

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: P332161-927

Luminaire Tested: **S123DIW-S775D755U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332161-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S775D755U927-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 755 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4586.3 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

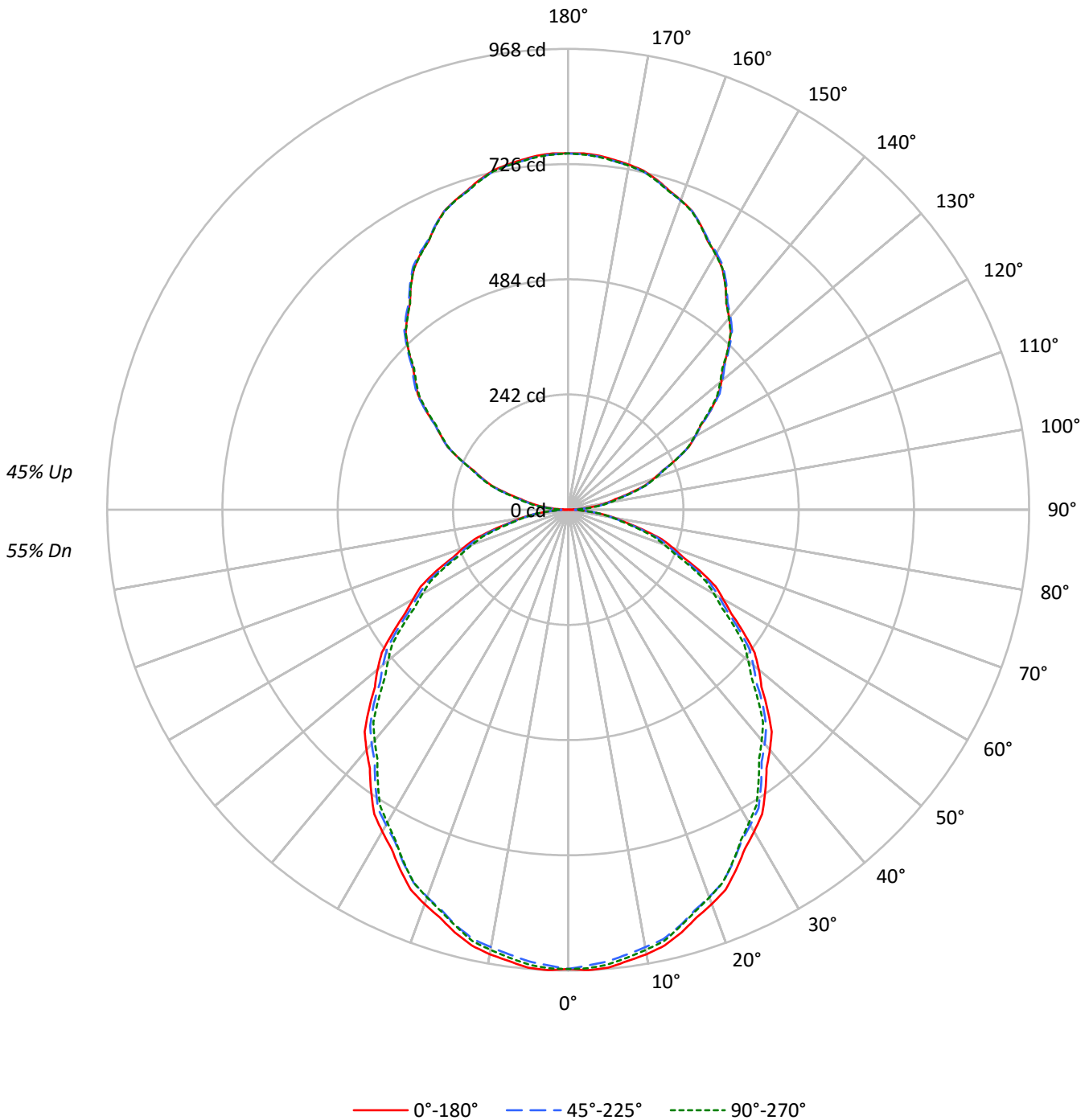
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	101	101	101	86	86	86		73	73	73		61	61	61	55
1	99	94	90	87	92	88	84	81	75	73	71		64	62	60		53	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58		56	53	50		47	45	43	38
3	82	72	65	59	76	67	61	56	58	53	49		50	46	43		42	39	36	33
4	75	64	56	50	69	60	53	47	52	46	42		44	40	37		37	34	31	28
5	69	57	49	43	64	53	46	41	46	40	36		40	35	32		33	30	27	24
6	63	51	43	37	59	48	41	35	42	36	31		36	31	28		30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28		33	28	25		28	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	25	32	26	22		27	23	20		24	20	17	15
10	47	35	28	23	44	33	27	22	29	24	20		25	21	18		22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10384	10384	10384
5°	10432	10289	10361
10°	10363	10200	10263
15°	10242	10085	10104
20°	10100	9919	9929
25°	9911	9723	9704
30°	9701	9506	9434
35°	9483	9276	9155
40°	9254	9021	8882
45°	9003	8788	8573
50°	8751	8500	8264
55°	8422	8203	7955
60°	8088	7858	7608
65°	7796	7480	7246
70°	7361	7046	6735
75°	6729	6488	6209
80°	6069	5808	5759
85°	5323	5125	4915



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	2.0
10°-20°	256.6	5.6
20°-30°	379.0	8.3
30°-40°	442.7	9.7
40°-50°	445.1	9.7
50°-60°	391.0	8.5
60°-70°	291.3	6.4
70°-80°	166.0	3.6
80°-90°	49.9	1.1
90°-100°	48.8	1.1
100°-110°	145.9	3.2
110°-120°	248.2	5.4
120°-130°	326.5	7.1
130°-140°	367.0	8.0
140°-150°	360.7	7.9
150°-160°	303.7	6.6
160°-170°	202.2	4.4
170°-180°	70.8	1.5
0°-30°	726.5	15.8
0°-40°	1169.2	25.5
0°-60°	2005.3	43.7
0°-90°	2512.4	54.8
90°-120°	442.9	9.7
90°-150°	1497.2	32.6
90°-180°	2074.0	45.2
0°-180°	4586.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	966	961	952	960	959	91
15°	919	915	905	911	907	259
25°	834	829	819	819	817	384
35°	722	716	706	701	697	451
45°	591	588	577	568	563	456
55°	449	447	437	428	424	402
65°	306	302	294	287	284	302
75°	162	158	156	152	149	173
85°	43	42	42	40	40	47
90°	1	7	14	16	18	4
95°	35	39	44	46	46	39
105°	132	134	139	139	140	142
115°	250	251	250	251	250	247
125°	366	367	366	364	362	326
135°	474	478	477	475	474	366
145°	576	577	579	578	576	359
155°	659	659	660	662	658	303
165°	718	716	716	719	716	202
175°	747	745	744	748	744	71
180°	748	748	748	748	748	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7
2.5°	968.0	967.4	966.9	966.2	965.7	964.6	962.9	961.3	959.6	958.1	959.5
5°	965.5	964.6	963.7	962.7	961.8	960.4	958.3	956.3	954.3	952.2	954.1
7.5°	956.1	955.1	954.2	953.3	952.4	950.9	948.7	946.7	944.5	942.5	944.1
10°	948.1	947.1	946.3	945.3	944.4	942.8	940.3	937.9	935.6	933.2	934.9
12.5°	937.5	936.7	936.0	935.2	934.4	932.9	930.7	928.4	926.1	923.8	925.1
15°	919.1	918.3	917.6	916.9	916.1	914.6	912.1	909.7	907.4	905.0	906.4
17.5°	897.6	896.7	895.7	894.8	893.8	892.2	889.8	887.3	884.9	882.6	883.6
20°	881.7	880.6	879.6	878.5	877.3	875.5	873.1	870.8	868.4	865.9	866.7
22.5°	863.8	862.7	861.6	860.5	859.4	857.6	855.2	852.9	850.5	848.0	848.7
25°	834.5	833.4	832.3	831.2	830.0	828.3	825.9	823.5	821.1	818.7	818.9
27.5°	803.1	802.0	801.0	799.9	798.8	797.0	794.4	791.9	789.3	786.6	786.8
30°	780.5	779.6	778.7	777.8	776.8	775.1	772.5	769.9	767.4	764.8	764.8
32.5°	758.0	756.8	755.5	754.3	753.1	751.5	749.5	747.5	745.5	743.5	742.5
35°	721.7	720.6	719.5	718.4	717.2	715.5	713.0	710.7	708.3	705.9	704.8
37.5°	684.4	683.1	681.7	680.2	678.9	677.0	674.5	672.1	669.6	667.3	665.9
40°	658.6	657.5	656.4	655.3	654.2	652.4	649.7	647.2	644.6	642.0	640.6
42.5°	632.7	631.4	630.2	629.0	627.7	625.8	623.2	620.6	618.1	615.4	614.0
45°	591.4	590.7	589.9	589.2	588.4	586.9	584.5	582.1	579.7	577.3	575.1
47.5°	550.4	549.4	548.3	547.2	546.1	544.5	542.2	540.0	537.7	535.5	533.3
50°	522.6	521.7	520.7	519.8	518.9	517.2	514.8	512.5	510.0	507.6	505.6
52.5°	493.4	492.7	492.1	491.5	490.8	489.3	486.7	484.2	481.6	479.1	477.4
55°	448.8	448.5	448.4	448.2	448.0	446.7	444.3	442.0	439.5	437.1	435.1
57.5°	406.3	405.7	405.0	404.4	403.8	402.5	400.6	398.6	396.7	394.8	393.0
60°	375.7	375.6	375.4	375.2	375.0	373.8	371.6	369.4	367.2	365.0	363.3
62.5°	348.6	348.1	347.6	347.1	346.7	345.3	343.1	340.9	338.7	336.4	334.8
65°	306.1	305.1	304.2	303.3	302.4	301.0	299.1	297.3	295.5	293.7	292.2
67.5°	261.1	260.3	259.5	258.6	257.9	256.7	255.4	254.0	252.5	251.2	249.9
70°	233.9	232.8	231.7	230.6	229.5	228.4	227.3	226.2	225.1	223.9	222.7
72.5°	205.4	204.5	203.7	203.0	202.2	201.1	199.9	198.6	197.3	196.1	195.0
75°	161.8	161.0	160.3	159.5	158.8	158.1	157.6	157.0	156.5	156.0	155.0
77.5°	123.1	122.7	122.3	121.9	121.4	121.0	120.3	119.6	119.0	118.3	117.6
80°	97.9	97.4	96.8	96.3	95.7	95.2	94.8	94.5	94.1	93.7	93.6
82.5°	73.4	73.2	73.1	73.0	72.9	72.8	72.7	72.6	72.6	72.5	72.2
85°	43.1	42.8	42.4	42.1	41.7	41.5	41.5	41.5	41.5	41.5	41.1
87.5°	17.3	17.2	17.0	16.8	16.6	16.6	16.9	17.0	17.2	17.4	17.3
90°	0.6	1.9	3.2	4.5	5.8	7.3	9.0	10.7	12.4	14.1	14.7
92.5°	14.3	15.1	16.0	16.9	17.7	18.7	19.6	20.7	21.6	22.6	23.0
95°	34.7	35.6	36.5	37.5	38.3	39.3	40.4	41.4	42.5	43.5	44.0
97.5°	61.6	62.3	63.0	63.7	64.3	65.0	65.8	66.5	67.3	68.1	68.7
100°	79.9	80.7	81.5	82.3	83.1	83.8	84.4	85.2	85.8	86.4	86.8
102.5°	101.2	101.6	102.1	102.5	103.0	103.7	104.6	105.4	106.2	107.1	107.5
105°	132.3	132.5	132.8	133.1	133.3	134.0	135.2	136.4	137.6	138.8	138.8
107.5°	168.5	168.7	168.8	169.0	169.1	169.4	169.9	170.4	170.9	171.3	171.7
110°	191.1	191.4	191.6	191.9	192.1	192.4	192.7	192.9	193.2	193.5	194.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	214.6	214.8	214.9	215.1	215.2	215.3	215.4	215.5	215.5	215.6	216.2
115°	249.9	250.3	250.6	251.0	251.4	251.5	251.3	251.0	250.7	250.5	250.6
117.5°	285.4	285.7	285.9	286.2	286.5	286.5	286.1	285.7	285.4	285.0	285.0
120°	307.5	308.3	309.1	309.9	310.7	310.7	310.1	309.4	308.8	308.1	308.0
122.5°	330.6	331.1	331.7	332.3	332.9	333.0	332.6	332.3	332.0	331.6	331.3
125°	365.8	366.1	366.5	366.9	367.3	367.3	367.1	366.9	366.5	366.3	365.8
127.5°	398.2	399.0	399.9	400.7	401.6	401.8	401.6	401.2	400.9	400.7	399.9
130°	419.9	420.9	421.9	422.9	424.0	424.4	424.0	423.6	423.2	422.8	422.2
132.5°	441.5	442.5	443.5	444.6	445.7	446.0	445.8	445.4	445.1	444.9	444.3
135°	474.5	475.3	476.1	476.9	477.6	478.0	477.8	477.7	477.6	477.4	476.9
137.5°	505.1	505.7	506.4	507.1	507.7	508.2	508.5	508.9	509.2	509.5	509.0
140°	526.2	526.9	527.6	528.2	528.9	529.3	529.4	529.5	529.7	529.8	529.7
142.5°	545.6	546.2	546.8	547.5	548.1	548.6	548.8	549.1	549.3	549.5	549.4
145°	575.7	575.9	576.2	576.4	576.7	577.0	577.4	577.8	578.2	578.6	578.5
147.5°	602.0	602.5	602.9	603.4	603.9	604.3	604.7	605.0	605.4	605.8	605.8
150°	620.4	620.6	620.8	621.2	621.4	621.6	621.9	622.2	622.4	622.7	622.7
152.5°	635.4	635.7	636.1	636.5	636.8	637.1	637.2	637.4	637.5	637.7	637.9
155°	659.2	659.2	659.2	659.2	659.2	659.2	659.3	659.5	659.6	659.7	660.3
157.5°	679.4	679.2	679.1	678.9	678.7	678.7	678.8	678.9	679.1	679.1	679.7
160°	692.1	691.8	691.6	691.3	691.0	690.9	690.9	690.9	690.9	690.9	691.6
162.5°	703.4	703.0	702.6	702.3	701.9	701.8	701.9	702.0	702.1	702.2	702.8
165°	718.0	717.6	717.2	716.8	716.4	716.1	716.1	716.1	716.1	716.1	716.9
167.5°	729.6	729.0	728.6	728.0	727.5	727.3	727.4	727.5	727.6	727.7	728.5
170°	736.2	735.6	735.1	734.6	734.0	733.8	733.8	733.8	733.8	733.8	734.7
172.5°	741.3	740.8	740.3	739.7	739.3	738.9	738.9	738.9	738.9	738.9	739.8
175°	746.7	746.2	745.7	745.2	744.7	744.4	744.4	744.4	744.4	744.4	745.2
177.5°	749.0	748.5	748.1	747.7	747.3	747.1	747.1	747.1	747.1	747.1	747.7
180°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7
2.5°	961.0	962.5	963.9	964.6	964.5	964.3	964.2	964.0
5°	955.9	957.7	959.6	960.4	960.0	959.6	959.3	958.9
7.5°	945.8	947.5	949.1	949.8	949.6	949.4	949.1	949.0
10°	936.5	938.1	939.8	940.5	940.1	939.7	939.4	939.0
12.5°	926.3	927.5	928.8	929.2	929.0	928.8	928.6	928.4
15°	907.9	909.3	910.9	911.0	909.9	908.8	907.8	906.7
17.5°	884.6	885.7	886.7	887.0	886.6	886.2	885.8	885.4
20°	867.4	868.2	868.9	869.0	868.5	867.9	867.4	866.8
22.5°	849.2	849.9	850.4	850.3	849.7	849.0	848.3	847.6
25°	819.0	819.3	819.4	819.3	818.7	818.2	817.6	817.1
27.5°	787.0	787.1	787.3	787.0	786.3	785.6	784.9	784.2
30°	764.8	764.8	764.8	764.1	762.9	761.5	760.3	759.0
32.5°	741.5	740.5	739.4	738.6	737.8	737.1	736.4	735.8
35°	703.7	702.6	701.5	700.4	699.5	698.6	697.7	696.7
37.5°	664.6	663.2	661.9	661.0	660.4	659.8	659.2	658.6
40°	639.1	637.6	636.1	635.0	634.3	633.5	632.8	632.1
42.5°	612.5	611.0	609.6	608.5	607.8	607.0	606.3	605.5
45°	572.9	570.7	568.5	566.9	566.0	565.1	564.1	563.2
47.5°	531.2	529.0	526.8	525.3	524.5	523.7	522.9	522.0
50°	503.6	501.5	499.6	498.0	496.9	495.7	494.6	493.5
52.5°	475.6	473.9	472.1	470.8	469.7	468.6	467.5	466.4
55°	433.1	431.0	429.0	427.5	426.6	425.7	424.8	423.9
57.5°	391.2	389.4	387.6	386.2	385.1	384.0	382.9	381.9
60°	361.6	360.0	358.3	357.0	356.1	355.2	354.3	353.4
62.5°	333.1	331.4	329.8	328.7	328.0	327.4	326.8	326.1
65°	290.7	289.2	287.7	286.7	286.1	285.6	285.0	284.5
67.5°	248.6	247.3	246.0	244.9	244.2	243.4	242.6	241.9
70°	221.4	220.1	218.8	217.7	216.7	215.9	214.9	214.0
72.5°	193.8	192.7	191.5	190.7	190.2	189.7	189.3	188.8
75°	154.1	153.2	152.3	151.5	151.0	150.4	149.9	149.3
77.5°	117.0	116.4	115.7	115.5	115.5	115.5	115.5	115.5
80°	93.4	93.2	93.0	92.9	92.9	92.9	92.9	92.9
82.5°	71.9	71.5	71.1	70.9	70.8	70.7	70.5	70.3
85°	40.7	40.4	40.0	39.8	39.8	39.8	39.8	39.8
87.5°	17.3	17.3	17.3	17.3	17.3	17.3	17.4	17.4
90°	15.1	15.7	16.2	16.6	16.9	17.1	17.3	17.7
92.5°	23.4	23.8	24.2	24.4	24.2	24.1	23.9	23.8
95°	44.5	45.1	45.6	45.9	45.9	45.9	45.9	45.9
97.5°	69.3	69.9	70.5	70.7	70.7	70.7	70.6	70.6
100°	87.2	87.6	88.0	88.3	88.6	88.9	89.1	89.4
102.5°	107.9	108.3	108.7	108.8	108.8	108.8	108.7	108.7
105°	138.8	138.8	138.8	138.9	139.2	139.4	139.7	140.0
107.5°	172.1	172.6	173.0	173.2	173.0	172.9	172.7	172.5
110°	194.5	195.0	195.5	195.7	195.4	195.1	194.9	194.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	216.8	217.5	218.1	218.3	218.3	218.2	218.2	218.2
115°	250.7	250.9	251.0	251.0	250.9	250.7	250.6	250.5
117.5°	285.0	284.9	284.9	284.8	284.4	284.0	283.7	283.3
120°	307.8	307.7	307.6	307.4	307.1	306.9	306.6	306.3
122.5°	331.0	330.6	330.3	329.9	329.5	329.2	328.8	328.4
125°	365.3	364.7	364.2	363.7	363.2	362.7	362.1	361.6
127.5°	399.2	398.5	397.8	397.0	396.5	395.9	395.3	394.7
130°	421.8	421.2	420.6	419.9	419.1	418.1	417.2	416.3
132.5°	443.6	443.0	442.4	441.7	441.0	440.3	439.6	438.9
135°	476.4	475.9	475.4	475.0	474.7	474.4	474.2	473.9
137.5°	508.4	507.9	507.4	506.8	506.4	505.8	505.3	504.9
140°	529.5	529.4	529.3	528.7	527.8	526.9	526.0	525.1
142.5°	549.3	549.1	549.0	548.6	547.9	547.2	546.4	545.7
145°	578.3	578.2	578.1	577.7	577.2	576.7	576.2	575.7
147.5°	605.8	605.8	605.8	605.4	604.6	603.8	603.0	602.2
150°	622.7	622.7	622.7	622.3	621.5	620.8	620.0	619.2
152.5°	638.2	638.3	638.6	638.3	637.6	637.0	636.3	635.6
155°	660.8	661.3	661.8	661.6	660.7	659.8	658.9	658.0
157.5°	680.2	680.8	681.4	681.2	680.5	679.8	679.1	678.3
160°	692.2	692.8	693.5	693.6	693.1	692.5	692.0	691.5
162.5°	703.5	704.2	704.8	704.7	703.9	703.1	702.2	701.3
165°	717.7	718.5	719.3	719.2	718.4	717.4	716.5	715.6
167.5°	729.3	730.2	730.9	730.9	730.2	729.3	728.5	727.7
170°	735.6	736.6	737.4	737.4	736.6	735.6	734.7	733.8
172.5°	740.6	741.4	742.2	742.2	741.2	740.4	739.4	738.6
175°	746.0	746.7	747.5	747.5	746.6	745.6	744.7	743.8
177.5°	748.4	749.0	749.6	749.6	748.8	748.1	747.3	746.6
180°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5

(END OF REPORT)