

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: P333131-940

Luminaire Tested: **S125DIP-S375D590U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333131-940  
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: S125DIP-S375D590U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3181.0 lumens  
Efficiency: N/A  
Efficacy: 124.3 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

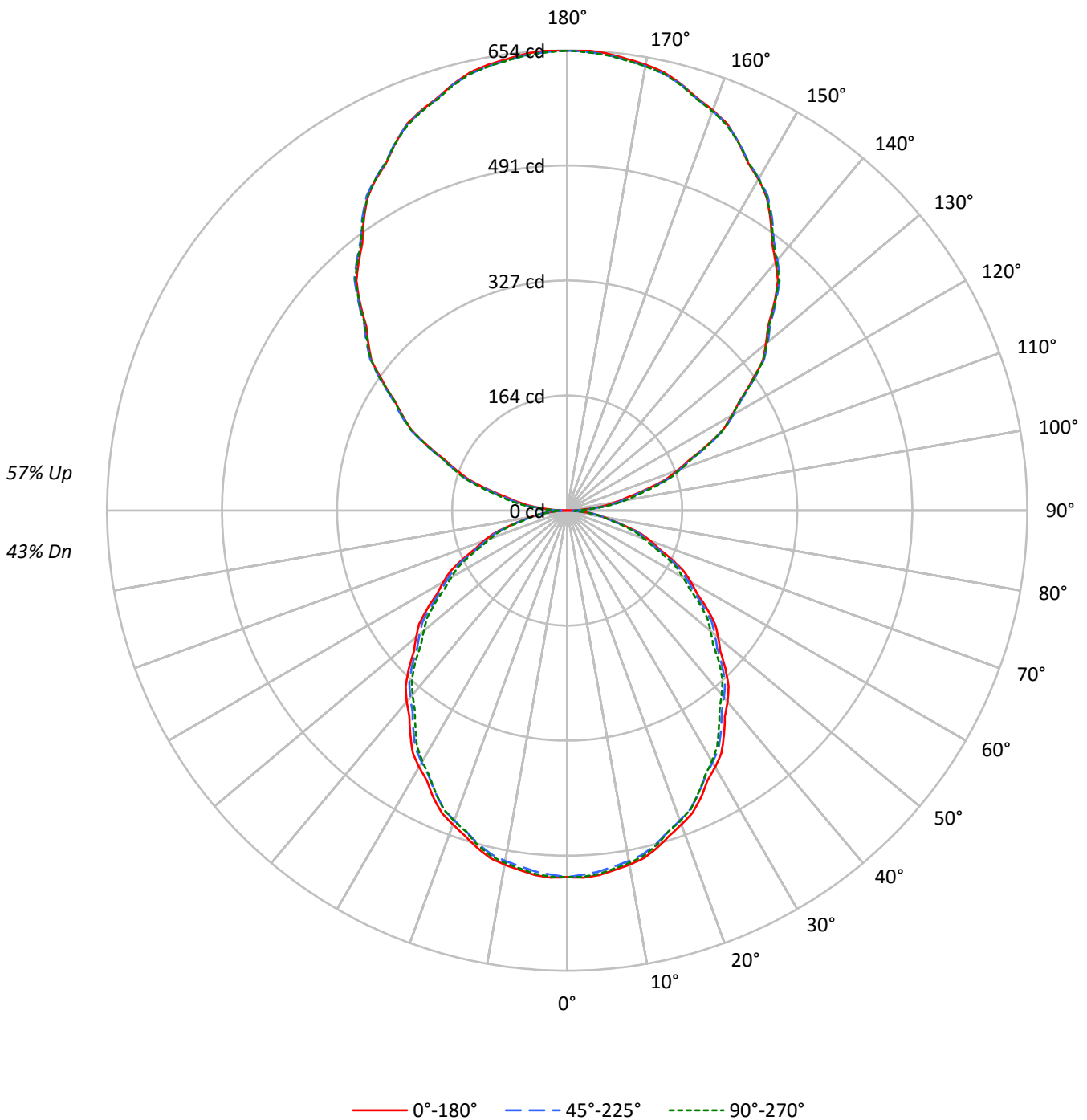
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43																				
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	44	43	42	36																				
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	37	35	30																				
3	80	70	63	57	73	65	58	53	54	49	45	43	40	37	34	32	30	25																				
4	73	62	54	48	66	57	50	45	47	42	38	39	35	32	30	28	26	22																				
5	67	55	47	41	61	51	44	39	42	37	33	35	31	28	27	24	22	19																				
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	20	17																				
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15																				
8	53	41	33	28	48	37	31	26	32	26	22	26	22	19	21	18	16	13																				
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12																				
10	46	34	27	22	42	31	25	21	27	21	18	22	18	15	18	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	4.4
20°-30°	204.9	6.4
30°-40°	239.0	7.5
40°-50°	240.1	7.5
50°-60°	210.7	6.6
60°-70°	157.0	4.9
70°-80°	89.8	2.8
80°-90°	27.5	0.9
90°-100°	43.8	1.4
100°-110°	129.3	4.1
110°-120°	219.0	6.9
120°-130°	288.2	9.1
130°-140°	322.9	10.2
140°-150°	316.5	9.9
150°-160°	265.8	8.4
160°-170°	176.7	5.6
170°-180°	61.8	1.9
0°-30°	392.7	12.3
0°-40°	631.7	19.9
0°-60°	1082.6	34.0
0°-90°	1356.9	42.7
90°-120°	392.0	12.3
90°-150°	1319.7	41.5
90°-180°	1824.0	57.3
0°-180°	3181.0	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	3
95°	33	34	39	43	44	35
105°	116	119	122	125	126	124
115°	219	221	222	222	221	217
125°	320	323	324	322	322	286
135°	416	419	420	420	418	321
145°	504	506	508	508	506	315
155°	577	577	577	579	577	266
165°	627	626	627	628	626	177
175°	652	650	650	653	650	62
180°	654	654	654	654	654	



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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	9.2	9.4	9.5	9.7	9.9	10.0	10.0	10.1	10.2	10.3
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	12.3	12.9	13.6	14.2	14.8	15.6	16.6	17.6	18.5	19.5	20.2
95°	33.1	33.3	33.5	33.7	34.0	34.7	35.8	36.9	38.1	39.1	39.9
97.5°	54.9	55.0	55.1	55.2	55.3	56.1	57.7	59.2	60.8	62.3	63.1
100°	71.2	71.2	71.2	71.2	71.2	72.0	73.4	74.9	76.3	77.8	78.8
102.5°	88.7	89.2	89.6	90.1	90.5	91.1	91.8	92.6	93.4	94.1	95.2
105°	116.0	116.5	117.1	117.7	118.2	118.9	119.6	120.2	120.9	121.5	122.3
107.5°	146.1	146.7	147.2	147.8	148.4	148.9	149.5	149.9	150.4	151.0	151.3
110°	166.8	167.4	168.0	168.5	169.2	169.6	169.9	170.2	170.6	170.9	171.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	188.0	188.3	188.6	188.9	189.2	189.6	190.0	190.4	190.8	191.3	191.5
115°	219.3	219.7	220.2	220.6	221.1	221.4	221.6	221.9	222.0	222.3	222.2
117.5°	250.6	250.7	251.0	251.2	251.4	251.6	251.8	252.0	252.2	252.4	252.5
120°	270.1	270.7	271.3	271.8	272.4	272.7	272.9	273.0	273.0	273.1	273.1
122.5°	291.3	291.5	291.7	291.9	292.1	292.3	292.7	292.9	293.2	293.6	293.5
125°	319.9	320.7	321.3	322.0	322.7	323.1	323.2	323.3	323.4	323.5	323.3
127.5°	350.5	350.9	351.2	351.6	352.0	352.3	352.4	352.6	352.7	352.8	352.8
130°	368.8	369.3	370.0	370.5	371.0	371.5	371.7	371.9	372.1	372.4	372.3
132.5°	387.1	388.1	389.0	389.9	390.8	391.3	391.2	391.2	391.1	391.1	391.0
135°	416.1	416.8	417.5	418.1	418.8	419.2	419.4	419.5	419.5	419.6	419.6
137.5°	443.4	444.1	444.7	445.3	446.0	446.5	446.7	446.9	447.2	447.5	447.5
140°	460.8	461.5	462.0	462.5	463.2	463.6	464.0	464.3	464.6	464.9	465.2
142.5°	478.4	478.8	479.3	479.8	480.3	480.7	481.2	481.6	482.1	482.4	482.6
145°	504.1	504.5	505.1	505.5	506.0	506.3	506.7	507.0	507.4	507.7	507.7
147.5°	527.9	528.2	528.4	528.7	529.0	529.1	529.4	529.8	530.0	530.3	530.6
150°	543.8	543.7	543.6	543.5	543.3	543.5	543.9	544.4	544.8	545.3	545.3
152.5°	556.8	557.0	557.1	557.3	557.4	557.6	557.8	557.9	558.1	558.4	558.7
155°	576.8	576.8	576.8	576.8	576.8	576.9	577.0	577.1	577.3	577.4	577.8
157.5°	594.8	594.5	594.2	594.1	593.8	593.7	593.8	594.0	594.1	594.1	594.6
160°	605.4	605.0	604.7	604.3	604.0	603.9	604.0	604.1	604.2	604.3	604.8
162.5°	614.7	614.5	614.2	613.9	613.7	613.6	613.6	613.7	613.7	613.7	614.2
165°	627.2	627.0	626.8	626.5	626.3	626.2	626.3	626.5	626.6	626.7	627.1
167.5°	637.8	637.4	636.9	636.4	636.0	635.8	635.8	635.8	635.8	635.8	636.4
170°	643.5	643.0	642.6	642.1	641.7	641.5	641.5	641.5	641.5	641.5	642.1
172.5°	647.6	647.1	646.7	646.2	645.8	645.5	645.5	645.5	645.5	645.5	646.2
175°	652.1	651.7	651.2	650.8	650.3	650.1	650.1	650.1	650.1	650.1	650.8
177.5°	654.5	654.2	653.8	653.4	653.0	652.8	652.7	652.6	652.6	652.5	653.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7



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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	10.5	10.4	10.3
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	21.0	21.8	22.6	23.0	23.3	23.5	23.7	24.0
95°	40.8	41.6	42.4	42.8	43.1	43.3	43.5	43.8
97.5°	63.8	64.6	65.4	65.8	65.9	66.1	66.2	66.3
100°	79.9	80.9	81.9	82.5	82.8	83.0	83.2	83.5
102.5°	96.3	97.5	98.5	99.2	99.6	99.9	100.2	100.5
105°	123.0	123.6	124.3	124.8	125.1	125.5	125.8	126.2
107.5°	151.7	152.0	152.3	152.5	152.5	152.5	152.4	152.4
110°	171.6	171.9	172.3	172.4	172.3	172.2	172.0	171.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	191.6	191.7	191.9	191.9	191.7	191.5	191.3	191.1
115°	222.0	221.9	221.9	221.8	221.6	221.5	221.4	221.3
117.5°	252.6	252.7	252.8	252.6	252.2	251.7	251.3	250.7
120°	273.1	273.1	273.1	273.0	272.5	272.1	271.6	271.2
122.5°	293.4	293.3	293.2	292.9	292.6	292.2	291.9	291.5
125°	323.1	322.9	322.6	322.4	322.4	322.3	322.1	322.0
127.5°	352.6	352.5	352.4	352.2	352.0	351.8	351.5	351.3
130°	372.1	372.0	371.9	371.8	371.5	371.3	371.0	370.9
132.5°	390.8	390.7	390.7	390.4	390.1	389.8	389.5	389.1
135°	419.6	419.6	419.6	419.5	419.0	418.6	418.1	417.7
137.5°	447.7	447.8	448.0	447.8	447.2	446.7	446.1	445.5
140°	465.4	465.7	465.8	465.7	465.1	464.6	464.0	463.4
142.5°	482.7	482.9	483.0	482.8	482.2	481.6	481.1	480.5
145°	507.7	507.7	507.7	507.5	507.2	506.8	506.5	506.1
147.5°	530.8	531.1	531.4	531.1	530.3	529.6	528.8	528.1
150°	545.3	545.3	545.3	545.2	545.0	544.7	544.6	544.3
152.5°	558.9	559.2	559.5	559.4	558.9	558.6	558.1	557.8
155°	578.3	578.7	579.2	579.2	578.5	578.0	577.4	576.8
157.5°	595.0	595.5	595.9	595.8	595.0	594.3	593.6	592.8
160°	605.2	605.6	606.1	606.1	605.6	604.9	604.4	603.9
162.5°	614.7	615.3	615.9	615.8	615.2	614.5	613.9	613.1
165°	627.6	628.0	628.6	628.4	627.8	627.1	626.3	625.7
167.5°	637.1	637.8	638.5	638.5	637.8	637.0	636.3	635.7
170°	642.8	643.5	644.2	644.1	643.4	642.6	641.8	641.0
172.5°	646.9	647.6	648.3	648.3	647.6	646.8	646.1	645.4
175°	651.5	652.1	652.8	652.7	652.0	651.2	650.4	649.6
177.5°	653.5	654.1	654.6	654.6	654.0	653.4	652.6	652.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7

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