

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: P333221-927

Luminaire Tested: **S125DIP-S850D590U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333221-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S850D590U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4327.8 lumens
Efficiency: N/A
Efficacy: 107.4 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: Semi-Direct

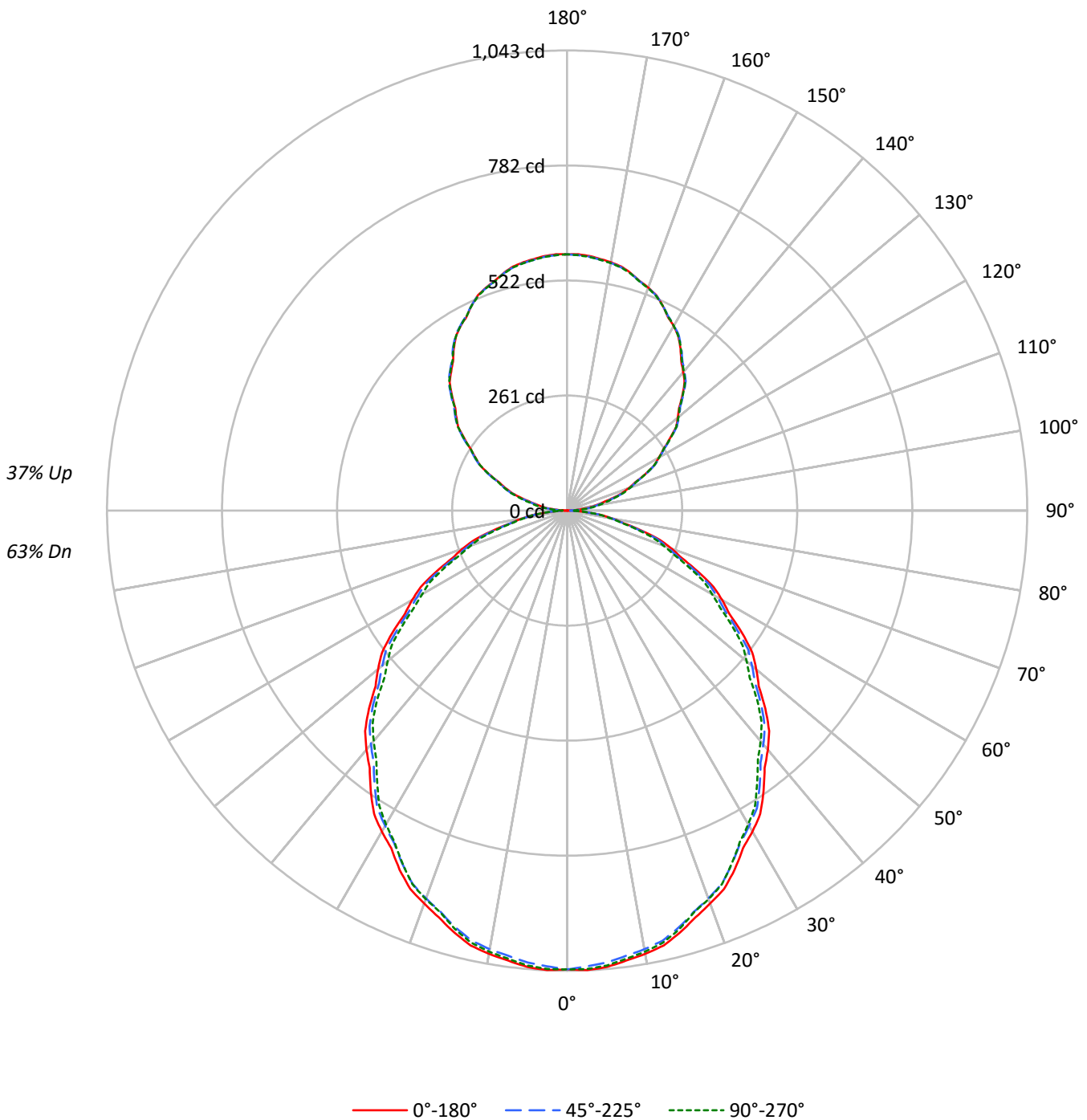
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90		79	79	79		68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74		69	67	65		60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61		61	57	54		52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52		54	49	46		46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44		48	43	39		42	38	35	32
5	70	58	50	44	66	55	47	42	49	43	38		43	38	34		37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33		39	34	30		34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29		35	30	27		31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26		32	27	24		29	25	22	19
9	52	39	32	26	49	37	30	25	33	28	23		30	25	21		26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21		28	23	19		24	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6716	6716	6716
5°	6731	6667	6710
10°	6690	6620	6658
15°	6618	6540	6568
20°	6514	6429	6441
25°	6402	6297	6291
30°	6264	6154	6123
35°	6117	6000	5916
40°	5966	5833	5751
45°	5802	5681	5569
50°	5621	5497	5332
55°	5447	5290	5141
60°	5239	5079	4899
65°	4991	4828	4664
70°	4755	4538	4381
75°	4332	4190	4045
80°	3857	3794	3704
85°	3349	3416	3231



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	2.3
10°-20°	277.0	6.4
20°-30°	409.0	9.4
30°-40°	477.2	11.0
40°-50°	479.3	11.1
50°-60°	420.7	9.7
60°-70°	313.5	7.2
70°-80°	179.3	4.1
80°-90°	53.4	1.2
90°-100°	38.9	0.9
100°-110°	114.9	2.7
110°-120°	194.5	4.5
120°-130°	256.0	5.9
130°-140°	286.9	6.6
140°-150°	281.2	6.5
150°-160°	236.2	5.5
160°-170°	157.0	3.6
170°-180°	54.9	1.3
0°-30°	784.0	18.1
0°-40°	1261.2	29.1
0°-60°	2161.2	49.9
0°-90°	2707.4	62.6
90°-120°	348.3	8.0
90°-150°	1172.4	27.1
90°-180°	1620.0	37.4
0°-180°	4327.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1038	1036	1028	1035	1035	98
15°	990	987	978	982	982	279
25°	898	894	884	885	883	413
35°	776	772	761	757	750	485
45°	635	631	622	612	610	489
55°	484	481	470	462	457	432
65°	327	325	316	309	305	324
75°	174	172	168	165	162	185
85°	45	46	46	45	44	51
90°	0	4	7	10	11	4
95°	29	30	35	38	39	31
105°	103	105	108	111	112	110
115°	195	197	198	197	197	193
125°	284	287	287	287	286	254
135°	370	372	373	373	371	285
145°	448	450	451	451	450	280
155°	512	512	513	514	512	236
165°	557	556	557	558	556	157
175°	579	578	578	580	577	55
180°	581	581	581	581	581	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1042.6	1042.1	1041.7	1041.2	1040.8	1039.8	1038.4	1037.0	1035.5	1034.0	1035.5
5°	1038.3	1037.9	1037.5	1037.2	1036.8	1035.7	1033.9	1032.1	1030.2	1028.4	1030.1
7.5°	1028.7	1028.4	1028.0	1027.6	1027.3	1026.1	1024.1	1022.1	1020.1	1018.0	1019.6
10°	1020.2	1019.9	1019.5	1019.1	1018.7	1017.6	1015.5	1013.5	1011.5	1009.5	1011.0
12.5°	1009.6	1009.0	1008.4	1007.7	1007.0	1005.8	1003.9	1002.0	1000.1	998.3	999.5
15°	989.8	989.2	988.6	988.1	987.5	986.3	984.3	982.2	980.2	978.2	979.1
17.5°	966.9	966.1	965.3	964.5	963.7	962.2	960.1	958.1	955.9	953.9	955.0
20°	947.8	947.5	947.1	946.7	946.3	944.9	942.5	940.2	937.8	935.4	936.8
22.5°	928.7	928.0	927.4	926.7	926.1	924.6	922.4	920.1	917.9	915.7	916.6
25°	898.4	897.5	896.6	895.6	894.8	893.1	890.7	888.4	886.0	883.6	884.0
27.5°	863.0	862.5	862.0	861.4	860.9	859.4	856.9	854.4	852.0	849.5	849.6
30°	840.0	839.5	838.9	838.4	837.8	836.1	833.5	830.7	827.9	825.2	824.8
32.5°	815.0	814.1	813.3	812.5	811.7	810.0	807.6	805.1	802.6	800.2	799.5
35°	775.9	775.1	774.4	773.6	772.9	771.3	768.7	766.1	763.6	761.0	760.1
37.5°	735.2	734.3	733.3	732.5	731.5	729.8	727.5	725.0	722.6	720.3	718.8
40°	707.6	706.6	705.8	704.8	703.9	702.2	699.6	697.0	694.5	691.9	690.3
42.5°	677.9	677.2	676.4	675.7	674.9	673.2	670.7	668.0	665.5	663.0	661.5
45°	635.2	634.4	633.7	633.0	632.2	630.7	628.6	626.4	624.2	622.0	619.8
47.5°	589.1	589.1	589.1	589.1	589.2	588.0	585.3	582.7	580.0	577.4	575.1
50°	559.4	558.9	558.3	557.8	557.3	555.9	553.7	551.5	549.3	547.1	544.7
52.5°	529.2	528.8	528.4	528.0	527.6	526.2	523.9	521.5	519.2	516.8	514.8
55°	483.8	483.2	482.7	482.1	481.6	480.0	477.4	474.9	472.3	469.8	468.1
57.5°	435.9	435.6	435.3	435.0	434.7	433.5	431.3	429.2	427.0	424.8	422.7
60°	405.6	404.9	404.2	403.4	402.7	401.3	399.3	397.3	395.3	393.2	391.4
62.5°	374.0	373.4	372.9	372.2	371.7	370.5	368.8	367.1	365.4	363.6	361.7
65°	326.6	326.2	325.9	325.5	325.2	324.0	321.9	320.0	317.9	315.9	314.3
67.5°	280.7	280.0	279.2	278.4	277.7	276.5	275.0	273.5	272.0	270.5	269.1
70°	251.8	250.8	249.9	249.0	248.1	246.8	245.2	243.5	241.9	240.3	239.2
72.5°	220.1	219.5	218.9	218.3	217.7	216.8	215.8	214.7	213.7	212.6	211.4
75°	173.6	173.3	172.9	172.5	172.1	171.5	170.6	169.7	168.7	167.9	167.3
77.5°	130.6	130.5	130.4	130.2	130.1	129.8	129.2	128.7	128.2	127.7	127.4
80°	103.7	103.7	103.7	103.7	103.7	103.5	103.1	102.7	102.3	102.0	101.9
82.5°	79.9	79.7	79.4	79.1	78.8	78.6	78.5	78.5	78.4	78.3	78.0
85°	45.2	45.5	45.6	45.8	45.9	46.1	46.1	46.1	46.1	46.1	45.9
87.5°	17.8	18.0	18.2	18.4	18.5	18.6	18.5	18.5	18.5	18.5	18.7
90°	0.5	1.3	2.1	2.9	3.6	4.4	5.1	5.9	6.5	7.2	7.8
92.5°	10.9	11.5	12.0	12.6	13.2	13.9	14.7	15.6	16.5	17.3	18.0
95°	29.4	29.5	29.8	29.9	30.2	30.8	31.8	32.8	33.8	34.8	35.5
97.5°	48.8	48.9	49.0	49.0	49.1	49.8	51.3	52.6	54.0	55.4	56.1
100°	63.3	63.3	63.3	63.3	63.3	63.9	65.2	66.5	67.8	69.2	70.0
102.5°	78.8	79.2	79.6	80.0	80.4	81.0	81.6	82.3	82.9	83.6	84.6
105°	103.1	103.5	104.0	104.6	105.0	105.6	106.2	106.8	107.4	108.0	108.6
107.5°	129.8	130.3	130.8	131.3	131.8	132.3	132.8	133.2	133.6	134.1	134.4
110°	148.2	148.7	149.2	149.7	150.3	150.7	150.9	151.2	151.5	151.9	152.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.0	167.3	167.5	167.8	168.1	168.4	168.8	169.1	169.5	169.9	170.1
115°	194.8	195.2	195.6	196.0	196.4	196.7	196.9	197.1	197.3	197.5	197.4
117.5°	222.6	222.8	223.0	223.2	223.3	223.6	223.7	223.9	224.0	224.3	224.3
120°	240.0	240.5	241.0	241.5	242.0	242.2	242.4	242.5	242.6	242.6	242.6
122.5°	258.8	259.0	259.1	259.3	259.5	259.7	260.0	260.2	260.5	260.8	260.7
125°	284.2	284.9	285.4	286.1	286.7	287.0	287.1	287.2	287.3	287.4	287.2
127.5°	311.4	311.7	312.0	312.4	312.8	313.0	313.1	313.2	313.3	313.5	313.4
130°	327.6	328.1	328.7	329.2	329.6	330.0	330.2	330.4	330.6	330.8	330.7
132.5°	343.9	344.8	345.5	346.3	347.2	347.6	347.5	347.5	347.5	347.5	347.4
135°	369.6	370.3	370.9	371.5	372.1	372.4	372.6	372.6	372.7	372.8	372.8
137.5°	393.9	394.5	395.1	395.6	396.2	396.6	396.9	397.0	397.3	397.5	397.6
140°	409.4	410.0	410.4	410.9	411.5	411.9	412.2	412.5	412.7	413.0	413.3
142.5°	425.0	425.4	425.8	426.3	426.7	427.1	427.5	427.9	428.3	428.6	428.7
145°	447.8	448.2	448.7	449.1	449.5	449.8	450.1	450.4	450.8	451.0	451.0
147.5°	469.0	469.2	469.4	469.7	469.9	470.1	470.3	470.6	470.9	471.1	471.3
150°	483.1	483.0	482.9	482.8	482.7	482.8	483.2	483.6	484.0	484.4	484.4
152.5°	494.6	494.8	495.0	495.1	495.2	495.4	495.5	495.7	495.8	496.1	496.3
155°	512.5	512.5	512.5	512.5	512.5	512.5	512.6	512.7	512.9	512.9	513.3
157.5°	528.4	528.1	527.9	527.8	527.5	527.4	527.5	527.7	527.8	527.8	528.2
160°	537.8	537.5	537.2	536.9	536.5	536.5	536.5	536.7	536.8	536.9	537.3
162.5°	546.1	545.9	545.7	545.4	545.2	545.1	545.1	545.2	545.2	545.2	545.7
165°	557.2	557.0	556.8	556.6	556.4	556.3	556.4	556.6	556.7	556.7	557.1
167.5°	566.6	566.3	565.8	565.4	565.0	564.8	564.8	564.8	564.8	564.8	565.4
170°	571.6	571.2	570.8	570.5	570.1	569.9	569.9	569.9	569.9	569.9	570.5
172.5°	575.3	574.9	574.5	574.1	573.7	573.5	573.5	573.5	573.5	573.5	574.1
175°	579.3	578.9	578.5	578.1	577.7	577.6	577.6	577.6	577.6	577.6	578.1
177.5°	581.5	581.1	580.8	580.5	580.1	580.0	579.9	579.8	579.7	579.6	580.1
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1037.0	1038.4	1039.8	1040.5	1040.4	1040.2	1040.1	1039.9
5°	1031.7	1033.3	1035.0	1035.7	1035.5	1035.4	1035.1	1035.0
7.5°	1021.3	1022.9	1024.5	1025.2	1025.0	1024.8	1024.6	1024.5
10°	1012.4	1013.9	1015.3	1016.0	1015.8	1015.6	1015.4	1015.3
12.5°	1000.6	1001.8	1003.0	1003.5	1003.5	1003.5	1003.5	1003.4
15°	980.1	981.0	981.9	982.3	982.3	982.3	982.3	982.3
17.5°	956.2	957.3	958.4	958.5	957.6	956.7	955.8	954.9
20°	938.0	939.3	940.6	940.7	939.8	938.9	938.0	937.1
22.5°	917.3	918.2	919.1	919.2	918.5	917.9	917.3	916.7
25°	884.3	884.7	885.1	884.9	884.5	883.9	883.4	882.8
27.5°	849.7	849.8	849.9	849.6	849.1	848.5	848.0	847.4
30°	824.5	824.1	823.7	823.3	822.8	822.2	821.7	821.1
32.5°	798.8	798.2	797.6	796.7	795.7	794.7	793.8	792.8
35°	759.2	758.3	757.4	756.2	754.7	753.3	751.8	750.4
37.5°	717.5	716.1	714.8	713.7	712.9	712.0	711.2	710.3
40°	688.6	687.0	685.3	684.2	683.7	683.2	682.6	682.1
42.5°	660.0	658.5	657.0	655.8	655.0	654.1	653.2	652.4
45°	617.6	615.4	613.2	611.8	611.3	610.8	610.2	609.7
47.5°	572.9	570.7	568.5	566.7	565.5	564.2	562.8	561.6
50°	542.3	540.0	537.6	535.8	534.5	533.2	532.0	530.7
52.5°	512.7	510.6	508.5	506.8	505.3	503.9	502.5	501.1
55°	466.5	464.9	463.2	461.8	460.4	459.1	457.9	456.6
57.5°	420.6	418.5	416.4	414.9	414.2	413.6	412.9	412.2
60°	389.6	387.8	386.0	384.4	383.1	381.8	380.6	379.3
62.5°	359.7	357.7	355.8	354.3	353.3	352.3	351.3	350.3
65°	312.7	311.0	309.3	308.2	307.4	306.7	305.9	305.2
67.5°	267.8	266.3	265.0	264.0	263.6	263.2	262.7	262.3
70°	238.1	236.9	235.8	235.0	234.2	233.5	232.7	232.0
72.5°	210.1	208.9	207.6	206.6	205.9	205.2	204.5	203.7
75°	166.8	166.2	165.6	165.0	164.3	163.5	162.8	162.1
77.5°	127.1	126.7	126.4	126.0	125.4	124.9	124.5	123.9
80°	101.6	101.5	101.3	101.0	100.7	100.3	99.9	99.6
82.5°	77.6	77.3	77.0	76.8	76.8	76.7	76.6	76.5
85°	45.7	45.6	45.3	45.1	44.7	44.4	44.0	43.6
87.5°	18.8	18.9	18.9	18.9	18.7	18.5	18.2	18.0
90°	8.2	8.7	9.3	9.7	10.0	10.2	10.5	10.9
92.5°	18.7	19.3	20.0	20.4	20.7	20.9	21.1	21.3
95°	36.2	36.9	37.6	38.0	38.3	38.5	38.7	38.9
97.5°	56.7	57.4	58.1	58.5	58.5	58.7	58.8	58.9
100°	71.0	71.9	72.7	73.3	73.5	73.8	73.9	74.1
102.5°	85.6	86.6	87.5	88.2	88.5	88.7	89.0	89.3
105°	109.2	109.8	110.4	110.9	111.1	111.5	111.8	112.1
107.5°	134.8	135.1	135.3	135.5	135.5	135.5	135.4	135.4
110°	152.4	152.7	153.0	153.1	153.0	153.0	152.8	152.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.2	170.3	170.5	170.5	170.3	170.1	169.9	169.8
115°	197.3	197.2	197.1	197.0	196.9	196.8	196.7	196.6
117.5°	224.4	224.5	224.6	224.4	224.0	223.6	223.2	222.8
120°	242.6	242.6	242.6	242.5	242.1	241.7	241.3	240.9
122.5°	260.6	260.5	260.5	260.2	259.9	259.6	259.3	259.0
125°	287.0	286.8	286.6	286.5	286.4	286.3	286.1	286.1
127.5°	313.2	313.1	313.1	312.9	312.7	312.5	312.3	312.1
130°	330.6	330.5	330.4	330.3	330.0	329.9	329.6	329.5
132.5°	347.2	347.1	347.1	346.8	346.6	346.3	346.0	345.7
135°	372.8	372.8	372.8	372.6	372.2	371.9	371.5	371.1
137.5°	397.8	397.8	398.0	397.8	397.3	396.8	396.3	395.8
140°	413.4	413.7	413.8	413.7	413.2	412.7	412.2	411.7
142.5°	428.8	429.0	429.0	428.9	428.4	427.9	427.4	426.9
145°	451.0	451.0	451.0	450.8	450.6	450.3	450.0	449.6
147.5°	471.6	471.8	472.1	471.8	471.1	470.5	469.8	469.1
150°	484.4	484.4	484.4	484.3	484.2	483.9	483.8	483.5
152.5°	496.5	496.8	497.0	496.9	496.5	496.2	495.8	495.5
155°	513.7	514.1	514.5	514.5	514.0	513.5	512.9	512.5
157.5°	528.6	529.0	529.4	529.3	528.6	528.0	527.4	526.6
160°	537.7	538.1	538.4	538.4	538.0	537.4	536.9	536.5
162.5°	546.1	546.6	547.2	547.1	546.5	545.9	545.3	544.7
165°	557.5	557.9	558.4	558.3	557.7	557.1	556.4	555.9
167.5°	566.0	566.6	567.2	567.2	566.6	565.9	565.3	564.7
170°	571.1	571.6	572.3	572.2	571.6	570.8	570.1	569.4
172.5°	574.7	575.3	575.9	575.9	575.3	574.6	574.0	573.4
175°	578.8	579.3	580.0	579.9	579.2	578.5	577.8	577.1
177.5°	580.6	581.1	581.5	581.5	581.0	580.4	579.8	579.2
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7

(END OF REPORT)