

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: P333204-940

Luminaire Tested: **S125DIP-S610D1205U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333204-940  
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-S610D1205U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6085.2 lumens  
Efficiency: N/A  
Efficacy: 123.2 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-Indirect

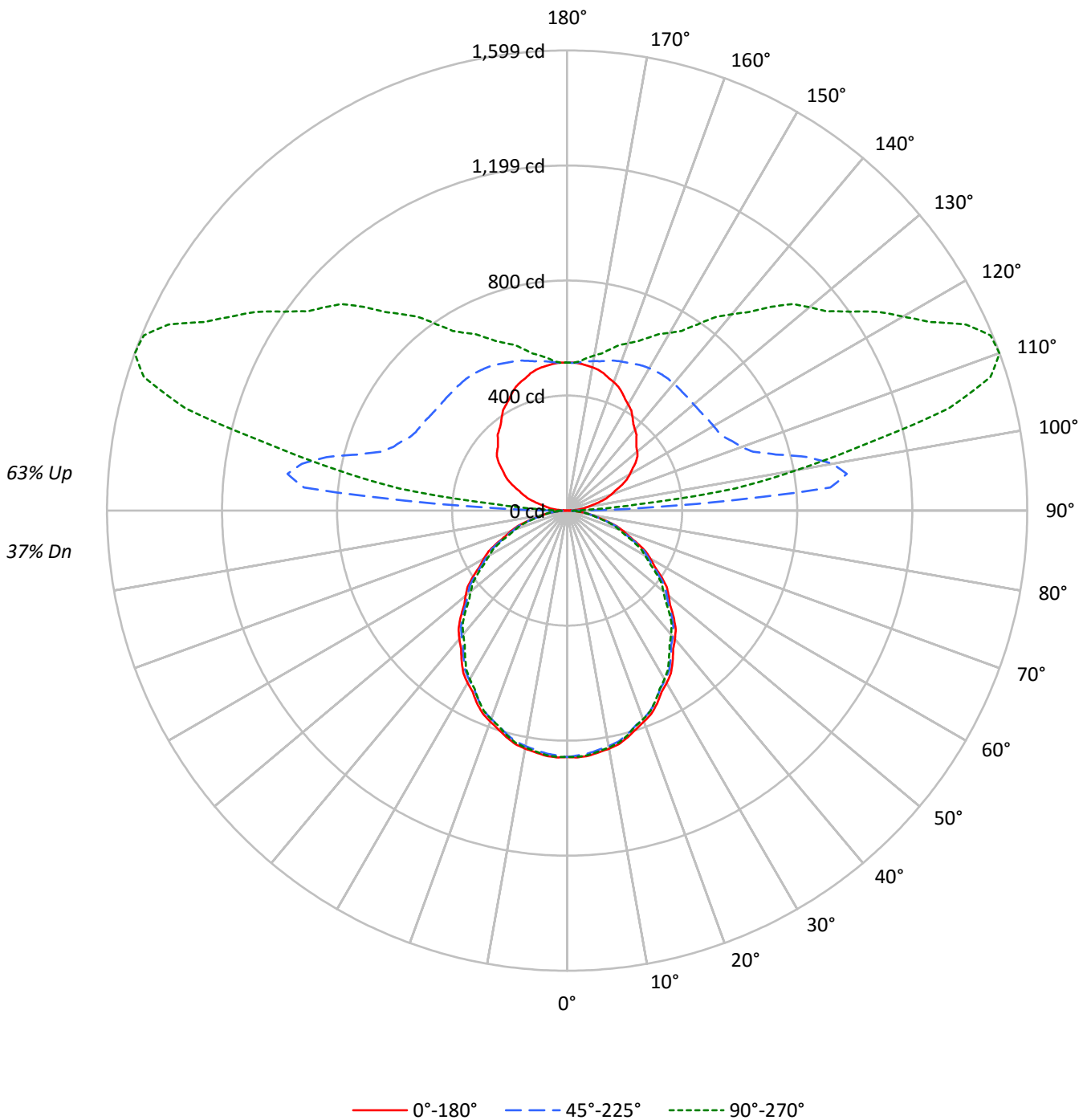
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37
1	95	90	87	83	86	82	79	76	66	64	62	52	50	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	54	51	46	43	41	34	32	31	26
3	79	69	62	56	71	63	57	52	51	47	43	40	37	35	30	28	26	22
4	72	61	54	48	65	56	49	44	45	41	37	36	32	30	27	25	23	19
5	66	54	47	41	59	50	43	38	41	35	31	32	28	26	24	22	20	16
6	61	49	41	35	55	45	38	33	36	31	27	29	25	22	22	19	17	14
7	56	44	36	31	51	40	33	28	33	28	24	26	23	20	20	17	15	13
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	16	14	11
9	48	36	29	24	44	33	27	22	27	22	19	22	18	16	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9

**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	1.3
10°-20°	228.1	3.7
20°-30°	336.8	5.5
30°-40°	393.0	6.5
40°-50°	394.7	6.5
50°-60°	346.5	5.7
60°-70°	258.2	4.2
70°-80°	147.6	2.4
80°-90°	45.8	0.8
90°-100°	372.5	6.1
100°-110°	800.8	13.2
110°-120°	751.5	12.3
120°-130°	609.1	10.0
130°-140°	488.8	8.0
140°-150°	368.8	6.1
150°-160°	259.6	4.3
160°-170°	153.0	2.5
170°-180°	49.8	0.8
0°-30°	645.6	10.6
0°-40°	1038.6	17.1
0°-60°	1779.7	29.2
0°-90°	2231.3	36.7
90°-120°	1924.8	31.6
90°-150°	3391.5	55.7
90°-180°	3854.0	63.3
0°-180°	6085.2	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°	1	9	17	22	24	4
95°	34	101	918	416	244	36
105°	117	164	751	1479	1373	123
115°	209	252	603	1300	1529	206
125°	290	340	578	1034	1205	257
135°	340	409	574	867	1001	264
145°	396	453	576	718	790	248
155°	452	486	562	635	662	208
165°	493	507	539	571	580	139
175°	513	513	517	523	521	49
180°	514	514	514	514	514	



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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°	14.8	15.1	15.4	15.9	16.3	16.7	16.8	17.0	17.1	17.4	17.7
90°	1.1	2.1	4.1	6.2	8.3	10.3	11.4	13.5	14.5	16.6	17.7
92.5°	12.7	15.3	24.1	36.9	54.8	85.0	141.5	236.5	339.5	334.0	270.5
95°	34.2	35.2	43.5	54.9	77.7	124.3	235.2	463.2	749.1	918.0	898.3
97.5°	56.8	58.1	63.8	75.3	95.8	129.3	202.7	369.7	669.0	980.3	1136.7
100°	72.5	74.6	78.7	90.2	109.9	140.9	201.0	335.7	596.8	935.6	1194.6
102.5°	90.0	91.2	94.5	106.7	124.8	155.0	208.5	321.6	542.1	856.8	1159.8
105°	117.1	117.1	122.3	132.6	149.2	178.3	223.8	316.0	489.0	751.2	1048.6
107.5°	143.6	145.7	150.6	159.2	176.4	202.4	246.6	325.6	466.6	678.4	935.0
110°	162.6	164.8	168.9	178.3	193.8	220.7	263.1	334.7	460.0	644.4	870.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.7	183.8	187.1	196.4	212.0	238.1	278.9	346.3	460.0	624.6	822.2
115°	209.3	211.3	214.5	223.8	239.3	265.3	303.6	363.6	463.2	603.1	769.8
117.5°	234.2	237.3	240.6	249.9	267.5	292.6	328.9	383.6	470.0	592.5	738.5
120°	250.7	253.9	258.0	267.3	284.9	310.9	347.1	396.8	476.6	587.5	721.1
122.5°	268.1	270.5	273.8	283.0	302.4	328.2	364.5	411.8	482.4	583.4	706.2
125°	290.1	292.2	297.4	306.7	326.4	353.3	387.5	432.0	492.1	578.2	685.9
127.5°	307.3	310.4	317.1	328.9	349.8	376.7	409.7	450.8	503.1	575.7	667.3
130°	318.1	321.2	329.5	343.0	364.7	391.6	423.7	463.2	509.8	574.0	654.9
132.5°	326.4	330.3	340.3	355.4	378.0	404.9	437.0	473.9	517.2	574.0	644.9
135°	339.8	344.0	356.4	373.0	394.8	422.8	454.9	489.0	527.4	574.0	633.1
137.5°	356.9	360.0	371.6	388.2	409.5	438.3	467.5	500.2	536.7	575.2	622.5
140°	366.8	369.9	382.4	399.0	418.6	446.6	476.6	507.7	540.8	576.0	617.5
142.5°	378.4	380.7	392.3	408.8	427.8	454.1	482.4	511.8	543.3	576.9	613.4
145°	395.8	397.9	408.2	422.8	441.4	465.2	492.1	518.1	546.1	576.0	607.2
147.5°	414.0	415.3	424.2	437.7	453.8	474.7	498.4	521.8	547.1	573.4	600.7
150°	424.8	426.9	434.2	447.6	462.1	479.7	502.5	524.3	547.1	570.9	595.8
152.5°	436.4	437.7	444.1	455.9	469.6	485.5	506.7	525.9	546.3	567.6	590.0
155°	451.7	451.7	458.0	468.3	478.7	493.2	510.8	527.4	543.9	561.6	580.2
157.5°	465.5	465.2	470.2	479.1	488.2	499.2	514.3	528.4	541.3	555.4	571.1
160°	474.6	473.5	477.7	484.9	493.2	502.5	516.0	528.4	538.8	551.3	563.7
162.5°	482.0	481.0	485.1	491.5	498.2	505.9	517.6	527.6	536.3	546.3	557.1
165°	493.2	491.2	494.3	499.4	503.5	509.8	518.1	526.4	532.5	538.8	547.1
167.5°	500.7	499.6	501.5	504.4	507.3	511.2	518.1	523.9	526.7	531.5	537.3
170°	505.6	504.6	505.6	507.7	509.8	512.9	518.1	522.2	524.3	527.4	531.5
172.5°	509.0	507.1	508.1	510.1	511.4	512.9	517.2	520.6	520.9	522.5	525.8
175°	512.9	510.8	511.8	512.9	512.9	512.9	516.0	518.1	517.0	517.0	518.1
177.5°	514.8	513.1	513.1	513.9	513.1	513.1	514.8	515.6	513.9	513.9	514.8
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9



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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°	17.8	18.0	18.3	18.5	18.3	18.0	18.0	17.7
90°	18.6	19.7	20.7	22.8	22.8	22.8	23.8	23.8
92.5°	183.6	133.2	100.3	85.0	71.7	69.2	67.8	66.1
95°	744.9	587.5	460.0	373.0	299.4	268.3	260.1	243.5
97.5°	1109.5	999.1	874.9	753.9	689.8	631.9	601.8	588.5
100°	1274.4	1223.7	1117.0	1009.1	937.7	863.1	824.7	808.2
102.5°	1330.0	1361.3	1310.1	1237.2	1160.7	1107.6	1066.0	1053.6
105°	1297.3	1439.2	1484.8	1473.4	1440.2	1406.0	1385.3	1372.9
107.5°	1180.4	1369.8	1486.8	1541.0	1557.7	1557.6	1550.7	1542.4
110°	1094.1	1291.0	1437.1	1525.2	1571.8	1591.5	1598.7	1598.7





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1026.2	1213.1	1360.8	1464.6	1532.9	1566.6	1584.7	1592.1
115°	940.8	1101.4	1243.3	1356.3	1437.1	1486.8	1515.8	1529.3
117.5°	885.6	1024.1	1146.4	1250.0	1330.8	1382.2	1411.0	1419.2
120°	855.9	980.2	1094.1	1185.4	1262.0	1311.7	1339.7	1348.0
122.5°	833.5	948.7	1050.3	1135.6	1204.0	1249.6	1277.6	1285.0
125°	800.9	906.6	996.8	1071.4	1129.4	1171.9	1194.6	1205.1
127.5°	767.8	866.4	950.6	1020.4	1073.0	1110.5	1132.1	1136.7
130°	747.1	838.2	919.1	986.4	1038.2	1072.4	1093.1	1099.3
132.5°	726.3	811.7	885.0	949.9	1001.7	1035.9	1055.0	1062.0
135°	699.4	770.9	837.2	896.3	941.8	976.1	994.7	1000.9
137.5°	676.6	734.4	789.5	839.7	880.5	911.6	928.8	935.6
140°	664.1	712.8	760.5	804.1	842.4	869.3	884.8	890.0
142.5°	653.4	694.6	735.7	773.4	805.9	828.7	843.4	847.7
145°	639.3	671.4	703.6	731.5	756.3	774.0	785.4	789.5
147.5°	626.1	652.1	676.8	697.9	717.6	731.7	738.3	740.2
150°	618.6	641.4	661.0	679.7	695.3	707.7	711.9	712.8
152.5°	610.3	630.6	648.6	663.2	676.2	686.1	690.3	691.3
155°	597.8	614.4	628.9	640.3	650.7	657.9	661.0	662.1
157.5°	585.4	599.1	610.3	619.2	627.2	633.3	636.1	636.0
160°	577.1	587.5	597.8	605.1	612.3	617.5	619.6	618.6
162.5°	568.0	577.6	586.2	592.6	598.2	602.6	603.1	602.8
165°	555.4	562.6	568.8	574.0	578.2	580.2	580.2	580.2
167.5°	543.3	548.1	552.9	556.6	558.7	560.5	559.7	559.5
170°	536.7	539.8	543.0	545.0	547.1	548.1	548.1	547.1
172.5°	529.2	532.4	534.7	535.9	536.3	538.1	536.5	535.5
175°	521.2	521.2	523.3	523.3	523.3	524.3	522.2	521.2
177.5°	515.6	516.4	516.4	516.4	515.6	516.4	513.9	513.9
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9

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