

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: P333183-830

Luminaire Tested: **S125DIP-S610D810U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333183-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D810U830-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5005.7 lumens  
Efficiency: N/A  
Efficacy: 130.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

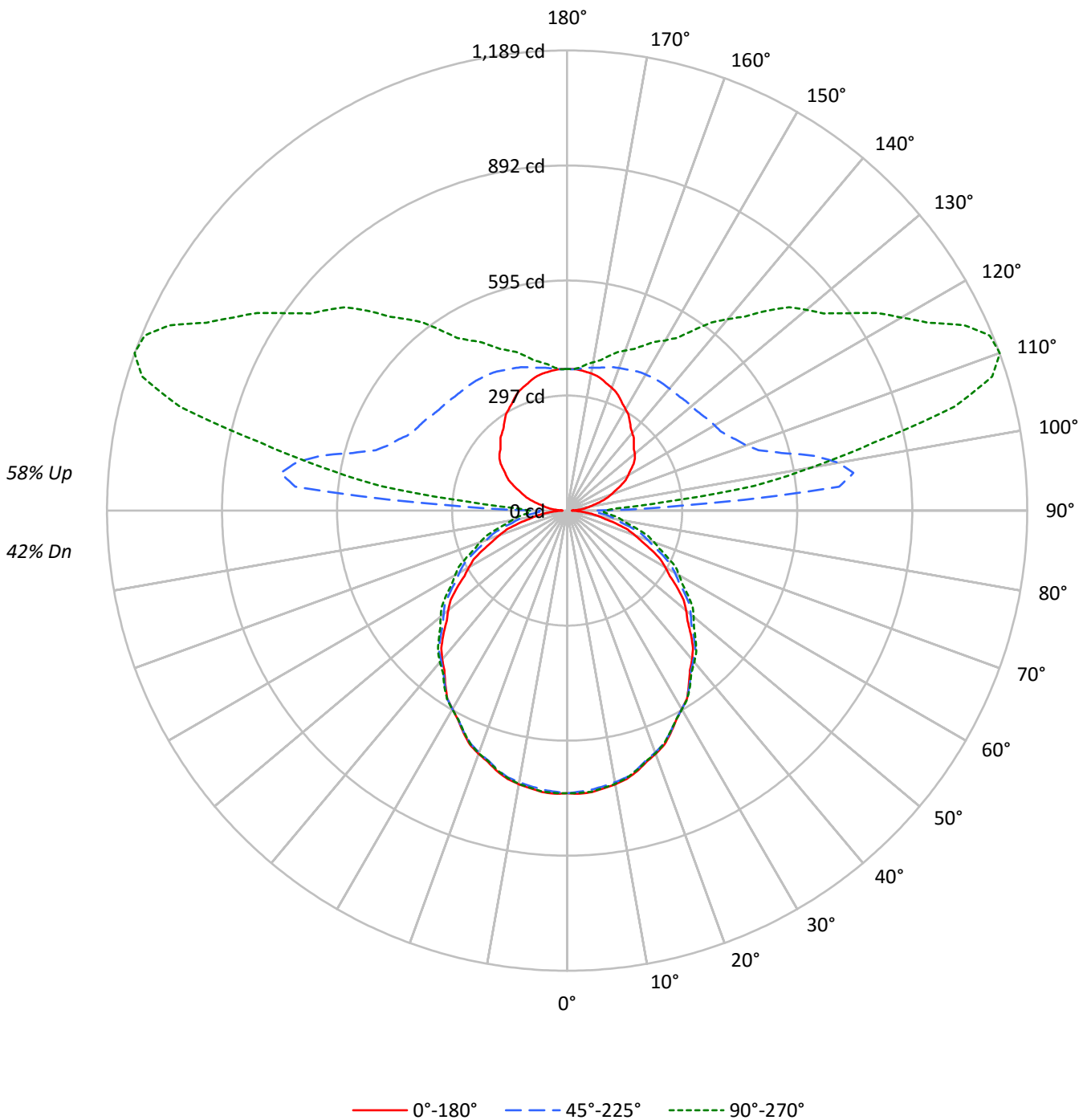
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	42
1	95	91	87	83	87	83	80	76	68	66	64	55	53	52	42	41	40	34
2	87	79	73	67	79	72	67	62	60	56	52	48	45	43	37	35	33	28
3	79	69	62	56	72	63	57	52	52	47	44	42	39	36	33	30	28	24
4	72	61	53	47	65	56	49	44	46	41	37	37	33	30	29	26	24	20
5	66	54	46	40	60	50	43	37	41	36	32	33	29	26	26	23	21	17
6	61	49	40	35	55	45	37	32	37	32	27	30	26	23	24	21	18	15
7	56	44	36	30	51	40	33	28	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	21	25	21	18	20	17	14	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4718	4718	4718
5°	4727	4630	4645
10°	4693	4548	4541
15°	4638	4449	4409
20°	4562	4326	4276
25°	4473	4195	4112
30°	4364	4051	3964
35°	4263	3919	3829
40°	4160	3779	3691
45°	4043	3661	3570
50°	3932	3531	3463
55°	3798	3408	3337
60°	3652	3269	3208
65°	3499	3124	3063
70°	3326	2924	2915
75°	3052	2732	2732
80°	2694	2501	2532
85°	2358	2344	2469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	1.4
10°-20°	196.1	3.9
20°-30°	291.6	5.8
30°-40°	345.4	6.9
40°-50°	357.1	7.1
50°-60°	329.0	6.6
60°-70°	265.9	5.3
70°-80°	178.1	3.6
80°-90°	94.4	1.9
90°-100°	316.8	6.3
100°-110°	607.8	12.1
110°-120°	560.2	11.2
120°-130°	447.7	8.9
130°-140°	354.0	7.1
140°-150°	263.6	5.3
150°-160°	184.7	3.7
160°-170°	108.8	2.2
170°-180°	35.4	0.7
0°-30°	556.7	11.1
0°-40°	902.2	18.0
0°-60°	1588.2	31.7
0°-90°	2126.7	42.5
90°-120°	1484.7	29.7
90°-150°	2550.1	50.9
90°-180°	2879.0	57.5
0°-180°	5005.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	729	724	729	729	69
15°	698	698	693	697	695	196
25°	634	636	632	634	631	292
35°	549	553	551	554	554	343
45°	452	460	463	468	469	349
55°	347	359	370	378	381	310
65°	239	256	273	283	286	237
75°	132	151	173	187	191	140
85°	39	63	88	103	110	42
90°	12	41	70	90	97	9
95°	34	100	705	364	246	33
105°	90	135	574	1105	1035	95
115°	153	190	457	965	1133	151
125°	209	245	428	763	889	185
135°	243	292	414	631	731	189
145°	282	322	410	514	568	177
155°	321	346	399	451	471	148
165°	351	360	383	406	413	99
175°	365	365	368	372	371	35
180°	366	366	366	366	366	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	732.2	731.9	731.7	731.4	731.1	730.6	729.7	728.8	727.9	727.0	727.9
5°	730.5	730.1	729.8	729.5	729.2	728.5	727.4	726.2	725.1	724.0	725.3
7.5°	724.0	723.9	723.8	723.6	723.5	722.8	721.7	720.6	719.4	718.3	719.3
10°	718.3	718.3	718.3	718.3	718.3	717.7	716.3	715.1	713.8	712.6	713.7
12.5°	710.3	710.4	710.5	710.7	710.8	710.3	709.3	708.3	707.3	706.2	707.1
15°	697.5	697.7	697.9	698.0	698.1	697.7	696.5	695.4	694.4	693.2	694.2
17.5°	680.9	681.2	681.6	681.8	682.2	681.7	680.7	679.6	678.4	677.3	678.1
20°	668.8	669.2	669.5	669.9	670.1	669.8	668.6	667.5	666.4	665.2	665.7
22.5°	655.2	655.7	656.3	656.9	657.4	657.0	655.8	654.6	653.4	652.1	652.7
25°	633.8	634.2	634.7	635.2	635.7	635.5	634.5	633.6	632.5	631.6	632.3
27.5°	610.0	610.7	611.4	612.1	612.8	612.7	611.5	610.5	609.4	608.3	608.7
30°	592.2	593.2	594.2	595.1	596.1	596.1	595.1	594.2	593.2	592.2	592.6
32.5°	576.2	577.0	577.9	578.7	579.5	579.6	578.9	578.2	577.5	576.7	577.1
35°	548.6	549.7	550.8	551.9	553.0	553.4	552.9	552.3	551.9	551.4	551.9
37.5°	520.9	522.0	522.9	524.0	525.0	525.4	525.3	525.1	524.9	524.8	525.4
40°	502.0	503.3	504.5	505.9	507.1	507.7	507.5	507.4	507.2	507.0	507.7
42.5°	481.4	483.1	484.7	486.4	488.0	489.0	489.4	489.7	490.0	490.4	491.2
45°	451.9	453.6	455.3	457.1	458.9	460.1	461.0	461.8	462.5	463.4	464.5
47.5°	421.7	423.3	424.9	426.5	428.2	429.6	431.0	432.3	433.8	435.1	436.8
50°	401.1	402.7	404.5	406.3	408.0	409.8	411.5	413.3	415.0	416.8	418.6
52.5°	379.3	381.4	383.5	385.7	387.8	389.9	392.1	394.2	396.3	398.4	400.3
55°	347.3	349.9	352.4	355.0	357.5	360.1	362.6	365.1	367.7	370.2	372.0
57.5°	314.7	317.7	320.7	323.9	326.9	329.9	332.8	335.7	338.7	341.6	343.6
60°	292.9	296.1	299.3	302.5	305.7	308.8	312.0	315.2	318.4	321.5	324.0
62.5°	271.7	274.8	278.1	281.3	284.5	287.8	291.2	294.6	298.0	301.5	304.2
65°	239.2	242.9	246.5	250.2	253.8	257.6	261.4	265.2	269.0	272.9	275.2
67.5°	208.6	212.1	215.6	219.1	222.6	226.4	230.3	234.1	238.0	242.0	244.8
70°	186.2	189.8	193.5	197.2	200.9	204.7	208.9	213.0	217.2	221.3	224.3
72.5°	164.4	168.2	172.0	175.8	179.6	183.7	188.2	192.7	197.3	201.8	205.1
75°	131.8	135.9	140.1	144.2	148.4	153.0	158.1	163.2	168.2	173.3	176.4
77.5°	100.4	105.2	110.0	114.7	119.5	124.3	129.2	134.1	139.0	143.9	147.4
80°	81.0	85.7	90.5	95.3	100.0	105.1	110.6	115.9	121.3	126.8	130.3
82.5°	63.2	68.1	73.2	78.2	83.3	88.6	94.1	99.6	105.2	110.7	114.0
85°	39.4	44.7	49.9	55.1	60.4	65.8	71.4	76.9	82.5	88.1	91.6
87.5°	22.5	27.7	33.1	38.5	43.9	49.5	55.0	60.7	66.3	72.0	75.8
90°	12.2	18.0	24.6	31.2	37.7	44.5	50.6	57.5	63.6	70.5	74.9
92.5°	19.3	25.9	36.9	50.7	68.1	94.7	140.5	213.5	292.3	294.1	252.3
95°	33.6	38.5	48.5	60.8	81.2	119.0	203.3	370.9	579.7	705.2	694.7
97.5°	48.8	53.4	61.3	73.1	91.4	119.8	177.2	301.2	519.2	746.0	860.4
100°	59.5	64.3	70.6	82.0	99.3	125.7	173.5	274.5	465.2	711.3	898.9
102.5°	71.3	75.2	80.7	92.5	108.4	133.9	176.9	262.4	424.1	653.0	871.8
105°	89.7	92.3	98.5	108.4	122.7	147.0	184.3	254.6	382.5	573.7	788.3
107.5°	107.7	111.4	117.1	125.3	139.7	161.6	197.6	258.4	363.3	518.5	704.2
110°	120.7	124.1	128.9	137.5	150.4	172.8	207.5	262.8	356.4	492.0	655.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	134.3	137.2	141.2	149.3	161.9	183.4	216.8	269.0	354.2	475.6	619.2
115°	153.2	155.7	159.1	166.8	179.0	200.0	231.5	278.3	353.2	456.9	578.3
117.5°	170.1	173.1	176.2	183.5	196.8	217.0	246.7	289.5	354.9	445.9	552.5
120°	181.9	184.6	188.0	195.1	208.1	228.7	258.1	297.2	357.5	440.1	537.8
122.5°	193.7	195.6	198.1	205.0	219.0	239.2	268.5	305.8	359.5	434.8	524.8
125°	209.2	210.6	214.1	220.6	234.4	255.1	282.6	317.4	363.4	427.7	506.9
127.5°	220.7	222.8	227.3	235.5	250.3	270.7	296.7	328.6	368.4	422.6	490.1
130°	228.4	230.5	236.2	245.6	260.9	281.2	306.2	336.4	371.8	419.7	479.5
132.5°	233.8	236.5	243.6	254.3	270.3	290.3	314.9	342.8	375.3	417.5	470.0
135°	243.2	245.9	254.7	266.3	281.5	302.0	325.9	351.4	379.8	414.0	458.1
137.5°	255.1	257.2	265.3	277.0	292.0	312.7	334.0	357.9	384.4	412.4	447.8
140°	261.6	263.8	272.7	284.5	298.4	318.4	340.0	362.2	386.0	411.2	442.4
142.5°	269.8	271.4	279.5	291.2	304.4	323.1	343.4	364.3	386.7	410.7	438.1
145°	282.2	283.5	290.8	301.0	314.1	330.9	350.1	368.4	388.4	409.7	432.6
147.5°	294.5	295.4	301.7	311.3	322.8	337.7	354.5	371.2	389.1	407.8	427.5
150°	302.2	303.6	308.8	318.4	328.7	341.2	357.4	372.9	389.1	406.0	423.8
152.5°	310.4	311.3	315.8	324.2	334.0	345.3	360.3	374.1	388.5	403.7	419.6
155°	321.3	321.3	325.7	333.1	340.4	350.8	363.4	375.1	386.9	399.4	412.7
157.5°	331.0	330.9	334.4	340.7	347.2	355.1	365.8	375.9	385.0	395.0	406.2
160°	337.5	336.8	339.8	344.9	350.8	357.4	367.0	375.9	383.2	392.1	401.0
162.5°	342.8	342.1	345.1	349.6	354.3	359.8	368.2	375.2	381.4	388.5	396.2
165°	350.8	349.3	351.6	355.2	358.2	362.6	368.4	374.4	378.8	383.2	389.1
167.5°	356.1	355.3	356.7	358.7	360.8	363.6	368.4	372.6	374.7	378.1	382.2
170°	359.7	358.9	359.7	361.1	362.6	364.8	368.4	371.5	372.9	375.1	378.1
172.5°	362.0	360.7	361.4	362.9	363.7	364.8	367.9	370.2	370.5	371.6	373.9
175°	364.8	363.4	364.1	364.8	364.8	364.8	367.0	368.4	367.8	367.8	368.4
177.5°	366.1	365.0	365.0	365.5	365.0	365.0	366.1	366.7	365.5	365.5	366.1
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	728.8	729.7	730.6	730.9	730.8	730.8	730.6	730.5
5°	726.5	727.8	729.1	729.6	729.5	729.3	729.2	729.1
7.5°	720.5	721.6	722.7	723.2	723.0	722.9	722.7	722.6
10°	714.8	715.9	717.0	717.5	717.4	717.2	717.0	716.8
12.5°	707.9	708.8	709.7	709.9	709.5	709.1	708.7	708.2
15°	695.1	696.1	697.0	697.2	696.5	695.9	695.3	694.7
17.5°	678.8	679.5	680.2	680.4	680.0	679.7	679.3	678.9
20°	666.3	666.8	667.2	667.4	667.4	667.4	667.4	667.4
22.5°	653.3	653.9	654.5	654.6	654.2	653.8	653.5	653.1
25°	632.9	633.6	634.1	634.1	633.3	632.5	631.7	630.9
27.5°	609.2	609.6	610.1	610.1	609.8	609.5	609.3	609.0
30°	592.9	593.2	593.5	593.6	593.4	593.2	593.1	593.0
32.5°	577.4	577.7	578.1	578.2	578.0	577.8	577.7	577.5
35°	552.3	552.9	553.4	553.6	553.6	553.6	553.6	553.6
37.5°	526.0	526.7	527.4	527.6	527.5	527.4	527.4	527.4
40°	508.3	509.0	509.5	510.0	510.4	510.7	511.0	511.3
42.5°	491.9	492.7	493.4	493.9	494.0	494.0	494.1	494.2
45°	465.5	466.7	467.8	468.4	468.6	468.7	468.9	469.1
47.5°	438.4	440.0	441.6	442.6	443.0	443.3	443.7	444.0
50°	420.3	422.1	423.8	424.9	425.4	425.8	426.3	426.8
52.5°	402.2	404.1	406.0	407.1	407.5	407.7	408.1	408.5
55°	373.7	375.5	377.2	378.4	379.1	379.8	380.3	381.0
57.5°	345.6	347.6	349.6	350.8	351.4	351.9	352.3	352.8
60°	326.3	328.7	331.1	332.5	333.0	333.5	333.9	334.4
62.5°	306.8	309.4	312.1	313.7	314.2	314.9	315.5	316.1
65°	277.6	280.0	282.4	283.9	284.6	285.2	285.8	286.4
67.5°	247.7	250.6	253.4	255.3	256.2	257.0	257.9	258.6
70°	227.3	230.4	233.4	235.4	236.3	237.2	238.3	239.2
72.5°	208.4	211.6	214.9	216.9	217.6	218.3	219.0	219.7
75°	179.6	182.9	186.1	188.0	188.8	189.6	190.4	191.2
77.5°	150.9	154.5	158.0	160.0	160.6	161.3	161.9	162.6
80°	133.7	137.2	140.7	142.8	143.5	144.1	144.8	145.3
82.5°	117.4	120.8	124.2	126.5	127.6	128.8	129.9	131.0
85°	95.1	98.6	102.1	104.4	105.8	107.0	108.3	109.5
87.5°	79.6	83.4	87.2	89.9	91.0	92.1	93.4	94.4
90°	79.3	83.7	88.1	92.0	93.1	94.2	96.0	97.2
92.5°	194.1	161.8	141.9	133.3	125.0	124.3	124.4	124.3
95°	589.2	480.6	393.5	333.9	282.7	261.6	256.9	246.2
97.5°	844.5	769.3	684.4	600.5	556.0	515.9	495.6	487.2
100°	958.9	926.2	853.7	779.2	729.2	677.1	650.8	640.0
102.5°	996.0	1021.4	988.3	938.4	885.0	848.2	819.5	811.6
105°	968.5	1072.6	1108.1	1102.2	1079.8	1056.6	1042.9	1035.2
107.5°	881.8	1019.6	1106.1	1146.6	1159.6	1160.4	1156.5	1151.6
110°	817.9	961.0	1067.9	1132.7	1167.0	1182.0	1188.3	1189.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	767.0	902.9	1010.9	1086.8	1136.3	1161.5	1175.4	1181.9
115°	702.9	819.9	923.8	1006.0	1064.4	1100.8	1122.4	1132.8
117.5°	659.9	761.0	850.7	926.3	984.9	1022.5	1044.1	1051.0
120°	636.3	727.5	811.2	878.0	933.4	969.8	990.6	997.5
122.5°	617.8	702.4	777.2	839.7	889.3	922.7	943.6	949.8
125°	591.3	668.9	735.7	790.3	832.5	863.5	880.4	888.6
127.5°	564.0	636.5	698.7	750.0	788.3	816.0	832.2	836.4
130°	547.2	614.3	674.1	723.5	761.1	786.3	801.7	807.0
132.5°	530.3	593.2	647.6	695.2	732.7	757.7	771.9	777.6
135°	507.3	560.2	609.4	652.9	686.2	711.2	725.3	730.6
137.5°	488.1	531.1	572.2	609.2	638.9	661.6	674.5	680.0
140°	477.3	513.7	549.4	581.5	609.4	629.2	640.9	645.3
142.5°	468.0	498.8	529.5	557.4	581.2	598.0	609.2	612.8
145°	456.3	479.9	503.6	524.2	542.5	555.7	564.4	568.0
147.5°	445.8	464.6	482.4	497.8	512.0	522.3	527.4	529.0
150°	440.0	456.2	470.1	483.5	494.7	503.8	506.9	507.7
152.5°	434.0	448.6	461.4	471.6	481.0	488.1	491.1	491.8
155°	425.3	437.1	447.3	455.4	462.8	468.0	470.1	470.9
157.5°	416.4	426.1	434.0	440.5	446.2	450.4	452.5	452.3
160°	410.5	417.8	425.3	430.4	435.5	439.2	440.7	440.0
162.5°	404.0	410.8	417.0	421.5	425.6	428.6	429.0	428.8
165°	395.0	400.2	404.6	408.3	411.2	412.7	412.7	412.7
167.5°	386.4	389.8	393.2	395.9	397.4	398.7	398.1	397.9
170°	381.7	384.0	386.2	387.7	389.1	389.8	389.8	389.1
172.5°	376.5	378.6	380.3	381.2	381.4	382.8	381.6	380.9
175°	370.7	370.7	372.2	372.2	372.2	372.9	371.5	370.7
177.5°	366.7	367.3	367.3	367.3	366.7	367.3	365.5	365.5
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5

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