

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: P333439-927

Luminaire Tested: **S125DIW-S1090D770U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333439-927
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: S125DIW-S1090D770U927-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5488.9 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

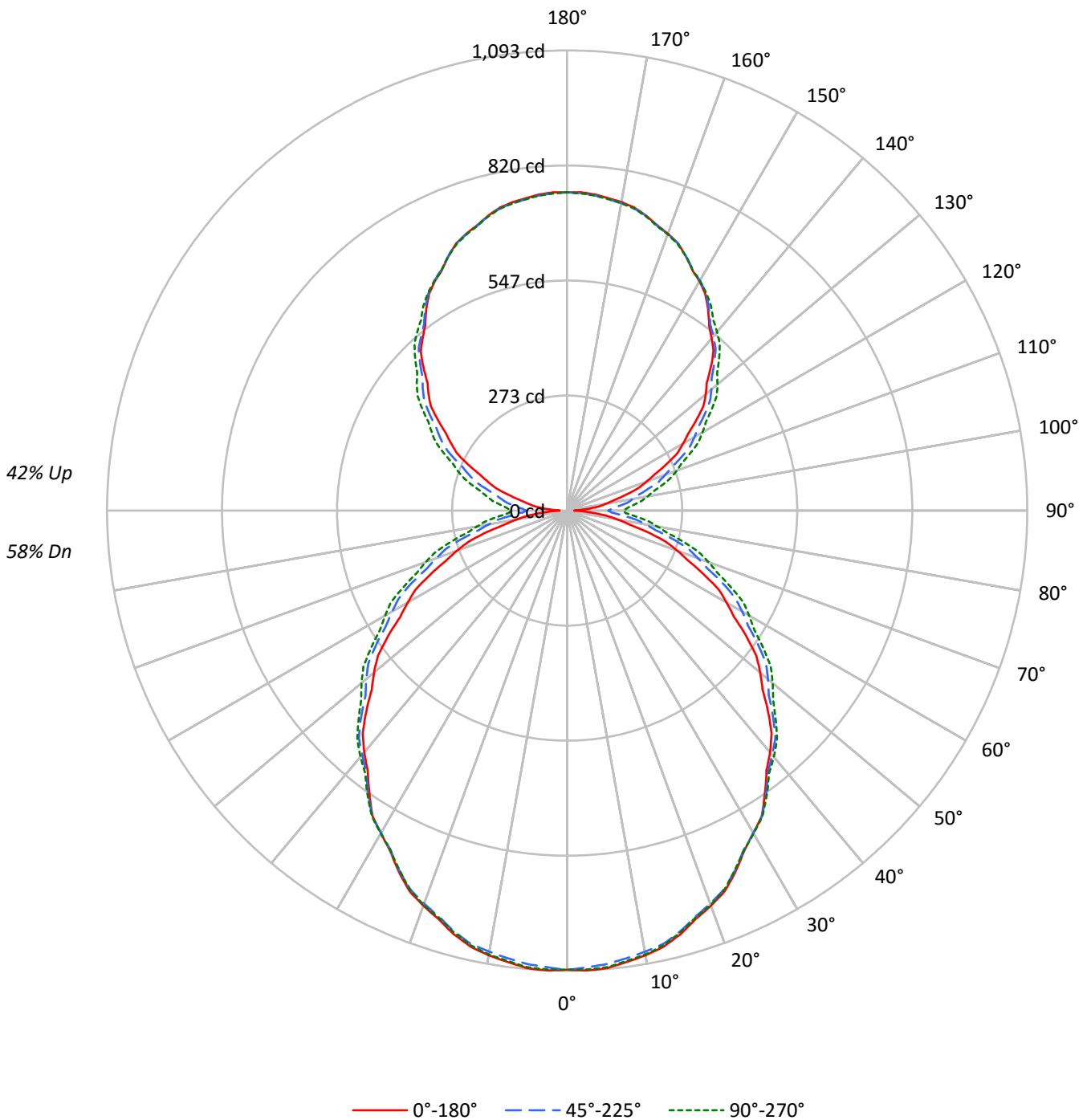
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	94	90	86	92	88	84	80	76	73	70	65	63	61	55	53	52	47
2	90	82	75	69	83	76	70	65	66	61	58	56	53	50	48	45	43	39
3	81	71	64	57	75	67	60	54	58	52	48	50	45	42	42	39	36	32
4	74	63	55	48	69	59	52	46	51	45	41	44	39	36	37	34	31	27
5	68	56	48	41	63	53	45	39	46	40	35	39	35	31	33	30	27	24
6	63	50	42	36	58	47	40	34	41	35	30	36	31	27	30	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27	32	27	24	28	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24	30	25	21	25	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21	27	22	19	23	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	1.9
10°-20°	292.8	5.3
20°-30°	435.5	7.9
30°-40°	515.8	9.4
40°-50°	533.3	9.7
50°-60°	491.3	9.0
60°-70°	397.1	7.2
70°-80°	265.9	4.8
80°-90°	139.6	2.5
90°-100°	128.0	2.3
100°-110°	206.5	3.8
110°-120°	291.4	5.3
120°-130°	354.9	6.5
130°-140°	382.8	7.0
140°-150°	367.8	6.7
150°-160°	307.3	5.6
160°-170°	204.3	3.7
170°-180°	71.5	1.3
0°-30°	831.4	15.1
0°-40°	1347.2	24.5
0°-60°	2371.8	43.2
0°-90°	3174.4	57.8
90°-120°	625.9	11.4
90°-150°	1731.4	31.5
90°-180°	2314.0	42.2
0°-180°	5488.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	57	97	124	134	13
95°	52	82	123	150	160	52
105°	144	165	199	223	234	153
115°	260	271	299	317	323	257
125°	374	378	399	414	419	335
135°	483	486	494	507	511	372
145°	584	585	587	592	595	365
155°	667	667	668	670	667	307
165°	725	724	724	726	723	204
175°	754	752	752	755	751	72
180°	756	756	756	756	756	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.5	41.3	49.1	57.0	64.7	72.8	81.0	89.3	97.6	105.8	111.5
90°	17.7	26.4	35.0	43.6	52.3	61.2	70.1	79.1	88.1	97.1	103.2
92.5°	29.6	37.4	45.2	52.9	60.7	69.2	78.7	88.1	97.4	106.9	113.0
95°	52.1	58.5	65.0	71.5	77.9	85.8	95.2	104.6	114.0	123.3	129.5
97.5°	76.1	81.8	87.5	93.2	98.8	106.4	116.1	125.6	135.2	144.8	150.7
100°	94.1	99.1	104.1	109.1	114.1	121.2	130.5	139.8	149.1	158.4	164.6
102.5°	113.4	118.6	123.7	128.9	134.0	140.7	149.0	157.2	165.6	173.8	179.9
105°	143.7	148.1	152.7	157.1	161.5	167.7	175.6	183.5	191.5	199.4	204.9
107.5°	177.2	181.1	185.0	188.9	192.8	198.4	205.9	213.3	220.8	228.2	233.3
110°	200.3	203.9	207.4	210.9	214.4	219.7	226.7	233.8	240.8	247.9	252.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	224.8	227.4	230.0	232.7	235.4	240.1	247.1	254.1	261.0	268.0	272.4
115°	259.9	262.1	264.3	266.4	268.6	272.9	279.4	285.8	292.2	298.7	302.9
117.5°	295.0	296.4	297.7	299.0	300.3	304.0	310.1	316.2	322.3	328.4	332.6
120°	317.6	319.0	320.4	321.7	323.1	326.5	332.2	337.8	343.3	349.0	353.0
122.5°	341.2	341.8	342.4	342.9	343.5	346.6	352.2	357.8	363.5	369.1	372.8
125°	374.1	374.7	375.3	375.8	376.4	379.1	384.0	388.9	393.7	398.6	402.2
127.5°	408.4	408.6	408.8	409.0	409.2	411.4	415.4	419.5	423.5	427.5	430.9
130°	429.6	430.0	430.4	430.8	431.3	433.2	436.8	440.4	444.0	447.6	450.8
132.5°	449.9	450.9	451.9	453.0	454.0	455.7	458.3	460.7	463.3	465.8	469.0
135°	483.2	483.7	484.3	484.8	485.4	486.6	488.3	490.1	491.9	493.7	496.8
137.5°	514.5	515.1	515.6	516.2	516.7	517.6	518.7	519.8	520.9	522.0	524.9
140°	533.9	534.5	535.2	535.8	536.5	537.1	537.7	538.4	539.0	539.6	542.5
142.5°	554.1	554.4	554.8	555.2	555.6	556.0	556.5	557.1	557.6	558.2	560.5
145°	583.8	584.2	584.4	584.7	585.0	585.3	585.7	586.1	586.5	586.9	588.1
147.5°	610.3	610.6	610.9	611.2	611.5	611.7	612.0	612.4	612.7	613.0	613.7
150°	628.7	628.5	628.4	628.3	628.1	628.4	628.8	629.4	629.9	630.4	630.4
152.5°	643.7	643.9	644.0	644.3	644.4	644.6	644.8	645.1	645.2	645.5	645.8
155°	666.9	666.9	666.9	666.9	666.9	666.9	667.1	667.2	667.3	667.5	668.0
157.5°	687.6	687.3	687.0	686.7	686.4	686.3	686.5	686.6	686.7	686.9	687.4
160°	699.8	699.4	699.0	698.6	698.2	698.1	698.2	698.4	698.5	698.6	699.2
162.5°	710.7	710.3	710.0	709.8	709.5	709.3	709.4	709.4	709.4	709.5	710.1
165°	725.1	724.8	724.6	724.3	724.1	724.0	724.1	724.2	724.4	724.5	725.0
167.5°	737.4	736.8	736.3	735.8	735.2	735.0	735.0	735.0	735.0	735.0	735.8
170°	743.9	743.4	742.8	742.4	741.8	741.6	741.6	741.6	741.6	741.6	742.4
172.5°	748.6	748.1	747.6	747.0	746.6	746.2	746.2	746.2	746.2	746.2	747.0
175°	753.9	753.4	752.9	752.3	751.8	751.5	751.5	751.5	751.5	751.5	752.3
177.5°	756.6	756.2	755.7	755.3	754.9	754.7	754.6	754.5	754.4	754.2	754.9
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	117.0	122.6	128.3	131.9	133.6	135.4	137.1	138.9
90°	109.3	115.4	121.6	125.6	127.7	129.8	131.8	133.9
92.5°	119.1	125.2	131.4	135.5	137.4	139.3	141.3	143.2
95°	135.6	141.8	147.9	151.9	153.8	155.8	157.7	159.6
97.5°	156.5	162.4	168.3	172.1	173.8	175.6	177.4	179.1
100°	170.7	176.9	183.1	187.0	188.7	190.4	192.1	193.8
102.5°	186.0	192.0	198.1	202.1	203.8	205.7	207.5	209.2
105°	210.4	215.9	221.5	225.3	227.4	229.4	231.5	233.5
107.5°	238.4	243.5	248.6	251.9	253.3	254.8	256.2	257.7
110°	257.7	262.6	267.5	270.7	272.3	273.8	275.3	276.9



TEST NUMBER: P333439-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	276.9	281.5	286.0	289.0	290.4	291.8	293.3	294.7
115°	307.0	311.2	315.3	318.0	319.3	320.6	321.9	323.2
117.5°	336.7	340.8	344.9	347.6	348.6	349.7	350.9	352.0
120°	357.0	361.1	365.1	367.6	368.4	369.4	370.3	371.2
122.5°	376.5	380.2	384.0	386.4	387.4	388.4	389.4	390.5
125°	405.7	409.2	412.8	415.1	416.1	417.2	418.3	419.3
127.5°	434.4	437.8	441.1	443.4	444.5	445.6	446.7	447.8
130°	454.0	457.2	460.3	462.4	463.3	464.3	465.2	466.1
132.5°	472.2	475.4	478.6	480.5	481.2	481.7	482.4	483.0
135°	499.9	503.0	506.0	507.9	508.6	509.3	509.9	510.6
137.5°	527.9	530.8	533.9	535.4	535.8	536.1	536.3	536.6
140°	545.4	548.3	551.1	552.7	553.0	553.3	553.7	553.9
142.5°	562.9	565.3	567.8	569.1	569.3	569.7	570.0	570.3
145°	589.3	590.5	591.7	592.6	593.1	593.7	594.2	594.8
147.5°	614.4	615.1	615.8	615.9	615.4	615.0	614.5	614.0
150°	630.4	630.4	630.4	630.4	630.4	630.3	630.3	630.3
152.5°	646.1	646.4	646.7	646.7	646.3	645.8	645.4	645.0
155°	668.5	669.0	669.6	669.5	668.8	668.2	667.5	666.9
157.5°	687.9	688.4	689.0	688.8	687.9	687.1	686.2	685.3
160°	699.7	700.2	700.7	700.7	700.0	699.3	698.7	698.1
162.5°	710.7	711.3	711.9	711.9	711.1	710.3	709.6	708.8
165°	725.6	726.1	726.6	726.4	725.7	724.9	724.1	723.3
167.5°	736.6	737.4	738.1	738.1	737.3	736.5	735.7	734.8
170°	743.1	743.9	744.7	744.7	743.7	742.8	741.9	741.0
172.5°	747.8	748.6	749.4	749.4	748.6	747.7	746.9	746.2
175°	753.1	753.9	754.7	754.6	753.7	752.8	751.9	751.0
177.5°	755.5	756.1	756.8	756.7	756.0	755.3	754.6	753.8
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7

(END OF REPORT)