

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: P331787-927

Luminaire Tested: **S122RDIW-S485D435U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331787-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIW-S485D435U927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 435 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2717.1 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

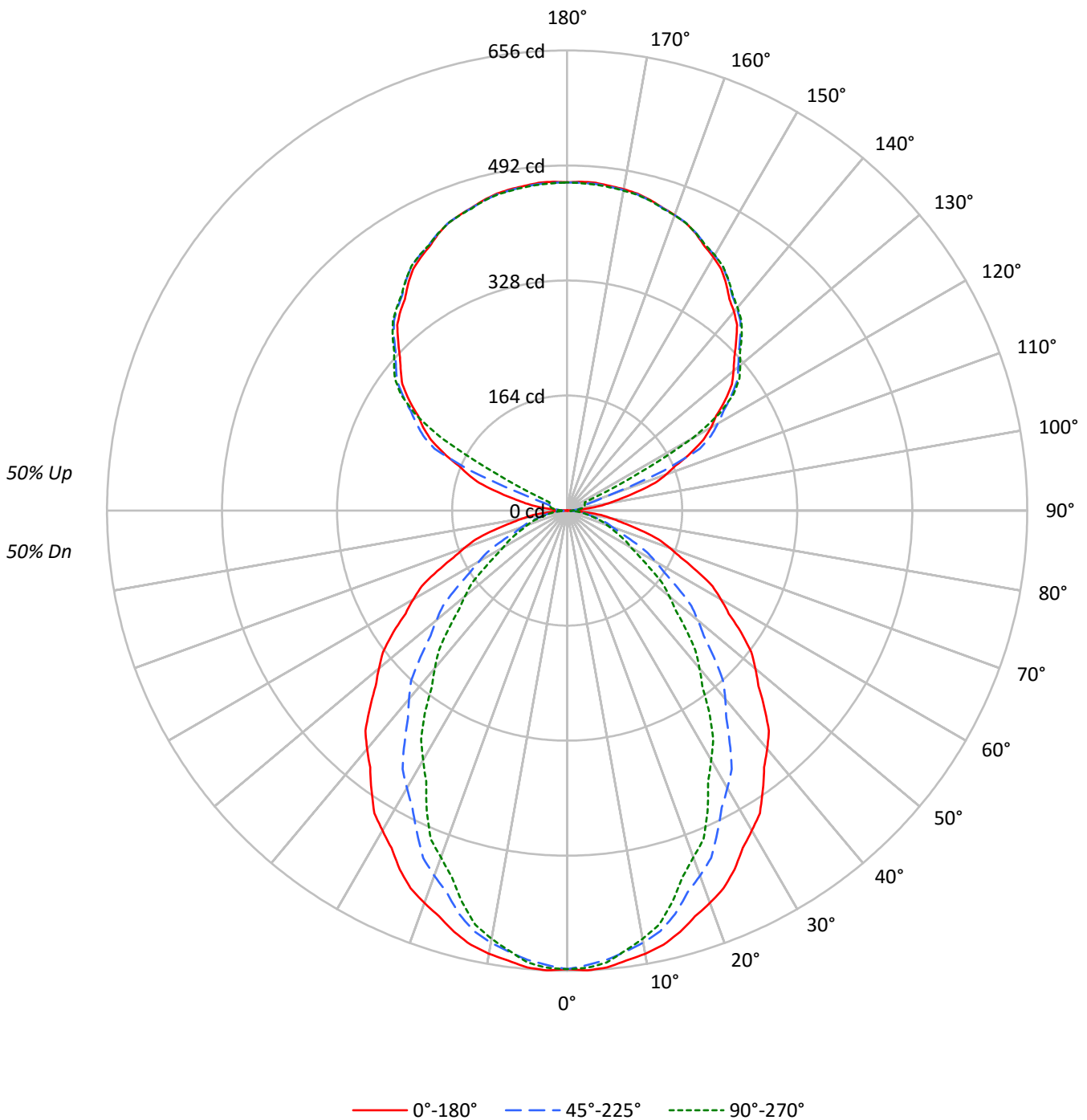
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50					50			
1	98	94	90	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43					43			
2	90	83	77	72	83	76	71	67	65	61	58	54	52	49	45	43	41	36					36			
3	82	73	66	60	76	68	62	57	58	53	49	48	45	42	40	38	36	31					31			
4	75	65	57	51	69	60	54	48	52	47	42	44	40	37	36	33	31	27					27			
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	33	30	27	24					24			
6	64	52	44	39	59	49	42	37	42	37	32	36	32	28	30	27	24	21					21			
7	59	47	40	34	55	44	37	32	38	33	29	33	28	25	27	24	22	19					19			
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17					17			
9	51	39	32	27	48	37	30	26	32	27	23	28	23	20	23	20	18	16					16			
10	48	36	29	25	44	34	28	23	30	25	21	26	22	19	22	19	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10555	10555	10555
5°	10595	10423	10481
10°	10516	10252	10165
15°	10394	9949	9663
20°	10227	9514	9036
25°	10055	9021	8432
30°	9818	8516	7655
35°	9585	7965	6974
40°	9352	7396	6184
45°	9079	6754	5471
50°	8796	6106	4770
55°	8510	5413	4096
60°	8176	4682	3400
65°	7798	3931	3095
70°	7345	3238	2851
75°	6787	2951	2658
80°	5997	2641	2427
85°	4705	2075	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	2.3
10°-20°	168.0	6.2
20°-30°	235.9	8.7
30°-40°	257.3	9.5
40°-50°	236.6	8.7
50°-60°	185.8	6.8
60°-70°	121.1	4.5
70°-80°	62.5	2.3
80°-90°	17.4	0.6
90°-100°	15.6	0.6
100°-110°	57.2	2.1
110°-120°	153.0	5.6
120°-130°	252.6	9.3
130°-140°	268.6	9.9
140°-150°	249.7	9.2
150°-160°	200.7	7.4
160°-170°	129.3	4.8
170°-180°	44.5	1.6
0°-30°	465.2	17.1
0°-40°	722.4	26.6
0°-60°	1144.8	42.1
0°-90°	1345.8	49.5
90°-120°	225.9	8.3
90°-150°	996.7	36.7
90°-180°	1371.0	50.5
0°-180°	2717.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	650	643	648	647	62
15°	622	615	595	584	578	175
25°	564	544	506	483	473	259
35°	486	455	404	368	354	304
45°	398	357	296	255	240	307
55°	302	255	192	158	146	270
65°	204	156	103	84	81	202
75°	109	69	47	43	43	115
85°	25	14	11	11	11	30
90°	0	4	7	8	9	2
95°	22	12	13	15	15	27
105°	103	107	21	24	26	110
115°	195	201	209	60	28	192
125°	275	280	286	288	290	245
135°	341	346	349	352	352	263
145°	395	395	400	403	401	247
155°	435	432	436	438	436	200
165°	458	457	457	460	457	129
175°	469	467	467	469	466	45
180°	468	468	468	468	468	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	656.1	655.6	655.1	654.5	654.0	653.2	652.0	650.9	649.7	648.6	649.6
5°	653.7	653.1	652.4	651.8	651.1	649.9	648.2	646.5	644.8	643.1	644.3
7.5°	647.0	646.2	645.4	644.5	643.7	642.3	640.3	638.3	636.4	634.4	634.7
10°	641.4	640.4	639.4	638.6	637.6	635.9	633.3	630.6	628.0	625.3	625.0
12.5°	634.2	633.1	631.9	630.8	629.7	627.5	624.1	620.8	617.3	614.0	613.3
15°	621.8	620.4	618.9	617.4	616.0	613.1	608.6	604.1	599.7	595.2	592.7
17.5°	606.6	604.4	602.1	599.9	597.7	593.7	588.0	582.3	576.6	570.8	567.8
20°	595.2	592.6	589.9	587.3	584.6	580.0	573.5	566.9	560.3	553.7	550.5
22.5°	582.9	580.0	576.9	574.0	571.1	565.9	558.5	551.0	543.7	536.2	532.0
25°	564.4	560.2	556.0	551.8	547.6	541.1	532.4	523.8	515.1	506.4	501.1
27.5°	542.2	537.6	533.0	528.5	523.9	516.7	506.9	497.1	487.4	477.5	471.3
30°	526.6	521.6	516.6	511.6	506.6	498.8	488.3	477.8	467.2	456.8	450.0
32.5°	511.4	505.6	499.7	493.9	488.1	479.7	469.1	458.3	447.6	436.9	429.2
35°	486.3	479.6	472.9	466.2	459.5	450.4	438.8	427.2	415.7	404.1	395.8
37.5°	461.2	453.8	446.5	439.1	431.8	421.9	409.6	397.3	384.9	372.6	363.5
40°	443.7	435.9	427.9	420.1	412.2	401.9	389.1	376.4	363.6	350.9	341.5
42.5°	425.7	417.4	409.1	400.8	392.5	381.8	368.6	355.4	342.2	329.1	319.4
45°	397.6	388.8	379.9	371.1	362.3	351.0	337.2	323.4	309.6	295.8	286.5
47.5°	370.1	360.8	351.5	342.1	332.8	321.0	306.7	292.5	278.2	264.0	254.7
50°	350.2	340.9	331.6	322.3	312.9	301.0	286.5	272.1	257.6	243.1	234.1
52.5°	330.8	321.1	311.3	301.6	291.8	279.9	265.7	251.6	237.4	223.3	214.5
55°	302.3	292.1	281.8	271.6	261.3	249.1	234.9	220.7	206.4	192.3	184.4
57.5°	273.1	262.6	252.1	241.5	231.0	219.0	205.3	191.6	178.0	164.4	157.1
60°	253.2	242.7	232.2	221.7	211.1	199.2	185.6	172.1	158.5	145.0	138.2
62.5°	233.8	223.3	212.8	202.2	191.7	180.1	167.2	154.2	141.3	128.4	122.0
65°	204.1	193.5	182.8	172.1	161.5	150.3	138.5	126.6	114.8	102.9	98.5
67.5°	175.5	164.9	154.3	143.8	133.2	122.6	111.9	101.3	90.6	80.0	78.0
70°	155.6	145.4	135.1	124.8	114.5	104.9	95.9	86.7	77.7	68.6	67.3
72.5°	136.7	126.8	117.0	107.2	97.4	88.8	81.5	74.2	66.9	59.7	58.5
75°	108.8	99.7	90.5	81.3	72.0	65.2	60.8	56.2	51.8	47.3	46.4
77.5°	81.5	73.4	65.4	57.3	49.3	44.1	42.0	39.8	37.6	35.5	34.9
80°	64.5	57.8	51.1	44.4	37.6	33.7	32.3	31.1	29.7	28.4	27.9
82.5°	48.9	43.6	38.4	33.2	28.0	24.9	24.0	23.1	22.2	21.3	21.0
85°	25.4	22.7	19.9	17.2	14.4	12.8	12.4	12.0	11.6	11.2	11.2
87.5°	7.6	7.0	6.3	5.6	4.9	4.7	4.8	4.9	5.0	5.1	5.1
90°	0.3	1.2	2.0	2.9	3.6	4.4	5.0	5.5	6.2	6.7	7.1
92.5°	6.8	6.7	6.7	6.6	6.6	6.7	7.0	7.3	7.5	7.8	8.1
95°	22.0	19.5	17.0	14.6	12.0	11.1	11.6	12.1	12.7	13.2	13.5
97.5°	43.6	36.7	29.7	22.7	15.7	12.8	14.0	15.2	16.5	17.7	18.0
100°	60.0	49.6	39.3	29.0	18.7	14.2	15.4	16.7	18.0	19.3	19.9
102.5°	77.8	75.7	73.4	71.3	69.1	62.7	52.0	41.3	30.6	19.8	20.6
105°	102.9	105.2	107.4	109.7	111.9	102.8	82.3	61.7	41.2	20.7	21.5
107.5°	131.6	133.4	135.2	137.0	138.9	127.5	102.8	78.2	53.6	28.9	28.0
110°	150.0	151.5	153.1	154.7	156.3	146.2	124.5	102.7	81.0	59.3	51.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.3	168.7	170.2	171.5	172.9	171.0	165.6	160.2	154.8	149.5	122.0
115°	194.7	196.0	197.3	198.5	199.8	201.4	203.3	205.2	207.0	208.9	174.0
117.5°	219.1	220.5	222.0	223.4	224.8	226.2	227.5	228.8	230.1	231.4	223.0
120°	237.0	238.1	239.2	240.4	241.5	242.8	244.2	245.5	246.8	248.2	249.1
122.5°	252.2	253.3	254.5	255.7	256.9	258.3	259.8	261.2	262.7	264.2	264.7
125°	275.3	276.2	277.3	278.2	279.2	280.4	281.9	283.3	284.7	286.1	286.6
127.5°	296.2	297.3	298.3	299.4	300.6	301.6	302.7	303.7	304.8	305.9	306.7
130°	309.5	310.7	311.9	313.1	314.3	315.3	316.2	317.0	317.8	318.6	319.4
132.5°	323.1	324.0	325.0	326.1	327.1	328.0	328.8	329.7	330.5	331.4	332.1
135°	340.6	341.8	343.0	344.2	345.5	346.3	347.1	347.8	348.4	349.1	349.8
137.5°	358.5	359.3	360.1	361.0	361.8	362.6	363.4	364.2	364.9	365.7	366.4
140°	370.1	370.7	371.3	371.9	372.5	373.2	374.1	374.9	375.7	376.5	377.2
142.5°	379.9	380.4	380.9	381.4	382.0	382.8	383.7	384.6	385.6	386.5	387.1
145°	395.1	395.1	395.0	394.9	394.8	395.5	396.7	398.0	399.3	400.5	401.1
147.5°	408.4	408.2	407.9	407.7	407.3	407.8	409.1	410.4	411.6	412.9	413.3
150°	417.2	416.6	416.1	415.6	415.0	415.3	416.6	417.8	419.0	420.2	420.6
152.5°	424.5	423.9	423.3	422.7	422.1	422.4	423.5	424.7	425.8	427.0	427.4
155°	435.1	434.4	433.7	433.1	432.4	432.5	433.4	434.3	435.2	436.1	436.6
157.5°	443.4	442.8	442.3	441.7	441.2	441.2	441.8	442.4	443.1	443.7	444.2
160°	448.3	447.8	447.4	446.9	446.5	446.5	446.9	447.4	447.8	448.3	448.8
162.5°	452.7	452.2	451.7	451.3	450.8	450.8	451.1	451.5	451.9	452.3	452.9
165°	458.4	458.0	457.6	457.1	456.6	456.5	456.8	457.0	457.2	457.4	458.0
167.5°	462.8	462.3	461.9	461.4	461.0	460.9	461.1	461.3	461.5	461.7	462.2
170°	465.2	464.8	464.3	463.9	463.4	463.3	463.4	463.6	463.7	463.9	464.4
172.5°	466.8	466.4	466.0	465.5	465.0	464.9	465.0	465.2	465.3	465.5	466.0
175°	469.0	468.4	467.9	467.4	466.8	466.7	466.8	467.0	467.1	467.2	467.8
177.5°	469.3	468.9	468.4	468.0	467.6	467.4	467.5	467.5	467.6	467.6	468.1
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	650.6	651.7	652.8	653.2	653.0	652.8	652.5	652.4
5°	645.5	646.7	647.8	648.2	647.8	647.5	647.1	646.7
7.5°	635.0	635.3	635.7	635.6	634.9	634.1	633.5	632.8
10°	624.6	624.2	623.8	623.2	622.4	621.6	620.8	620.0
12.5°	612.6	611.9	611.2	610.1	608.8	607.5	606.2	604.9
15°	590.2	587.7	585.2	583.3	581.9	580.7	579.3	578.1
17.5°	564.8	561.9	558.9	556.3	554.1	551.8	549.5	547.2
20°	547.2	543.9	540.6	537.5	534.6	531.7	528.9	525.9
22.5°	527.8	523.6	519.4	516.1	514.0	511.8	509.7	507.5
25°	495.7	490.3	484.9	481.2	479.2	477.2	475.3	473.3
27.5°	465.0	458.7	452.4	447.7	444.6	441.5	438.3	435.2
30°	443.3	436.7	429.9	424.8	421.2	417.7	414.2	410.6
32.5°	421.5	413.9	406.2	400.8	397.4	394.1	390.7	387.4
35°	387.5	379.2	371.0	365.4	362.5	359.6	356.7	353.8
37.5°	354.3	345.2	336.1	329.9	326.6	323.3	320.0	316.6
40°	332.2	322.8	313.5	307.1	303.7	300.3	296.8	293.4
42.5°	309.7	300.1	290.5	284.0	280.7	277.3	274.0	270.7
45°	277.1	267.8	258.5	252.2	249.1	245.9	242.7	239.6
47.5°	245.4	236.1	226.9	220.8	217.9	215.1	212.1	209.3
50°	225.0	215.9	206.8	201.0	198.2	195.4	192.7	189.9
52.5°	205.7	197.0	188.2	182.6	180.1	177.5	174.9	172.4
55°	176.5	168.6	160.7	155.5	153.0	150.5	148.1	145.5
57.5°	149.9	142.7	135.5	130.8	128.7	126.6	124.5	122.3
60°	131.5	124.8	118.1	113.8	111.6	109.5	107.4	105.3
62.5°	115.6	109.2	102.8	99.0	97.8	96.5	95.2	94.0
65°	94.0	89.5	85.1	82.6	82.2	81.8	81.4	81.0
67.5°	75.9	73.8	71.8	70.6	70.1	69.7	69.3	68.8
70°	66.0	64.7	63.4	62.4	61.9	61.4	60.8	60.4
72.5°	57.4	56.3	55.2	54.5	54.2	53.9	53.6	53.2
75°	45.5	44.6	43.6	43.1	43.0	42.9	42.7	42.6
77.5°	34.5	33.9	33.4	33.0	32.8	32.6	32.4	32.2
80°	27.3	26.9	26.3	26.1	26.1	26.1	26.1	26.1
82.5°	20.7	20.4	20.0	19.9	19.9	19.9	19.9	19.9
85°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
87.5°	5.1	5.1	5.0	5.0	5.1	5.1	5.1	5.1
90°	7.5	7.9	8.2	8.6	8.7	8.9	9.0	9.1
92.5°	8.2	8.5	8.6	8.8	8.9	9.0	9.0	9.1
95°	13.9	14.3	14.7	14.9	14.8	14.7	14.7	14.6
97.5°	18.3	18.6	18.9	19.1	19.2	19.3	19.3	19.4
100°	20.5	21.1	21.7	22.1	22.3	22.4	22.5	22.7
102.5°	21.4	22.2	23.0	23.4	23.7	23.9	24.1	24.3
105°	22.3	23.1	24.0	24.6	24.8	25.1	25.4	25.7
107.5°	27.3	26.4	25.5	25.3	25.6	25.9	26.1	26.5
110°	44.2	36.7	29.2	25.5	25.8	26.1	26.5	26.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	94.6	67.1	39.7	26.1	26.3	26.5	26.8	27.0
115°	139.3	104.4	69.6	49.4	44.0	38.6	33.2	27.7
117.5°	214.5	206.1	197.6	184.6	166.8	148.9	131.2	113.4
120°	250.0	250.9	251.8	247.2	237.0	226.9	216.7	206.5
122.5°	265.2	265.8	266.3	265.6	263.6	261.7	259.7	257.7
125°	287.2	287.7	288.2	288.6	288.8	289.1	289.3	289.5
127.5°	307.4	308.2	309.0	309.3	309.4	309.4	309.5	309.5
130°	320.3	321.1	321.9	322.3	322.3	322.2	322.1	322.0
132.5°	332.8	333.4	334.1	334.5	334.4	334.3	334.3	334.2
135°	350.6	351.3	352.1	352.4	352.3	352.1	352.0	351.8
137.5°	367.2	367.9	368.6	368.8	368.6	368.4	368.1	367.8
140°	377.9	378.6	379.2	379.4	379.0	378.6	378.3	377.9
142.5°	387.8	388.4	389.0	389.1	388.7	388.4	388.0	387.6
145°	401.6	402.1	402.7	402.7	402.3	402.0	401.6	401.2
147.5°	413.7	414.1	414.5	414.5	414.2	413.8	413.5	413.2
150°	421.1	421.5	422.0	422.1	421.7	421.3	420.9	420.6
152.5°	427.9	428.3	428.8	428.7	428.3	427.8	427.2	426.7
155°	437.0	437.4	437.9	437.8	437.2	436.7	436.0	435.5
157.5°	444.7	445.2	445.8	445.7	445.1	444.5	443.9	443.4
160°	449.2	449.6	450.1	450.0	449.6	449.0	448.5	448.0
162.5°	453.4	453.9	454.4	454.3	453.7	453.0	452.4	451.8
165°	458.5	459.0	459.5	459.5	459.0	458.5	458.0	457.4
167.5°	462.8	463.3	463.8	463.7	463.0	462.4	461.7	461.1
170°	464.9	465.5	466.0	465.9	465.2	464.5	463.9	463.2
172.5°	466.5	467.1	467.6	467.5	466.8	466.2	465.5	464.9
175°	468.3	468.8	469.4	469.3	468.5	467.8	467.0	466.3
177.5°	468.5	468.9	469.4	469.3	468.7	468.2	467.6	467.1
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9

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