

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: P333231-930

Luminaire Tested: **S125DIP-S850D810U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333231-930
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-S850D810U930-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 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: 5158.0 lumens
Efficiency: N/A
Efficacy: 112.4 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: General Diffuse

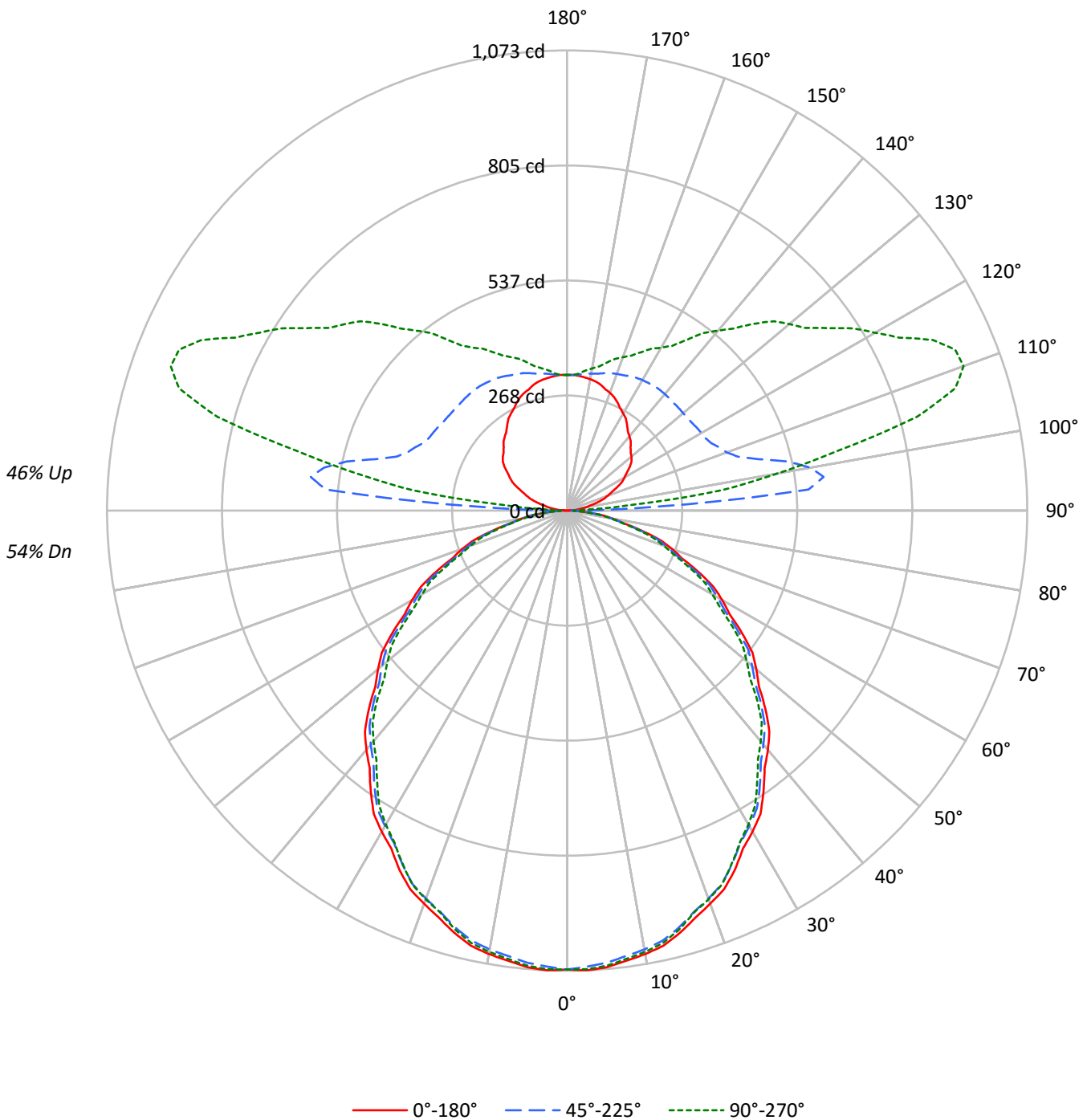
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	72	70	63	62	60	53	52	50	45
2	90	82	76	71	83	76	71	66	66	62	58	56	53	50	46	44	42	38
3	82	72	65	59	76	67	61	55	58	53	49	49	45	42	41	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	44	40	36	37	34	31	28
5	69	57	49	43	63	53	46	40	46	40	36	39	35	31	33	30	27	24
6	63	51	43	37	59	48	40	35	41	36	31	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19
8	54	42	34	29	50	39	32	27	34	29	25	30	25	22	25	22	19	17
9	51	38	31	26	47	36	29	24	31	26	22	27	23	20	23	20	17	15
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.0
10°-20°	285.1	5.5
20°-30°	420.9	8.2
30°-40°	491.1	9.5
40°-50°	493.3	9.6
50°-60°	433.0	8.4
60°-70°	322.6	6.3
70°-80°	184.5	3.6
80°-90°	55.4	1.1
90°-100°	229.2	4.4
100°-110°	492.7	9.6
110°-120°	462.4	9.0
120°-130°	374.7	7.3
130°-140°	300.7	5.8
140°-150°	226.9	4.4
150°-160°	159.7	3.1
160°-170°	94.2	1.8
170°-180°	30.6	0.6
0°-30°	806.9	15.6
0°-40°	1298.0	25.2
0°-60°	2224.3	43.1
0°-90°	2786.8	54.0
90°-120°	1184.3	23.0
90°-150°	2086.6	40.5
90°-180°	2371.0	46.0
0°-180°	5158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	1	6	10	13	15	4
95°	21	62	565	256	150	22
105°	72	101	462	910	845	76
115°	129	155	371	800	941	127
125°	178	209	356	636	741	158
135°	209	252	353	533	616	162
145°	244	279	354	441	486	153
155°	278	299	346	390	407	128
165°	304	312	332	352	357	85
175°	316	316	318	322	321	30
180°	316	316	316	316	316	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.4	18.5	18.8	19.1	19.3	19.5	19.5	19.6	19.6	19.6	19.8
90°	0.7	1.3	2.5	3.8	5.1	6.4	7.0	8.3	8.9	10.2	10.8
92.5°	7.7	9.5	14.8	22.7	33.7	52.3	87.1	145.4	208.8	205.5	166.4
95°	21.0	21.7	26.7	33.8	47.8	76.5	144.7	284.9	460.9	564.8	552.7
97.5°	34.9	35.7	39.3	46.3	58.9	79.6	124.7	227.5	411.6	603.2	699.3
100°	44.6	45.9	48.4	55.4	67.6	86.7	123.7	206.5	367.2	575.7	735.0
102.5°	55.4	56.1	58.1	65.6	76.7	95.4	128.2	197.9	333.5	527.2	713.6
105°	72.1	72.1	75.3	81.6	91.8	109.7	137.7	194.4	300.9	462.2	645.1
107.5°	88.4	89.6	92.7	97.9	108.5	124.6	151.7	200.3	287.1	417.4	575.3
110°	100.1	101.3	103.9	109.7	119.2	135.7	161.9	205.9	283.1	396.5	535.5



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CATALOG NUMBER: S125DIP-S850D810U930-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	111.8	113.1	115.1	120.8	130.4	146.5	171.6	213.0	283.1	384.3	505.9
115°	128.7	130.0	132.0	137.7	147.2	163.2	186.8	223.7	284.9	371.0	473.6
117.5°	144.1	146.0	148.1	153.8	164.6	180.0	202.4	236.0	289.2	364.5	454.4
120°	154.3	156.2	158.7	164.4	175.3	191.3	213.5	244.2	293.3	361.4	443.7
122.5°	165.0	166.4	168.4	174.1	186.1	201.9	224.3	253.3	296.8	358.9	434.5
125°	178.5	179.8	183.0	188.7	200.8	217.4	238.4	265.8	302.8	355.7	422.0
127.5°	189.1	191.0	195.1	202.4	215.2	231.8	252.1	277.3	309.6	354.2	410.5
130°	195.7	197.6	202.7	211.0	224.4	241.0	260.7	284.9	313.6	353.2	402.9
132.5°	200.8	203.3	209.4	218.7	232.5	249.2	268.9	291.6	318.2	353.2	396.8
135°	209.1	211.7	219.3	229.5	242.9	260.1	279.9	300.9	324.5	353.2	389.5
137.5°	219.6	221.4	228.6	238.8	251.9	269.6	287.6	307.8	330.2	353.9	383.0
140°	225.7	227.6	235.2	245.4	257.6	274.8	293.3	312.3	332.7	354.4	379.9
142.5°	232.8	234.2	241.3	251.5	263.2	279.3	296.8	315.0	334.3	355.0	377.4
145°	243.5	244.8	251.2	260.1	271.6	286.3	302.8	318.7	336.0	354.4	373.6
147.5°	254.7	255.5	261.0	269.3	279.2	292.1	306.6	321.1	336.6	352.8	369.6
150°	261.4	262.6	267.1	275.4	284.3	295.1	309.2	322.5	336.6	351.2	366.6
152.5°	268.5	269.3	273.2	280.5	288.9	298.7	311.7	323.6	336.1	349.2	363.0
155°	277.9	277.9	281.8	288.1	294.5	303.5	314.3	324.5	334.7	345.5	357.0
157.5°	286.3	286.3	289.3	294.7	300.4	307.1	316.4	325.1	333.0	341.7	351.4
160°	292.0	291.3	293.9	298.3	303.5	309.2	317.5	325.1	331.5	339.2	346.8
162.5°	296.5	296.0	298.5	302.4	306.5	311.2	318.5	324.6	330.0	336.1	342.7
165°	303.5	302.1	304.1	307.3	309.8	313.6	318.7	323.8	327.7	331.5	336.6
167.5°	308.0	307.4	308.5	310.3	312.1	314.5	318.7	322.3	324.1	327.0	330.6
170°	311.1	310.5	311.1	312.3	313.6	315.5	318.7	321.3	322.5	324.5	327.0
172.5°	313.2	312.0	312.6	313.9	314.6	315.5	318.2	320.2	320.5	321.4	323.4
175°	315.5	314.3	315.0	315.5	315.5	315.5	317.5	318.7	318.1	318.1	318.7
177.5°	316.7	315.7	315.7	316.2	315.7	315.7	316.7	317.2	316.2	316.2	316.7
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	19.9	20.1	20.1	20.3	20.0	19.6	19.5	19.2
90°	11.5	12.1	12.7	14.0	14.0	14.0	14.7	14.7
92.5°	113.0	82.0	61.7	52.3	44.1	42.6	41.7	40.7
95°	458.4	361.4	283.1	229.5	184.3	165.1	160.0	149.8
97.5°	682.7	614.7	538.3	463.8	424.4	388.7	370.2	362.1
100°	784.1	752.8	687.2	620.9	576.9	531.0	507.4	497.3
102.5°	818.2	837.6	806.0	761.2	714.1	681.4	655.8	648.2
105°	798.1	885.5	913.5	906.5	886.1	865.0	852.3	844.7
107.5°	726.2	842.8	914.8	948.0	958.4	958.2	954.1	948.9
110°	673.2	794.3	884.2	938.3	967.0	979.2	983.7	983.7



TEST NUMBER: P333231-930

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	631.4	746.3	837.2	901.2	943.1	963.8	974.9	979.6
115°	578.9	677.7	765.0	834.5	884.2	914.8	932.6	940.9
117.5°	544.9	630.1	705.3	769.1	818.8	850.4	868.1	873.2
120°	526.5	603.1	673.2	729.3	776.4	807.1	824.3	829.3
122.5°	512.8	583.7	646.1	698.7	740.8	768.8	786.0	790.6
125°	492.8	557.8	613.3	659.2	694.9	721.0	735.0	741.4
127.5°	472.4	533.0	584.8	627.8	660.1	683.2	696.5	699.3
130°	459.6	515.8	565.4	606.9	638.8	659.8	672.5	676.4
132.5°	446.9	499.4	544.5	584.4	616.3	637.3	649.1	653.4
135°	430.3	474.3	515.1	551.4	579.4	600.5	612.0	615.8
137.5°	416.3	451.8	485.8	516.6	541.8	560.8	571.4	575.7
140°	408.6	438.5	467.9	494.6	518.3	534.8	544.4	547.6
142.5°	402.0	427.4	452.6	475.8	495.9	509.9	518.9	521.5
145°	393.3	413.1	432.8	450.0	465.4	476.2	483.2	485.8
147.5°	385.1	401.2	416.4	429.4	441.5	450.2	454.3	455.4
150°	380.6	394.6	406.7	418.2	427.8	435.4	438.0	438.5
152.5°	375.4	388.0	399.1	408.0	416.0	422.2	424.7	425.3
155°	367.9	378.1	386.9	394.0	400.3	404.8	406.7	407.3
157.5°	360.2	368.6	375.4	381.0	386.0	389.6	391.4	391.3
160°	355.1	361.4	367.9	372.3	376.7	379.9	381.2	380.6
162.5°	349.4	355.3	360.7	364.6	368.1	370.7	371.0	370.9
165°	341.7	346.2	350.0	353.2	355.7	357.0	357.0	357.0
167.5°	334.3	337.2	340.1	342.4	343.7	344.9	344.4	344.2
170°	330.2	332.2	334.0	335.3	336.6	337.2	337.2	336.6
172.5°	325.6	327.5	329.0	329.7	330.0	331.1	330.1	329.5
175°	320.7	320.7	322.0	322.0	322.0	322.5	321.3	320.7
177.5°	317.2	317.7	317.7	317.7	317.2	317.7	316.2	316.2
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2

(END OF REPORT)