

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: P331969-927

Luminaire Tested: **S123DIP-S775D585U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331969-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D585U927-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4239.8 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

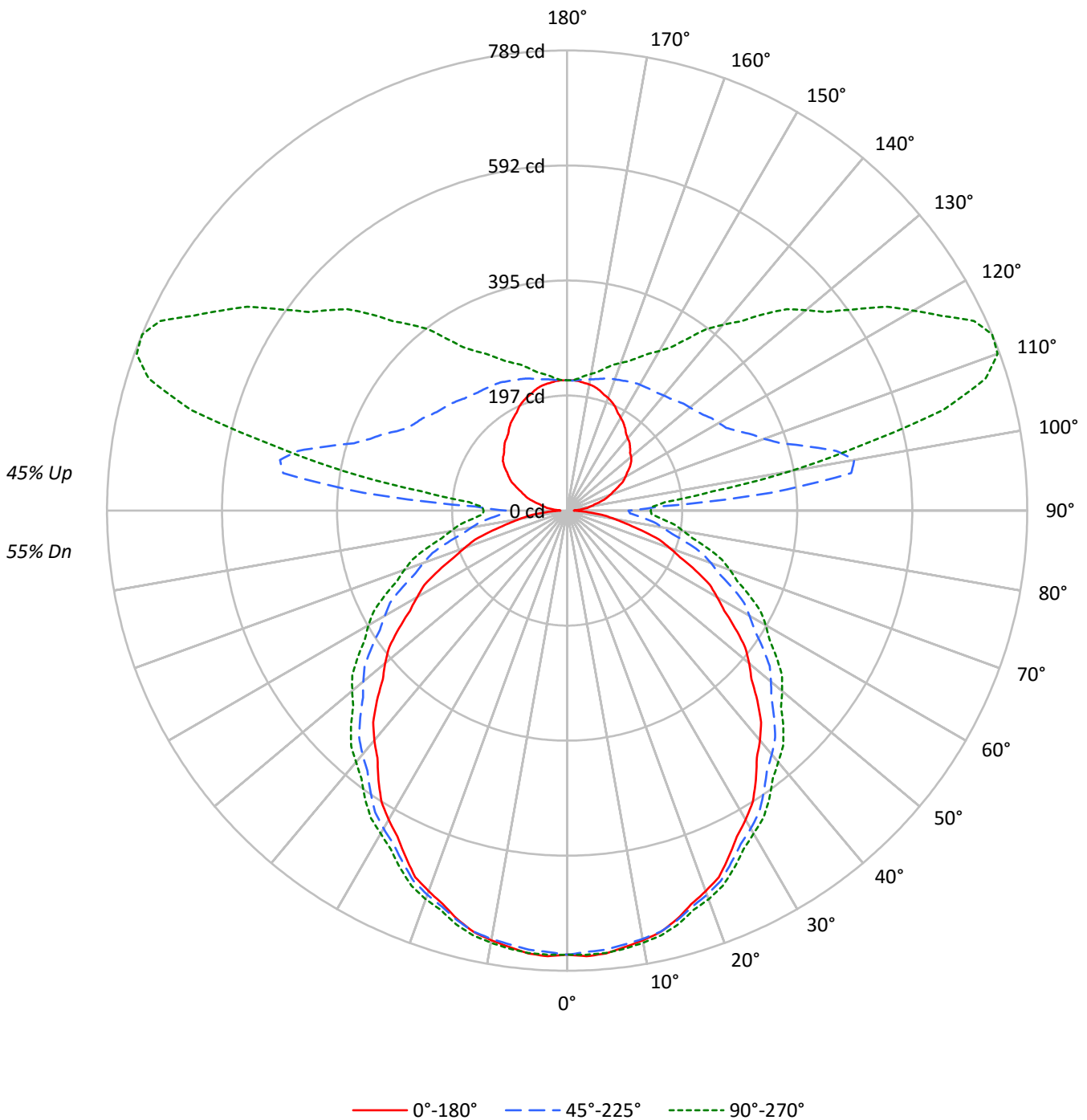
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	91	86	83	79	74	71	68	63	60	59	52	51	49	44
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	81	70	63	56	74	65	59	53	56	51	46	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8196	8196	8196
5°	8222	7990	7994
10°	8148	7806	7766
15°	8043	7597	7518
20°	7893	7358	7245
25°	7708	7084	6957
30°	7517	6836	6666
35°	7305	6575	6434
40°	7102	6337	6184
45°	6877	6109	5986
50°	6655	5883	5766
55°	6409	5652	5569
60°	6171	5417	5366
65°	5924	5168	5126
70°	5555	4887	4879
75°	5090	4566	4628
80°	4551	4249	4341
85°	4050	4032	4175



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	1.7
10°-20°	205.8	4.9
20°-30°	307.8	7.3
30°-40°	367.5	8.7
40°-50°	384.5	9.1
50°-60°	360.9	8.5
60°-70°	301.4	7.1
70°-80°	215.6	5.1
80°-90°	130.3	3.1
90°-100°	204.9	4.8
100°-110°	411.0	9.7
110°-120°	385.6	9.1
120°-130°	298.6	7.0
130°-140°	227.8	5.4
140°-150°	164.6	3.9
150°-160°	113.2	2.7
160°-170°	66.5	1.6
170°-180°	21.6	0.5
0°-30°	585.7	13.8
0°-40°	953.3	22.5
0°-60°	1698.6	40.1
0°-90°	2346.0	55.3
90°-120°	1001.5	23.6
90°-150°	1692.5	39.9
90°-180°	1894.0	44.7
0°-180°	4239.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	762	760	756	762	761	72
15°	726	728	728	735	735	204
25°	655	663	666	676	677	302
35°	564	577	588	600	604	353
45°	461	481	502	517	524	356
55°	352	379	409	430	438	315
65°	243	276	312	336	345	240
75°	132	171	212	239	250	141
85°	41	82	126	153	163	43
90°	12	57	105	133	143	8
95°	24	92	350	185	169	24
105°	59	105	426	720	668	62
115°	97	131	322	672	770	96
125°	131	156	286	513	601	117
135°	153	181	266	411	476	118
145°	173	197	252	324	359	108
155°	196	211	244	278	290	90
165°	214	220	234	248	252	60
175°	223	223	225	228	227	21
180°	223	223	223	223	223	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	764.8	764.3	763.9	763.4	763.0	762.2	761.0	759.9	758.7	757.5	758.7
5°	762.3	761.9	761.5	761.2	760.8	760.1	759.0	757.9	756.8	755.7	757.2
7.5°	754.8	754.9	754.9	755.0	755.1	754.6	753.5	752.5	751.4	750.4	752.2
10°	748.2	748.5	748.9	749.3	749.6	749.4	748.5	747.6	746.6	745.7	747.6
12.5°	740.2	740.8	741.2	741.8	742.3	742.3	741.6	741.0	740.4	739.7	741.4
15°	725.8	726.4	726.9	727.5	728.0	728.2	728.0	727.9	727.6	727.5	729.3
17.5°	707.6	708.7	709.8	710.8	711.9	712.5	712.4	712.3	712.3	712.2	713.8
20°	694.3	695.4	696.5	697.6	698.7	699.4	699.8	700.2	700.5	700.9	702.6
22.5°	680.3	681.4	682.5	683.7	684.8	685.6	686.1	686.6	687.1	687.6	689.8
25°	655.3	657.1	658.9	660.8	662.7	663.8	664.4	665.0	665.5	666.1	668.4
27.5°	630.1	632.2	634.3	636.4	638.5	640.1	641.3	642.5	643.6	644.8	646.9
30°	612.1	614.6	617.0	619.3	621.7	623.7	625.1	626.6	628.1	629.5	631.8
32.5°	592.2	594.9	597.6	600.3	603.0	605.3	607.2	609.2	611.1	613.0	615.4
35°	564.0	567.0	570.0	572.9	575.8	578.5	580.9	583.3	585.7	588.1	590.9
37.5°	534.2	537.5	540.8	544.2	547.5	550.6	553.6	556.5	559.4	562.4	565.5
40°	514.3	517.6	520.9	524.3	527.5	531.1	534.7	538.4	542.1	545.8	548.9
42.5°	492.3	496.5	500.5	504.5	508.6	512.5	516.3	520.2	524.0	527.9	531.3
45°	461.2	465.6	470.0	474.4	478.9	483.4	488.0	492.6	497.3	501.8	505.3
47.5°	428.5	433.6	438.6	443.5	448.5	453.7	459.0	464.2	469.5	474.8	478.7
50°	407.3	412.4	417.6	422.8	427.9	433.3	439.1	444.8	450.5	456.2	460.4
52.5°	384.7	390.1	395.6	401.1	406.5	412.4	418.7	425.0	431.3	437.6	442.0
55°	351.7	357.7	363.8	369.9	376.0	382.4	389.0	395.7	402.3	408.9	413.9
57.5°	319.5	325.8	332.2	338.5	344.9	351.6	358.9	366.2	373.4	380.7	385.7
60°	297.0	303.6	310.2	316.9	323.5	330.6	338.2	345.7	353.2	360.8	366.0
62.5°	275.7	282.5	289.3	296.0	302.9	310.2	318.2	326.2	334.2	342.2	347.4
65°	243.0	250.3	257.4	264.6	271.8	279.4	287.6	295.6	303.8	311.9	317.4
67.5°	209.8	217.5	225.1	232.7	240.3	248.3	256.6	264.8	273.1	281.4	287.4
70°	186.6	194.6	202.5	210.4	218.3	226.7	235.6	244.4	253.3	262.1	268.0
72.5°	165.4	173.3	181.3	189.2	197.1	205.7	214.8	223.9	233.1	242.2	248.3
75°	131.9	140.5	149.2	157.9	166.5	175.5	184.7	193.9	203.1	212.4	218.4
77.5°	102.7	111.5	120.2	128.9	137.6	146.6	156.0	165.2	174.5	183.8	190.2
80°	82.1	91.2	100.2	109.2	118.3	127.5	137.1	146.7	156.3	165.9	172.1
82.5°	64.2	73.4	82.5	91.7	100.9	110.4	120.1	129.8	139.6	149.3	155.6
85°	40.6	49.8	59.1	68.3	77.5	87.0	96.8	106.5	116.3	126.1	132.4
87.5°	22.3	31.6	41.0	50.4	59.8	69.2	78.9	88.6	98.2	107.9	114.1
90°	11.7	21.6	31.5	41.9	51.9	62.0	72.7	83.5	94.3	105.0	110.8
92.5°	15.7	26.6	38.5	50.2	62.1	77.6	98.6	127.3	155.6	179.9	146.9
95°	24.5	33.0	45.2	60.0	79.0	104.7	152.2	228.5	311.6	350.1	305.1
97.5°	34.3	41.3	51.7	64.8	82.9	109.5	154.8	239.4	371.5	491.4	525.9
100°	40.9	47.2	56.3	68.5	85.3	110.1	150.2	225.5	352.8	500.0	594.5
102.5°	47.8	53.9	62.0	73.4	88.4	111.4	148.1	213.2	327.3	472.6	593.9
105°	59.0	64.8	71.9	81.8	94.8	115.0	147.3	201.8	295.1	425.5	560.3
107.5°	70.2	75.3	81.7	90.8	102.6	121.2	150.1	196.4	272.7	383.3	506.0
110°	78.2	82.9	88.4	96.7	107.7	125.7	153.4	195.1	263.1	359.4	472.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	86.1	90.2	95.2	102.9	113.3	130.5	156.5	195.4	255.7	341.7	441.7
115°	96.8	100.8	105.8	112.4	122.3	138.9	162.8	196.9	249.7	321.9	404.4
117.5°	108.1	111.5	115.2	120.6	130.6	145.7	169.0	199.7	245.1	307.4	379.4
120°	115.3	117.6	120.8	126.3	135.8	150.6	172.9	202.5	243.4	300.1	365.8
122.5°	122.2	124.1	126.8	132.1	140.9	156.1	177.7	205.2	242.9	294.2	353.9
125°	131.3	132.1	134.9	139.8	148.5	163.3	184.5	209.7	242.2	285.9	338.1
127.5°	138.8	139.9	143.1	148.0	157.2	171.6	191.3	213.6	242.4	279.3	323.5
130°	143.5	144.7	148.5	153.8	163.0	177.0	195.6	216.4	242.7	274.9	315.0
132.5°	146.4	148.1	152.5	159.0	168.4	181.7	199.2	219.0	242.3	271.2	306.8
135°	152.6	154.2	159.0	165.6	174.9	188.0	204.1	221.4	241.5	265.7	295.6
137.5°	158.4	160.1	164.9	171.9	181.2	193.0	207.6	223.4	240.6	260.7	286.0
140°	161.7	164.0	168.5	175.7	184.7	196.3	209.9	224.0	240.0	257.7	279.9
142.5°	166.0	167.8	172.5	178.9	187.7	198.3	211.2	224.4	238.8	254.3	274.1
145°	173.0	174.1	178.0	184.7	192.1	202.4	214.2	226.4	239.0	252.5	268.5
147.5°	179.2	180.0	184.0	189.9	197.3	206.1	216.9	227.8	239.0	250.9	263.7
150°	183.9	184.3	188.0	193.8	200.2	208.3	218.7	228.1	239.0	249.4	260.7
152.5°	188.6	188.7	192.3	197.5	203.0	210.8	219.8	228.9	238.0	247.6	257.9
155°	195.7	195.7	198.4	202.9	207.9	214.2	221.9	229.1	236.8	244.5	253.5
157.5°	201.2	201.6	203.7	207.8	212.0	216.9	223.0	229.6	235.2	241.6	248.6
160°	205.6	205.6	207.4	211.0	214.2	218.7	224.1	229.6	234.5	239.5	245.3
162.5°	208.8	208.8	210.3	213.2	215.9	219.8	224.5	229.2	233.1	237.3	242.1
165°	213.7	213.3	214.2	216.4	218.2	221.4	225.0	228.1	230.9	234.1	237.7
167.5°	217.5	216.9	217.3	219.0	220.3	222.3	224.9	227.4	228.7	230.8	233.5
170°	219.6	218.7	219.1	220.5	221.4	222.3	224.6	226.4	227.3	228.6	230.9
172.5°	221.0	220.5	220.6	221.6	222.1	222.7	224.6	226.0	226.2	226.8	228.4
175°	222.8	222.3	221.9	222.8	222.8	223.2	224.1	225.0	224.6	224.6	225.5
177.5°	223.6	223.2	222.8	223.2	223.2	223.2	223.6	224.3	223.6	223.2	223.6
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	759.9	761.0	762.2	762.7	762.6	762.4	762.2	762.2
5°	758.6	760.1	761.5	762.2	762.0	761.8	761.7	761.4
7.5°	754.0	755.9	757.7	758.5	758.3	758.1	757.9	757.6
10°	749.4	751.2	753.0	753.8	753.4	753.0	752.7	752.3
12.5°	743.1	744.8	746.5	747.2	746.8	746.5	746.1	745.7
15°	731.1	733.0	734.8	735.6	735.5	735.3	735.1	734.9
17.5°	715.5	717.2	718.8	719.5	719.3	719.0	718.7	718.5
20°	704.3	705.9	707.6	708.4	708.7	708.8	709.0	709.2
22.5°	691.8	694.0	696.0	697.0	697.0	696.8	696.7	696.6
25°	670.9	673.3	675.7	676.8	676.8	676.8	676.8	676.8
27.5°	649.0	651.0	653.1	654.2	654.3	654.5	654.7	654.8
30°	634.0	636.2	638.4	639.5	639.5	639.5	639.5	639.5
32.5°	617.7	620.0	622.4	623.8	624.2	624.7	625.1	625.6
35°	593.7	596.4	599.1	600.9	601.7	602.4	603.1	603.9
37.5°	568.6	571.8	574.9	576.8	577.3	578.0	578.5	579.2
40°	552.1	555.2	558.3	560.2	561.0	561.7	562.4	563.2
42.5°	534.7	538.1	541.6	543.8	544.9	545.9	546.9	548.0
45°	508.8	512.3	515.9	518.3	519.8	521.3	522.8	524.3
47.5°	482.7	486.6	490.6	493.1	494.2	495.4	496.5	497.6
50°	464.7	468.9	473.2	475.9	477.2	478.5	479.8	481.1
52.5°	446.4	450.8	455.2	458.2	459.8	461.4	463.0	464.5
55°	418.9	423.9	428.8	432.1	433.6	435.0	436.5	438.0
57.5°	390.8	395.8	400.8	404.2	405.9	407.7	409.3	411.1
60°	371.1	376.3	381.4	385.1	387.1	389.1	391.2	393.2
62.5°	352.6	357.7	362.9	366.4	368.3	370.2	372.1	373.9
65°	323.0	328.4	334.0	337.7	339.5	341.4	343.3	345.1
67.5°	293.4	299.5	305.5	309.3	310.9	312.4	314.0	315.5
70°	273.9	279.8	285.7	289.5	291.4	293.3	295.1	297.0
72.5°	254.3	260.3	266.4	270.4	272.2	274.0	275.8	277.7
75°	224.5	230.6	236.7	240.8	243.0	245.3	247.5	249.7
77.5°	196.6	203.0	209.5	213.5	215.2	216.9	218.6	220.3
80°	178.4	184.7	191.0	195.0	196.9	198.7	200.6	202.4
82.5°	161.8	168.1	174.4	178.4	180.3	182.1	183.9	185.8
85°	138.6	144.9	151.1	155.2	157.0	158.9	160.7	162.6
87.5°	120.5	126.8	133.2	137.4	139.2	141.1	143.1	144.8
90°	117.6	124.3	131.0	135.9	137.4	139.7	142.0	143.3
92.5°	138.7	137.0	139.6	141.1	142.0	142.4	144.5	145.4
95°	256.2	209.5	191.3	178.8	172.1	169.8	168.5	168.6
97.5°	492.6	417.4	364.6	314.3	282.7	264.3	253.9	251.8
100°	615.6	584.3	536.8	476.3	432.5	401.3	385.6	387.9
102.5°	653.6	657.6	632.0	594.8	561.2	536.9	524.0	515.5
105°	659.9	710.3	724.1	715.7	696.6	681.0	668.2	667.7
107.5°	618.1	696.4	740.9	760.3	762.2	758.1	754.9	752.3
110°	580.5	668.4	730.2	764.9	779.0	784.1	784.7	785.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	542.6	632.2	700.6	744.4	769.2	782.0	787.0	788.9
115°	492.4	575.5	646.3	698.5	733.9	755.3	765.8	769.5
117.5°	454.3	526.6	590.6	643.5	680.2	704.5	718.9	723.4
120°	433.7	498.9	557.4	605.8	642.8	669.4	681.5	685.6
122.5°	416.7	476.0	530.4	575.4	608.5	632.5	645.7	650.5
125°	393.5	446.6	493.8	532.6	562.8	584.0	596.6	601.0
127.5°	372.6	420.1	462.9	498.2	525.2	543.5	554.9	559.1
130°	359.2	403.3	443.5	476.5	501.5	518.9	529.5	534.2
132.5°	346.5	387.3	424.7	456.3	480.1	497.6	507.2	511.0
135°	329.2	364.6	397.4	425.2	448.3	462.8	471.8	475.9
137.5°	313.4	342.5	370.7	395.0	414.5	429.2	437.0	440.0
140°	303.9	329.7	354.2	375.4	393.6	407.1	415.3	415.7
142.5°	294.5	316.8	338.0	356.6	372.2	384.3	391.7	392.2
145°	284.5	300.8	316.8	331.0	343.0	353.2	357.6	359.3
147.5°	276.3	288.6	300.7	310.5	319.8	326.9	331.0	332.0
150°	271.1	281.5	291.0	299.8	306.9	312.3	315.3	315.7
152.5°	267.1	276.1	284.5	291.7	297.1	301.7	303.4	303.5
155°	261.2	268.4	275.2	280.6	284.6	288.3	289.1	289.6
157.5°	254.8	260.9	266.2	270.4	273.9	276.6	277.3	277.3
160°	251.2	256.2	260.7	263.9	267.0	269.7	269.7	269.3
162.5°	246.9	251.1	255.3	258.1	260.2	262.5	262.5	262.1
165°	241.3	244.0	247.2	249.4	251.2	253.0	252.5	252.5
167.5°	236.4	238.4	240.3	241.9	242.7	244.0	243.5	243.5
170°	233.1	234.5	236.3	237.2	237.7	238.6	238.1	238.1
172.5°	230.3	231.2	232.7	233.2	233.3	234.2	233.5	233.1
175°	226.4	226.8	227.8	227.8	227.8	228.1	227.8	227.3
177.5°	223.9	224.3	224.7	224.7	224.3	224.7	223.9	223.9
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2

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