

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: P332585-830

Luminaire Tested: **S124DIP-S795D365U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332585-830  
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-S795D365U830-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 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: 4286.1 lumens  
Efficiency: N/A  
Efficacy: 122.5 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: Semi-Direct

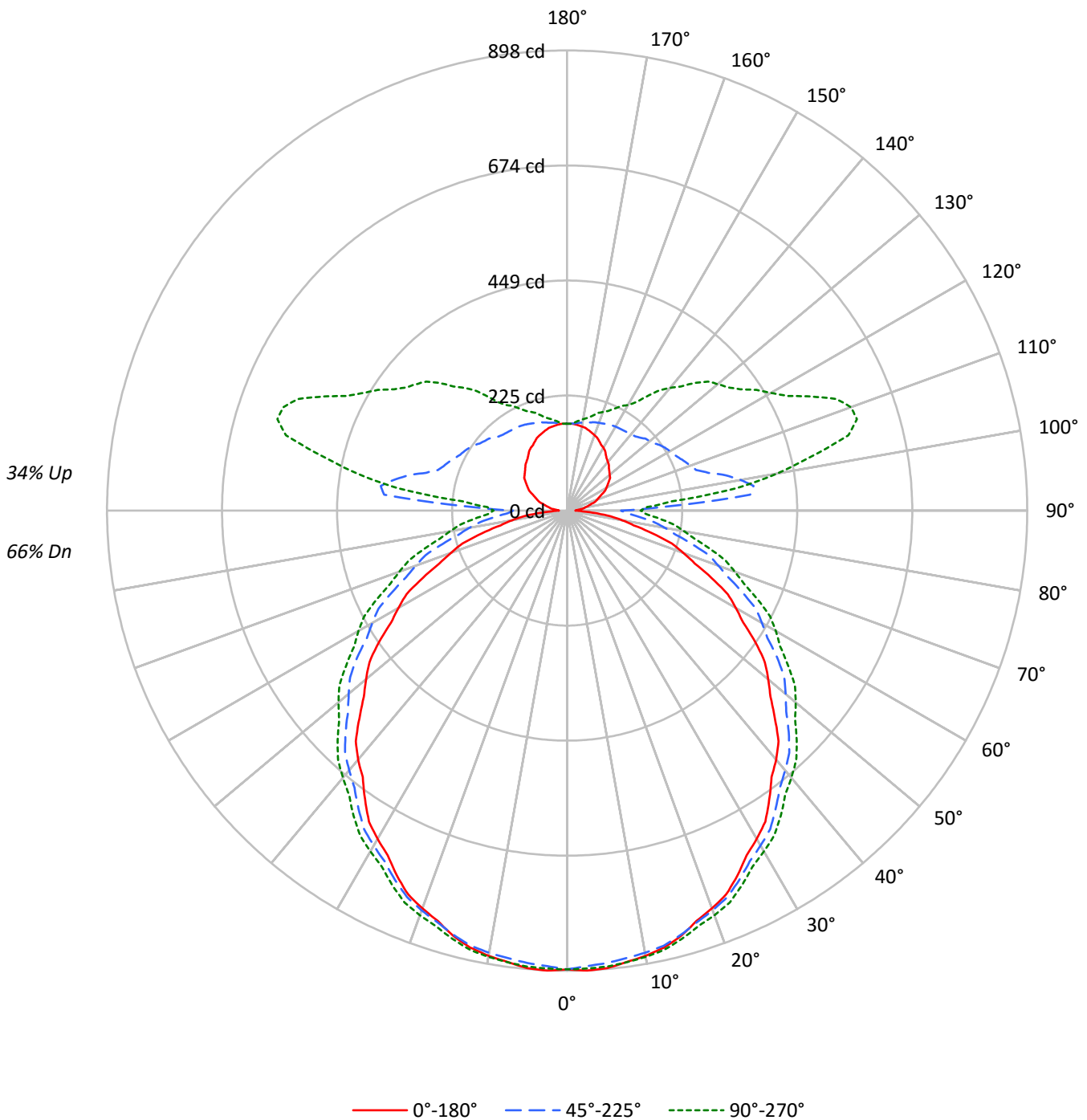
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	60	59	57	53
2	91	82	75	70	85	77	71	66	68	64	59	60	56	53	52	50	47	43
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	42	39	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30
5	69	56	48	41	64	53	45	39	47	41	36	42	36	32	37	32	29	26
6	63	50	42	36	59	48	40	34	43	36	31	38	32	28	33	29	25	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	22	20
8	54	41	33	27	51	39	32	26	35	29	24	31	26	22	28	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16
10	47	35	27	22	44	33	26	21	30	24	20	27	22	18	24	19	16	14

**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	2.0
10°-20°	242.9	5.7
20°-30°	367.3	8.6
30°-40°	444.4	10.4
40°-50°	469.8	11.0
50°-60°	442.2	10.3
60°-70°	366.8	8.6
70°-80°	257.7	6.0
80°-90°	146.6	3.4
90°-100°	209.0	4.9
100°-110°	318.9	7.4
110°-120°	271.3	6.3
120°-130°	216.3	5.0
130°-140°	170.6	4.0
140°-150°	124.4	2.9
150°-160°	86.0	2.0
160°-170°	50.6	1.2
170°-180°	16.5	0.4
0°-30°	695.0	16.2
0°-40°	1139.4	26.6
0°-60°	2051.4	47.9
0°-90°	2822.5	65.9
90°-120°	799.2	18.6
90°-150°	1310.5	30.6
90°-180°	1464.0	34.2
0°-180°	4286.1	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°	16	59	105	134	143	11
95°	24	81	359	248	205	23
105°	48	86	285	561	568	52
115°	75	102	242	443	526	74
125°	100	118	222	365	412	89
135°	116	138	201	307	352	90
145°	132	150	191	244	272	83
155°	149	161	186	210	220	69
165°	162	167	178	189	192	46
175°	169	170	171	173	173	16
180°	170	170	170	170	170	



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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°	29.8	38.9	48.3	57.4	66.5	76.0	86.1	96.0	105.8	115.6	122.1
90°	16.4	25.9	35.8	45.1	54.4	63.6	75.2	84.7	95.0	105.3	111.4
92.5°	19.0	28.7	40.0	52.0	64.9	80.7	107.2	142.6	177.3	200.1	188.7
95°	24.0	32.4	43.1	54.8	70.1	92.4	130.4	194.2	283.0	358.7	372.4
97.5°	31.6	37.9	47.0	57.4	70.6	90.0	121.4	175.5	263.7	366.9	437.5
100°	36.4	42.1	50.2	60.0	72.2	90.1	118.4	164.8	241.4	344.0	435.4
102.5°	41.7	47.3	54.5	63.2	74.4	91.3	117.6	159.2	225.6	317.4	411.1
105°	48.0	53.4	59.6	68.1	78.5	94.4	118.8	154.6	209.5	284.7	368.5
107.5°	57.0	61.3	66.6	74.6	83.9	99.2	121.7	154.6	202.3	263.9	333.3
110°	62.3	66.1	70.9	78.0	87.1	101.6	124.0	155.1	199.6	255.7	315.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	67.4	70.8	75.5	82.0	90.8	104.8	126.4	155.8	197.6	249.3	302.7
115°	74.6	77.7	82.0	87.3	95.7	109.2	129.7	156.7	194.9	242.0	288.9
117.5°	83.2	85.4	88.6	93.5	100.7	113.9	133.2	158.3	192.7	235.6	279.1
120°	88.3	89.6	92.7	97.0	103.3	116.2	135.3	159.1	191.2	231.7	273.1
122.5°	93.6	94.4	96.9	100.4	106.8	118.9	137.7	160.0	189.9	227.3	266.9
125°	99.6	100.8	102.5	105.9	112.1	124.0	141.6	162.5	189.1	222.0	258.2
127.5°	105.6	106.4	108.7	112.6	118.9	130.4	146.3	164.6	187.2	215.2	247.2
130°	108.3	109.4	111.8	116.6	122.7	134.0	148.9	165.5	186.1	210.9	240.3
132.5°	111.7	112.5	115.8	120.4	127.0	137.4	151.6	167.2	185.4	207.5	234.2
135°	115.6	117.0	120.3	125.9	132.9	142.3	155.0	168.4	183.7	201.2	224.1
137.5°	120.5	121.5	125.0	130.2	137.1	145.7	156.7	168.6	181.5	196.5	215.7
140°	123.9	124.7	128.2	133.6	140.3	148.4	158.5	169.5	181.0	193.9	211.1
142.5°	126.9	127.8	131.2	136.5	143.2	150.8	160.4	170.1	180.8	192.3	207.5
145°	132.0	132.7	135.8	140.3	146.4	153.5	162.2	171.3	180.9	191.2	203.2
147.5°	137.9	138.0	140.6	145.2	150.2	156.7	164.9	172.8	181.3	190.0	199.6
150°	141.6	141.7	144.1	147.9	152.7	158.9	166.3	173.5	181.3	189.2	197.6
152.5°	144.2	144.3	146.8	150.5	155.0	160.8	167.3	174.1	180.7	187.8	195.4
155°	148.9	149.2	151.3	154.6	158.3	163.2	168.9	174.6	179.9	185.9	192.2
157.5°	153.6	153.6	155.5	158.1	161.3	165.2	170.0	174.6	179.0	183.8	189.0
160°	156.6	156.6	157.9	160.2	162.9	166.5	170.6	174.6	178.2	182.2	186.5
162.5°	159.2	159.0	160.0	162.1	164.5	167.4	171.1	174.6	177.4	180.6	184.5
165°	162.2	162.2	162.9	164.6	166.3	168.2	171.3	173.9	175.9	178.2	180.9
167.5°	165.2	164.9	165.2	166.5	167.4	169.0	171.2	173.1	174.3	175.8	177.7
170°	166.5	166.3	166.5	167.6	168.2	169.2	170.9	172.6	173.2	174.2	175.6
172.5°	167.9	167.6	167.6	168.3	168.7	169.5	170.6	172.0	172.2	172.6	173.7
175°	169.2	168.9	168.9	169.2	169.6	169.6	170.2	171.3	170.9	170.9	171.5
177.5°	169.8	169.6	169.3	169.6	169.6	169.6	169.8	170.3	169.8	169.8	170.1
180°	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6



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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°	128.7	135.2	141.7	145.9	147.9	150.0	151.8	153.8
90°	118.2	125.0	131.8	135.9	138.0	140.2	141.6	143.4
92.5°	172.4	162.5	158.7	156.1	154.0	153.9	154.6	156.4
95°	346.1	300.5	261.8	233.6	219.2	210.9	206.9	204.6
97.5°	457.4	444.0	417.3	386.3	364.4	346.3	338.2	333.2
100°	489.9	502.7	492.4	471.5	444.0	425.3	416.9	415.8
102.5°	483.7	522.6	533.2	526.7	510.7	497.7	488.9	488.5
105°	450.4	513.6	552.1	569.5	571.9	571.1	568.2	568.0
107.5°	406.3	473.3	525.1	558.4	576.5	585.6	590.6	593.0
110°	379.6	442.2	495.7	535.8	561.3	577.0	584.8	589.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	358.4	414.2	464.9	504.9	533.5	552.2	562.4	569.0
115°	335.5	381.3	425.2	460.3	488.2	509.8	522.0	526.2
117.5°	320.6	359.1	394.5	424.7	449.0	467.6	480.1	484.0
120°	312.5	347.9	379.1	405.9	426.6	443.0	453.5	458.9
122.5°	305.3	339.7	368.3	392.1	409.8	424.0	432.8	438.1
125°	294.4	327.3	354.5	375.6	390.2	401.2	408.9	412.3
127.5°	281.3	312.6	339.6	359.8	374.7	384.7	391.6	395.1
130°	271.9	302.3	328.9	349.2	364.2	373.9	380.6	383.9
132.5°	262.8	291.3	317.3	337.5	352.2	363.0	369.4	372.7
135°	248.6	273.9	297.7	316.9	331.6	342.2	348.8	352.2
137.5°	236.5	258.0	278.4	295.7	309.2	319.5	325.0	328.6
140°	229.3	247.9	265.8	281.7	294.5	302.9	308.8	312.5
142.5°	223.3	239.6	255.0	268.9	280.1	287.9	292.9	295.8
145°	215.2	227.9	239.2	249.7	258.8	265.4	269.7	272.2
147.5°	208.6	217.7	225.9	233.7	240.5	246.1	249.3	250.6
150°	205.6	213.2	219.9	225.8	231.2	235.5	237.5	237.8
152.5°	202.6	209.2	215.4	220.3	224.8	228.3	229.5	229.9
155°	198.2	203.5	208.5	212.5	215.8	218.5	219.5	219.5
157.5°	193.5	197.9	202.2	205.4	207.8	209.9	210.5	210.5
160°	190.6	194.2	197.8	200.6	202.6	204.5	204.9	204.9
162.5°	187.7	190.8	193.6	196.0	197.5	199.4	199.8	199.5
165°	183.5	185.6	187.8	189.5	190.9	192.2	191.9	191.5
167.5°	179.6	181.2	183.0	184.0	184.6	185.6	185.5	185.2
170°	177.2	178.2	179.6	180.6	181.3	181.5	181.3	181.3
172.5°	175.1	175.8	176.6	177.4	177.8	178.0	177.8	177.2
175°	172.2	172.6	173.2	173.2	173.2	173.9	173.2	172.6
177.5°	170.3	170.6	170.6	170.9	170.6	170.9	170.3	169.8
180°	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6

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