

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: P333166-930

Luminaire Tested: **S125DIP-S610D365U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333166-930  
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: S125DIP-S610D365U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3232.1 lumens  
Efficiency: N/A  
Efficacy: 117.5 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: Semi-Direct

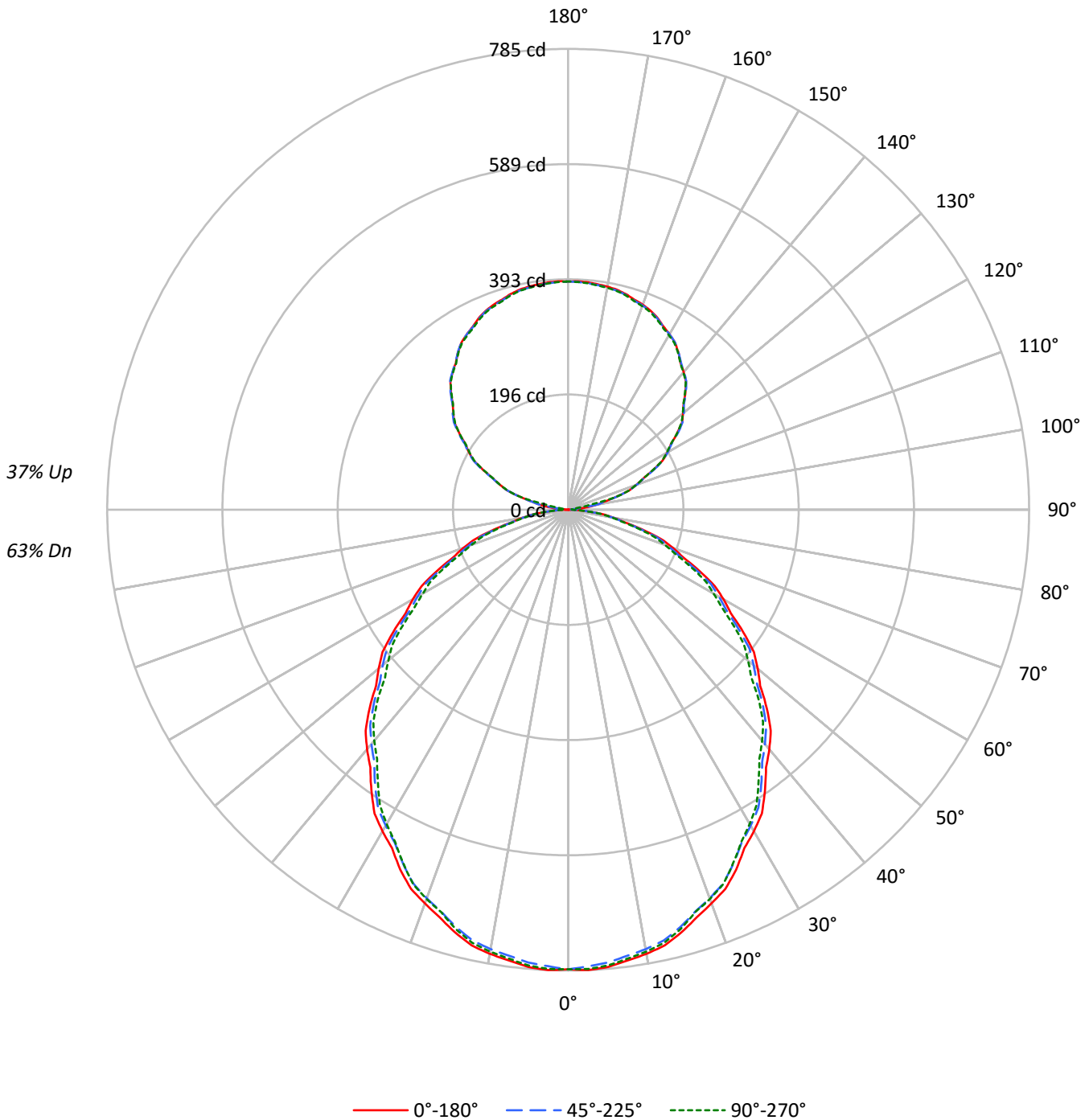
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	91	91	79	79	79	68	68	68	63
1	101	96	92	89	94	90	87	84	79	77	74	69	67	66	60	59	57	53
2	92	84	78	72	86	79	73	69	70	65	62	61	58	55	53	50	48	44
3	84	74	66	60	78	69	63	57	61	56	52	54	50	46	47	44	41	37
4	76	65	57	51	71	62	54	49	55	49	44	48	43	40	42	38	35	32
5	70	58	50	44	66	55	48	42	49	43	38	43	38	34	38	34	31	28
6	65	52	44	38	61	50	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22	19
9	52	39	32	27	49	37	30	26	34	28	24	30	25	22	27	23	20	17
10	49	36	29	24	46	34	28	23	31	25	21	28	23	20	25	21	18	16

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

	0°	45°	90°
0°	5057	5057	5057
5°	5068	5020	5052
10°	5037	4985	5013
15°	4983	4924	4945
20°	4904	4841	4849
25°	4821	4741	4737
30°	4716	4633	4610
35°	4606	4518	4454
40°	4491	4392	4330
45°	4369	4277	4192
50°	4233	4140	4015
55°	4102	3983	3871
60°	3945	3825	3689
65°	3758	3636	3512
70°	3580	3416	3299
75°	3261	3154	3047
80°	2901	2856	2786
85°	2527	2571	2438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.8	2.3
10°-20°	208.5	6.5
20°-30°	307.9	9.5
30°-40°	359.3	11.1
40°-50°	360.9	11.2
50°-60°	316.8	9.8
60°-70°	236.0	7.3
70°-80°	135.0	4.2
80°-90°	40.1	1.2
90°-100°	14.1	0.4
100°-110°	87.1	2.7
110°-120°	157.9	4.9
120°-130°	202.7	6.3
130°-140°	218.0	6.7
140°-150°	204.6	6.3
150°-160°	165.5	5.1
160°-170°	107.0	3.3
170°-180°	36.9	1.1
0°-30°	590.3	18.3
0°-40°	949.6	29.4
0°-60°	1627.2	50.3
0°-90°	2038.3	63.1
90°-120°	259.1	8.0
90°-150°	884.4	27.4
90°-180°	1194.0	36.9
0°-180°	3232.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	782	780	774	780	779	74
15°	745	743	736	739	740	210
25°	676	673	665	666	665	311
35°	584	581	573	570	565	365
45°	478	476	468	461	459	368
55°	364	362	354	348	344	325
65°	246	244	238	232	230	244
75°	131	129	126	124	122	139
85°	34	35	35	34	33	38
90°	0	3	5	6	7	3
95°	16	15	5	6	6	21
105°	85	86	86	86	86	90
115°	159	160	161	160	158	158
125°	226	228	228	227	226	202
135°	282	284	283	283	281	217
145°	327	328	328	328	326	204
155°	360	359	359	360	358	166
165°	380	379	379	380	378	107
175°	389	387	387	389	387	37
180°	389	389	389	389	389	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0
2.5°	785.0	784.6	784.3	784.0	783.7	782.9	781.9	780.7	779.7	778.5	779.7
5°	781.8	781.5	781.2	780.9	780.6	779.8	778.4	777.1	775.7	774.3	775.6
7.5°	774.5	774.3	774.0	773.7	773.5	772.6	771.0	769.6	768.0	766.5	767.7
10°	768.1	767.8	767.6	767.3	767.0	766.1	764.6	763.1	761.6	760.1	761.2
12.5°	760.2	759.7	759.2	758.7	758.2	757.2	755.9	754.5	753.0	751.6	752.5
15°	745.2	744.8	744.4	744.0	743.6	742.6	741.1	739.6	738.0	736.5	737.2
17.5°	728.0	727.4	726.8	726.2	725.5	724.5	722.9	721.3	719.7	718.2	719.0
20°	713.6	713.3	713.1	712.8	712.5	711.5	709.7	707.9	706.1	704.3	705.3
22.5°	699.2	698.7	698.2	697.7	697.2	696.2	694.5	692.8	691.1	689.4	690.1
25°	676.5	675.7	675.1	674.4	673.7	672.5	670.7	668.9	667.1	665.3	665.6
27.5°	649.8	649.4	649.0	648.6	648.2	647.0	645.1	643.4	641.5	639.7	639.7
30°	632.4	632.0	631.6	631.2	630.8	629.6	627.5	625.4	623.4	621.3	621.0
32.5°	613.6	613.0	612.4	611.7	611.1	609.8	608.1	606.2	604.3	602.5	602.0
35°	584.2	583.6	583.0	582.5	582.0	580.7	578.8	576.8	574.9	573.0	572.3
37.5°	553.5	552.9	552.2	551.5	550.8	549.5	547.7	545.9	544.0	542.3	541.3
40°	532.7	532.1	531.3	530.7	529.9	528.6	526.8	524.8	522.9	521.0	519.8
42.5°	510.5	509.9	509.2	508.7	508.1	506.9	504.9	503.0	501.1	499.1	498.1
45°	478.3	477.7	477.1	476.5	476.1	474.9	473.3	471.7	469.9	468.3	466.7
47.5°	443.5	443.5	443.6	443.6	443.6	442.6	440.7	438.7	436.8	434.7	433.1
50°	421.3	420.8	420.4	420.0	419.6	418.6	416.9	415.2	413.6	412.0	410.2
52.5°	398.4	398.1	397.9	397.5	397.2	396.2	394.4	392.6	390.9	389.1	387.6
55°	364.3	363.8	363.4	363.0	362.6	361.4	359.5	357.6	355.6	353.7	352.5
57.5°	328.2	328.0	327.8	327.5	327.3	326.4	324.7	323.1	321.5	319.9	318.3
60°	305.4	304.8	304.3	303.7	303.2	302.1	300.7	299.1	297.6	296.1	294.7
62.5°	281.6	281.2	280.7	280.3	279.8	279.0	277.7	276.4	275.1	273.8	272.3
65°	245.9	245.6	245.4	245.1	244.8	243.9	242.4	240.9	239.4	237.9	236.6
67.5°	211.3	210.8	210.2	209.6	209.0	208.2	207.1	205.9	204.8	203.7	202.6
70°	189.6	188.9	188.2	187.5	186.8	185.8	184.6	183.4	182.1	180.9	180.0
72.5°	165.8	165.3	164.9	164.4	163.9	163.2	162.5	161.7	160.9	160.0	159.1
75°	130.7	130.4	130.1	129.9	129.6	129.1	128.4	127.8	127.0	126.4	126.0
77.5°	98.4	98.2	98.2	98.0	97.9	97.7	97.3	96.9	96.5	96.1	95.9
80°	78.0	78.0	78.0	78.0	78.0	77.9	77.6	77.4	77.1	76.8	76.6
82.5°	60.3	60.0	59.8	59.5	59.4	59.2	59.1	59.1	59.0	58.9	58.7
85°	34.1	34.2	34.3	34.5	34.7	34.7	34.7	34.7	34.7	34.7	34.6
87.5°	13.5	13.5	13.6	13.8	13.9	13.9	13.9	13.9	13.9	13.8	13.9
90°	0.3	0.8	1.3	1.8	2.4	2.9	3.3	3.8	4.2	4.6	4.9
92.5°	4.4	4.1	3.8	3.3	3.0	3.0	3.4	3.8	4.2	4.6	4.9
95°	16.4	16.2	16.1	15.8	15.7	14.3	11.9	9.5	7.0	4.6	4.9
97.5°	34.3	34.7	35.0	35.3	35.7	33.4	28.6	23.8	19.0	14.2	12.4
100°	48.1	48.3	48.5	48.7	48.9	49.1	49.4	49.7	49.9	50.1	40.6
102.5°	62.2	62.5	62.7	62.9	63.2	63.3	63.5	63.7	63.8	64.0	62.2
105°	84.7	85.0	85.3	85.5	85.8	85.9	85.9	85.9	85.9	85.9	85.9
107.5°	108.1	108.1	108.1	108.1	108.1	108.2	108.4	108.4	108.6	108.7	108.7
110°	123.4	123.4	123.4	123.4	123.4	123.4	123.5	123.7	123.8	123.9	123.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	137.6	137.8	137.9	138.1	138.3	138.4	138.4	138.5	138.6	138.7	138.4
115°	159.1	159.4	159.7	160.0	160.4	160.5	160.6	160.7	160.8	160.8	160.5
117.5°	181.2	181.2	181.2	181.2	181.2	181.3	181.6	181.8	182.1	182.3	182.0
120°	195.1	195.0	195.0	194.9	194.9	194.9	195.1	195.3	195.5	195.7	195.6
122.5°	207.3	207.6	207.8	208.1	208.3	208.5	208.6	208.6	208.7	208.8	208.7
125°	226.2	226.7	227.1	227.6	228.0	228.3	228.3	228.3	228.3	228.3	228.0
127.5°	244.3	244.6	244.9	245.2	245.6	245.7	245.6	245.6	245.6	245.6	245.4
130°	255.4	255.7	256.0	256.3	256.7	256.8	256.9	256.9	257.0	257.1	256.9
132.5°	266.4	266.8	267.2	267.5	267.9	268.0	267.9	267.7	267.6	267.4	267.4
135°	282.2	282.5	282.9	283.3	283.6	283.8	283.6	283.6	283.4	283.3	283.2
137.5°	296.6	296.9	297.3	297.6	297.9	298.1	297.9	297.8	297.7	297.6	297.6
140°	306.1	306.2	306.3	306.5	306.6	306.6	306.6	306.5	306.4	306.4	306.5
142.5°	314.6	314.7	314.8	314.8	314.9	315.0	315.1	315.2	315.3	315.4	315.4
145°	327.1	327.3	327.3	327.5	327.6	327.7	327.7	327.7	327.7	327.7	327.8
147.5°	338.0	338.0	338.0	337.9	337.9	337.9	338.0	338.1	338.2	338.3	338.3
150°	345.0	344.9	344.7	344.5	344.5	344.5	344.5	344.7	344.9	345.0	345.1
152.5°	351.6	351.4	351.1	350.8	350.5	350.4	350.6	350.7	350.8	351.0	351.1
155°	360.3	359.9	359.5	359.1	358.7	358.6	358.7	358.8	359.0	359.1	359.3
157.5°	366.9	366.6	366.4	366.2	366.0	365.8	365.8	365.9	365.9	365.9	366.1
160°	371.5	371.1	370.7	370.3	370.0	369.8	369.8	369.9	370.0	370.1	370.3
162.5°	375.2	374.8	374.4	374.0	373.7	373.5	373.6	373.6	373.7	373.7	374.1
165°	380.1	379.8	379.4	379.0	378.6	378.5	378.5	378.5	378.6	378.7	379.0
167.5°	383.8	383.4	383.0	382.6	382.2	382.0	382.1	382.2	382.3	382.3	382.8
170°	385.9	385.5	385.0	384.6	384.1	383.9	384.0	384.0	384.1	384.2	384.7
172.5°	387.3	386.9	386.4	386.0	385.5	385.3	385.4	385.6	385.6	385.8	386.2
175°	388.7	388.4	388.0	387.6	387.3	387.1	387.1	387.2	387.3	387.3	387.8
177.5°	389.5	389.1	388.8	388.6	388.2	388.1	388.2	388.2	388.2	388.3	388.7
180°	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0
2.5°	780.7	781.9	782.9	783.4	783.3	783.2	783.1	783.0
5°	776.8	778.0	779.3	779.8	779.7	779.6	779.4	779.3
7.5°	768.9	770.1	771.4	771.9	771.8	771.6	771.5	771.4
10°	762.3	763.4	764.5	765.0	764.8	764.7	764.5	764.4
12.5°	753.4	754.3	755.1	755.6	755.5	755.5	755.5	755.5
15°	737.9	738.6	739.3	739.6	739.6	739.6	739.6	739.6
17.5°	719.9	720.7	721.6	721.7	721.0	720.3	719.7	718.9
20°	706.2	707.2	708.2	708.3	707.6	706.9	706.2	705.6
22.5°	690.7	691.4	692.0	692.1	691.6	691.1	690.6	690.2
25°	665.9	666.1	666.4	666.3	665.9	665.5	665.1	664.7
27.5°	639.8	639.8	639.8	639.7	639.3	638.9	638.5	638.1
30°	620.8	620.5	620.2	619.9	619.5	619.1	618.6	618.2
32.5°	601.5	601.0	600.5	599.9	599.2	598.4	597.6	596.9
35°	571.6	571.0	570.2	569.3	568.3	567.1	566.1	564.9
37.5°	540.2	539.2	538.2	537.4	536.7	536.1	535.5	534.8
40°	518.4	517.2	516.0	515.2	514.8	514.4	514.0	513.6
42.5°	496.9	495.8	494.6	493.7	493.1	492.5	491.9	491.2
45°	465.0	463.3	461.7	460.6	460.2	459.8	459.4	459.0
47.5°	431.4	429.7	428.0	426.7	425.7	424.8	423.8	422.8
50°	408.4	406.6	404.8	403.4	402.4	401.5	400.5	399.6
52.5°	386.0	384.4	382.9	381.6	380.5	379.4	378.3	377.2
55°	351.2	350.0	348.8	347.6	346.7	345.7	344.8	343.8
57.5°	316.7	315.1	313.5	312.4	311.9	311.4	310.9	310.4
60°	293.3	292.0	290.6	289.4	288.5	287.5	286.5	285.6
62.5°	270.8	269.4	267.8	266.8	266.0	265.2	264.5	263.7
65°	235.4	234.2	232.9	232.0	231.5	230.9	230.4	229.8
67.5°	201.6	200.6	199.5	198.8	198.4	198.1	197.8	197.5
70°	179.2	178.4	177.6	176.9	176.3	175.8	175.2	174.7
72.5°	158.2	157.3	156.3	155.6	155.0	154.5	153.9	153.4
75°	125.6	125.1	124.7	124.3	123.7	123.1	122.6	122.1
77.5°	95.6	95.4	95.1	94.8	94.4	94.1	93.7	93.3
80°	76.6	76.4	76.2	76.1	75.7	75.5	75.3	74.9
82.5°	58.5	58.2	58.0	57.8	57.8	57.7	57.6	57.6
85°	34.4	34.2	34.2	33.9	33.7	33.3	33.1	32.9
87.5°	13.9	14.0	14.0	14.0	13.9	13.6	13.5	13.3
90°	5.2	5.5	5.9	6.1	6.4	6.5	6.7	6.9
92.5°	5.2	5.5	5.9	6.1	6.2	6.3	6.4	6.4
95°	5.2	5.5	5.9	6.0	6.0	6.0	6.0	6.0
97.5°	10.6	8.7	6.9	6.0	6.0	6.0	6.0	6.0
100°	31.1	21.5	12.0	7.1	6.8	6.6	6.3	6.0
102.5°	60.3	58.5	56.7	53.6	49.3	45.0	40.6	36.3
105°	85.9	85.9	85.9	85.9	85.8	85.7	85.7	85.6
107.5°	108.8	108.8	108.8	108.7	108.5	108.3	108.1	107.9
110°	123.5	123.4	123.2	123.1	123.2	123.2	123.3	123.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	138.2	137.9	137.7	137.5	137.5	137.4	137.3	137.2
115°	160.3	160.0	159.8	159.5	159.1	158.7	158.3	157.9
117.5°	181.6	181.3	181.0	180.8	180.6	180.4	180.3	180.1
120°	195.4	195.3	195.2	194.9	194.6	194.3	194.0	193.6
122.5°	208.6	208.5	208.3	208.1	207.7	207.3	206.9	206.6
125°	227.7	227.5	227.2	227.0	226.8	226.7	226.4	226.2
127.5°	245.2	245.1	245.0	244.7	244.2	243.7	243.3	242.8
130°	256.7	256.5	256.3	256.0	255.8	255.4	255.1	254.8
132.5°	267.3	267.3	267.3	267.1	266.8	266.4	266.1	265.9
135°	283.1	282.9	282.7	282.5	282.2	281.8	281.4	281.0
137.5°	297.7	297.7	297.7	297.5	297.2	296.9	296.5	296.2
140°	306.6	306.7	306.9	306.7	306.4	306.0	305.6	305.2
142.5°	315.4	315.4	315.4	315.3	314.9	314.5	314.1	313.7
145°	327.8	327.8	327.9	327.8	327.4	327.0	326.6	326.2
147.5°	338.4	338.5	338.6	338.4	337.9	337.5	337.0	336.6
150°	345.2	345.4	345.4	345.3	344.8	344.3	343.7	343.2
152.5°	351.2	351.3	351.5	351.3	350.8	350.4	349.9	349.4
155°	359.5	359.6	359.9	359.7	359.2	358.7	358.2	357.7
157.5°	366.3	366.5	366.7	366.6	366.1	365.5	365.0	364.5
160°	370.6	370.8	371.0	371.0	370.4	369.9	369.4	368.9
162.5°	374.5	374.8	375.2	375.0	374.5	373.9	373.4	372.8
165°	379.4	379.8	380.3	380.2	379.7	379.1	378.6	378.1
167.5°	383.3	383.7	384.2	384.1	383.5	382.9	382.4	381.8
170°	385.1	385.7	386.2	386.2	385.6	385.1	384.4	383.8
172.5°	386.7	387.2	387.6	387.6	387.0	386.4	385.8	385.2
175°	388.3	388.9	389.4	389.4	388.7	388.2	387.6	387.0
177.5°	389.1	389.4	389.7	389.7	389.3	388.9	388.5	388.1
180°	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7

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