

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: P332540

Luminaire Tested: **S124DIP-S575D365U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332540
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D365U835-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

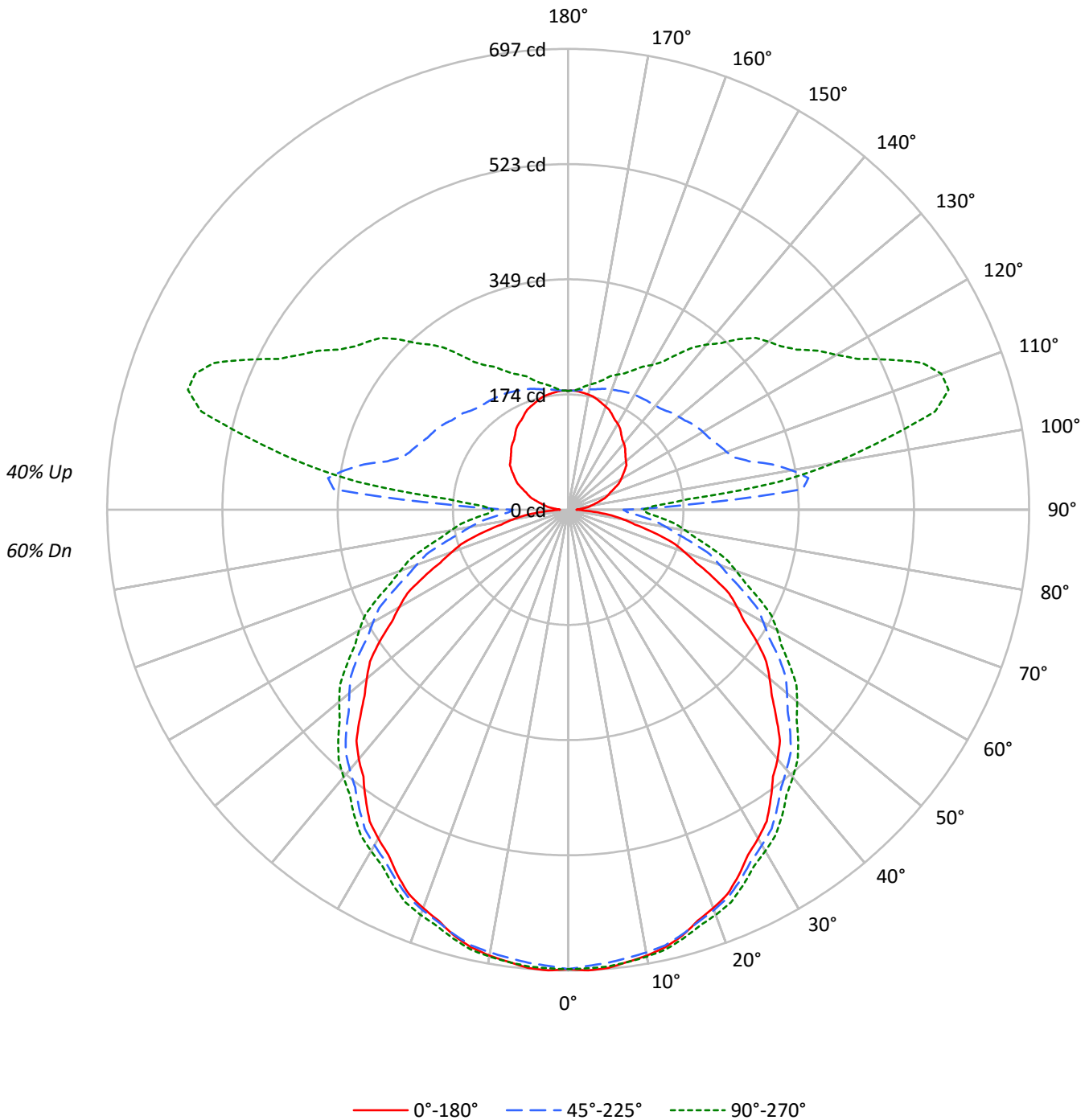
Lumens per Lamp: N/A
Luminaire Lumens: 3678.1 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 27.5
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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60								
1	99	94	89	85	92	88	84	80	76	73	70	65	63	61	55	54	52	48								
2	89	81	74	69	83	76	70	65	66	61	57	57	53	50	48	46	43	39								
3	81	71	63	57	75	66	59	54	58	52	48	50	45	42	42	39	36	32								
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31	27								
5	68	56	47	41	63	52	44	39	46	39	35	39	34	31	34	30	27	24								
6	63	50	41	35	58	47	39	33	41	35	30	35	30	27	30	26	23	21								
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	21	18								
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16								
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	17	14								
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.8
10°-20°	188.5	5.1
20°-30°	285.1	7.8
30°-40°	344.9	9.4
40°-50°	364.7	9.9
50°-60°	343.2	9.3
60°-70°	284.7	7.7
70°-80°	200.0	5.4
80°-90°	114.1	3.1
90°-100°	197.1	5.4
100°-110°	320.1	8.7
110°-120°	275.6	7.5
120°-130°	222.6	6.1
130°-140°	178.0	4.8
140°-150°	131.4	3.6
150°-160°	91.2	2.5
160°-170°	53.7	1.5
170°-180°	17.5	0.5
0°-30°	539.4	14.7
0°-40°	884.4	24.0
0°-60°	1592.2	43.3
0°-90°	2191.0	59.6
90°-120°	792.8	21.6
90°-150°	1324.8	36.0
90°-180°	1487.0	40.4
0°-180°	3678.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	13	46	83	106	113	9
95°	22	73	356	231	182	21
105°	48	83	283	569	574	52
115°	78	104	243	450	537	77
125°	104	124	228	374	422	93
135°	122	145	211	319	365	95
145°	140	159	203	258	286	88
155°	158	171	197	223	233	73
165°	172	177	189	200	203	49
175°	180	180	181	184	183	17
180°	180	180	180	180	180	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.1	30.3	37.6	44.7	51.8	59.1	67.1	74.7	82.4	90.1	95.1
90°	12.8	20.4	28.4	35.7	42.9	50.1	59.7	67.1	75.3	83.4	88.1
92.5°	15.9	23.9	33.5	44.0	55.4	69.6	95.0	129.8	164.0	185.4	171.6
95°	21.8	28.5	37.8	48.1	62.3	83.5	121.4	186.4	278.0	355.7	368.5
97.5°	30.1	35.0	43.0	52.1	64.3	82.7	113.4	168.3	259.3	366.3	439.5
100°	35.4	39.9	46.9	55.6	66.8	83.8	111.4	158.0	236.9	343.3	438.4
102.5°	41.1	45.6	51.7	59.6	70.0	86.0	111.5	153.2	221.2	316.1	414.0
105°	48.4	52.9	58.1	65.8	75.6	90.8	114.2	149.9	205.8	283.2	370.6
107.5°	58.0	61.5	66.1	73.5	82.4	96.9	118.5	151.3	199.6	262.9	334.9
110°	63.8	67.0	71.1	77.8	86.6	100.4	122.0	152.8	197.7	255.0	316.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	69.4	72.3	76.5	82.6	91.1	104.6	125.3	154.5	196.6	249.3	304.6
115°	77.5	80.1	84.1	89.2	97.5	110.6	130.2	157.0	195.4	243.3	291.7
117.5°	86.6	88.6	91.7	96.5	103.7	116.7	135.3	159.9	194.6	238.3	283.1
120°	92.2	93.5	96.5	100.9	107.4	120.1	138.5	161.9	194.1	235.2	277.9
122.5°	97.9	98.7	101.3	105.0	111.7	123.7	141.9	163.9	193.8	231.8	272.5
125°	104.5	105.8	107.7	111.4	118.0	130.0	147.0	167.6	194.2	227.5	264.7
127.5°	111.0	111.9	114.3	118.6	125.4	136.9	152.6	170.8	193.6	222.0	254.8
130°	114.0	115.3	117.9	123.0	129.6	141.1	155.9	172.5	193.3	218.6	248.6
132.5°	117.7	118.7	122.2	127.0	134.1	144.8	159.0	174.8	193.3	215.9	243.2
135°	122.1	123.5	127.0	133.0	140.5	150.2	163.1	177.1	192.8	210.9	234.2
137.5°	127.2	128.4	132.1	137.7	145.2	154.2	165.7	178.1	191.6	207.3	226.7
140°	130.9	131.8	135.5	141.3	148.6	157.1	167.9	179.3	191.5	205.1	222.6
142.5°	134.2	135.3	138.8	144.5	151.6	159.8	170.0	180.3	191.7	203.9	219.4
145°	139.7	140.6	143.9	148.7	155.2	162.9	172.1	181.7	191.9	202.9	215.2
147.5°	146.0	146.1	149.1	154.0	159.4	166.3	174.9	183.3	192.3	201.6	211.7
150°	149.9	150.1	152.8	156.8	162.0	168.6	176.4	184.1	192.3	200.7	209.6
152.5°	153.0	153.0	155.8	159.7	164.4	170.6	177.5	184.7	191.7	199.3	207.3
155°	158.0	158.3	160.5	164.0	167.9	173.2	179.2	185.2	190.9	197.2	203.9
157.5°	163.0	163.0	165.0	167.7	171.1	175.3	180.4	185.2	189.9	195.0	200.5
160°	166.1	166.1	167.5	170.0	172.8	176.7	181.0	185.2	189.1	193.3	197.9
162.5°	168.9	168.7	169.8	172.0	174.5	177.6	181.5	185.2	188.2	191.6	195.7
165°	172.1	172.1	172.8	174.6	176.4	178.5	181.7	184.5	186.6	189.1	191.9
167.5°	175.3	174.9	175.3	176.6	177.6	179.3	181.6	183.6	184.9	186.5	188.5
170°	176.7	176.4	176.7	177.8	178.5	179.5	181.3	183.1	183.8	184.8	186.3
172.5°	178.1	177.8	177.8	178.6	179.0	179.8	181.0	182.5	182.7	183.1	184.3
175°	179.5	179.2	179.2	179.5	179.9	179.9	180.6	181.7	181.3	181.3	182.0
177.5°	180.2	179.9	179.6	179.9	179.9	179.9	180.2	180.7	180.2	180.2	180.5
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	100.2	105.3	110.3	113.6	115.2	116.8	118.2	119.8
90°	93.4	98.8	104.2	107.4	109.1	110.8	111.9	113.3
92.5°	152.5	140.2	134.4	130.4	127.6	127.1	127.3	128.7
95°	338.9	288.8	246.1	215.0	199.2	189.8	185.0	181.9
97.5°	458.9	443.0	413.0	379.1	355.2	335.4	326.3	320.5
100°	494.7	506.4	493.8	470.6	441.0	420.7	411.3	409.7
102.5°	489.3	528.9	538.5	530.5	513.0	498.7	488.9	488.0
105°	455.8	521.3	560.6	578.0	580.1	578.6	575.0	574.3
107.5°	410.8	480.2	533.7	568.0	586.7	596.0	600.8	602.9
110°	383.5	448.6	503.8	545.4	571.8	588.1	595.8	600.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	362.3	420.2	472.4	513.9	543.8	563.1	573.4	580.0
115°	339.6	386.9	432.1	468.5	497.6	520.1	532.6	536.6
117.5°	325.8	365.4	401.5	432.7	457.9	477.1	490.0	493.6
120°	318.5	354.8	386.5	414.0	435.6	452.5	463.1	468.3
122.5°	311.9	347.1	376.3	400.7	418.9	433.5	442.5	447.6
125°	301.9	335.6	363.3	384.9	400.0	411.3	419.1	422.2
127.5°	289.8	322.0	349.4	370.0	385.4	395.7	402.5	405.8
130°	281.1	312.1	339.2	360.0	375.6	385.4	392.1	395.3
132.5°	272.4	301.6	328.0	348.7	364.0	375.0	381.4	384.6
135°	259.2	285.0	309.3	328.9	344.0	355.0	361.7	364.8
137.5°	247.7	269.7	290.4	308.1	322.1	332.8	338.3	341.7
140°	241.1	259.9	278.1	294.5	307.7	316.4	322.2	325.9
142.5°	235.3	251.9	267.5	281.8	293.4	301.4	306.5	309.2
145°	227.6	240.6	252.3	263.0	272.5	279.2	283.5	285.9
147.5°	221.2	230.8	239.5	247.6	254.6	260.4	263.6	264.8
150°	218.1	226.2	233.3	239.6	245.3	249.9	252.0	252.3
152.5°	215.0	222.0	228.5	233.7	238.5	242.2	243.5	243.9
155°	210.3	215.9	221.2	225.5	229.0	231.8	232.9	232.9
157.5°	205.3	210.0	214.5	217.9	220.5	222.7	223.3	223.3
160°	202.2	206.0	209.9	212.8	214.9	217.0	217.4	217.4
162.5°	199.1	202.4	205.4	208.0	209.5	211.6	212.0	211.7
165°	194.7	196.9	199.3	201.1	202.5	203.9	203.6	203.2
167.5°	190.6	192.2	194.2	195.2	195.9	196.9	196.8	196.5
170°	188.0	189.1	190.5	191.6	192.3	192.6	192.3	192.3
172.5°	185.8	186.5	187.4	188.2	188.6	188.9	188.6	188.0
175°	182.7	183.1	183.8	183.8	183.8	184.5	183.8	183.1
177.5°	180.7	181.0	181.0	181.3	181.0	181.3	180.7	180.2
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9

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