

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: P333037-935

Luminaire Tested: **S124RDIW-S575D470U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333037-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S575D470U935-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3636.9 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

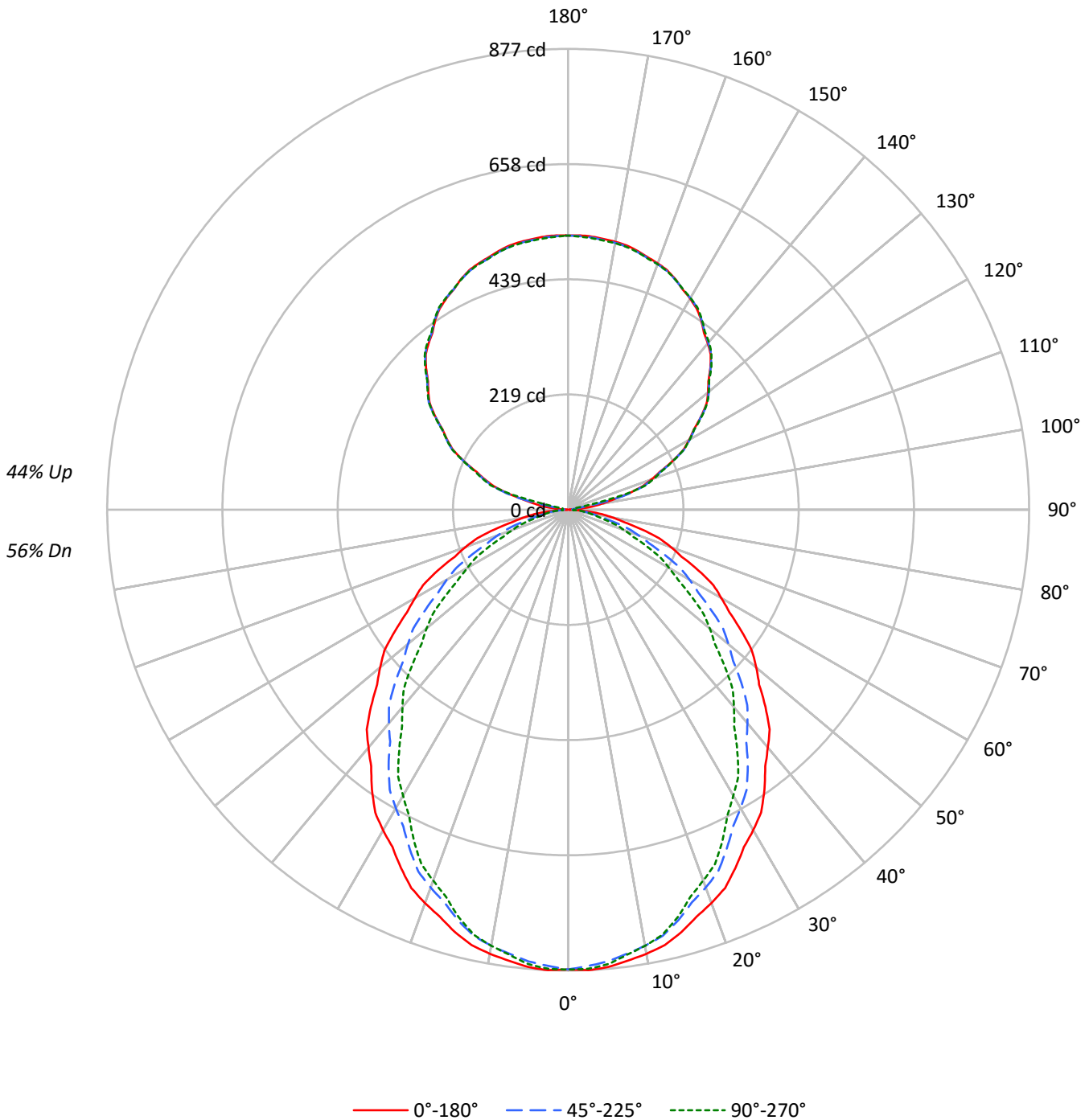
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	56
1	99	95	91	88	92	89	85	82	76	74	72	65	63	62	55	53	52	47
2	91	83	77	72	84	78	72	68	67	63	60	57	55	52	48	46	45	40
3	83	74	66	61	77	69	62	57	60	55	51	51	47	44	43	41	38	34
4	76	65	57	51	70	61	54	49	53	48	43	46	42	38	39	36	33	30
5	70	58	50	44	65	55	47	42	48	42	38	41	37	33	35	32	29	26
6	64	52	44	39	60	49	42	37	43	37	33	37	33	29	32	28	26	23
7	60	47	40	34	55	45	37	32	39	33	29	34	29	26	29	26	23	20
8	55	43	35	30	52	41	34	29	36	30	26	31	27	23	27	23	21	18
9	52	40	32	27	48	37	30	26	33	27	23	29	24	21	25	21	19	17
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7064	7064	7064
5°	7080	6994	7037
10°	7035	6909	6909
15°	6955	6764	6714
20°	6844	6574	6453
25°	6702	6350	6188
30°	6564	6114	5858
35°	6412	5870	5527
40°	6227	5592	5168
45°	6058	5316	4804
50°	5865	4999	4417
55°	5658	4669	3997
60°	5430	4306	3570
65°	5223	3851	3148
70°	4919	3354	2672
75°	4535	2779	2174
80°	3956	2115	1994
85°	3353	1927	1806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.2	2.3
10°-20°	229.2	6.3
20°-30°	331.0	9.1
30°-40°	375.2	10.3
40°-50°	362.3	10.0
50°-60°	301.3	8.3
60°-70°	208.0	5.7
70°-80°	105.4	2.9
80°-90°	28.6	0.8
90°-100°	17.8	0.5
100°-110°	113.8	3.1
110°-120°	217.6	6.0
120°-130°	276.3	7.6
130°-140°	295.6	8.1
140°-150°	276.4	7.6
150°-160°	222.9	6.1
160°-170°	143.8	4.0
170°-180°	49.6	1.4
0°-30°	642.4	17.7
0°-40°	1017.6	28.0
0°-60°	1681.1	46.2
0°-90°	2023.1	55.6
90°-120°	349.2	9.6
90°-150°	1197.5	32.9
90°-180°	1614.0	44.4
0°-180°	3636.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	871	863	869	868	83
15°	832	825	809	808	803	234
25°	752	740	713	702	695	347
35°	651	628	596	573	561	406
45°	531	505	466	434	421	409
55°	402	374	332	298	284	359
65°	273	244	202	174	165	270
75°	145	120	89	74	70	154
85°	36	23	21	20	20	41
90°	1	5	9	11	12	3
95°	21	9	9	11	11	28
105°	117	120	122	124	111	123
115°	219	220	220	221	221	216
125°	308	310	309	310	311	275
135°	382	382	384	384	385	295
145°	441	442	442	443	443	275
155°	484	484	483	484	483	223
165°	510	508	508	511	508	144
175°	522	520	520	523	519	50
180°	522	522	522	522	522	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0
2.5°	877.2	876.7	876.2	875.7	875.3	874.3	873.1	871.8	870.4	869.1	870.4
5°	873.7	873.1	872.5	871.8	871.3	870.1	868.3	866.5	864.7	863.0	864.4
7.5°	865.7	865.1	864.5	863.9	863.2	861.8	859.5	857.1	854.8	852.5	853.4
10°	858.2	857.6	856.8	856.0	855.3	853.6	850.9	848.2	845.5	842.8	843.4
12.5°	848.6	847.7	846.9	846.0	845.2	843.2	840.0	836.8	833.7	830.5	830.9
15°	832.2	830.8	829.5	828.1	826.7	824.2	820.5	816.8	813.0	809.3	809.1
17.5°	812.2	810.2	808.3	806.3	804.4	801.2	796.8	792.3	787.8	783.3	782.6
20°	796.6	794.7	792.7	790.8	788.8	785.4	780.3	775.2	770.2	765.2	764.0
22.5°	779.5	777.3	775.2	772.9	770.8	767.0	761.6	756.1	750.7	745.3	743.5
25°	752.4	749.8	747.0	744.3	741.7	737.3	731.2	725.0	718.9	712.9	710.3
27.5°	724.0	720.7	717.3	713.9	710.5	705.6	699.0	692.6	686.0	679.5	676.4
30°	704.1	700.4	696.7	693.0	689.3	683.9	676.9	669.9	662.9	655.9	652.2
32.5°	683.3	679.1	674.9	670.6	666.5	660.7	653.5	646.3	639.0	631.8	627.5
35°	650.6	645.8	641.0	636.3	631.5	625.4	617.9	610.5	603.0	595.6	590.6
37.5°	615.6	610.7	605.8	600.9	595.9	589.4	581.1	572.8	564.6	556.4	550.7
40°	590.9	586.0	581.1	576.2	571.3	564.6	556.1	547.6	539.2	530.6	524.3
42.5°	567.3	562.2	557.1	551.9	546.7	539.8	530.9	522.0	513.2	504.4	498.0
45°	530.6	525.1	519.6	514.1	508.6	501.4	492.4	483.5	474.6	465.6	458.3
47.5°	492.8	487.1	481.3	475.6	469.9	462.4	453.1	443.9	434.6	425.3	417.8
50°	467.0	461.2	455.4	449.5	443.8	436.1	426.5	417.1	407.5	398.0	390.5
52.5°	440.7	435.1	429.4	423.7	417.9	410.3	400.5	390.7	380.9	371.2	363.6
55°	402.0	396.1	390.1	384.1	378.2	370.3	360.7	351.0	341.3	331.7	323.9
57.5°	363.7	357.5	351.3	345.1	338.9	331.1	321.5	311.9	302.5	292.9	285.1
60°	336.3	330.4	324.4	318.5	312.5	304.8	295.2	285.7	276.2	266.7	258.9
62.5°	311.7	305.5	299.3	293.1	286.9	279.0	269.1	259.4	249.6	239.9	232.7
65°	273.4	267.0	260.5	254.2	247.7	239.8	230.2	220.8	211.2	201.6	195.3
67.5°	233.6	227.4	221.3	215.2	209.1	201.6	192.7	183.8	175.0	166.2	160.7
70°	208.4	202.1	195.9	189.6	183.4	176.0	167.5	159.0	150.5	142.1	137.2
72.5°	181.6	175.9	170.2	164.6	158.9	152.1	144.1	136.1	128.0	120.0	115.9
75°	145.4	139.9	134.4	128.9	123.4	117.1	110.1	103.1	96.1	89.1	85.7
77.5°	108.7	104.0	99.4	94.6	90.0	84.8	79.1	73.5	67.8	62.2	60.2
80°	85.1	80.8	76.5	72.2	67.8	63.5	59.0	54.5	50.0	45.5	45.1
82.5°	64.7	60.8	56.8	52.9	48.9	45.6	43.0	40.5	38.0	35.4	35.0
85°	36.2	33.2	30.2	27.2	24.3	22.6	22.1	21.7	21.2	20.8	20.5
87.5°	12.6	11.8	11.0	10.2	9.5	9.1	9.1	9.2	9.2	9.2	9.2
90°	1.2	2.2	3.1	4.0	5.0	5.8	6.5	7.2	7.9	8.6	9.1
92.5°	4.9	5.0	5.0	5.1	5.2	5.5	6.2	6.9	7.6	8.3	8.8
95°	21.4	18.5	15.6	12.7	9.6	8.3	8.4	8.4	8.5	8.6	9.1
97.5°	45.5	47.4	49.2	51.1	53.0	49.0	39.3	29.6	20.0	10.3	10.3
100°	64.0	65.5	67.2	68.7	70.3	65.0	53.0	41.1	29.1	17.1	15.7
102.5°	84.6	85.8	86.9	88.0	89.2	88.9	87.4	85.8	84.3	82.7	66.8
105°	117.4	118.0	118.5	119.0	119.5	120.0	120.5	120.9	121.3	121.7	122.5
107.5°	148.0	148.3	148.5	148.8	149.0	149.5	150.0	150.6	151.2	151.8	152.1
110°	168.6	168.8	169.1	169.4	169.6	170.0	170.5	171.1	171.6	172.1	172.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	188.6	189.0	189.5	189.9	190.5	190.8	191.1	191.2	191.5	191.7	191.7
115°	219.3	219.6	219.8	220.1	220.3	220.4	220.3	220.2	220.2	220.1	220.2
117.5°	247.0	247.4	247.7	248.1	248.4	248.7	248.8	249.0	249.3	249.4	249.3
120°	265.7	266.0	266.4	266.7	267.1	267.3	267.2	267.1	267.0	266.9	267.1
122.5°	283.2	283.4	283.6	283.9	284.0	284.2	284.3	284.5	284.6	284.7	284.8
125°	308.2	308.6	308.9	309.3	309.6	309.7	309.5	309.4	309.2	309.0	309.3
127.5°	332.0	332.1	332.2	332.3	332.3	332.6	332.9	333.4	333.8	334.2	334.2
130°	347.2	347.3	347.5	347.6	347.7	347.8	348.1	348.4	348.6	348.9	349.0
132.5°	361.4	361.4	361.6	361.8	362.0	362.2	362.6	362.8	363.2	363.5	363.6
135°	382.4	382.3	382.2	382.1	382.0	382.2	382.5	382.9	383.2	383.6	383.7
137.5°	401.1	401.1	401.1	401.1	401.2	401.4	401.7	402.2	402.5	402.9	403.1
140°	413.2	413.4	413.5	413.7	413.9	414.1	414.2	414.5	414.7	414.8	415.1
142.5°	424.1	424.5	424.8	425.1	425.4	425.6	425.7	425.9	425.9	426.0	426.2
145°	440.9	441.2	441.4	441.7	442.0	442.1	442.1	442.1	442.1	442.1	442.2
147.5°	454.3	454.8	455.2	455.7	456.2	456.4	456.3	456.2	456.2	456.1	456.2
150°	464.0	464.3	464.7	465.0	465.4	465.5	465.4	465.3	465.2	465.1	465.1
152.5°	472.1	472.3	472.6	472.9	473.2	473.2	473.1	472.9	472.8	472.6	472.8
155°	483.5	483.5	483.6	483.7	483.8	483.7	483.5	483.2	482.9	482.7	483.0
157.5°	493.1	493.0	492.9	492.9	492.8	492.7	492.4	492.1	491.8	491.5	492.0
160°	498.7	498.4	498.2	497.9	497.7	497.5	497.4	497.3	497.2	497.1	497.7
162.5°	503.7	503.3	503.0	502.7	502.4	502.1	502.0	502.0	501.9	501.8	502.3
165°	510.0	509.5	509.1	508.7	508.2	508.1	508.1	508.1	508.1	508.1	508.8
167.5°	515.0	514.5	514.1	513.7	513.2	512.9	512.9	512.8	512.8	512.7	513.5
170°	517.8	517.3	516.8	516.3	515.7	515.5	515.6	515.7	515.7	515.8	516.5
172.5°	519.7	519.2	518.7	518.1	517.6	517.4	517.5	517.5	517.6	517.7	518.4
175°	521.7	521.2	520.6	520.1	519.6	519.4	519.5	519.6	519.7	519.8	520.6
177.5°	522.6	522.2	521.7	521.2	520.7	520.6	520.6	520.8	520.9	521.1	521.6
180°	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0
2.5°	871.8	873.1	874.3	874.9	874.9	874.7	874.6	874.5
5°	865.9	867.5	868.9	869.5	869.2	868.9	868.6	868.3
7.5°	854.4	855.3	856.4	856.5	856.1	855.6	855.1	854.6
10°	844.0	844.6	845.2	845.2	844.6	844.0	843.4	842.8
12.5°	831.2	831.6	832.0	831.7	830.9	830.1	829.2	828.4
15°	808.7	808.5	808.1	807.5	806.4	805.4	804.3	803.3
17.5°	781.7	780.8	780.0	778.8	777.2	775.7	774.0	772.5
20°	762.8	761.6	760.3	758.8	756.9	754.9	753.0	751.1
22.5°	741.8	739.9	738.1	736.5	734.9	733.3	731.8	730.1
25°	707.8	705.2	702.7	700.8	699.2	697.8	696.3	694.7
27.5°	673.2	670.1	667.0	664.3	662.2	660.0	658.0	655.8
30°	648.5	644.7	641.0	638.0	635.6	633.2	630.9	628.4
32.5°	623.2	618.9	614.5	611.2	609.0	606.7	604.4	602.2
35°	585.5	580.4	575.4	571.5	568.9	566.1	563.4	560.8
37.5°	545.0	539.4	533.7	529.6	526.8	524.2	521.5	518.8
40°	518.1	511.9	505.6	501.2	498.4	495.8	493.1	490.4
42.5°	491.6	485.3	478.9	474.3	471.5	468.7	465.9	463.1
45°	451.1	443.8	436.4	431.4	428.8	426.1	423.4	420.8
47.5°	410.2	402.6	395.0	389.8	386.8	383.9	381.0	378.0
50°	383.1	375.7	368.2	363.1	360.2	357.4	354.6	351.7
52.5°	356.0	348.4	341.0	335.7	332.7	329.8	326.8	323.9
55°	316.2	308.4	300.7	295.4	292.6	289.7	286.9	284.0
57.5°	277.2	269.3	261.5	256.5	254.3	252.2	250.0	247.9
60°	251.2	243.4	235.7	230.7	228.3	225.8	223.5	221.1
62.5°	225.6	218.4	211.3	206.7	204.8	202.9	201.0	199.1
65°	188.9	182.4	176.1	171.9	170.2	168.4	166.6	164.8
67.5°	155.2	149.6	144.1	140.4	138.4	136.5	134.5	132.5
70°	132.2	127.3	122.3	119.2	117.7	116.2	114.7	113.2
72.5°	111.7	107.5	103.2	100.5	99.1	97.7	96.3	95.0
75°	82.2	78.9	75.4	73.3	72.3	71.5	70.6	69.7
77.5°	58.2	56.2	54.2	53.0	52.8	52.5	52.3	52.0
80°	44.7	44.3	43.7	43.5	43.3	43.1	43.0	42.9
82.5°	34.7	34.4	34.1	33.8	33.7	33.5	33.4	33.2
85°	20.1	19.9	19.5	19.5	19.5	19.5	19.5	19.5
87.5°	9.2	9.2	9.1	9.2	9.4	9.6	9.7	9.8
90°	9.6	10.2	10.7	11.0	11.2	11.4	11.5	11.7
92.5°	9.3	9.8	10.3	10.6	10.7	10.7	10.8	10.8
95°	9.6	10.2	10.7	10.9	11.0	11.1	11.2	11.3
97.5°	10.4	10.4	10.5	10.6	10.7	10.8	10.8	10.9
100°	14.2	12.7	11.3	10.6	10.7	10.8	10.8	10.9
102.5°	50.9	35.0	19.1	11.2	11.2	11.2	11.2	11.3
105°	123.3	124.1	124.8	123.7	120.5	117.4	114.3	111.2
107.5°	152.6	152.9	153.3	153.7	154.0	154.3	154.6	155.0
110°	172.5	172.6	172.8	173.0	173.2	173.5	173.7	174.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	191.7	191.7	191.6	191.7	192.1	192.4	192.8	193.0
115°	220.4	220.6	220.8	220.8	220.8	220.8	220.8	220.8
117.5°	249.3	249.3	249.3	249.3	249.2	249.2	249.2	249.1
120°	267.3	267.4	267.6	267.6	267.4	267.3	267.1	266.9
122.5°	284.9	285.0	285.1	285.1	284.9	284.7	284.6	284.4
125°	309.5	309.8	310.0	310.2	310.3	310.4	310.5	310.6
127.5°	334.1	334.0	334.0	333.9	333.8	333.7	333.7	333.6
130°	349.0	349.1	349.2	349.2	349.2	349.2	349.2	349.2
132.5°	363.7	363.8	363.9	363.9	363.8	363.8	363.7	363.6
135°	383.9	384.1	384.3	384.4	384.6	384.8	385.0	385.1
137.5°	403.3	403.5	403.7	403.7	403.7	403.6	403.6	403.6
140°	415.3	415.6	415.9	416.0	416.1	416.2	416.3	416.4
142.5°	426.4	426.6	426.8	426.9	426.9	427.0	427.0	427.0
145°	442.3	442.4	442.5	442.6	442.7	442.9	443.1	443.2
147.5°	456.2	456.2	456.3	456.4	456.5	456.6	456.7	456.8
150°	465.1	465.1	465.1	465.2	465.3	465.4	465.5	465.5
152.5°	472.9	473.0	473.2	473.2	473.2	473.1	473.0	473.0
155°	483.4	483.7	484.1	484.1	483.9	483.6	483.4	483.1
157.5°	492.4	492.8	493.3	493.3	492.8	492.4	492.0	491.5
160°	498.2	498.7	499.2	499.2	498.7	498.2	497.7	497.1
162.5°	502.8	503.3	503.9	503.9	503.3	502.7	502.0	501.5
165°	509.5	510.1	510.8	510.7	510.0	509.2	508.4	507.6
167.5°	514.3	515.1	515.8	515.7	514.9	514.0	513.2	512.3
170°	517.2	517.9	518.7	518.6	517.6	516.8	515.9	515.1
172.5°	519.1	519.8	520.5	520.4	519.4	518.5	517.5	516.6
175°	521.3	522.1	522.9	522.7	521.7	520.6	519.6	518.6
177.5°	522.2	522.7	523.3	523.1	522.4	521.5	520.6	519.9
180°	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7

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