

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: P331972-927

Luminaire Tested: **S123DIP-S775D585U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331972-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D585U927-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4191.2 lumens
Efficiency: N/A
Efficacy: 104.0 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

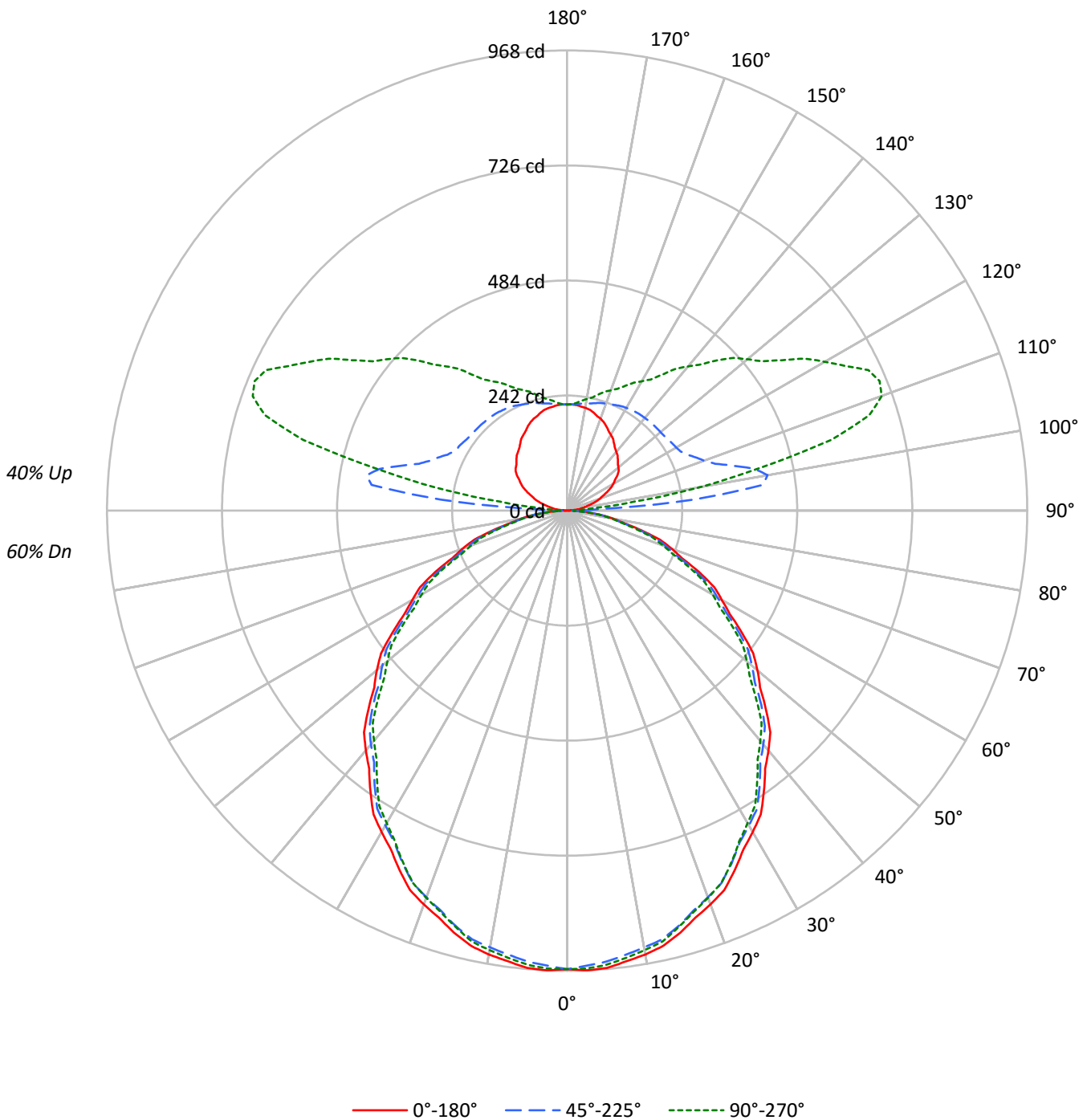
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	100	96	92	88	93	89	86	83	78	75	73	67	65	64	58	56	55	50
2	91	83	77	72	85	78	73	68	68	64	60	59	56	53	51	48	46	42
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	45	42	39	36
4	76	65	57	51	71	61	54	48	53	48	43	47	42	38	40	37	34	31
5	70	58	50	43	65	54	47	41	48	42	37	42	37	33	36	32	30	26
6	64	52	44	38	60	49	41	36	43	37	33	38	33	29	33	29	26	23
7	59	47	39	33	55	44	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	29	52	40	33	28	36	30	26	31	27	23	27	24	21	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	22	19	17
10	48	36	28	24	45	34	27	23	30	25	21	27	22	19	24	20	17	15

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	2.2
10°-20°	256.6	6.1
20°-30°	379.0	9.0
30°-40°	442.7	10.6
40°-50°	445.1	10.6
50°-60°	391.0	9.3
60°-70°	291.3	6.9
70°-80°	166.0	4.0
80°-90°	49.4	1.2
90°-100°	124.2	3.0
100°-110°	351.7	8.4
110°-120°	346.0	8.3
120°-130°	276.0	6.6
130°-140°	217.6	5.2
140°-150°	162.4	3.9
150°-160°	113.2	2.7
160°-170°	66.5	1.6
170°-180°	21.6	0.5
0°-30°	726.5	17.3
0°-40°	1169.2	27.9
0°-60°	2005.3	47.8
0°-90°	2511.9	59.9
90°-120°	822.0	19.6
90°-150°	1478.0	35.3
90°-180°	1679.0	40.1
0°-180°	4191.2	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	5	11	13	13	3
95°	15	50	268	78	52	17
105°	52	78	363	635	575	56
115°	93	115	278	609	699	92
125°	129	152	259	470	551	114
135°	151	180	256	387	447	117
145°	172	197	252	317	349	108
155°	196	211	244	278	290	90
165°	214	220	234	248	252	60
175°	223	223	225	228	227	21
180°	223	223	223	223	223	



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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°	17.4	17.2	16.9	16.7	16.5	16.4	16.5	16.6	16.7	16.9	16.6
90°	0.9	1.8	2.7	4.0	5.0	5.9	7.2	8.6	9.9	11.3	10.9
92.5°	5.6	8.3	12.1	15.6	19.4	26.1	37.9	57.4	76.4	69.5	52.4
95°	15.4	16.7	21.7	29.4	41.1	58.7	97.1	164.5	238.6	267.9	217.3
97.5°	26.2	26.7	30.6	37.2	48.8	67.9	104.6	180.5	304.0	415.3	444.3
100°	33.4	33.9	37.1	43.4	54.2	71.9	103.5	170.3	289.1	427.9	516.9
102.5°	41.0	41.8	44.7	50.6	60.4	76.5	104.9	161.7	267.5	404.4	520.5
105°	52.4	53.8	56.5	61.9	70.5	84.5	108.9	155.4	240.8	363.3	493.0
107.5°	64.5	65.9	68.5	73.8	81.9	94.9	116.3	155.0	223.9	326.9	444.7
110°	73.2	74.5	76.8	81.8	89.4	102.1	122.5	156.8	217.3	306.3	414.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	81.1	82.5	84.8	89.8	97.4	109.7	128.6	160.4	213.7	292.6	387.9
115°	92.6	94.4	97.1	101.6	109.3	121.5	138.7	166.3	212.4	277.9	356.1
117.5°	104.1	106.2	108.4	112.6	121.2	132.5	149.5	174.0	213.2	269.2	336.8
120°	112.1	113.4	115.7	120.2	128.8	140.1	156.3	179.8	214.6	265.2	326.7
122.5°	118.9	120.3	122.6	127.4	135.6	147.7	163.6	185.3	217.1	262.7	318.4
125°	128.8	129.7	132.4	137.4	145.9	158.1	174.0	193.8	220.9	259.4	307.7
127.5°	136.3	137.6	141.0	146.0	155.5	167.7	183.0	200.9	225.3	257.7	298.3
130°	141.0	142.4	146.4	151.8	161.3	173.5	188.4	205.6	228.1	256.7	293.3
132.5°	144.6	146.3	150.8	157.2	166.8	178.6	193.1	209.9	230.4	256.3	288.5
135°	150.9	152.7	157.7	164.5	174.0	186.2	200.2	215.6	233.6	255.7	282.4
137.5°	156.9	158.8	163.7	170.9	180.3	191.5	205.0	219.7	235.8	254.8	277.1
140°	160.9	163.1	167.6	174.8	183.9	195.2	208.3	221.9	237.2	254.4	273.8
142.5°	165.2	167.1	172.0	178.5	187.5	198.1	210.8	224.0	238.3	253.7	270.9
145°	172.1	173.5	177.6	184.3	192.0	202.4	214.2	226.4	239.0	252.5	267.0
147.5°	179.2	180.0	184.0	189.9	197.3	206.1	216.9	227.8	239.0	250.9	263.2
150°	183.9	184.3	188.0	193.8	200.2	208.3	218.7	228.1	239.0	249.4	260.7
152.5°	188.6	188.7	192.3	197.5	203.0	210.8	219.8	228.9	238.0	247.6	257.9
155°	195.7	195.7	198.4	202.9	207.9	214.2	221.9	229.1	236.8	244.5	253.5
157.5°	201.2	201.6	203.7	207.8	212.0	216.9	223.0	229.6	235.2	241.6	248.6
160°	205.6	205.6	207.4	211.0	214.2	218.7	224.1	229.6	234.5	239.5	245.3
162.5°	208.8	208.8	210.3	213.2	215.9	219.8	224.5	229.2	233.1	237.3	242.1
165°	213.7	213.3	214.2	216.4	218.2	221.4	225.0	228.1	230.9	234.1	237.7
167.5°	217.5	216.9	217.3	219.0	220.3	222.3	224.9	227.4	228.7	230.8	233.5
170°	219.6	218.7	219.1	220.5	221.4	222.3	224.6	226.4	227.3	228.6	230.9
172.5°	221.0	220.5	220.6	221.6	222.1	222.7	224.6	226.0	226.2	226.8	228.4
175°	222.8	222.3	221.9	222.8	222.8	223.2	224.1	225.0	224.6	224.6	225.5
177.5°	223.6	223.2	222.8	223.2	223.2	223.2	223.6	224.3	223.6	223.2	223.6
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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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°	16.6	16.5	16.5	16.6	16.5	16.6	16.6	16.6
90°	11.3	11.7	12.2	13.1	12.7	13.1	13.5	13.1
92.5°	38.0	30.2	26.7	24.3	23.5	22.1	22.6	21.8
95°	162.6	110.3	86.3	70.0	61.5	57.4	54.2	52.4
97.5°	405.5	324.8	266.5	212.5	179.1	158.8	146.6	142.7
100°	532.7	496.1	443.2	379.1	333.4	300.5	282.9	283.3
102.5°	575.0	573.9	543.0	502.3	466.8	440.7	426.0	415.6
105°	587.4	632.6	641.2	629.4	608.6	591.4	577.0	574.7
107.5°	551.8	625.2	664.7	680.8	681.2	675.4	670.5	666.4
110°	517.8	600.9	657.9	689.5	702.2	705.8	704.9	703.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	484.2	569.1	633.0	673.6	696.7	708.0	711.4	711.5
115°	439.7	518.2	584.7	633.9	667.8	687.7	696.7	699.0
117.5°	407.3	475.2	534.9	584.9	620.2	642.9	656.0	659.0
120°	390.4	451.4	505.6	551.3	586.9	612.3	623.1	625.8
122.5°	377.0	432.2	482.4	524.8	556.6	579.3	591.3	594.7
125°	359.2	408.4	451.9	488.0	516.9	536.8	548.1	551.3
127.5°	343.6	387.6	426.7	459.6	485.4	502.3	512.5	515.5
130°	333.9	374.5	411.1	441.9	465.9	482.1	491.6	495.2
132.5°	324.9	362.3	396.3	425.6	448.1	464.4	472.8	475.3
135°	312.7	344.8	374.1	399.9	422.0	435.5	443.7	446.9
137.5°	301.6	327.9	353.2	375.5	394.1	407.8	414.7	416.8
140°	295.1	318.1	339.8	359.2	376.4	389.0	396.2	395.8
142.5°	288.9	308.7	327.5	344.4	359.0	370.3	376.8	376.3
145°	281.5	296.4	310.9	324.0	335.3	344.8	348.4	349.3
147.5°	275.4	287.2	299.0	308.2	316.8	323.2	326.7	327.0
150°	271.1	281.5	291.0	299.6	306.3	311.3	314.0	314.0
152.5°	267.1	276.1	284.5	291.6	296.9	301.6	303.2	303.2
155°	261.2	268.4	275.2	280.6	284.6	288.3	289.1	289.6
157.5°	254.8	260.9	266.2	270.4	273.9	276.6	277.3	277.3
160°	251.2	256.2	260.7	263.9	267.0	269.7	269.7	269.3
162.5°	246.9	251.1	255.3	258.1	260.2	262.5	262.5	262.1
165°	241.3	244.0	247.2	249.4	251.2	253.0	252.5	252.5
167.5°	236.4	238.4	240.3	241.9	242.7	244.0	243.5	243.5
170°	233.1	234.5	236.3	237.2	237.7	238.6	238.1	238.1
172.5°	230.3	231.2	232.7	233.2	233.3	234.2	233.5	233.1
175°	226.4	226.8	227.8	227.8	227.8	228.1	227.8	227.3
177.5°	223.9	224.3	224.7	224.7	224.3	224.7	223.9	223.9
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2

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