

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: P332916-927

Luminaire Tested: **S124RDIP-S575D1035U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332916-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-S575D1035U927-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5133.7 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

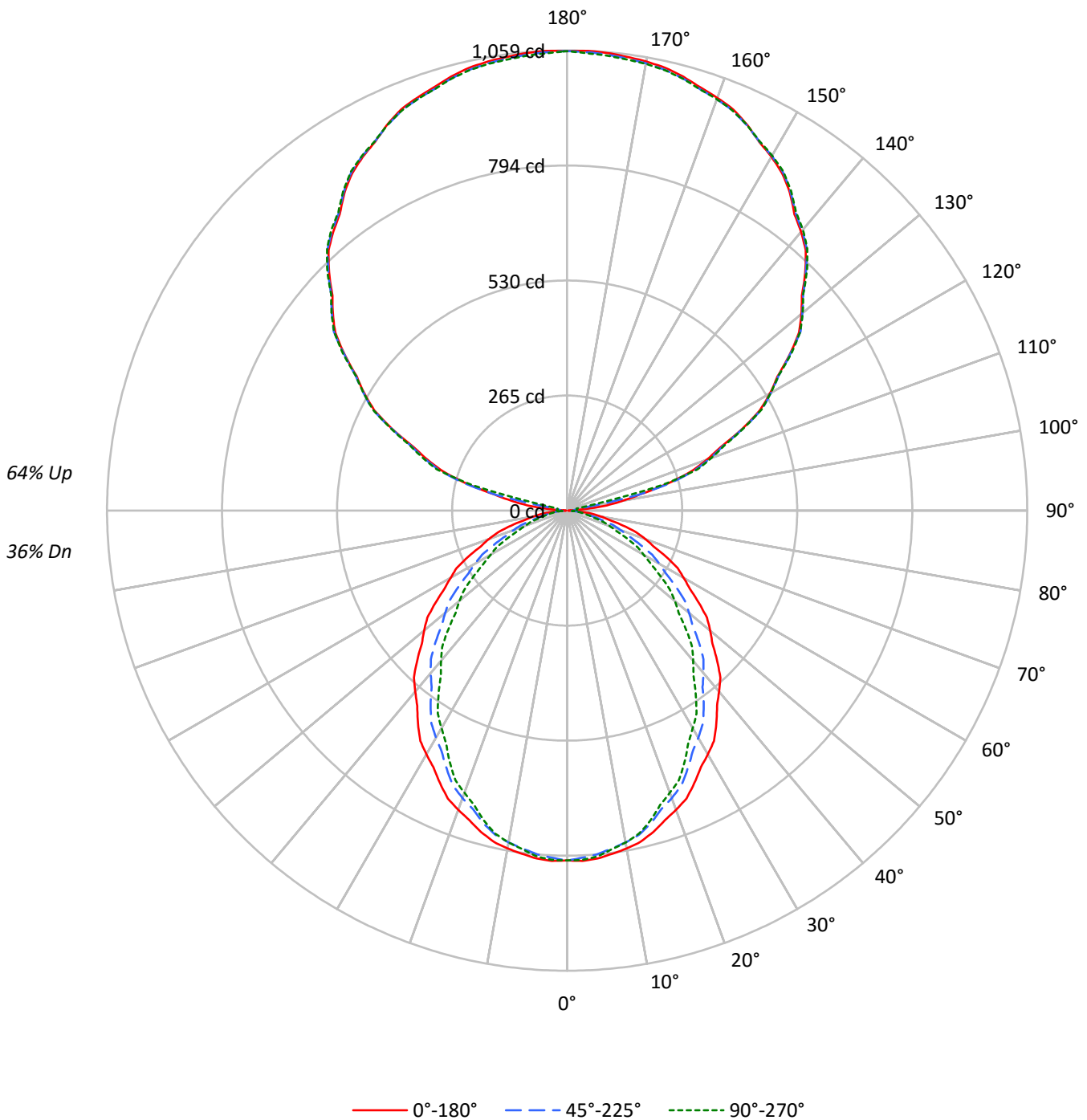
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36
1	95	91	87	84	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	87	79	74	69	78	72	67	63	59	55	52	46	44	41	34	33	32	26
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	31	29	27	22
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19
5	66	55	47	42	60	50	44	38	41	36	32	33	29	26	25	22	20	17
6	61	49	42	36	55	45	38	33	37	32	28	30	26	23	22	20	18	15
7	56	45	37	31	51	41	34	29	34	29	25	27	23	20	21	18	16	13
8	52	40	33	28	47	37	30	26	31	26	22	25	21	18	19	16	14	12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	16	17	15	13	11
10	45	34	27	22	41	31	25	21	26	21	18	21	17	15	16	14	12	10

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

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	1.5
10°-20°	210.9	4.1
20°-30°	304.5	5.9
30°-40°	345.2	6.7
40°-50°	333.3	6.5
50°-60°	277.2	5.4
60°-70°	191.4	3.7
70°-80°	97.0	1.9
80°-90°	27.9	0.5
90°-100°	36.2	0.7
100°-110°	230.6	4.5
110°-120°	441.1	8.6
120°-130°	559.9	10.9
130°-140°	599.1	11.7
140°-150°	560.2	10.9
150°-160°	451.8	8.8
160°-170°	291.4	5.7
170°-180°	100.4	2.0
0°-30°	591.0	11.5
0°-40°	936.2	18.2
0°-60°	1546.7	30.1
0°-90°	1863.1	36.3
90°-120°	707.8	13.8
90°-150°	2427.0	47.3
90°-180°	3271.0	63.7
0°-180°	5133.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	38
90°	2	11	17	22	24	4
95°	44	18	17	22	23	56
105°	238	243	247	252	225	249
115°	444	447	446	448	448	437
125°	625	628	626	629	630	558
135°	775	774	777	779	780	597
145°	894	896	896	897	898	558
155°	980	980	978	981	979	452
165°	1034	1030	1030	1035	1029	292
175°	1057	1053	1053	1060	1051	101
180°	1057	1057	1057	1057	1057	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.8	11.3	10.9	10.4	9.8	9.7	9.9	10.1	10.2	10.4	10.5
90°	2.4	4.3	6.3	8.2	10.1	11.8	13.2	14.6	16.0	17.4	18.5
92.5°	10.0	10.1	10.1	10.3	10.4	11.2	12.5	13.9	15.4	16.8	17.8
95°	43.5	37.5	31.5	25.6	19.6	16.7	16.9	17.0	17.2	17.4	18.5
97.5°	92.4	96.1	99.8	103.5	107.3	99.3	79.7	60.1	40.5	20.9	21.0
100°	129.7	132.8	136.0	139.2	142.4	131.8	107.6	83.3	59.0	34.8	31.8
102.5°	171.4	173.8	176.1	178.4	180.7	180.3	177.1	174.0	170.8	167.6	135.4
105°	238.1	239.1	240.1	241.2	242.2	243.2	244.1	244.9	245.9	246.8	248.3
107.5°	299.8	300.4	301.0	301.4	302.0	302.9	304.0	305.2	306.4	307.6	308.4
110°	341.7	342.1	342.7	343.2	343.7	344.5	345.5	346.7	347.7	348.7	349.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.1	383.1	384.0	385.0	386.0	386.7	387.1	387.6	388.1	388.6	388.6
115°	444.4	445.0	445.5	446.0	446.6	446.7	446.6	446.4	446.2	446.0	446.4
117.5°	500.6	501.3	502.0	502.7	503.4	503.9	504.3	504.7	505.1	505.5	505.4
120°	538.5	539.2	540.0	540.7	541.4	541.6	541.5	541.3	541.1	540.9	541.3
122.5°	573.9	574.4	574.8	575.2	575.7	576.0	576.2	576.5	576.7	576.9	577.2
125°	624.7	625.4	626.1	626.9	627.6	627.7	627.4	627.0	626.7	626.3	626.9
127.5°	672.8	673.0	673.2	673.4	673.5	674.0	674.9	675.7	676.4	677.2	677.2
130°	703.9	704.0	704.2	704.3	704.5	704.9	705.4	705.9	706.5	707.0	707.2
132.5°	732.3	732.6	732.9	733.2	733.6	734.0	734.7	735.4	736.0	736.7	736.9
135°	775.0	774.8	774.7	774.4	774.3	774.5	775.2	775.9	776.7	777.4	777.7
137.5°	812.8	812.9	812.9	813.0	813.1	813.5	814.3	815.1	815.8	816.6	817.0
140°	837.5	837.8	838.2	838.5	838.8	839.2	839.6	840.0	840.3	840.7	841.1
142.5°	859.6	860.2	860.9	861.5	862.1	862.5	862.8	863.0	863.2	863.4	863.8
145°	893.6	894.1	894.7	895.2	895.7	896.0	896.0	896.0	896.0	896.0	896.2
147.5°	920.7	921.6	922.7	923.6	924.6	925.0	924.8	924.6	924.5	924.3	924.5
150°	940.2	941.0	941.7	942.4	943.1	943.3	943.2	943.0	942.9	942.6	942.6
152.5°	956.7	957.3	957.8	958.4	958.9	959.1	958.8	958.5	958.1	957.8	958.1
155°	979.9	980.0	980.2	980.3	980.5	980.3	979.9	979.3	978.7	978.3	978.9
157.5°	999.3	999.2	999.0	998.9	998.9	998.5	997.9	997.3	996.7	996.1	997.0
160°	1010.7	1010.1	1009.6	1009.1	1008.5	1008.2	1008.1	1007.8	1007.7	1007.5	1008.5
162.5°	1020.8	1020.1	1019.5	1018.7	1018.1	1017.7	1017.5	1017.3	1017.2	1017.0	1018.0
165°	1033.6	1032.7	1031.8	1030.9	1030.1	1029.6	1029.6	1029.6	1029.6	1029.6	1031.0
167.5°	1043.7	1042.8	1041.9	1041.0	1040.1	1039.6	1039.4	1039.3	1039.3	1039.1	1040.7
170°	1049.4	1048.4	1047.3	1046.2	1045.2	1044.7	1044.9	1045.1	1045.3	1045.4	1046.9
172.5°	1053.2	1052.2	1051.1	1050.0	1049.0	1048.5	1048.7	1048.9	1049.1	1049.2	1050.7
175°	1057.3	1056.3	1055.2	1054.2	1053.1	1052.7	1052.8	1053.0	1053.2	1053.4	1054.9
177.5°	1059.2	1058.2	1057.2	1056.3	1055.3	1054.9	1055.2	1055.5	1055.7	1056.1	1057.2
180°	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	10.6	10.7	10.8	10.9	11.1	11.3	11.5	11.6
90°	19.5	20.6	21.6	22.3	22.7	23.1	23.4	23.7
92.5°	18.9	20.0	21.0	21.5	21.6	21.7	21.8	21.9
95°	19.5	20.6	21.6	22.3	22.4	22.6	22.7	22.9
97.5°	21.1	21.2	21.3	21.5	21.6	21.8	21.9	22.2
100°	28.8	25.8	22.8	21.5	21.6	21.8	21.9	22.2
102.5°	103.2	71.0	38.7	22.7	22.7	22.7	22.7	22.8
105°	249.9	251.4	253.0	250.7	244.4	238.1	231.7	225.4
107.5°	309.2	310.0	310.7	311.4	312.1	312.8	313.5	314.1
110°	349.4	349.8	350.1	350.6	351.1	351.6	352.2	352.7





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	388.5	388.4	388.3	388.6	389.3	390.0	390.6	391.3
115°	446.7	447.1	447.4	447.6	447.6	447.6	447.6	447.6
117.5°	505.3	505.3	505.2	505.2	505.1	505.0	504.9	504.9
120°	541.6	541.9	542.3	542.3	541.9	541.6	541.3	540.9
122.5°	577.4	577.6	577.8	577.7	577.4	577.0	576.7	576.3
125°	627.4	627.9	628.4	628.8	629.0	629.2	629.3	629.5
127.5°	677.1	676.9	676.8	676.7	676.6	676.4	676.3	676.1
130°	707.3	707.5	707.7	707.8	707.8	707.8	707.8	707.8
132.5°	737.0	737.3	737.4	737.4	737.3	737.1	737.0	736.9
135°	778.1	778.4	778.8	779.1	779.5	779.8	780.1	780.5
137.5°	817.4	817.8	818.2	818.2	818.2	818.1	817.9	817.8
140°	841.7	842.2	842.7	843.1	843.3	843.4	843.6	843.8
142.5°	864.2	864.6	865.0	865.1	865.2	865.2	865.3	865.3
145°	896.4	896.5	896.7	897.0	897.3	897.6	898.0	898.3
147.5°	924.6	924.7	924.9	925.0	925.2	925.3	925.6	925.7
150°	942.6	942.6	942.6	942.7	942.9	943.1	943.3	943.4
152.5°	958.4	958.7	958.9	959.0	958.9	958.9	958.7	958.6
155°	979.6	980.3	981.0	981.1	980.6	980.1	979.5	979.1
157.5°	997.9	998.9	999.7	999.7	998.9	997.9	997.0	996.1
160°	1009.6	1010.7	1011.7	1011.7	1010.7	1009.6	1008.5	1007.5
162.5°	1019.1	1020.2	1021.2	1021.1	1019.9	1018.7	1017.6	1016.4
165°	1032.5	1033.9	1035.2	1035.1	1033.6	1032.0	1030.4	1028.8
167.5°	1042.2	1043.8	1045.3	1045.2	1043.5	1041.7	1039.9	1038.2
170°	1048.3	1049.6	1051.1	1050.9	1049.2	1047.4	1045.6	1043.9
172.5°	1052.1	1053.4	1054.9	1054.6	1052.7	1050.8	1048.9	1047.0
175°	1056.5	1058.1	1059.7	1059.4	1057.3	1055.2	1053.1	1051.0
177.5°	1058.3	1059.4	1060.6	1060.3	1058.6	1056.9	1055.2	1053.5
180°	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3	1057.3

(END OF REPORT)