

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: P333374-830

Luminaire Tested: **S125DIW-S610D470U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333374-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D470U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4123.0 lumens  
Efficiency: N/A  
Efficacy: 136.5 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

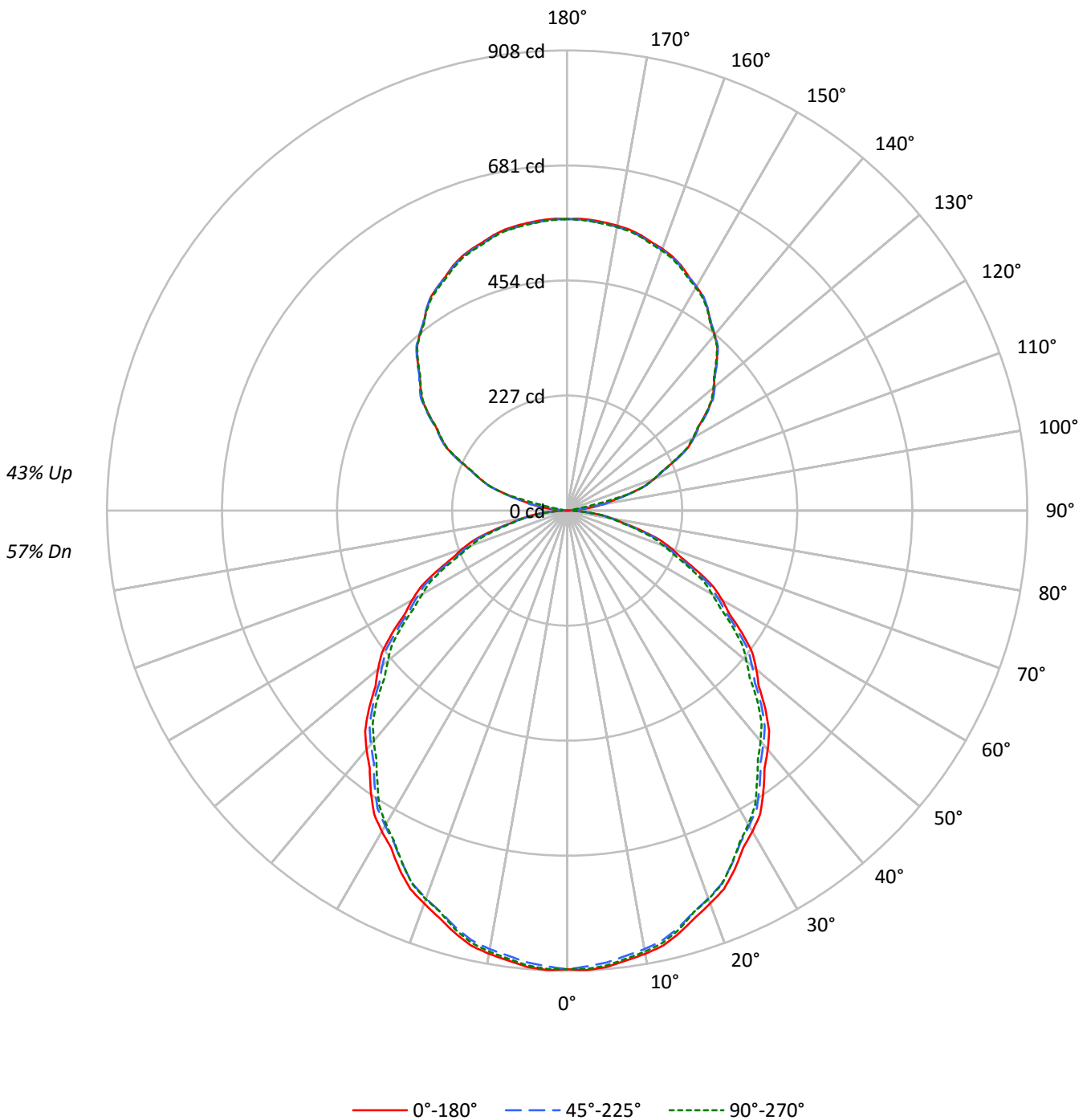
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	99	95	91	87	92	88	85	82	76	74	72	65	64	62	55	54	53	48
2	90	83	77	71	84	77	72	67	67	63	59	57	54	52	49	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	51	47	44	43	40	38	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	33	29
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	37	32	28	31	28	25	22
7	59	47	39	33	55	44	36	31	38	33	28	33	29	25	29	25	22	20
8	55	42	34	29	51	40	33	28	35	29	25	31	26	22	26	23	20	18
9	51	39	31	26	48	36	30	25	32	26	22	28	24	20	24	21	18	16
10	48	36	28	23	44	34	27	22	30	24	20	26	22	18	23	19	16	14

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

	0°	45°	90°
0°	5846	5846	5846
5°	5859	5803	5841
10°	5823	5762	5795
15°	5760	5693	5717
20°	5670	5597	5606
25°	5573	5481	5476
30°	5452	5357	5330
35°	5324	5222	5149
40°	5193	5078	5005
45°	5050	4945	4847
50°	4893	4786	4641
55°	4741	4604	4476
60°	4561	4421	4265
65°	4345	4202	4060
70°	4137	3950	3814
75°	3770	3646	3521
80°	3355	3303	3221
85°	2920	2971	2816



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	2.1
10°-20°	241.1	5.8
20°-30°	356.0	8.6
30°-40°	415.4	10.1
40°-50°	417.2	10.1
50°-60°	366.2	8.9
60°-70°	272.9	6.6
70°-80°	156.0	3.8
80°-90°	46.6	1.1
90°-100°	20.9	0.5
100°-110°	128.8	3.1
110°-120°	233.6	5.7
120°-130°	299.9	7.3
130°-140°	322.5	7.8
140°-150°	302.7	7.3
150°-160°	244.9	5.9
160°-170°	158.4	3.8
170°-180°	54.6	1.3
0°-30°	682.4	16.6
0°-40°	1097.8	26.6
0°-60°	1881.2	45.6
0°-90°	2356.6	57.2
90°-120°	383.4	9.3
90°-150°	1308.5	31.7
90°-180°	1766.0	42.8
0°-180°	4123.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	895	901	901	86
15°	862	859	852	855	855	243
25°	782	778	769	770	768	360
35°	675	672	662	659	653	422
45°	553	550	541	533	531	426
55°	421	418	409	403	398	376
65°	284	282	275	269	266	282
75°	151	150	146	144	141	161
85°	39	40	40	39	38	44
90°	0	4	7	9	10	3
95°	24	22	7	9	9	31
105°	125	127	127	127	127	133
115°	235	237	238	236	234	233
125°	335	338	338	336	335	299
135°	418	420	419	418	416	322
145°	484	485	485	485	483	303
155°	533	531	531	532	529	245
165°	562	560	560	563	559	159
175°	575	573	573	576	573	55
180°	575	575	575	575	575	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	907.5	907.1	906.7	906.3	906.0	905.1	903.9	902.6	901.4	900.0	901.4
5°	903.8	903.4	903.1	902.8	902.5	901.5	899.9	898.3	896.7	895.1	896.6
7.5°	895.4	895.1	894.8	894.5	894.2	893.2	891.4	889.7	887.9	886.2	887.5
10°	888.0	887.7	887.4	887.0	886.7	885.7	883.9	882.2	880.4	878.7	880.0
12.5°	878.8	878.3	877.7	877.1	876.6	875.4	873.8	872.2	870.5	868.9	870.0
15°	861.5	861.0	860.5	860.1	859.6	858.5	856.8	855.0	853.2	851.5	852.2
17.5°	841.6	840.9	840.2	839.5	838.8	837.5	835.8	833.9	832.1	830.3	831.2
20°	825.0	824.6	824.3	824.1	823.7	822.6	820.5	818.4	816.3	814.3	815.4
22.5°	808.3	807.8	807.2	806.6	806.1	804.8	802.9	801.0	799.0	797.0	797.8
25°	782.0	781.2	780.4	779.7	778.8	777.4	775.3	773.3	771.2	769.1	769.5
27.5°	751.2	750.7	750.3	749.8	749.3	748.0	745.8	743.8	741.6	739.5	739.5
30°	731.1	730.7	730.2	729.7	729.2	727.8	725.5	723.0	720.7	718.3	717.9
32.5°	709.4	708.7	707.9	707.2	706.4	705.0	702.9	700.8	698.6	696.5	696.0
35°	675.3	674.7	674.0	673.4	672.8	671.4	669.1	666.8	664.7	662.4	661.7
37.5°	639.9	639.1	638.4	637.5	636.8	635.3	633.2	631.1	629.0	626.9	625.8
40°	615.9	615.1	614.3	613.5	612.7	611.1	609.0	606.7	604.5	602.3	600.9
42.5°	590.1	589.5	588.7	588.1	587.4	586.0	583.7	581.5	579.3	577.0	575.8
45°	552.9	552.2	551.6	550.9	550.4	549.0	547.1	545.3	543.3	541.4	539.5
47.5°	512.7	512.7	512.8	512.8	512.8	511.7	509.4	507.2	504.9	502.6	500.7
50°	487.0	486.4	486.0	485.5	485.0	483.9	481.9	480.0	478.2	476.3	474.2
52.5°	460.6	460.2	460.0	459.6	459.2	458.0	456.0	453.9	451.9	449.9	448.1
55°	421.1	420.6	420.1	419.6	419.1	417.8	415.6	413.4	411.1	408.9	407.5
57.5°	379.4	379.2	378.9	378.6	378.4	377.3	375.4	373.5	371.6	369.9	368.0
60°	353.1	352.4	351.8	351.1	350.5	349.3	347.6	345.8	344.0	342.3	340.7
62.5°	325.6	325.1	324.5	324.0	323.5	322.5	321.0	319.5	318.0	316.5	314.8
65°	284.3	284.0	283.7	283.3	283.0	282.0	280.2	278.5	276.7	275.0	273.5
67.5°	244.3	243.6	243.0	242.3	241.7	240.7	239.4	238.1	236.8	235.4	234.2
70°	219.1	218.4	217.5	216.8	215.9	214.8	213.4	212.0	210.6	209.2	208.1
72.5°	191.6	191.1	190.6	190.0	189.5	188.7	187.8	186.9	186.0	185.0	184.0
75°	151.1	150.8	150.4	150.1	149.9	149.3	148.5	147.7	146.8	146.1	145.6
77.5°	113.8	113.6	113.5	113.3	113.2	112.9	112.4	112.1	111.6	111.1	110.8
80°	90.2	90.2	90.2	90.2	90.2	90.1	89.7	89.4	89.2	88.8	88.6
82.5°	69.7	69.4	69.1	68.8	68.6	68.4	68.3	68.3	68.2	68.1	67.9
85°	39.4	39.6	39.7	39.9	40.1	40.1	40.1	40.1	40.1	40.1	40.0
87.5°	15.6	15.7	15.8	16.0	16.1	16.2	16.2	16.2	16.2	16.3	16.4
90°	0.5	1.2	2.0	2.7	3.5	4.1	4.8	5.5	6.1	6.8	7.3
92.5°	6.6	6.0	5.5	5.0	4.4	4.4	5.1	5.7	6.2	6.8	7.3
95°	24.3	24.0	23.8	23.5	23.2	21.2	17.6	14.0	10.5	6.8	7.3
97.5°	50.7	51.3	51.7	52.3	52.8	49.5	42.3	35.3	28.1	21.0	18.3
100°	71.2	71.5	71.8	72.1	72.4	72.7	73.0	73.4	73.8	74.2	60.0
102.5°	92.0	92.4	92.7	93.1	93.5	93.8	94.0	94.2	94.4	94.6	92.0
105°	125.4	125.7	126.1	126.5	126.9	127.1	127.1	127.1	127.1	127.1	127.1
107.5°	159.9	159.9	159.9	159.9	159.9	160.0	160.2	160.4	160.6	160.8	160.9
110°	182.5	182.5	182.5	182.5	182.5	182.6	182.8	182.9	183.1	183.3	183.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.7	203.9	204.1	204.3	204.5	204.7	204.8	205.0	205.1	205.2	204.8
115°	235.4	235.8	236.3	236.8	237.2	237.5	237.6	237.7	237.8	237.9	237.5
117.5°	268.2	268.2	268.2	268.2	268.2	268.3	268.6	269.0	269.4	269.8	269.3
120°	288.7	288.6	288.5	288.4	288.3	288.4	288.7	289.0	289.3	289.5	289.4
122.5°	306.8	307.1	307.5	307.8	308.2	308.4	308.6	308.7	308.9	309.0	308.8
125°	334.7	335.4	336.0	336.7	337.3	337.7	337.7	337.7	337.7	337.7	337.3
127.5°	361.4	361.9	362.4	362.9	363.4	363.5	363.4	363.4	363.4	363.3	363.1
130°	377.8	378.2	378.7	379.2	379.7	379.9	380.0	380.1	380.2	380.3	380.0
132.5°	394.2	394.7	395.3	395.8	396.3	396.5	396.3	396.2	395.9	395.7	395.7
135°	417.5	418.0	418.6	419.1	419.7	419.9	419.7	419.5	419.3	419.1	419.0
137.5°	438.8	439.3	439.8	440.4	440.8	441.0	440.8	440.6	440.5	440.3	440.4
140°	452.8	453.0	453.2	453.4	453.6	453.6	453.6	453.5	453.4	453.3	453.5
142.5°	465.4	465.6	465.7	465.8	465.9	466.0	466.2	466.3	466.5	466.6	466.6
145°	484.0	484.2	484.4	484.6	484.7	484.8	484.8	484.8	484.8	484.8	484.9
147.5°	500.2	500.1	500.1	500.0	500.0	500.0	500.2	500.3	500.4	500.5	500.6
150°	510.4	510.2	510.0	509.8	509.6	509.6	509.8	510.0	510.2	510.4	510.6
152.5°	520.3	519.9	519.4	519.1	518.6	518.5	518.7	518.9	519.1	519.2	519.4
155°	533.0	532.4	531.9	531.3	530.7	530.6	530.7	530.9	531.1	531.3	531.6
157.5°	542.8	542.4	542.2	541.8	541.4	541.3	541.3	541.3	541.3	541.4	541.7
160°	549.6	549.0	548.5	547.9	547.3	547.1	547.2	547.3	547.4	547.5	547.9
162.5°	555.1	554.5	553.9	553.4	552.8	552.6	552.7	552.8	552.9	553.0	553.5
165°	562.4	561.8	561.3	560.7	560.2	559.9	560.0	560.1	560.2	560.2	560.8
167.5°	567.9	567.3	566.8	566.1	565.5	565.2	565.3	565.4	565.5	565.6	566.4
170°	571.0	570.3	569.6	568.9	568.3	568.0	568.1	568.2	568.3	568.4	569.1
172.5°	573.0	572.3	571.7	571.0	570.3	570.1	570.2	570.4	570.6	570.8	571.5
175°	575.2	574.7	574.1	573.5	573.0	572.7	572.8	572.9	573.0	573.1	573.8
177.5°	576.3	575.8	575.3	574.9	574.4	574.2	574.3	574.4	574.5	574.6	575.0
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	902.6	903.9	905.1	905.7	905.6	905.4	905.3	905.2
5°	898.1	899.5	900.9	901.5	901.4	901.3	901.1	900.9
7.5°	888.9	890.3	891.7	892.4	892.2	892.0	891.9	891.7
10°	881.3	882.5	883.8	884.4	884.2	884.0	883.8	883.7
12.5°	871.0	872.0	873.0	873.5	873.5	873.5	873.5	873.4
15°	853.1	853.8	854.7	855.1	855.1	855.1	855.1	855.1
17.5°	832.3	833.2	834.2	834.3	833.5	832.7	832.0	831.1
20°	816.4	817.6	818.7	818.9	818.0	817.3	816.4	815.7
22.5°	798.5	799.3	800.0	800.1	799.6	799.0	798.4	798.0
25°	769.8	770.1	770.4	770.3	769.9	769.4	768.9	768.5
27.5°	739.6	739.7	739.7	739.5	739.0	738.6	738.1	737.6
30°	717.7	717.4	717.0	716.6	716.1	715.7	715.2	714.7
32.5°	695.4	694.7	694.2	693.5	692.7	691.8	690.9	690.0
35°	660.8	660.1	659.2	658.2	657.0	655.6	654.4	653.1
37.5°	624.5	623.4	622.2	621.2	620.5	619.8	619.1	618.3
40°	599.4	597.9	596.5	595.6	595.1	594.7	594.2	593.7
42.5°	574.5	573.2	571.8	570.8	570.0	569.4	568.6	567.9
45°	537.5	535.6	533.8	532.5	532.1	531.6	531.1	530.7
47.5°	498.7	496.7	494.8	493.3	492.2	491.1	489.9	488.8
50°	472.1	470.0	468.0	466.4	465.2	464.1	463.0	461.9
52.5°	446.2	444.4	442.6	441.1	439.9	438.6	437.3	436.1
55°	406.0	404.6	403.2	401.9	400.8	399.6	398.6	397.5
57.5°	366.1	364.3	362.4	361.2	360.6	360.0	359.4	358.8
60°	339.1	337.5	335.9	334.6	333.5	332.3	331.2	330.2
62.5°	313.1	311.4	309.6	308.4	307.6	306.6	305.8	304.9
65°	272.1	270.7	269.3	268.2	267.6	266.9	266.4	265.7
67.5°	233.1	231.9	230.6	229.8	229.4	229.0	228.7	228.3
70°	207.2	206.2	205.3	204.5	203.9	203.2	202.6	202.0
72.5°	182.9	181.8	180.7	179.8	179.2	178.6	178.0	177.3
75°	145.2	144.7	144.2	143.6	143.0	142.3	141.8	141.1
77.5°	110.6	110.3	110.0	109.6	109.1	108.8	108.3	107.8
80°	88.5	88.3	88.1	87.9	87.6	87.3	87.0	86.6
82.5°	67.6	67.3	67.0	66.8	66.8	66.7	66.6	66.6
85°	39.8	39.6	39.5	39.2	38.9	38.5	38.3	38.0
87.5°	16.5	16.6	16.7	16.6	16.4	16.2	16.0	15.8
90°	7.7	8.2	8.7	9.1	9.4	9.7	10.0	10.3
92.5°	7.7	8.2	8.7	9.0	9.1	9.3	9.4	9.5
95°	7.7	8.2	8.7	9.0	9.0	9.0	9.0	9.0
97.5°	15.6	13.0	10.3	9.0	9.0	9.0	9.0	9.0
100°	46.0	31.9	17.7	10.5	10.1	9.7	9.3	9.0
102.5°	89.4	86.6	84.0	79.5	73.0	66.5	60.0	53.6
105°	127.1	127.1	127.1	127.1	127.0	126.9	126.8	126.7
107.5°	160.9	160.9	160.9	160.8	160.5	160.2	159.9	159.7
110°	182.8	182.5	182.2	182.1	182.2	182.3	182.4	182.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	204.4	204.1	203.8	203.5	203.4	203.2	203.1	202.9
115°	237.1	236.8	236.4	235.9	235.4	234.8	234.2	233.7
117.5°	268.7	268.2	267.8	267.4	267.1	266.9	266.6	266.5
120°	289.2	289.0	288.8	288.4	287.9	287.5	287.0	286.5
122.5°	308.6	308.4	308.2	307.8	307.3	306.7	306.2	305.7
125°	337.0	336.6	336.2	335.8	335.5	335.3	335.0	334.7
127.5°	362.9	362.7	362.5	362.0	361.3	360.6	359.9	359.2
130°	379.8	379.5	379.2	378.8	378.3	377.9	377.4	376.9
132.5°	395.6	395.5	395.5	395.2	394.7	394.3	393.8	393.3
135°	418.8	418.6	418.4	418.0	417.5	416.9	416.3	415.8
137.5°	440.4	440.5	440.5	440.3	439.7	439.2	438.8	438.3
140°	453.6	453.8	454.0	453.8	453.3	452.7	452.1	451.6
142.5°	466.7	466.7	466.7	466.5	465.9	465.3	464.8	464.2
145°	485.0	485.1	485.2	484.9	484.4	483.8	483.2	482.7
147.5°	500.8	500.9	501.0	500.7	500.0	499.4	498.6	497.9
150°	510.8	511.0	511.1	510.9	510.1	509.3	508.6	507.8
152.5°	519.6	519.8	520.0	519.8	519.1	518.4	517.7	517.1
155°	531.9	532.2	532.4	532.2	531.4	530.7	529.9	529.1
157.5°	542.0	542.2	542.5	542.3	541.6	540.8	540.1	539.3
160°	548.3	548.7	549.0	548.8	548.1	547.3	546.6	545.8
162.5°	554.0	554.6	555.1	555.0	554.1	553.3	552.4	551.6
165°	561.5	562.0	562.6	562.5	561.8	560.9	560.2	559.4
167.5°	567.0	567.7	568.4	568.4	567.4	566.6	565.7	564.9
170°	569.9	570.7	571.5	571.4	570.5	569.7	568.8	568.0
172.5°	572.1	572.8	573.5	573.4	572.6	571.7	570.9	570.0
175°	574.6	575.3	576.1	576.1	575.2	574.4	573.5	572.7
177.5°	575.6	576.1	576.6	576.6	576.0	575.4	574.8	574.2
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2

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