.6	237.5	211.4	207.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	320.7	328.4	336.2	343.9	351.7	357.6	361.6	365.6	369.6	373.6	331.6
115°	372.2	378.0	383.7	389.5	395.2	406.7	423.9	441.1	458.3	475.5	419.0
117.5°	417.0	421.8	426.7	431.6	436.5	446.4	461.5	476.5	491.6	506.7	499.8
120°	450.6	454.0	457.3	460.7	464.0	473.0	487.7	502.4	517.1	531.8	542.0
122.5°	479.2	481.9	484.6	487.3	490.1	498.6	512.7	526.9	541.2	555.4	564.6
125°	521.3	523.2	525.0	526.8	528.7	535.8	548.2	560.6	573.0	585.5	594.7
127.5°	560.7	562.5	564.2	566.0	567.7	573.5	583.4	593.2	603.1	612.9	621.9
130°	585.8	587.7	589.7	591.7	593.6	598.5	606.5	614.4	622.3	630.3	639.2
132.5°	611.3	612.9	614.5	616.2	617.8	621.8	628.3	634.8	641.2	647.7	656.1
135°	643.1	645.3	647.6	649.9	652.1	655.4	659.8	664.1	668.3	672.7	680.5
137.5°	676.6	678.1	679.7	681.2	682.7	684.9	687.7	690.5	693.2	696.0	703.0
140°	698.6	699.4	700.3	701.1	701.9	703.4	705.5	707.8	709.9	712.0	718.2
142.5°	716.9	717.6	718.4	719.1	719.8	721.1	723.0	725.0	726.8	728.7	733.8
145°	744.4	744.2	744.1	744.0	743.9	744.9	747.3	749.8	752.2	754.6	757.4
147.5°	769.5	769.0	768.5	767.9	767.4	768.3	770.7	773.0	775.4	777.8	778.8
150°	785.9	784.9	783.9	782.9	781.9	782.6	784.8	787.0	789.3	791.6	792.5
152.5°	799.6	798.5	797.5	796.3	795.2	795.8	797.9	800.0	802.2	804.3	805.2
155°	819.7	818.4	817.1	815.8	814.6	814.8	816.5	818.1	819.8	821.5	822.4
157.5°	835.4	834.3	833.2	832.1	831.1	831.1	832.3	833.5	834.6	835.9	836.9
160°	844.5	843.6	842.8	842.0	841.2	841.2	842.0	842.8	843.6	844.5	845.4
162.5°	852.7	851.9	851.0	850.2	849.3	849.3	850.0	850.7	851.5	852.2	853.2
165°	863.7	862.8	862.0	861.1	860.2	860.1	860.5	860.9	861.3	861.7	862.7
167.5°	871.8	871.0	870.1	869.3	868.4	868.2	868.6	869.0	869.4	869.8	870.8
170°	876.5	875.6	874.8	873.9	873.1	872.7	873.1	873.3	873.6	873.9	874.9
172.5°	879.5	878.6	877.8	876.9	876.1	875.8	876.1	876.4	876.6	876.9	878.0
175°	883.4	882.4	881.5	880.5	879.5	879.1	879.4	879.7	879.9	880.3	881.3
177.5°	884.1	883.3	882.5	881.7	880.9	880.6	880.7	880.8	880.9	881.0	881.8
180°	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5



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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°	223.3	235.9	248.3	256.6	260.6	264.5	268.4	272.4
90°	218.8	231.8	244.6	253.0	256.9	260.8	264.7	268.7
92.5°	209.9	222.1	234.4	242.5	246.3	250.1	254.0	257.7
95°	206.5	218.7	231.0	238.9	242.4	245.9	249.4	252.9
97.5°	202.3	214.1	225.9	233.7	237.5	241.2	245.0	248.7
100°	197.8	210.1	222.5	230.5	234.1	237.7	241.4	245.0
102.5°	191.4	203.8	216.2	224.4	228.1	231.8	235.6	239.3
105°	180.8	193.0	205.2	213.2	217.1	221.1	225.0	228.9
107.5°	178.0	186.6	195.3	201.5	205.5	209.4	213.2	217.1
110°	202.5	198.0	193.6	193.3	197.2	201.1	205.0	208.9



TEST NUMBER: P331441-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	289.7	247.7	205.7	186.6	190.4	194.2	198.0	201.8
115°	362.5	306.0	249.5	217.8	210.9	204.0	197.2	190.3
117.5°	492.9	486.1	479.2	460.5	430.1	399.6	369.2	338.8
120°	552.2	562.4	572.6	569.8	554.0	538.2	522.5	506.7
122.5°	573.9	583.2	592.5	596.6	595.8	594.9	594.1	593.3
125°	603.9	613.1	622.2	628.4	631.6	634.7	637.8	641.1
127.5°	630.8	639.8	648.8	654.7	657.4	660.1	662.9	665.7
130°	648.0	656.8	665.7	671.3	673.5	675.8	678.1	680.4
132.5°	664.5	672.9	681.3	686.5	688.8	691.2	693.4	695.7
135°	688.2	696.1	703.8	708.8	711.0	713.1	715.2	717.4
137.5°	710.0	716.9	723.9	728.2	729.8	731.4	733.0	734.5
140°	724.3	730.5	736.6	740.2	741.3	742.4	743.5	744.7
142.5°	738.9	743.9	748.9	751.9	752.8	753.7	754.5	755.4
145°	760.3	763.0	765.9	767.7	768.5	769.3	770.1	770.9
147.5°	779.8	780.8	781.8	782.3	782.4	782.6	782.7	782.8
150°	793.3	794.2	795.0	795.0	794.3	793.6	792.9	792.2
152.5°	806.0	806.9	807.8	807.7	806.8	805.8	804.9	804.0
155°	823.3	824.1	825.0	824.8	823.7	822.6	821.4	820.3
157.5°	837.8	838.7	839.7	839.6	838.6	837.4	836.3	835.3
160°	846.2	847.1	847.9	847.8	846.9	845.9	844.9	843.9
162.5°	854.1	855.1	856.0	856.0	854.7	853.5	852.3	851.0
165°	863.7	864.8	865.8	865.8	864.8	863.7	862.7	861.7
167.5°	871.8	872.8	873.8	873.6	872.4	871.1	869.8	868.5
170°	875.8	876.8	877.9	877.7	876.5	875.1	873.9	872.6
172.5°	879.0	879.9	880.9	880.7	879.5	878.2	876.9	875.7
175°	882.3	883.2	884.2	884.0	882.6	881.2	879.8	878.3
177.5°	882.6	883.4	884.2	884.1	883.1	882.1	881.0	880.0
180°	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5

(END OF REPORT)