

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: P333176

Luminaire Tested: **S125DIP-S610D590U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333176
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S610D590U835-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4546.2 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

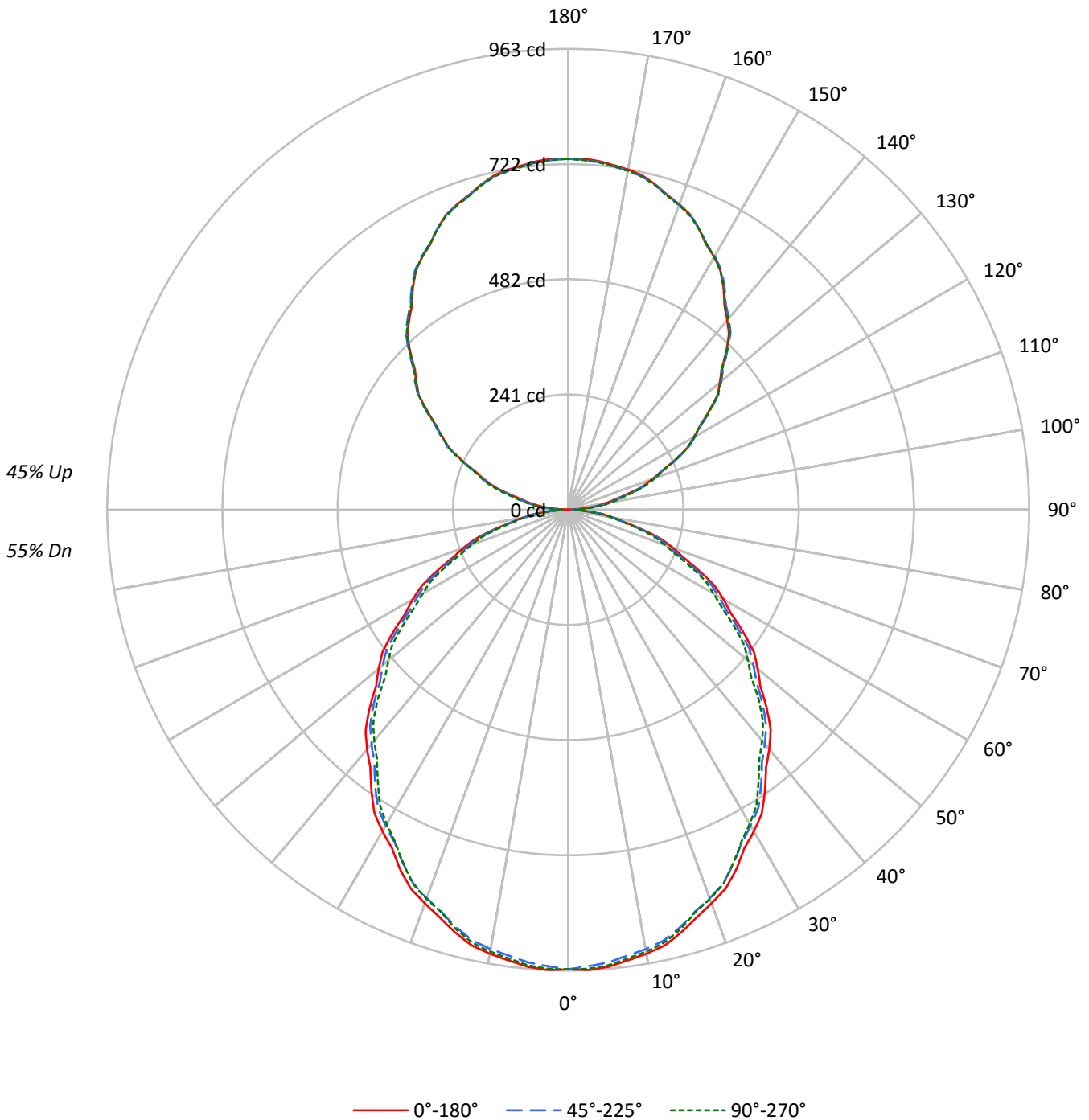
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61
1	99	94	90	87	92	88	84	81	75	73	71	64	62	61	54	52	51
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43
3	82	72	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	27
6	64	51	43	37	59	48	41	35	42	36	31	36	31	28	30	27	24
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	21
8	55	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6203	6203	6203
5°	6217	6157	6196
10°	6178	6114	6149
15°	6111	6040	6066
20°	6016	5937	5948
25°	5912	5815	5810
30°	5785	5683	5655
35°	5649	5541	5463
40°	5509	5387	5311
45°	5358	5246	5142
50°	5191	5077	4924
55°	5031	4884	4748
60°	4839	4691	4525
65°	4609	4459	4308
70°	4390	4190	4047
75°	4000	3868	3735
80°	3559	3503	3418
85°	3097	3149	2986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	2.0
10°-20°	255.8	5.6
20°-30°	377.7	8.3
30°-40°	440.7	9.7
40°-50°	442.6	9.7
50°-60°	388.5	8.5
60°-70°	289.5	6.4
70°-80°	165.5	3.6
80°-90°	49.8	1.1
90°-100°	49.1	1.1
100°-110°	145.0	3.2
110°-120°	245.6	5.4
120°-130°	323.2	7.1
130°-140°	362.1	8.0
140°-150°	354.9	7.8
150°-160°	298.1	6.6
160°-170°	198.2	4.4
170°-180°	69.4	1.5
0°-30°	724.0	15.9
0°-40°	1164.7	25.6
0°-60°	1995.9	43.9
0°-90°	2500.6	55.0
90°-120°	439.7	9.7
90°-150°	1479.9	32.6
90°-180°	2046.0	45.0
0°-180°	4546.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	957	950	956	956	91
15°	914	911	903	907	907	257
25°	830	826	816	817	815	382
35°	716	713	703	699	693	448
45°	587	583	574	566	563	452
55°	447	444	434	427	422	399
65°	302	300	292	285	282	299
75°	160	159	155	153	150	171
85°	42	42	42	42	40	47
90°	1	5	9	12	14	4
95°	37	38	44	48	49	40
105°	130	133	136	140	142	139
115°	246	248	249	249	248	243
125°	359	362	363	362	361	321
135°	467	470	471	470	468	360
145°	565	568	569	569	568	353
155°	647	647	648	650	647	298
165°	703	702	703	705	702	198
175°	731	729	729	732	728	69
180°	733	733	733	733	733	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	962.8	962.4	962.0	961.6	961.2	960.3	959.0	957.6	956.3	954.9	956.3
5°	958.9	958.5	958.2	957.8	957.5	956.5	954.8	953.1	951.4	949.7	951.3
7.5°	950.0	949.7	949.4	949.0	948.7	947.6	945.7	943.9	942.0	940.2	941.6
10°	942.1	941.8	941.5	941.1	940.8	939.7	937.8	936.0	934.1	932.3	933.6
12.5°	932.4	931.8	931.2	930.6	930.0	928.8	927.1	925.4	923.6	921.9	923.0
15°	914.0	913.5	913.0	912.5	912.0	910.8	909.0	907.1	905.2	903.4	904.2
17.5°	892.9	892.2	891.4	890.7	889.9	888.6	886.7	884.7	882.8	880.9	881.9
20°	875.3	874.9	874.6	874.3	873.9	872.7	870.5	868.3	866.1	863.9	865.1
22.5°	857.6	857.0	856.4	855.8	855.2	853.9	851.8	849.8	847.7	845.6	846.4
25°	829.7	828.8	828.0	827.2	826.3	824.8	822.6	820.4	818.2	816.0	816.4
27.5°	797.0	796.5	796.0	795.5	795.0	793.6	791.3	789.1	786.8	784.6	784.6
30°	775.7	775.2	774.7	774.2	773.7	772.2	769.7	767.1	764.6	762.1	761.7
32.5°	752.6	751.9	751.1	750.3	749.5	748.0	745.8	743.5	741.2	739.0	738.4
35°	716.5	715.8	715.1	714.5	713.8	712.3	709.9	707.5	705.2	702.8	702.0
37.5°	678.9	678.1	677.3	676.4	675.6	674.0	671.8	669.6	667.3	665.1	663.9
40°	653.4	652.6	651.7	650.9	650.0	648.4	646.1	643.7	641.3	639.0	637.5
42.5°	626.1	625.4	624.6	623.9	623.2	621.7	619.3	617.0	614.6	612.2	610.9
45°	586.6	585.9	585.2	584.5	583.9	582.5	580.5	578.5	576.4	574.4	572.4
47.5°	544.0	544.0	544.1	544.1	544.1	542.9	540.5	538.1	535.7	533.2	531.2
50°	516.7	516.1	515.6	515.1	514.6	513.4	511.3	509.3	507.3	505.3	503.1
52.5°	488.7	488.3	488.0	487.6	487.2	485.9	483.8	481.6	479.5	477.3	475.4
55°	446.8	446.2	445.7	445.2	444.7	443.3	440.9	438.6	436.2	433.8	432.3
57.5°	402.5	402.3	402.0	401.7	401.5	400.3	398.3	396.3	394.3	392.4	390.4
60°	374.6	373.9	373.2	372.5	371.9	370.6	368.8	366.9	365.0	363.2	361.5
62.5°	345.4	344.9	344.3	343.8	343.2	342.2	340.6	339.0	337.4	335.8	334.0
65°	301.6	301.3	301.0	300.6	300.3	299.2	297.3	295.5	293.6	291.8	290.2
67.5°	259.2	258.5	257.8	257.1	256.4	255.4	254.0	252.6	251.2	249.8	248.5
70°	232.5	231.7	230.8	230.0	229.1	227.9	226.4	224.9	223.4	221.9	220.8
72.5°	203.3	202.7	202.2	201.6	201.0	200.2	199.3	198.3	197.3	196.3	195.2
75°	160.3	160.0	159.6	159.3	159.0	158.4	157.5	156.7	155.8	155.0	154.5
77.5°	120.7	120.5	120.4	120.2	120.1	119.8	119.3	118.9	118.4	117.9	117.6
80°	95.7	95.7	95.7	95.7	95.7	95.6	95.2	94.9	94.6	94.2	94.0
82.5°	73.9	73.6	73.3	73.0	72.8	72.6	72.5	72.5	72.4	72.3	72.0
85°	41.8	42.0	42.1	42.3	42.5	42.5	42.5	42.5	42.5	42.5	42.4
87.5°	16.5	16.7	16.9	17.1	17.3	17.5	17.5	17.5	17.6	17.6	17.8
90°	0.6	1.6	2.6	3.6	4.6	5.6	6.5	7.4	8.2	9.1	9.8
92.5°	13.8	14.5	15.2	15.9	16.6	17.5	18.6	19.7	20.8	21.9	22.7
95°	37.1	37.3	37.6	37.8	38.1	38.9	40.1	41.4	42.7	43.9	44.8
97.5°	61.6	61.7	61.8	61.9	62.0	62.9	64.7	66.4	68.2	69.9	70.8
100°	79.9	79.9	79.9	79.9	79.9	80.7	82.3	84.0	85.6	87.3	88.4
102.5°	99.5	100.0	100.5	101.0	101.5	102.2	103.0	103.9	104.7	105.5	106.8
105°	130.1	130.7	131.3	132.0	132.6	133.3	134.1	134.8	135.6	136.3	137.1
107.5°	163.8	164.5	165.1	165.7	166.4	167.0	167.6	168.1	168.7	169.3	169.7
110°	187.1	187.7	188.4	189.0	189.7	190.2	190.5	190.9	191.3	191.7	192.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	210.8	211.2	211.5	211.8	212.2	212.6	213.1	213.5	214.0	214.5	214.7
115°	245.9	246.4	246.9	247.4	247.9	248.3	248.5	248.8	249.0	249.3	249.2
117.5°	281.0	281.2	281.5	281.7	281.9	282.2	282.4	282.6	282.8	283.1	283.2
120°	302.9	303.6	304.2	304.8	305.5	305.8	306.0	306.1	306.2	306.3	306.3
122.5°	326.7	326.9	327.1	327.3	327.6	327.8	328.2	328.5	328.8	329.2	329.1
125°	358.8	359.6	360.3	361.1	361.9	362.3	362.4	362.6	362.7	362.8	362.6
127.5°	393.1	393.5	393.9	394.3	394.8	395.1	395.2	395.4	395.5	395.7	395.6
130°	413.6	414.2	414.9	415.5	416.1	416.6	416.8	417.1	417.3	417.6	417.5
132.5°	434.1	435.2	436.2	437.2	438.3	438.8	438.7	438.7	438.6	438.6	438.5
135°	466.6	467.4	468.2	468.9	469.7	470.1	470.3	470.4	470.5	470.6	470.6
137.5°	497.2	498.0	498.7	499.4	500.2	500.7	501.0	501.2	501.5	501.8	501.9
140°	516.8	517.5	518.1	518.7	519.4	519.9	520.3	520.7	521.0	521.4	521.7
142.5°	536.5	537.0	537.5	538.1	538.6	539.1	539.6	540.1	540.6	541.0	541.2
145°	565.3	565.8	566.4	566.9	567.4	567.8	568.2	568.6	569.0	569.3	569.3
147.5°	592.0	592.3	592.6	592.9	593.2	593.4	593.7	594.1	594.4	594.7	595.0
150°	609.8	609.7	609.6	609.5	609.3	609.5	610.0	610.5	611.0	611.5	611.5
152.5°	624.4	624.6	624.8	625.0	625.1	625.3	625.5	625.7	625.9	626.2	626.5
155°	646.9	646.9	646.9	646.9	646.9	647.0	647.1	647.2	647.4	647.5	648.0
157.5°	667.0	666.7	666.4	666.2	665.9	665.8	665.9	666.1	666.2	666.3	666.8
160°	678.9	678.5	678.1	677.7	677.3	677.2	677.3	677.5	677.6	677.7	678.2
162.5°	689.4	689.1	688.8	688.5	688.2	688.1	688.1	688.2	688.2	688.2	688.8
165°	703.4	703.1	702.9	702.6	702.4	702.3	702.4	702.6	702.7	702.8	703.3
167.5°	715.3	714.8	714.2	713.7	713.2	713.0	713.0	713.0	713.0	713.0	713.7
170°	721.6	721.1	720.6	720.1	719.6	719.4	719.4	719.4	719.4	719.4	720.1
172.5°	726.2	725.7	725.2	724.7	724.2	723.9	723.9	723.9	723.9	723.9	724.7
175°	731.3	730.8	730.3	729.8	729.3	729.1	729.1	729.1	729.1	729.1	729.8
177.5°	734.0	733.6	733.2	732.8	732.3	732.1	732.0	731.9	731.8	731.7	732.3
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	957.6	959.0	960.3	960.9	960.8	960.6	960.5	960.4
5°	952.8	954.3	955.8	956.5	956.3	956.2	956.0	955.8
7.5°	943.1	944.6	946.1	946.8	946.6	946.4	946.3	946.1
10°	935.0	936.3	937.7	938.3	938.1	937.9	937.7	937.6
12.5°	924.1	925.2	926.2	926.8	926.7	926.7	926.7	926.6
15°	905.1	905.9	906.8	907.2	907.2	907.2	907.2	907.2
17.5°	883.0	884.0	885.1	885.2	884.3	883.5	882.7	881.8
20°	866.2	867.4	868.6	868.8	867.9	867.1	866.2	865.4
22.5°	847.2	848.0	848.8	848.9	848.3	847.7	847.1	846.6
25°	816.7	817.0	817.4	817.3	816.8	816.3	815.8	815.3
27.5°	784.7	784.8	784.8	784.6	784.1	783.6	783.1	782.6
30°	761.4	761.1	760.7	760.3	759.8	759.3	758.8	758.3
32.5°	737.8	737.1	736.5	735.8	734.9	734.0	733.0	732.1
35°	701.1	700.3	699.4	698.3	697.0	695.6	694.3	692.9
37.5°	662.6	661.4	660.1	659.1	658.3	657.6	656.8	656.0
40°	635.9	634.4	632.9	631.9	631.4	630.9	630.4	629.9
42.5°	609.5	608.1	606.7	605.6	604.8	604.1	603.3	602.5
45°	570.3	568.3	566.3	565.0	564.5	564.0	563.5	563.0
47.5°	529.1	527.0	525.0	523.4	522.2	521.0	519.8	518.6
50°	500.9	498.7	496.5	494.8	493.6	492.4	491.2	490.1
52.5°	473.4	471.5	469.6	468.0	466.7	465.3	464.0	462.7
55°	430.8	429.3	427.8	426.4	425.2	424.0	422.9	421.7
57.5°	388.4	386.5	384.5	383.2	382.6	381.9	381.3	380.7
60°	359.8	358.1	356.4	355.0	353.8	352.6	351.4	350.3
62.5°	332.2	330.4	328.5	327.2	326.3	325.3	324.4	323.5
65°	288.7	287.2	285.7	284.6	283.9	283.2	282.6	281.9
67.5°	247.3	246.0	244.7	243.8	243.4	243.0	242.6	242.2
70°	219.8	218.8	217.8	217.0	216.3	215.6	214.9	214.3
72.5°	194.0	192.9	191.7	190.8	190.1	189.5	188.8	188.1
75°	154.0	153.5	153.0	152.4	151.7	151.0	150.4	149.7
77.5°	117.3	117.0	116.7	116.3	115.8	115.4	114.9	114.4
80°	93.9	93.7	93.5	93.3	92.9	92.6	92.3	91.9
82.5°	71.7	71.4	71.1	70.9	70.9	70.8	70.7	70.7
85°	42.2	42.0	41.9	41.6	41.3	40.9	40.6	40.3
87.5°	17.9	18.0	18.1	18.1	17.9	17.7	17.5	17.3
90°	10.4	11.0	11.7	12.2	12.6	12.9	13.3	13.7
92.5°	23.6	24.4	25.3	25.8	26.1	26.4	26.6	26.9
95°	45.7	46.6	47.5	48.0	48.3	48.6	48.8	49.1
97.5°	71.6	72.5	73.3	73.8	73.9	74.1	74.2	74.4
100°	89.6	90.7	91.8	92.5	92.8	93.1	93.3	93.6
102.5°	108.0	109.3	110.5	111.3	111.7	112.0	112.4	112.7
105°	137.9	138.6	139.4	140.0	140.3	140.7	141.1	141.5
107.5°	170.1	170.5	170.8	171.0	171.0	171.0	170.9	170.9
110°	192.4	192.8	193.2	193.3	193.2	193.1	192.9	192.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.9	215.0	215.2	215.2	215.0	214.7	214.5	214.3
115°	249.0	248.9	248.8	248.7	248.5	248.4	248.3	248.2
117.5°	283.3	283.4	283.5	283.3	282.8	282.3	281.8	281.2
120°	306.3	306.3	306.3	306.1	305.6	305.1	304.6	304.1
122.5°	329.0	328.9	328.8	328.5	328.1	327.7	327.3	326.9
125°	362.3	362.1	361.8	361.6	361.5	361.4	361.2	361.1
127.5°	395.4	395.3	395.2	395.0	394.7	394.5	394.2	394.0
130°	417.3	417.2	417.1	416.9	416.6	416.4	416.1	415.9
132.5°	438.3	438.2	438.1	437.8	437.5	437.1	436.8	436.4
135°	470.6	470.6	470.6	470.4	469.9	469.4	468.9	468.4
137.5°	502.1	502.2	502.4	502.2	501.5	500.9	500.3	499.6
140°	521.9	522.2	522.4	522.2	521.6	521.0	520.3	519.7
142.5°	541.3	541.5	541.6	541.4	540.8	540.1	539.5	538.9
145°	569.3	569.3	569.3	569.1	568.8	568.4	568.0	567.6
147.5°	595.3	595.6	595.9	595.6	594.7	593.9	593.0	592.2
150°	611.5	611.5	611.5	611.4	611.2	610.9	610.7	610.4
152.5°	626.8	627.1	627.4	627.3	626.8	626.4	625.9	625.5
155°	648.5	649.0	649.5	649.5	648.8	648.2	647.5	646.9
157.5°	667.3	667.8	668.3	668.2	667.3	666.5	665.7	664.8
160°	678.7	679.2	679.7	679.7	679.1	678.4	677.8	677.2
162.5°	689.4	690.0	690.7	690.6	689.9	689.1	688.4	687.6
165°	703.8	704.3	704.9	704.7	704.0	703.2	702.4	701.7
167.5°	714.5	715.3	716.0	716.0	715.2	714.4	713.6	712.9
170°	720.9	721.6	722.4	722.3	721.5	720.6	719.7	718.8
172.5°	725.5	726.2	727.0	727.0	726.2	725.4	724.6	723.8
175°	730.6	731.3	732.1	732.0	731.2	730.3	729.4	728.5
177.5°	732.9	733.5	734.1	734.1	733.4	732.7	731.9	731.2
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1

(END OF REPORT)