

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: P331685-927

Luminaire Tested: **SA2XXRDIP-C675D530U927-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331685-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-C675D530U927-4F0-1E-UDD-F1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

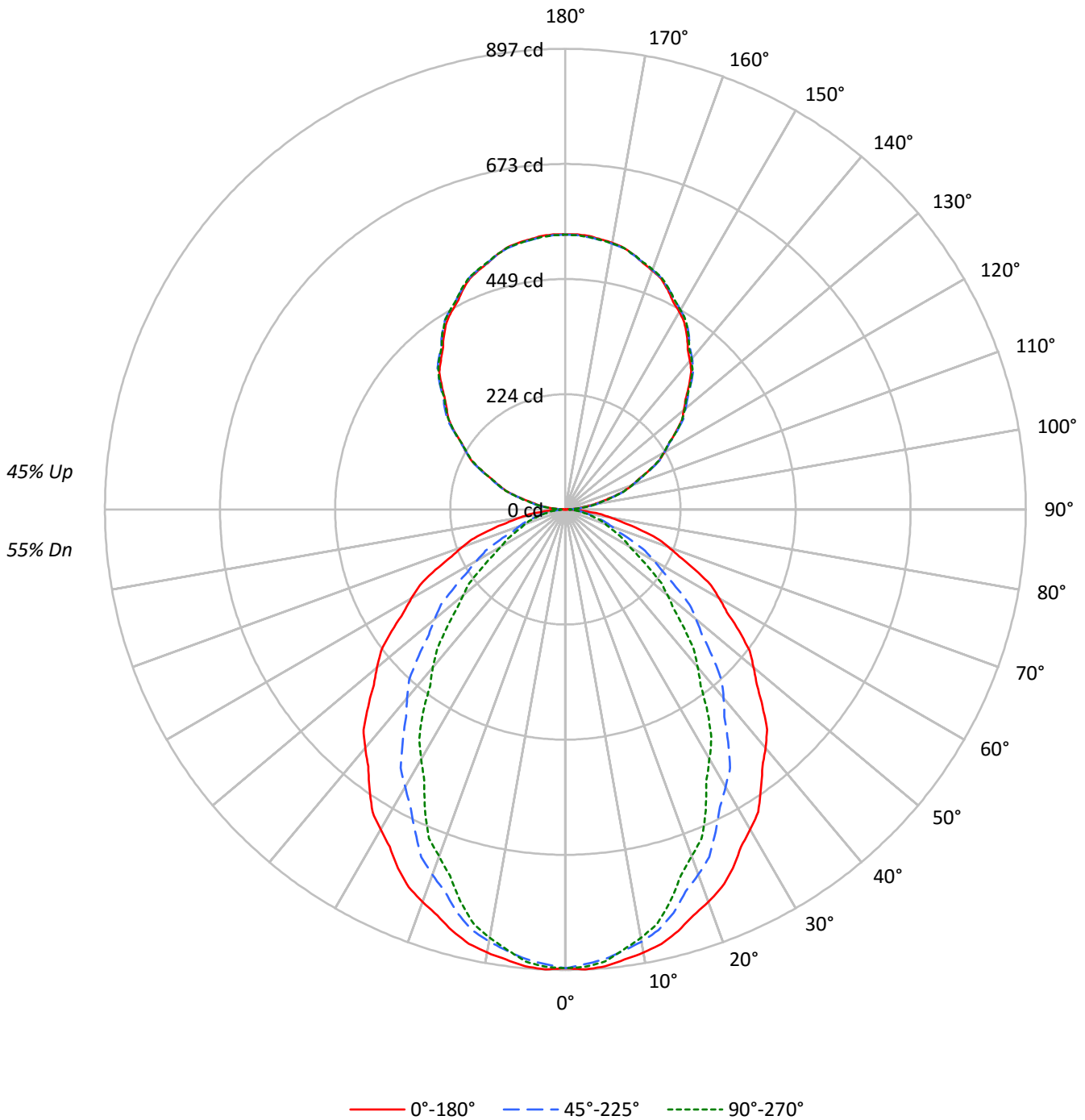
Lumens per Lamp: N/A  
Luminaire Lumens: 3336.9 lumens  
Efficiency: N/A  
Efficacy: 82.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 40.3  
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	50	30	10	0	
RCR																						
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55				
1	99	95	92	88	92	89	85	83	76	74	72	65	63	62	55	53	52	47				
2	91	84	78	73	84	78	73	69	68	64	60	58	55	52	49	47	45	41				
3	83	74	67	61	77	69	63	58	60	55	51	52	48	45	44	41	39	35				
4	77	66	58	52	71	62	55	50	54	48	44	46	42	39	39	36	34	31				
5	70	59	51	45	65	55	48	43	48	43	39	42	38	34	36	32	30	27				
6	65	53	45	40	60	50	43	38	44	38	34	38	34	30	33	29	27	24				
7	60	48	40	35	56	45	38	33	40	34	30	35	30	27	30	26	24	21				
8	56	44	36	31	52	41	35	30	37	31	27	32	27	24	28	24	22	19				
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	26	22	20	18				
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16				

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

	0°	45°	90°
0°	14428	14428	14428
5°	14483	14248	14326
10°	14372	14014	13895
15°	14206	13600	13207
20°	13979	13005	12352
25°	13744	12332	11526
30°	13420	11639	10465
35°	13102	10886	9532
40°	12783	10108	8454
45°	12408	9232	7478
50°	12024	8349	6521
55°	11634	7398	5599
60°	11176	6397	4647
65°	10659	5375	4233
70°	10041	4428	3895
75°	9283	4036	3631
80°	8201	3608	3310
85°	6447	2853	2853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.6	2.5
10°-20°	229.7	6.9
20°-30°	322.5	9.7
30°-40°	351.7	10.5
40°-50°	323.4	9.7
50°-60°	254.0	7.6
60°-70°	165.6	5.0
70°-80°	85.4	2.6
80°-90°	24.3	0.7
90°-100°	33.9	1.0
100°-110°	105.4	3.2
110°-120°	180.1	5.4
120°-130°	236.8	7.1
130°-140°	265.8	8.0
140°-150°	260.6	7.8
150°-160°	218.6	6.6
160°-170°	145.0	4.3
170°-180°	50.7	1.5
0°-30°	635.8	19.1
0°-40°	987.5	29.6
0°-60°	1564.8	46.9
0°-90°	1840.1	55.1
90°-120°	319.4	9.6
90°-150°	1082.6	32.4
90°-180°	1497.0	44.9
0°-180°	3336.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	894	889	879	886	884	85
15°	850	840	814	799	790	239
25°	772	744	692	660	647	355
35°	665	622	552	503	484	416
45°	543	488	404	349	328	419
55°	413	349	263	216	199	369
65°	279	213	141	115	111	277
75°	149	94	65	59	58	158
85°	35	19	15	15	15	41
90°	0	6	16	15	15	3
95°	24	28	29	29	28	27
105°	97	98	99	100	100	103
115°	181	183	182	182	181	179
125°	263	267	266	264	264	235
135°	340	345	346	346	344	263
145°	413	416	419	419	417	258
155°	472	473	475	477	476	217
165°	514	513	513	516	514	145
175°	534	533	532	535	533	51
180°	535	535	535	535	535	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	896.8	896.1	895.4	894.7	894.0	892.8	891.2	889.6	888.1	886.5	888.0
5°	893.6	892.7	891.8	890.9	890.0	888.4	886.1	883.8	881.4	879.1	880.7
7.5°	884.4	883.3	882.2	881.1	880.0	878.0	875.3	872.6	869.8	867.1	867.5
10°	876.6	875.4	874.1	872.8	871.6	869.2	865.5	862.0	858.4	854.8	854.3
12.5°	866.9	865.4	863.8	862.3	860.7	857.7	853.1	848.5	843.8	839.2	838.3
15°	849.9	848.0	846.0	844.0	842.0	838.0	831.9	825.8	819.7	813.6	810.2
17.5°	829.1	826.1	823.1	820.0	817.0	811.6	803.7	795.9	788.1	780.2	776.2
20°	813.6	809.9	806.4	802.8	799.2	792.9	783.9	774.9	766.0	756.9	752.4
22.5°	796.7	792.7	788.7	784.7	780.6	773.6	763.4	753.3	743.1	733.0	727.2
25°	771.5	765.7	760.0	754.2	748.5	739.7	727.9	716.0	704.1	692.2	684.8
27.5°	741.1	734.8	728.6	722.3	716.1	706.2	692.9	679.5	666.1	652.8	644.2
30°	719.8	712.9	706.1	699.3	692.4	681.8	667.4	653.1	638.7	624.3	615.1
32.5°	699.0	691.0	683.1	675.1	667.1	655.8	641.1	626.5	611.8	597.1	586.7
35°	664.7	655.6	646.4	637.2	628.1	615.6	599.8	584.0	568.2	552.3	541.0
37.5°	630.5	620.4	610.3	600.2	590.2	576.7	559.9	543.0	526.2	509.3	496.9
40°	606.5	595.7	584.9	574.2	563.4	549.3	531.9	514.4	497.0	479.6	466.8
42.5°	581.9	570.6	559.2	547.9	536.5	521.8	503.8	485.8	467.8	449.8	436.6
45°	543.4	531.4	519.4	507.3	495.3	479.8	461.0	442.1	423.2	404.3	391.6
47.5°	505.9	493.1	480.4	467.6	454.9	438.8	419.3	399.8	380.3	360.8	348.2
50°	478.7	466.0	453.2	440.5	427.7	411.5	391.7	371.9	352.1	332.4	320.0
52.5°	452.3	438.9	425.6	412.3	398.9	382.5	363.2	343.9	324.6	305.2	293.3
55°	413.3	399.3	385.2	371.2	357.2	340.5	321.1	301.7	282.3	262.8	252.1
57.5°	373.3	358.9	344.5	330.2	315.8	299.3	280.6	262.0	243.3	224.7	214.8
60°	346.1	331.8	317.3	303.0	288.6	272.2	253.7	235.1	216.7	198.1	188.9
62.5°	319.6	305.2	290.8	276.5	262.1	246.1	228.5	210.8	193.1	175.5	166.8
65°	279.0	264.4	249.9	235.4	220.8	205.4	189.3	173.1	156.9	140.7	134.6
67.5°	239.9	225.4	211.0	196.5	182.0	167.5	153.0	138.5	123.9	109.3	106.5
70°	212.7	198.7	184.7	170.6	156.6	143.4	131.0	118.6	106.2	93.8	92.0
72.5°	186.8	173.3	159.9	146.5	133.0	121.4	111.4	101.4	91.5	81.5	80.0
75°	148.8	136.3	123.7	111.1	98.5	89.1	83.0	76.9	70.8	64.7	63.5
77.5°	111.5	100.4	89.4	78.3	67.3	60.3	57.4	54.4	51.5	48.6	47.8
80°	88.2	79.0	69.8	60.7	51.5	46.0	44.2	42.4	40.6	38.8	38.1
82.5°	66.8	59.7	52.5	45.3	38.2	34.0	32.8	31.5	30.3	29.2	28.7
85°	34.8	31.0	27.3	23.4	19.6	17.5	17.0	16.5	15.9	15.4	15.4
87.5°	10.5	9.5	8.6	7.7	6.8	6.6	7.1	7.4	7.9	8.3	8.2
90°	0.5	1.7	2.9	4.0	5.3	7.0	9.2	11.4	13.6	15.8	15.6
92.5°	8.1	9.0	9.8	10.7	11.6	12.3	12.8	13.3	13.9	14.3	14.4
95°	23.5	24.5	25.5	26.5	27.5	28.1	28.3	28.5	28.7	28.9	28.9
97.5°	42.9	43.8	44.7	45.6	46.4	47.1	47.5	47.8	48.2	48.6	48.6
100°	57.4	58.1	58.9	59.8	60.6	61.2	61.5	61.7	62.0	62.3	62.3
102.5°	72.6	73.2	73.8	74.5	75.1	75.7	76.0	76.4	76.8	77.2	77.2
105°	97.1	97.4	97.8	98.0	98.3	98.5	98.8	98.9	99.2	99.4	99.6
107.5°	121.9	122.3	122.8	123.2	123.7	123.9	123.9	123.9	123.9	123.9	124.0
110°	137.8	138.4	138.9	139.6	140.2	140.5	140.5	140.5	140.5	140.5	140.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	155.1	155.7	156.3	156.9	157.6	157.8	157.7	157.6	157.6	157.5	157.2
115°	180.7	181.3	181.9	182.5	183.1	183.3	183.1	182.9	182.7	182.5	182.4
117.5°	206.2	207.0	207.8	208.6	209.4	209.5	209.0	208.3	207.8	207.2	207.0
120°	223.2	223.9	224.7	225.5	226.4	226.4	225.5	224.7	223.9	223.2	223.2
122.5°	238.7	239.6	240.7	241.6	242.6	242.7	242.2	241.6	241.1	240.5	240.3
125°	262.9	263.8	264.7	265.6	266.5	266.8	266.5	266.3	265.9	265.6	265.3
127.5°	286.5	287.6	288.8	289.9	291.0	291.4	291.1	290.7	290.4	290.0	289.6
130°	301.3	302.6	303.9	305.2	306.5	307.0	306.9	306.7	306.5	306.3	306.1
132.5°	317.9	319.0	320.0	321.2	322.2	322.7	322.8	322.8	322.9	322.9	322.5
135°	340.2	341.3	342.4	343.5	344.6	345.2	345.4	345.6	345.9	346.0	345.9
137.5°	363.5	364.5	365.4	366.3	367.2	367.7	368.0	368.3	368.5	368.8	368.7
140°	377.6	378.6	379.5	380.3	381.3	382.0	382.5	382.9	383.5	384.0	384.0
142.5°	392.1	393.0	394.0	394.8	395.7	396.3	396.7	397.0	397.4	397.7	397.8
145°	412.9	413.6	414.3	415.0	415.7	416.4	416.9	417.6	418.2	418.7	418.8
147.5°	431.4	432.2	433.1	434.0	434.7	435.4	435.8	436.2	436.6	437.0	437.2
150°	444.1	444.7	445.3	445.8	446.5	446.9	447.3	447.7	448.1	448.6	448.9
152.5°	455.3	455.9	456.5	457.1	457.6	458.2	458.7	459.1	459.6	460.2	460.5
155°	472.1	472.4	472.7	472.9	473.2	473.6	473.9	474.2	474.4	474.8	475.3
157.5°	486.4	486.6	486.8	487.0	487.3	487.4	487.6	487.8	488.0	488.1	488.9
160°	495.1	495.3	495.5	495.7	495.9	496.1	496.1	496.2	496.4	496.5	497.1
162.5°	503.0	503.1	503.1	503.2	503.2	503.3	503.4	503.5	503.6	503.7	504.4
165°	513.7	513.5	513.4	513.3	513.3	513.2	513.2	513.2	513.2	513.2	513.9
167.5°	522.4	522.2	521.9	521.6	521.3	521.1	521.1	521.1	521.0	521.0	521.7
170°	527.2	526.9	526.6	526.2	526.0	525.8	525.7	525.5	525.5	525.4	526.1
172.5°	530.4	530.1	529.8	529.5	529.3	529.0	528.9	528.9	528.7	528.6	529.3
175°	534.4	534.1	533.8	533.5	533.2	533.0	532.7	532.6	532.3	532.1	532.8
177.5°	536.1	535.8	535.5	535.3	535.0	534.9	534.7	534.6	534.4	534.2	534.7
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	889.4	890.8	892.2	892.8	892.6	892.2	892.0	891.7
5°	882.3	883.9	885.5	886.1	885.5	884.9	884.5	883.9
7.5°	868.0	868.5	868.9	868.7	867.8	866.9	865.9	865.0
10°	853.7	853.2	852.6	851.8	850.7	849.7	848.6	847.5
12.5°	837.3	836.4	835.4	834.0	832.2	830.4	828.6	826.8
15°	806.8	803.3	799.9	797.3	795.5	793.7	791.9	790.1
17.5°	772.1	768.0	764.0	760.4	757.3	754.2	751.1	748.1
20°	748.0	743.5	738.9	734.7	730.8	726.8	722.9	718.9
22.5°	721.4	715.7	709.9	705.5	702.5	699.6	696.6	693.7
25°	677.5	670.1	662.7	657.7	655.1	652.4	649.7	647.0
27.5°	635.6	627.0	618.5	612.0	607.7	603.4	599.1	594.8
30°	606.0	596.8	587.6	580.7	575.8	570.9	566.1	561.3
32.5°	576.2	565.8	555.3	547.8	543.2	538.7	534.1	529.6
35°	529.7	518.4	507.1	499.4	495.4	491.5	487.6	483.6
37.5°	484.3	471.9	459.5	450.9	446.4	441.9	437.4	432.8
40°	454.0	441.2	428.5	419.8	415.1	410.4	405.8	401.1
42.5°	423.4	410.2	397.0	388.2	383.7	379.1	374.6	370.0
45°	378.8	366.1	353.3	344.8	340.5	336.1	331.8	327.5
47.5°	335.5	322.8	310.1	301.8	297.9	294.0	290.0	286.1
50°	307.6	295.2	282.8	274.6	270.9	267.1	263.4	259.6
52.5°	281.3	269.3	257.3	249.6	246.1	242.6	239.2	235.7
55°	241.3	230.4	219.7	212.6	209.2	205.7	202.3	198.9
57.5°	204.9	195.0	185.1	178.7	175.9	173.0	170.1	167.2
60°	179.8	170.6	161.4	155.4	152.6	149.7	146.8	143.9
62.5°	158.0	149.2	140.5	135.3	133.6	131.9	130.2	128.4
65°	128.5	122.4	116.3	113.0	112.4	111.9	111.3	110.8
67.5°	103.7	100.9	98.2	96.4	95.9	95.3	94.7	94.1
70°	90.2	88.4	86.6	85.4	84.6	83.9	83.2	82.5
72.5°	78.5	77.0	75.5	74.5	74.1	73.7	73.2	72.8
75°	62.2	60.9	59.7	58.9	58.8	58.6	58.4	58.2
77.5°	47.1	46.3	45.6	45.2	44.8	44.6	44.3	44.0
80°	37.4	36.7	36.0	35.6	35.6	35.6	35.6	35.6
82.5°	28.3	27.8	27.4	27.2	27.2	27.2	27.2	27.2
85°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
87.5°	8.0	7.8	7.6	7.5	7.5	7.5	7.6	7.6
90°	15.4	15.2	15.0	15.0	15.1	15.1	15.3	15.4
92.5°	14.4	14.5	14.5	14.6	14.6	14.6	14.7	14.7
95°	28.9	28.9	28.9	28.8	28.6	28.4	28.2	28.0
97.5°	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.5
100°	62.3	62.3	62.3	62.3	62.2	62.1	62.0	61.9
102.5°	77.3	77.4	77.5	77.5	77.4	77.2	77.2	77.1
105°	99.8	100.0	100.2	100.3	100.3	100.3	100.3	100.3
107.5°	124.1	124.1	124.2	124.0	123.5	123.1	122.6	122.2
110°	140.5	140.5	140.5	140.4	140.1	139.7	139.4	139.1





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	157.0	156.8	156.5	156.3	156.1	155.8	155.6	155.4
115°	182.3	182.2	182.1	181.9	181.6	181.3	181.0	180.7
117.5°	206.8	206.5	206.3	206.0	205.7	205.4	205.1	204.8
120°	223.2	223.2	223.2	223.0	222.7	222.4	222.1	221.8
122.5°	240.0	239.8	239.6	239.3	239.1	238.8	238.7	238.4
125°	265.0	264.7	264.4	264.2	264.1	264.0	263.9	263.8
127.5°	289.3	288.9	288.6	288.2	287.9	287.6	287.2	286.9
130°	305.9	305.7	305.5	305.1	304.8	304.4	304.0	303.6
132.5°	322.0	321.5	321.2	320.8	320.4	320.1	319.8	319.5
135°	345.9	345.7	345.6	345.4	345.2	344.8	344.5	344.2
137.5°	368.6	368.5	368.4	368.2	367.8	367.4	367.0	366.6
140°	384.0	384.0	384.0	383.8	383.3	382.9	382.5	382.1
142.5°	397.8	397.9	398.0	397.8	397.4	397.0	396.6	396.2
145°	419.0	419.1	419.1	419.0	418.6	418.2	417.8	417.4
147.5°	437.4	437.7	437.9	437.8	437.4	437.0	436.7	436.3
150°	449.2	449.5	449.8	449.8	449.5	449.2	448.9	448.6
152.5°	460.9	461.3	461.7	461.7	461.3	460.9	460.5	460.2
155°	475.8	476.3	476.8	476.9	476.6	476.3	475.9	475.7
157.5°	489.5	490.2	490.9	491.0	490.5	490.0	489.6	489.0
160°	497.6	498.3	498.8	499.0	498.6	498.2	497.7	497.3
162.5°	505.0	505.7	506.4	506.5	506.0	505.6	505.1	504.6
165°	514.6	515.3	515.9	516.1	515.6	515.1	514.6	514.0
167.5°	522.4	523.2	523.9	523.9	523.4	522.9	522.4	521.8
170°	526.8	527.5	528.1	528.2	527.6	527.0	526.4	525.9
172.5°	530.0	530.8	531.4	531.5	530.9	530.3	529.7	529.1
175°	533.5	534.2	535.0	535.0	534.4	533.8	533.2	532.6
177.5°	535.2	535.7	536.1	536.1	535.7	535.2	534.7	534.2
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3

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