

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: INVUE

Report Number: P95366

Luminaire Tested: **VFS-K-B20-7-LED-E1-MSR**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P95366
REPORT SCALED FROM IESNA LM79-08 TEST DATA (P22803)
Test Lab: INNOVATION CENTER
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VFS-K-B20-7-LED-E1-MSR
Description: ARCHITECTURAL FLOOD LUMINAIRE
MEDIUM SYMMETRIC ROUND DISTRIBUTION
WITH 20 LED'S, 700mA DRIVE CURRENT
Light Source: -
Ballast/Driver: -

Summary

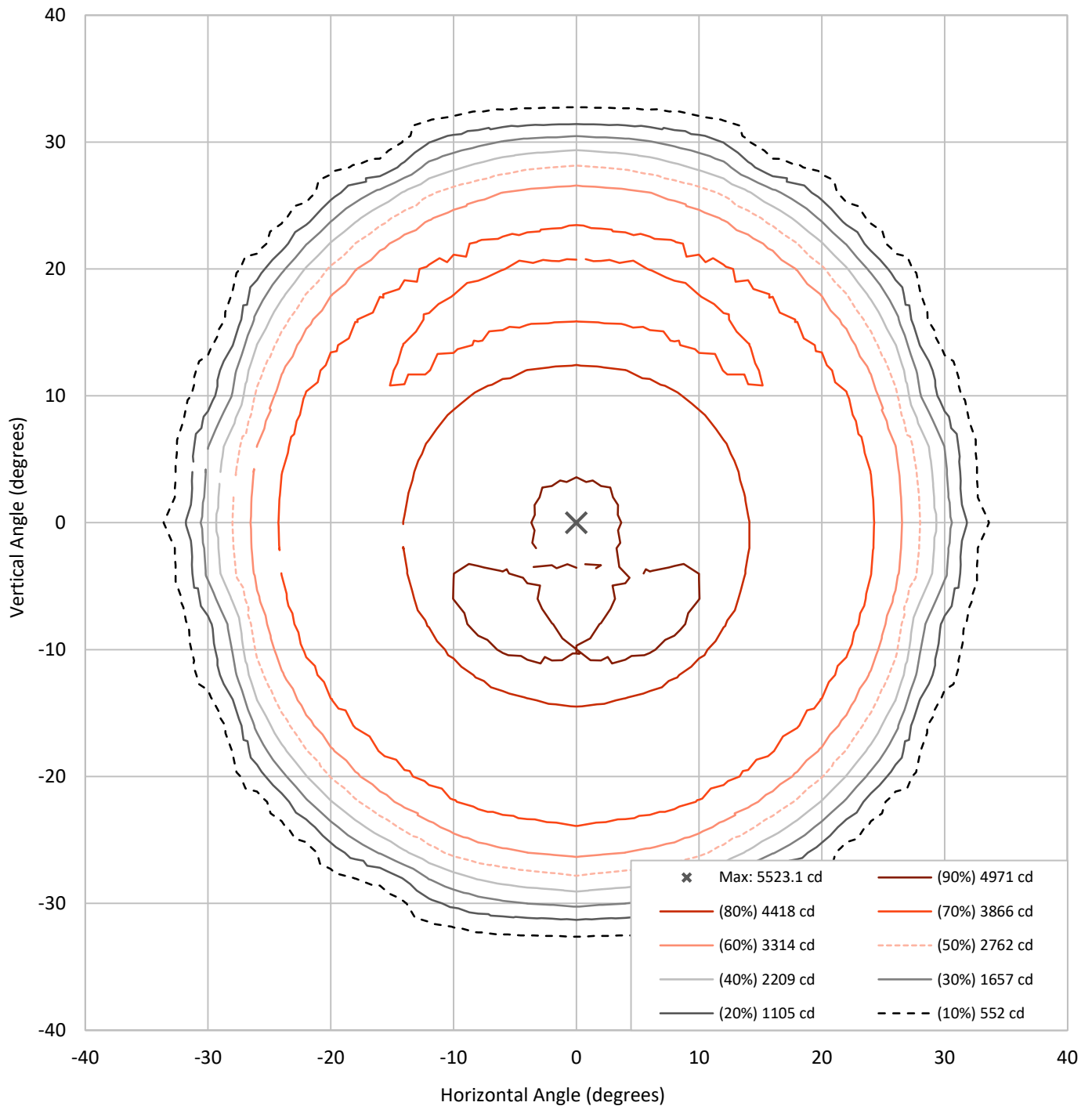
Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	3564.7 lumens	Max Intensity:	5523.1 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	73.3 lumens/watt		
Luminous Opening:	(L: 0.83 ' x W: 0 ' x H: 0.5 ')		
Beam Angle (50%):	56°H x 56°V	Field Angle (10%):	66.2°H x 64.7°V
Beam Lumens:	2996 lumens	Field Lumens:	3416.1 lumens
Beam Efficiency:	84.0%	Field Efficiency:	95.8%

Input Watts (W): 48.6
Input Voltage (V): NR
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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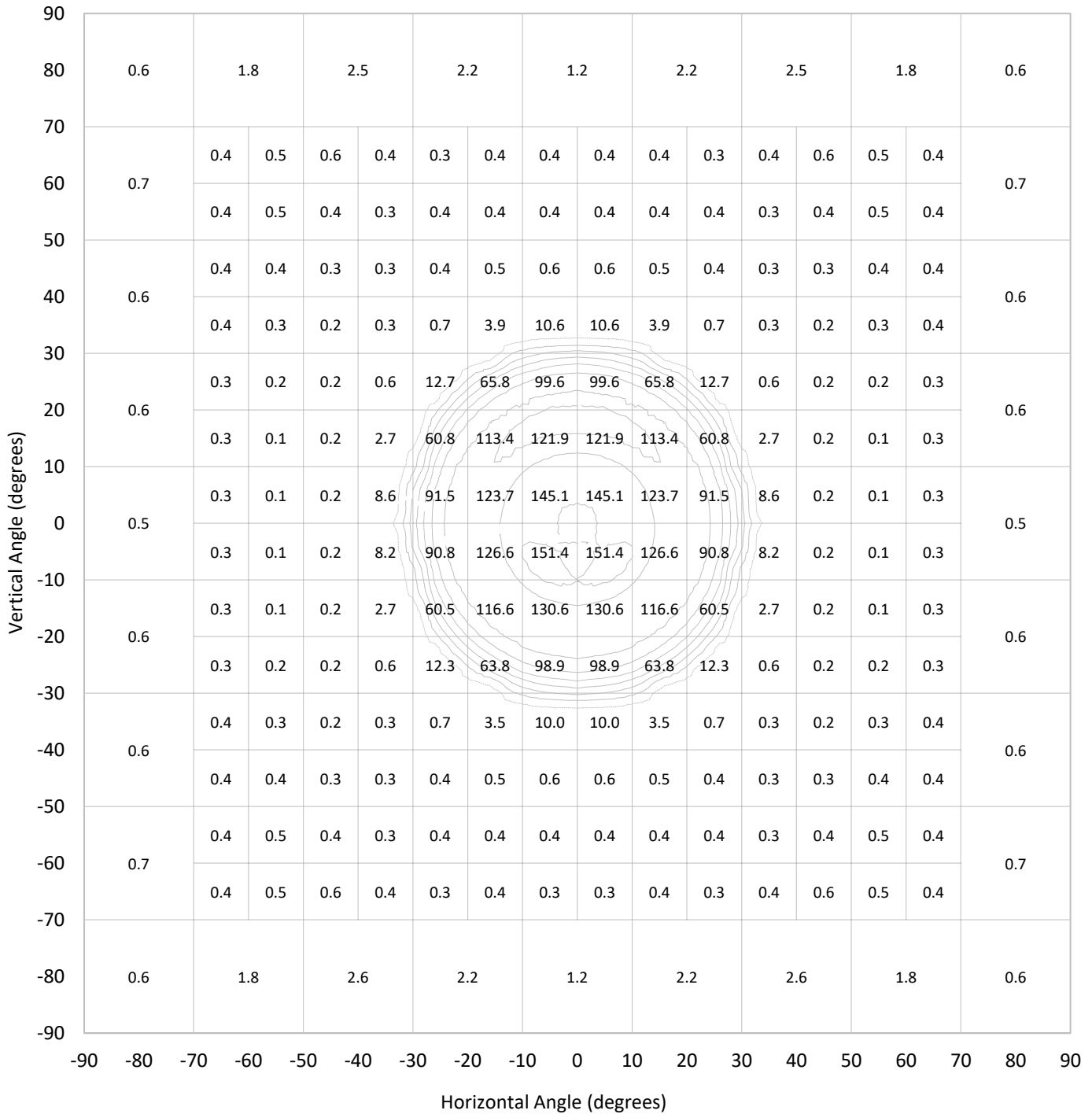
Iso-Candela Plot





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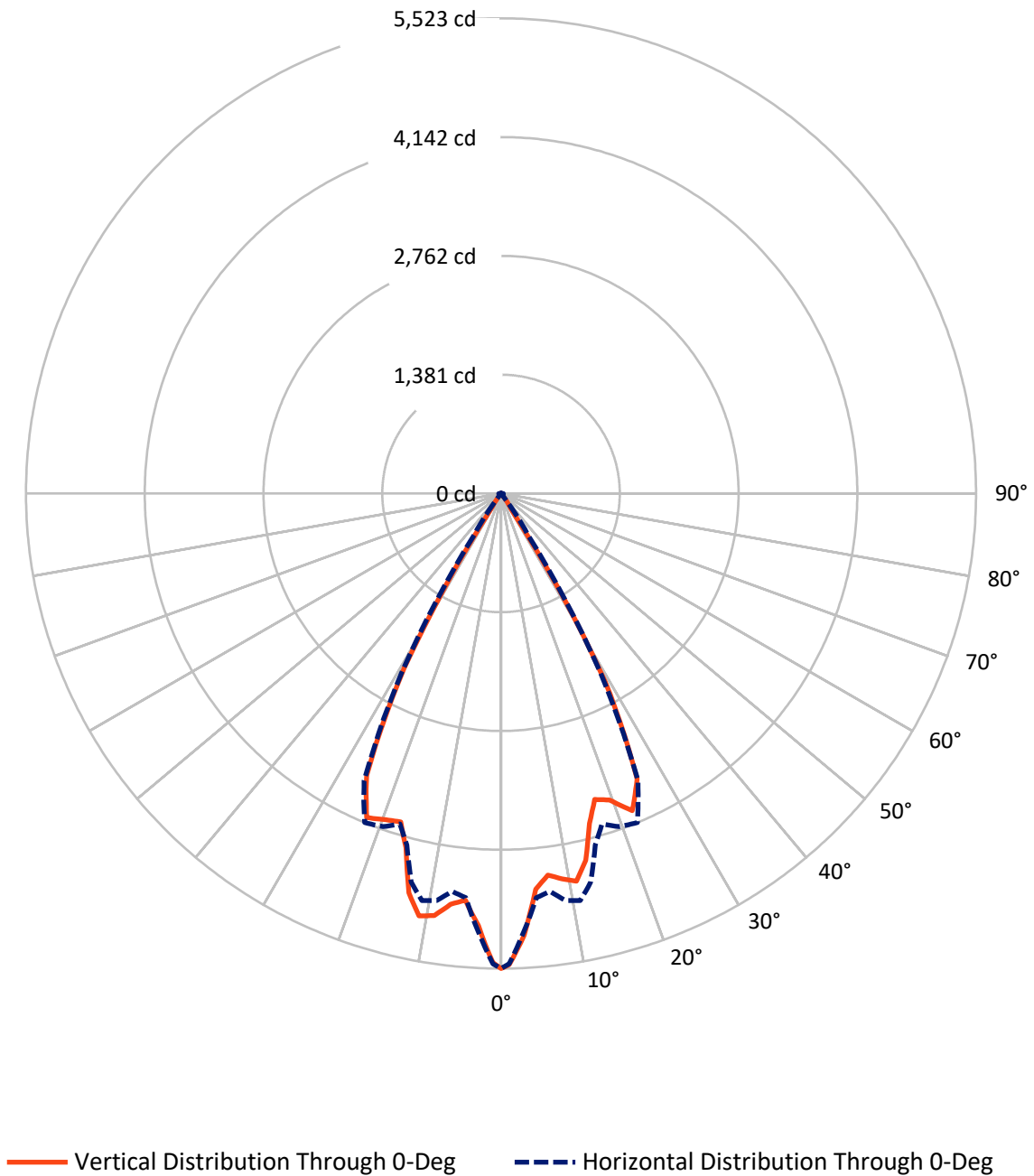
Lumen Table



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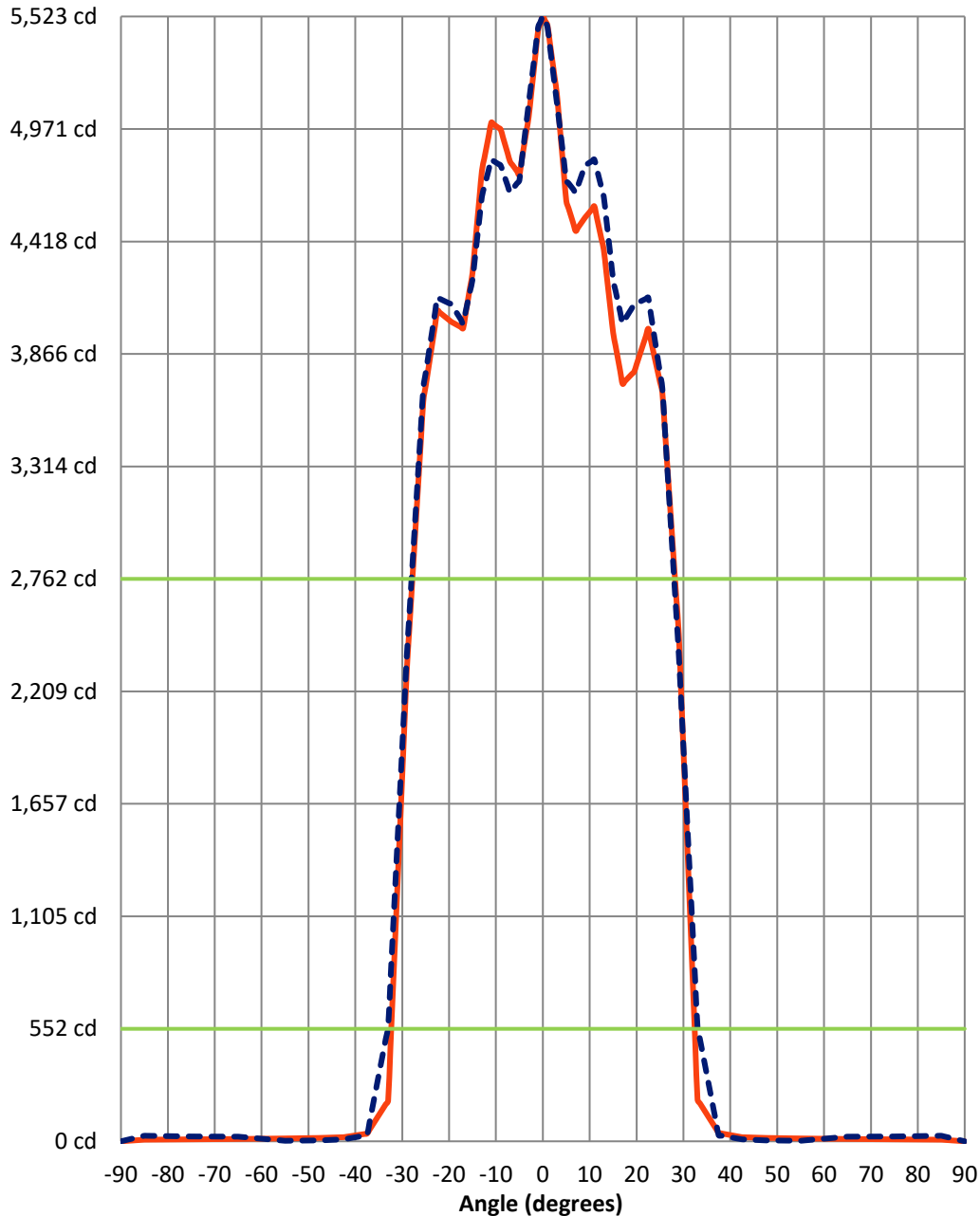
Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 56°
 V Angle: 56°
 Lumens: 2996
 Efficiency: 84.0%

Field:
 H Angle: 66.2°
 V Angle: 64.7°
 Lumens: 3416.1
 Efficiency: 95.8%

Spill:
 Lumens: 148.5
 Efficiency: 4.2%

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



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FIELD
BEAM

CANDELA DISTRIBUTION:

	0°	1°	3°	5°	7°	9°	11°	13°	15°	17°	19.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.9	7.9	11.4	10.5	7.9	20.2	29.8	30.7	30.7	30.7	30.7
75°	9.6	9.6	9.6	9.6	10.5	11.4	12.3	11.4	10.5	9.6	8.8
65°	11.4	11.4	11.4	11.4	11.4	12.3	12.3	13.2	13.2	13.2	13.2
55°	14.0	14.0	14.0	14.0	13.2	14.0	14.0	14.0	14.0	14.0	14.0
47.5°	16.7	16.7	16.7	16.7	16.7	16.7	15.8	15.8	15.8	15.8	14.9
42.5°	20.2	20.2	20.2	20.2	20.2	19.3	19.3	18.4	18.4	17.5	16.7
37.5°	41.2	40.3	40.3	40.3	37.7	36.0	33.3	29.8	27.2	24.6	21.9
33°	205.2	204.3	204.3	207.8	213.1	224.5	159.6	119.3	101.7	71.9	43.8
29°	2491.4	2444.1	2386.2	2290.6	2071.4	1818.8	1560.1	1254.0	226.3	221.9	180.7
25.5°	3675.3	3654.3	3625.3	3566.6	3455.2	3294.7	3068.5	2742.2	2297.6	1815.3	1211.1
22.5°	3990.1	3987.5	3971.7	3949.8	3919.1	3852.5	3735.8	3561.3	3286.8	2891.3	2243.2
19.5°	3779.7	3791.1	3802.5	3828.8	3884.0	3942.8	3962.1	3939.3	3841.9	3614.8	3138.6
17°	3720.0	3718.3	3723.5	3731.4	3735.8	3771.8	3851.6	3940.2	3978.7	3904.2	3607.8
15°	3970.0	3950.7	3923.5	3867.4	3793.7	3755.1	3759.5	3841.9	3948.0	3991.9	3837.6
13°	4377.8	4355.0	4321.6	4222.5	4069.1	3916.5	3802.5	3781.4	3874.4	3983.1	3978.7
11°	4590.9	4584.7	4593.5	4559.3	4433.9	4243.6	4014.7	3846.3	3832.3	3940.2	4039.3
9°	4535.6	4547.0	4642.6	4742.6	4713.6	4537.4	4287.4	4023.5	3870.0	3913.0	4041.0
7°	4469.8	4484.7	4610.1	4844.3	4988.1	4792.6	4534.7	4213.8	3956.8	3910.3	4030.5
5°	4618.0	4622.4	4649.6	4810.1	4990.7	4964.4	4742.6	4400.6	4055.0	3932.3	4029.6
3°	5143.3	5074.9	4845.2	4709.2	4761.0	4863.6	4817.1	4537.4	4144.5	3965.6	4035.7
1°	5479.2	5433.6	5075.8	4704.9	4663.6	4794.3	4812.7	4614.5	4214.6	4008.6	4102.4
0°	5523.1	5470.4	5099.5	4718.9	4659.3	4791.7	4820.6	4638.2	4231.3	4017.3	4109.4
-1°	5456.4	5406.4	5074.1	4737.3	4693.5	4820.6	4838.2	4655.8	4233.1	4017.3	4085.7
-3°	5032.0	5059.2	4910.9	4833.8	4877.6	4951.3	4896.0	4640.8	4200.6	4021.7	4078.7
-5°	4747.0	4761.9	4874.1	5071.4	5167.0	5111.8	4918.0	4526.0	4132.2	4033.1	4101.5
-7°	4811.0	4825.0	4996.9	5250.3	5345.9	5115.3	4758.4	4350.6	4072.6	4039.3	4123.4
-9°	4968.8	4983.7	5095.1	5198.6	5125.8	4826.8	4502.3	4167.3	4030.5	4048.0	4131.3
-11°	5002.1	5023.2	5032.8	4968.8	4771.5	4518.1	4225.2	4028.7	4005.9	4086.6	4113.8
-13°	4765.4	4785.5	4702.2	4548.8	4387.4	4174.3	4016.5	3979.6	4047.1	4109.4	4033.1
-15°	4264.6	4223.4	4179.6	4108.5	4050.7	3982.3	3974.4	4034.0	4096.3	4073.5	3852.5
-17°	3991.9	3992.8	3991.9	3984.9	3977.9	3996.3	4046.3	4087.5	4062.9	3927.9	3593.8
-19.5°	4023.5	4032.2	4041.9	4059.4	4074.3	4089.2	4068.2	3989.3	3828.8	3577.1	3082.5
-22.5°	4078.7	4072.6	4062.9	4035.7	3988.4	3887.5	3725.3	3499.9	3202.6	2810.6	2175.7
-25.5°	3632.3	3591.1	3552.5	3462.2	3390.3	3234.2	2965.0	2597.5	2169.6	1709.2	1125.1
-29°	2320.4	2245.9	2194.1	2099.4	1946.8	1731.1	1425.1	1083.9	221.0	220.1	163.1
-33°	199.9	198.2	199.9	205.2	212.2	201.7	124.5	100.0	88.6	62.3	41.2
-37.5°	37.7	36.8	36.8	37.7	36.0	34.2	31.6	28.9	26.3	24.6	21.9
-42.5°	20.2	20.2	20.2	20.2	20.2	19.3	19.3	18.4	18.4	17.5	16.7
-47.5°	16.7	16.7	16.7	16.7	16.7	16.7	16.7	15.8	15.8	15.8	15.8
-55°	14.0	14.0	13.2	14.0	13.2	14.0	14.0	14.0	14.0	14.0	14.0
-65°	11.4	11.4	11.4	11.4	11.4	11.4	12.3	13.2	13.2	13.2	13.2
-75°	9.6	9.6	9.6	9.6	10.5	11.4	12.3	11.4	10.5	9.6	8.8
-85°	7.9	8.8	11.4	10.5	7.9	20.2	29.8	31.6	31.6	30.7	31.6
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	22.5°	25.5°	29°	33°	37.5°	42.5°	47.5°	55°	65°	75°	85°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	32.4	33.3	33.3	33.3	32.4	32.4	32.4	33.3	35.1	36.0	36.8
75°	14.0	21.0	29.8	30.7	30.7	29.8	31.6	33.3	32.4	33.3	36.0
65°	11.4	10.5	9.6	12.3	20.2	29.8	30.7	30.7	33.3	32.4	35.1
55°	14.0	13.2	12.3	10.5	9.6	14.0	22.8	30.7	29.8	33.3	34.2
47.5°	14.9	14.9	14.0	12.3	10.5	9.6	14.9	28.9	30.7	33.3	33.3
42.5°	16.7	15.8	14.9	13.2	11.4	9.6	10.5	23.7	30.7	32.4	33.3
37.5°	19.3	17.5	15.8	14.0	11.4	9.6	7.9	19.3	29.8	31.6	32.4
33°	29.8	23.7	18.4	14.9	12.3	9.6	7.9	15.8	28.9	30.7	31.6
29°	87.7	43.0	24.6	17.5	13.2	9.6	7.9	13.2	28.1	28.9	30.7
25.5°	201.7	114.0	48.2	21.9	14.0	9.6	7.0	10.5	27.2	28.1	29.8
22.5°	1318.9	191.2	107.9	28.9	15.8	9.6	7.0	8.8	27.2	27.2	29.8
19.5°	2258.2	1190.9	160.5	42.1	17.5	9.6	6.1	7.0	26.3	26.3	28.9
17°	2902.7	1824.9	181.5	64.0	18.4	9.6	6.1	6.1	25.4	26.3	28.9
15°	3290.3	2302.9	198.2	99.1	20.2	8.8	5.3	5.3	24.6	25.4	28.1
13°	3583.2	2706.3	855.0	138.6	21.9	8.8	5.3	4.4	23.7	25.4	28.1
11°	3792.8	3025.5	1024.3	162.2	23.7	8.8	5.3	3.5	23.7	24.6	28.1
9°	3930.5	3274.5	1174.2	192.1	25.4	8.8	4.4	2.6	23.7	24.6	27.2
7°	4026.1	3461.3	2037.2	213.1	27.2	8.8	4.4	2.6	22.8	24.6	27.2
5°	4090.1	3579.7	2210.8	217.5	28.1	9.6	4.4	2.6	22.8	24.6	27.2
3°	4121.7	3655.1	2325.7	220.1	29.8	9.6	4.4	2.6	22.8	24.6	27.2
1°	4139.2	3693.7	2385.3	221.0	29.8	9.6	4.4	2.6	22.8	23.7	27.2
0°	4142.7	3697.2	2391.5	563.0	29.8	9.6	4.4	2.6	22.8	23.7	27.2
-1°	4144.5	3692.9	2384.4	221.0	29.8	9.6	4.4	2.6	22.8	23.7	27.2
-3°	4139.2	3654.3	2327.4	220.1	29.8	9.6	4.4	2.6	22.8	24.6	27.2
-5°	4120.8	3569.2	2208.2	217.5	28.9	9.6	4.4	2.6	22.8	24.6	27.2
-7°	4069.1	3453.4	1293.5	213.1	27.2	8.8	4.4	2.6	22.8	24.6	27.2
-9°	3959.4	3275.4	1168.1	188.5	25.4	8.8	4.4	2.6	22.8	24.6	27.2
-11°	3792.8	3021.1	1020.8	162.2	22.8	8.8	5.3	3.5	23.7	24.6	27.2
-13°	3570.1	2692.3	852.4	140.3	21.0	8.8	5.3	3.5	23.7	24.6	28.1
-15°	3263.1	2280.1	197.3	99.1	19.3	8.8	5.3	4.4	24.6	25.4	28.1
-17°	2872.0	1803.9	180.7	64.0	18.4	8.8	5.3	5.3	24.6	25.4	28.1
-19.5°	2195.0	1173.4	158.7	40.3	16.7	8.8	6.1	7.0	25.4	26.3	28.9
-22.5°	1280.4	189.4	105.2	27.2	14.9	9.6	6.1	8.8	26.3	27.2	28.9
-25.5°	198.2	110.5	46.5	21.0	14.0	9.6	7.0	10.5	27.2	28.1	29.8
-29°	80.7	40.3	24.6	17.5	13.2	9.6	7.9	13.2	28.1	28.9	29.8
-33°	28.9	22.8	18.4	14.9	12.3	9.6	7.9	15.8	28.9	29.8	30.7
-37.5°	19.3	17.5	15.8	14.0	12.3	9.6	8.8	19.3	29.8	31.6	31.6
-42.5°	16.7	15.8	14.9	13.2	11.4	9.6	10.5	24.6	30.7	32.4	32.4
-47.5°	14.9	14.9	14.0	13.2	11.4	9.6	14.9	28.9	30.7	33.3	33.3
-55°	14.0	14.0	12.3	11.4	9.6	14.9	23.7	30.7	30.7	33.3	34.2
-65°	12.3	10.5	9.6	12.3	21.0	29.8	31.6	30.7	33.3	32.4	35.1
-75°	14.0	21.9	29.8	30.7	31.6	30.7	31.6	34.2	33.3	33.3	36.0
-85°	33.3	34.2	34.2	33.3	33.3	32.4	33.3	34.2	35.1	36.0	36.8
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°
90°	0.0
85°	0.0
75°	0.0
65°	0.0
55°	0.0
47.5°	0.0
42.5°	0.0
37.5°	0.0
33°	0.0
29°	0.0
25.5°	0.0
22.5°	0.0
19.5°	0.0
17°	0.0
15°	0.0
13°	0.0
11°	0.0
9°	0.0
7°	0.0
5°	0.0
3°	0.0
1°	0.0
0°	0.0
-1°	0.0
-3°	0.0
-5°	0.0
-7°	0.0
-9°	0.0
-11°	0.0
-13°	0.0
-15°	0.0
-17°	0.0
-19.5°	0.0
-22.5°	0.0
-25.5°	0.0
-29°	0.0
-33°	0.0
-37.5°	0.0
-42.5°	0.0
-47.5°	0.0
-55°	0.0
-65°	0.0
-75°	0.0
-85°	0.0
-90°	0.0

(END OF REPORT)