

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: P331434-927

Luminaire Tested: **SA2XXDIP-C1005D530U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331434-927  
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-C1005D530U927-4F0-1E-UDD-D4  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

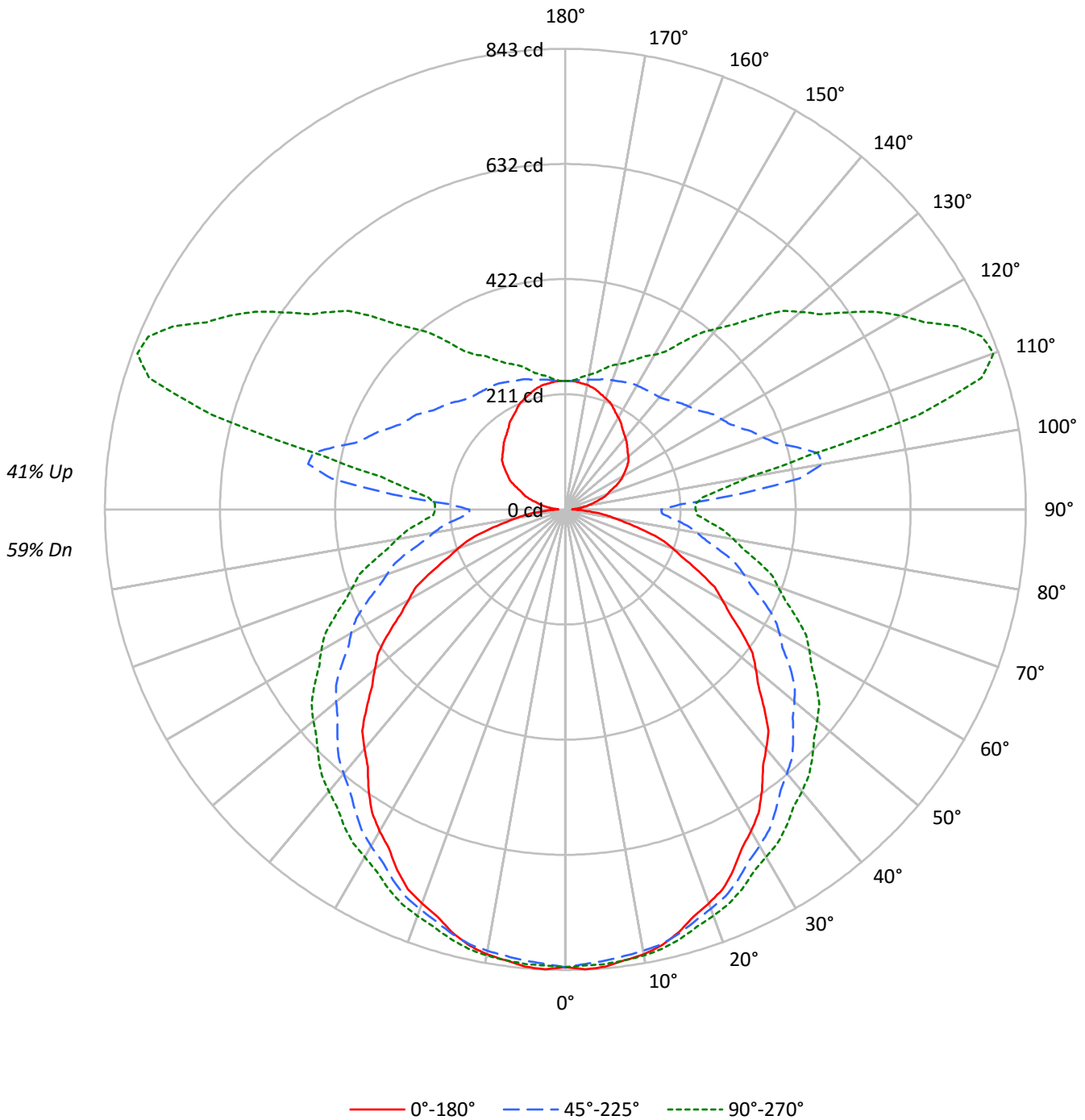
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4832.7 lumens  
Efficiency: N/A  
Efficacy: 87.7 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: General Diffuse  
  
Input Watts (W): 55.1  
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	98	93	88	84	91	87	82	79	75	72	69	64	62	60	54	52	51	46
2	89	80	73	67	82	75	69	63	65	60	56	55	52	48	46	44	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	41	37	34	31
4	73	61	53	46	68	57	50	44	50	44	39	43	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	18	22	18	16	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

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

	0°	45°	90°
0°	13525	13525	13525
5°	13591	13020	12971
10°	13506	12635	12493
15°	13320	12228	11990
20°	13085	11791	11506
25°	12852	11370	11066
30°	12525	10939	10626
35°	12192	10521	10314
40°	11845	10165	10004
45°	11515	9846	9739
50°	11159	9559	9477
55°	10787	9249	9211
60°	10329	8927	8928
65°	9856	8551	8595
70°	9323	8147	8233
75°	8642	7750	7901
80°	7567	7345	7563
85°	6539	6995	7303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.6
10°-20°	227.6	4.7
20°-30°	344.9	7.1
30°-40°	420.1	8.7
40°-50°	452.0	9.4
50°-60°	438.9	9.1
60°-70°	383.2	7.9
70°-80°	295.0	6.1
80°-90°	200.1	4.1
90°-100°	230.3	4.8
100°-110°	418.4	8.7
110°-120°	404.4	8.4
120°-130°	315.5	6.5
130°-140°	239.3	5.0
140°-150°	171.8	3.6
150°-160°	118.9	2.5
160°-170°	70.0	1.4
170°-180°	22.8	0.5
0°-30°	651.9	13.5
0°-40°	1072.0	22.2
0°-60°	1962.9	40.6
0°-90°	2841.3	58.8
90°-120°	1053.1	21.8
90°-150°	1779.7	36.8
90°-180°	1991.0	41.2
0°-180°	4832.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	840	836	829	836	835	80
15°	801	804	804	814	813	226
25°	728	737	748	762	766	335
35°	628	648	671	697	706	392
45°	515	548	590	626	640	397
55°	395	439	501	544	561	353
65°	270	330	401	449	466	268
75°	149	218	295	345	363	158
85°	44	119	197	246	265	47
90°	13	89	176	222	238	9
95°	26	106	317	251	252	24
105°	61	126	439	744	669	66
115°	102	143	353	686	793	101
125°	138	165	310	541	628	123
135°	160	192	280	431	499	124
145°	182	209	265	336	373	114
155°	206	223	257	291	302	95
165°	225	232	246	261	265	63
175°	234	235	237	240	239	22
180°	235	235	235	235	235	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	842.6	841.9	841.2	840.6	840.0	838.8	837.3	835.8	834.3	832.8	833.9
5°	840.1	839.3	838.5	837.7	836.9	835.7	834.1	832.4	830.8	829.2	830.8
7.5°	832.6	832.0	831.5	831.0	830.4	829.6	828.3	827.0	825.9	824.6	826.5
10°	826.8	826.2	825.7	825.1	824.6	823.9	823.2	822.3	821.5	820.7	822.8
12.5°	817.1	817.1	817.3	817.4	817.5	817.2	816.7	816.0	815.5	814.8	817.1
15°	801.3	801.8	802.3	802.9	803.4	803.7	803.7	803.7	803.7	803.7	806.1
17.5°	780.9	782.0	783.2	784.3	785.4	786.4	787.3	788.1	789.0	789.9	792.4
20°	767.3	768.7	770.0	771.3	772.7	773.9	775.0	776.0	777.1	778.2	781.2
22.5°	752.7	754.2	755.8	757.4	759.0	760.5	762.0	763.5	765.0	766.5	769.5
25°	728.4	730.3	732.2	734.1	736.0	738.2	740.5	743.0	745.4	747.8	751.1
27.5°	699.3	702.3	705.4	708.5	711.6	714.5	717.4	720.3	723.1	726.0	730.1
30°	679.9	683.3	686.9	690.4	693.9	697.4	700.9	704.4	707.9	711.5	715.7
32.5°	658.5	662.4	666.4	670.3	674.2	678.3	682.5	686.6	690.8	694.9	699.9
35°	627.6	632.2	636.8	641.4	646.0	650.9	656.0	661.1	666.2	671.4	677.3
37.5°	594.1	599.4	604.8	610.0	615.3	621.2	627.9	634.5	641.2	647.8	654.4
40°	571.8	577.7	583.7	589.6	595.6	602.1	609.4	616.7	624.0	631.3	638.3
42.5°	550.5	556.3	562.3	568.2	574.2	581.3	589.7	598.1	606.4	614.8	622.4
45°	514.8	522.0	529.3	536.6	543.9	552.2	561.7	571.2	580.6	590.0	598.4
47.5°	479.6	487.5	495.4	503.4	511.3	520.8	531.9	542.9	554.0	565.0	573.8
50°	455.3	463.7	472.0	480.4	488.7	499.0	511.1	523.2	535.4	547.6	556.7
52.5°	432.0	440.8	449.6	458.4	467.1	477.9	490.7	503.5	516.3	529.1	538.4
55°	394.6	404.3	414.0	423.7	433.4	445.3	459.3	473.3	487.4	501.4	511.1
57.5°	357.7	368.6	379.5	390.5	401.5	414.1	428.4	442.7	457.0	471.3	481.7
60°	331.4	343.0	354.7	366.2	377.9	391.3	406.7	422.1	437.4	452.8	463.1
62.5°	308.2	320.1	332.2	344.2	356.2	369.9	385.3	400.7	416.1	431.5	442.4
65°	269.5	282.7	296.0	309.2	322.4	337.0	352.9	368.8	384.7	400.6	411.7
67.5°	234.1	247.9	261.7	275.5	289.3	304.4	320.7	337.0	353.2	369.6	380.7
70°	208.8	222.8	236.9	250.9	264.9	280.3	297.1	313.8	330.5	347.2	358.8
72.5°	185.5	199.9	214.4	228.9	243.4	259.0	276.0	292.9	309.9	326.9	338.2
75°	149.3	164.5	179.5	194.6	209.8	225.9	243.2	260.5	277.7	295.0	306.6
77.5°	114.4	130.2	146.0	161.8	177.6	194.2	211.8	229.3	246.8	264.4	276.0
80°	91.0	107.5	124.0	140.5	156.9	173.9	191.4	209.0	226.5	244.0	255.3
82.5°	71.6	87.9	104.1	120.3	136.6	153.6	171.3	189.1	206.8	224.6	235.9
85°	43.7	60.4	77.2	93.9	110.6	127.6	144.9	162.2	179.4	196.7	208.0
87.5°	23.9	40.2	56.6	73.0	89.2	106.2	123.9	141.7	159.5	176.9	187.8
90°	12.6	29.6	47.1	63.6	80.2	98.0	117.5	137.9	157.9	175.6	185.9
92.5°	16.7	33.7	51.5	68.0	85.7	105.5	132.4	163.3	192.8	210.2	211.7
95°	25.5	40.0	57.2	74.0	93.9	119.1	156.1	211.6	280.2	316.7	304.8
97.5°	34.2	47.9	64.0	81.4	101.1	126.7	168.4	238.7	341.4	431.5	456.3
100°	43.3	54.7	68.7	85.9	104.9	130.1	169.1	239.4	352.0	478.3	553.3
102.5°	50.6	60.8	73.9	90.3	108.8	133.3	170.2	233.8	338.8	473.3	585.3
105°	61.2	70.8	81.8	96.4	114.2	137.8	173.0	227.3	315.8	439.2	568.8
107.5°	74.0	81.7	91.0	103.5	119.6	142.2	176.2	224.7	299.8	403.5	518.8
110°	81.7	88.9	97.0	108.2	123.1	145.5	178.6	224.3	292.7	385.5	487.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	89.6	95.9	103.5	113.6	127.2	149.2	181.0	224.3	286.9	370.7	463.4
115°	102.0	107.2	112.9	121.3	133.2	153.0	184.6	224.3	280.3	352.9	432.5
117.5°	113.6	117.3	122.0	128.7	139.3	158.6	187.8	224.8	274.5	338.7	408.8
120°	121.5	124.5	128.3	133.4	143.5	162.1	190.5	225.7	271.2	330.4	395.3
122.5°	129.1	131.0	134.2	139.0	148.5	166.8	193.5	226.2	268.6	323.1	383.1
125°	138.0	139.3	142.0	147.4	156.5	173.5	198.4	227.3	264.0	310.5	364.3
127.5°	145.9	147.4	151.0	156.7	165.1	181.4	204.2	229.4	260.8	300.2	346.9
130°	150.6	152.2	156.4	162.5	171.2	186.6	208.0	230.8	259.1	293.7	335.4
132.5°	155.0	156.9	161.4	167.9	177.0	191.7	211.2	232.3	257.5	287.5	325.0
135°	160.3	162.1	167.5	174.3	184.7	198.6	215.8	234.3	255.1	279.5	310.9
137.5°	166.4	168.5	173.9	181.0	191.3	203.6	219.0	235.0	252.6	272.4	298.9
140°	171.1	172.6	177.8	184.7	194.4	206.3	220.4	234.9	250.8	268.1	291.8
142.5°	175.8	177.0	181.7	188.7	198.0	209.0	222.3	236.0	250.4	266.1	286.5
145°	181.6	183.4	187.9	194.7	203.7	213.7	225.9	238.5	251.2	264.7	280.8
147.5°	189.2	190.5	194.9	201.1	208.7	217.5	228.9	240.1	251.5	263.1	276.0
150°	194.2	195.6	199.2	205.1	211.9	220.0	230.4	240.8	251.2	262.1	272.9
152.5°	199.3	199.9	203.6	208.7	215.2	222.5	231.9	241.1	250.5	260.2	270.4
155°	206.4	206.9	209.6	214.6	219.6	226.3	234.0	241.7	249.4	257.1	265.6
157.5°	212.4	212.9	215.1	219.4	223.4	229.0	235.5	241.7	247.3	253.8	261.2
160°	216.4	216.8	218.6	222.3	225.9	230.8	236.3	241.7	246.2	251.7	257.9
162.5°	220.4	220.1	221.9	224.8	228.1	232.0	236.6	241.3	245.1	249.9	255.1
165°	225.0	224.5	225.5	228.1	230.4	233.1	237.2	240.3	243.0	246.2	250.3
167.5°	228.8	228.2	229.0	230.8	232.4	234.1	237.1	239.7	241.0	243.0	245.6
170°	231.3	230.4	230.8	232.2	233.1	234.5	236.7	239.0	239.9	241.2	243.0
172.5°	232.7	232.2	232.0	233.3	233.9	234.8	236.4	237.9	238.4	239.1	240.5
175°	234.5	234.0	233.5	234.5	234.5	234.9	235.8	236.7	236.3	236.7	237.2
177.5°	235.3	234.6	234.2	234.9	234.9	234.9	235.3	236.0	235.3	234.9	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	835.0	836.1	837.2	837.5	837.0	836.6	836.1	835.8
5°	832.4	834.1	835.7	836.3	836.1	835.8	835.5	835.3
7.5°	828.5	830.4	832.3	833.2	832.9	832.7	832.3	832.1
10°	825.0	827.2	829.3	830.3	830.0	829.7	829.5	829.2
12.5°	819.2	821.3	823.5	824.4	824.2	823.9	823.6	823.4
15°	808.6	811.0	813.4	814.5	814.2	814.0	813.7	813.4
17.5°	795.0	797.5	800.0	801.3	801.3	801.3	801.3	801.3
20°	784.1	787.1	790.0	791.5	791.5	791.5	791.5	791.5
22.5°	772.5	775.5	778.4	780.1	780.5	781.0	781.4	781.9
25°	754.3	757.6	760.8	762.8	763.7	764.5	765.2	766.0
27.5°	734.2	738.3	742.4	744.7	745.4	745.9	746.6	747.1
30°	720.1	724.4	728.7	731.3	732.1	732.8	733.7	734.5
32.5°	704.9	709.8	714.8	718.0	719.5	720.9	722.4	723.8
35°	683.3	689.2	695.1	699.0	700.9	702.8	704.7	706.5
37.5°	661.0	667.6	674.1	678.4	680.4	682.5	684.4	686.4
40°	645.3	652.4	659.3	664.1	666.5	668.9	671.4	673.8
42.5°	630.1	637.8	645.5	650.5	652.9	655.4	657.7	660.2
45°	606.7	615.1	623.4	629.0	631.7	634.4	637.1	639.8
47.5°	582.5	591.2	600.0	605.9	608.8	611.8	614.7	617.7
50°	565.9	575.0	584.2	590.3	593.3	596.2	599.2	602.1
52.5°	547.9	557.2	566.6	572.9	576.1	579.3	582.5	585.7
55°	520.9	530.5	540.3	546.8	550.3	553.9	557.4	560.9
57.5°	492.3	502.7	513.2	520.1	523.7	527.3	530.8	534.4
60°	473.3	483.6	493.8	500.9	504.6	508.4	512.2	515.9
62.5°	453.3	464.1	475.1	482.3	485.8	489.4	493.0	496.5
65°	422.8	433.8	444.9	452.2	455.7	459.1	462.7	466.2
67.5°	391.9	403.1	414.2	421.7	425.3	429.0	432.7	436.3
70°	370.4	382.0	393.6	401.0	404.3	407.5	410.7	414.0
72.5°	349.6	361.0	372.3	380.0	383.9	387.8	391.7	395.5
75°	318.2	329.8	341.4	349.0	352.4	356.0	359.5	363.0
77.5°	287.5	299.0	310.6	318.3	322.0	325.8	329.6	333.4
80°	266.6	278.1	289.4	296.9	300.7	304.4	308.2	312.0
82.5°	247.2	258.6	269.9	277.3	280.9	284.5	288.0	291.6
85°	219.4	230.7	242.0	249.5	253.3	257.1	260.9	264.7
87.5°	198.8	209.6	220.8	228.1	231.6	235.0	238.4	241.9
90°	196.3	206.2	217.9	225.4	228.5	231.8	235.0	238.3
92.5°	212.1	217.1	223.8	227.9	230.8	232.6	236.1	238.7
95°	278.5	261.2	252.5	249.3	246.6	246.2	248.1	251.8
97.5°	425.3	385.1	346.2	320.2	301.7	293.8	290.4	289.8
100°	553.8	507.8	455.9	407.7	373.2	356.7	346.6	341.4
102.5°	635.9	633.0	597.5	546.0	508.2	478.0	464.6	456.5
105°	672.2	732.7	748.0	739.3	714.2	689.2	672.7	669.4
107.5°	627.5	713.4	769.5	797.4	803.9	805.3	804.4	799.0
110°	591.5	681.0	747.5	790.4	812.8	824.3	831.3	833.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	558.0	644.3	714.7	763.0	793.0	810.2	820.9	826.3
115°	515.1	592.7	660.0	712.1	747.1	770.9	785.5	792.6
117.5°	480.1	549.2	610.9	659.9	695.3	720.0	735.1	741.3
120°	461.1	524.7	580.2	626.5	661.2	685.3	701.4	708.8
122.5°	445.1	503.7	556.5	598.6	629.5	652.8	667.1	673.4
125°	420.9	474.7	521.7	560.5	589.1	608.7	622.4	628.4
127.5°	397.0	445.8	490.0	525.7	551.0	569.4	581.5	586.8
130°	381.7	427.0	469.1	503.3	527.6	545.1	556.3	562.1
132.5°	366.7	408.9	448.0	480.2	504.1	521.7	532.1	537.6
135°	345.9	381.4	416.8	446.1	467.6	484.7	495.0	499.0
137.5°	327.8	357.7	386.3	411.8	431.3	446.0	455.0	459.5
140°	316.5	342.5	367.6	390.4	406.5	419.9	428.3	432.5
142.5°	307.8	329.6	350.9	370.0	385.2	397.2	404.6	406.6
145°	296.4	313.0	328.6	343.2	355.4	364.4	370.3	373.0
147.5°	288.1	300.1	311.2	321.2	330.8	337.6	341.4	342.8
150°	283.7	293.7	303.2	311.2	318.1	323.4	326.1	326.6
152.5°	279.7	289.0	297.0	304.0	309.3	314.1	316.1	316.2
155°	274.3	281.5	288.2	293.2	298.2	301.3	303.2	302.2
157.5°	267.8	273.9	279.6	283.4	286.9	289.6	290.4	290.4
160°	263.8	268.8	273.8	276.9	280.1	282.3	282.8	282.8
162.5°	259.8	264.1	268.4	270.8	273.9	275.5	275.9	275.6
165°	253.9	257.1	260.2	262.1	263.8	265.6	265.6	265.2
167.5°	248.2	250.6	252.8	254.4	255.2	256.3	256.2	255.6
170°	245.3	246.7	248.5	249.4	249.9	251.2	250.7	249.9
172.5°	242.1	243.0	244.5	245.0	245.5	246.1	245.7	245.1
175°	238.5	239.0	239.5	239.9	239.9	240.3	239.9	239.0
177.5°	236.0	236.0	236.4	236.4	236.4	236.4	236.0	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9

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