

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: P332540-935

Luminaire Tested: **S124DIP-S575D365U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332540-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D365U935-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3166.9 lumens
Efficiency: N/A
Efficacy: 115.2 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: General Diffuse

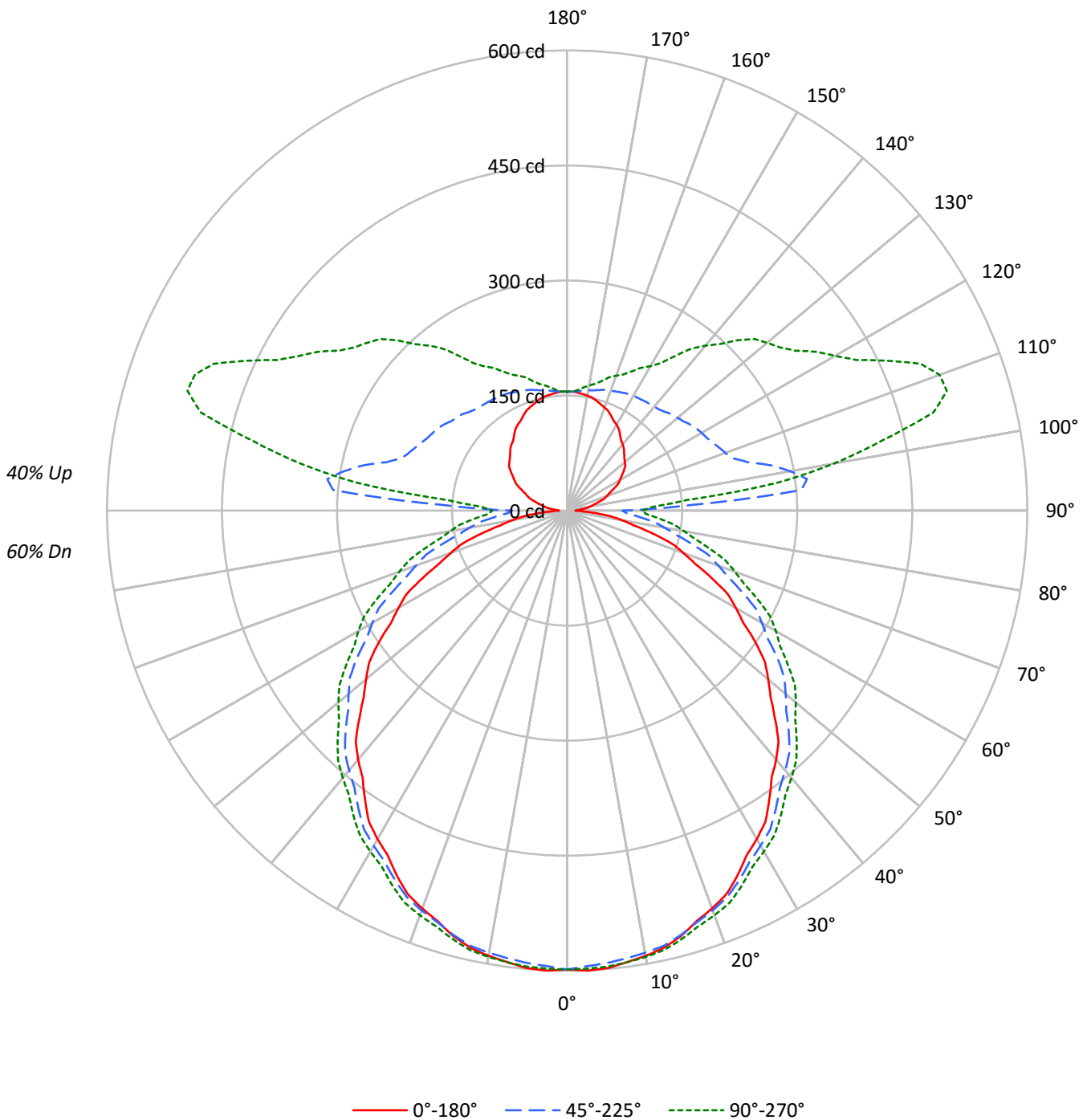
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	99	94	89	85	92	88	84	80	76	73	70	65	63	61	55	54	52	48
2	89	81	74	69	83	76	70	65	66	61	57	57	53	50	48	46	43	39
3	81	71	63	57	75	66	59	54	58	52	48	50	45	42	42	39	36	32
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31	27
5	68	56	47	41	63	52	44	39	46	39	35	39	34	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	35	30	27	30	26	23	21
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	21	18
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	17	14
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.8
10°-20°	162.3	5.1
20°-30°	245.5	7.8
30°-40°	297.0	9.4
40°-50°	314.0	9.9
50°-60°	295.5	9.3
60°-70°	245.2	7.7
70°-80°	172.2	5.4
80°-90°	98.2	3.1
90°-100°	169.7	5.4
100°-110°	275.6	8.7
110°-120°	237.3	7.5
120°-130°	191.6	6.1
130°-140°	153.3	4.8
140°-150°	113.2	3.6
150°-160°	78.6	2.5
160°-170°	46.2	1.5
170°-180°	15.0	0.5
0°-30°	464.5	14.7
0°-40°	761.4	24.0
0°-60°	1370.9	43.3
0°-90°	1886.4	59.6
90°-120°	682.6	21.6
90°-150°	1140.7	36.0
90°-180°	1280.0	40.4
0°-180°	3166.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	11	40	72	91	98	8
95°	19	63	306	198	157	18
105°	42	72	244	490	494	45
115°	67	90	210	388	462	66
125°	90	107	196	322	364	80
135°	105	125	182	275	314	81
145°	120	137	175	222	246	76
155°	136	147	170	192	200	63
165°	148	153	163	172	175	42
175°	154	155	156	158	158	15
180°	155	155	155	155	155	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	19.9	26.1	32.4	38.5	44.6	50.9	57.8	64.3	70.9	77.6	81.9
90°	11.0	17.6	24.5	30.7	36.9	43.1	51.4	57.8	64.8	71.8	75.9
92.5°	13.7	20.6	28.8	37.9	47.7	59.9	81.8	111.8	141.2	159.6	147.7
95°	18.8	24.5	32.5	41.4	53.6	71.9	104.5	160.5	239.4	306.3	317.3
97.5°	25.9	30.1	37.0	44.9	55.4	71.2	97.6	144.9	223.3	315.4	378.4
100°	30.5	34.4	40.4	47.9	57.5	72.2	95.9	136.0	204.0	295.6	377.5
102.5°	35.4	39.3	44.5	51.3	60.3	74.0	96.0	131.9	190.5	272.2	356.5
105°	41.7	45.5	50.0	56.7	65.1	78.2	98.3	129.1	177.2	243.8	319.1
107.5°	49.9	53.0	56.9	63.3	70.9	83.4	102.0	130.3	171.9	226.4	288.3
110°	54.9	57.7	61.2	67.0	74.6	86.4	105.0	131.6	170.2	219.6	272.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	59.8	62.3	65.9	71.1	78.4	90.1	107.9	133.0	169.3	214.6	262.3
115°	66.7	69.0	72.4	76.8	83.9	95.2	112.1	135.2	168.2	209.5	251.2
117.5°	74.6	76.3	79.0	83.1	89.3	100.5	116.5	137.7	167.6	205.2	243.7
120°	79.4	80.5	83.1	86.9	92.5	103.4	119.2	139.4	167.1	202.5	239.3
122.5°	84.3	85.0	87.2	90.4	96.2	106.5	122.2	141.1	166.9	199.6	234.6
125°	90.0	91.1	92.7	95.9	101.6	111.9	126.6	144.3	167.2	195.9	227.9
127.5°	95.6	96.3	98.4	102.1	108.0	117.9	131.4	147.1	166.7	191.1	219.4
130°	98.2	99.3	101.5	105.9	111.6	121.5	134.2	148.5	166.4	188.2	214.0
132.5°	101.3	102.2	105.2	109.3	115.5	124.7	136.9	150.5	166.4	185.9	209.4
135°	105.1	106.3	109.3	114.5	121.0	129.3	140.4	152.5	166.0	181.6	201.6
137.5°	109.5	110.6	113.7	118.6	125.0	132.8	142.7	153.3	165.0	178.5	195.2
140°	112.7	113.5	116.7	121.7	127.9	135.3	144.6	154.4	164.9	176.6	191.7
142.5°	115.5	116.5	119.5	124.4	130.5	137.6	146.4	155.2	165.1	175.6	188.9
145°	120.3	121.1	123.9	128.0	133.6	140.3	148.2	156.4	165.2	174.7	185.3
147.5°	125.7	125.8	128.4	132.6	137.2	143.2	150.6	157.8	165.6	173.6	182.3
150°	129.1	129.2	131.6	135.0	139.5	145.2	151.9	158.5	165.6	172.8	180.5
152.5°	131.7	131.7	134.1	137.5	141.5	146.9	152.8	159.0	165.1	171.6	178.5
155°	136.0	136.3	138.2	141.2	144.6	149.1	154.3	159.5	164.4	169.8	175.6
157.5°	140.3	140.3	142.1	144.4	147.3	150.9	155.3	159.5	163.5	167.9	172.6
160°	143.0	143.0	144.2	146.4	148.8	152.1	155.8	159.5	162.8	166.4	170.4
162.5°	145.4	145.3	146.2	148.1	150.2	152.9	156.3	159.5	162.0	165.0	168.5
165°	148.2	148.2	148.8	150.3	151.9	153.7	156.4	158.9	160.7	162.8	165.2
167.5°	150.9	150.6	150.9	152.1	152.9	154.4	156.4	158.1	159.2	160.6	162.3
170°	152.1	151.9	152.1	153.1	153.7	154.5	156.1	157.6	158.3	159.1	160.4
172.5°	153.3	153.1	153.1	153.8	154.1	154.8	155.8	157.1	157.3	157.6	158.7
175°	154.5	154.3	154.3	154.5	154.9	154.9	155.5	156.4	156.1	156.1	156.7
177.5°	155.2	154.9	154.6	154.9	154.9	154.9	155.2	155.6	155.2	155.2	155.4
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	86.3	90.7	95.0	97.8	99.2	100.6	101.8	103.1
90°	80.4	85.1	89.7	92.5	93.9	95.4	96.3	97.6
92.5°	131.3	120.7	115.7	112.3	109.9	109.4	109.6	110.8
95°	291.8	248.7	211.9	185.1	171.5	163.4	159.3	156.6
97.5°	395.1	381.4	355.6	326.4	305.8	288.8	280.9	276.0
100°	425.9	436.0	425.2	405.2	379.7	362.2	354.1	352.8
102.5°	421.3	455.4	463.6	456.8	441.7	429.4	420.9	420.2
105°	392.4	448.8	482.7	497.7	499.5	498.2	495.1	494.5
107.5°	353.7	413.5	459.5	489.0	505.1	513.2	517.3	519.1
110°	330.2	386.2	433.8	469.6	492.3	506.4	513.0	516.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	311.9	361.8	406.7	442.5	468.2	484.8	493.7	499.4
115°	292.4	333.1	372.0	403.4	428.4	447.8	458.6	462.0
117.5°	280.5	314.6	345.7	372.6	394.3	410.8	421.9	425.0
120°	274.2	305.5	332.8	356.5	375.1	389.6	398.7	403.2
122.5°	268.5	298.9	324.0	345.0	360.7	373.2	381.0	385.4
125°	259.9	289.0	312.8	331.4	344.4	354.1	360.8	363.5
127.5°	249.5	277.2	300.8	318.6	331.8	340.7	346.6	349.4
130°	242.0	268.7	292.1	310.0	323.4	331.8	337.6	340.4
132.5°	234.5	259.7	282.4	300.2	313.4	322.9	328.4	331.1
135°	223.2	245.4	266.3	283.2	296.2	305.7	311.4	314.1
137.5°	213.3	232.2	250.0	265.3	277.3	286.5	291.3	294.2
140°	207.6	223.8	239.4	253.6	264.9	272.4	277.4	280.6
142.5°	202.6	216.9	230.3	242.6	252.6	259.5	263.9	266.2
145°	196.0	207.2	217.2	226.4	234.6	240.4	244.1	246.2
147.5°	190.5	198.7	206.2	213.2	219.2	224.2	227.0	228.0
150°	187.8	194.8	200.9	206.3	211.2	215.2	217.0	217.2
152.5°	185.1	191.1	196.7	201.2	205.3	208.5	209.7	210.0
155°	181.1	185.9	190.5	194.2	197.2	199.6	200.5	200.5
157.5°	176.8	180.8	184.7	187.6	189.9	191.7	192.3	192.3
160°	174.1	177.4	180.7	183.2	185.0	186.8	187.2	187.2
162.5°	171.4	174.3	176.8	179.1	180.4	182.2	182.5	182.3
165°	167.6	169.5	171.6	173.1	174.4	175.6	175.3	175.0
167.5°	164.1	165.5	167.2	168.1	168.7	169.5	169.4	169.2
170°	161.9	162.8	164.0	165.0	165.6	165.8	165.6	165.6
172.5°	160.0	160.6	161.4	162.0	162.4	162.6	162.4	161.9
175°	157.3	157.6	158.3	158.3	158.3	158.9	158.3	157.6
177.5°	155.6	155.8	155.8	156.1	155.8	156.1	155.6	155.2
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9

(END OF REPORT)