

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: P333132-940

Luminaire Tested: **S125DIP-S375D590U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333132-940  
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-S375D590U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3248.9 lumens  
Efficiency: N/A  
Efficacy: 126.9 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: General Diffuse

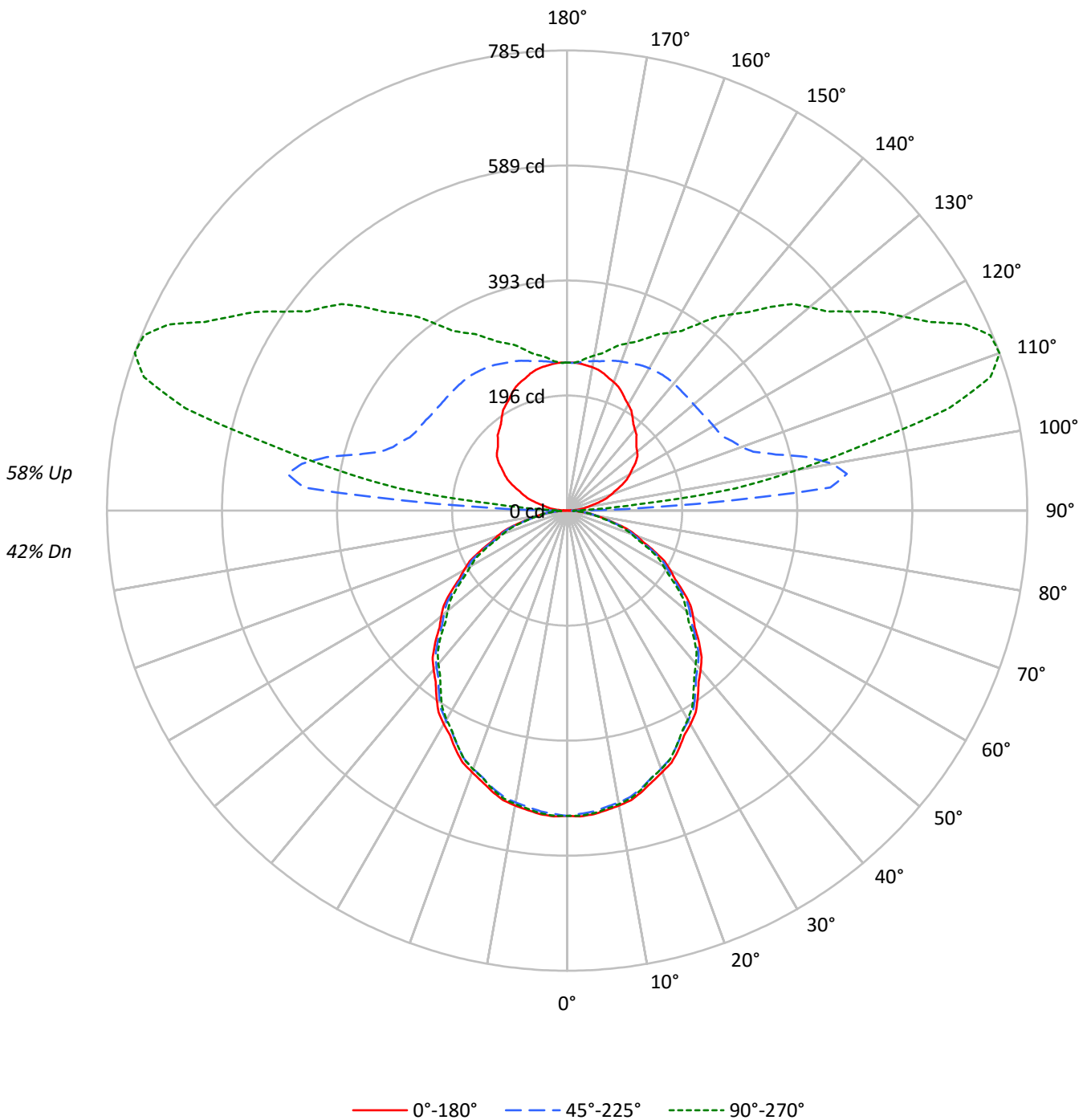
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	84	87	84	80	77	69	67	64	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	63	60	57	53	49	46	44	38	36	34	29
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	33	31	29	25
4	73	62	54	48	66	57	50	45	47	42	38	38	34	32	30	27	25	21
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	18
6	61	49	41	36	56	45	38	33	38	33	29	31	27	24	24	21	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22	26	22	19	20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	15	13	11

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

	0°	45°	90°
0°	3364	3364	3364
5°	3371	3339	3361
10°	3351	3316	3335
15°	3315	3276	3290
20°	3263	3221	3226
25°	3207	3154	3151
30°	3138	3082	3067
35°	3064	3005	2964
40°	2989	2922	2880
45°	2906	2846	2789
50°	2816	2753	2671
55°	2728	2649	2575
60°	2623	2545	2454
65°	2500	2419	2337
70°	2381	2274	2194
75°	2168	2099	2024
80°	1930	1901	1852
85°	1675	1712	1615



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	1.5
10°-20°	138.7	4.3
20°-30°	204.9	6.3
30°-40°	239.0	7.4
40°-50°	240.1	7.4
50°-60°	210.7	6.5
60°-70°	157.0	4.8
70°-80°	89.8	2.8
80°-90°	27.5	0.8
90°-100°	182.9	5.6
100°-110°	393.1	12.1
110°-120°	369.0	11.4
120°-130°	299.0	9.2
130°-140°	240.0	7.4
140°-150°	181.1	5.6
150°-160°	127.5	3.9
160°-170°	75.1	2.3
170°-180°	24.4	0.8
0°-30°	392.7	12.1
0°-40°	631.7	19.4
0°-60°	1082.6	33.3
0°-90°	1356.9	41.8
90°-120°	945.0	29.1
90°-150°	1665.0	51.2
90°-180°	1892.0	58.2
0°-180°	3248.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	520	519	515	519	518	49
15°	496	494	490	492	492	140
25°	450	448	443	443	442	207
35°	389	387	381	379	376	243
45°	318	316	312	307	305	245
55°	242	241	235	232	229	216
65°	164	163	158	155	153	162
75°	87	86	84	83	81	93
85°	23	23	23	23	22	25
90°	0	5	8	11	12	2
95°	17	50	451	205	120	18
105°	58	80	369	726	674	61
115°	103	124	296	638	751	101
125°	142	167	284	508	592	126
135°	167	201	282	426	491	129
145°	194	223	283	352	388	122
155°	222	239	276	312	325	102
165°	242	249	264	281	285	68
175°	252	252	254	257	256	24
180°	252	252	252	252	252	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9
2.5°	522.2	522.0	521.8	521.6	521.4	520.8	520.1	519.4	518.7	517.9	518.7
5°	520.0	519.9	519.7	519.5	519.3	518.8	517.9	517.0	516.0	515.1	515.9
7.5°	515.3	515.1	515.0	514.8	514.6	514.0	513.0	511.9	511.0	510.0	510.8
10°	511.0	510.9	510.7	510.5	510.3	509.7	508.7	507.7	506.7	505.7	506.4
12.5°	505.8	505.4	505.1	504.8	504.4	503.8	502.8	501.9	501.0	500.1	500.6
15°	495.8	495.5	495.3	495.0	494.6	494.0	493.0	492.0	491.0	490.0	490.4
17.5°	484.3	483.9	483.5	483.1	482.7	482.0	480.9	479.9	478.8	477.8	478.4
20°	474.7	474.6	474.4	474.2	474.0	473.3	472.2	470.9	469.8	468.6	469.2
22.5°	465.2	464.8	464.5	464.2	463.9	463.2	462.0	460.9	459.8	458.7	459.1
25°	450.0	449.6	449.1	448.6	448.2	447.4	446.2	445.0	443.8	442.6	442.8
27.5°	432.3	432.0	431.8	431.5	431.2	430.4	429.3	428.0	426.8	425.5	425.6
30°	420.8	420.5	420.2	419.9	419.6	418.8	417.5	416.1	414.7	413.3	413.1
32.5°	408.2	407.8	407.4	407.0	406.5	405.7	404.5	403.2	402.1	400.8	400.5
35°	388.6	388.3	387.9	387.5	387.2	386.3	385.0	383.8	382.5	381.2	380.8
37.5°	368.3	367.8	367.4	366.8	366.4	365.6	364.4	363.2	361.9	360.8	360.1
40°	354.5	353.9	353.5	353.0	352.6	351.7	350.4	349.2	347.9	346.6	345.8
42.5°	339.6	339.2	338.9	338.4	338.0	337.2	335.9	334.7	333.3	332.1	331.4
45°	318.2	317.8	317.4	317.1	316.6	315.9	314.9	313.8	312.6	311.6	310.5
47.5°	295.1	295.1	295.1	295.2	295.2	294.5	293.2	291.9	290.5	289.2	288.1
50°	280.3	280.0	279.7	279.4	279.1	278.5	277.3	276.3	275.2	274.0	272.9
52.5°	265.1	264.8	264.7	264.5	264.3	263.6	262.4	261.3	260.0	258.9	257.9
55°	242.3	242.0	241.7	241.5	241.2	240.4	239.2	237.9	236.6	235.3	234.5
57.5°	218.4	218.2	218.0	217.9	217.8	217.1	216.1	215.0	213.9	212.9	211.8
60°	203.1	202.8	202.4	202.1	201.7	201.0	200.0	199.0	198.0	197.0	196.1
62.5°	187.3	187.1	186.7	186.5	186.2	185.6	184.8	183.9	183.0	182.2	181.2
65°	163.6	163.5	163.3	163.1	162.9	162.3	161.3	160.2	159.3	158.3	157.4
67.5°	140.6	140.3	139.8	139.5	139.1	138.5	137.8	137.0	136.3	135.5	134.8
70°	126.1	125.6	125.2	124.8	124.3	123.6	122.8	122.0	121.2	120.4	119.8
72.5°	110.3	109.9	109.7	109.3	109.1	108.6	108.1	107.5	107.0	106.5	105.8
75°	86.9	86.8	86.6	86.4	86.2	85.9	85.4	85.0	84.5	84.1	83.8
77.5°	65.5	65.4	65.3	65.2	65.2	65.0	64.7	64.5	64.2	63.9	63.8
80°	51.9	51.9	51.9	51.9	51.9	51.8	51.6	51.5	51.3	51.1	51.0
82.5°	40.0	39.9	39.8	39.6	39.5	39.4	39.3	39.3	39.2	39.2	39.1
85°	22.6	22.7	22.8	22.9	23.0	23.1	23.1	23.1	23.1	23.1	23.0
87.5°	9.0	9.1	9.3	9.5	9.7	9.9	9.9	10.1	10.1	10.2	10.3
90°	0.5	1.0	2.1	3.0	4.1	5.1	5.6	6.6	7.1	8.1	8.6
92.5°	6.2	7.5	11.8	18.1	26.8	41.7	69.5	116.1	166.7	164.0	132.8
95°	16.8	17.3	21.4	26.9	38.2	61.1	115.5	227.4	367.7	450.7	441.0
97.5°	27.9	28.4	31.3	36.9	47.0	63.5	99.5	181.5	328.4	481.3	558.0
100°	35.6	36.6	38.7	44.2	53.9	69.2	98.7	164.8	293.0	459.3	586.5
102.5°	44.1	44.8	46.4	52.4	61.3	76.1	102.4	157.9	266.1	420.6	569.4
105°	57.5	57.5	60.0	65.1	73.2	87.5	109.9	155.2	240.0	368.8	514.8
107.5°	70.5	71.5	73.9	78.1	86.6	99.4	121.1	159.8	229.1	333.1	459.1
110°	79.9	80.9	82.9	87.5	95.1	108.3	129.2	164.3	225.9	316.4	427.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	89.3	90.2	91.8	96.5	104.1	116.9	137.0	170.0	225.9	306.7	403.7
115°	102.7	103.8	105.3	109.9	117.5	130.2	149.0	178.5	227.4	296.0	377.9
117.5°	114.9	116.5	118.2	122.7	131.3	143.7	161.5	188.3	230.7	290.9	362.6
120°	123.1	124.7	126.6	131.3	139.9	152.6	170.4	194.8	234.0	288.4	354.0
122.5°	131.6	132.8	134.4	138.9	148.5	161.1	179.0	202.2	236.8	286.4	346.7
125°	142.4	143.5	146.0	150.5	160.2	173.4	190.2	212.1	241.7	283.8	336.7
127.5°	150.9	152.4	155.7	161.5	171.7	184.9	201.1	221.2	247.0	282.6	327.6
130°	156.1	157.7	161.8	168.4	179.1	192.3	208.0	227.4	250.3	281.8	321.5
132.5°	160.2	162.2	167.0	174.5	185.6	198.8	214.5	232.6	254.0	281.8	316.6
135°	166.8	168.9	175.0	183.2	193.8	207.5	223.3	240.0	258.9	281.8	310.8
137.5°	175.2	176.7	182.4	190.6	201.0	215.2	229.5	245.6	263.5	282.4	305.6
140°	180.0	181.6	187.7	195.8	205.5	219.3	234.0	249.2	265.6	282.9	303.2
142.5°	185.7	186.9	192.6	200.7	210.0	222.9	236.8	251.3	266.7	283.2	301.1
145°	194.3	195.3	200.4	207.5	216.7	228.4	241.7	254.3	268.0	282.9	298.1
147.5°	203.2	203.8	208.2	214.8	222.7	233.1	244.7	256.2	268.6	281.5	294.9
150°	208.6	209.6	213.1	219.7	226.9	235.5	246.7	257.3	268.6	280.3	292.5
152.5°	214.3	214.8	218.0	223.8	230.5	238.4	248.7	258.2	268.1	278.7	289.6
155°	221.8	221.8	224.8	229.9	235.0	242.1	250.7	258.9	267.1	275.7	284.8
157.5°	228.5	228.4	230.9	235.2	239.7	245.0	252.5	259.4	265.7	272.6	280.4
160°	233.0	232.5	234.5	238.1	242.1	246.7	253.3	259.4	264.5	270.6	276.7
162.5°	236.7	236.1	238.2	241.3	244.6	248.3	254.1	259.0	263.3	268.1	273.5
165°	242.1	241.1	242.6	245.1	247.2	250.3	254.3	258.4	261.4	264.5	268.6
167.5°	245.8	245.3	246.2	247.6	249.1	250.9	254.3	257.2	258.6	260.9	263.8
170°	248.3	247.7	248.3	249.2	250.3	251.8	254.3	256.4	257.3	258.9	260.9
172.5°	249.9	249.0	249.4	250.5	251.1	251.8	254.0	255.6	255.7	256.5	258.1
175°	251.8	250.7	251.3	251.8	251.8	251.8	253.3	254.3	253.8	253.8	254.3
177.5°	252.7	251.9	251.9	252.3	251.9	251.9	252.7	253.1	252.3	252.3	252.7
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9
2.5°	519.4	520.1	520.8	521.2	521.1	521.0	521.0	520.9
5°	516.7	517.6	518.4	518.8	518.7	518.6	518.5	518.4
7.5°	511.6	512.4	513.2	513.5	513.4	513.4	513.3	513.2
10°	507.1	507.8	508.6	508.9	508.8	508.7	508.6	508.5
12.5°	501.2	501.9	502.4	502.7	502.7	502.7	502.7	502.6
15°	490.9	491.3	491.9	492.0	492.0	492.0	492.0	492.0
17.5°	478.9	479.5	480.1	480.1	479.7	479.2	478.8	478.3
20°	469.8	470.5	471.1	471.3	470.7	470.3	469.8	469.4
22.5°	459.5	459.9	460.4	460.4	460.1	459.8	459.5	459.1
25°	443.0	443.2	443.4	443.3	443.0	442.7	442.5	442.2
27.5°	425.6	425.6	425.7	425.6	425.3	425.0	424.7	424.5
30°	413.0	412.8	412.6	412.4	412.1	411.9	411.5	411.3
32.5°	400.2	399.8	399.5	399.1	398.6	398.1	397.6	397.1
35°	380.3	379.9	379.3	378.8	378.1	377.3	376.6	375.9
37.5°	359.4	358.7	358.0	357.5	357.0	356.7	356.2	355.8
40°	344.9	344.1	343.3	342.8	342.5	342.1	341.9	341.6
42.5°	330.6	329.8	329.0	328.5	328.1	327.6	327.3	326.8
45°	309.3	308.3	307.2	306.5	306.2	305.9	305.7	305.4
47.5°	287.0	285.9	284.7	283.8	283.2	282.6	282.0	281.3
50°	271.7	270.5	269.3	268.4	267.7	267.1	266.4	265.8
52.5°	256.8	255.7	254.7	253.9	253.2	252.4	251.7	251.0
55°	233.6	232.8	232.0	231.3	230.7	230.0	229.3	228.7
57.5°	210.7	209.6	208.6	207.9	207.5	207.1	206.8	206.4
60°	195.2	194.2	193.3	192.5	191.9	191.3	190.6	190.0
62.5°	180.2	179.1	178.2	177.5	177.0	176.5	175.9	175.5
65°	156.6	155.8	155.0	154.4	154.0	153.6	153.3	152.9
67.5°	134.1	133.4	132.7	132.2	132.1	131.8	131.6	131.3
70°	119.2	118.7	118.2	117.7	117.3	117.0	116.5	116.2
72.5°	105.2	104.6	104.0	103.5	103.2	102.8	102.4	102.0
75°	83.6	83.3	82.9	82.7	82.3	81.9	81.6	81.1
77.5°	63.7	63.5	63.3	63.1	62.9	62.6	62.3	62.1
80°	50.9	50.8	50.7	50.6	50.4	50.2	50.0	49.8
82.5°	38.9	38.7	38.6	38.4	38.4	38.4	38.3	38.3
85°	22.9	22.8	22.7	22.6	22.4	22.2	22.0	21.8
87.5°	10.4	10.5	10.6	10.7	10.6	10.4	10.4	10.3
90°	9.2	9.6	10.2	11.1	11.1	11.1	11.7	11.7
92.5°	90.2	65.5	49.2	41.7	35.2	34.0	33.3	32.5
95°	365.7	288.4	225.9	183.2	147.0	131.7	127.7	119.6
97.5°	544.7	490.4	429.5	370.1	338.7	310.1	295.4	288.9
100°	625.6	600.7	548.3	495.4	460.3	423.7	404.9	396.7
102.5°	652.9	668.2	643.1	607.3	569.8	543.8	523.3	517.2
105°	636.9	706.5	728.9	723.3	707.0	690.3	680.1	674.0
107.5°	579.4	672.4	730.0	756.4	764.7	764.6	761.3	757.2
110°	537.2	633.8	705.5	748.8	771.6	781.3	784.9	784.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	503.8	595.6	668.1	719.1	752.5	769.1	777.9	781.6
115°	461.8	540.7	610.4	665.8	705.5	730.0	744.1	750.8
117.5°	434.8	502.7	562.8	613.7	653.4	678.6	692.7	696.8
120°	420.2	481.2	537.2	581.9	619.6	644.0	657.7	661.7
122.5°	409.2	465.7	515.6	557.5	591.0	613.4	627.1	630.8
125°	393.2	445.1	489.4	525.9	554.5	575.3	586.5	591.6
127.5°	376.9	425.3	466.6	501.0	526.7	545.2	555.7	558.0
130°	366.8	411.5	451.2	484.2	509.7	526.5	536.6	539.7
132.5°	356.6	398.5	434.5	466.4	491.8	508.5	517.9	521.4
135°	343.3	378.4	411.0	440.0	462.4	479.1	488.3	491.3
137.5°	332.2	360.5	387.6	412.2	432.2	447.5	455.9	459.3
140°	326.0	350.0	373.4	394.8	413.6	426.8	434.4	436.9
142.5°	320.7	341.0	361.1	379.7	395.7	406.8	414.0	416.2
145°	313.9	329.6	345.4	359.1	371.3	380.0	385.6	387.6
147.5°	307.4	320.1	332.3	342.6	352.3	359.2	362.5	363.4
150°	303.6	314.9	324.5	333.7	341.3	347.4	349.5	350.0
152.5°	299.6	309.6	318.4	325.6	332.0	336.8	338.9	339.4
155°	293.5	301.7	308.7	314.3	319.4	323.0	324.5	325.0
157.5°	287.4	294.1	299.6	304.0	307.9	310.9	312.3	312.2
160°	283.3	288.4	293.5	297.0	300.6	303.2	304.2	303.6
162.5°	278.8	283.6	287.8	291.0	293.7	295.9	296.0	296.0
165°	272.6	276.2	279.3	281.8	283.8	284.8	284.8	284.8
167.5°	266.7	269.1	271.4	273.2	274.3	275.2	274.7	274.6
170°	263.5	265.0	266.5	267.5	268.6	269.1	269.1	268.6
172.5°	259.8	261.4	262.4	263.1	263.3	264.2	263.4	262.9
175°	255.8	255.8	256.9	256.9	256.9	257.3	256.4	255.8
177.5°	253.1	253.5	253.5	253.5	253.1	253.5	252.3	252.3
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3

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