

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: P332612-830

Luminaire Tested: **SA4XXDIP-C795D1035U830-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332612-830
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: SA4XXDIP-C795D1035U830-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

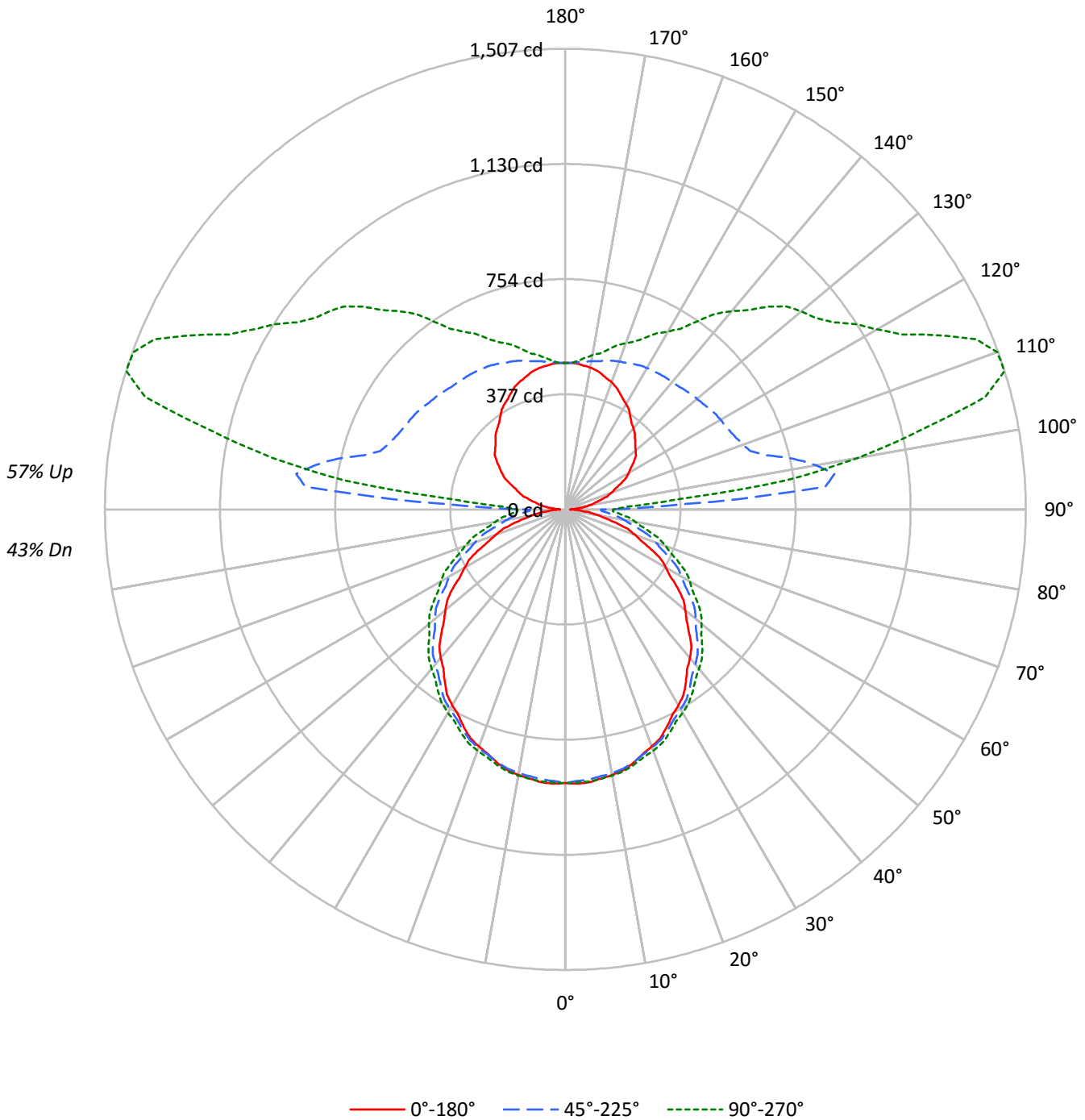
Lumens per Lamp: N/A
Luminaire Lumens: 6537.8 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 52
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40	35
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.3
10°-20°	242.9	3.7
20°-30°	367.3	5.6
30°-40°	444.4	6.8
40°-50°	469.8	7.2
50°-60°	442.2	6.8
60°-70°	366.8	5.6
70°-80°	257.7	3.9
80°-90°	148.3	2.3
90°-100°	432.4	6.6
100°-110°	784.0	12.0
110°-120°	687.9	10.5
120°-130°	566.7	8.7
130°-140°	462.8	7.1
140°-150°	347.7	5.3
150°-160°	242.9	3.7
160°-170°	142.9	2.2
170°-180°	46.5	0.7
0°-30°	695.0	10.6
0°-40°	1139.4	17.4
0°-60°	2051.4	31.4
0°-90°	2824.2	43.2
90°-120°	1904.3	29.1
90°-150°	3281.4	50.2
90°-180°	3714.0	56.8
0°-180°	6537.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	17	64	116	146	156	12
95°	44	144	854	493	353	45
105°	119	190	683	1419	1423	128
115°	200	260	598	1126	1348	199
125°	274	325	576	946	1068	244
135°	323	384	552	823	938	250
145°	371	424	540	680	750	233
155°	421	454	525	595	620	194
165°	458	472	503	533	541	129
175°	478	479	483	489	487	45
180°	479	479	479	479	479	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	29.9	39.3	49.0	58.2	67.6	77.0	87.8	97.6	107.7	117.9	124.1
90°	17.0	27.8	39.5	49.4	59.2	68.4	83.7	93.3	104.7	116.2	121.7
92.5°	25.9	38.8	55.7	75.2	97.0	125.4	182.8	265.3	346.1	392.9	349.3
95°	44.1	54.3	71.1	90.6	120.6	168.3	259.3	422.7	656.8	854.1	881.7
97.5°	67.6	73.9	88.3	105.9	131.6	172.4	244.5	381.0	613.6	888.7	1077.5
100°	82.6	88.3	100.8	117.8	141.5	178.8	243.0	358.1	558.6	832.7	1079.6
102.5°	97.6	104.2	115.1	130.7	152.9	188.3	247.0	349.1	520.9	764.7	1019.0
105°	119.1	126.4	135.5	151.3	172.7	206.3	259.8	346.1	486.1	683.4	910.1
107.5°	144.9	150.4	158.8	174.5	194.4	227.0	276.2	355.1	475.4	635.5	821.4
110°	161.4	166.4	174.2	188.6	208.7	239.6	288.8	362.4	473.7	617.9	776.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	177.2	181.8	190.0	203.3	223.0	253.5	300.9	370.4	474.6	607.2	748.9
115°	199.8	204.7	213.3	224.7	244.6	274.6	319.3	382.9	477.5	597.6	721.0
117.5°	224.5	228.3	235.4	246.9	264.9	295.1	337.5	396.2	481.3	590.6	704.9
120°	240.3	242.8	250.1	261.1	277.8	307.6	349.9	405.3	484.2	586.6	695.5
122.5°	255.3	257.3	264.0	273.8	291.4	320.1	361.9	414.0	487.3	581.8	685.5
125°	274.1	277.6	283.0	293.1	310.9	339.8	379.3	428.1	492.9	575.7	670.2
127.5°	291.3	294.2	300.7	312.4	330.7	359.3	396.3	440.4	496.3	567.6	650.6
130°	300.4	303.9	311.2	325.1	342.7	371.7	407.3	447.5	499.1	562.9	638.4
132.5°	310.1	312.9	322.4	335.6	354.8	381.9	416.7	455.5	501.8	558.9	627.5
135°	322.9	326.6	336.0	352.0	371.8	397.0	429.6	465.1	505.2	552.0	610.1
137.5°	336.6	340.0	350.1	365.1	385.4	409.0	438.8	471.1	506.1	547.1	595.4
140°	346.4	349.0	359.1	374.8	394.5	417.0	445.4	475.8	508.0	544.0	587.4
142.5°	356.1	358.9	368.4	383.6	402.7	424.3	451.7	479.4	509.8	542.4	580.9
145°	370.8	373.4	382.6	395.5	413.2	433.8	458.3	483.6	511.0	540.1	571.6
147.5°	387.6	388.2	396.3	409.6	424.3	442.8	465.8	488.0	511.9	536.7	563.5
150°	398.1	398.8	406.1	417.2	431.0	448.8	469.6	490.2	511.9	534.4	558.0
152.5°	407.1	407.2	414.7	425.2	437.7	454.1	472.6	491.7	510.4	530.7	552.0
155°	420.6	421.5	427.2	436.6	447.0	461.1	477.0	493.0	508.1	525.1	542.9
157.5°	433.9	433.9	439.2	446.6	455.6	466.7	480.2	493.0	505.7	519.2	533.7
160°	442.2	442.2	446.0	452.6	460.1	470.5	481.7	493.0	503.4	514.7	527.0
162.5°	449.8	449.0	452.0	457.9	464.7	472.8	483.2	493.0	501.1	510.2	520.9
165°	458.3	458.3	460.1	464.9	469.6	475.1	483.6	491.2	496.8	503.4	511.0
167.5°	466.7	465.8	466.7	470.3	473.0	477.2	483.4	488.9	492.3	496.6	501.9
170°	470.5	469.6	470.5	473.3	475.1	478.0	482.7	487.4	489.3	492.1	495.9
172.5°	474.2	473.3	473.4	475.5	476.6	478.7	481.9	485.9	486.3	487.6	490.6
175°	478.0	477.0	477.0	478.0	478.9	478.9	480.8	483.6	482.7	482.7	484.6
177.5°	479.7	478.9	478.2	478.9	478.9	478.9	479.7	481.2	479.7	479.7	480.4
180°	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	130.8	137.4	144.1	148.4	150.4	152.6	154.4	156.4
90°	129.1	136.5	143.9	148.1	150.8	153.4	154.3	156.1
92.5°	291.8	252.3	230.3	215.5	206.1	202.8	201.4	203.2
95°	796.5	656.7	536.6	449.3	405.2	378.1	363.2	352.9
97.5°	1122.9	1074.5	988.3	893.9	828.3	773.5	747.2	729.6
100°	1223.0	1247.8	1207.8	1141.9	1061.6	1005.8	979.1	973.2
102.5°	1213.3	1312.6	1331.7	1306.6	1258.0	1218.2	1190.2	1185.9
105°	1131.1	1299.5	1398.3	1440.5	1444.2	1438.4	1427.0	1423.1
107.5°	1017.8	1196.6	1333.1	1420.7	1468.8	1491.8	1502.8	1506.8
110°	949.0	1117.0	1258.6	1365.5	1434.1	1475.4	1494.1	1504.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	897.3	1046.2	1180.1	1286.9	1364.5	1414.1	1439.6	1455.1
115°	843.6	964.2	1079.2	1172.7	1248.7	1306.6	1338.3	1347.5
117.5°	813.7	914.1	1005.3	1085.1	1150.3	1199.5	1231.8	1239.3
120°	798.8	890.7	970.4	1040.4	1095.8	1139.0	1165.3	1177.3
122.5°	785.7	874.7	947.6	1009.2	1056.1	1093.2	1115.4	1127.4
125°	764.9	850.0	919.2	973.6	1012.7	1041.3	1060.5	1067.5
127.5°	739.5	821.0	889.7	941.5	980.9	1006.6	1023.2	1030.4
130°	720.5	798.8	866.9	919.4	959.3	984.1	1000.5	1007.5
132.5°	701.2	774.8	841.0	893.5	932.7	960.5	976.2	983.2
135°	673.0	737.6	798.6	848.1	887.1	914.7	931.1	938.1
137.5°	647.9	702.9	754.6	799.3	835.6	862.7	876.2	884.1
140°	633.5	680.6	725.9	767.4	801.4	823.3	837.5	846.2
142.5°	620.7	662.1	701.1	737.0	767.1	787.2	799.8	806.1
145°	603.0	636.3	665.9	693.3	717.7	734.6	745.0	750.5
147.5°	588.4	614.1	636.8	657.9	676.0	690.4	698.3	700.7
150°	580.6	602.2	621.0	638.0	653.0	665.2	670.9	671.8
152.5°	572.3	590.9	608.2	622.2	635.0	644.9	648.3	649.2
155°	559.9	575.0	589.0	600.3	609.7	617.3	620.1	620.1
157.5°	546.5	559.1	571.0	580.0	587.1	592.8	594.5	594.5
160°	538.2	548.6	558.9	566.5	572.1	577.8	578.7	578.7
162.5°	529.9	538.8	546.9	553.6	557.8	563.5	564.4	563.6
165°	518.5	524.1	530.7	535.4	539.1	542.9	542.0	541.0
167.5°	507.4	511.7	517.0	519.8	521.7	524.1	524.0	523.2
170°	500.6	503.4	507.2	510.0	511.9	512.8	511.9	511.9
172.5°	494.6	496.6	498.9	501.0	502.1	503.0	502.1	500.6
175°	486.4	487.4	489.3	489.3	489.3	491.2	489.3	487.4
177.5°	481.2	481.9	481.9	482.7	481.9	482.7	481.2	479.7
180°	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9

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