

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: P333375-940

Luminaire Tested: **S125DIW-S610D470U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333375-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D470U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3678.8 lumens  
Efficiency: N/A  
Efficacy: 121.8 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

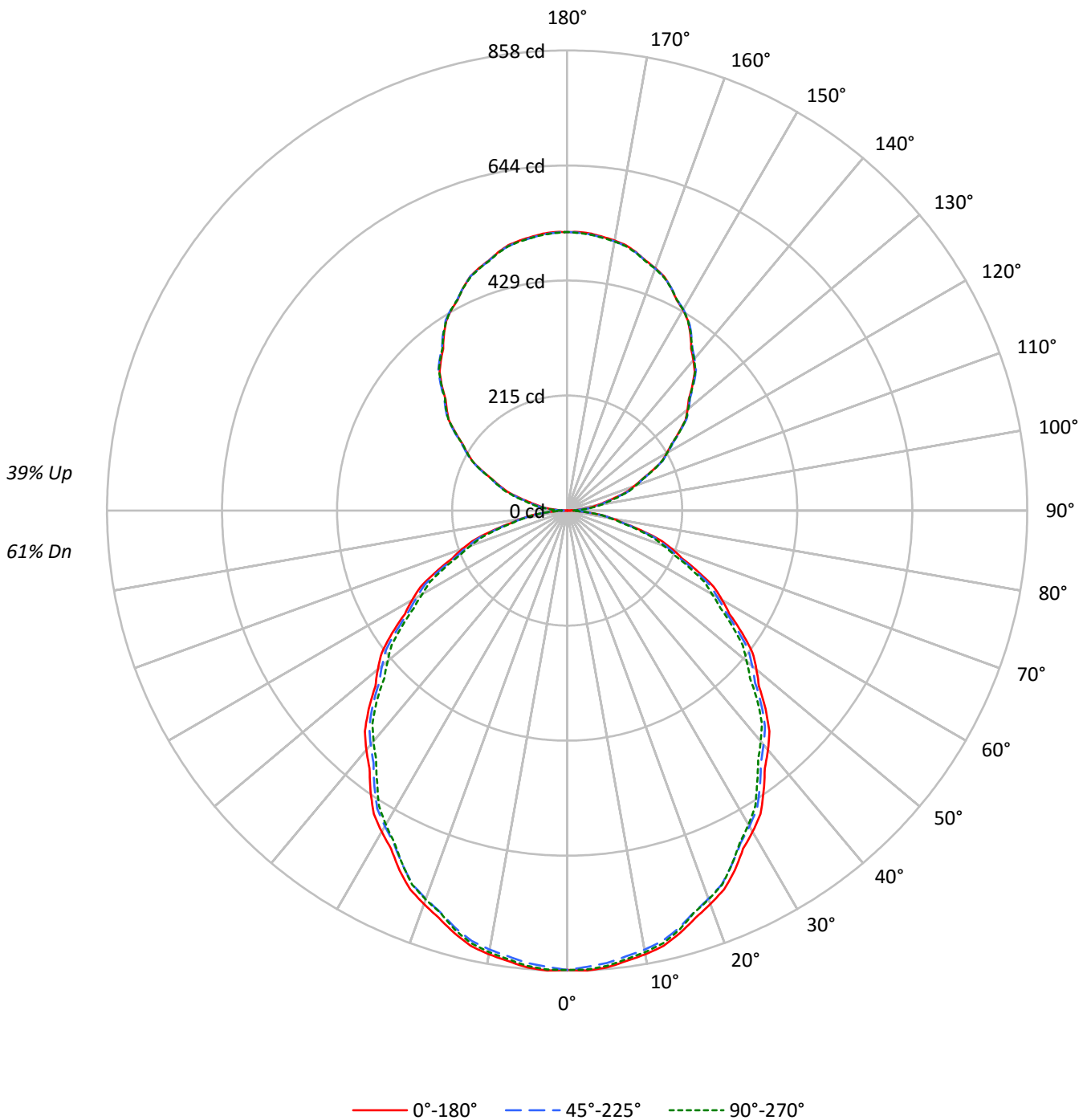
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	100	96	92	88	93	90	86	83	78	76	73	68	66	64	58	57	55	51
2	91	83	77	72	85	78	73	68	68	64	61	59	56	53	51	49	47	43
3	83	73	66	60	77	69	62	57	60	55	51	53	49	45	45	42	40	36
4	76	65	57	51	71	61	54	48	54	48	43	47	42	39	40	37	34	31
5	70	58	50	44	65	55	47	41	48	42	37	42	37	34	36	33	30	27
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	24
7	60	47	39	33	56	44	37	32	39	33	29	35	30	26	30	26	23	21
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	24	20	17	15

**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	2.2
10°-20°	228.1	6.2
20°-30°	336.8	9.2
30°-40°	393.0	10.7
40°-50°	394.7	10.7
50°-60°	346.5	9.4
60°-70°	258.2	7.0
70°-80°	147.6	4.0
80°-90°	44.1	1.2
90°-100°	34.8	0.9
100°-110°	102.7	2.8
110°-120°	174.0	4.7
120°-130°	229.0	6.2
130°-140°	256.6	7.0
140°-150°	251.5	6.8
150°-160°	211.2	5.7
160°-170°	140.4	3.8
170°-180°	49.1	1.3
0°-30°	645.6	17.5
0°-40°	1038.6	28.2
0°-60°	1779.7	48.4
0°-90°	2229.5	60.6
90°-120°	311.5	8.5
90°-150°	1048.5	28.5
90°-180°	1449.0	39.4
0°-180°	3678.8	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	4	6	8	10	3
95°	26	27	31	34	35	28
105°	92	94	97	99	100	98
115°	174	176	177	176	176	172
125°	254	257	257	256	256	228
135°	331	333	333	333	332	255
145°	401	402	403	403	402	250
155°	458	458	459	460	458	211
165°	498	498	498	499	497	141
175°	518	517	516	519	516	49
180°	519	519	519	519	519	



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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	14.9	15.0	15.2	15.2	15.3	15.3	15.3	15.3	15.4	15.5
90°	0.4	1.2	1.9	2.6	3.3	3.9	4.5	5.2	5.8	6.5	7.0
92.5°	9.8	10.3	10.8	11.3	11.8	12.4	13.2	14.0	14.7	15.5	16.1
95°	26.3	26.5	26.7	26.8	27.0	27.6	28.4	29.3	30.2	31.1	31.7
97.5°	43.6	43.7	43.8	43.9	44.0	44.6	45.8	47.1	48.3	49.6	50.1
100°	56.6	56.6	56.6	56.6	56.6	57.2	58.3	59.5	60.6	61.8	62.7
102.5°	70.4	70.8	71.2	71.6	72.0	72.4	73.0	73.6	74.2	74.7	75.6
105°	92.1	92.6	93.0	93.5	94.0	94.4	95.0	95.5	96.0	96.6	97.1
107.5°	116.1	116.5	117.0	117.4	117.9	118.3	118.7	119.1	119.6	119.9	120.2
110°	132.6	133.0	133.5	133.9	134.4	134.7	135.0	135.3	135.5	135.8	136.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	149.4	149.6	149.8	150.1	150.3	150.6	151.0	151.3	151.6	151.9	152.1
115°	174.2	174.5	175.0	175.3	175.7	175.9	176.1	176.3	176.5	176.6	176.6
117.5°	199.1	199.2	199.4	199.6	199.7	199.9	200.1	200.2	200.4	200.5	200.6
120°	214.6	215.1	215.5	216.0	216.4	216.7	216.8	216.9	217.0	217.0	217.0
122.5°	231.4	231.6	231.8	231.9	232.0	232.3	232.5	232.7	233.0	233.2	233.1
125°	254.2	254.8	255.3	255.8	256.4	256.7	256.8	256.9	257.0	257.1	256.9
127.5°	278.5	278.7	279.1	279.4	279.7	279.9	280.0	280.1	280.2	280.4	280.3
130°	293.0	293.5	293.9	294.4	294.8	295.2	295.3	295.5	295.7	295.9	295.8
132.5°	307.6	308.3	309.1	309.8	310.5	310.9	310.9	310.8	310.8	310.7	310.6
135°	330.6	331.2	331.7	332.3	332.8	333.1	333.1	333.2	333.3	333.4	333.4
137.5°	352.2	352.8	353.3	353.8	354.4	354.7	354.9	355.1	355.3	355.5	355.6
140°	366.1	366.6	367.0	367.5	367.9	368.4	368.6	368.9	369.2	369.4	369.6
142.5°	380.0	380.4	380.8	381.2	381.6	381.9	382.3	382.6	383.0	383.3	383.4
145°	400.6	400.9	401.3	401.6	402.0	402.3	402.5	402.8	403.1	403.3	403.3
147.5°	419.5	419.6	419.8	420.0	420.3	420.4	420.6	420.9	421.1	421.3	421.5
150°	432.0	431.9	431.9	431.8	431.7	431.9	432.2	432.6	432.9	433.3	433.3
152.5°	442.4	442.6	442.6	442.7	442.9	443.0	443.2	443.4	443.4	443.6	443.8
155°	458.3	458.3	458.3	458.3	458.3	458.3	458.4	458.5	458.6	458.7	459.1
157.5°	472.5	472.3	472.2	472.0	471.7	471.7	471.8	471.9	472.0	472.1	472.4
160°	481.0	480.7	480.4	480.1	479.8	479.7	479.8	479.9	480.0	480.1	480.5
162.5°	488.4	488.2	488.0	487.8	487.6	487.5	487.5	487.5	487.6	487.6	488.0
165°	498.3	498.1	497.9	497.8	497.6	497.6	497.7	497.8	497.8	497.9	498.3
167.5°	506.8	506.4	506.0	505.7	505.3	505.2	505.2	505.2	505.2	505.2	505.7
170°	511.2	510.9	510.5	510.1	509.8	509.6	509.6	509.6	509.6	509.6	510.1
172.5°	514.5	514.2	513.8	513.4	513.1	512.9	512.9	512.9	512.9	512.9	513.4
175°	518.2	517.7	517.4	517.0	516.7	516.5	516.5	516.5	516.5	516.5	517.0
177.5°	520.0	519.7	519.4	519.2	518.8	518.6	518.6	518.5	518.4	518.4	518.8
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3



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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°	15.6	15.7	15.8	15.7	15.5	15.3	15.2	15.0
90°	7.4	7.8	8.3	8.6	8.9	9.2	9.5	9.7
92.5°	16.7	17.3	17.9	18.3	18.5	18.6	18.9	19.1
95°	32.4	33.0	33.6	34.1	34.2	34.4	34.6	34.8
97.5°	50.7	51.4	51.9	52.3	52.3	52.5	52.6	52.7
100°	63.5	64.3	65.1	65.5	65.7	65.9	66.1	66.3
102.5°	76.5	77.4	78.3	78.8	79.1	79.4	79.6	79.9
105°	97.6	98.2	98.7	99.2	99.4	99.7	100.0	100.2
107.5°	120.5	120.7	121.0	121.2	121.2	121.1	121.1	121.1
110°	136.3	136.6	136.9	137.0	136.9	136.8	136.7	136.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	152.2	152.3	152.5	152.5	152.3	152.1	151.9	151.8
115°	176.5	176.4	176.3	176.2	176.1	176.0	175.9	175.8
117.5°	200.7	200.7	200.8	200.7	200.4	200.0	199.6	199.2
120°	217.0	217.0	217.0	216.9	216.5	216.2	215.8	215.4
122.5°	233.1	233.0	232.9	232.7	232.5	232.2	231.8	231.6
125°	256.7	256.5	256.4	256.2	256.1	256.0	255.9	255.8
127.5°	280.2	280.1	280.0	279.8	279.6	279.5	279.3	279.1
130°	295.7	295.6	295.5	295.3	295.2	295.0	294.8	294.6
132.5°	310.5	310.4	310.3	310.2	310.0	309.7	309.4	309.2
135°	333.4	333.4	333.4	333.2	332.9	332.5	332.2	331.8
137.5°	355.7	355.8	356.0	355.8	355.3	354.9	354.4	353.9
140°	369.8	370.0	370.1	370.0	369.5	369.1	368.6	368.2
142.5°	383.5	383.6	383.7	383.5	383.1	382.6	382.2	381.7
145°	403.3	403.3	403.3	403.2	403.0	402.7	402.4	402.2
147.5°	421.7	422.0	422.1	422.0	421.3	420.7	420.1	419.5
150°	433.3	433.3	433.3	433.2	433.0	432.8	432.7	432.5
152.5°	444.1	444.3	444.4	444.4	444.1	443.8	443.4	443.1
155°	459.4	459.8	460.1	460.1	459.7	459.2	458.8	458.3
157.5°	472.8	473.1	473.5	473.4	472.8	472.2	471.6	471.0
160°	480.9	481.3	481.6	481.5	481.1	480.6	480.2	479.7
162.5°	488.5	488.8	489.3	489.3	488.7	488.2	487.7	487.1
165°	498.6	499.0	499.4	499.3	498.7	498.2	497.7	497.1
167.5°	506.2	506.8	507.3	507.3	506.7	506.1	505.6	505.1
170°	510.7	511.2	511.8	511.8	511.1	510.5	509.9	509.3
172.5°	514.0	514.5	515.1	515.1	514.4	513.9	513.4	512.8
175°	517.5	518.2	518.7	518.6	518.0	517.4	516.7	516.1
177.5°	519.2	519.7	520.1	520.0	519.6	519.1	518.5	518.1
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3

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