

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: P332924-930

Luminaire Tested: **SA4XXRDIP-C575D1205U930-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332924-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C575D1205U930-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5424.1 lumens
Efficiency: N/A
Efficacy: 109.8 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: Semi-Indirect

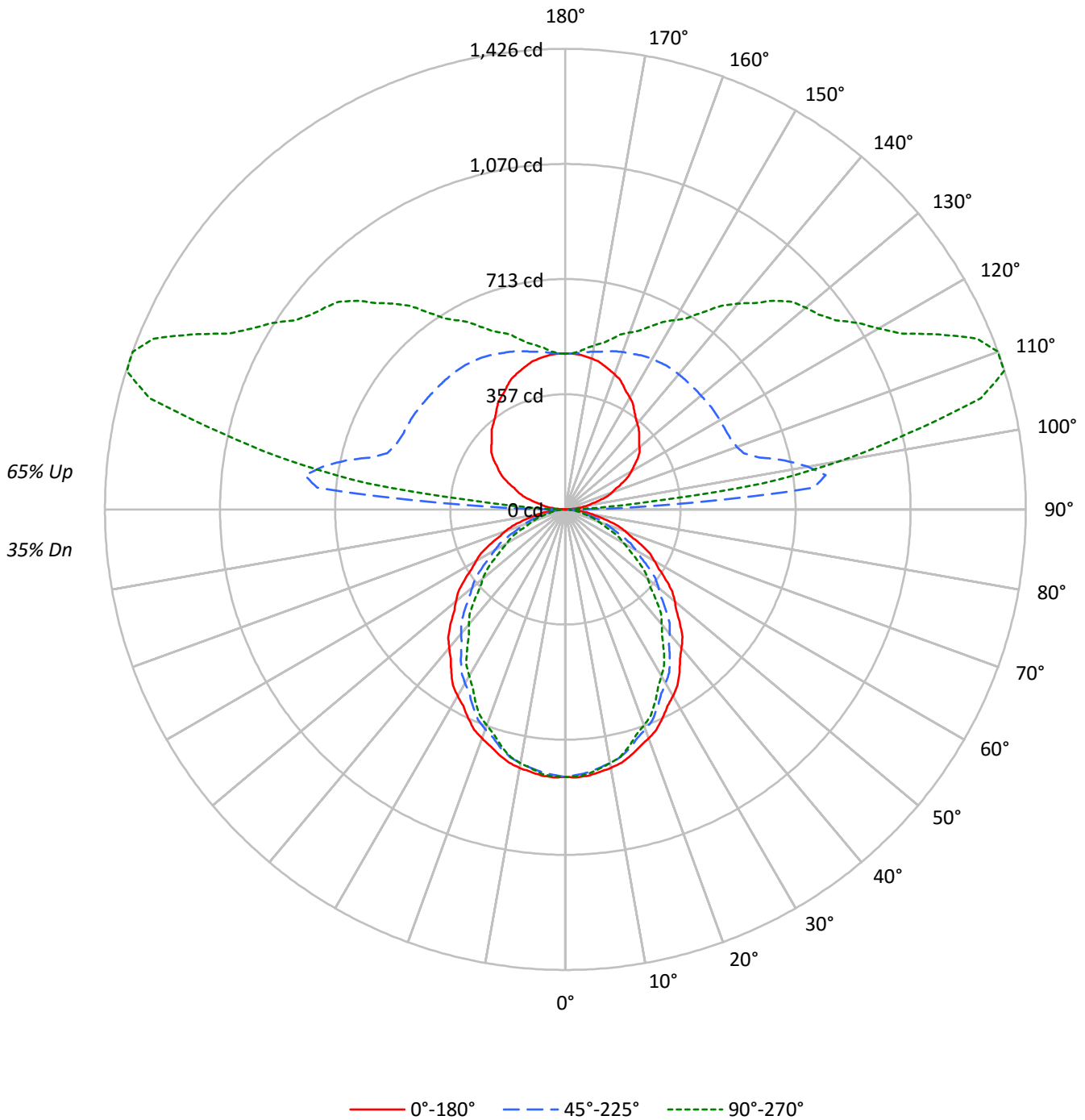
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	95	91	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	67	63	58	55	52	45	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	44	40	37	35	30	28	26	22
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	37	31	51	41	34	29	33	28	25	27	23	20	20	18	16	13
8	52	40	33	28	47	37	30	26	30	25	22	24	21	18	18	16	14	12
9	49	37	29	25	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	34	27	22	41	31	25	20	26	21	17	21	17	15	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6689	6689	6689
5°	6704	6622	6663
10°	6662	6542	6542
15°	6586	6405	6358
20°	6480	6225	6110
25°	6347	6013	5860
30°	6216	5790	5547
35°	6071	5558	5233
40°	5896	5296	4894
45°	5737	5034	4548
50°	5554	4732	4182
55°	5358	4421	3786
60°	5142	4077	3381
65°	4946	3647	2980
70°	4657	3175	2530
75°	4295	2633	2059
80°	3747	2004	1888
85°	3168	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	1.4
10°-20°	217.0	4.0
20°-30°	313.4	5.8
30°-40°	355.3	6.5
40°-50°	343.1	6.3
50°-60°	285.3	5.3
60°-70°	197.0	3.6
70°-80°	99.8	1.8
80°-90°	28.3	0.5
90°-100°	348.3	6.4
100°-110°	724.9	13.4
110°-120°	649.3	12.0
120°-130°	546.2	10.1
130°-140°	455.4	8.4
140°-150°	347.9	6.4
150°-160°	244.5	4.5
160°-170°	143.8	2.7
170°-180°	46.8	0.9
0°-30°	608.3	11.2
0°-40°	963.6	17.8
0°-60°	1591.9	29.3
0°-90°	1917.0	35.3
90°-120°	1722.5	31.8
90°-150°	3071.9	56.6
90°-180°	3507.0	64.7
0°-180°	5424.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	827	824	817	823	822	78
15°	788	782	766	765	761	222
25°	712	700	675	664	658	328
35°	616	595	564	543	531	385
45°	502	478	441	411	398	387
55°	381	354	314	282	269	340
65°	259	231	191	165	156	256
75°	138	114	84	70	66	145
85°	34	22	20	18	18	39
90°	1	8	17	19	20	3
95°	31	99	772	382	231	35
105°	111	161	622	1338	1333	118
115°	195	245	554	1065	1280	193
125°	272	323	551	906	1021	242
135°	323	385	547	804	913	250
145°	372	426	544	678	746	234
155°	424	457	529	599	624	195
165°	461	476	507	537	545	130
175°	481	482	486	493	491	46
180°	482	482	482	482	482	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	830.6	830.1	829.7	829.2	828.8	827.9	826.7	825.5	824.2	823.0	824.2
5°	827.3	826.7	826.1	825.6	825.1	823.9	822.2	820.5	818.8	817.2	818.6
7.5°	819.8	819.2	818.6	818.1	817.4	816.0	813.8	811.6	809.4	807.2	808.1
10°	812.7	812.0	811.3	810.6	809.9	808.3	805.8	803.2	800.6	798.1	798.7
12.5°	803.6	802.7	801.9	801.1	800.3	798.4	795.4	792.4	789.5	786.4	786.8
15°	788.0	786.7	785.5	784.2	782.9	780.5	777.0	773.5	769.9	766.4	766.1
17.5°	769.1	767.2	765.4	763.5	761.7	758.7	754.5	750.2	746.0	741.8	741.0
20°	754.3	752.5	750.6	748.9	747.0	743.7	738.9	734.1	729.3	724.6	723.4
22.5°	738.1	736.1	734.0	731.9	729.9	726.3	721.1	716.0	710.9	705.7	704.0
25°	712.5	710.0	707.4	704.8	702.3	698.1	692.4	686.6	680.8	675.1	672.6
27.5°	685.6	682.4	679.2	676.0	672.8	668.1	661.9	655.8	649.6	643.4	640.5
30°	666.8	663.2	659.7	656.2	652.7	647.6	641.0	634.4	627.7	621.1	617.6
32.5°	647.0	643.0	639.0	635.0	631.1	625.7	618.8	612.0	605.1	598.3	594.2
35°	616.0	611.6	607.0	602.5	598.0	592.2	585.1	578.1	571.0	564.0	559.2
37.5°	582.9	578.3	573.6	569.0	564.3	558.1	550.2	542.4	534.7	526.8	521.5
40°	559.5	554.9	550.2	545.6	541.0	534.6	526.6	518.5	510.5	502.5	496.5
42.5°	537.2	532.4	527.5	522.6	517.7	511.1	502.7	494.3	486.0	477.6	471.6
45°	502.5	497.3	492.0	486.8	481.6	474.7	466.3	457.9	449.4	440.9	434.0
47.5°	466.6	461.2	455.8	450.4	445.0	437.9	429.1	420.4	411.6	402.8	395.6
50°	442.2	436.7	431.2	425.7	420.2	412.9	403.9	394.9	385.9	376.8	369.8
52.5°	417.4	412.0	406.6	401.2	395.7	388.5	379.2	370.0	360.7	351.5	344.3
55°	380.7	375.0	369.4	363.7	358.1	350.7	341.5	332.4	323.2	314.1	306.7
57.5°	344.4	338.5	332.6	326.8	320.9	313.5	304.4	295.4	286.4	277.4	269.9
60°	318.5	312.8	307.2	301.6	296.0	288.6	279.6	270.5	261.5	252.5	245.2
62.5°	295.1	289.3	283.4	277.5	271.7	264.2	254.9	245.6	236.4	227.1	220.4
65°	258.9	252.8	246.7	240.7	234.6	227.1	218.0	209.0	200.0	190.9	184.9
67.5°	221.2	215.3	209.5	203.7	198.0	190.9	182.5	174.1	165.8	157.4	152.1
70°	197.3	191.4	185.5	179.5	173.7	166.6	158.6	150.6	142.5	134.5	129.9
72.5°	171.9	166.6	161.2	155.9	150.5	144.1	136.5	128.9	121.2	113.7	109.7
75°	137.7	132.5	127.3	122.1	116.8	110.9	104.3	97.6	91.0	84.4	81.1
77.5°	102.9	98.5	94.1	89.6	85.2	80.3	74.9	69.6	64.2	58.9	57.0
80°	80.6	76.5	72.4	68.3	64.2	60.1	55.8	51.6	47.4	43.1	42.7
82.5°	61.3	57.6	53.8	50.1	46.3	43.2	40.8	38.3	36.0	33.5	33.2
85°	34.2	31.5	28.6	25.8	23.0	21.4	21.0	20.5	20.1	19.6	19.4
87.5°	11.9	11.3	11.0	10.3	9.6	9.0	10.1	9.9	10.3	10.5	10.2
90°	1.0	2.9	5.7	6.6	7.6	7.6	13.3	13.3	15.2	17.0	16.1
92.5°	10.8	15.7	24.6	36.2	50.1	69.7	117.9	191.4	263.0	300.5	250.3
95°	31.2	34.1	43.6	55.9	78.6	118.5	200.8	356.2	582.6	772.1	793.9
97.5°	56.1	56.1	64.2	75.6	95.1	128.5	191.9	320.2	545.3	813.3	997.4
100°	72.0	72.0	78.6	90.0	108.0	138.4	194.2	301.3	494.6	761.7	1004.2
102.5°	87.2	88.7	94.6	105.2	122.4	151.2	201.8	296.0	460.4	697.2	947.4
105°	110.9	113.7	118.5	129.8	146.8	174.3	219.8	298.4	431.0	621.5	844.1
107.5°	137.0	138.8	143.7	155.7	172.0	199.2	240.8	312.4	425.7	579.0	760.8
110°	154.4	156.3	161.0	172.4	189.5	215.1	256.7	323.0	427.3	564.7	719.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.1	173.0	178.5	189.1	206.2	231.7	271.9	334.4	431.8	557.8	695.5
115°	195.2	198.0	204.6	214.1	232.1	257.7	295.5	352.5	440.5	554.2	673.6
117.5°	220.1	222.8	228.7	239.1	256.0	282.5	318.5	370.8	449.8	553.3	663.7
120°	236.8	238.7	245.4	255.8	271.9	298.4	334.4	383.7	456.6	553.3	658.4
122.5°	252.0	253.9	260.6	270.2	287.8	313.6	349.6	395.8	463.5	552.5	652.4
125°	271.9	275.7	281.4	291.8	309.8	336.3	370.4	414.0	473.7	551.4	642.3
127.5°	289.5	292.5	299.4	311.3	330.0	356.8	389.7	429.7	481.8	549.3	628.8
130°	299.4	303.1	310.7	325.0	342.9	370.4	402.7	439.6	487.9	548.5	620.5
132.5°	309.2	312.3	322.1	335.6	355.1	381.1	413.3	449.5	493.2	547.8	612.9
135°	323.0	326.9	336.3	352.5	372.3	397.0	428.2	462.4	501.2	546.7	601.6
137.5°	336.9	340.5	350.9	366.2	386.9	410.4	439.6	471.4	505.9	546.4	591.7
140°	346.7	349.6	360.0	376.1	396.0	418.7	447.2	477.4	509.7	545.7	586.4
142.5°	357.3	360.2	369.8	385.2	404.3	426.3	454.0	482.0	512.7	545.7	581.9
145°	372.3	375.2	384.7	397.9	415.9	436.8	461.4	487.0	514.5	543.8	574.1
147.5°	389.1	390.1	398.4	412.1	427.1	445.8	469.0	491.3	515.4	540.4	567.1
150°	399.8	400.7	408.3	419.7	433.9	451.9	472.7	493.6	515.4	538.1	561.8
152.5°	409.6	409.9	417.4	428.0	440.8	457.2	475.8	495.1	513.9	534.3	555.7
155°	423.5	424.4	430.1	439.6	450.0	464.2	480.3	496.4	511.6	528.6	546.7
157.5°	436.9	436.9	442.2	449.6	458.7	469.9	483.6	496.4	509.2	522.8	537.4
160°	445.2	445.2	449.1	455.7	463.3	473.7	485.0	496.4	506.9	518.2	530.5
162.5°	452.8	452.1	455.1	461.0	467.8	476.0	486.6	496.4	504.6	513.6	524.5
165°	461.4	461.4	463.3	468.0	472.7	478.4	487.0	494.6	500.2	506.9	514.5
167.5°	469.9	469.0	469.9	473.5	476.1	480.5	486.7	492.3	495.7	500.0	505.3
170°	473.7	472.7	473.7	476.5	478.4	481.3	486.0	490.7	492.6	495.5	499.3
172.5°	477.4	476.5	476.7	478.8	480.0	482.0	485.3	489.3	489.6	490.9	494.0
175°	481.3	480.3	480.3	481.3	482.2	482.2	484.1	487.0	486.0	486.0	487.9
177.5°	483.0	482.2	481.4	482.2	482.2	482.2	483.0	484.5	483.0	483.0	483.7
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	825.5	826.7	827.9	828.5	828.4	828.3	828.2	828.1
5°	819.9	821.4	822.8	823.4	823.0	822.8	822.5	822.2
7.5°	809.0	809.9	810.9	811.1	810.7	810.2	809.8	809.3
10°	799.2	799.8	800.4	800.4	799.8	799.2	798.7	798.1
12.5°	787.1	787.4	787.8	787.6	786.8	786.0	785.2	784.4
15°	765.8	765.6	765.2	764.7	763.6	762.6	761.7	760.7
17.5°	740.2	739.4	738.6	737.4	736.0	734.5	733.0	731.5
20°	722.3	721.1	720.0	718.5	716.7	714.9	713.1	711.2
22.5°	702.4	700.7	699.0	697.4	695.9	694.4	692.9	691.4
25°	670.3	667.8	665.4	663.6	662.1	660.7	659.3	657.9
27.5°	637.5	634.5	631.6	629.1	627.0	625.0	623.1	621.0
30°	614.1	610.5	607.0	604.1	601.9	599.6	597.4	595.1
32.5°	590.1	586.0	581.9	578.8	576.7	574.5	572.3	570.2
35°	554.4	549.6	544.9	541.2	538.7	536.1	533.5	531.0
37.5°	516.1	510.8	505.4	501.5	498.9	496.4	493.8	491.3
40°	490.6	484.7	478.7	474.6	472.0	469.4	466.9	464.4
42.5°	465.5	459.5	453.5	449.1	446.5	443.8	441.2	438.5
45°	427.1	420.2	413.3	408.5	406.0	403.5	401.0	398.4
47.5°	388.4	381.2	374.1	369.1	366.3	363.5	360.8	357.9
50°	362.7	355.7	348.6	343.8	341.1	338.4	335.7	333.0
52.5°	337.1	330.0	322.9	317.9	315.0	312.3	309.5	306.7
55°	299.4	292.0	284.7	279.7	277.0	274.3	271.7	269.0
57.5°	262.4	255.0	247.6	242.9	240.8	238.8	236.8	234.7
60°	237.8	230.5	223.1	218.4	216.1	213.9	211.7	209.4
62.5°	213.6	206.8	200.1	195.8	194.0	192.2	190.4	188.6
65°	178.9	172.8	166.7	162.8	161.2	159.5	157.8	156.0
67.5°	146.9	141.7	136.5	133.0	131.1	129.2	127.3	125.5
70°	125.2	120.6	115.9	112.8	111.5	110.1	108.6	107.2
72.5°	105.7	101.7	97.8	95.1	93.8	92.5	91.2	89.9
75°	77.9	74.7	71.4	69.4	68.5	67.7	66.9	66.0
77.5°	55.1	53.2	51.3	50.2	50.0	49.7	49.5	49.2
80°	42.3	41.9	41.4	41.2	41.0	40.8	40.8	40.6
82.5°	32.9	32.5	32.3	32.0	31.9	31.7	31.6	31.5
85°	19.1	18.8	18.5	18.4	18.4	18.4	18.4	18.4
87.5°	10.3	10.4	10.4	10.4	10.8	11.1	11.0	11.1
90°	17.0	18.0	18.9	18.9	19.9	20.9	19.9	19.9
92.5°	186.1	140.0	111.5	92.5	81.3	76.1	73.0	73.0
95°	702.0	555.1	428.2	336.3	289.9	260.6	243.4	231.1
97.5°	1037.2	982.6	890.0	791.1	723.0	666.0	637.6	617.9
100°	1142.6	1161.5	1115.1	1045.0	962.5	904.7	876.4	868.8
102.5°	1137.3	1231.2	1244.6	1215.4	1164.9	1123.0	1093.1	1087.0
105°	1061.0	1225.0	1318.7	1357.6	1359.5	1351.9	1338.6	1332.9
107.5°	952.8	1127.4	1259.5	1343.9	1390.7	1412.3	1421.8	1424.3
110°	887.7	1051.6	1189.0	1293.1	1360.4	1400.2	1417.3	1425.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	839.9	984.9	1114.7	1218.9	1295.3	1343.4	1367.3	1381.1
115°	792.0	908.6	1019.4	1110.4	1185.2	1242.0	1272.4	1279.9
117.5°	768.5	865.0	952.1	1029.2	1093.1	1140.8	1171.5	1177.4
120°	757.9	846.0	921.8	989.0	1043.1	1084.8	1109.4	1119.8
122.5°	748.8	833.9	902.9	961.8	1007.5	1043.1	1063.9	1074.3
125°	733.3	814.7	880.1	932.2	970.1	997.6	1015.6	1021.2
127.5°	714.3	792.2	857.4	906.9	944.9	969.4	984.6	990.2
130°	699.2	774.0	838.5	888.7	927.5	951.1	966.3	972.0
132.5°	683.2	753.6	816.4	866.7	904.7	931.5	945.8	951.5
135°	661.3	722.8	780.6	828.0	865.9	892.4	907.6	913.3
137.5°	641.4	693.5	742.2	785.0	820.4	846.6	859.1	865.9
140°	630.0	674.5	717.1	756.9	790.1	811.0	824.2	831.8
142.5°	619.4	658.6	695.2	729.7	759.0	778.4	790.1	795.4
145°	604.5	636.7	665.0	691.6	715.3	731.4	740.9	745.6
147.5°	592.2	617.7	640.4	661.3	678.7	692.5	699.8	701.4
150°	584.6	606.3	625.3	642.3	657.5	669.8	675.5	676.5
152.5°	576.2	594.9	612.4	626.4	639.3	649.3	652.7	653.7
155°	563.7	578.9	593.0	604.5	613.9	621.5	624.4	624.4
157.5°	550.2	563.0	574.9	584.0	591.2	596.9	598.6	598.6
160°	541.9	552.3	562.7	570.3	576.0	581.7	582.6	582.6
162.5°	533.5	542.5	550.7	557.4	561.6	567.3	568.3	567.4
165°	522.0	527.7	534.3	539.1	542.8	546.7	545.7	544.8
167.5°	510.9	515.2	520.5	523.3	525.2	527.7	527.5	526.8
170°	504.0	506.9	510.6	513.5	515.4	516.3	515.4	515.4
172.5°	497.9	500.0	502.3	504.3	505.5	506.5	505.5	504.0
175°	489.8	490.7	492.6	492.6	492.6	494.6	492.6	490.7
177.5°	484.5	485.3	485.3	486.0	485.3	486.0	484.5	483.0
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2

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