

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: P333344-930

Luminaire Tested: **S125DIW-S375D470U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333344-930  
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: S125DIW-S375D470U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 375 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: 2768.3 lumens  
Efficiency: N/A  
Efficacy: 120.4 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

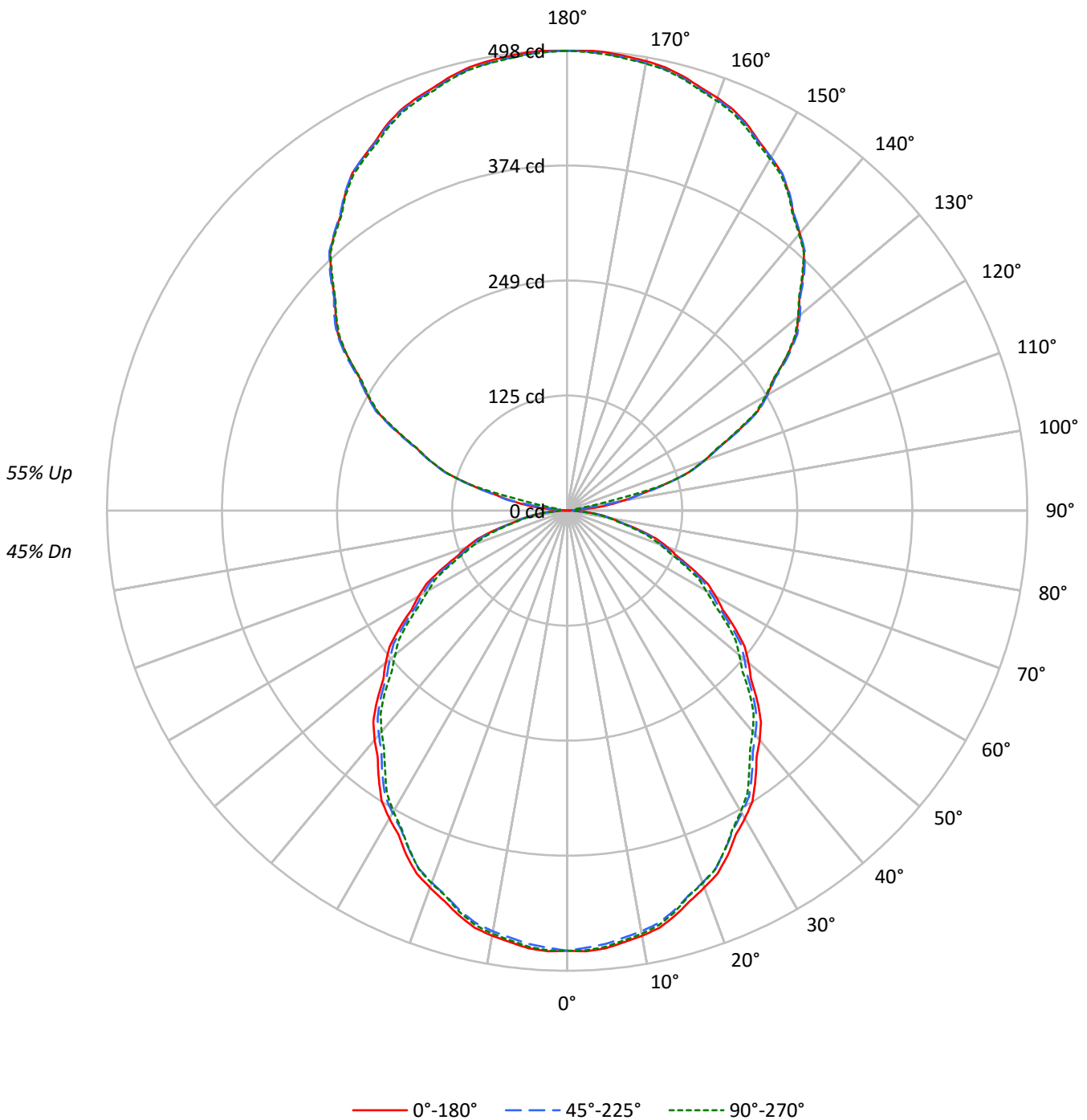
Input Watts (W): 23  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	38
2	88	80	74	69	80	74	69	64	62	58	54	50	48	45	40	38	36	31
3	80	71	63	58	73	65	59	54	54	50	46	44	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	31	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	19	22	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

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

	0°	45°	90°
0°	3076	3076	3076
5°	3083	3053	3073
10°	3064	3032	3049
15°	3031	2995	3008
20°	2983	2944	2950
25°	2932	2884	2881
30°	2869	2818	2804
35°	2801	2748	2709
40°	2732	2672	2633
45°	2657	2602	2550
50°	2574	2517	2442
55°	2494	2423	2354
60°	2399	2326	2244
65°	2286	2211	2136
70°	2177	2079	2005
75°	1984	1919	1852
80°	1767	1737	1696
85°	1534	1564	1482



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.9	1.6
10°-20°	126.9	4.6
20°-30°	187.3	6.8
30°-40°	218.5	7.9
40°-50°	219.5	7.9
50°-60°	192.7	7.0
60°-70°	143.6	5.2
70°-80°	82.1	3.0
80°-90°	24.9	0.9
90°-100°	18.1	0.7
100°-110°	111.4	4.0
110°-120°	202.1	7.3
120°-130°	259.4	9.4
130°-140°	279.0	10.1
140°-150°	261.9	9.5
150°-160°	211.8	7.7
160°-170°	137.0	4.9
170°-180°	47.3	1.7
0°-30°	359.1	13.0
0°-40°	577.6	20.9
0°-60°	989.8	35.8
0°-90°	1240.4	44.8
90°-120°	331.6	12.0
90°-150°	1131.8	40.9
90°-180°	1528.0	55.2
0°-180°	2768.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	476	475	471	474	474	45
15°	453	452	448	450	450	128
25°	412	409	405	405	404	189
35°	355	354	348	347	344	222
45°	291	289	285	281	279	224
55°	222	220	215	212	209	198
65°	150	149	145	141	140	148
75°	80	79	77	76	74	85
85°	21	21	21	21	20	23
90°	0	3	6	8	9	2
95°	21	19	6	8	8	27
105°	108	110	110	110	110	115
115°	204	205	206	204	202	202
125°	290	292	292	291	290	259
135°	361	363	363	362	360	278
145°	419	419	419	420	418	262
155°	461	459	460	460	458	212
165°	486	484	485	487	484	137
175°	498	496	496	498	495	47
180°	498	498	498	498	498	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3
2.5°	477.4	477.3	477.1	476.9	476.7	476.2	475.6	474.9	474.3	473.5	474.3
5°	475.5	475.3	475.2	475.0	474.8	474.3	473.5	472.7	471.8	471.0	471.7
7.5°	471.2	471.0	470.8	470.7	470.5	469.9	469.0	468.1	467.2	466.3	467.0
10°	467.2	467.1	466.9	466.8	466.6	466.0	465.1	464.1	463.3	462.4	463.0
12.5°	462.4	462.1	461.8	461.5	461.2	460.6	459.7	458.9	458.0	457.2	457.7
15°	453.3	453.1	452.8	452.6	452.2	451.7	450.8	449.9	448.9	448.0	448.4
17.5°	442.8	442.5	442.1	441.7	441.3	440.7	439.7	438.8	437.8	436.8	437.4
20°	434.1	433.9	433.7	433.6	433.4	432.8	431.7	430.6	429.5	428.4	429.0
22.5°	425.3	425.0	424.7	424.4	424.1	423.5	422.4	421.4	420.4	419.4	419.8
25°	411.5	411.1	410.6	410.2	409.8	409.0	408.0	406.8	405.8	404.7	404.9
27.5°	395.3	395.0	394.8	394.5	394.3	393.5	392.5	391.3	390.2	389.1	389.1
30°	384.7	384.5	384.2	383.9	383.7	382.9	381.7	380.4	379.2	377.9	377.7
32.5°	373.2	372.8	372.5	372.1	371.7	371.0	369.8	368.7	367.6	366.5	366.2
35°	355.3	355.0	354.7	354.3	354.0	353.2	352.0	350.9	349.7	348.5	348.1
37.5°	336.7	336.3	335.9	335.4	335.0	334.3	333.1	332.1	330.9	329.9	329.2
40°	324.1	323.6	323.2	322.8	322.4	321.6	320.4	319.3	318.0	316.9	316.2
42.5°	310.5	310.1	309.8	309.4	309.1	308.3	307.1	306.0	304.8	303.6	303.0
45°	290.9	290.6	290.2	289.9	289.5	288.9	287.9	286.9	285.8	284.9	283.9
47.5°	269.8	269.8	269.8	269.9	269.9	269.3	268.1	266.8	265.6	264.4	263.4
50°	256.2	256.0	255.8	255.4	255.2	254.6	253.6	252.6	251.6	250.5	249.5
52.5°	242.4	242.1	242.0	241.8	241.7	241.0	239.9	238.9	237.7	236.7	235.8
55°	221.5	221.3	221.0	220.8	220.5	219.8	218.7	217.5	216.3	215.2	214.4
57.5°	199.7	199.5	199.3	199.3	199.1	198.5	197.5	196.6	195.6	194.6	193.6
60°	185.7	185.4	185.1	184.7	184.4	183.8	182.9	182.0	181.0	180.1	179.3
62.5°	171.3	171.0	170.7	170.5	170.2	169.7	168.9	168.1	167.3	166.6	165.7
65°	149.6	149.4	149.3	149.1	149.0	148.4	147.5	146.5	145.6	144.7	143.9
67.5°	128.6	128.2	127.8	127.5	127.2	126.6	126.0	125.2	124.6	123.9	123.3
70°	115.3	114.9	114.5	114.1	113.7	113.0	112.3	111.5	110.8	110.1	109.5
72.5°	100.9	100.5	100.3	100.0	99.7	99.3	98.8	98.3	97.8	97.3	96.8
75°	79.5	79.3	79.2	79.0	78.8	78.5	78.1	77.7	77.3	76.9	76.6
77.5°	59.8	59.8	59.7	59.6	59.6	59.4	59.2	58.9	58.7	58.5	58.3
80°	47.5	47.5	47.5	47.5	47.5	47.4	47.2	47.0	46.9	46.7	46.6
82.5°	36.6	36.5	36.4	36.2	36.1	36.0	36.0	36.0	35.9	35.9	35.7
85°	20.7	20.8	20.9	21.0	21.0	21.1	21.1	21.1	21.1	21.1	21.0
87.5°	8.2	8.3	8.5	8.6	8.7	8.8	8.9	8.9	9.0	9.0	9.1
90°	0.4	1.1	1.7	2.4	3.0	3.6	4.2	4.7	5.3	5.9	6.3
92.5°	5.7	5.2	4.7	4.3	3.8	3.8	4.4	4.9	5.4	5.9	6.3
95°	21.0	20.8	20.5	20.3	20.1	18.3	15.2	12.1	9.0	5.9	6.3
97.5°	43.9	44.4	44.8	45.2	45.7	42.8	36.6	30.5	24.3	18.2	15.8
100°	61.6	61.9	62.1	62.4	62.6	62.9	63.2	63.5	63.8	64.2	51.9
102.5°	79.6	79.9	80.2	80.6	80.9	81.1	81.3	81.4	81.7	81.9	79.6
105°	108.4	108.8	109.1	109.4	109.7	109.9	109.9	109.9	109.9	109.9	109.9
107.5°	138.4	138.4	138.4	138.4	138.4	138.4	138.6	138.8	138.9	139.1	139.2
110°	157.8	157.8	157.8	157.8	157.8	157.9	158.1	158.2	158.4	158.6	158.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.2	176.3	176.5	176.8	176.9	177.1	177.2	177.3	177.4	177.5	177.2
115°	203.6	204.0	204.4	204.8	205.2	205.5	205.5	205.6	205.7	205.8	205.5
117.5°	232.0	232.0	232.0	232.0	232.0	232.1	232.4	232.7	233.0	233.3	232.9
120°	249.7	249.6	249.6	249.5	249.4	249.5	249.7	250.0	250.2	250.5	250.3
122.5°	265.4	265.6	266.0	266.3	266.6	266.8	266.9	267.0	267.2	267.3	267.1
125°	289.5	290.1	290.7	291.2	291.8	292.1	292.1	292.1	292.1	292.1	291.8
127.5°	312.6	313.1	313.5	313.9	314.3	314.5	314.4	314.4	314.3	314.2	314.1
130°	326.8	327.2	327.6	328.0	328.4	328.6	328.7	328.8	328.9	329.0	328.7
132.5°	341.0	341.4	341.9	342.3	342.8	343.0	342.8	342.7	342.4	342.3	342.3
135°	361.1	361.6	362.1	362.6	363.1	363.2	363.1	362.9	362.7	362.6	362.4
137.5°	379.6	380.0	380.4	380.9	381.3	381.5	381.3	381.2	381.0	380.8	380.9
140°	391.7	391.8	392.0	392.2	392.3	392.4	392.3	392.2	392.2	392.1	392.2
142.5°	402.6	402.8	402.8	402.9	403.0	403.1	403.2	403.3	403.5	403.6	403.6
145°	418.7	418.8	419.0	419.1	419.3	419.4	419.4	419.4	419.4	419.4	419.5
147.5°	432.7	432.6	432.6	432.5	432.5	432.5	432.7	432.8	432.8	432.9	433.0
150°	441.5	441.3	441.2	441.0	440.8	440.8	441.0	441.2	441.3	441.5	441.6
152.5°	450.0	449.7	449.3	449.0	448.6	448.5	448.7	448.8	449.0	449.1	449.3
155°	461.1	460.6	460.1	459.6	459.1	458.9	459.1	459.3	459.4	459.6	459.8
157.5°	469.5	469.2	469.0	468.6	468.3	468.2	468.2	468.2	468.2	468.3	468.6
160°	475.4	474.9	474.4	473.9	473.4	473.3	473.4	473.4	473.5	473.6	473.9
162.5°	480.1	479.6	479.2	478.7	478.2	478.0	478.1	478.2	478.3	478.3	478.7
165°	486.5	486.0	485.5	485.0	484.5	484.3	484.4	484.5	484.5	484.6	485.1
167.5°	491.2	490.7	490.2	489.7	489.2	488.9	489.0	489.1	489.2	489.3	489.9
170°	493.9	493.3	492.7	492.1	491.5	491.3	491.4	491.5	491.5	491.6	492.3
172.5°	495.6	495.0	494.5	493.9	493.3	493.2	493.3	493.4	493.6	493.7	494.3
175°	497.6	497.1	496.6	496.1	495.6	495.4	495.5	495.5	495.6	495.7	496.4
177.5°	498.5	498.1	497.7	497.3	496.8	496.7	496.8	496.8	496.9	497.0	497.4
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3
2.5°	474.9	475.6	476.2	476.5	476.5	476.4	476.4	476.3
5°	472.5	473.3	474.0	474.3	474.3	474.2	474.1	474.0
7.5°	467.7	468.5	469.2	469.5	469.4	469.4	469.3	469.2
10°	463.7	464.3	465.0	465.3	465.2	465.1	465.0	465.0
12.5°	458.3	458.9	459.3	459.6	459.6	459.6	459.6	459.5
15°	448.8	449.2	449.7	449.9	449.9	449.9	449.9	449.9
17.5°	437.9	438.4	439.0	439.0	438.5	438.1	437.7	437.3
20°	429.6	430.2	430.7	430.9	430.4	430.0	429.6	429.2
22.5°	420.1	420.5	420.9	420.9	420.7	420.4	420.1	419.8
25°	405.0	405.2	405.4	405.3	405.0	404.8	404.6	404.3
27.5°	389.1	389.1	389.2	389.1	388.8	388.6	388.3	388.1
30°	377.6	377.4	377.2	377.1	376.8	376.6	376.3	376.0
32.5°	365.9	365.6	365.3	364.9	364.4	363.9	363.5	363.1
35°	347.7	347.3	346.8	346.3	345.7	345.0	344.3	343.6
37.5°	328.6	328.0	327.3	326.9	326.4	326.1	325.7	325.3
40°	315.4	314.6	313.9	313.4	313.2	312.8	312.6	312.3
42.5°	302.2	301.6	300.8	300.4	299.9	299.5	299.2	298.8
45°	282.8	281.8	280.9	280.2	280.0	279.7	279.5	279.2
47.5°	262.4	261.4	260.3	259.5	258.9	258.4	257.8	257.2
50°	248.4	247.3	246.2	245.4	244.8	244.2	243.6	243.0
52.5°	234.8	233.8	232.8	232.1	231.5	230.8	230.2	229.5
55°	213.6	212.9	212.1	211.5	210.9	210.3	209.7	209.1
57.5°	192.7	191.7	190.7	190.0	189.7	189.4	189.1	188.7
60°	178.5	177.6	176.8	176.0	175.5	174.9	174.3	173.7
62.5°	164.8	163.8	162.9	162.2	161.8	161.3	160.9	160.5
65°	143.2	142.4	141.7	141.1	140.8	140.5	140.1	139.8
67.5°	122.6	122.0	121.3	120.9	120.7	120.5	120.3	120.1
70°	109.0	108.5	108.0	107.6	107.3	107.0	106.6	106.2
72.5°	96.2	95.6	95.1	94.7	94.3	94.0	93.6	93.3
75°	76.4	76.1	75.8	75.6	75.3	74.9	74.6	74.2
77.5°	58.2	58.0	57.9	57.7	57.5	57.2	57.0	56.7
80°	46.6	46.5	46.4	46.2	46.1	45.9	45.7	45.6
82.5°	35.5	35.4	35.3	35.1	35.1	35.1	35.1	35.1
85°	21.0	20.9	20.8	20.6	20.5	20.3	20.1	20.0
87.5°	9.2	9.3	9.4	9.4	9.3	9.2	9.0	9.0
90°	6.7	7.1	7.5	7.9	8.2	8.4	8.6	8.9
92.5°	6.7	7.1	7.5	7.8	7.9	8.1	8.2	8.2
95°	6.7	7.1	7.5	7.7	7.7	7.7	7.7	7.7
97.5°	13.5	11.3	8.9	7.7	7.7	7.7	7.7	7.7
100°	39.8	27.6	15.3	9.0	8.7	8.4	8.1	7.7
102.5°	77.3	74.9	72.6	68.7	63.1	57.6	51.9	46.4
105°	109.9	109.9	109.9	109.9	109.8	109.7	109.7	109.6
107.5°	139.2	139.2	139.2	139.1	138.8	138.6	138.4	138.1
110°	158.1	157.8	157.6	157.5	157.6	157.7	157.8	157.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	176.8	176.5	176.3	176.0	175.9	175.8	175.7	175.5
115°	205.1	204.8	204.5	204.1	203.6	203.1	202.6	202.1
117.5°	232.4	232.0	231.6	231.3	231.1	230.9	230.6	230.5
120°	250.1	250.0	249.8	249.5	249.1	248.7	248.3	247.9
122.5°	266.9	266.8	266.6	266.3	265.8	265.3	264.9	264.4
125°	291.5	291.1	290.8	290.5	290.2	290.0	289.8	289.5
127.5°	313.9	313.7	313.6	313.2	312.5	311.9	311.3	310.7
130°	328.5	328.2	328.0	327.7	327.3	326.9	326.4	326.0
132.5°	342.2	342.1	342.1	341.9	341.4	341.0	340.6	340.2
135°	362.2	362.1	361.9	361.6	361.1	360.6	360.1	359.6
137.5°	380.9	381.0	381.0	380.8	380.3	379.9	379.5	379.1
140°	392.4	392.6	392.7	392.6	392.1	391.6	391.1	390.6
142.5°	403.7	403.7	403.7	403.5	403.0	402.5	402.0	401.5
145°	419.6	419.6	419.7	419.5	419.0	418.5	418.0	417.5
147.5°	433.2	433.3	433.3	433.1	432.5	431.9	431.3	430.7
150°	441.8	442.0	442.1	441.9	441.2	440.6	439.9	439.3
152.5°	449.5	449.6	449.8	449.6	449.0	448.4	447.8	447.3
155°	460.1	460.3	460.6	460.3	459.7	459.0	458.4	457.7
157.5°	468.8	469.0	469.3	469.1	468.5	467.8	467.2	466.5
160°	474.3	474.6	474.9	474.7	474.1	473.4	472.8	472.1
162.5°	479.2	479.7	480.1	480.0	479.3	478.6	477.8	477.1
165°	485.7	486.2	486.7	486.6	485.9	485.2	484.5	483.9
167.5°	490.5	491.1	491.6	491.6	490.8	490.1	489.3	488.6
170°	492.9	493.7	494.3	494.2	493.5	492.8	492.0	491.3
172.5°	494.9	495.5	496.1	496.0	495.3	494.6	493.8	493.1
175°	497.0	497.7	498.3	498.3	497.6	496.8	496.1	495.4
177.5°	497.9	498.3	498.8	498.8	498.2	497.7	497.2	496.7
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6

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