

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: P333663-940

Luminaire Tested: **S125RDIW-S610D470U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333663-940
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: S125RDIW-S610D470U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3569.5 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

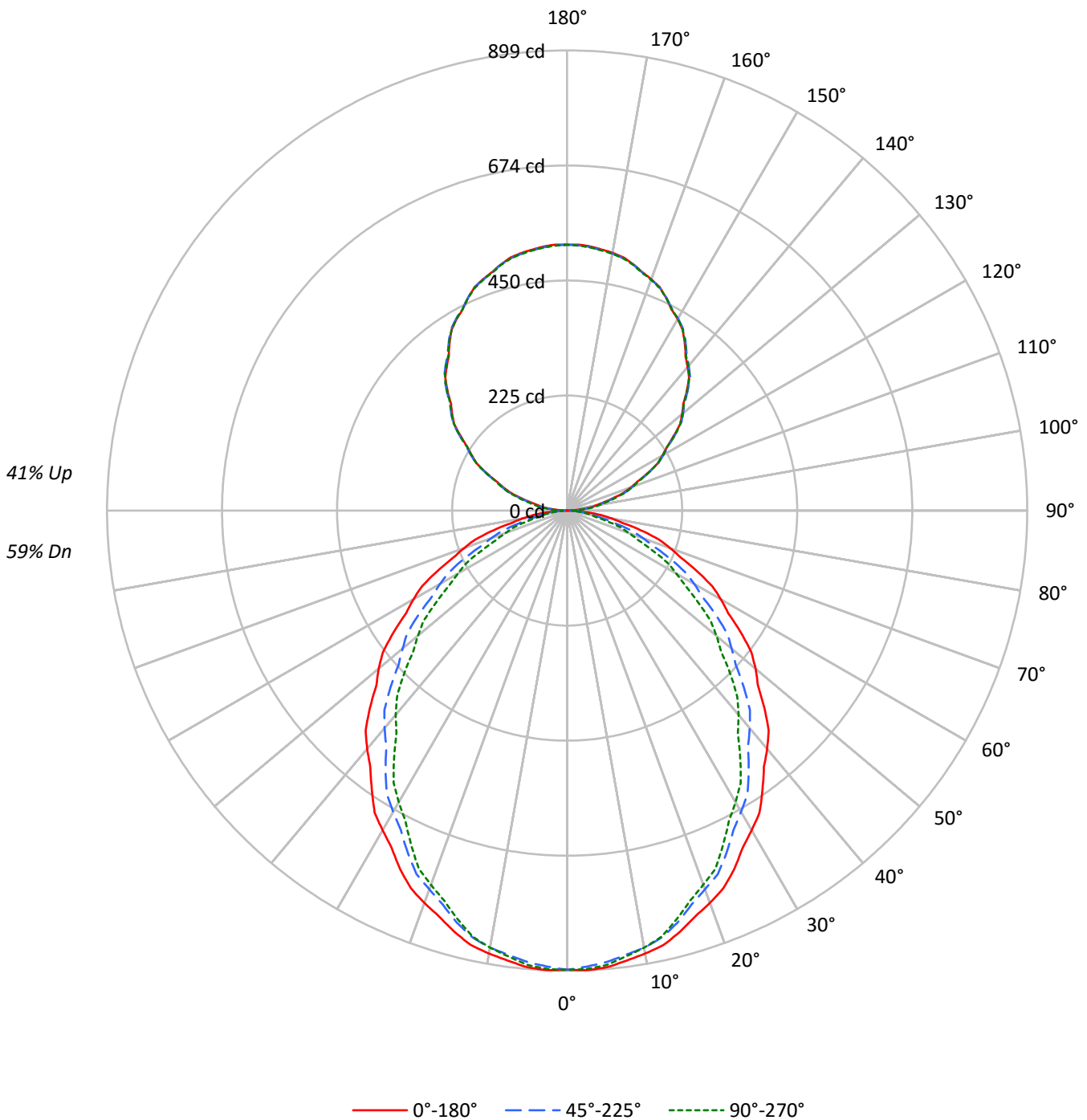
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	59
1	100	96	92	89	93	90	86	83	78	76	73	67	66	64	58	56	55	51
2	91	84	78	73	85	79	73	69	69	65	61	60	57	54	51	49	47	43
3	84	74	67	61	78	69	63	58	61	56	52	53	49	46	45	43	40	36
4	77	66	58	52	71	62	55	49	54	49	44	47	43	39	41	38	35	31
5	70	59	51	45	66	55	48	42	49	43	38	43	38	34	37	33	30	27
6	65	53	45	39	61	50	42	37	44	38	34	39	34	30	33	30	27	24
7	60	48	40	34	56	45	38	33	40	34	30	35	30	27	31	27	24	22
8	56	44	36	30	52	41	34	29	37	31	27	32	28	24	28	24	22	19
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	22	20	18
10	49	37	29	25	46	35	28	24	31	25	22	28	23	20	24	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5794	5794	5794
5°	5806	5741	5776
10°	5762	5687	5687
15°	5695	5572	5526
20°	5606	5411	5346
25°	5504	5253	5137
30°	5376	5068	4906
35°	5245	4877	4647
40°	5123	4678	4392
45°	4975	4455	4116
50°	4827	4214	3826
55°	4654	3983	3518
60°	4481	3702	3185
65°	4276	3376	2806
70°	4043	2968	2417
75°	3721	2500	2011
80°	3277	1967	1689
85°	2764	1608	1504



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	2.4
10°-20°	235.7	6.6
20°-30°	341.8	9.6
30°-40°	389.6	10.9
40°-50°	379.7	10.6
50°-60°	319.6	9.0
60°-70°	224.1	6.3
70°-80°	115.2	3.2
80°-90°	30.2	0.8
90°-100°	34.8	1.0
100°-110°	102.7	2.9
110°-120°	174.0	4.9
120°-130°	229.0	6.4
130°-140°	256.6	7.2
140°-150°	251.5	7.0
150°-160°	211.2	5.9
160°-170°	140.4	3.9
170°-180°	49.1	1.4
0°-30°	661.9	18.5
0°-40°	1051.5	29.5
0°-60°	1750.9	49.0
0°-90°	2120.3	59.4
90°-120°	311.5	8.7
90°-150°	1048.5	29.4
90°-180°	1449.0	40.6
0°-180°	3569.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	896	893	886	892	891	85
15°	852	847	833	832	826	240
25°	772	761	737	728	721	355
35°	665	648	619	600	589	416
45°	545	524	488	462	451	420
55°	413	391	354	324	312	370
65°	280	256	221	195	184	277
75°	149	128	100	86	81	158
85°	37	26	22	21	20	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°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	898.7	898.3	898.0	897.6	897.2	896.4	895.2	894.0	892.8	891.6	892.8
5°	895.6	895.1	894.5	893.9	893.2	892.2	890.5	888.9	887.2	885.5	887.0
7.5°	886.9	886.3	885.7	885.1	884.6	883.3	881.3	879.3	877.4	875.3	876.4
10°	878.7	878.2	877.8	877.4	876.9	875.7	873.5	871.5	869.3	867.2	867.6
12.5°	869.5	869.0	868.3	867.8	867.2	865.5	862.7	859.9	857.0	854.2	854.5
15°	851.7	850.7	849.8	848.9	848.0	846.0	842.8	839.6	836.5	833.3	833.2
17.5°	831.4	830.1	828.7	827.3	825.9	823.2	819.2	815.3	811.3	807.4	806.6
20°	815.7	814.2	812.7	811.2	809.7	806.6	801.7	796.9	792.1	787.3	786.5
22.5°	798.3	796.8	795.4	793.9	792.4	789.1	784.0	779.0	773.9	768.8	767.4
25°	772.4	770.1	767.9	765.6	763.3	759.4	753.9	748.2	742.7	737.1	735.2
27.5°	742.5	739.9	737.1	734.3	731.6	727.3	721.3	715.3	709.4	703.4	700.6
30°	720.9	718.0	715.2	712.3	709.4	704.8	698.5	692.2	685.9	679.6	676.1
32.5°	699.7	696.4	693.0	689.7	686.3	681.4	675.0	668.6	662.1	655.7	651.8
35°	665.3	661.7	658.1	654.5	650.9	645.7	638.9	632.1	625.4	618.6	614.2
37.5°	631.6	627.1	622.8	618.4	614.0	608.3	601.3	594.3	587.4	580.3	575.2
40°	607.7	603.2	598.7	594.1	589.7	583.8	576.6	569.4	562.1	554.9	549.2
42.5°	582.8	578.2	573.5	568.9	564.3	558.2	550.7	543.2	535.8	528.3	522.8
45°	544.7	540.4	536.0	531.6	527.3	520.9	512.6	504.4	496.1	487.8	481.8
47.5°	505.3	500.7	496.1	491.5	486.9	480.4	472.1	463.7	455.4	447.0	440.9
50°	480.4	475.4	470.4	465.5	460.5	453.7	445.1	436.6	427.9	419.4	413.0
52.5°	453.3	448.2	443.1	438.0	432.9	426.3	418.2	410.1	402.0	393.9	387.1
55°	413.3	408.5	403.7	398.9	394.0	387.4	379.0	370.5	362.1	353.7	346.9
57.5°	372.9	367.7	362.6	357.5	352.3	345.6	337.5	329.4	321.3	313.2	306.5
60°	346.9	341.6	336.4	331.1	325.8	319.1	310.9	302.8	294.7	286.6	280.0
62.5°	319.2	314.2	309.2	304.2	299.2	292.5	284.3	276.0	267.8	259.5	253.3
65°	279.8	274.7	269.6	264.5	259.3	252.8	244.8	236.8	228.8	220.9	214.8
67.5°	240.7	235.5	230.4	225.3	220.2	213.8	206.2	198.5	190.8	183.2	177.7
70°	214.1	209.0	203.8	198.8	193.6	187.3	179.8	172.3	164.7	157.2	152.5
72.5°	188.1	183.1	178.1	173.1	168.1	162.0	155.0	147.9	140.9	133.8	129.6
75°	149.1	144.5	140.0	135.5	131.0	125.6	119.2	112.9	106.6	100.2	96.9
77.5°	110.3	106.6	103.1	99.4	95.9	91.5	86.4	81.4	76.3	71.2	68.9
80°	88.1	84.4	80.9	77.2	73.7	69.7	65.5	61.3	57.1	52.9	51.5
82.5°	66.4	63.1	59.9	56.6	53.4	50.3	47.4	44.5	41.6	38.8	38.2
85°	37.3	34.5	31.8	29.2	26.4	24.7	23.9	23.2	22.5	21.7	21.5
87.5°	12.6	11.9	11.1	10.4	9.7	9.4	9.5	9.5	9.5	9.5	9.5
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°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	894.0	895.2	896.4	897.0	896.9	896.7	896.6	896.5
5°	888.5	890.0	891.5	892.2	891.8	891.5	891.3	890.9
7.5°	877.4	878.5	879.6	879.9	879.6	879.2	879.0	878.6
10°	868.1	868.5	869.1	869.1	868.5	868.1	867.6	867.2
12.5°	854.9	855.2	855.5	855.3	854.6	854.0	853.3	852.6
15°	833.0	832.9	832.8	832.0	830.6	829.3	828.0	826.5
17.5°	805.8	805.0	804.3	803.3	802.3	801.1	800.0	798.9
20°	785.8	785.0	784.3	783.2	781.9	780.5	779.2	777.8
22.5°	765.9	764.4	762.9	761.6	760.5	759.4	758.3	757.2
25°	733.3	731.3	729.3	727.5	725.9	724.2	722.6	720.9
27.5°	697.9	695.2	692.4	690.3	688.7	687.1	685.5	683.9
30°	672.6	669.1	665.7	663.3	661.9	660.6	659.2	657.9
32.5°	648.0	644.3	640.4	637.7	635.9	634.2	632.5	630.8
35°	609.8	605.5	601.1	597.9	595.8	593.6	591.6	589.4
37.5°	569.9	564.6	559.4	555.7	553.7	551.7	549.7	547.6
40°	543.4	537.7	532.0	528.2	526.5	524.6	522.8	521.0
42.5°	517.4	511.8	506.4	502.3	499.7	497.0	494.4	491.8
45°	475.7	469.8	463.7	459.6	457.4	455.0	452.8	450.6
47.5°	434.6	428.4	422.2	417.9	415.4	412.9	410.4	407.9
50°	406.7	400.4	394.0	389.8	387.5	385.3	383.0	380.8
52.5°	380.3	373.4	366.7	362.1	359.9	357.7	355.3	353.1
55°	340.1	333.3	326.5	322.0	319.6	317.2	314.8	312.4
57.5°	299.9	293.3	286.7	282.2	280.1	277.9	275.9	273.8
60°	273.3	266.7	260.1	255.7	253.4	251.1	248.9	246.6
62.5°	247.2	241.0	234.9	230.7	228.5	226.2	223.9	221.7
65°	208.8	202.8	196.8	192.6	190.4	188.2	185.8	183.6
67.5°	172.2	166.7	161.1	157.5	155.7	153.9	152.0	150.3
70°	147.8	143.2	138.5	135.3	133.5	131.7	129.8	128.0
72.5°	125.3	120.9	116.6	113.9	112.7	111.5	110.3	109.1
75°	93.6	90.3	87.0	84.8	83.8	82.8	81.7	80.6
77.5°	66.6	64.3	62.0	60.5	59.7	58.9	58.1	57.3
80°	50.1	48.8	47.4	46.6	46.3	46.0	45.7	45.4
82.5°	37.5	36.8	36.2	35.8	35.7	35.5	35.3	35.1
85°	21.4	21.2	21.0	21.0	20.8	20.6	20.5	20.3
87.5°	9.6	9.7	9.8	9.8	9.7	9.6	9.6	9.5
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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