

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: P332557-935

Luminaire Tested: **SA4XXDIP-C575D810U935-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332557-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C575D810U935-4F0-1E-UDD-D1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

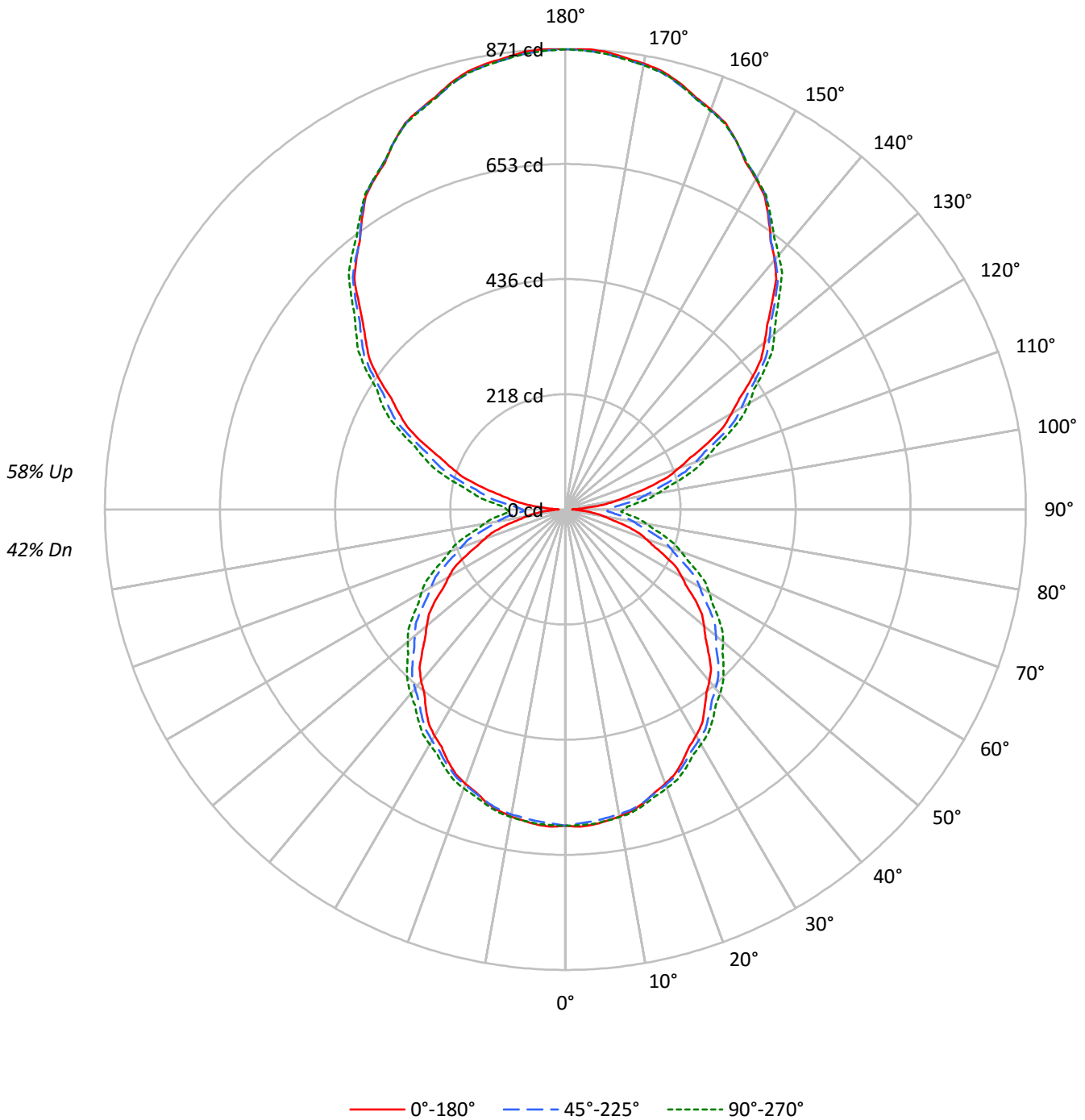
Lumens per Lamp: N/A  
Luminaire Lumens: 4456.8 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

Input Watts (W): 38.4  
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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	95	91	86	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	33	28
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	30	27	23
4	72	61	52	46	65	55	48	43	46	40	36	37	33	30	28	26	23	19
5	66	54	45	39	60	49	42	37	41	35	31	33	29	26	25	23	20	17
6	60	48	40	34	55	44	37	32	37	31	27	30	25	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	23	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	18	15	12	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	16	13	11	9

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

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.7	1.3
10°-20°	162.3	3.6
20°-30°	245.5	5.5
30°-40°	297.0	6.7
40°-50°	314.0	7.0
50°-60°	295.5	6.6
60°-70°	245.2	5.5
70°-80°	172.2	3.9
80°-90°	100.0	2.2
90°-100°	115.2	2.6
100°-110°	212.8	4.8
110°-120°	317.3	7.1
120°-130°	396.8	8.9
130°-140°	434.4	9.7
140°-150°	421.4	9.5
150°-160°	353.3	7.9
160°-170°	235.0	5.3
170°-180°	82.3	1.8
0°-30°	464.5	10.4
0°-40°	761.4	17.1
0°-60°	1370.9	30.8
0°-90°	1888.2	42.4
90°-120°	645.4	14.5
90°-150°	1898.0	42.6
90°-180°	2569.0	57.6
0°-180°	4456.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	13	47	81	104	111	10
95°	49	77	109	129	136	52
105°	163	178	204	223	231	173
115°	298	304	324	337	342	294
125°	430	430	446	456	460	383
135°	553	557	561	570	573	428
145°	670	672	673	676	677	419
155°	767	767	767	769	767	353
165°	835	833	832	836	833	235
175°	869	866	865	869	865	82
180°	870	870	870	870	870	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.2	26.6	33.1	39.4	45.9	52.4	59.2	66.0	72.8	79.5	83.9
90°	12.7	20.3	28.0	35.6	43.1	50.7	58.4	66.0	73.5	81.1	86.4
92.5°	24.6	31.9	39.1	46.3	53.6	60.8	68.0	75.3	82.6	89.8	94.5
95°	49.1	55.4	61.6	67.8	74.1	80.8	88.0	95.1	102.3	109.4	113.9
97.5°	78.4	83.8	89.0	94.4	99.7	106.0	113.2	120.5	127.8	135.0	139.5
100°	101.6	106.1	110.6	115.0	119.5	125.3	132.4	139.6	146.7	153.9	158.3
102.5°	126.4	130.0	133.6	137.2	140.9	146.2	153.1	160.0	166.9	173.8	178.1
105°	162.9	166.0	169.1	172.3	175.4	180.0	186.1	192.2	198.3	204.4	208.6
107.5°	202.4	205.1	207.7	210.3	212.9	216.9	222.2	227.5	232.8	238.1	242.2
110°	228.9	231.2	233.6	236.0	238.4	242.1	247.2	252.2	257.3	262.3	265.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	256.3	258.2	260.1	262.0	263.9	267.3	271.9	276.6	281.4	286.0	289.3
115°	297.5	298.9	300.1	301.5	302.9	305.7	310.2	314.7	319.2	323.6	326.7
117.5°	336.9	337.9	338.8	339.8	340.6	343.2	347.4	351.6	355.9	360.2	362.7
120°	362.8	363.9	364.9	365.9	367.0	369.5	373.3	377.2	381.1	384.9	387.1
122.5°	390.3	390.5	390.9	391.2	391.6	393.6	397.5	401.4	405.3	409.1	411.6
125°	430.1	430.0	429.8	429.6	429.6	431.2	434.8	438.3	442.0	445.5	448.1
127.5°	466.7	467.0	467.4	467.6	468.0	469.4	472.0	474.6	477.3	479.8	482.2
130°	492.1	492.3	492.7	492.9	493.3	494.6	497.0	499.4	501.7	504.1	506.5
132.5°	518.4	518.6	518.8	518.9	519.2	520.1	521.9	523.7	525.5	527.3	529.5
135°	552.6	553.5	554.4	555.3	556.2	557.2	558.2	559.3	560.3	561.4	563.4
137.5°	590.6	590.8	591.2	591.4	591.7	592.2	592.9	593.7	594.4	595.1	596.9
140°	615.9	616.0	616.2	616.4	616.5	616.6	616.8	616.9	617.1	617.3	619.1
142.5°	638.5	638.8	639.0	639.3	639.6	639.6	639.4	639.2	639.0	638.8	640.5
145°	670.5	670.9	671.3	671.8	672.2	672.5	672.7	672.8	673.0	673.1	673.9
147.5°	702.2	702.7	703.4	703.9	704.5	704.7	704.6	704.5	704.3	704.2	704.2
150°	721.6	722.0	722.5	722.9	723.4	723.6	723.6	723.6	723.6	723.6	723.6
152.5°	739.3	739.7	740.0	740.4	740.6	740.9	741.0	741.1	741.2	741.4	741.8
155°	767.3	767.3	767.3	767.3	767.3	767.2	767.2	767.0	766.8	766.7	767.2
157.5°	791.1	790.7	790.5	790.2	790.0	789.8	789.8	789.8	789.7	789.7	790.1
160°	805.0	804.9	804.8	804.6	804.4	804.3	804.2	804.0	803.8	803.7	804.2
162.5°	817.9	817.6	817.2	816.8	816.4	816.1	816.0	815.9	815.7	815.5	816.4
165°	835.3	834.9	834.5	834.0	833.5	833.2	832.8	832.6	832.2	832.0	832.8
167.5°	848.7	848.0	847.4	846.8	846.2	845.8	845.8	845.9	845.9	845.9	846.9
170°	856.2	855.5	854.7	853.9	853.3	852.9	853.1	853.3	853.3	853.5	854.4
172.5°	861.6	861.0	860.3	859.7	859.1	858.8	858.8	858.8	858.8	858.9	859.9
175°	869.0	868.2	867.5	866.8	866.0	865.6	865.4	865.2	865.1	865.0	866.0
177.5°	871.4	870.8	870.2	869.6	869.0	868.7	868.7	868.7	868.7	868.7	869.5
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	88.5	93.0	97.5	100.4	101.8	103.1	104.5	105.9
90°	91.6	96.8	102.0	105.4	106.9	108.3	109.9	111.3
92.5°	99.3	104.0	108.7	111.8	113.1	114.5	115.9	117.3
95°	118.4	122.9	127.3	130.2	131.6	132.9	134.2	135.6
97.5°	144.0	148.4	152.8	155.7	157.0	158.3	159.5	160.7
100°	162.6	166.9	171.2	173.8	174.9	176.0	177.0	178.1
102.5°	182.4	186.8	191.1	193.9	195.2	196.5	197.8	199.1
105°	212.8	217.0	221.1	224.0	225.7	227.3	228.9	230.6
107.5°	246.2	250.4	254.4	257.0	258.0	259.1	260.1	261.1
110°	268.5	271.7	274.8	277.2	278.9	280.5	282.1	283.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	292.6	295.8	299.0	301.3	302.6	303.8	305.1	306.4
115°	329.8	333.0	336.1	338.1	339.1	339.9	340.8	341.7
117.5°	365.3	367.9	370.5	372.2	373.1	374.0	374.9	375.8
120°	389.3	391.6	393.8	395.7	397.2	398.6	400.2	401.7
122.5°	414.1	416.6	419.0	420.5	421.0	421.6	422.1	422.7
125°	450.6	453.1	455.6	457.2	457.8	458.4	459.0	459.6
127.5°	484.7	487.0	489.4	490.9	491.7	492.5	493.3	494.0
130°	508.9	511.3	513.7	515.0	515.2	515.6	515.8	516.2
132.5°	531.8	534.1	536.3	537.8	538.5	539.1	539.8	540.4
135°	565.5	567.6	569.7	570.9	571.4	571.9	572.3	572.7
137.5°	598.7	600.5	602.3	603.6	604.4	605.3	606.1	606.9
140°	620.8	622.6	624.4	625.6	626.2	626.8	627.3	627.9
142.5°	642.1	643.8	645.5	646.6	647.2	647.8	648.3	648.9
145°	674.6	675.4	676.1	676.6	676.7	676.8	677.0	677.1
147.5°	704.2	704.2	704.2	704.4	704.7	705.1	705.3	705.7
150°	723.6	723.6	723.6	723.5	723.4	723.2	723.1	722.9
152.5°	742.1	742.4	742.8	742.8	742.4	742.0	741.7	741.2
155°	767.8	768.4	769.0	769.0	768.4	767.8	767.2	766.7
157.5°	790.6	791.1	791.5	791.4	791.0	790.5	790.0	789.5
160°	804.6	805.0	805.5	805.4	804.6	803.8	803.1	802.4
162.5°	817.2	817.9	818.8	818.8	818.0	817.3	816.6	815.8
165°	833.8	834.7	835.6	835.7	835.1	834.5	833.9	833.4
167.5°	847.7	848.7	849.5	849.5	848.6	847.7	846.8	845.8
170°	855.3	856.2	857.1	857.0	856.0	855.0	853.9	852.8
172.5°	860.9	861.9	863.0	863.0	861.9	860.8	859.8	858.8
175°	867.0	868.1	869.2	869.2	868.1	867.0	866.0	865.0
177.5°	870.4	871.2	872.1	872.0	871.1	870.1	869.2	868.1
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3

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