

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMARK

Report Number: P210013

Luminaire Tested: **MPXL-T4-1000**

Issue Date:

Test Information

Test Method: LM-46-04
Report Number: P210013
DATA PRORATED FROM REPORT 765013
Test Lab:
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MPXL-T4-1000
Description: EAGLE SPORTS FLOODLIGHT - 4H x 4V
Light Source: 1000 WATT PULSE START METAL HALIDE, CLEAR, BT-56, UNIVERSAL
Ballast/Driver: -

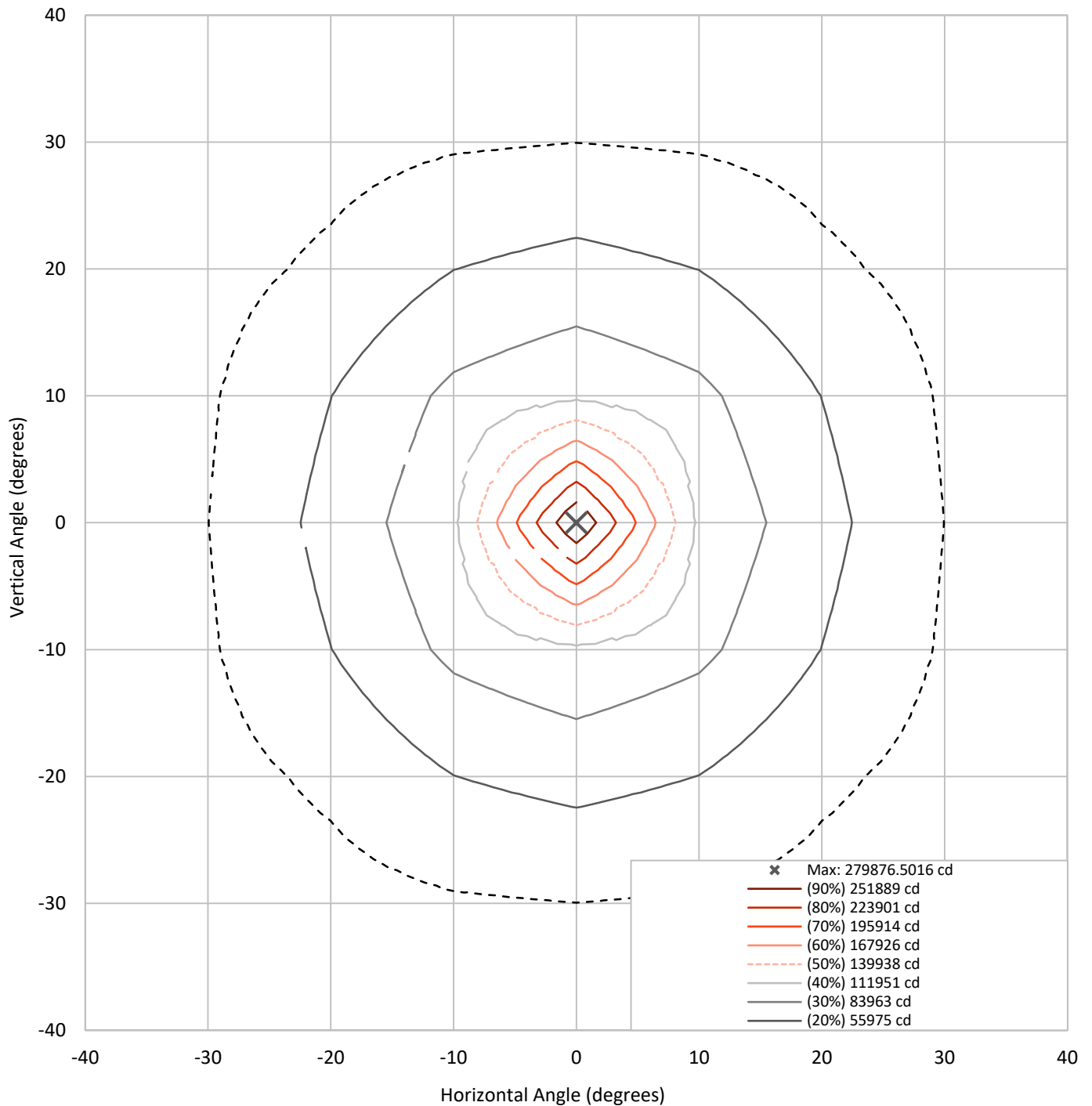
Summary

Lumens per Lamp:	111000 (1 lamp)	NEMA Type:	4H x 4V
Luminaire Lumens:	84471.7 lumens	Max Intensity:	279876.5 candela
Efficiency:	76.1%	Max Intensity Angle:	0°H x 0°V
Efficacy:	84.5 lumens/watt		
Luminous Opening:	Point Source (0' x 0' x 0')		
Beam Angle (50%):	16.2°H x 16.2°V	Field Angle (10%):	59.9°H x 59.9°V
Beam Lumens:	6179 lumens	Field Lumens:	59843.1 lumens
Beam Efficiency:	7.3%	Field Efficiency:	70.8%
Input Watts (W):	1000		
Input Voltage (V):	NR		
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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Iso-Candela Plot





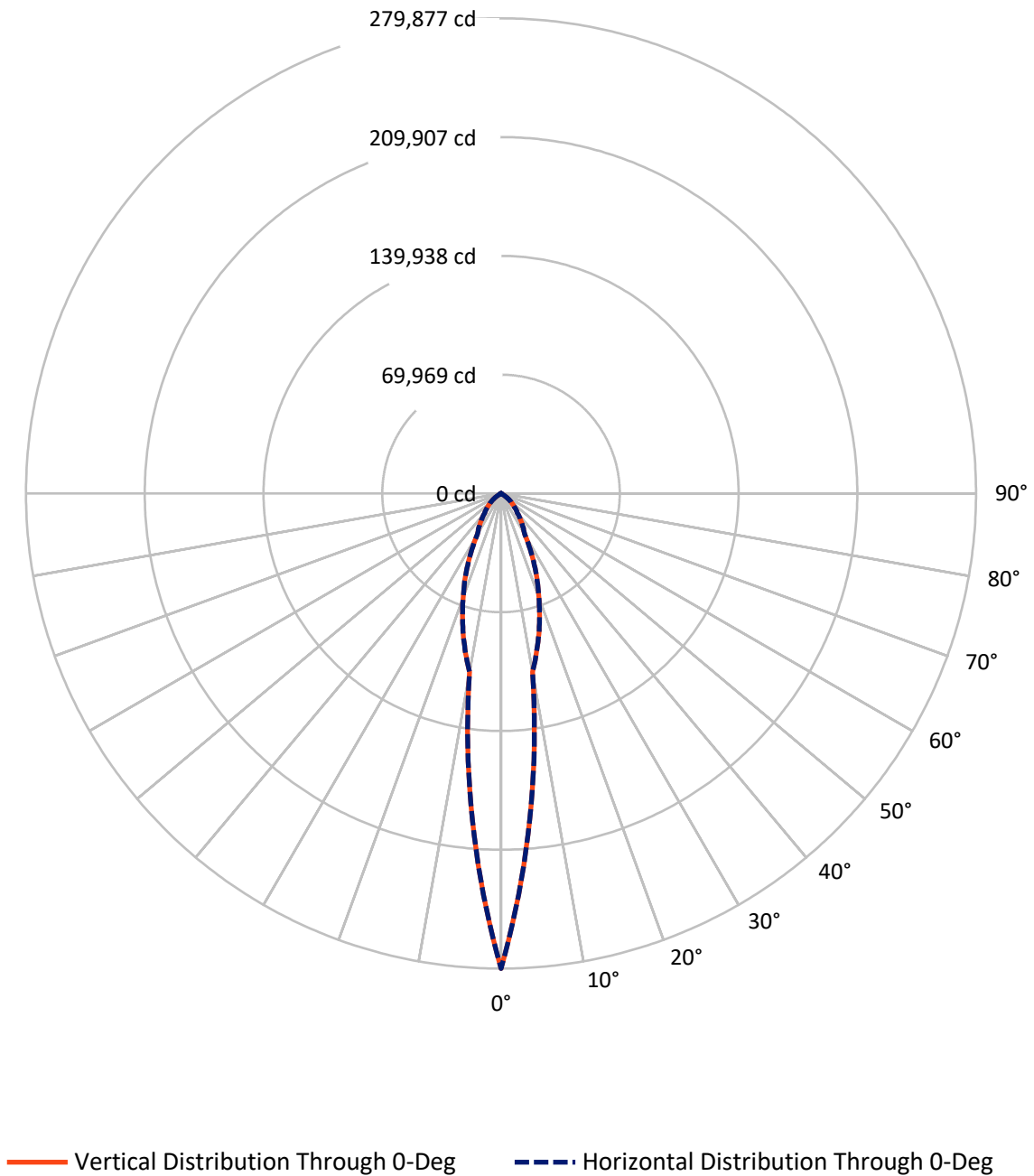
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Lumen Table

90	1.1	5.2	8.8	12.1	13.7	12.1	8.8	5.2	1.1										
80	1.1	5.2	8.8	12.1	13.7	12.1	8.8	5.2	1.1										
70	2.1	1.6	2.6	4.3	6.5	9.2	11.9	13.7	13.7	11.9	9.2	6.5	4.3	2.6	1.6	2.1			
60		1.9	3.9	8.4	18.6	46.7	88.4	116.6	116.6	88.4	46.7	18.6	8.4	3.9	1.9				
50	2.4	2.5	6.8	25.4	89.7	193.6	282.9	329.4	329.4	282.9	193.6	89.7	25.4	6.8	2.5	2.4			
40		3.4	13.0	78.0	222.8	382.0	524.8	623.7	623.7	524.8	382.0	222.8	78.0	13.0	3.4				
30	2.7	4.3	29.4	152.6	345.8	585.3	973.7	1316.0	1316.0	973.7	585.3	345.8	152.6	29.4	4.3	2.7			
20		5.2	52.4	209.0	446.3	915.6	1727.3	2409.9	2409.8	1727.2	915.5	446.2	209.0	52.4	5.2				
10	2.9	5.8	67.1	235.6	515.1	1201.8	2339.6	4425.6	4425.6	2339.5	1201.8	515.0	235.6	67.1	5.8	2.9			
0		5.8	67.1	235.6	515.1	1201.8	2339.5	4425.6	4425.6	2339.5	1201.8	515.0	235.6	67.1	5.8				
-10	2.7	5.2	52.4	209.0	446.3	915.6	1727.2	2409.8	2409.8	1727.1	915.5	446.2	209.0	52.4	5.2	2.7			
-20		4.3	29.4	152.6	345.8	585.3	973.6	1315.9	1315.9	973.6	585.3	345.8	152.6	29.4	4.3				
-30	2.4	3.4	13.0	78.0	222.8	382.0	524.7	623.7	623.7	524.7	382.0	222.8	78.0	13.0	3.4	2.4			
-40		2.5	6.8	25.4	89.7	193.6	282.9	329.4	329.4	282.9	193.6	89.7	25.4	6.8	2.5				
-50	2.1	1.9	3.9	8.4	18.6	46.7	88.4	116.6	116.6	88.4	46.7	18.6	8.4	3.9	1.9	2.1			
-60		1.6	2.6	4.3	6.5	9.2	11.9	13.7	13.7	11.9	9.2	6.5	4.3	2.6	1.6				
-70	1.1	5.2	8.8	12.1	13.7	12.1	8.8	5.2	1.1						1.1				
-80		1.1	5.2	8.8	12.1	13.7	12.1	8.8	5.2	1.1									
-90	1.1	5.2	8.8	12.1	13.7	12.1	8.8	5.2	1.1						1.1				
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

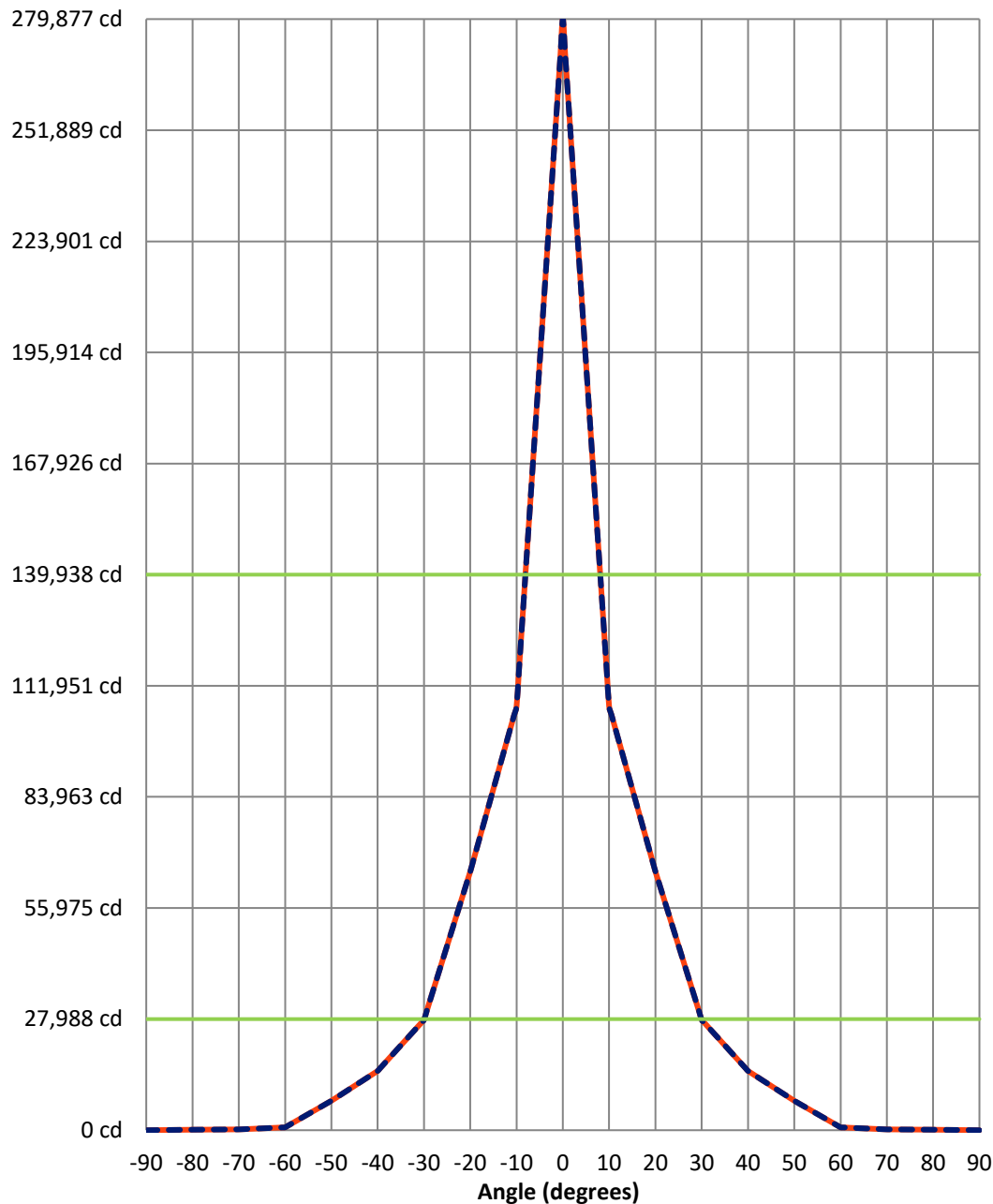
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Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 16.2°
 V Angle: 16.2°
 Lumens: 6179
 Efficiency: 7.3%

Field:
 H Angle: 59.9°
 V Angle: 59.9°
 Lumens: 59843.1
 Efficiency: 70.8%

Spill:
 Lumens: 24628.6
 Efficiency: 29.2%

— Vertical Distribution through 0-Deg
 - - Horizontal Distribution through 0-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	-90°	-80°	-70°	-60°	-50°	-45°	-40°	-35°	-30°	-25°	-20°
90°	0	0	0	0	0	0	0	0	0	1	2
80°	0	57	92	111	111	111	112	115	118	120	122
70°	0	92	111	125	148	149	150	155	160	172	183
60°	0	111	125	149	183	246	310	370	429	493	554
50°	0	111	148	183	378	528	678	1117	1560	2881	4207
45°	0	111	149	246	528	1169	1810	3573	5330	7008	8674
40°	0	112	150	310	678	1810	2939	6027	9107	11127	13145
35°	0	115	155	370	1117	3573	6026	8899	11766	13835	15899
30°	0	118	160	429	1557	5331	9107	11766	14421	16538	18657
25°	0	120	172	492	2881	7008	11126	13835	16538	21177	25825
20°	0	122	183	554	4206	8674	13144	15899	18655	25827	33004
15°	0	123	191	617	5391	9622	13852	17843	21834	33099	44342
10°	0	125	199	678	6574	10571	14556	19795	25023	40333	55664
5°	0	125	202	699	6994	10867	14744	20577	26404	43425	60415
0°	0	126	204	720	7410	11170	14930	21364	27797	46480	65162
-5°	0	125	202	699	6994	10867	14744	20577	26404	43425	60415
-10°	0	125	199	678	6574	10571	14556	19794	25022	40331	55663
-15°	0	123	191	617	5391	9622	13852	17843	21834	33099	44342
-20°	0	122	183	554	4206	8674	13143	15899	18655	25825	33002
-25°	0	120	172	492	2881	7008	11126	13835	16538	21177	25825
-30°	0	118	160	429	1556	5330	9107	11766	14421	16538	18655
-35°	0	115	155	370	1117	3573	6025	8899	11766	13835	15899
-40°	0	112	150	310	678	1809	2939	6024	9107	11126	13143
-45°	0	111	149	246	528	1169	1810	3573	5330	7008	8674
-50°	0	111	148	183	378	528	678	1117	1556	2881	4206
-60°	0	111	125	149	183	246	310	370	429	492	554
-70°	0	92	111	125	148	149	150	155	160	172	183
-80°	0	57	92	111	111	111	112	115	118	120	122
-90°	0	0	0	0	0	0	0	0	0	1	1



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CANDELA DISTRIBUTION (continued):

	-15°	-10°	-5°	0°	5°	10°	15°	20°	25°	30°	35°
90°	1	2	1	0	1	2	1	2	1	0	0
80°	123	125	126	126	126	125	123	122	120	118	115
70°	191	199	202	204	202	199	191	183	172	160	155
60°	617	679	699	720	699	679	617	554	493	429	370
50°	5391	6577	6995	7410	6995	6577	5391	4207	2881	1560	1117
45°	9622	10571	10867	11170	10867	10571	9622	8674	7008	5331	3573
40°	13855	14558	14744	14930	14744	14558	13855	13145	11127	9107	6027
35°	17843	19795	20577	21364	20577	19795	17843	15899	13835	11767	8899
30°	21837	25037	26409	27797	26409	25037	21838	18657	16538	14421	11766
25°	33099	40331	43425	46480	43425	40333	33099	25827	21177	16538	13835
20°	44351	55667	60418	65162	60418	55668	44351	33005	25827	18657	15899
15°	58689	73049	79510	85956	79510	73052	58689	44351	33099	21837	17843
10°	73052	90398	98578	106750	98578	90408	73052	55668	40333	25037	19795
5°	79510	98575	145900	193313	145900	98578	79510	60418	43425	26409	20577
0°	85956	106750	193313	279877	193313	106750	85956	65162	46480	27797	21364
-5°	79510	98575	145900	193313	145900	98578	79510	60418	43425	26409	20577
-10°	73049	90388	98575	106750	98575	90398	73049	55667	40331	25036	19794
-15°	58689	73049	79510	85956	79510	73052	58689	44351	33099	21837	17843
-20°	44341	55663	60415	65162	60415	55664	44341	33004	25825	18656	15899
-25°	33099	40331	43425	46480	43425	40333	33099	25827	21177	16538	13835
-30°	21834	25022	26404	27797	26404	25023	21834	18655	16538	14421	11766
-35°	17843	19795	20577	21364	20577	19795	17843	15899	13835	11767	8899
-40°	13852	14556	14744	14930	14744	14556	13852	13144	11126	9107	6024
-45°	9622	10571	10867	11170	10867	10571	9622	8674	7008	5331	3573
-50°	5391	6574	6994	7410	6994	6574	5391	4206	2881	1557	1117
-60°	617	678	699	720	699	678	617	554	492	429	370
-70°	191	199	202	204	202	199	191	183	172	160	155
-80°	123	125	125	126	125	125	123	122	120	118	115
-90°	1	1	1	0	1	1	1	1	1	0	0



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CANDELA DISTRIBUTION (continued):

	40°	45°	50°	60°	70°	80°	90°
90°	0	0	0	0	0	0	0
80°	112	111	111	111	92	57	0
70°	150	149	148	125	111	92	0
60°	310	246	183	149	125	111	0
50°	679	528	378	183	148	111	0
45°	1810	1169	528	246	149	111	0
40°	2939	1810	678	310	150	112	0
35°	6027	3573	1117	370	155	115	0
30°	9107	5331	1560	429	160	118	0
25°	11127	7008	2881	493	172	120	0
20°	13145	8674	4207	554	183	122	0
15°	13855	9622	5391	617	191	123	0
10°	14558	10571	6577	679	199	125	0
5°	14744	10867	6995	699	202	125	0
0°	14930	11170	7410	720	204	126	0
-5°	14744	10867	6995	699	202	125	0
-10°	14558	10571	6577	679	199	125	0
-15°	13855	9622	5391	617	191	123	0
-20°	13145	8674	4207	554	183	122	0
-25°	11127	7008	2881	493	172	120	0
-30°	9107	5330	1559	429	160	118	0
-35°	6027	3573	1117	370	155	115	0
-40°	2939	1809	678	310	150	112	0
-45°	1810	1169	528	246	149	111	0
-50°	678	528	378	183	148	111	0
-60°	310	246	183	149	125	111	0
-70°	150	149	148	125	111	92	0
-80°	112	111	111	111	92	57	0
-90°	0	0	0	0	0	0	0

(END OF REPORT)