

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: P332584

Luminaire Tested: **SA4XXDIP-C795D365U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332584  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C795D365U835-4F0-1E-UDD-D1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4507.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 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

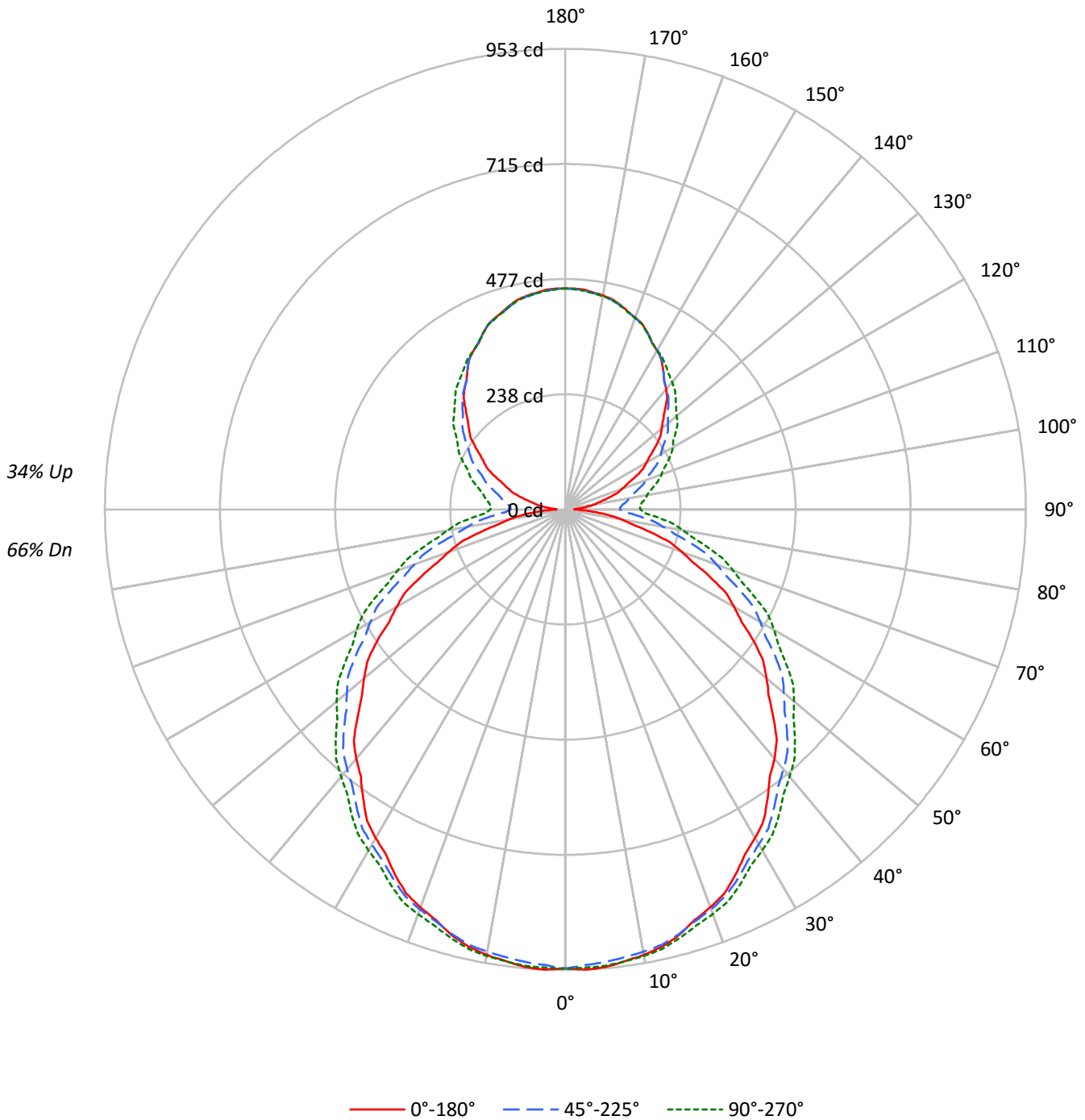
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0	
RCR																						
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66				
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	58	53				
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47	43				
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40	36				
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31				
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26				
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23				
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20				
8	54	41	33	28	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	45	33	26	21	30	24	20	27	22	18	24	20	16	15				

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

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	2.0
10°-20°	257.7	5.7
20°-30°	389.7	8.6
30°-40°	471.5	10.5
40°-50°	498.5	11.1
50°-60°	469.1	10.4
60°-70°	389.2	8.6
70°-80°	273.4	6.1
80°-90°	155.9	3.5
90°-100°	121.9	2.7
100°-110°	157.2	3.5
110°-120°	197.1	4.4
120°-130°	225.5	5.0
130°-140°	235.5	5.2
140°-150°	222.7	4.9
150°-160°	185.5	4.1
160°-170°	123.4	2.7
170°-180°	43.2	1.0
0°-30°	737.4	16.4
0°-40°	1208.8	26.8
0°-60°	2176.4	48.3
0°-90°	2994.9	66.5
90°-120°	476.2	10.6
90°-150°	1160.0	25.7
90°-180°	1512.0	33.5
0°-180°	4507.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	18	65	113	145	155	13
95°	35	74	119	148	159	35
105°	92	115	154	181	192	98
115°	160	171	203	226	234	159
125°	229	229	254	273	279	204
135°	292	294	301	317	323	226
145°	353	353	353	359	363	221
155°	403	403	402	404	402	185
165°	438	438	437	439	438	124
175°	456	454	454	456	454	43
180°	457	457	457	457	457	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	31.7	41.5	51.3	61.1	71.0	81.1	91.6	102.1	112.5	123.0	130.0
90°	18.1	28.4	38.7	49.0	59.4	69.9	80.7	91.5	102.3	113.1	120.4
92.5°	23.7	33.2	42.7	52.2	61.7	71.8	82.4	93.0	103.6	114.2	121.1
95°	35.0	43.5	52.0	60.6	69.1	78.4	88.7	98.9	109.2	119.4	126.0
97.5°	49.6	56.9	64.1	71.4	78.7	87.5	97.7	107.9	118.2	128.4	134.9
100°	61.2	67.6	74.1	80.6	87.0	95.2	105.1	115.1	125.0	134.9	141.4
102.5°	74.2	79.7	85.2	90.7	96.2	103.8	113.5	123.2	132.8	142.5	148.9
105°	91.9	96.7	101.5	106.3	111.1	118.1	127.1	136.2	145.2	154.3	160.4
107.5°	112.5	116.5	120.5	124.5	128.4	134.6	142.9	151.2	159.5	167.9	173.9
110°	125.8	129.3	132.8	136.2	139.7	145.5	153.7	161.9	170.1	178.3	183.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	139.7	142.6	145.6	148.6	151.5	156.9	164.6	172.4	180.1	187.9	193.1
115°	160.4	162.6	164.7	166.8	169.0	173.7	181.1	188.5	195.9	203.4	208.5
117.5°	181.0	182.4	183.7	185.0	186.4	190.5	197.4	204.4	211.3	218.2	222.9
120°	194.0	195.0	196.1	197.1	198.1	201.9	208.5	215.2	221.8	228.4	232.7
122.5°	208.4	208.7	209.0	209.2	209.5	212.8	219.2	225.6	231.9	238.3	242.7
125°	228.6	228.4	228.2	227.9	227.7	230.5	236.3	242.2	248.0	253.8	258.2
127.5°	247.7	247.7	247.7	247.7	247.7	249.9	254.3	258.8	263.2	267.6	271.7
130°	260.4	260.4	260.4	260.4	260.4	262.3	266.1	269.9	273.7	277.5	281.6
132.5°	274.3	274.2	274.2	274.1	274.0	275.5	278.5	281.4	284.4	287.3	291.2
135°	291.5	292.0	292.5	292.9	293.4	294.5	296.1	297.8	299.4	301.1	304.7
137.5°	311.5	311.4	311.4	311.4	311.4	311.9	312.8	313.7	314.6	315.6	318.8
140°	324.8	324.7	324.6	324.5	324.4	324.5	324.7	325.0	325.2	325.5	328.5
142.5°	336.1	336.2	336.3	336.4	336.5	336.4	336.2	336.0	335.8	335.6	338.3
145°	352.7	352.7	352.8	352.9	353.0	353.1	353.1	353.2	353.3	353.4	354.7
147.5°	369.3	369.5	369.6	369.8	369.9	369.9	369.9	369.8	369.8	369.7	369.8
150°	379.5	379.6	379.7	379.8	379.8	379.9	379.9	379.9	379.9	379.9	379.9
152.5°	388.3	388.4	388.6	388.7	388.8	388.9	389.0	389.1	389.1	389.2	389.4
155°	402.8	402.8	402.8	402.8	402.8	402.8	402.7	402.6	402.6	402.5	402.8
157.5°	415.3	415.1	415.0	414.9	414.7	414.6	414.6	414.6	414.6	414.6	414.8
160°	422.6	422.5	422.5	422.4	422.3	422.2	422.2	422.1	422.0	421.9	422.2
162.5°	429.4	429.2	429.0	428.8	428.6	428.5	428.4	428.3	428.2	428.1	428.6
165°	438.5	438.3	438.1	437.8	437.6	437.4	437.2	437.1	436.9	436.8	437.2
167.5°	445.5	445.2	444.9	444.5	444.2	444.0	444.1	444.1	444.1	444.1	444.6
170°	449.5	449.1	448.7	448.3	447.9	447.8	447.8	447.9	448.0	448.1	448.5
172.5°	452.3	452.0	451.6	451.3	451.0	450.8	450.8	450.9	450.9	450.9	451.4
175°	456.2	455.8	455.4	455.0	454.6	454.4	454.3	454.2	454.2	454.1	454.6
177.5°	457.5	457.2	456.8	456.5	456.2	456.1	456.1	456.1	456.1	456.1	456.5
180°	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	136.9	143.9	150.8	155.4	157.5	159.6	161.7	163.8
90°	127.7	135.1	142.4	147.1	149.1	151.2	153.2	155.3
92.5°	128.1	135.0	142.0	146.5	148.4	150.4	152.4	154.4
95°	132.6	139.2	145.9	150.2	152.4	154.5	156.6	158.7
97.5°	141.4	147.8	154.3	158.6	160.6	162.6	164.7	166.7
100°	148.0	154.5	161.1	165.2	166.8	168.5	170.1	171.8
102.5°	155.3	161.8	168.2	172.3	174.2	176.1	178.1	180.0
105°	166.6	172.7	178.9	183.0	185.1	187.3	189.4	191.5
107.5°	179.9	186.0	192.0	195.9	197.5	199.2	200.9	202.6
110°	188.9	194.1	199.4	203.1	205.2	207.4	209.5	211.6





TEST NUMBER: P332584

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	198.3	203.5	208.8	212.3	214.3	216.2	218.2	220.1
115°	213.6	218.7	223.8	227.2	228.8	230.3	231.9	233.5
117.5°	227.5	232.2	236.8	240.0	241.8	243.5	245.2	247.0
120°	237.1	241.4	245.7	248.9	251.0	253.0	255.1	257.1
122.5°	247.2	251.7	256.1	259.1	260.5	261.9	263.3	264.7
125°	262.5	266.8	271.2	274.0	275.2	276.5	277.7	279.0
127.5°	275.8	279.9	284.0	286.8	288.2	289.7	291.2	292.7
130°	285.7	289.7	293.8	296.4	297.6	298.7	299.8	300.9
132.5°	295.2	299.1	303.0	305.6	306.9	308.2	309.5	310.7
135°	308.3	312.0	315.6	318.0	319.2	320.4	321.6	322.7
137.5°	322.1	325.3	328.6	330.8	332.0	333.3	334.5	335.7
140°	331.4	334.4	337.4	339.5	340.6	341.7	342.8	343.9
142.5°	341.0	343.7	346.3	348.2	349.1	350.1	351.1	352.1
145°	356.0	357.4	358.7	359.7	360.5	361.2	361.9	362.6
147.5°	369.9	370.1	370.2	370.6	371.3	372.0	372.6	373.3
150°	379.9	379.9	379.9	379.8	379.8	379.7	379.6	379.5
152.5°	389.6	389.8	390.0	389.9	389.7	389.5	389.3	389.1
155°	403.1	403.4	403.7	403.7	403.4	403.1	402.8	402.5
157.5°	415.0	415.3	415.5	415.5	415.2	415.0	414.7	414.4
160°	422.4	422.6	422.9	422.8	422.4	422.0	421.6	421.2
162.5°	429.0	429.4	429.8	429.8	429.5	429.1	428.7	428.3
165°	437.7	438.2	438.6	438.7	438.4	438.1	437.8	437.5
167.5°	445.1	445.5	446.0	446.0	445.5	445.0	444.5	444.0
170°	449.0	449.5	450.0	449.9	449.4	448.8	448.3	447.7
172.5°	452.0	452.5	453.0	453.0	452.5	451.9	451.4	450.8
175°	455.2	455.7	456.3	456.3	455.7	455.2	454.6	454.1
177.5°	456.9	457.4	457.8	457.8	457.3	456.8	456.3	455.8
180°	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9

(END OF REPORT)