

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: P333186-927

Luminaire Tested: **S125DIP-S610D810U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333186-927  
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-S610D810U927-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4285.3 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

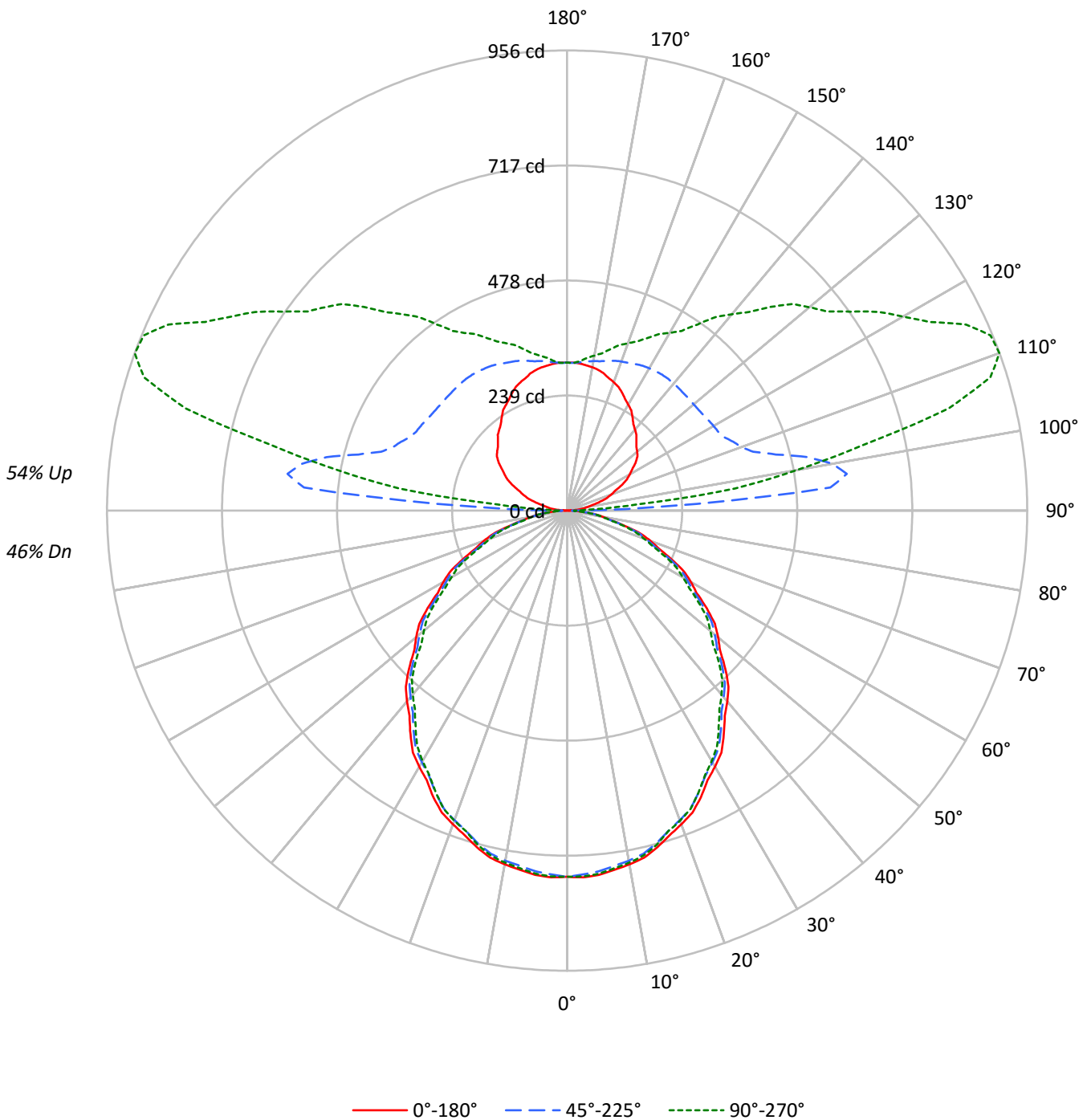
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46					46			
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	46	45	44	39					39			
2	88	81	75	69	81	74	69	65	62	58	55	51	48	46	41	39	37	32					32			
3	80	71	64	58	73	65	59	54	55	50	46	45	42	39	36	34	32	27					27			
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	30	27	24					24			
5	67	56	48	42	62	52	44	39	44	38	34	36	32	29	29	26	24	20					20			
6	62	50	42	36	57	46	39	34	39	34	30	33	28	25	26	23	21	18					18			
7	57	45	37	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16					16			
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14					14			
9	50	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13					13			
10	46	34	27	22	42	32	25	21	27	22	19	23	19	16	19	16	14	12					12			

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

	0°	45°	90°
0°	4914	4914	4914
5°	4924	4877	4909
10°	4894	4844	4871
15°	4841	4785	4805
20°	4766	4704	4712
25°	4684	4606	4603
30°	4583	4502	4480
35°	4475	4389	4328
40°	4364	4268	4207
45°	4244	4156	4074
50°	4112	4022	3900
55°	3985	3869	3762
60°	3834	3716	3584
65°	3651	3533	3412
70°	3478	3320	3206
75°	3169	3064	2959
80°	2819	2775	2708
85°	2453	2497	2364



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.7	1.7
10°-20°	202.6	4.7
20°-30°	299.2	7.0
30°-40°	349.1	8.1
40°-50°	350.6	8.2
50°-60°	307.8	7.2
60°-70°	229.3	5.4
70°-80°	131.1	3.1
80°-90°	39.9	0.9
90°-100°	222.7	5.2
100°-110°	478.7	11.2
110°-120°	449.3	10.5
120°-130°	364.1	8.5
130°-140°	292.2	6.8
140°-150°	220.5	5.1
150°-160°	155.2	3.6
160°-170°	91.5	2.1
170°-180°	29.8	0.7
0°-30°	573.6	13.4
0°-40°	922.7	21.5
0°-60°	1581.1	36.9
0°-90°	1981.4	46.2
90°-120°	1150.7	26.9
90°-150°	2027.5	47.3
90°-180°	2304.0	53.8
0°-180°	4285.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	760	758	752	757	757	72
15°	724	722	716	719	719	204
25°	657	654	646	648	646	302
35°	568	565	557	554	549	355
45°	465	462	455	448	446	358
55°	354	352	344	338	334	316
65°	239	237	231	226	223	237
75°	127	126	123	121	119	135
85°	33	34	34	33	32	37
90°	1	6	10	13	14	3
95°	20	60	549	249	146	22
105°	70	98	449	884	821	74
115°	125	151	360	777	914	123
125°	173	203	346	618	720	154
135°	203	244	343	518	598	158
145°	237	271	344	429	472	148
155°	270	290	336	379	396	124
165°	295	303	322	342	347	83
175°	307	307	309	313	312	29
180°	307	307	307	307	307	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8
2.5°	762.7	762.4	762.1	761.8	761.4	760.7	759.7	758.6	757.6	756.5	757.6
5°	759.6	759.3	759.1	758.8	758.5	757.7	756.4	755.0	753.7	752.3	753.6
7.5°	752.6	752.3	752.1	751.8	751.5	750.7	749.2	747.7	746.2	744.8	745.9
10°	746.3	746.1	745.8	745.5	745.3	744.4	742.9	741.5	740.0	738.6	739.6
12.5°	738.6	738.2	737.7	737.2	736.7	735.8	734.4	733.1	731.7	730.3	731.2
15°	724.1	723.7	723.3	722.9	722.5	721.5	720.1	718.6	717.1	715.7	716.3
17.5°	707.3	706.8	706.2	705.6	705.0	703.9	702.4	700.8	699.3	697.8	698.6
20°	693.4	693.1	692.8	692.6	692.3	691.3	689.6	687.9	686.1	684.4	685.3
22.5°	679.4	678.9	678.4	677.9	677.5	676.4	674.8	673.2	671.5	669.9	670.5
25°	657.3	656.6	655.9	655.3	654.6	653.4	651.6	649.9	648.2	646.4	646.7
27.5°	631.4	631.0	630.6	630.2	629.8	628.7	626.9	625.1	623.3	621.5	621.5
30°	614.5	614.1	613.7	613.3	612.9	611.7	609.7	607.7	605.7	603.7	603.4
32.5°	596.2	595.6	595.0	594.4	593.7	592.6	590.8	589.0	587.2	585.4	584.9
35°	567.6	567.0	566.5	566.0	565.5	564.3	562.4	560.5	558.6	556.7	556.1
37.5°	537.8	537.2	536.5	535.8	535.2	533.9	532.2	530.4	528.6	526.9	525.9
40°	517.6	517.0	516.3	515.6	514.9	513.7	511.8	509.9	508.0	506.2	505.0
42.5°	496.0	495.4	494.8	494.2	493.7	492.5	490.6	488.8	486.9	485.0	483.9
45°	464.7	464.1	463.6	463.0	462.6	461.4	459.9	458.3	456.6	455.0	453.4
47.5°	430.9	430.9	431.0	431.0	431.0	430.1	428.2	426.3	424.4	422.4	420.8
50°	409.3	408.8	408.4	408.1	407.7	406.7	405.0	403.5	401.9	400.3	398.5
52.5°	387.1	386.8	386.6	386.3	386.0	384.9	383.3	381.5	379.9	378.1	376.6
55°	353.9	353.5	353.1	352.7	352.3	351.2	349.3	347.5	345.5	343.6	342.5
57.5°	318.9	318.7	318.5	318.2	318.1	317.1	315.5	313.9	312.4	310.9	309.3
60°	296.8	296.2	295.6	295.1	294.6	293.6	292.2	290.7	289.1	287.7	286.4
62.5°	273.6	273.2	272.7	272.4	271.9	271.1	269.8	268.5	267.3	266.0	264.6
65°	238.9	238.7	238.4	238.1	237.9	237.0	235.5	234.1	232.6	231.2	229.9
67.5°	205.3	204.8	204.2	203.7	203.1	202.3	201.2	200.1	199.0	197.9	196.9
70°	184.2	183.5	182.8	182.2	181.5	180.5	179.4	178.2	177.0	175.8	174.9
72.5°	161.1	160.6	160.2	159.7	159.2	158.6	157.9	157.1	156.3	155.5	154.6
75°	127.0	126.7	126.4	126.2	126.0	125.5	124.8	124.1	123.4	122.8	122.4
77.5°	95.6	95.5	95.4	95.2	95.1	94.9	94.5	94.2	93.8	93.4	93.2
80°	75.8	75.8	75.8	75.8	75.8	75.7	75.4	75.2	74.9	74.6	74.5
82.5°	58.5	58.3	58.1	57.8	57.7	57.5	57.4	57.4	57.4	57.3	57.0
85°	33.1	33.3	33.4	33.5	33.7	33.7	33.7	33.7	33.7	33.7	33.6
87.5°	13.2	13.2	13.5	13.7	14.0	14.2	14.2	14.3	14.3	14.5	14.7
90°	0.6	1.3	2.5	3.7	5.0	6.2	6.8	8.1	8.6	9.9	10.5
92.5°	7.5	9.2	14.3	22.0	32.7	50.8	84.6	141.3	202.9	199.7	161.7
95°	20.4	21.1	26.0	32.8	46.4	74.3	140.6	276.9	447.8	548.8	537.0
97.5°	33.9	34.7	38.2	45.0	57.2	77.3	121.1	221.0	399.9	586.1	679.5
100°	43.3	44.6	47.1	53.9	65.7	84.2	120.2	200.7	356.8	559.4	714.2
102.5°	53.8	54.5	56.5	63.8	74.5	92.7	124.6	192.3	324.1	512.2	693.4
105°	70.0	70.0	73.1	79.3	89.2	106.5	133.8	188.9	292.4	449.1	626.9
107.5°	85.9	87.1	90.1	95.1	105.4	121.0	147.4	194.6	279.0	405.6	559.0
110°	97.3	98.5	100.9	106.5	115.8	131.9	157.3	200.1	275.0	385.2	520.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	108.6	109.9	111.9	117.4	126.7	142.4	166.8	207.0	275.0	373.4	491.5
115°	125.1	126.4	128.3	133.8	143.1	158.6	181.5	217.4	276.9	360.5	460.2
117.5°	140.0	141.9	143.9	149.4	159.9	174.9	196.6	229.3	281.0	354.2	441.5
120°	149.9	151.8	154.2	159.8	170.3	185.8	207.5	237.3	284.9	351.2	431.1
122.5°	160.3	161.7	163.7	169.2	180.8	196.2	217.9	246.1	288.4	348.7	422.2
125°	173.4	174.7	177.8	183.3	195.1	211.2	231.6	258.3	294.2	345.6	410.0
127.5°	183.7	185.6	189.6	196.6	209.1	225.2	244.9	269.4	300.8	344.1	398.9
130°	190.1	192.0	196.9	205.0	218.0	234.2	253.3	276.9	304.8	343.2	391.5
132.5°	195.1	197.5	203.4	212.5	225.9	242.1	261.3	283.3	309.2	343.2	385.6
135°	203.2	205.7	213.1	223.0	236.0	252.7	272.0	292.4	315.3	343.2	378.4
137.5°	213.3	215.2	222.1	232.0	244.8	262.0	279.5	299.0	320.8	343.9	372.2
140°	219.3	221.1	228.5	238.4	250.3	267.0	284.9	303.5	323.3	344.4	369.2
142.5°	226.2	227.6	234.5	244.4	255.7	271.4	288.4	306.0	324.8	344.9	366.7
145°	236.6	237.8	244.1	252.7	263.9	278.1	294.2	309.7	326.5	344.4	363.0
147.5°	247.5	248.3	253.6	261.7	271.3	283.8	297.9	312.0	327.0	342.8	359.1
150°	254.0	255.2	259.5	267.6	276.2	286.8	300.4	313.4	327.0	341.3	356.2
152.5°	260.9	261.7	265.5	272.5	280.7	290.3	302.9	314.4	326.5	339.3	352.7
155°	270.1	270.1	273.8	280.0	286.1	294.9	305.4	315.3	325.2	335.7	346.9
157.5°	278.2	278.1	281.1	286.4	291.8	298.4	307.4	315.9	323.6	332.0	341.4
160°	283.7	283.0	285.6	289.9	294.9	300.4	308.5	315.9	322.1	329.5	337.0
162.5°	288.1	287.6	290.0	293.8	297.8	302.4	309.4	315.4	320.6	326.5	333.0
165°	294.9	293.6	295.5	298.6	301.0	304.8	309.7	314.7	318.4	322.1	327.0
167.5°	299.3	298.7	299.8	301.5	303.2	305.6	309.7	313.1	314.9	317.7	321.2
170°	302.3	301.7	302.3	303.5	304.8	306.6	309.7	312.2	313.4	315.3	317.7
172.5°	304.3	303.2	303.7	305.0	305.7	306.6	309.2	311.2	311.4	312.3	314.3
175°	306.6	305.4	306.0	306.6	306.6	306.6	308.5	309.7	309.1	309.1	309.7
177.5°	307.7	306.7	306.7	307.2	306.7	306.7	307.7	308.2	307.2	307.2	307.7
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	760.8	760.8	760.8	760.8	760.8	760.8	760.8	760.8
2.5°	758.6	759.7	760.7	761.2	761.1	761.0	760.9	760.8
5°	754.8	756.0	757.2	757.7	757.6	757.5	757.3	757.2
7.5°	747.1	748.3	749.5	750.0	749.9	749.7	749.6	749.5
10°	740.7	741.7	742.8	743.3	743.1	743.0	742.8	742.8
12.5°	732.1	732.9	733.7	734.2	734.1	734.1	734.1	734.0
15°	717.0	717.6	718.4	718.7	718.7	718.7	718.7	718.7
17.5°	699.5	700.3	701.2	701.2	700.5	699.9	699.3	698.5
20°	686.2	687.1	688.1	688.2	687.5	686.9	686.2	685.6
22.5°	671.1	671.8	672.4	672.5	672.0	671.5	671.1	670.7
25°	647.0	647.2	647.5	647.5	647.1	646.7	646.3	645.9
27.5°	621.6	621.7	621.7	621.5	621.2	620.8	620.4	620.0
30°	603.2	602.9	602.6	602.3	601.9	601.5	601.1	600.7
32.5°	584.5	583.9	583.4	582.9	582.2	581.5	580.7	580.0
35°	555.4	554.8	554.1	553.2	552.2	551.0	550.0	548.9
37.5°	524.9	523.9	522.9	522.1	521.5	520.9	520.3	519.7
40°	503.7	502.6	501.4	500.6	500.2	499.8	499.4	499.0
42.5°	482.8	481.7	480.6	479.7	479.1	478.6	477.9	477.3
45°	451.8	450.2	448.6	447.6	447.2	446.8	446.4	446.0
47.5°	419.1	417.5	415.9	414.6	413.7	412.7	411.8	410.8
50°	396.8	395.1	393.3	392.0	391.0	390.1	389.1	388.2
52.5°	375.0	373.5	372.0	370.7	369.7	368.6	367.6	366.5
55°	341.3	340.1	338.9	337.8	336.8	335.9	335.0	334.1
57.5°	307.7	306.2	304.6	303.6	303.1	302.5	302.1	301.6
60°	285.0	283.7	282.3	281.2	280.3	279.3	278.4	277.5
62.5°	263.2	261.7	260.2	259.2	258.5	257.7	257.0	256.3
65°	228.7	227.5	226.3	225.5	224.9	224.3	223.9	223.3
67.5°	195.9	194.9	193.8	193.1	192.8	192.5	192.2	191.9
70°	174.1	173.3	172.5	171.9	171.3	170.8	170.2	169.8
72.5°	153.7	152.8	151.9	151.1	150.6	150.1	149.6	149.0
75°	122.0	121.6	121.2	120.7	120.2	119.6	119.1	118.6
77.5°	92.9	92.7	92.4	92.1	91.7	91.4	91.0	90.6
80°	74.4	74.2	74.1	73.9	73.6	73.4	73.1	72.8
82.5°	56.8	56.6	56.3	56.2	56.2	56.1	56.0	56.0
85°	33.4	33.3	33.2	33.0	32.7	32.4	32.2	31.9
87.5°	14.7	14.9	15.0	15.1	14.9	14.7	14.7	14.4
90°	11.2	11.8	12.4	13.6	13.6	13.6	14.3	14.3
92.5°	109.8	79.7	60.0	50.8	42.9	41.4	40.5	39.5
95°	445.4	351.2	275.0	223.0	179.0	160.4	155.5	145.5
97.5°	663.3	597.2	523.0	450.7	412.4	377.7	359.7	351.8
100°	761.8	731.5	667.7	603.3	560.5	515.9	493.1	483.2
102.5°	795.0	813.8	783.2	739.6	693.9	662.1	637.2	629.8
105°	775.5	860.4	887.6	880.8	860.9	840.5	828.1	820.7
107.5°	705.6	818.9	888.8	921.1	931.2	931.1	927.0	922.0
110°	654.1	771.7	859.1	911.7	939.6	951.4	955.8	955.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	613.5	725.2	813.5	875.6	916.3	936.5	947.3	951.8
115°	562.4	658.5	743.3	810.8	859.1	888.8	906.2	914.3
117.5°	529.5	612.2	685.3	747.3	795.6	826.2	843.5	848.4
120°	511.6	586.0	654.1	708.6	754.4	784.2	800.9	805.8
122.5°	498.3	567.1	627.8	678.9	719.8	747.0	763.7	768.2
125°	478.8	542.0	595.9	640.5	675.2	700.5	714.2	720.3
127.5°	459.0	517.9	568.2	610.0	641.4	663.8	676.8	679.5
130°	446.6	501.1	549.4	589.7	620.7	641.1	653.5	657.2
132.5°	434.2	485.2	529.1	567.8	598.8	619.2	630.7	634.9
135°	418.1	460.8	500.5	535.8	563.0	583.4	594.6	598.3
137.5°	404.5	439.0	472.0	501.9	526.4	544.9	555.2	559.4
140°	397.0	426.1	454.6	480.6	503.6	519.7	528.9	532.0
142.5°	390.6	415.3	439.7	462.3	481.8	495.4	504.2	506.8
145°	382.1	401.4	420.6	437.3	452.2	462.7	469.5	472.0
147.5°	374.2	389.8	404.6	417.2	429.0	437.4	441.4	442.5
150°	369.8	383.4	395.1	406.3	415.7	423.0	425.6	426.1
152.5°	364.8	377.0	387.8	396.4	404.3	410.2	412.6	413.3
155°	357.4	367.3	376.0	382.8	389.0	393.3	395.1	395.8
157.5°	350.0	358.1	364.8	370.2	375.0	378.6	380.3	380.2
160°	345.0	351.2	357.4	361.7	366.1	369.2	370.4	369.8
162.5°	339.5	345.2	350.5	354.3	357.7	360.2	360.5	360.4
165°	332.0	336.4	340.1	343.2	345.6	346.9	346.9	346.9
167.5°	324.8	327.6	330.5	332.7	334.0	335.1	334.6	334.5
170°	320.8	322.7	324.6	325.8	327.0	327.6	327.6	327.0
172.5°	316.4	318.2	319.6	320.4	320.6	321.7	320.8	320.1
175°	311.6	311.6	312.8	312.8	312.8	313.4	312.2	311.6
177.5°	308.2	308.7	308.7	308.7	308.2	308.7	307.2	307.2
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2

(END OF REPORT)