

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: P333168-940

Luminaire Tested: **S125DIP-S610D365U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333168-940  
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-S610D365U940-4F0-1E-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: 3401.5 lumens  
Efficiency: N/A  
Efficacy: 123.7 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

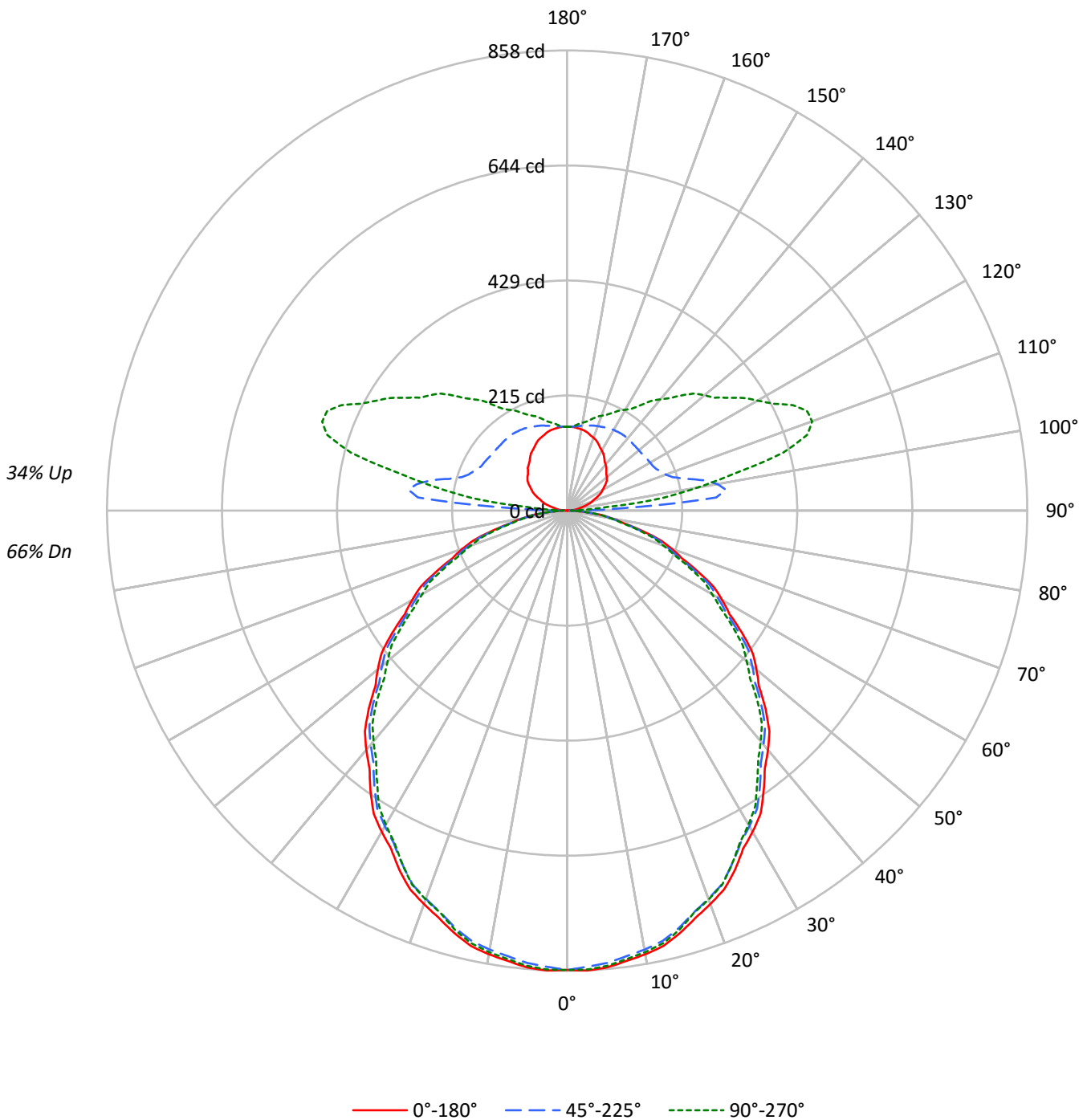
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5531	5531	5531
5°	5544	5490	5525
10°	5509	5452	5483
15°	5449	5386	5409
20°	5364	5294	5304
25°	5273	5185	5181
30°	5158	5068	5043
35°	5037	4941	4872
40°	4912	4804	4736
45°	4778	4678	4585
50°	4629	4527	4391
55°	4486	4355	4234
60°	4314	4184	4035
65°	4109	3976	3842
70°	3914	3737	3609
75°	3566	3449	3331
80°	3172	3124	3046
85°	2764	2808	2660



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.7	2.4
10°-20°	228.1	6.7
20°-30°	336.8	9.9
30°-40°	393.0	11.6
40°-50°	394.7	11.6
50°-60°	346.5	10.2
60°-70°	258.2	7.6
70°-80°	147.6	4.3
80°-90°	43.8	1.3
90°-100°	113.3	3.3
100°-110°	243.6	7.2
110°-120°	228.6	6.7
120°-130°	185.2	5.4
130°-140°	148.7	4.4
140°-150°	112.2	3.3
150°-160°	79.0	2.3
160°-170°	46.5	1.4
170°-180°	15.1	0.4
0°-30°	645.6	19.0
0°-40°	1038.6	30.5
0°-60°	1779.7	52.3
0°-90°	2229.3	65.5
90°-120°	585.4	17.2
90°-150°	1031.5	30.3
90°-180°	1172.0	34.5
0°-180°	3401.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	847	853	852	81
15°	815	813	806	809	809	230
25°	740	736	728	729	727	340
35°	639	636	627	623	618	399
45°	523	520	512	504	502	403
55°	398	396	387	381	376	356
65°	269	267	260	254	251	267
75°	143	142	138	136	134	152
85°	37	38	38	37	36	42
90°	0	3	5	7	7	3
95°	10	31	279	127	74	11
105°	36	50	228	450	418	38
115°	64	77	183	395	465	63
125°	88	103	176	314	366	78
135°	103	124	175	264	304	80
145°	120	138	175	218	240	75
155°	137	148	171	193	201	63
165°	150	154	164	174	176	42
175°	156	156	157	159	158	15
180°	156	156	156	156	156	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	858.5	858.2	857.8	857.5	857.1	856.3	855.2	853.9	852.7	851.5	852.7
5°	855.1	854.7	854.4	854.1	853.8	852.9	851.4	849.9	848.4	846.9	848.3
7.5°	847.1	846.9	846.6	846.2	846.0	845.0	843.3	841.7	840.0	838.4	839.6
10°	840.1	839.8	839.5	839.2	838.9	837.9	836.2	834.6	832.9	831.3	832.5
12.5°	831.4	830.9	830.4	829.8	829.3	828.2	826.7	825.2	823.6	822.1	823.0
15°	815.0	814.6	814.1	813.7	813.2	812.2	810.6	808.9	807.2	805.6	806.3
17.5°	796.2	795.6	794.9	794.2	793.5	792.4	790.7	788.9	787.2	785.5	786.4
20°	780.5	780.2	779.9	779.6	779.3	778.2	776.2	774.3	772.3	770.3	771.4
22.5°	764.7	764.2	763.7	763.1	762.6	761.4	759.6	757.8	755.9	754.0	754.7
25°	739.9	739.0	738.3	737.6	736.8	735.5	733.5	731.6	729.6	727.6	728.0
27.5°	710.7	710.2	709.8	709.4	708.9	707.7	705.6	703.6	701.6	699.6	699.6
30°	691.7	691.3	690.8	690.4	689.9	688.6	686.3	684.0	681.8	679.6	679.2
32.5°	671.1	670.5	669.8	669.1	668.3	667.0	665.0	663.0	660.9	659.0	658.4
35°	638.9	638.3	637.7	637.1	636.5	635.2	633.0	630.9	628.8	626.7	626.0
37.5°	605.4	604.7	604.0	603.2	602.4	601.0	599.1	597.1	595.0	593.1	592.0
40°	582.6	581.9	581.1	580.4	579.6	578.2	576.1	574.0	571.9	569.8	568.5
42.5°	558.3	557.7	557.0	556.3	555.7	554.4	552.2	550.2	548.0	545.9	544.7
45°	523.1	522.5	521.8	521.2	520.7	519.4	517.6	515.9	514.0	512.2	510.4
47.5°	485.1	485.1	485.2	485.2	485.2	484.1	482.0	479.8	477.7	475.5	473.7
50°	460.7	460.2	459.8	459.3	458.9	457.8	455.9	454.1	452.4	450.6	448.6
52.5°	435.8	435.4	435.2	434.8	434.4	433.3	431.4	429.4	427.6	425.6	423.9
55°	398.4	397.9	397.4	397.0	396.5	395.3	393.2	391.1	389.0	386.8	385.5
57.5°	358.9	358.7	358.5	358.2	358.0	357.0	355.2	353.4	351.6	349.9	348.1
60°	334.0	333.4	332.8	332.2	331.6	330.5	328.9	327.2	325.5	323.9	322.4
62.5°	308.0	307.6	307.0	306.6	306.0	305.1	303.7	302.3	300.9	299.4	297.8
65°	268.9	268.7	268.4	268.0	267.8	266.8	265.1	263.5	261.8	260.2	258.8
67.5°	231.1	230.5	229.9	229.3	228.6	227.7	226.5	225.2	224.0	222.7	221.6
70°	207.3	206.6	205.8	205.1	204.3	203.2	201.9	200.5	199.2	197.9	196.9
72.5°	181.3	180.7	180.3	179.8	179.2	178.5	177.7	176.8	175.9	175.0	174.1
75°	142.9	142.7	142.3	142.0	141.8	141.2	140.4	139.7	138.9	138.2	137.8
77.5°	107.6	107.5	107.4	107.2	107.1	106.8	106.4	106.0	105.6	105.1	104.9
80°	85.3	85.3	85.3	85.3	85.3	85.2	84.9	84.6	84.4	84.0	83.8
82.5°	65.9	65.6	65.4	65.1	64.9	64.7	64.6	64.6	64.6	64.5	64.2
85°	37.3	37.5	37.5	37.7	37.9	37.9	37.9	37.9	37.9	37.9	37.8
87.5°	14.7	14.8	14.9	15.0	15.2	15.2	15.2	15.2	15.1	15.1	15.2
90°	0.4	0.6	1.2	1.9	2.5	3.1	3.5	4.1	4.4	5.1	5.4
92.5°	3.8	4.6	7.3	11.2	16.7	25.9	43.1	71.9	103.3	101.6	82.2
95°	10.4	10.7	13.2	16.7	23.6	37.8	71.5	140.9	227.8	279.2	273.2
97.5°	17.3	17.7	19.4	22.9	29.2	39.3	61.6	112.4	203.5	298.2	345.7
100°	22.0	22.6	24.0	27.4	33.4	42.9	61.2	102.1	181.6	284.5	363.4
102.5°	27.4	27.7	28.7	32.5	38.0	47.2	63.4	97.8	164.9	260.6	352.8
105°	35.6	35.6	37.2	40.3	45.4	54.2	68.0	96.1	148.7	228.5	319.0
107.5°	43.7	44.3	45.8	48.4	53.7	61.6	75.0	99.0	142.0	206.3	284.4
110°	49.5	50.1	51.4	54.2	58.9	67.1	80.1	101.8	139.9	196.0	264.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	55.3	55.9	56.9	59.7	64.5	72.4	84.8	105.3	139.9	189.9	250.1
115°	63.7	64.3	65.3	68.0	72.8	80.7	92.4	110.6	140.9	183.4	234.2
117.5°	71.2	72.1	73.2	76.0	81.4	89.0	100.0	116.6	142.9	180.2	224.6
120°	76.2	77.2	78.5	81.3	86.7	94.5	105.6	120.7	145.0	178.7	219.4
122.5°	81.6	82.2	83.3	86.1	91.9	99.9	110.8	125.2	146.7	177.5	214.8
125°	88.3	88.9	90.4	93.3	99.2	107.5	117.9	131.4	149.7	175.8	208.7
127.5°	93.5	94.4	96.4	100.0	106.4	114.6	124.6	137.1	153.0	175.1	203.0
130°	96.8	97.7	100.2	104.3	110.9	119.1	128.9	140.9	155.1	174.6	199.2
132.5°	99.2	100.5	103.5	108.1	114.9	123.1	133.0	144.2	157.3	174.6	196.2
135°	103.3	104.6	108.4	113.4	120.1	128.6	138.3	148.7	160.4	174.6	192.5
137.5°	108.5	109.5	113.0	118.1	124.6	133.3	142.2	152.1	163.3	175.0	189.3
140°	111.6	112.5	116.3	121.4	127.3	135.8	145.0	154.4	164.5	175.2	187.8
142.5°	115.1	115.7	119.3	124.4	130.1	138.1	146.7	155.7	165.2	175.5	186.5
145°	120.4	121.0	124.1	128.6	134.3	141.5	149.7	157.6	166.0	175.2	184.7
147.5°	125.9	126.3	129.0	133.1	138.0	144.4	151.6	158.7	166.4	174.4	182.7
150°	129.2	129.8	132.1	136.2	140.5	145.9	152.8	159.4	166.4	173.6	181.2
152.5°	132.8	133.1	135.1	138.7	142.9	147.7	154.1	160.0	166.1	172.6	179.4
155°	137.4	137.4	139.3	142.4	145.6	150.0	155.3	160.4	165.4	170.9	176.5
157.5°	141.6	141.5	143.0	145.7	148.5	151.9	156.4	160.7	164.6	168.9	173.7
160°	144.4	144.0	145.3	147.5	150.0	152.8	156.9	160.7	163.9	167.6	171.5
162.5°	146.6	146.3	147.6	149.5	151.5	153.8	157.5	160.5	163.1	166.1	169.4
165°	150.0	149.4	150.3	151.9	153.2	155.1	157.6	160.1	162.0	163.9	166.4
167.5°	152.3	151.9	152.6	153.4	154.3	155.5	157.6	159.3	160.2	161.7	163.5
170°	153.8	153.5	153.8	154.4	155.1	156.0	157.6	158.8	159.4	160.4	161.7
172.5°	154.8	154.3	154.5	155.2	155.5	156.0	157.3	158.4	158.5	158.9	159.9
175°	156.0	155.3	155.7	156.0	156.0	156.0	156.9	157.6	157.3	157.3	157.6
177.5°	156.6	156.0	156.0	156.3	156.0	156.0	156.6	156.9	156.3	156.3	156.6
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	853.9	855.2	856.3	856.8	856.8	856.6	856.5	856.4
5°	849.6	851.0	852.3	852.9	852.7	852.7	852.5	852.3
7.5°	841.0	842.3	843.6	844.3	844.1	843.9	843.8	843.6
10°	833.7	834.9	836.2	836.7	836.5	836.3	836.2	836.1
12.5°	824.0	825.0	825.9	826.4	826.3	826.3	826.3	826.3
15°	807.1	807.8	808.6	809.0	809.0	809.0	809.0	809.0
17.5°	787.4	788.3	789.3	789.3	788.5	787.8	787.1	786.3
20°	772.4	773.5	774.5	774.7	773.9	773.2	772.4	771.7
22.5°	755.5	756.2	756.9	757.0	756.4	755.9	755.4	754.9
25°	728.3	728.5	728.9	728.8	728.3	727.9	727.5	727.0
27.5°	699.7	699.8	699.8	699.6	699.2	698.7	698.3	697.9
30°	678.9	678.7	678.3	678.0	677.5	677.1	676.6	676.2
32.5°	657.9	657.3	656.7	656.1	655.3	654.5	653.6	652.8
35°	625.2	624.5	623.7	622.7	621.5	620.3	619.1	617.9
37.5°	590.8	589.8	588.6	587.7	587.0	586.4	585.7	585.0
40°	567.0	565.7	564.4	563.5	563.0	562.6	562.1	561.7
42.5°	543.5	542.2	541.0	540.0	539.3	538.7	538.0	537.3
45°	508.5	506.8	505.0	503.8	503.4	502.9	502.5	502.0
47.5°	471.8	469.9	468.1	466.7	465.7	464.6	463.5	462.4
50°	446.7	444.7	442.7	441.2	440.1	439.1	438.0	437.0
52.5°	422.1	420.4	418.7	417.3	416.2	414.9	413.8	412.6
55°	384.1	382.8	381.5	380.2	379.2	378.1	377.1	376.0
57.5°	346.3	344.6	342.9	341.7	341.2	340.5	340.0	339.5
60°	320.8	319.3	317.8	316.6	315.5	314.4	313.3	312.4
62.5°	296.2	294.6	292.9	291.8	291.0	290.1	289.3	288.5
65°	257.4	256.1	254.8	253.8	253.2	252.5	252.0	251.4
67.5°	220.5	219.4	218.2	217.4	217.0	216.7	216.3	216.0
70°	196.0	195.1	194.2	193.5	192.9	192.3	191.6	191.1
72.5°	173.0	172.0	170.9	170.1	169.5	169.0	168.4	167.7
75°	137.3	136.9	136.4	135.9	135.3	134.6	134.1	133.5
77.5°	104.6	104.3	104.1	103.7	103.3	102.9	102.5	102.0
80°	83.7	83.6	83.4	83.2	82.8	82.6	82.3	81.9
82.5°	63.9	63.7	63.4	63.2	63.2	63.1	63.0	63.0
85°	37.6	37.5	37.4	37.1	36.8	36.5	36.2	35.9
87.5°	15.2	15.2	15.3	15.3	15.2	14.9	14.7	14.4
90°	5.7	6.0	6.3	7.0	7.0	7.0	7.2	7.2
92.5°	55.8	40.5	30.5	25.9	21.8	21.0	20.6	20.1
95°	226.6	178.7	139.9	113.4	91.0	81.6	79.1	74.1
97.5°	337.4	303.9	266.1	229.3	209.8	192.2	183.1	179.0
100°	387.6	372.2	339.7	306.9	285.2	262.5	250.8	245.8
102.5°	404.5	414.0	398.5	376.3	353.0	336.9	324.2	320.5
105°	394.6	437.7	451.6	448.2	438.0	427.7	421.3	417.6
107.5°	359.0	416.6	452.2	468.7	473.8	473.8	471.6	469.1
110°	332.8	392.7	437.1	463.9	478.0	484.0	486.2	486.2





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	312.1	369.0	413.9	445.5	466.2	476.5	482.0	484.3
115°	286.1	335.0	378.2	412.5	437.1	452.2	461.0	465.1
117.5°	269.4	311.5	348.7	380.2	404.7	420.4	429.2	431.7
120°	260.3	298.1	332.8	360.5	383.9	399.0	407.5	410.0
122.5°	253.5	288.6	319.4	345.4	366.2	380.0	388.6	390.8
125°	243.6	275.7	303.2	325.8	343.5	356.4	363.4	366.5
127.5°	233.5	263.5	289.1	310.3	326.4	337.8	344.3	345.7
130°	227.2	254.9	279.6	300.1	315.8	326.2	332.5	334.4
132.5°	220.9	246.9	269.2	288.9	304.7	315.0	320.8	323.0
135°	212.8	234.4	254.7	272.6	286.5	296.9	302.6	304.4
137.5°	205.8	223.4	240.1	255.4	267.8	277.2	282.5	284.5
140°	202.0	216.8	231.3	244.5	256.2	264.4	269.1	270.7
142.5°	198.8	211.2	223.7	235.2	245.1	252.1	256.5	257.9
145°	194.5	204.2	214.0	222.5	230.1	235.4	238.9	240.1
147.5°	190.4	198.3	205.9	212.3	218.3	222.6	224.5	225.2
150°	188.2	195.1	201.1	206.7	211.4	215.3	216.5	216.8
152.5°	185.7	191.8	197.2	201.7	205.6	208.7	209.9	210.3
155°	181.8	186.9	191.3	194.7	197.9	200.1	201.1	201.3
157.5°	178.1	182.2	185.7	188.3	190.8	192.6	193.5	193.4
160°	175.6	178.7	181.8	184.0	186.3	187.8	188.4	188.2
162.5°	172.7	175.7	178.3	180.3	182.0	183.2	183.4	183.3
165°	168.9	171.1	173.0	174.6	175.8	176.5	176.5	176.5
167.5°	165.2	166.7	168.2	169.3	170.0	170.5	170.2	170.1
170°	163.3	164.2	165.1	165.8	166.4	166.7	166.7	166.4
172.5°	161.0	161.9	162.6	163.0	163.1	163.7	163.2	162.8
175°	158.5	158.5	159.2	159.2	159.2	159.4	158.8	158.5
177.5°	156.9	157.0	157.0	157.0	156.9	157.0	156.3	156.3
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3

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