

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: P332014-927

Luminaire Tested: **S123DIP-S1000D585U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332014-927
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-S1000D585U927-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 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: 5007.1 lumens
Efficiency: N/A
Efficacy: 102.6 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: Semi-Direct

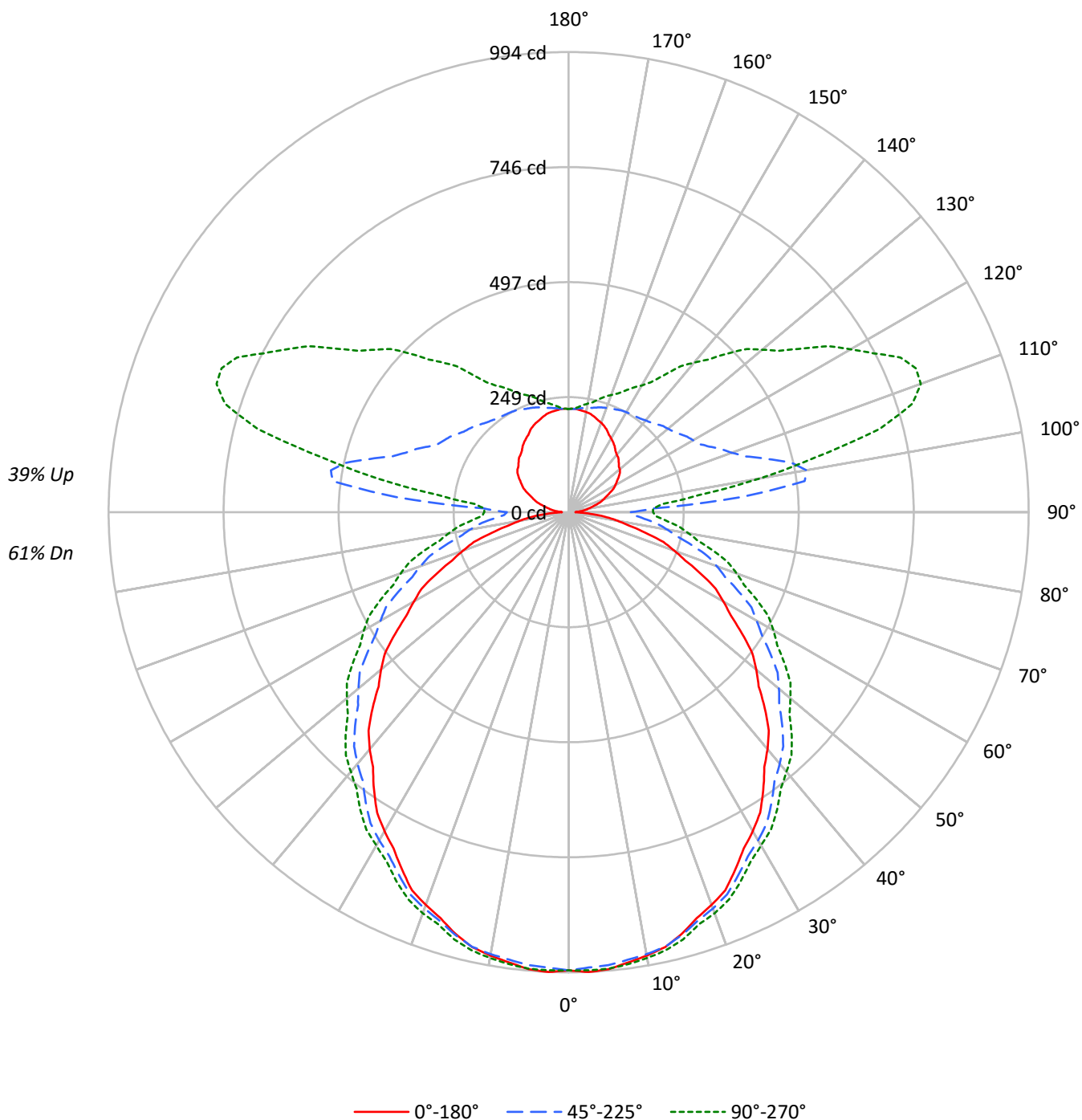
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61		
1	99	94	90	86	92	88	84	80	77	74	71	66	64	62	56	55	53	49		
2	90	81	75	69	83	76	70	65	66	62	58	57	54	51	49	46	44	40		
3	81	71	63	57	76	67	60	54	58	53	48	50	46	42	43	40	37	33		
4	74	63	54	48	69	59	51	45	51	45	41	45	40	36	38	34	31	28		
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	34	30	27	24		
6	63	50	41	35	58	47	39	34	41	35	30	36	31	27	31	27	24	21		
7	58	45	37	31	54	42	35	29	37	31	27	33	28	24	28	24	21	19		
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17		
9	50	37	30	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15		
10	47	34	27	22	44	32	26	21	29	23	19	25	21	17	22	18	15	13		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10654	10654	10654
5°	10687	10385	10392
10°	10592	10146	10095
15°	10455	9874	9773
20°	10260	9565	9418
25°	10019	9208	9043
30°	9772	8886	8665
35°	9496	8547	8362
40°	9231	8238	8039
45°	8938	7941	7779
50°	8650	7648	7494
55°	8332	7348	7238
60°	8020	7044	6974
65°	7702	6718	6661
70°	7222	6352	6341
75°	6614	5933	6016
80°	5915	5522	5642
85°	5267	5241	5428

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	1.9
10°-20°	267.5	5.3
20°-30°	400.0	8.0
30°-40°	477.7	9.5
40°-50°	499.9	10.0
50°-60°	469.1	9.4
60°-70°	391.8	7.8
70°-80°	280.3	5.6
80°-90°	168.9	3.4
90°-100°	229.1	4.6
100°-110°	428.8	8.6
110°-120°	397.5	7.9
120°-130°	305.4	6.1
130°-140°	230.8	4.6
140°-150°	165.2	3.3
150°-160°	113.2	2.3
160°-170°	66.5	1.3
170°-180°	21.6	0.4
0°-30°	761.3	15.2
0°-40°	1239.1	24.7
0°-60°	2208.0	44.1
0°-90°	3048.9	60.9
90°-120°	1055.4	21.1
90°-150°	1756.8	35.1
90°-180°	1958.0	39.1
0°-180°	5007.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	991	988	982	990	990	94
15°	943	946	946	956	955	266
25°	852	862	866	879	880	392
35°	733	750	764	780	785	458
45°	599	625	652	672	681	462
55°	457	493	532	560	569	409
65°	316	358	405	436	448	312
75°	171	222	276	310	325	183
85°	53	107	164	199	211	55
90°	15	72	133	170	182	11
95°	27	104	375	217	203	26
105°	61	113	444	745	696	64
115°	98	135	335	691	791	97
125°	132	157	294	526	616	118
135°	153	182	269	419	485	118
145°	173	197	252	326	362	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°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	994.1	993.6	992.9	992.4	991.8	990.7	989.2	987.7	986.1	984.6	986.1
5°	990.9	990.4	989.9	989.4	989.0	988.0	986.6	985.1	983.7	982.2	984.1
7.5°	981.1	981.3	981.4	981.4	981.5	980.9	979.5	978.1	976.7	975.3	977.7
10°	972.6	973.0	973.5	974.0	974.5	974.1	972.9	971.7	970.5	969.3	971.7
12.5°	962.2	962.8	963.5	964.2	964.9	964.8	964.0	963.1	962.3	961.6	963.8
15°	943.4	944.1	944.8	945.5	946.3	946.5	946.3	946.0	945.8	945.5	948.0
17.5°	919.7	921.1	922.6	924.0	925.4	926.1	926.1	925.9	925.8	925.7	927.9
20°	902.5	903.9	905.3	906.7	908.2	909.2	909.7	910.1	910.6	911.1	913.2
22.5°	884.3	885.7	887.2	888.7	890.1	891.1	891.8	892.5	893.2	893.8	896.5
25°	851.8	854.1	856.6	859.0	861.3	862.9	863.6	864.4	865.1	865.8	868.9
27.5°	819.0	821.7	824.4	827.2	829.9	832.0	833.6	835.1	836.6	838.2	840.9
30°	795.7	798.8	801.9	805.0	808.2	810.6	812.6	814.5	816.4	818.3	821.3
32.5°	769.8	773.3	776.8	780.3	783.8	786.8	789.3	791.8	794.3	796.8	799.9
35°	733.2	737.0	740.8	744.7	748.5	751.9	755.1	758.2	761.3	764.5	768.0
37.5°	694.3	698.7	703.0	707.3	711.6	715.7	719.5	723.3	727.1	731.0	735.1
40°	668.4	672.8	677.1	681.4	685.7	690.3	695.1	699.9	704.6	709.5	713.5
42.5°	640.0	645.3	650.5	655.8	661.1	666.2	671.2	676.2	681.2	686.2	690.6
45°	599.4	605.2	611.0	616.7	622.5	628.4	634.3	640.3	646.3	652.3	656.9
47.5°	557.0	563.5	570.1	576.6	583.0	589.8	596.6	603.5	610.3	617.2	622.3
50°	529.4	536.1	542.8	549.5	556.2	563.3	570.7	578.1	585.6	593.0	598.5
52.5°	500.0	507.2	514.3	521.3	528.5	536.1	544.3	552.5	560.6	568.9	574.6
55°	457.2	465.1	472.9	480.9	488.8	497.0	505.6	514.3	522.9	531.6	538.1
57.5°	415.3	423.6	431.8	440.1	448.3	457.2	466.6	476.0	485.4	494.9	501.4
60°	386.0	394.6	403.2	411.9	420.5	429.7	439.5	449.4	459.2	469.1	475.7
62.5°	358.4	367.2	376.0	384.8	393.6	403.3	413.7	424.1	434.4	444.9	451.5
65°	315.9	325.3	334.6	344.0	353.3	363.2	373.8	384.3	394.8	405.4	412.6
67.5°	272.7	282.7	292.6	302.5	312.4	322.8	333.5	344.3	355.0	365.8	373.6
70°	242.6	252.9	263.2	273.5	283.8	294.7	306.2	317.7	329.2	340.7	348.4
72.5°	215.0	225.3	235.6	245.9	256.2	267.3	279.2	291.0	302.9	314.8	322.7
75°	171.4	182.7	193.9	205.3	216.5	228.1	240.1	252.1	264.0	276.0	283.9
77.5°	133.5	144.8	156.2	167.5	178.9	190.6	202.7	214.8	226.9	238.9	247.2
80°	106.7	118.5	130.2	142.0	153.7	165.8	178.2	190.8	203.2	215.6	223.8
82.5°	83.4	95.4	107.3	119.2	131.2	143.5	156.1	168.7	181.4	194.1	202.2
85°	52.8	64.8	76.8	88.8	100.8	113.1	125.8	138.5	151.1	163.9	172.1
87.5°	28.8	41.0	53.1	65.3	77.4	89.7	102.1	114.6	127.1	139.6	147.7
90°	14.9	27.6	40.2	53.3	65.9	78.8	92.4	106.0	119.5	133.2	140.9
92.5°	18.8	32.1	46.4	60.5	74.9	92.9	116.8	148.3	179.4	184.4	175.3
95°	27.3	37.9	52.2	69.2	90.4	118.5	168.7	247.7	333.6	374.7	331.5
97.5°	36.8	45.6	58.0	73.1	93.1	122.0	169.9	257.0	391.7	514.2	550.3
100°	43.2	51.3	62.1	76.0	94.6	121.5	164.2	242.1	371.9	521.7	617.7
102.5°	49.9	57.6	67.3	80.2	96.8	121.8	161.1	228.6	345.3	493.1	615.9
105°	61.1	68.1	76.6	87.8	102.1	124.1	158.8	215.7	311.4	444.2	580.5
107.5°	71.9	78.1	85.6	95.9	108.8	129.1	160.3	208.7	287.4	400.3	524.4
110°	79.7	85.3	91.9	101.2	113.2	132.8	162.7	206.6	276.8	375.3	489.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	87.6	92.5	98.3	106.9	118.0	136.7	164.9	205.8	268.3	356.4	457.8
115°	98.0	102.7	108.3	115.7	126.3	144.2	170.0	206.2	260.9	335.0	418.9
117.5°	109.2	113.1	117.2	123.1	133.5	149.6	174.8	207.5	254.7	318.8	392.1
120°	116.4	118.9	122.4	128.1	137.8	153.8	177.9	209.3	252.0	310.5	377.5
122.5°	123.3	125.2	128.1	133.6	142.4	158.5	182.0	211.2	250.6	303.6	364.6
125°	132.0	132.9	135.6	140.6	149.2	164.9	187.6	214.4	248.5	293.8	347.2
127.5°	139.5	140.6	143.7	148.5	157.8	172.8	193.8	217.5	247.6	285.7	331.1
130°	144.2	145.3	149.2	154.3	163.6	178.1	197.7	219.8	247.1	280.4	321.5
132.5°	146.9	148.6	153.0	159.5	168.9	182.7	201.1	221.7	245.9	275.7	312.3
135°	153.0	154.6	159.4	165.9	175.2	188.5	205.2	223.2	243.9	268.7	299.7
137.5°	158.8	160.5	165.2	172.2	181.5	193.4	208.3	224.5	242.0	262.5	288.6
140°	161.9	164.2	168.7	175.9	185.0	196.6	210.5	224.7	240.8	258.7	281.7
142.5°	166.3	167.9	172.7	179.0	187.8	198.4	211.3	224.6	239.0	254.5	275.0
145°	173.3	174.4	178.2	184.7	192.2	202.4	214.2	226.4	239.0	252.5	268.9
147.5°	179.2	180.0	184.0	189.9	197.3	206.1	216.9	227.8	239.0	250.9	263.8
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°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	987.7	989.2	990.7	991.4	991.2	991.0	990.9	990.6
5°	986.0	988.0	989.9	990.7	990.5	990.2	990.0	989.8
7.5°	980.1	982.5	984.9	986.0	985.7	985.4	985.1	984.8
10°	974.1	976.4	978.9	979.9	979.4	978.9	978.4	977.9
12.5°	965.9	968.1	970.3	971.2	970.7	970.3	969.8	969.3
15°	950.4	952.8	955.1	956.2	956.0	955.8	955.5	955.3
17.5°	930.0	932.2	934.4	935.3	934.9	934.6	934.3	933.9
20°	915.4	917.5	919.7	920.9	921.1	921.4	921.6	921.9
22.5°	899.3	902.0	904.8	906.0	905.9	905.8	905.6	905.5
25°	872.0	875.1	878.2	879.8	879.8	879.8	879.8	879.8
27.5°	843.5	846.2	848.9	850.3	850.6	850.7	851.0	851.1
30°	824.1	827.0	829.8	831.3	831.3	831.3	831.3	831.3
32.5°	803.0	806.0	809.1	810.9	811.4	812.0	812.6	813.2
35°	771.6	775.2	778.8	781.1	782.0	783.0	783.9	784.9
37.5°	739.2	743.2	747.3	749.7	750.5	751.2	752.0	752.8
40°	717.6	721.7	725.7	728.3	729.2	730.2	731.1	732.1
42.5°	695.1	699.5	704.0	706.9	708.2	709.6	710.9	712.3
45°	661.4	666.0	670.5	673.8	675.7	677.6	679.5	681.4
47.5°	627.4	632.6	637.6	641.0	642.5	644.0	645.4	646.9
50°	604.0	609.5	615.1	618.6	620.4	622.0	623.7	625.3
52.5°	580.3	586.0	591.7	595.6	597.6	599.7	601.7	603.8
55°	544.5	551.0	557.5	561.6	563.6	565.5	567.4	569.3
57.5°	507.9	514.4	520.9	525.4	527.6	529.8	532.1	534.3
60°	482.4	489.2	495.8	500.5	503.2	505.8	508.4	511.0
62.5°	458.3	465.0	471.7	476.3	478.7	481.2	483.6	486.1
65°	419.8	427.0	434.1	438.9	441.3	443.7	446.2	448.5
67.5°	381.4	389.3	397.1	402.1	404.1	406.2	408.1	410.1
70°	356.0	363.7	371.4	376.4	378.8	381.2	383.6	386.0
72.5°	330.6	338.4	346.3	351.4	353.8	356.2	358.6	361.0
75°	291.8	299.8	307.6	313.1	315.9	318.8	321.6	324.6
77.5°	255.6	264.0	272.3	277.6	279.7	281.9	284.2	286.4
80°	232.0	240.1	248.2	253.5	255.9	258.3	260.7	263.1
82.5°	210.4	218.5	226.6	232.0	234.3	236.7	239.1	241.5
85°	180.1	188.3	196.5	201.8	204.1	206.5	208.9	211.4
87.5°	155.9	164.1	172.4	177.8	180.1	182.6	185.1	187.4
90°	149.4	158.0	166.6	172.8	174.8	177.6	180.5	182.4
92.5°	168.9	169.0	173.4	176.2	177.5	178.4	181.0	182.4
95°	284.2	239.2	222.8	211.4	205.2	203.5	202.8	203.4
97.5°	518.7	445.2	394.0	344.8	313.8	295.9	286.1	284.6
100°	640.4	610.8	564.8	505.3	462.2	431.5	416.3	419.1
102.5°	677.2	682.7	658.7	622.6	589.5	565.8	553.4	545.4
105°	681.7	733.6	748.8	741.6	722.9	707.9	695.6	695.5
107.5°	637.9	717.7	763.7	784.1	786.6	782.9	780.1	778.1
110°	599.3	688.6	751.8	787.5	802.1	807.6	808.6	809.6

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	560.1	651.1	720.9	765.6	790.9	804.2	809.8	812.1
115°	508.3	592.6	664.8	717.9	753.7	775.5	786.5	790.7
117.5°	468.4	541.9	607.3	661.1	698.2	722.9	737.8	742.8
120°	446.7	513.2	572.9	622.2	659.6	686.5	699.0	703.5
122.5°	428.6	489.2	544.7	590.6	624.0	648.5	662.0	667.2
125°	403.8	458.0	506.4	546.0	576.6	598.1	611.1	615.9
127.5°	381.2	429.8	473.7	509.8	537.2	555.8	567.7	572.2
130°	366.7	411.9	453.1	486.8	512.2	529.9	540.8	545.9
132.5°	353.0	394.7	433.2	465.5	489.6	507.5	517.5	521.7
135°	334.2	370.7	404.3	432.8	456.1	471.0	480.2	484.6
137.5°	316.9	347.0	376.0	400.8	420.7	435.6	443.7	446.9
140°	306.6	333.2	358.5	380.3	398.6	412.5	421.0	421.7
142.5°	296.2	319.2	341.2	360.3	376.1	388.6	396.2	397.0
145°	285.3	302.1	318.5	333.1	345.3	355.8	360.4	362.2
147.5°	276.6	289.0	301.3	311.2	320.7	328.0	332.3	333.5
150°	271.1	281.5	291.0	299.8	307.0	312.5	315.7	316.2
152.5°	267.1	276.1	284.5	291.7	297.1	301.8	303.5	303.6
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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