

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: P331362-927

Luminaire Tested: **SA2XXDIP-C675D925U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331362-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-C675D925U927-4F0-1E-UDD-D4  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

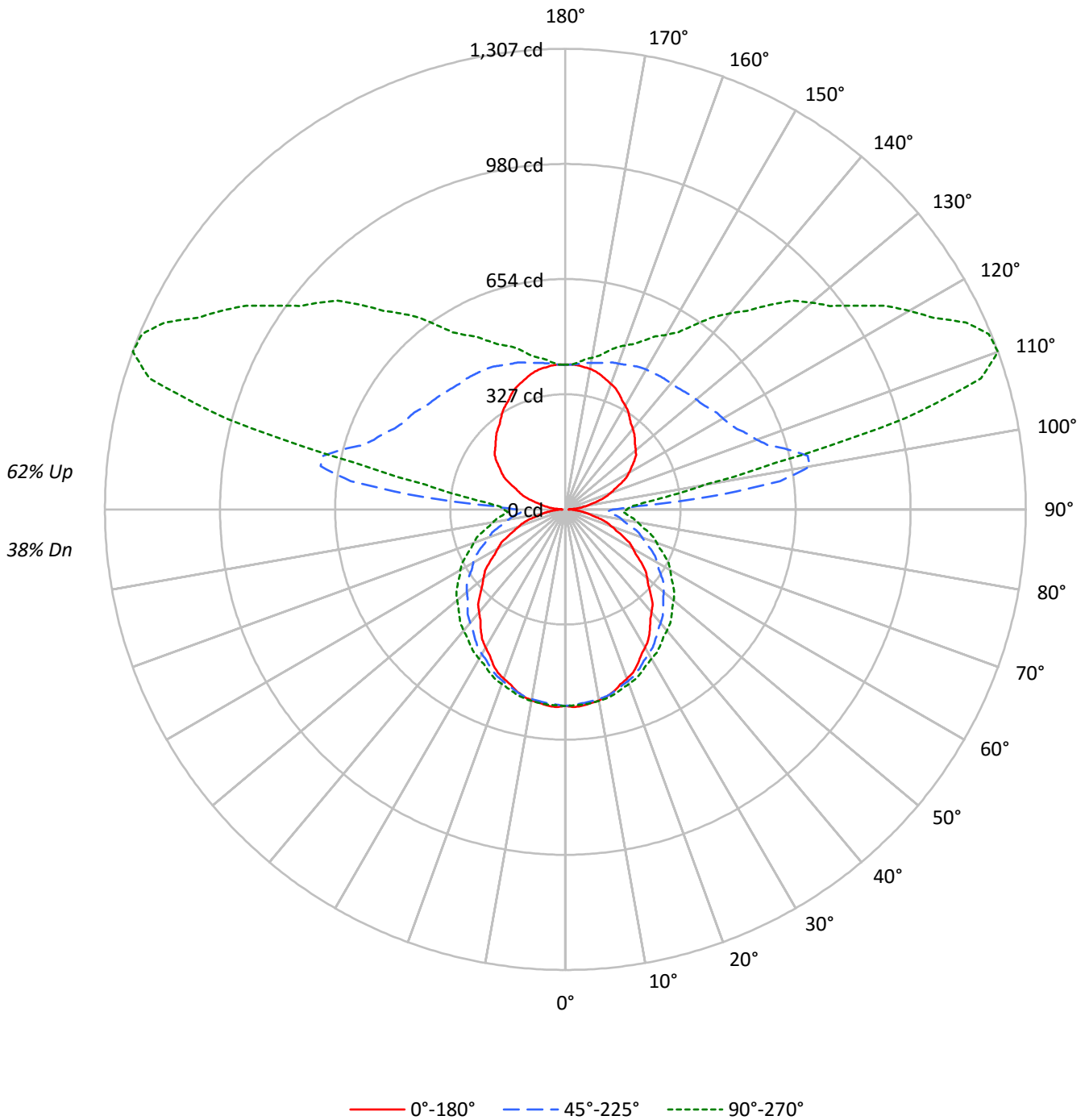
Lumens per Lamp: N/A  
Luminaire Lumens: 4993.4 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

Input Watts (W): 52  
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	94	89	85	81	85	81	77	74	65	63	60	51	49	48	38	37	36	30
2	85	77	71	65	77	70	64	60	57	53	49	44	41	39	33	31	29	24
3	77	67	60	54	70	61	55	49	50	45	41	39	35	32	29	26	24	20
4	70	59	51	45	63	54	47	41	44	38	34	34	30	27	25	23	21	17
5	64	53	44	38	58	48	41	35	39	33	29	31	27	23	23	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	27	23	20	20	18	15	12
7	55	42	34	29	49	39	31	26	31	26	22	25	21	18	19	16	14	11
8	51	38	30	25	46	35	28	23	29	23	19	23	19	16	17	14	12	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	15	19	15	13	15	12	10	8

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

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.9	1.1
10°-20°	151.6	3.0
20°-30°	229.8	4.6
30°-40°	279.8	5.6
40°-50°	301.1	6.0
50°-60°	292.4	5.9
60°-70°	255.3	5.1
70°-80°	196.5	3.9
80°-90°	135.6	2.7
90°-100°	255.3	5.1
100°-110°	624.2	12.5
110°-120°	636.4	12.7
120°-130°	512.3	10.3
130°-140°	402.0	8.1
140°-150°	297.8	6.0
150°-160°	208.1	4.2
160°-170°	122.5	2.5
170°-180°	39.9	0.8
0°-30°	434.3	8.7
0°-40°	714.1	14.3
0°-60°	1307.5	26.2
0°-90°	1895.0	37.9
90°-120°	1515.9	30.4
90°-150°	2728.0	54.6
90°-180°	3098.0	62.0
0°-180°	4993.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	9	66	134	164	175	7
95°	34	113	403	240	224	34
105°	100	174	655	1144	998	107
115°	173	228	539	1084	1254	171
125°	239	284	499	868	1008	212
135°	279	333	475	714	821	216
145°	318	365	463	580	638	200
155°	361	390	450	509	529	166
165°	394	406	431	457	464	111
175°	410	411	414	420	418	39
180°	411	411	411	411	411	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	16.0	27.2	38.5	49.6	60.6	72.2	84.4	97.0	109.6	121.2	128.3
90°	8.9	21.7	35.3	47.3	59.3	72.6	88.1	105.1	121.4	133.6	140.1
92.5°	17.1	31.1	46.4	59.7	74.7	92.5	121.4	157.7	191.2	203.7	194.8
95°	34.1	45.8	62.1	77.6	98.8	127.4	174.5	254.1	356.6	402.9	371.0
97.5°	50.7	62.5	78.4	96.6	118.7	149.2	205.2	311.4	474.2	615.1	647.7
100°	66.5	75.6	89.4	108.6	131.1	161.6	213.6	320.0	500.9	705.4	825.9
102.5°	80.4	88.2	101.5	120.2	142.7	172.8	221.3	316.7	484.7	704.1	889.6
105°	100.5	108.8	119.6	136.7	159.3	188.7	235.2	314.9	454.7	655.4	872.0
107.5°	123.1	129.8	139.3	154.4	175.9	204.7	249.7	320.0	436.8	603.9	795.7
110°	137.6	144.4	152.7	166.6	186.8	215.9	259.5	325.3	430.6	578.5	747.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	151.5	157.7	166.1	178.8	197.8	227.0	268.9	331.1	427.1	560.0	713.0
115°	173.3	179.1	185.8	197.3	215.2	241.5	283.6	339.9	424.7	538.7	669.0
117.5°	194.9	199.3	205.3	215.0	231.5	258.0	297.0	349.7	424.4	524.7	638.6
120°	208.7	212.6	218.1	225.9	242.5	268.5	306.6	356.5	424.5	516.3	621.8
122.5°	222.0	224.9	229.9	238.0	254.1	280.4	316.0	362.3	425.6	509.9	607.0
125°	238.8	241.1	245.9	255.4	271.2	296.2	330.4	371.8	426.5	498.7	585.0
127.5°	252.7	255.7	262.1	272.4	287.4	312.4	344.8	381.3	428.6	490.2	564.5
130°	260.9	264.0	271.6	282.6	298.2	322.1	353.6	387.4	430.7	485.1	551.0
132.5°	268.5	272.1	280.5	292.0	308.3	331.8	361.1	393.4	432.7	480.5	539.4
135°	279.1	282.3	291.8	303.6	321.8	344.8	371.9	401.4	434.8	474.6	523.4
137.5°	289.9	293.6	303.1	315.7	333.7	354.6	380.4	406.9	436.5	469.7	510.8
140°	298.1	301.0	310.4	322.8	340.1	360.7	384.8	409.6	436.9	466.5	503.4
142.5°	306.3	308.6	317.3	329.8	346.3	365.6	388.8	412.7	437.8	465.2	497.1
145°	317.8	321.0	328.9	340.8	356.6	374.0	395.3	417.5	439.6	463.3	489.6
147.5°	331.1	333.5	341.0	352.0	365.1	380.6	400.7	420.2	440.2	460.5	482.8
150°	340.0	342.3	348.6	358.9	370.8	385.0	403.2	421.4	439.6	458.6	477.5
152.5°	348.8	349.9	356.2	365.3	376.5	389.4	405.8	422.0	438.3	455.4	473.1
155°	361.3	362.1	366.9	375.6	384.2	396.1	409.6	422.9	436.4	449.9	464.9
157.5°	371.8	372.6	376.4	383.9	390.9	400.8	412.3	422.9	432.8	444.2	457.2
160°	378.7	379.5	382.6	389.0	395.3	404.0	413.5	422.9	430.9	440.4	451.5
162.5°	385.6	385.2	388.3	393.4	399.1	405.9	414.2	422.3	429.0	437.2	446.4
165°	393.7	392.9	394.5	399.3	403.2	408.0	415.1	420.6	425.3	430.9	438.0
167.5°	400.4	399.4	400.8	403.9	406.7	409.7	414.9	419.5	421.7	425.3	429.8
170°	404.8	403.2	404.0	406.4	408.0	410.4	414.3	418.3	419.9	422.2	425.3
172.5°	407.3	406.4	405.9	408.3	409.2	411.0	413.7	416.4	417.3	418.4	421.0
175°	410.4	409.6	408.8	410.4	410.4	411.1	412.7	414.3	413.5	414.3	415.1
177.5°	411.8	410.5	409.9	411.1	411.1	411.1	411.8	413.0	411.8	411.1	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	135.5	142.5	150.2	155.2	157.5	159.8	162.1	164.4
90°	146.4	152.0	160.8	166.3	168.4	170.6	172.7	174.9
92.5°	183.9	181.2	181.6	181.3	182.8	182.4	185.2	186.2
95°	313.8	272.4	246.1	233.1	225.0	220.9	220.6	223.6
97.5°	582.7	501.5	422.6	369.9	334.2	316.9	307.4	302.9
100°	816.0	724.6	623.0	531.6	467.9	435.9	414.9	402.7
102.5°	967.4	951.8	879.1	782.0	712.6	656.6	629.9	612.6
105°	1042.7	1138.4	1154.9	1133.0	1085.9	1038.9	1006.9	997.8
107.5°	976.1	1116.7	1205.0	1247.3	1255.5	1254.7	1249.9	1237.2
110°	920.4	1067.7	1174.6	1243.3	1279.4	1296.3	1305.4	1306.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	869.1	1010.7	1124.6	1202.8	1252.0	1279.1	1294.6	1300.8
115°	804.9	932.0	1041.0	1126.1	1184.2	1222.6	1245.1	1254.2
117.5°	754.8	867.0	966.2	1046.2	1105.3	1145.5	1169.0	1176.9
120°	728.8	831.9	920.7	996.2	1053.4	1092.6	1117.5	1127.4
122.5°	707.6	802.2	886.5	954.8	1006.2	1044.3	1066.4	1074.8
125°	676.0	762.3	836.7	899.3	946.7	978.4	999.8	1007.7
127.5°	644.9	723.0	793.1	850.9	892.5	922.2	940.8	947.5
130°	625.0	697.2	764.0	819.0	859.2	887.6	904.8	912.6
132.5°	605.5	672.6	734.3	786.1	825.6	853.9	869.9	877.0
135°	578.6	634.5	690.5	737.4	772.8	800.3	816.0	820.6
137.5°	556.0	603.0	647.7	688.6	720.8	744.4	758.2	764.1
140°	541.9	582.7	621.9	658.7	685.0	706.7	719.6	725.4
142.5°	530.5	565.1	598.7	629.4	654.3	674.0	685.5	687.4
145°	515.2	542.4	568.0	591.9	611.8	626.1	634.9	638.3
147.5°	503.7	524.4	543.8	560.8	576.9	588.0	593.8	595.7
150°	496.5	513.9	530.5	544.7	556.6	566.1	570.8	571.6
152.5°	489.6	505.6	519.8	532.1	541.4	549.6	553.1	553.3
155°	479.9	492.6	504.4	513.1	521.8	527.4	530.5	528.9
157.5°	468.7	479.3	489.3	496.1	502.2	506.8	508.2	508.2
160°	461.7	470.4	479.1	484.7	490.2	494.2	495.0	495.0
162.5°	454.8	462.2	469.6	473.9	479.4	482.1	482.9	482.3
165°	444.3	449.9	455.4	458.6	461.7	464.9	464.9	464.1
167.5°	434.4	438.6	442.4	445.3	446.7	448.5	448.3	447.3
170°	429.3	431.7	434.8	436.4	437.2	439.6	438.8	437.2
172.5°	423.6	425.3	427.9	428.8	429.6	430.7	429.9	429.0
175°	417.5	418.3	419.1	419.9	419.9	420.6	419.9	418.3
177.5°	413.0	413.0	413.7	413.7	413.7	413.7	413.0	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1

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