

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: P331792-927

Luminaire Tested: **S122RDIW-S485D710U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331792-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDIW-S485D710U927-4F0-1E-UDD-F1  
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 710 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3295.1 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

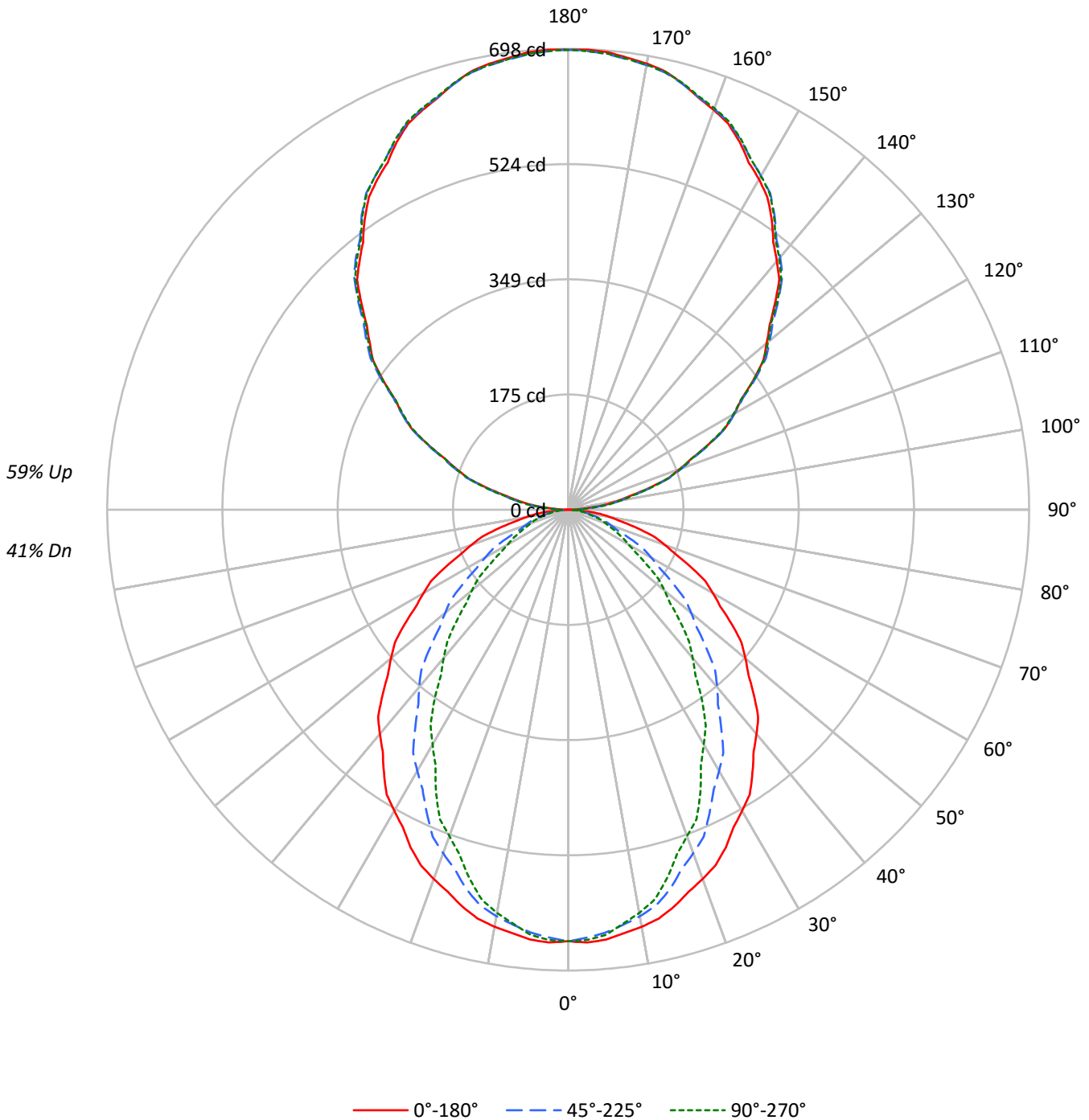
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	78	78	78	62	62	62	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	53	43	42	41	35
2	88	81	75	70	80	74	69	65	61	57	54	49	47	45	38	37	35	30
3	80	71	64	59	73	65	59	54	54	50	46	44	41	38	34	32	30	26
4	74	63	56	50	67	58	52	46	48	43	40	39	36	33	31	28	26	23
5	68	57	49	43	62	52	45	40	43	38	34	35	32	29	28	25	23	20
6	62	51	43	37	57	47	40	35	39	34	30	32	28	25	25	23	21	18
7	58	46	38	33	53	42	36	31	36	30	27	29	25	23	23	21	19	16
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	21	19	17	14
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13
10	47	35	28	23	43	32	26	22	28	23	19	23	19	17	18	16	14	12

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

	0°	45°	90°
0°	10555	10555	10555
5°	10595	10423	10481
10°	10516	10252	10165
15°	10394	9949	9663
20°	10227	9514	9036
25°	10055	9021	8432
30°	9818	8516	7655
35°	9585	7965	6974
40°	9352	7396	6184
45°	9079	6754	5471
50°	8796	6106	4770
55°	8510	5413	4096
60°	8176	4682	3400
65°	7798	3931	3095
70°	7345	3238	2851
75°	6787	2951	2658
80°	5997	2641	2427
85°	4705	2075	2075



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	1.9
10°-20°	168.0	5.1
20°-30°	235.9	7.2
30°-40°	257.3	7.8
40°-50°	236.6	7.2
50°-60°	185.8	5.6
60°-70°	121.1	3.7
70°-80°	62.5	1.9
80°-90°	19.0	0.6
90°-100°	44.1	1.3
100°-110°	137.1	4.2
110°-120°	234.3	7.1
120°-130°	308.1	9.4
130°-140°	345.9	10.5
140°-150°	339.1	10.3
150°-160°	284.5	8.6
160°-170°	188.7	5.7
170°-180°	65.9	2.0
0°-30°	465.2	14.1
0°-40°	722.4	21.9
0°-60°	1144.8	34.7
0°-90°	1347.4	40.9
90°-120°	415.5	12.6
90°-150°	1408.7	42.8
90°-180°	1948.0	59.1
0°-180°	3295.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	650	643	648	647	62
15°	622	615	595	584	578	175
25°	564	544	506	483	473	259
35°	486	455	404	368	354	304
45°	398	357	296	255	240	307
55°	302	255	192	158	146	270
65°	204	156	103	84	81	202
75°	109	69	47	43	43	115
85°	25	14	11	11	11	30
90°	1	8	21	20	20	3
95°	31	36	38	38	36	35
105°	126	128	129	130	130	133
115°	235	238	238	237	235	233
125°	342	347	346	344	343	306
135°	443	449	450	450	448	342
145°	537	541	545	545	543	336
155°	614	616	618	620	619	283
165°	668	668	668	672	669	188
175°	695	694	692	696	693	66
180°	697	697	697	697	697	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	656.1	655.6	655.1	654.5	654.0	653.2	652.0	650.9	649.7	648.6	649.6
5°	653.7	653.1	652.4	651.8	651.1	649.9	648.2	646.5	644.8	643.1	644.3
7.5°	647.0	646.2	645.4	644.5	643.7	642.3	640.3	638.3	636.4	634.4	634.7
10°	641.4	640.4	639.4	638.6	637.6	635.9	633.3	630.6	628.0	625.3	625.0
12.5°	634.2	633.1	631.9	630.8	629.7	627.5	624.1	620.8	617.3	614.0	613.3
15°	621.8	620.4	618.9	617.4	616.0	613.1	608.6	604.1	599.7	595.2	592.7
17.5°	606.6	604.4	602.1	599.9	597.7	593.7	588.0	582.3	576.6	570.8	567.8
20°	595.2	592.6	589.9	587.3	584.6	580.0	573.5	566.9	560.3	553.7	550.5
22.5°	582.9	580.0	576.9	574.0	571.1	565.9	558.5	551.0	543.7	536.2	532.0
25°	564.4	560.2	556.0	551.8	547.6	541.1	532.4	523.8	515.1	506.4	501.1
27.5°	542.2	537.6	533.0	528.5	523.9	516.7	506.9	497.1	487.4	477.5	471.3
30°	526.6	521.6	516.6	511.6	506.6	498.8	488.3	477.8	467.2	456.8	450.0
32.5°	511.4	505.6	499.7	493.9	488.1	479.7	469.1	458.3	447.6	436.9	429.2
35°	486.3	479.6	472.9	466.2	459.5	450.4	438.8	427.2	415.7	404.1	395.8
37.5°	461.2	453.8	446.5	439.1	431.8	421.9	409.6	397.3	384.9	372.6	363.5
40°	443.7	435.9	427.9	420.1	412.2	401.9	389.1	376.4	363.6	350.9	341.5
42.5°	425.7	417.4	409.1	400.8	392.5	381.8	368.6	355.4	342.2	329.1	319.4
45°	397.6	388.8	379.9	371.1	362.3	351.0	337.2	323.4	309.6	295.8	286.5
47.5°	370.1	360.8	351.5	342.1	332.8	321.0	306.7	292.5	278.2	264.0	254.7
50°	350.2	340.9	331.6	322.3	312.9	301.0	286.5	272.1	257.6	243.1	234.1
52.5°	330.8	321.1	311.3	301.6	291.8	279.9	265.7	251.6	237.4	223.3	214.5
55°	302.3	292.1	281.8	271.6	261.3	249.1	234.9	220.7	206.4	192.3	184.4
57.5°	273.1	262.6	252.1	241.5	231.0	219.0	205.3	191.6	178.0	164.4	157.1
60°	253.2	242.7	232.2	221.7	211.1	199.2	185.6	172.1	158.5	145.0	138.2
62.5°	233.8	223.3	212.8	202.2	191.7	180.1	167.2	154.2	141.3	128.4	122.0
65°	204.1	193.5	182.8	172.1	161.5	150.3	138.5	126.6	114.8	102.9	98.5
67.5°	175.5	164.9	154.3	143.8	133.2	122.6	111.9	101.3	90.6	80.0	78.0
70°	155.6	145.4	135.1	124.8	114.5	104.9	95.9	86.7	77.7	68.6	67.3
72.5°	136.7	126.8	117.0	107.2	97.4	88.8	81.5	74.2	66.9	59.7	58.5
75°	108.8	99.7	90.5	81.3	72.0	65.2	60.8	56.2	51.8	47.3	46.4
77.5°	81.5	73.4	65.4	57.3	49.3	44.1	42.0	39.8	37.6	35.5	34.9
80°	64.5	57.8	51.1	44.4	37.6	33.7	32.3	31.1	29.7	28.4	27.9
82.5°	48.9	43.6	38.4	33.2	28.0	24.9	24.0	23.1	22.2	21.3	21.0
85°	25.4	22.7	19.9	17.2	14.4	12.8	12.4	12.0	11.6	11.2	11.2
87.5°	7.7	7.1	6.7	6.1	5.5	5.6	6.2	6.7	7.3	7.9	7.8
90°	0.6	2.1	3.7	5.3	6.9	9.1	12.0	14.8	17.7	20.6	20.3
92.5°	10.5	11.6	12.8	13.9	15.1	16.0	16.6	17.3	18.0	18.7	18.8
95°	30.6	31.8	33.2	34.5	35.8	36.6	36.8	37.1	37.4	37.6	37.6
97.5°	55.8	57.0	58.1	59.3	60.4	61.2	61.8	62.3	62.7	63.2	63.2
100°	74.6	75.7	76.8	77.8	78.8	79.5	79.9	80.3	80.7	81.1	81.1
102.5°	94.4	95.2	96.1	96.9	97.8	98.4	98.9	99.4	99.9	100.4	100.5
105°	126.4	126.7	127.1	127.5	127.9	128.3	128.6	128.8	129.0	129.4	129.6
107.5°	158.6	159.1	159.8	160.3	160.9	161.2	161.2	161.2	161.2	161.2	161.3
110°	179.3	180.1	180.9	181.6	182.4	182.8	182.8	182.8	182.8	182.8	182.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	201.8	202.6	203.4	204.2	205.0	205.3	205.3	205.1	205.0	204.9	204.6
115°	235.1	235.9	236.7	237.5	238.3	238.5	238.3	238.0	237.7	237.5	237.3
117.5°	268.3	269.3	270.4	271.4	272.4	272.6	271.9	271.2	270.5	269.7	269.4
120°	290.4	291.4	292.5	293.5	294.5	294.5	293.5	292.5	291.4	290.4	290.4
122.5°	310.6	311.9	313.1	314.3	315.6	315.9	315.1	314.4	313.7	313.0	312.7
125°	342.1	343.3	344.4	345.6	346.8	347.2	346.8	346.4	346.0	345.6	345.2
127.5°	372.8	374.3	375.8	377.2	378.7	379.3	378.8	378.3	377.9	377.4	376.9
130°	392.1	393.8	395.5	397.2	398.9	399.6	399.3	399.1	398.8	398.5	398.3
132.5°	413.8	415.1	416.5	417.9	419.2	420.0	420.0	420.1	420.2	420.2	419.6
135°	442.7	444.1	445.5	446.9	448.4	449.2	449.5	449.8	450.0	450.3	450.1
137.5°	473.1	474.3	475.5	476.7	477.8	478.6	478.9	479.3	479.6	479.9	479.8
140°	491.5	492.6	493.8	495.0	496.1	497.0	497.7	498.4	499.0	499.6	499.6
142.5°	510.2	511.4	512.6	513.8	514.9	515.8	516.2	516.7	517.1	517.5	517.6
145°	537.3	538.2	539.1	540.0	541.0	541.8	542.6	543.4	544.2	544.9	545.0
147.5°	561.4	562.4	563.6	564.7	565.8	566.6	567.1	567.6	568.2	568.7	568.9
150°	577.8	578.6	579.4	580.2	581.0	581.6	582.2	582.7	583.2	583.8	584.2
152.5°	592.4	593.2	594.0	594.8	595.6	596.3	596.9	597.5	598.2	598.8	599.3
155°	614.3	614.7	615.1	615.4	615.8	616.2	616.6	617.0	617.4	617.8	618.5
157.5°	633.0	633.3	633.5	633.7	634.1	634.3	634.5	634.8	635.0	635.3	636.1
160°	644.3	644.5	644.8	645.1	645.3	645.5	645.6	645.8	645.9	646.0	646.8
162.5°	654.6	654.7	654.7	654.7	654.8	654.9	655.1	655.2	655.3	655.5	656.3
165°	668.4	668.2	668.1	668.0	667.9	667.8	667.8	667.8	667.8	667.8	668.7
167.5°	679.9	679.5	679.1	678.7	678.3	678.1	678.1	678.0	678.0	678.0	678.9
170°	686.0	685.6	685.2	684.8	684.4	684.2	684.0	683.9	683.8	683.7	684.6
172.5°	690.2	689.8	689.4	689.0	688.6	688.4	688.2	688.2	688.0	687.9	688.8
175°	695.4	695.1	694.7	694.3	693.9	693.6	693.2	693.0	692.8	692.4	693.4
177.5°	697.5	697.2	696.9	696.6	696.2	696.0	695.8	695.6	695.4	695.1	695.8
180°	696.6	696.6	696.6	696.6	696.6	696.6	696.6	696.6	696.6	696.6	696.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	650.6	651.7	652.8	653.2	653.0	652.8	652.5	652.4
5°	645.5	646.7	647.8	648.2	647.8	647.5	647.1	646.7
7.5°	635.0	635.3	635.7	635.6	634.9	634.1	633.5	632.8
10°	624.6	624.2	623.8	623.2	622.4	621.6	620.8	620.0
12.5°	612.6	611.9	611.2	610.1	608.8	607.5	606.2	604.9
15°	590.2	587.7	585.2	583.3	581.9	580.7	579.3	578.1
17.5°	564.8	561.9	558.9	556.3	554.1	551.8	549.5	547.2
20°	547.2	543.9	540.6	537.5	534.6	531.7	528.9	525.9
22.5°	527.8	523.6	519.4	516.1	514.0	511.8	509.7	507.5
25°	495.7	490.3	484.9	481.2	479.2	477.2	475.3	473.3
27.5°	465.0	458.7	452.4	447.7	444.6	441.5	438.3	435.2
30°	443.3	436.7	429.9	424.8	421.2	417.7	414.2	410.6
32.5°	421.5	413.9	406.2	400.8	397.4	394.1	390.7	387.4
35°	387.5	379.2	371.0	365.4	362.5	359.6	356.7	353.8
37.5°	354.3	345.2	336.1	329.9	326.6	323.3	320.0	316.6
40°	332.2	322.8	313.5	307.1	303.7	300.3	296.8	293.4
42.5°	309.7	300.1	290.5	284.0	280.7	277.3	274.0	270.7
45°	277.1	267.8	258.5	252.2	249.1	245.9	242.7	239.6
47.5°	245.4	236.1	226.9	220.8	217.9	215.1	212.1	209.3
50°	225.0	215.9	206.8	201.0	198.2	195.4	192.7	189.9
52.5°	205.7	197.0	188.2	182.6	180.1	177.5	174.9	172.4
55°	176.5	168.6	160.7	155.5	153.0	150.5	148.1	145.5
57.5°	149.9	142.7	135.5	130.8	128.7	126.6	124.5	122.3
60°	131.5	124.8	118.1	113.8	111.6	109.5	107.4	105.3
62.5°	115.6	109.2	102.8	99.0	97.8	96.5	95.2	94.0
65°	94.0	89.5	85.1	82.6	82.2	81.8	81.4	81.0
67.5°	75.9	73.8	71.8	70.6	70.1	69.7	69.3	68.8
70°	66.0	64.7	63.4	62.4	61.9	61.4	60.8	60.4
72.5°	57.4	56.3	55.2	54.5	54.2	53.9	53.6	53.2
75°	45.5	44.6	43.6	43.1	43.0	42.9	42.7	42.6
77.5°	34.5	33.9	33.4	33.0	32.8	32.6	32.4	32.2
80°	27.3	26.9	26.3	26.1	26.1	26.1	26.1	26.1
82.5°	20.7	20.4	20.0	19.9	19.9	19.9	19.9	19.9
85°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
87.5°	7.6	7.4	7.3	7.2	7.2	7.3	7.3	7.3
90°	20.0	19.8	19.6	19.5	19.6	19.7	19.9	20.0
92.5°	18.8	18.9	18.9	18.9	18.9	19.0	19.0	19.0
95°	37.6	37.6	37.6	37.5	37.2	37.0	36.7	36.4
97.5°	63.2	63.2	63.2	63.2	63.2	63.2	63.1	63.1
100°	81.1	81.1	81.1	81.0	81.0	80.8	80.6	80.6
102.5°	100.6	100.7	100.8	100.8	100.7	100.5	100.4	100.3
105°	129.8	130.1	130.4	130.5	130.5	130.5	130.5	130.5
107.5°	161.4	161.5	161.6	161.4	160.7	160.2	159.5	159.0
110°	182.8	182.8	182.8	182.6	182.2	181.8	181.4	181.1





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	204.3	204.0	203.7	203.4	203.1	202.8	202.5	202.2
115°	237.3	237.1	236.9	236.7	236.3	235.9	235.5	235.1
117.5°	269.1	268.8	268.5	268.1	267.7	267.3	266.9	266.5
120°	290.4	290.4	290.4	290.2	289.8	289.4	289.0	288.6
122.5°	312.4	312.0	311.7	311.4	311.1	310.9	310.5	310.3
125°	344.8	344.4	344.0	343.8	343.7	343.6	343.4	343.3
127.5°	376.4	376.0	375.5	375.1	374.6	374.2	373.8	373.4
130°	398.1	397.8	397.5	397.1	396.6	396.1	395.5	395.1
132.5°	419.1	418.4	417.9	417.4	417.0	416.5	416.1	415.7
135°	450.0	449.9	449.8	449.5	449.1	448.7	448.3	447.9
137.5°	479.7	479.6	479.5	479.2	478.6	478.2	477.6	477.1
140°	499.6	499.6	499.6	499.4	498.9	498.4	497.8	497.3
142.5°	517.8	517.8	517.9	517.8	517.2	516.7	516.2	515.6
145°	545.2	545.3	545.4	545.3	544.7	544.2	543.7	543.2
147.5°	569.3	569.5	569.8	569.7	569.3	568.7	568.2	567.8
150°	584.5	584.9	585.3	585.3	584.9	584.5	584.2	583.8
152.5°	599.8	600.2	600.8	600.8	600.2	599.8	599.3	598.8
155°	619.1	619.8	620.4	620.6	620.2	619.8	619.4	619.0
157.5°	637.0	637.9	638.7	638.9	638.3	637.6	637.0	636.4
160°	647.6	648.4	649.2	649.3	648.8	648.2	647.8	647.2
162.5°	657.2	658.1	659.0	659.1	658.5	657.9	657.3	656.6
165°	669.6	670.5	671.5	671.6	670.9	670.3	669.6	669.0
167.5°	679.9	680.7	681.7	681.8	681.1	680.4	679.8	679.1
170°	685.5	686.4	687.3	687.4	686.6	685.8	685.0	684.2
172.5°	689.8	690.6	691.6	691.6	690.9	690.1	689.3	688.5
175°	694.3	695.2	696.2	696.2	695.4	694.7	693.9	693.1
177.5°	696.4	697.0	697.7	697.7	697.0	696.4	695.8	695.1
180°	696.6	696.6	696.6	696.6	696.6	696.6	696.6	696.6

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