

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: P333219-930

Luminaire Tested: **S125DIP-S850D590U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333219-930  
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-S850D590U930-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

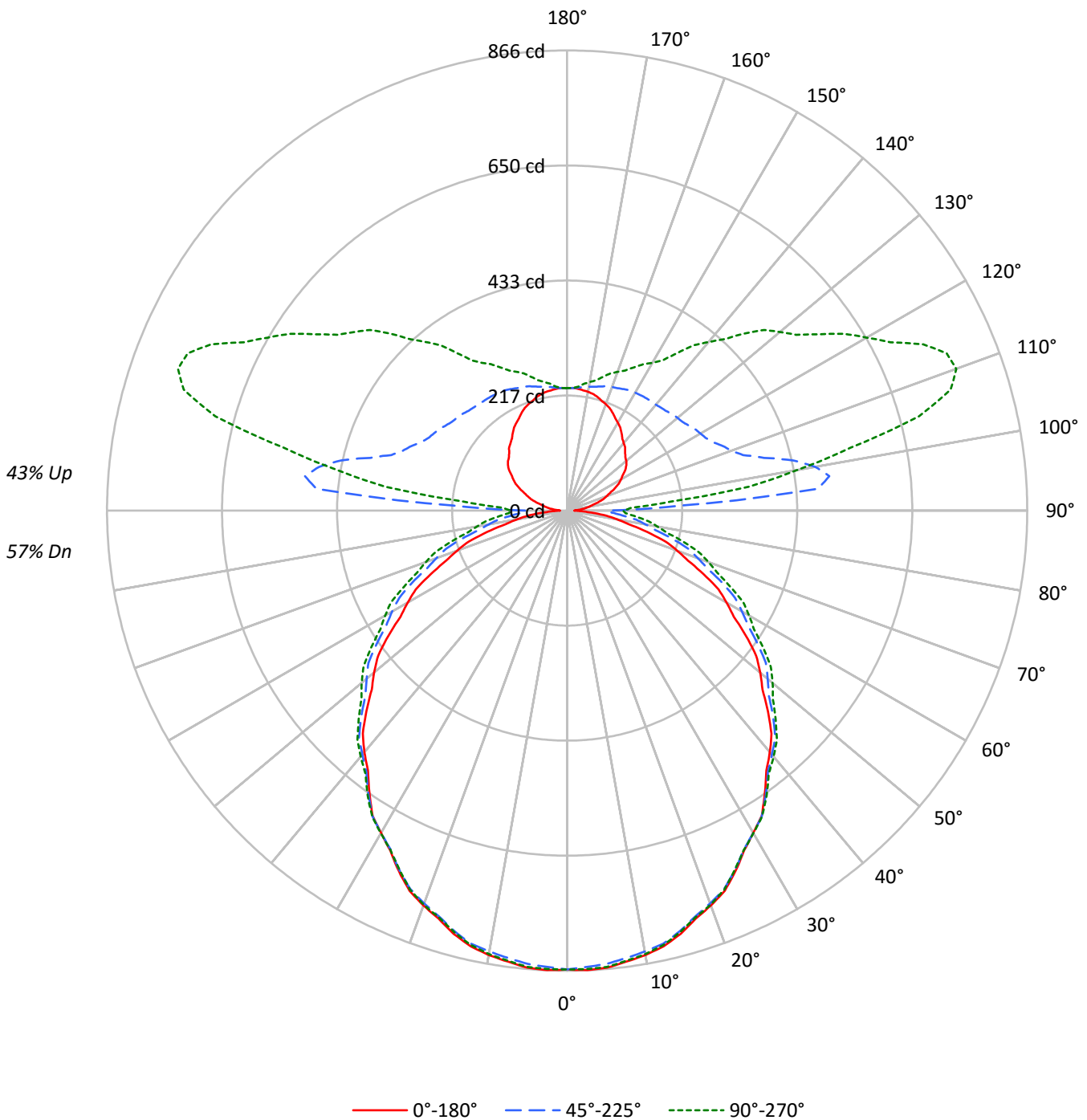
Lumens per Lamp: N/A  
Luminaire Lumens: 4406.2 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	101	101	101	101	87	87	87		74	74	74		63	63	63	57
1	99	94	90	86	91	87	84	80	75	72	70		64	62	60		54	53	51	46
2	89	81	75	69	83	76	70	65	65	61	57		56	53	50		47	45	42	38
3	81	71	64	57	75	67	60	54	57	52	48		49	45	42		41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	41		44	39	35		37	33	31	27
5	68	56	48	41	63	52	45	39	45	39	35		39	34	31		33	29	27	23
6	63	50	42	36	58	47	39	34	41	35	30		35	30	27		30	26	23	20
7	58	45	37	31	54	42	35	30	37	31	27		32	27	24		27	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24		29	25	21		25	21	18	16
9	50	38	30	25	47	35	28	23	31	25	21		27	22	19		23	19	17	14
10	47	34	27	22	44	32	26	21	29	23	19		25	20	17		21	18	15	13

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

	0°	45°	90°
0°	5577	5577	5577
5°	5589	5475	5492
10°	5549	5377	5369
15°	5484	5260	5212
20°	5394	5115	5055
25°	5288	4960	4863
30°	5160	4791	4687
35°	5040	4634	4526
40°	4918	4469	4364
45°	4780	4328	4221
50°	4649	4175	4095
55°	4491	4030	3946
60°	4317	3865	3793
65°	4137	3693	3622
70°	3931	3457	3446
75°	3607	3230	3231
80°	3183	2957	2996
85°	2789	2770	2923



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.9
10°-20°	231.8	5.3
20°-30°	344.8	7.8
30°-40°	408.4	9.3
40°-50°	422.2	9.6
50°-60°	389.0	8.8
60°-70°	314.4	7.1
70°-80°	210.6	4.8
80°-90°	110.5	2.5
90°-100°	228.5	5.2
100°-110°	404.6	9.2
110°-120°	367.6	8.3
120°-130°	290.6	6.6
130°-140°	226.9	5.1
140°-150°	167.1	3.8
150°-160°	116.5	2.6
160°-170°	68.7	1.6
170°-180°	22.3	0.5
0°-30°	658.3	14.9
0°-40°	1066.7	24.2
0°-60°	1877.9	42.6
0°-90°	2513.4	57.0
90°-120°	1000.7	22.7
90°-150°	1685.3	38.2
90°-180°	1893.0	43.0
0°-180°	4406.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	864	862	856	862	862	82
15°	825	825	820	824	821	232
25°	749	751	747	750	746	345
35°	649	654	652	654	654	406
45°	534	543	548	553	555	412
55°	411	424	438	447	450	367
65°	283	302	323	335	339	280
75°	156	178	205	221	226	165
85°	47	75	104	122	130	50
90°	14	45	77	98	106	10
95°	26	79	474	267	196	25
105°	60	95	384	727	686	64
115°	99	125	304	631	740	97
125°	134	156	279	497	578	118
135°	154	185	264	406	471	120
145°	178	204	259	326	362	112
155°	203	218	252	285	297	93
165°	221	227	242	256	260	62
175°	230	230	232	235	234	22
180°	231	231	231	231	231	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	865.7	865.4	865.1	864.8	864.5	863.8	862.7	861.7	860.6	859.6	860.6
5°	863.6	863.3	862.9	862.5	862.2	861.3	860.0	858.7	857.4	856.1	857.5
7.5°	856.1	855.9	855.7	855.6	855.4	854.7	853.4	852.0	850.6	849.3	850.6
10°	849.3	849.3	849.3	849.3	849.3	848.6	847.0	845.5	844.0	842.5	843.8
12.5°	839.8	839.9	840.1	840.2	840.4	839.8	838.7	837.5	836.3	835.0	836.1
15°	824.8	824.9	825.1	825.2	825.5	824.9	823.6	822.3	820.9	819.6	820.8
17.5°	805.1	805.4	805.8	806.2	806.6	806.1	804.8	803.5	802.2	800.9	801.7
20°	790.8	791.2	791.6	792.0	792.4	791.9	790.6	789.3	787.9	786.6	787.2
22.5°	774.6	775.3	775.9	776.7	777.3	776.9	775.4	774.0	772.5	771.0	771.8
25°	749.3	749.9	750.5	751.1	751.6	751.3	750.2	749.1	748.0	746.8	747.5
27.5°	721.2	722.1	722.9	723.7	724.6	724.3	723.1	721.8	720.5	719.3	719.7
30°	700.3	701.4	702.5	703.6	704.7	704.7	703.6	702.5	701.4	700.3	700.7
32.5°	681.3	682.2	683.2	684.2	685.2	685.3	684.4	683.6	682.8	682.0	682.3
35°	648.6	650.0	651.3	652.6	653.9	654.3	653.7	653.1	652.6	652.0	652.6
37.5°	615.9	617.1	618.3	619.5	620.8	621.3	621.0	620.9	620.7	620.5	621.3
40°	593.5	595.1	596.6	598.1	599.6	600.2	600.1	599.9	599.7	599.5	600.2
42.5°	569.2	571.1	573.1	575.0	577.0	578.2	578.6	579.0	579.4	579.8	580.7
45°	534.3	536.4	538.4	540.5	542.6	544.0	545.0	545.9	546.9	547.8	549.2
47.5°	498.6	500.5	502.4	504.3	506.2	508.0	509.6	511.3	512.8	514.5	516.4
50°	474.2	476.2	478.3	480.4	482.4	484.5	486.6	488.7	490.7	492.8	494.9
52.5°	448.4	450.9	453.5	456.0	458.5	461.1	463.6	466.1	468.6	471.2	473.4
55°	410.7	413.7	416.7	419.7	422.7	425.7	428.8	431.8	434.7	437.7	439.9
57.5°	372.0	375.7	379.3	382.9	386.5	390.0	393.5	397.0	400.4	403.9	406.3
60°	346.3	350.1	353.8	357.6	361.3	365.2	368.9	372.7	376.4	380.2	383.0
62.5°	321.2	325.0	328.8	332.6	336.3	340.2	344.3	348.4	352.4	356.4	359.6
65°	282.8	287.1	291.5	295.8	300.1	304.5	309.1	313.6	318.1	322.6	325.5
67.5°	246.5	250.8	254.9	259.1	263.3	267.7	272.2	276.9	281.4	286.0	289.4
70°	220.1	224.5	228.8	233.2	237.5	242.1	247.0	251.8	256.7	261.6	265.2
72.5°	194.4	198.9	203.3	207.8	212.3	217.2	222.6	228.0	233.3	238.6	242.5
75°	155.8	160.7	165.6	170.5	175.4	180.8	186.9	192.9	198.9	204.9	208.6
77.5°	118.7	124.3	130.0	135.7	141.3	147.0	152.8	158.6	164.4	170.2	174.3
80°	95.7	101.3	107.0	112.6	118.3	124.3	130.7	137.1	143.5	149.9	154.0
82.5°	74.7	80.6	86.6	92.5	98.5	104.7	111.3	117.8	124.3	130.9	134.9
85°	46.6	52.7	59.0	65.2	71.4	77.8	84.4	91.0	97.6	104.1	108.3
87.5°	26.5	32.6	38.8	45.0	51.3	57.6	64.2	70.7	77.2	83.8	88.2
90°	14.0	20.5	27.5	34.4	41.3	48.5	55.4	62.7	69.5	76.9	81.7
92.5°	17.9	24.6	34.2	45.5	59.0	78.7	110.6	159.7	212.5	216.6	192.2
95°	26.3	31.7	40.4	50.3	65.5	92.0	148.2	256.9	391.7	473.9	469.2
97.5°	35.5	40.4	47.5	57.0	70.6	90.9	130.0	211.2	351.6	497.7	571.7
100°	41.9	46.7	52.6	61.6	74.4	93.4	126.4	192.8	316.0	474.2	594.4
102.5°	49.0	53.2	58.4	67.5	79.2	97.6	127.4	184.1	288.9	436.1	575.8
105°	60.2	63.2	68.5	76.1	86.7	104.0	130.1	177.2	260.4	383.8	521.0
107.5°	71.1	74.5	79.3	85.7	96.0	111.7	137.0	177.8	246.5	347.1	465.9
110°	78.9	82.1	86.3	92.7	101.9	117.8	142.1	179.4	241.0	329.1	434.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	87.5	90.3	93.5	99.5	108.3	123.5	146.9	182.3	238.5	317.4	409.6
115°	99.1	101.3	104.0	109.5	117.8	132.5	154.6	186.5	236.0	303.7	382.0
117.5°	109.3	111.6	114.0	119.0	127.8	141.8	162.7	191.8	235.3	294.9	363.6
120°	116.8	118.7	121.2	125.9	134.4	148.5	169.1	195.8	235.9	289.9	353.1
122.5°	123.9	125.2	126.9	131.4	140.3	154.2	174.6	200.0	235.9	285.4	343.6
125°	133.6	134.4	136.5	140.5	149.1	163.0	182.1	205.9	236.6	279.0	330.4
127.5°	140.5	141.7	144.5	149.6	158.8	172.4	190.2	211.7	238.3	273.9	317.9
130°	145.3	146.5	150.1	155.9	165.5	178.8	195.8	216.1	239.7	271.2	310.1
132.5°	148.4	150.1	154.5	161.3	171.4	184.4	200.9	219.5	241.0	268.5	303.0
135°	154.3	155.9	161.3	168.5	178.1	191.3	207.0	223.6	242.1	264.4	293.3
137.5°	161.7	163.0	168.0	175.3	184.7	197.9	211.7	227.0	244.0	262.0	285.4
140°	165.5	166.9	172.4	179.9	188.7	201.4	215.1	229.2	244.3	260.2	281.0
142.5°	170.7	171.5	176.6	183.9	192.2	204.0	216.8	230.0	244.2	259.3	277.4
145°	178.5	179.3	183.7	190.0	198.2	208.8	220.9	232.5	245.1	258.6	273.5
147.5°	185.8	186.4	190.4	196.4	203.7	213.1	223.7	234.2	245.6	257.4	269.9
150°	190.7	191.6	194.9	200.9	207.4	215.3	225.6	235.3	245.6	256.2	267.4
152.5°	195.9	196.4	199.3	204.6	210.8	217.9	227.4	236.0	245.2	254.8	264.8
155°	202.8	202.8	205.5	210.2	214.8	221.4	229.3	236.7	244.2	252.1	260.4
157.5°	208.9	208.8	211.1	215.1	219.2	224.0	230.9	237.2	243.0	249.2	256.3
160°	213.0	212.5	214.4	217.7	221.4	225.6	231.6	237.2	241.8	247.4	253.0
162.5°	216.4	215.9	217.8	220.6	223.6	227.1	232.4	236.8	240.8	245.2	250.1
165°	221.4	220.5	221.8	224.1	226.0	228.9	232.5	236.3	239.0	241.8	245.6
167.5°	224.7	224.3	225.1	226.4	227.7	229.4	232.5	235.1	236.4	238.6	241.2
170°	227.0	226.5	227.0	227.9	228.9	230.2	232.5	234.4	235.3	236.7	238.6
172.5°	228.4	227.6	228.0	229.0	229.6	230.2	232.2	233.7	233.8	234.5	235.9
175°	230.2	229.3	229.8	230.2	230.2	230.2	231.6	232.5	232.0	232.0	232.5
177.5°	231.1	230.3	230.3	230.6	230.3	230.3	231.1	231.4	230.6	230.6	231.1
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	861.7	862.7	863.8	864.3	864.1	864.0	863.8	863.6
5°	859.1	860.5	862.1	862.7	862.5	862.3	862.2	862.0
7.5°	851.9	853.2	854.5	855.1	854.9	854.8	854.5	854.4
10°	845.1	846.4	847.7	848.3	848.2	848.0	847.7	847.6
12.5°	837.1	838.1	839.1	839.4	838.9	838.4	837.9	837.4
15°	821.9	823.0	824.2	824.3	823.6	822.8	822.1	821.3
17.5°	802.6	803.5	804.3	804.5	804.0	803.6	803.2	802.7
20°	787.7	788.3	788.9	789.1	789.1	789.1	789.1	789.1
22.5°	772.5	773.1	773.9	774.0	773.6	773.1	772.7	772.3
25°	748.4	749.1	749.8	749.7	748.8	747.9	746.9	746.0
27.5°	720.2	720.8	721.3	721.5	721.1	720.7	720.4	720.1
30°	701.0	701.4	701.7	701.9	701.6	701.5	701.3	701.1
32.5°	682.7	683.1	683.5	683.5	683.4	683.2	683.0	682.8
35°	653.1	653.7	654.3	654.5	654.5	654.5	654.5	654.5
37.5°	622.0	622.7	623.5	623.9	623.8	623.7	623.6	623.5
40°	601.0	601.8	602.5	603.1	603.4	603.8	604.2	604.5
42.5°	581.6	582.5	583.4	583.9	584.0	584.1	584.2	584.2
45°	550.5	551.8	553.1	553.8	554.1	554.2	554.4	554.6
47.5°	518.3	520.2	522.1	523.3	523.7	524.2	524.6	525.0
50°	496.9	499.0	501.1	502.4	503.0	503.5	504.1	504.7
52.5°	475.6	477.8	480.0	481.4	481.8	482.2	482.6	483.0
55°	441.9	444.0	446.1	447.4	448.2	449.0	449.7	450.5
57.5°	408.6	411.0	413.4	414.8	415.4	416.0	416.5	417.1
60°	385.8	388.7	391.5	393.1	393.7	394.3	394.8	395.4
62.5°	362.7	365.8	369.0	370.9	371.6	372.3	373.0	373.7
65°	328.2	331.1	333.9	335.7	336.5	337.2	337.9	338.7
67.5°	292.9	296.3	299.7	301.9	302.9	303.9	304.8	305.8
70°	268.8	272.4	276.0	278.3	279.4	280.5	281.7	282.8
72.5°	246.4	250.2	254.1	256.5	257.3	258.1	258.9	259.8
75°	212.5	216.2	220.0	222.3	223.2	224.2	225.1	226.1
77.5°	178.5	182.6	186.8	189.2	190.0	190.7	191.4	192.2
80°	158.2	162.3	166.4	168.8	169.7	170.4	171.1	171.9
82.5°	138.8	142.8	146.8	149.5	150.9	152.2	153.6	155.0
85°	112.4	116.6	120.7	123.5	125.1	126.5	128.1	129.6
87.5°	92.6	97.0	101.5	104.5	105.8	107.1	108.5	109.8
90°	86.4	91.2	96.0	99.8	101.1	102.4	104.2	105.5
92.5°	157.5	139.1	128.5	124.3	119.7	119.8	120.6	121.2
95°	404.5	337.9	284.9	248.5	216.8	204.2	201.8	195.7
97.5°	563.5	517.9	466.1	414.4	386.9	362.2	349.9	345.3
100°	634.1	615.3	571.4	525.5	494.6	462.2	446.1	439.8
102.5°	656.1	673.9	654.7	624.4	591.3	568.6	551.0	546.6
105°	636.3	703.8	728.1	725.5	711.9	697.9	689.9	685.7
107.5°	579.8	668.5	724.8	751.5	760.2	761.2	759.4	756.8
110°	538.1	630.0	699.1	741.1	763.4	773.6	778.1	779.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	504.5	591.8	661.6	710.6	742.5	759.0	768.4	773.1
115°	462.1	537.5	604.6	657.6	695.0	718.4	732.6	739.8
117.5°	432.9	498.2	556.3	605.0	642.6	666.9	681.2	686.2
120°	416.8	475.8	530.2	573.2	608.8	632.3	646.0	650.8
122.5°	403.7	458.5	507.1	547.6	579.4	601.0	614.7	619.1
125°	385.0	435.5	478.9	514.4	541.4	561.3	572.5	578.1
127.5°	365.7	412.8	453.4	486.7	511.4	529.3	540.1	543.2
130°	354.2	397.7	436.6	468.6	492.8	509.1	519.3	523.1
132.5°	342.1	383.1	418.7	449.5	473.5	489.7	499.0	503.0
135°	325.5	360.1	392.3	420.5	442.0	458.2	467.6	471.2
137.5°	311.9	340.1	367.0	391.0	410.1	424.8	433.3	437.1
140°	303.9	327.8	351.3	372.3	390.2	403.1	410.8	413.9
142.5°	297.2	317.4	337.6	355.8	371.1	382.1	389.5	392.2
145°	288.9	304.2	319.5	333.0	344.9	353.5	359.4	362.0
147.5°	281.6	293.6	305.0	314.8	324.0	330.6	333.9	335.1
150°	277.6	287.9	296.7	305.2	312.3	318.1	320.2	320.8
152.5°	273.9	283.1	291.1	297.7	303.5	308.1	310.0	310.5
155°	268.3	275.8	282.3	287.4	292.0	295.3	296.7	297.2
157.5°	262.8	268.9	273.9	277.9	281.5	284.2	285.5	285.4
160°	259.0	263.7	268.3	271.6	274.8	277.2	278.1	277.6
162.5°	254.9	259.3	263.1	266.0	268.6	270.5	270.7	270.6
165°	249.2	252.5	255.4	257.6	259.5	260.4	260.4	260.4
167.5°	243.9	246.1	248.2	249.8	250.8	251.6	251.2	251.1
170°	240.9	242.3	243.7	244.6	245.6	246.1	246.1	245.6
172.5°	237.6	239.0	239.9	240.5	240.8	241.6	240.8	240.4
175°	233.9	233.9	234.9	234.9	234.9	235.3	234.4	233.9
177.5°	231.4	231.8	231.8	231.8	231.4	231.8	230.6	230.6
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6

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