

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: P332585-927

Luminaire Tested: **S124DIP-S795D365U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332585-927
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-S795D365U927-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 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: 3602.3 lumens
Efficiency: N/A
Efficacy: 102.9 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

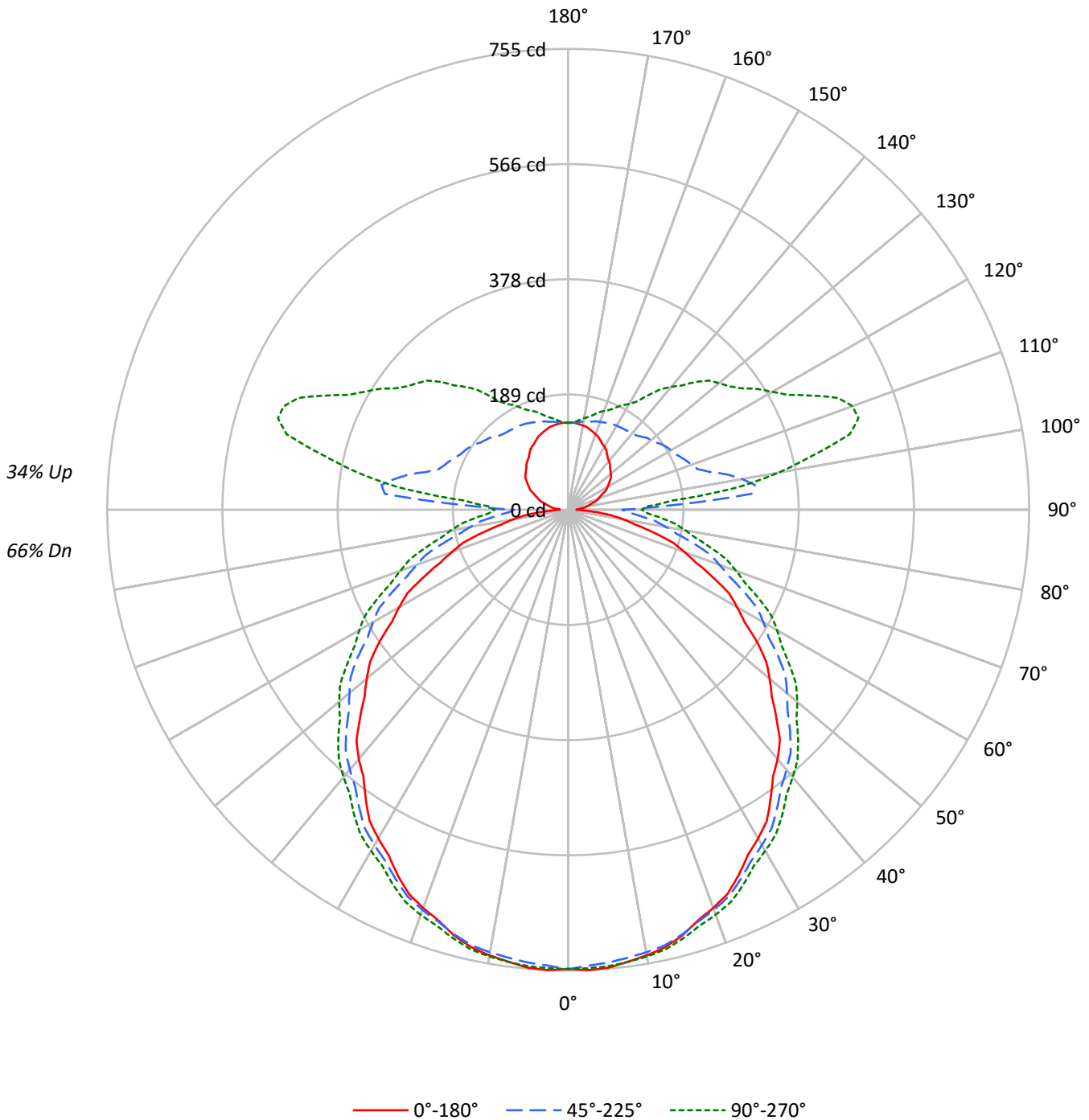
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	60	59	57	53
2	91	82	75	70	85	77	71	66	68	64	59	60	56	53	52	50	47	43
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	42	39	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30
5	69	56	48	41	64	53	45	39	47	41	36	42	36	32	37	32	29	26
6	63	50	42	36	59	48	40	34	43	36	31	38	32	28	33	29	25	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	22	20
8	54	41	33	27	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	44	33	26	21	30	24	20	27	22	18	24	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	2.0
10°-20°	204.2	5.7
20°-30°	308.7	8.6
30°-40°	373.5	10.4
40°-50°	394.9	11.0
50°-60°	371.6	10.3
60°-70°	308.3	8.6
70°-80°	216.6	6.0
80°-90°	123.2	3.4
90°-100°	175.6	4.9
100°-110°	268.0	7.4
110°-120°	228.0	6.3
120°-130°	181.8	5.0
130°-140°	143.4	4.0
140°-150°	104.6	2.9
150°-160°	72.3	2.0
160°-170°	42.5	1.2
170°-180°	13.8	0.4
0°-30°	584.1	16.2
0°-40°	957.6	26.6
0°-60°	1724.1	47.9
0°-90°	2372.2	65.9
90°-120°	671.7	18.6
90°-150°	1101.4	30.6
90°-180°	1230.0	34.1
0°-180°	3602.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	14	50	88	112	120	9
95°	20	68	302	208	172	19
105°	40	73	239	471	477	43
115°	63	86	203	372	442	63
125°	84	99	187	307	346	75
135°	97	116	169	258	296	75
145°	111	126	161	205	229	70
155°	125	135	156	177	184	58
165°	136	141	150	159	161	38
175°	142	142	144	146	145	13
180°	142	142	142	142	142	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.0	32.7	40.6	48.2	55.9	63.8	72.4	80.6	88.9	97.2	102.6
90°	13.8	21.8	30.1	37.9	45.7	53.5	63.2	71.2	79.9	88.5	93.6
92.5°	16.0	24.2	33.6	43.7	54.6	67.8	90.1	119.9	149.0	168.2	158.6
95°	20.2	27.3	36.2	46.0	58.9	77.6	109.6	163.2	237.8	301.5	313.0
97.5°	26.5	31.8	39.5	48.2	59.3	75.7	102.0	147.5	221.7	308.4	367.7
100°	30.6	35.4	42.2	50.5	60.7	75.7	99.5	138.5	202.9	289.1	365.9
102.5°	35.0	39.8	45.8	53.2	62.5	76.8	98.9	133.8	189.6	266.7	345.5
105°	40.3	44.9	50.1	57.2	66.0	79.4	99.8	129.9	176.1	239.3	309.7
107.5°	47.9	51.5	56.0	62.7	70.5	83.3	102.3	129.9	170.0	221.8	280.1
110°	52.4	55.5	59.6	65.6	73.2	85.4	104.3	130.4	167.8	214.9	264.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	56.6	59.5	63.5	68.9	76.3	88.1	106.2	130.9	166.0	209.5	254.4
115°	62.7	65.3	68.9	73.4	80.4	91.8	109.0	131.7	163.8	203.4	242.8
117.5°	69.9	71.8	74.5	78.6	84.6	95.7	111.9	133.0	161.9	198.0	234.6
120°	74.2	75.3	77.9	81.5	86.8	97.7	113.8	133.7	160.7	194.7	229.5
122.5°	78.7	79.4	81.4	84.4	89.8	100.0	115.7	134.5	159.6	191.1	224.3
125°	83.7	84.7	86.1	89.0	94.2	104.3	119.0	136.6	158.9	186.6	217.0
127.5°	88.7	89.4	91.3	94.7	100.0	109.6	122.9	138.3	157.3	180.9	207.8
130°	91.0	92.0	94.0	98.0	103.1	112.6	125.2	139.1	156.4	177.3	201.9
132.5°	93.9	94.6	97.4	101.2	106.7	115.5	127.4	140.5	155.8	174.4	196.9
135°	97.1	98.3	101.1	105.8	111.7	119.6	130.2	141.6	154.4	169.1	188.4
137.5°	101.2	102.1	105.0	109.4	115.3	122.5	131.7	141.7	152.6	165.2	181.3
140°	104.2	104.8	107.7	112.3	118.0	124.7	133.2	142.4	152.1	163.0	177.4
142.5°	106.6	107.4	110.3	114.7	120.3	126.7	134.8	143.0	151.9	161.6	174.4
145°	110.9	111.5	114.2	117.9	123.0	129.0	136.3	143.9	152.0	160.7	170.8
147.5°	115.9	116.0	118.2	122.1	126.3	131.7	138.6	145.2	152.3	159.7	167.8
150°	119.0	119.1	121.1	124.3	128.3	133.6	139.7	145.8	152.3	159.0	166.0
152.5°	121.2	121.3	123.4	126.5	130.2	135.1	140.6	146.3	151.9	157.9	164.2
155°	125.2	125.4	127.1	129.9	133.0	137.2	142.0	146.7	151.2	156.2	161.5
157.5°	129.1	129.1	130.7	132.8	135.5	138.9	142.9	146.7	150.4	154.5	158.8
160°	131.6	131.6	132.7	134.7	136.9	140.0	143.4	146.7	149.8	153.1	156.8
162.5°	133.8	133.6	134.5	136.3	138.2	140.7	143.8	146.7	149.1	151.8	155.0
165°	136.3	136.3	136.9	138.3	139.7	141.4	143.9	146.2	147.8	149.8	152.0
167.5°	138.9	138.6	138.9	139.9	140.7	142.0	143.9	145.4	146.5	147.7	149.3
170°	140.0	139.7	140.0	140.9	141.4	142.2	143.6	145.0	145.6	146.4	147.6
172.5°	141.1	140.9	140.9	141.5	141.8	142.4	143.4	144.6	144.7	145.0	146.0
175°	142.2	142.0	142.0	142.2	142.5	142.5	143.1	143.9	143.6	143.6	144.2
177.5°	142.8	142.5	142.3	142.5	142.5	142.5	142.8	143.1	142.8	142.8	143.0
180°	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	108.1	113.6	119.1	122.6	124.3	126.0	127.6	129.3
90°	99.3	105.0	110.7	114.2	116.0	117.8	119.0	120.5
92.5°	144.9	136.6	133.4	131.2	129.4	129.4	129.9	131.4
95°	290.9	252.5	220.1	196.3	184.3	177.3	173.9	172.0
97.5°	384.4	373.2	350.7	324.7	306.3	291.0	284.2	280.0
100°	411.8	422.5	413.8	396.2	373.2	357.4	350.4	349.4
102.5°	406.5	439.3	448.1	442.7	429.2	418.3	410.9	410.6
105°	378.6	431.7	464.1	478.6	480.7	480.0	477.5	477.4
107.5°	341.5	397.8	441.3	469.3	484.5	492.2	496.4	498.4
110°	319.0	371.7	416.6	450.4	471.7	485.0	491.5	495.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	301.2	348.2	390.7	424.4	448.4	464.1	472.7	478.2
115°	281.9	320.4	357.4	386.9	410.4	428.5	438.7	442.3
117.5°	269.4	301.8	331.5	357.0	377.4	393.0	403.5	406.8
120°	262.7	292.4	318.6	341.1	358.5	372.3	381.1	385.7
122.5°	256.6	285.5	309.6	329.5	344.4	356.3	363.8	368.2
125°	247.4	275.0	297.9	315.7	328.0	337.2	343.6	346.5
127.5°	236.4	262.8	285.4	302.4	314.9	323.4	329.2	332.1
130°	228.5	254.1	276.4	293.5	306.1	314.3	319.9	322.7
132.5°	220.9	244.9	266.6	283.7	296.0	305.1	310.5	313.2
135°	209.0	230.2	250.3	266.3	278.7	287.6	293.2	296.0
137.5°	198.8	216.8	234.0	248.5	259.9	268.5	273.1	276.2
140°	192.7	208.3	223.4	236.8	247.6	254.6	259.5	262.7
142.5°	187.7	201.4	214.3	226.0	235.4	241.9	246.2	248.6
145°	180.9	191.5	201.1	209.8	217.5	223.1	226.6	228.8
147.5°	175.3	183.0	189.9	196.4	202.2	206.8	209.5	210.6
150°	172.8	179.2	184.8	189.8	194.3	198.0	199.6	199.9
152.5°	170.3	175.9	181.0	185.1	188.9	191.9	192.9	193.2
155°	166.6	171.0	175.2	178.6	181.4	183.6	184.5	184.5
157.5°	162.6	166.4	169.9	172.6	174.7	176.4	176.9	176.9
160°	160.2	163.2	166.3	168.6	170.2	171.9	172.2	172.2
162.5°	157.7	160.3	162.7	164.8	166.0	167.6	167.9	167.7
165°	154.2	156.0	157.9	159.3	160.4	161.5	161.3	161.0
167.5°	151.0	152.3	153.8	154.6	155.2	156.0	155.9	155.7
170°	148.9	149.8	150.9	151.8	152.3	152.6	152.3	152.3
172.5°	147.2	147.7	148.5	149.1	149.4	149.6	149.4	148.9
175°	144.7	145.0	145.6	145.6	145.6	146.2	145.6	145.0
177.5°	143.1	143.4	143.4	143.6	143.4	143.6	143.1	142.8
180°	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5

(END OF REPORT)