

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: P333132-830

Luminaire Tested: **S125DIP-S375D590U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333132-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S375D590U830-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3434.1 lumens  
Efficiency: N/A  
Efficacy: 134.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

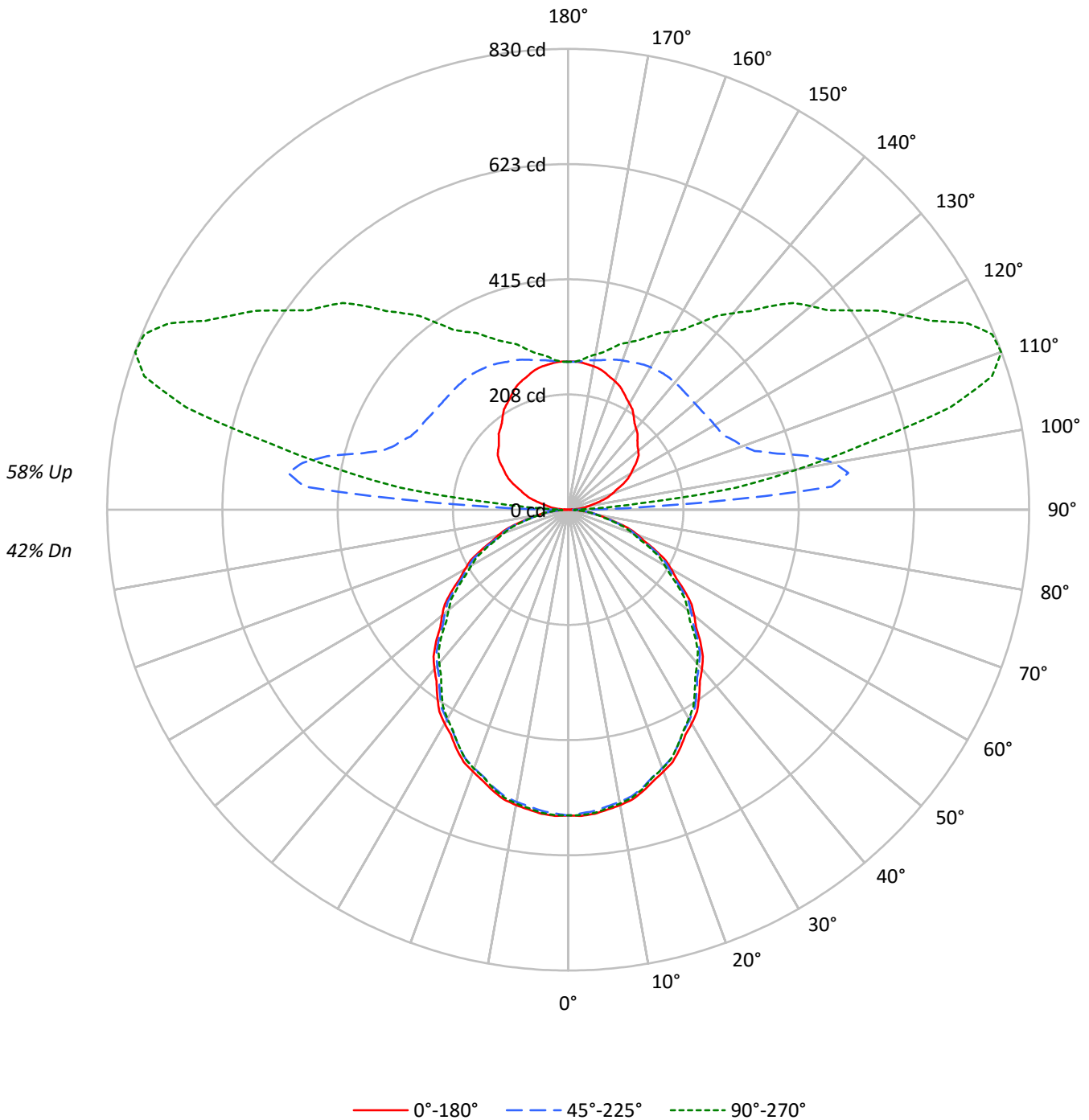
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20			
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	105	105	105	105	96	96	96	96	79	79	79		63	63	63		49	49	49	42
1	96	92	88	84	87	84	80	77	69	67	64		55	54	52		43	42	41	35
2	87	80	74	69	79	73	68	63	60	57	53		49	46	44		38	36	34	29
3	80	70	63	57	72	64	58	53	53	49	45		43	40	37		33	31	29	25
4	73	62	54	48	66	57	50	45	47	42	38		38	34	32		30	27	25	21
5	67	55	47	41	61	51	44	38	42	37	33		34	30	27		27	24	22	18
6	61	49	41	36	56	45	38	33	38	33	29		31	27	24		24	21	19	16
7	57	45	37	31	52	41	34	29	34	29	25		28	24	21		22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22		26	22	19		20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20		24	20	17		19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18		22	18	15		17	15	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3556	3556	3556
5°	3564	3530	3553
10°	3543	3505	3525
15°	3504	3463	3477
20°	3449	3404	3410
25°	3390	3334	3331
30°	3317	3258	3242
35°	3239	3177	3132
40°	3159	3089	3044
45°	3072	3008	2948
50°	2976	2910	2823
55°	2884	2800	2723
60°	2773	2689	2595
65°	2644	2557	2470
70°	2517	2402	2319
75°	2293	2218	2141
80°	2042	2008	1960
85°	1771	1808	1712



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	1.5
10°-20°	146.6	4.3
20°-30°	216.5	6.3
30°-40°	252.7	7.4
40°-50°	253.8	7.4
50°-60°	222.8	6.5
60°-70°	166.0	4.8
70°-80°	94.9	2.8
80°-90°	29.1	0.8
90°-100°	193.3	5.6
100°-110°	415.5	12.1
110°-120°	390.0	11.4
120°-130°	316.0	9.2
130°-140°	253.6	7.4
140°-150°	191.4	5.6
150°-160°	134.7	3.9
160°-170°	79.4	2.3
170°-180°	25.8	0.8
0°-30°	415.1	12.1
0°-40°	667.8	19.4
0°-60°	1144.3	33.3
0°-90°	1434.3	41.8
90°-120°	998.8	29.1
90°-150°	1759.9	51.2
90°-180°	2000.0	58.2
0°-180°	3434.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	551	551	551	551	551	
5°	550	549	544	548	548	52
15°	524	522	518	520	520	148
25°	476	473	468	469	467	219
35°	411	409	403	401	397	257
45°	336	334	329	324	323	259
55°	256	255	249	245	242	229
65°	173	172	167	164	162	172
75°	92	91	89	88	86	98
85°	24	24	24	24	23	27
90°	1	5	9	11	12	2
95°	18	52	476	216	126	19
105°	61	85	390	767	712	64
115°	109	131	313	674	794	107
125°	150	176	300	537	625	134
135°	176	212	298	450	519	137
145°	205	235	299	372	410	129
155°	234	252	291	329	344	108
165°	256	263	280	296	301	72
175°	266	266	268	272	270	25
180°	267	267	267	267	267	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6
2.5°	552.0	551.8	551.6	551.3	551.1	550.5	549.8	549.0	548.3	547.4	548.3
5°	549.7	549.5	549.3	549.1	548.9	548.4	547.4	546.5	545.4	544.5	545.4
7.5°	544.7	544.5	544.3	544.1	543.9	543.3	542.2	541.1	540.1	539.0	539.9
10°	540.2	540.0	539.8	539.6	539.4	538.8	537.7	536.6	535.6	534.5	535.3
12.5°	534.6	534.2	533.9	533.6	533.2	532.5	531.5	530.6	529.5	528.6	529.1
15°	524.1	523.8	523.5	523.2	522.8	522.2	521.1	520.1	519.0	517.9	518.4
17.5°	511.9	511.5	511.0	510.7	510.2	509.4	508.3	507.3	506.1	505.0	505.7
20°	501.8	501.6	501.4	501.2	501.1	500.3	499.1	497.8	496.5	495.3	496.0
22.5°	491.7	491.3	491.0	490.7	490.3	489.6	488.3	487.2	486.0	484.8	485.3
25°	475.7	475.2	474.7	474.2	473.7	472.9	471.6	470.3	469.1	467.9	468.1
27.5°	456.9	456.7	456.4	456.1	455.8	455.0	453.7	452.4	451.1	449.8	449.9
30°	444.8	444.5	444.1	443.8	443.6	442.7	441.3	439.8	438.4	436.9	436.7
32.5°	431.5	431.0	430.6	430.2	429.7	428.9	427.5	426.2	425.0	423.7	423.3
35°	410.8	410.4	410.0	409.6	409.3	408.3	407.0	405.7	404.3	402.9	402.5
37.5°	389.3	388.8	388.3	387.8	387.3	386.4	385.1	383.9	382.6	381.4	380.6
40°	374.7	374.1	373.6	373.2	372.7	371.7	370.4	369.1	367.7	366.4	365.5
42.5°	358.9	358.5	358.2	357.7	357.3	356.5	355.1	353.7	352.3	351.0	350.2
45°	336.3	335.9	335.5	335.2	334.7	333.9	332.8	331.7	330.5	329.3	328.2
47.5°	311.9	311.9	311.9	312.0	312.0	311.3	309.9	308.5	307.1	305.7	304.5
50°	296.2	296.0	295.7	295.3	295.0	294.4	293.1	292.0	290.9	289.6	288.4
52.5°	280.2	279.9	279.7	279.6	279.4	278.6	277.4	276.2	274.8	273.6	272.6
55°	256.1	255.8	255.5	255.2	255.0	254.1	252.8	251.5	250.1	248.7	247.9
57.5°	230.8	230.6	230.5	230.4	230.2	229.5	228.4	227.2	226.1	225.0	223.9
60°	214.7	214.3	214.0	213.6	213.2	212.4	211.4	210.4	209.2	208.2	207.3
62.5°	198.0	197.7	197.4	197.1	196.8	196.1	195.3	194.4	193.4	192.6	191.5
65°	173.0	172.8	172.6	172.4	172.2	171.5	170.5	169.4	168.3	167.3	166.4
67.5°	148.6	148.3	147.8	147.4	147.0	146.4	145.6	144.8	144.0	143.3	142.5
70°	133.3	132.8	132.3	131.9	131.4	130.6	129.8	128.9	128.1	127.2	126.6
72.5°	116.6	116.2	115.9	115.6	115.3	114.8	114.2	113.7	113.1	112.5	111.9
75°	91.9	91.7	91.5	91.3	91.1	90.8	90.3	89.8	89.4	88.9	88.6
77.5°	69.2	69.1	69.0	68.9	68.9	68.7	68.4	68.1	67.9	67.6	67.4
80°	54.9	54.9	54.9	54.9	54.9	54.8	54.6	54.4	54.2	54.0	53.9
82.5°	42.3	42.2	42.0	41.8	41.8	41.7	41.6	41.6	41.5	41.5	41.3
85°	23.9	24.0	24.1	24.2	24.3	24.4	24.4	24.4	24.4	24.4	24.3
87.5°	9.5	9.6	9.8	10.1	10.3	10.5	10.5	10.7	10.7	10.7	10.9
90°	0.6	1.0	2.2	3.2	4.3	5.4	5.9	7.0	7.5	8.6	9.1
92.5°	6.6	7.9	12.4	19.1	28.4	44.1	73.4	122.7	176.2	173.3	140.3
95°	17.7	18.3	22.6	28.5	40.3	64.6	122.1	240.3	388.7	476.4	466.2
97.5°	29.5	30.1	33.1	39.0	49.7	67.1	105.2	191.8	347.1	508.7	589.8
100°	37.6	38.7	40.9	46.8	57.0	73.1	104.3	174.2	309.7	485.5	619.9
102.5°	46.7	47.3	49.0	55.4	64.8	80.4	108.2	166.9	281.3	444.6	601.8
105°	60.8	60.8	63.4	68.8	77.4	92.5	116.1	164.0	253.7	389.8	544.1
107.5°	74.6	75.6	78.1	82.6	91.5	105.1	128.0	168.9	242.1	352.0	485.2
110°	84.5	85.5	87.7	92.5	100.6	114.5	136.6	173.6	238.7	334.4	451.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	94.3	95.4	97.1	102.0	110.0	123.6	144.8	179.6	238.7	324.1	426.7
115°	108.6	109.7	111.3	116.1	124.2	137.6	157.5	188.7	240.3	312.9	399.4
117.5°	121.5	123.1	124.9	129.7	138.8	151.8	170.7	199.1	243.8	307.5	383.2
120°	130.1	131.8	133.8	138.7	147.9	161.3	180.1	205.9	247.3	304.8	374.2
122.5°	139.1	140.3	142.0	146.8	156.9	170.3	189.2	213.7	250.3	302.7	366.5
125°	150.5	151.7	154.3	159.1	169.4	183.3	201.0	224.2	255.4	300.0	355.9
127.5°	159.5	161.1	164.6	170.7	181.5	195.5	212.5	233.8	261.1	298.7	346.3
130°	165.0	166.6	171.0	178.0	189.3	203.2	219.9	240.3	264.6	297.8	339.8
132.5°	169.4	171.4	176.5	184.5	196.1	210.1	226.8	245.9	268.4	297.8	334.6
135°	176.3	178.5	184.9	193.6	204.8	219.3	236.0	253.7	273.6	297.8	328.5
137.5°	185.2	186.8	192.8	201.4	212.4	227.4	242.6	259.6	278.5	298.5	323.0
140°	190.3	191.9	198.4	207.0	217.3	231.8	247.3	263.4	280.7	299.0	320.5
142.5°	196.3	197.6	203.6	212.2	222.0	235.6	250.3	265.6	281.9	299.4	318.3
145°	205.4	206.4	211.8	219.3	229.0	241.4	255.4	268.8	283.3	299.0	315.1
147.5°	214.8	215.5	220.1	227.1	235.4	246.4	258.6	270.8	283.9	297.6	311.7
150°	220.5	221.5	225.3	232.2	239.8	248.9	260.8	272.0	283.9	296.2	309.2
152.5°	226.5	227.1	230.5	236.6	243.6	251.9	262.9	272.9	283.4	294.5	306.1
155°	234.4	234.4	237.6	243.0	248.4	255.9	265.0	273.6	282.3	291.4	301.0
157.5°	241.5	241.4	244.0	248.6	253.4	259.0	266.9	274.2	280.9	288.1	296.3
160°	246.3	245.7	247.9	251.7	255.9	260.8	267.8	274.2	279.6	286.1	292.5
162.5°	250.2	249.6	251.8	255.1	258.5	262.5	268.6	273.8	278.3	283.4	289.1
165°	255.9	254.9	256.5	259.1	261.3	264.6	268.8	273.1	276.4	279.6	283.9
167.5°	259.8	259.3	260.2	261.7	263.3	265.2	268.8	271.8	273.3	275.8	278.8
170°	262.4	261.8	262.4	263.4	264.6	266.2	268.8	271.0	272.0	273.6	275.8
172.5°	264.1	263.2	263.6	264.8	265.4	266.2	268.4	270.1	270.3	271.1	272.8
175°	266.2	265.0	265.6	266.2	266.2	266.2	267.8	268.8	268.2	268.2	268.8
177.5°	267.1	266.3	266.3	266.6	266.3	266.3	267.1	267.5	266.6	266.6	267.1
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6
2.5°	549.0	549.8	550.5	550.9	550.8	550.7	550.7	550.6
5°	546.2	547.1	548.0	548.4	548.3	548.2	548.1	548.0
7.5°	540.7	541.6	542.4	542.8	542.7	542.6	542.5	542.4
10°	536.0	536.8	537.6	537.9	537.8	537.7	537.6	537.5
12.5°	529.8	530.5	531.0	531.3	531.3	531.3	531.3	531.2
15°	518.9	519.3	519.9	520.1	520.1	520.1	520.1	520.1
17.5°	506.2	506.8	507.5	507.5	507.0	506.5	506.1	505.6
20°	496.6	497.3	497.9	498.1	497.6	497.1	496.6	496.2
22.5°	485.7	486.2	486.6	486.6	486.4	486.0	485.7	485.3
25°	468.3	468.4	468.6	468.5	468.3	468.0	467.7	467.4
27.5°	449.9	449.9	450.0	449.9	449.5	449.2	448.9	448.7
30°	436.5	436.3	436.1	435.9	435.6	435.4	435.0	434.7
32.5°	423.0	422.6	422.3	421.9	421.3	420.8	420.3	419.7
35°	402.0	401.5	401.0	400.4	399.6	398.8	398.0	397.3
37.5°	379.9	379.2	378.4	377.9	377.4	377.0	376.5	376.1
40°	364.6	363.7	362.9	362.3	362.0	361.7	361.4	361.1
42.5°	349.4	348.6	347.8	347.2	346.8	346.3	345.9	345.4
45°	327.0	325.8	324.7	324.0	323.7	323.4	323.1	322.8
47.5°	303.3	302.2	301.0	300.0	299.4	298.7	298.0	297.4
50°	287.2	285.9	284.6	283.7	283.0	282.3	281.6	281.0
52.5°	271.5	270.3	269.2	268.3	267.6	266.8	266.1	265.3
55°	246.9	246.1	245.2	244.5	243.8	243.1	242.4	241.8
57.5°	222.7	221.6	220.5	219.7	219.3	219.0	218.6	218.2
60°	206.3	205.3	204.3	203.5	202.8	202.2	201.5	200.9
62.5°	190.5	189.4	188.3	187.6	187.1	186.5	186.0	185.5
65°	165.5	164.7	163.8	163.2	162.8	162.4	162.0	161.6
67.5°	141.8	141.0	140.3	139.8	139.6	139.3	139.1	138.8
70°	126.0	125.5	124.9	124.4	124.0	123.7	123.2	122.8
72.5°	111.2	110.6	109.9	109.4	109.1	108.7	108.2	107.8
75°	88.3	88.0	87.7	87.4	87.0	86.6	86.2	85.8
77.5°	67.3	67.1	66.9	66.7	66.4	66.2	65.9	65.6
80°	53.8	53.7	53.6	53.4	53.3	53.1	52.9	52.7
82.5°	41.1	40.9	40.8	40.6	40.6	40.6	40.5	40.5
85°	24.2	24.1	24.0	23.8	23.7	23.5	23.3	23.1
87.5°	11.0	11.1	11.2	11.3	11.2	11.0	11.0	10.8
90°	9.7	10.2	10.7	11.8	11.8	11.8	12.3	12.3
92.5°	95.3	69.2	52.0	44.1	37.2	35.9	35.2	34.3
95°	386.5	304.8	238.7	193.6	155.4	139.2	135.0	126.4
97.5°	575.7	518.4	454.0	391.2	358.0	327.8	312.3	305.4
100°	661.3	635.0	579.6	523.7	486.5	447.9	428.0	419.3
102.5°	690.1	706.3	679.8	642.0	602.3	574.8	553.2	546.7
105°	673.2	746.8	770.4	764.5	747.3	729.6	718.9	712.4
107.5°	612.5	710.8	771.6	799.6	808.3	808.2	804.6	800.3
110°	567.8	670.0	745.7	791.5	815.6	825.9	829.6	829.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	532.5	629.5	706.2	760.1	795.4	812.9	822.3	826.1
115°	488.1	571.6	645.2	703.8	745.7	771.6	786.6	793.6
117.5°	459.6	531.4	594.8	648.7	690.6	717.3	732.2	736.5
120°	444.1	508.6	567.8	615.1	654.9	680.7	695.2	699.5
122.5°	432.5	492.3	545.0	589.3	624.7	648.4	662.9	666.8
125°	415.6	470.4	517.3	555.9	586.1	608.1	619.9	625.3
127.5°	398.4	449.6	493.2	529.5	556.8	576.3	587.4	589.8
130°	387.7	435.0	476.9	511.8	538.8	556.5	567.2	570.4
132.5°	376.9	421.2	459.3	492.9	519.8	537.5	547.4	551.1
135°	362.9	400.0	434.4	465.1	488.7	506.4	516.1	519.3
137.5°	351.1	381.1	409.7	435.7	456.9	473.1	481.9	485.5
140°	344.6	369.9	394.6	417.3	437.2	451.1	459.1	461.8
142.5°	339.0	360.4	381.7	401.3	418.2	430.0	437.6	439.9
145°	331.8	348.4	365.0	379.6	392.5	401.6	407.6	409.7
147.5°	324.9	338.4	351.2	362.1	372.4	379.7	383.1	384.1
150°	320.9	332.8	343.0	352.7	360.8	367.2	369.4	369.9
152.5°	316.7	327.3	336.6	344.1	350.9	356.0	358.2	358.7
155°	310.2	318.9	326.3	332.2	337.6	341.4	343.0	343.6
157.5°	303.8	310.9	316.7	321.3	325.5	328.6	330.1	330.0
160°	299.4	304.8	310.2	314.0	317.7	320.5	321.5	320.9
162.5°	294.7	299.7	304.2	307.6	310.5	312.7	312.9	312.8
165°	288.1	291.9	295.2	297.8	300.0	301.0	301.0	301.0
167.5°	281.9	284.5	286.9	288.8	289.9	290.9	290.4	290.3
170°	278.5	280.1	281.7	282.8	283.9	284.5	284.5	283.9
172.5°	274.7	276.3	277.4	278.1	278.3	279.3	278.4	277.9
175°	270.4	270.4	271.5	271.5	271.5	272.0	271.0	270.4
177.5°	267.5	268.0	268.0	268.0	267.5	268.0	266.6	266.6
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6

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