

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: P333168-930

Luminaire Tested: **S125DIP-S610D365U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333168-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D365U930-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3110.0 lumens  
Efficiency: N/A  
Efficacy: 113.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

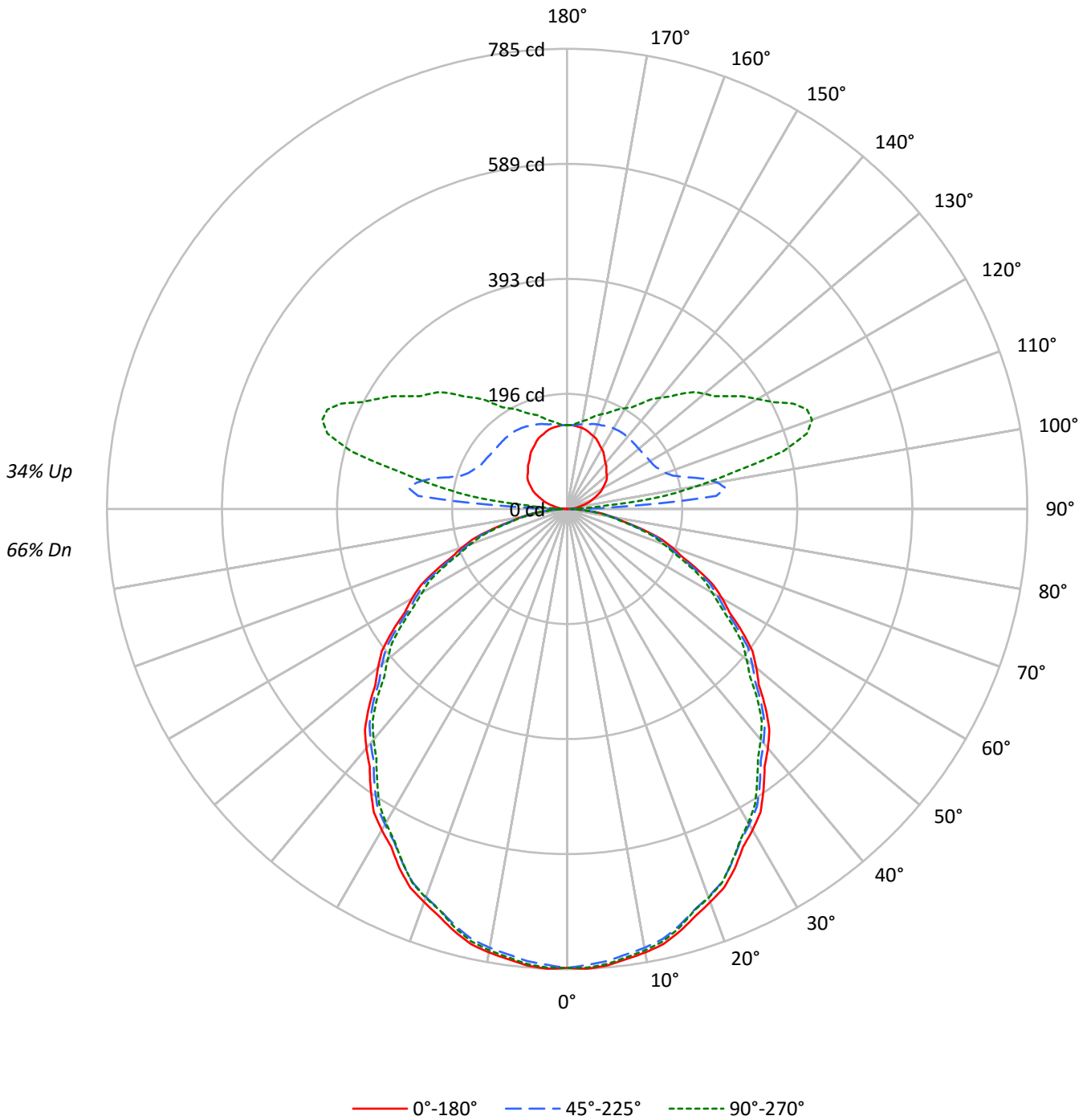
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66
1	101	97	93	89	95	91	88	84	81	78	76	71	69	67	62	61	59	55
2	92	84	78	73	86	80	74	69	71	66	62	62	59	56	55	52	50	46
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42	39
4	77	66	58	51	72	62	55	49	55	49	45	49	44	41	43	40	37	33
5	71	59	50	44	66	56	48	42	50	43	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	35	31	28	25
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	17

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

	0°	45°	90°
0°	5057	5057	5057
5°	5068	5020	5052
10°	5037	4985	5013
15°	4983	4924	4945
20°	4904	4841	4849
25°	4821	4741	4737
30°	4716	4633	4610
35°	4606	4518	4454
40°	4491	4392	4330
45°	4369	4277	4192
50°	4233	4140	4015
55°	4102	3983	3871
60°	3945	3825	3689
65°	3758	3636	3512
70°	3580	3416	3299
75°	3261	3154	3047
80°	2901	2856	2786
85°	2527	2571	2438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.8	2.4
10°-20°	208.5	6.7
20°-30°	307.9	9.9
30°-40°	359.3	11.6
40°-50°	360.9	11.6
50°-60°	316.8	10.2
60°-70°	236.0	7.6
70°-80°	135.0	4.3
80°-90°	40.1	1.3
90°-100°	103.6	3.3
100°-110°	222.7	7.2
110°-120°	209.0	6.7
120°-130°	169.4	5.4
130°-140°	135.9	4.4
140°-150°	102.6	3.3
150°-160°	72.2	2.3
160°-170°	42.6	1.4
170°-180°	13.8	0.4
0°-30°	590.3	19.0
0°-40°	949.6	30.5
0°-60°	1627.2	52.3
0°-90°	2038.3	65.5
90°-120°	535.3	17.2
90°-150°	943.1	30.3
90°-180°	1072.0	34.5
0°-180°	3110.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	782	780	774	780	779	74
15°	745	743	736	739	740	210
25°	676	673	665	666	665	311
35°	584	581	573	570	565	365
45°	478	476	468	461	459	368
55°	364	362	354	348	344	325
65°	246	244	238	232	230	244
75°	131	129	126	124	122	139
85°	34	35	35	34	33	38
90°	0	3	5	6	7	2
95°	10	28	255	116	68	10
105°	32	46	209	411	382	34
115°	58	70	168	362	425	57
125°	81	94	161	288	335	72
135°	94	114	160	241	278	73
145°	110	126	160	200	220	69
155°	126	135	156	176	184	58
165°	137	141	150	159	161	39
175°	143	143	144	146	145	14
180°	143	143	143	143	143	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0
2.5°	785.0	784.6	784.3	784.0	783.7	782.9	781.9	780.7	779.7	778.5	779.7
5°	781.8	781.5	781.2	780.9	780.6	779.8	778.4	777.1	775.7	774.3	775.6
7.5°	774.5	774.3	774.0	773.7	773.5	772.6	771.0	769.6	768.0	766.5	767.7
10°	768.1	767.8	767.6	767.3	767.0	766.1	764.6	763.1	761.6	760.1	761.2
12.5°	760.2	759.7	759.2	758.7	758.2	757.2	755.9	754.5	753.0	751.6	752.5
15°	745.2	744.8	744.4	744.0	743.6	742.6	741.1	739.6	738.0	736.5	737.2
17.5°	728.0	727.4	726.8	726.2	725.5	724.5	722.9	721.3	719.7	718.2	719.0
20°	713.6	713.3	713.1	712.8	712.5	711.5	709.7	707.9	706.1	704.3	705.3
22.5°	699.2	698.7	698.2	697.7	697.2	696.2	694.5	692.8	691.1	689.4	690.1
25°	676.5	675.7	675.1	674.4	673.7	672.5	670.7	668.9	667.1	665.3	665.6
27.5°	649.8	649.4	649.0	648.6	648.2	647.0	645.1	643.4	641.5	639.7	639.7
30°	632.4	632.0	631.6	631.2	630.8	629.6	627.5	625.4	623.4	621.3	621.0
32.5°	613.6	613.0	612.4	611.7	611.1	609.8	608.1	606.2	604.3	602.5	602.0
35°	584.2	583.6	583.0	582.5	582.0	580.7	578.8	576.8	574.9	573.0	572.3
37.5°	553.5	552.9	552.2	551.5	550.8	549.5	547.7	545.9	544.0	542.3	541.3
40°	532.7	532.1	531.3	530.7	529.9	528.6	526.8	524.8	522.9	521.0	519.8
42.5°	510.5	509.9	509.2	508.7	508.1	506.9	504.9	503.0	501.1	499.1	498.1
45°	478.3	477.7	477.1	476.5	476.1	474.9	473.3	471.7	469.9	468.3	466.7
47.5°	443.5	443.5	443.6	443.6	443.6	442.6	440.7	438.7	436.8	434.7	433.1
50°	421.3	420.8	420.4	420.0	419.6	418.6	416.9	415.2	413.6	412.0	410.2
52.5°	398.4	398.1	397.9	397.5	397.2	396.2	394.4	392.6	390.9	389.1	387.6
55°	364.3	363.8	363.4	363.0	362.6	361.4	359.5	357.6	355.6	353.7	352.5
57.5°	328.2	328.0	327.8	327.5	327.3	326.4	324.7	323.1	321.5	319.9	318.3
60°	305.4	304.8	304.3	303.7	303.2	302.1	300.7	299.1	297.6	296.1	294.7
62.5°	281.6	281.2	280.7	280.3	279.8	279.0	277.7	276.4	275.1	273.8	272.3
65°	245.9	245.6	245.4	245.1	244.8	243.9	242.4	240.9	239.4	237.9	236.6
67.5°	211.3	210.8	210.2	209.6	209.0	208.2	207.1	205.9	204.8	203.7	202.6
70°	189.6	188.9	188.2	187.5	186.8	185.8	184.6	183.4	182.1	180.9	180.0
72.5°	165.8	165.3	164.9	164.4	163.9	163.2	162.5	161.7	160.9	160.0	159.1
75°	130.7	130.4	130.1	129.9	129.6	129.1	128.4	127.8	127.0	126.4	126.0
77.5°	98.4	98.2	98.2	98.0	97.9	97.7	97.3	96.9	96.5	96.1	95.9
80°	78.0	78.0	78.0	78.0	78.0	77.9	77.6	77.4	77.1	76.8	76.6
82.5°	60.3	60.0	59.8	59.5	59.4	59.2	59.1	59.1	59.0	58.9	58.7
85°	34.1	34.2	34.3	34.5	34.7	34.7	34.7	34.7	34.7	34.7	34.6
87.5°	13.5	13.5	13.6	13.7	13.9	13.9	13.9	13.9	13.8	13.8	13.9
90°	0.3	0.6	1.1	1.7	2.3	2.9	3.2	3.8	4.0	4.6	4.9
92.5°	3.5	4.2	6.7	10.3	15.2	23.6	39.4	65.7	94.4	92.9	75.2
95°	9.5	9.8	12.1	15.2	21.6	34.6	65.4	128.8	208.3	255.3	249.8
97.5°	15.8	16.1	17.8	21.0	26.7	36.0	56.3	102.8	186.1	272.6	316.1
100°	20.1	20.7	21.9	25.0	30.6	39.2	55.9	93.4	166.0	260.2	332.2
102.5°	25.0	25.4	26.3	29.7	34.7	43.1	58.0	89.4	150.7	238.3	322.5
105°	32.5	32.5	34.0	36.9	41.5	49.6	62.2	87.9	136.0	208.9	291.6
107.5°	39.9	40.5	41.9	44.3	49.1	56.3	68.6	90.5	129.8	188.7	260.0
110°	45.2	45.8	47.0	49.6	53.9	61.4	73.2	93.1	127.9	179.2	242.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	50.5	51.1	52.0	54.6	58.9	66.2	77.5	96.3	127.9	173.7	228.7
115°	58.2	58.8	59.7	62.2	66.5	73.8	84.5	101.1	128.8	167.7	214.1
117.5°	65.1	66.0	66.9	69.5	74.4	81.4	91.5	106.6	130.7	164.8	205.4
120°	69.7	70.6	71.7	74.4	79.2	86.4	96.5	110.4	132.6	163.4	200.6
122.5°	74.6	75.2	76.1	78.8	84.1	91.3	101.3	114.5	134.1	162.2	196.4
125°	80.7	81.3	82.7	85.3	90.7	98.2	107.8	120.2	136.9	160.8	190.8
127.5°	85.4	86.3	88.1	91.5	97.3	104.8	113.9	125.3	139.9	160.1	185.6
130°	88.5	89.4	91.6	95.4	101.4	108.9	117.8	128.8	141.8	159.6	182.1
132.5°	90.7	91.9	94.7	98.8	105.1	112.6	121.6	131.8	143.8	159.6	179.4
135°	94.5	95.6	99.1	103.7	109.8	117.6	126.5	136.0	146.7	159.6	176.0
137.5°	99.2	100.1	103.3	107.9	113.9	121.9	130.0	139.1	149.3	160.0	173.1
140°	102.0	102.9	106.3	111.0	116.4	124.2	132.6	141.2	150.4	160.2	171.7
142.5°	105.3	105.8	109.1	113.7	119.0	126.3	134.1	142.4	151.1	160.5	170.6
145°	110.1	110.6	113.5	117.6	122.8	129.4	136.9	144.1	151.8	160.2	168.8
147.5°	115.1	115.4	118.0	121.7	126.2	132.0	138.6	145.1	152.1	159.5	167.1
150°	118.1	118.7	120.7	124.5	128.5	133.4	139.7	145.8	152.1	158.7	165.7
152.5°	121.4	121.7	123.5	126.8	130.6	135.0	140.9	146.3	151.9	157.8	164.0
155°	125.6	125.6	127.3	130.2	133.1	137.1	142.0	146.7	151.2	156.2	161.3
157.5°	129.5	129.4	130.8	133.2	135.7	138.8	143.0	146.9	150.5	154.4	158.8
160°	132.0	131.7	132.8	134.9	137.1	139.7	143.5	146.9	149.9	153.3	156.8
162.5°	134.0	133.8	134.9	136.7	138.5	140.6	144.0	146.8	149.1	151.9	154.9
165°	137.1	136.6	137.5	138.8	140.1	141.8	144.1	146.3	148.1	149.9	152.1
167.5°	139.3	138.9	139.5	140.2	141.0	142.2	144.1	145.7	146.5	147.8	149.4
170°	140.6	140.3	140.6	141.2	141.8	142.6	144.1	145.2	145.8	146.7	147.8
172.5°	141.5	141.0	141.3	141.9	142.2	142.6	143.8	144.8	144.9	145.3	146.2
175°	142.6	142.0	142.4	142.6	142.6	142.6	143.5	144.1	143.8	143.8	144.1
177.5°	143.2	142.7	142.7	142.9	142.7	142.7	143.2	143.4	142.9	142.9	143.2
180°	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0
2.5°	780.7	781.9	782.9	783.4	783.3	783.2	783.1	783.0
5°	776.8	778.0	779.3	779.8	779.7	779.6	779.4	779.3
7.5°	768.9	770.1	771.4	771.9	771.8	771.6	771.5	771.4
10°	762.3	763.4	764.5	765.0	764.8	764.7	764.5	764.4
12.5°	753.4	754.3	755.1	755.6	755.5	755.5	755.5	755.5
15°	737.9	738.6	739.3	739.6	739.6	739.6	739.6	739.6
17.5°	719.9	720.7	721.6	721.7	721.0	720.3	719.7	718.9
20°	706.2	707.2	708.2	708.3	707.6	706.9	706.2	705.6
22.5°	690.7	691.4	692.0	692.1	691.6	691.1	690.6	690.2
25°	665.9	666.1	666.4	666.3	665.9	665.5	665.1	664.7
27.5°	639.8	639.8	639.8	639.7	639.3	638.9	638.5	638.1
30°	620.8	620.5	620.2	619.9	619.5	619.1	618.6	618.2
32.5°	601.5	601.0	600.5	599.9	599.2	598.4	597.6	596.9
35°	571.6	571.0	570.2	569.3	568.3	567.1	566.1	564.9
37.5°	540.2	539.2	538.2	537.4	536.7	536.1	535.5	534.8
40°	518.4	517.2	516.0	515.2	514.8	514.4	514.0	513.6
42.5°	496.9	495.8	494.6	493.7	493.1	492.5	491.9	491.2
45°	465.0	463.3	461.7	460.6	460.2	459.8	459.4	459.0
47.5°	431.4	429.7	428.0	426.7	425.7	424.8	423.8	422.8
50°	408.4	406.6	404.8	403.4	402.4	401.5	400.5	399.6
52.5°	386.0	384.4	382.9	381.6	380.5	379.4	378.3	377.2
55°	351.2	350.0	348.8	347.6	346.7	345.7	344.8	343.8
57.5°	316.7	315.1	313.5	312.4	311.9	311.4	310.9	310.4
60°	293.3	292.0	290.6	289.4	288.5	287.5	286.5	285.6
62.5°	270.8	269.4	267.8	266.8	266.0	265.2	264.5	263.7
65°	235.4	234.2	232.9	232.0	231.5	230.9	230.4	229.8
67.5°	201.6	200.6	199.5	198.8	198.4	198.1	197.8	197.5
70°	179.2	178.4	177.6	176.9	176.3	175.8	175.2	174.7
72.5°	158.2	157.3	156.3	155.6	155.0	154.5	153.9	153.4
75°	125.6	125.1	124.7	124.3	123.7	123.1	122.6	122.1
77.5°	95.6	95.4	95.1	94.8	94.4	94.1	93.7	93.3
80°	76.6	76.4	76.2	76.1	75.7	75.5	75.3	74.9
82.5°	58.5	58.2	58.0	57.8	57.8	57.7	57.6	57.6
85°	34.4	34.2	34.2	33.9	33.7	33.3	33.1	32.9
87.5°	13.9	13.9	14.0	14.0	13.9	13.6	13.5	13.2
90°	5.2	5.5	5.8	6.4	6.4	6.4	6.6	6.6
92.5°	51.0	37.0	27.9	23.6	20.0	19.2	18.8	18.3
95°	207.2	163.4	127.9	103.7	83.2	74.6	72.3	67.8
97.5°	308.5	277.9	243.3	209.6	191.8	175.7	167.4	163.6
100°	354.4	340.3	310.6	280.6	260.7	240.0	229.3	224.8
102.5°	369.8	378.5	364.4	344.1	322.8	308.0	296.4	293.0
105°	360.8	400.2	412.9	409.8	400.5	391.0	385.2	381.8
107.5°	328.2	380.9	413.4	428.5	433.2	433.2	431.2	428.9
110°	304.3	359.1	399.7	424.1	437.1	442.5	444.6	444.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	285.4	337.4	378.5	407.3	426.2	435.7	440.7	442.8
115°	261.6	306.3	345.8	377.2	399.7	413.4	421.5	425.3
117.5°	246.3	284.8	318.8	347.6	370.1	384.4	392.4	394.7
120°	238.0	272.6	304.3	329.6	351.0	364.8	372.6	374.9
122.5°	231.8	263.8	292.0	315.8	334.8	347.5	355.3	357.3
125°	222.7	252.1	277.2	297.9	314.1	325.9	332.2	335.1
127.5°	213.5	240.9	264.3	283.7	298.4	308.8	314.8	316.1
130°	207.7	233.1	255.6	274.3	288.7	298.2	304.0	305.7
132.5°	201.9	225.8	246.1	264.2	278.6	288.0	293.3	295.3
135°	194.5	214.3	232.8	249.2	262.0	271.4	276.6	278.3
137.5°	188.2	204.2	219.6	233.5	244.8	253.5	258.3	260.2
140°	184.7	198.2	211.5	223.6	234.2	241.7	246.1	247.5
142.5°	181.7	193.1	204.6	215.1	224.1	230.5	234.6	235.8
145°	177.8	186.7	195.7	203.4	210.3	215.2	218.4	219.6
147.5°	174.1	181.3	188.3	194.1	199.6	203.5	205.3	205.9
150°	172.0	178.4	183.8	189.0	193.3	196.8	198.0	198.2
152.5°	169.7	175.4	180.3	184.4	188.0	190.8	191.9	192.2
155°	166.2	170.9	174.9	178.1	180.9	183.0	183.8	184.1
157.5°	162.8	166.6	169.7	172.2	174.5	176.1	176.9	176.8
160°	160.5	163.4	166.2	168.3	170.3	171.7	172.3	172.0
162.5°	157.9	160.6	163.1	164.9	166.4	167.5	167.7	167.6
165°	154.4	156.5	158.2	159.6	160.8	161.3	161.3	161.3
167.5°	151.1	152.5	153.8	154.8	155.4	155.9	155.6	155.6
170°	149.3	150.1	151.0	151.6	152.1	152.5	152.5	152.1
172.5°	147.2	148.1	148.7	149.0	149.1	149.7	149.2	148.9
175°	145.0	145.0	145.5	145.5	145.5	145.8	145.2	145.0
177.5°	143.4	143.6	143.6	143.6	143.4	143.6	142.9	142.9
180°	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9

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