

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: P332585-935

Luminaire Tested: **SA4XXDIP-C795D365U935-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332585-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C795D365U935-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

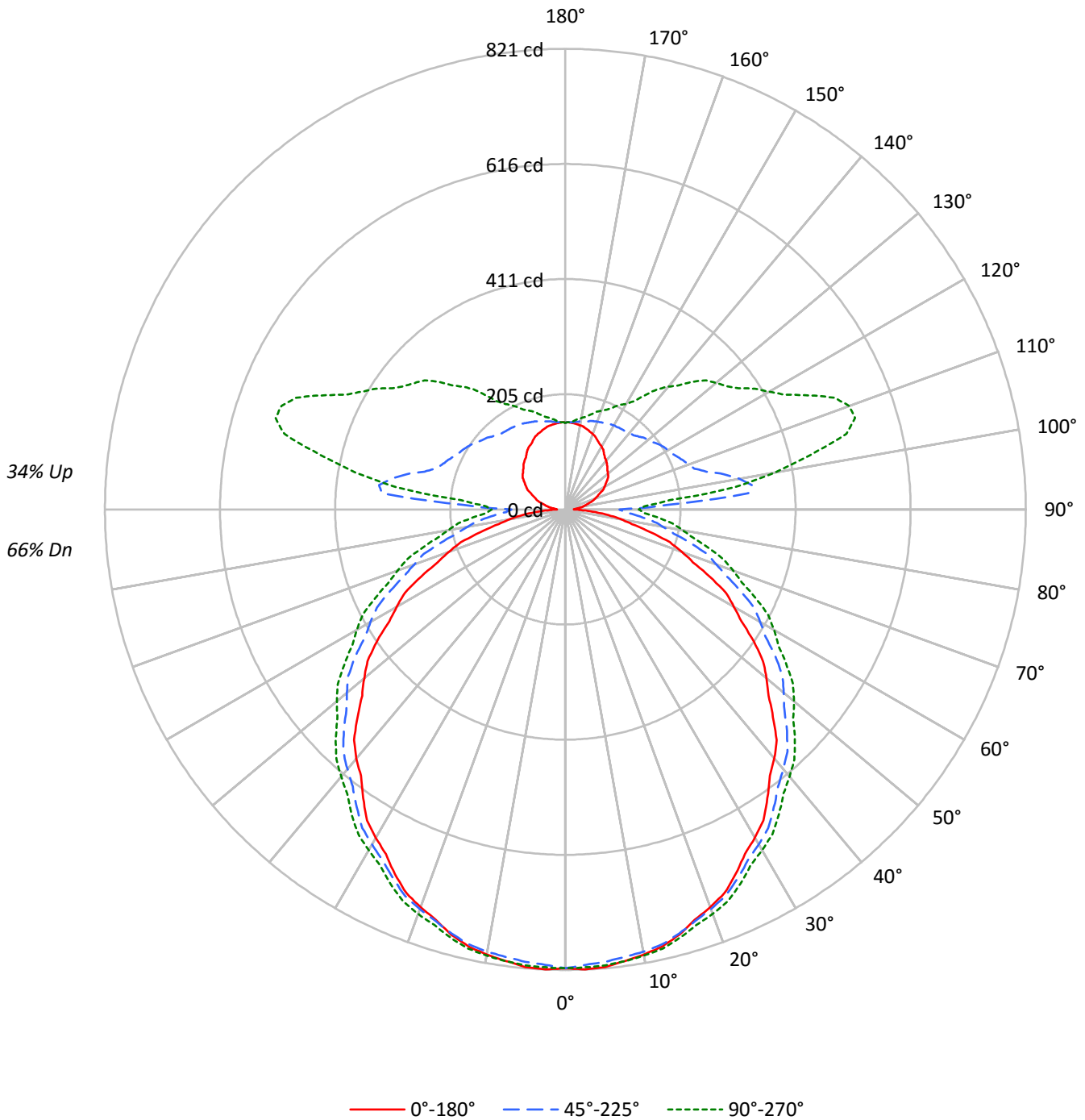
Lumens per Lamp: N/A  
Luminaire Lumens: 3915.3 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

Input Watts (W): 35  
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



TEST NUMBER: P332585-935  
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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	60	59	57	53
2	91	82	75	70	85	77	71	66	68	64	59	60	56	53	52	50	47	43
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	42	39	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30
5	69	56	48	41	64	53	45	39	47	41	36	42	36	32	37	32	29	26
6	63	50	42	36	59	48	40	34	43	36	31	38	32	28	33	29	25	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	22	20
8	54	41	33	27	51	39	32	26	35	29	24	31	26	22	28	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16
10	47	35	27	22	44	33	26	21	30	24	20	27	22	18	24	19	16	14

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

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	2.0
10°-20°	221.9	5.7
20°-30°	335.5	8.6
30°-40°	405.9	10.4
40°-50°	429.2	11.0
50°-60°	403.9	10.3
60°-70°	335.1	8.6
70°-80°	235.4	6.0
80°-90°	133.9	3.4
90°-100°	190.9	4.9
100°-110°	291.3	7.4
110°-120°	247.8	6.3
120°-130°	197.6	5.0
130°-140°	155.8	4.0
140°-150°	113.7	2.9
150°-160°	78.6	2.0
160°-170°	46.2	1.2
170°-180°	15.0	0.4
0°-30°	634.9	16.2
0°-40°	1040.8	26.6
0°-60°	1873.9	47.9
0°-90°	2578.3	65.9
90°-120°	730.0	18.6
90°-150°	1197.1	30.6
90°-180°	1337.0	34.1
0°-180°	3915.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	15	54	96	122	131	10
95°	22	74	328	226	187	21
105°	44	79	260	512	519	47
115°	68	94	221	404	481	68
125°	91	108	203	333	377	81
135°	106	126	184	281	322	82
145°	120	137	175	223	249	76
155°	136	147	170	192	200	63
165°	148	153	163	172	175	42
175°	154	155	156	158	158	15
180°	155	155	155	155	155	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.2	35.6	44.1	52.4	60.8	69.4	78.7	87.6	96.6	105.6	111.5
90°	15.0	23.7	32.7	41.2	49.7	58.1	68.7	77.4	86.8	96.2	101.8
92.5°	17.4	26.3	36.5	47.5	59.3	73.7	97.9	130.3	162.0	182.8	172.4
95°	22.0	29.6	39.3	50.0	64.1	84.4	119.2	177.4	258.5	327.7	340.2
97.5°	28.8	34.6	43.0	52.4	64.5	82.2	110.9	160.3	240.9	335.2	399.7
100°	33.2	38.5	45.9	54.8	66.0	82.3	108.1	150.5	220.5	314.3	397.7
102.5°	38.1	43.2	49.8	57.8	67.9	83.4	107.5	145.4	206.0	289.9	375.6
105°	43.8	48.8	54.4	62.2	71.7	86.3	108.5	141.2	191.4	260.1	336.7
107.5°	52.1	56.0	60.9	68.1	76.6	90.6	111.2	141.2	184.8	241.1	304.4
110°	56.9	60.4	64.7	71.3	79.6	92.8	113.3	141.7	182.4	233.6	287.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	61.6	64.7	69.0	74.9	82.9	95.7	115.5	142.3	180.5	227.7	276.5
115°	68.2	70.9	74.9	79.7	87.4	99.8	118.5	143.2	178.1	221.0	263.9
117.5°	76.0	78.0	80.9	85.4	92.0	104.0	121.7	144.6	176.0	215.2	254.9
120°	80.7	81.9	84.6	88.6	94.4	106.2	123.6	145.3	174.7	211.6	249.4
122.5°	85.5	86.3	88.5	91.7	97.6	108.7	125.8	146.2	173.5	207.7	243.8
125°	91.0	92.0	93.6	96.8	102.4	113.3	129.3	148.4	172.7	202.8	235.8
127.5°	96.4	97.2	99.3	102.9	108.7	119.1	133.6	150.3	171.0	196.6	225.8
130°	98.9	100.0	102.1	106.5	112.1	122.4	136.0	151.2	170.0	192.7	219.5
132.5°	102.0	102.8	105.8	109.9	116.0	125.5	138.4	152.7	169.4	189.5	214.0
135°	105.6	106.9	109.9	115.0	121.4	130.0	141.5	153.9	167.8	183.8	204.7
137.5°	110.0	111.0	114.2	118.9	125.3	133.1	143.2	154.0	165.8	179.5	197.1
140°	113.2	113.9	117.1	122.0	128.2	135.5	144.8	154.8	165.3	177.1	192.9
142.5°	115.9	116.8	119.9	124.7	130.8	137.8	146.5	155.4	165.1	175.6	189.6
145°	120.5	121.2	124.1	128.1	133.7	140.3	148.2	156.4	165.2	174.7	185.6
147.5°	126.0	126.1	128.5	132.7	137.2	143.2	150.6	157.8	165.6	173.6	182.4
150°	129.3	129.4	131.6	135.1	139.5	145.2	151.9	158.5	165.6	172.8	180.5
152.5°	131.7	131.8	134.1	137.5	141.5	146.9	152.8	159.0	165.1	171.6	178.5
155°	136.0	136.3	138.2	141.2	144.6	149.1	154.3	159.5	164.4	169.8	175.6
157.5°	140.3	140.3	142.1	144.4	147.3	150.9	155.3	159.5	163.5	167.9	172.6
160°	143.0	143.0	144.2	146.4	148.8	152.1	155.8	159.5	162.8	166.4	170.4
162.5°	145.4	145.3	146.2	148.1	150.2	152.9	156.3	159.5	162.0	165.0	168.5
165°	148.2	148.2	148.8	150.3	151.9	153.7	156.4	158.9	160.7	162.8	165.2
167.5°	150.9	150.6	150.9	152.1	152.9	154.4	156.4	158.1	159.2	160.6	162.3
170°	152.1	151.9	152.1	153.1	153.7	154.5	156.1	157.6	158.3	159.1	160.4
172.5°	153.3	153.1	153.1	153.8	154.1	154.8	155.8	157.1	157.3	157.6	158.7
175°	154.5	154.3	154.3	154.5	154.9	154.9	155.5	156.4	156.1	156.1	156.7
177.5°	155.2	154.9	154.6	154.9	154.9	154.9	155.2	155.6	155.2	155.2	155.4
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	117.5	123.5	129.4	133.3	135.1	137.0	138.7	140.5
90°	108.0	114.2	120.4	124.2	126.1	128.0	129.3	131.0
92.5°	157.5	148.4	145.0	142.6	140.7	140.6	141.2	142.8
95°	316.2	274.5	239.2	213.4	200.3	192.7	189.0	186.9
97.5°	417.8	405.6	381.2	352.9	332.9	316.3	308.9	304.4
100°	447.5	459.2	449.8	430.7	405.6	388.5	380.8	379.8
102.5°	441.9	477.4	487.1	481.1	466.5	454.6	446.6	446.3
105°	411.5	469.2	504.4	520.2	522.5	521.7	519.0	518.8
107.5°	371.2	432.3	479.7	510.1	526.6	534.9	539.5	541.7
110°	346.7	404.0	452.8	489.5	512.7	527.1	534.2	538.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	327.4	378.4	424.6	461.2	487.3	504.5	513.8	519.8
115°	306.4	348.3	388.4	420.5	446.0	465.7	476.8	480.7
117.5°	292.8	328.0	360.3	388.0	410.2	427.1	438.6	442.1
120°	285.5	317.8	346.3	370.7	389.7	404.7	414.2	419.2
122.5°	278.9	310.3	336.5	358.2	374.4	387.3	395.4	400.2
125°	268.9	298.9	323.8	343.1	356.5	366.5	373.5	376.6
127.5°	256.9	285.6	310.2	328.6	342.2	351.5	357.7	360.9
130°	248.4	276.1	300.4	319.0	332.7	341.6	347.7	350.7
132.5°	240.0	266.1	289.8	308.3	321.8	331.6	337.4	340.4
135°	227.1	250.2	272.0	289.5	302.9	312.6	318.7	321.8
137.5°	216.0	235.7	254.3	270.1	282.5	291.9	296.9	300.1
140°	209.5	226.4	242.8	257.4	269.1	276.7	282.1	285.5
142.5°	204.0	218.9	232.9	245.6	255.9	262.9	267.6	270.2
145°	196.6	208.2	218.5	228.1	236.4	242.5	246.3	248.7
147.5°	190.5	198.9	206.4	213.4	219.7	224.8	227.7	228.9
150°	187.8	194.8	200.9	206.3	211.2	215.2	217.0	217.2
152.5°	185.1	191.1	196.7	201.2	205.3	208.5	209.7	210.0
155°	181.1	185.9	190.5	194.2	197.2	199.6	200.5	200.5
157.5°	176.8	180.8	184.7	187.6	189.9	191.7	192.3	192.3
160°	174.1	177.4	180.7	183.2	185.0	186.8	187.2	187.2
162.5°	171.4	174.3	176.8	179.1	180.4	182.2	182.5	182.3
165°	167.6	169.5	171.6	173.1	174.4	175.6	175.3	175.0
167.5°	164.1	165.5	167.2	168.1	168.7	169.5	169.4	169.2
170°	161.9	162.8	164.0	165.0	165.6	165.8	165.6	165.6
172.5°	160.0	160.6	161.4	162.0	162.4	162.6	162.4	161.9
175°	157.3	157.6	158.3	158.3	158.3	158.9	158.3	157.6
177.5°	155.6	155.8	155.8	156.1	155.8	156.1	155.6	155.2
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9

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