

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: P95365

Luminaire Tested: **VFS-K-B20-5-LED-E1-MSR**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P95365
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-B20-5-LED-E1-MSR
Description: ARCHITECTURAL FLOOD LUMINAIRE
MEDIUM SYMMETRIC ROUND DISTRIBUTION
WITH 20 LED'S, 525mA DRIVE CURRENT
Light Source: -
Ballast/Driver: -

Summary

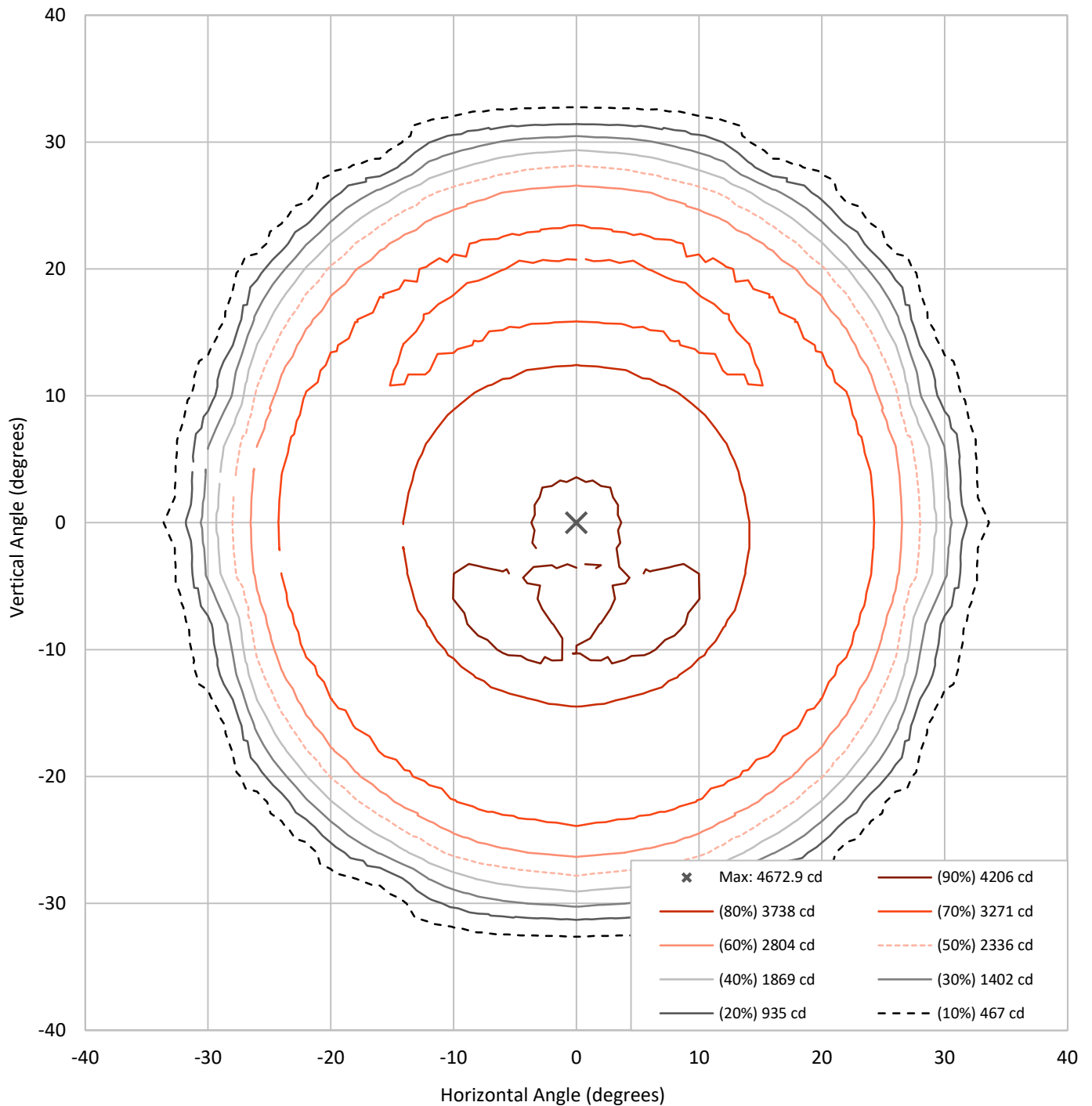
Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	3016 lumens	Max Intensity:	4672.9 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	86.4 lumens/watt		
Luminous Opening:	(L: 0.83 ' x W: 0 ' x H: 0.5 ')		
Beam Angle (50%):	56°H x 56°V	Field Angle (10%):	66.2°H x 64.7°V
Beam Lumens:	2534.8 lumens	Field Lumens:	2890.3 lumens
Beam Efficiency:	84.0%	Field Efficiency:	95.8%

Input Watts (W): 34.9
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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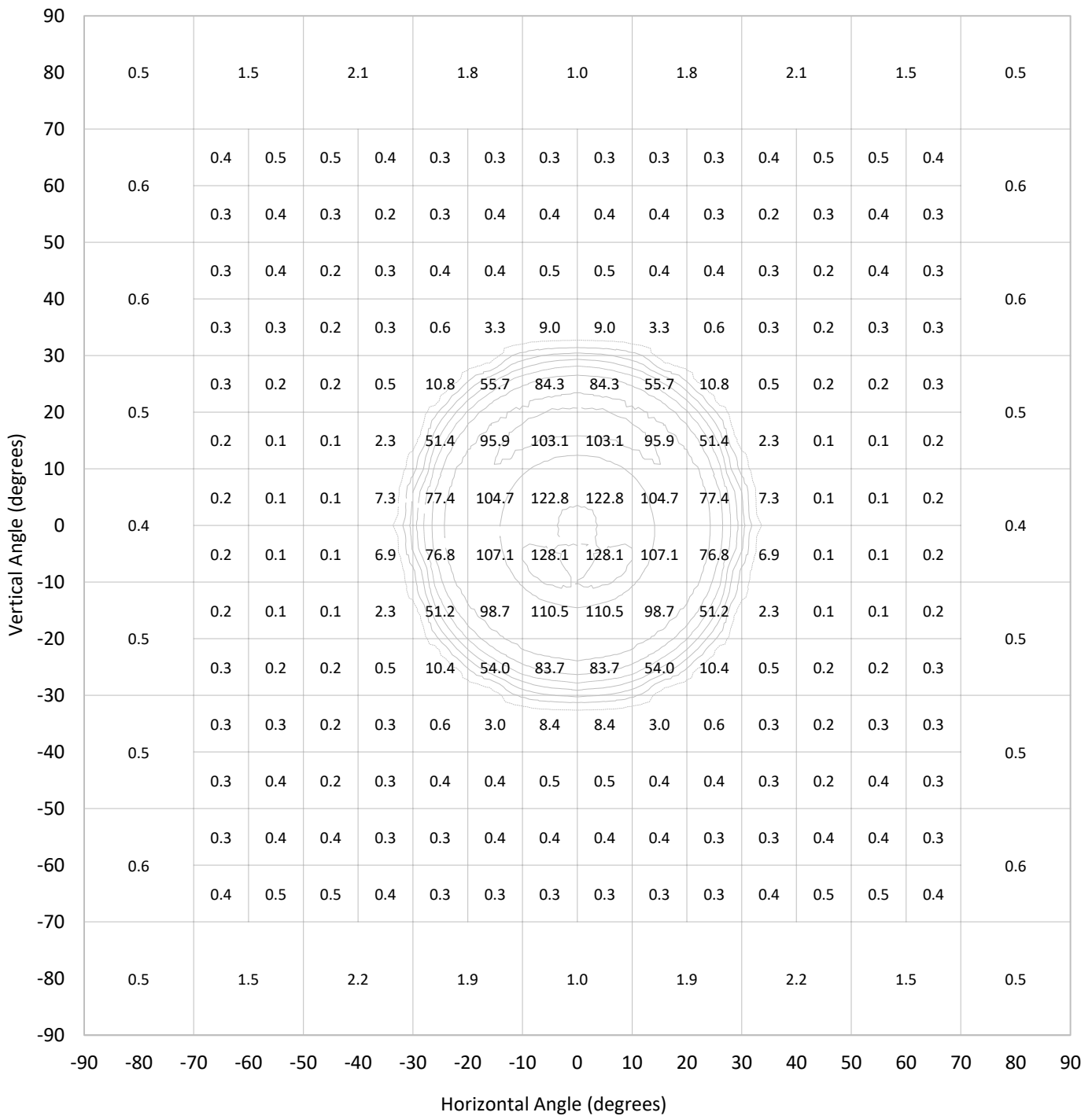
Iso-Candela Plot





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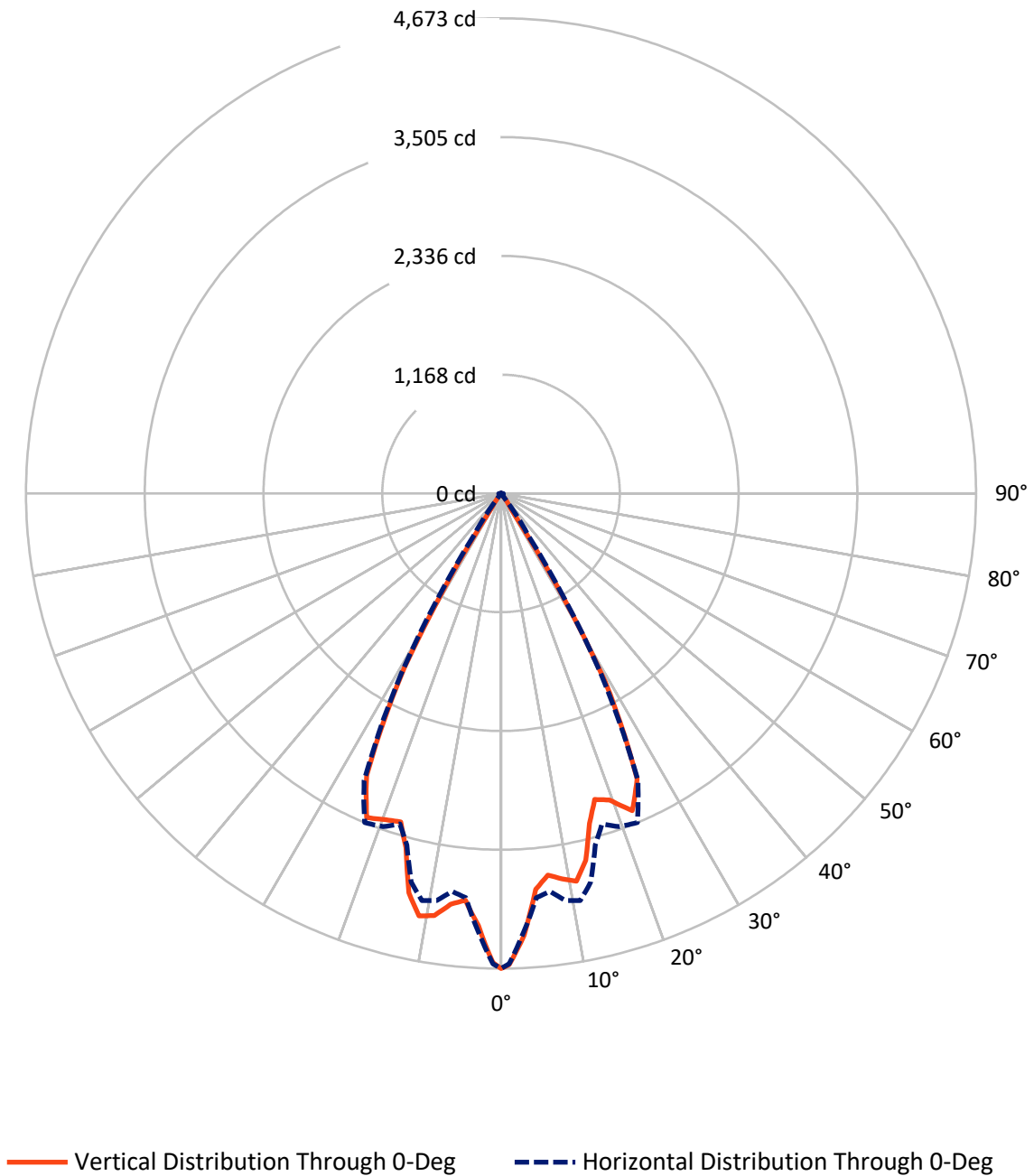
Lumen Table



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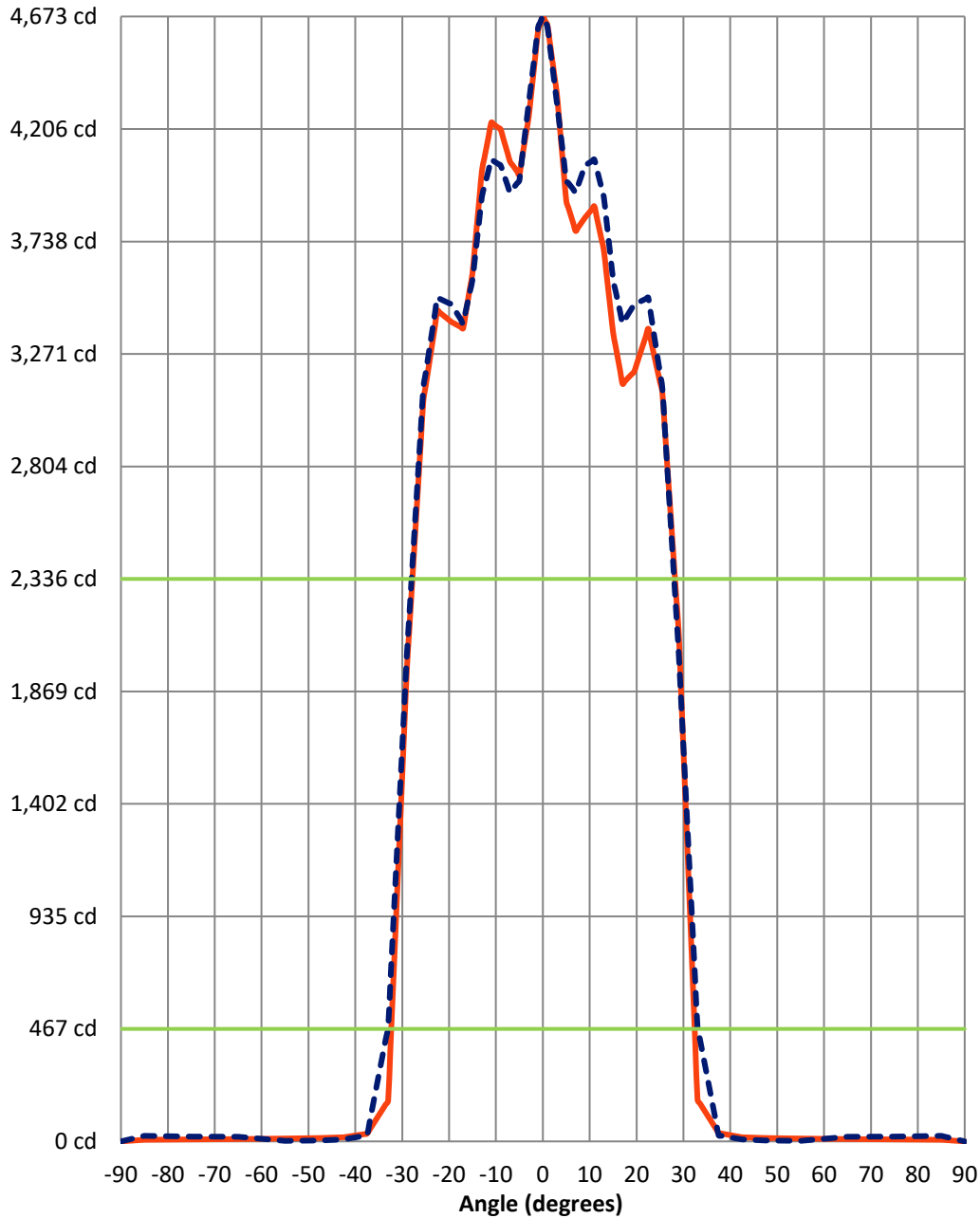
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Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 56°
 V Angle: 56°
 Lumens: 2534.8
 Efficiency: 84.0%

Field:
 H Angle: 66.2°
 V Angle: 64.7°
 Lumens: 2890.3
 Efficiency: 95.8%

Spill:
 Lumens: 125.7
 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°	6.7	6.7	9.6	8.9	6.7	17.1	25.2	26.0	26.0	26.0	26.0
75°	8.2	8.2	8.2	8.2	8.9	9.6	10.4	9.6	8.9	8.2	7.4
65°	9.6	9.6	9.6	9.6	9.6	10.4	10.4	11.1	11.1	11.1	11.1
55°	11.9	11.9	11.9	11.9	11.1	11.9	11.9	11.9	11.9	11.9	11.9
47.5°	14.1	14.1	14.1	14.1	14.1	14.1	13.4	13.4	13.4	13.4	12.6
42.5°	17.1	17.1	17.1	17.1	17.1	16.3	16.3	15.6	15.6	14.8	14.1
37.5°	34.9	34.1	34.1	34.1	31.9	30.4	28.2	25.2	23.0	20.8	18.5
33°	173.6	172.9	172.9	175.8	180.3	189.9	135.0	100.9	86.1	60.8	37.1
29°	2107.9	2067.9	2018.9	1938.0	1752.5	1538.8	1320.0	1061.0	191.4	187.7	152.8
25.5°	3109.6	3091.8	3067.3	3017.6	2923.3	2787.6	2596.1	2320.1	1943.9	1535.9	1024.7
22.5°	3375.9	3373.7	3360.4	3341.8	3315.8	3259.5	3160.8	3013.1	2780.9	2446.3	1897.9
19.5°	3197.9	3207.5	3217.2	3239.4	3286.2	3335.9	3352.2	3332.9	3250.5	3058.4	2655.5
17°	3147.4	3145.9	3150.4	3157.1	3160.8	3191.2	3258.7	3333.6	3366.3	3303.2	3052.4
15°	3358.9	3342.6	3319.6	3272.1	3209.7	3177.1	3180.8	3250.5	3340.3	3377.4	3246.8
13°	3703.9	3684.6	3656.4	3572.6	3442.7	3313.6	3217.2	3199.4	3278.0	3370.0	3366.3
11°	3884.2	3879.0	3886.4	3857.5	3751.4	3590.4	3396.7	3254.3	3242.4	3333.6	3417.5
9°	3837.4	3847.1	3928.0	4012.5	3988.1	3838.9	3627.5	3404.1	3274.3	3310.6	3419.0
7°	3781.8	3794.4	3900.5	4098.6	4220.3	4054.8	3836.7	3565.1	3347.7	3308.4	3410.1
5°	3907.2	3910.9	3933.9	4069.7	4222.5	4200.3	4012.5	3723.2	3430.8	3327.0	3409.3
3°	4351.6	4293.8	4099.4	3984.4	4028.1	4114.9	4075.6	3838.9	3506.5	3355.2	3414.5
1°	4635.8	4597.2	4294.5	3980.6	3945.8	4056.3	4071.9	3904.2	3565.9	3391.5	3470.9
0°	4672.9	4628.4	4314.5	3992.5	3942.1	4054.1	4078.6	3924.3	3580.0	3398.9	3476.8
-1°	4616.5	4574.2	4293.0	4008.1	3971.0	4078.6	4093.4	3939.1	3581.5	3398.9	3456.8
-3°	4257.4	4280.4	4155.0	4089.7	4126.8	4189.1	4142.4	3926.5	3554.0	3402.7	3450.9
-5°	4016.3	4028.9	4123.8	4290.8	4371.7	4324.9	4160.9	3829.3	3496.1	3412.3	3470.2
-7°	4070.4	4082.3	4227.7	4442.1	4523.0	4327.9	4025.9	3680.9	3445.7	3417.5	3488.7
-9°	4204.0	4216.6	4310.8	4398.4	4336.8	4083.8	3809.2	3525.8	3410.1	3424.9	3495.4
-11°	4232.2	4250.0	4258.1	4204.0	4037.0	3822.6	3574.8	3408.6	3389.3	3457.6	3480.6
-13°	4031.8	4048.9	3978.4	3848.6	3712.1	3531.8	3398.2	3367.0	3424.2	3476.8	3412.3
-15°	3608.2	3573.3	3536.2	3476.1	3427.1	3369.3	3362.6	3413.0	3465.7	3446.4	3259.5
-17°	3377.4	3378.2	3377.4	3371.5	3365.6	3381.1	3423.4	3458.3	3437.5	3323.3	3040.6
-19.5°	3404.1	3411.6	3419.7	3434.6	3447.2	3459.8	3442.0	3375.2	3239.4	3026.5	2608.0
-22.5°	3450.9	3445.7	3437.5	3414.5	3374.5	3289.1	3151.9	2961.2	2709.7	2378.0	1840.8
-25.5°	3073.2	3038.3	3005.7	2929.3	2868.4	2736.4	2508.6	2197.7	1835.6	1446.1	951.9
-29°	1963.2	1900.2	1856.4	1776.3	1647.2	1464.6	1205.7	917.1	187.0	186.2	138.0
-33°	169.2	167.7	169.2	173.6	179.6	170.7	105.4	84.6	74.9	52.7	34.9
-37.5°	31.9	31.2	31.2	31.9	30.4	28.9	26.7	24.5	22.3	20.8	18.5
-42.5°	17.1	17.1	17.1	17.1	17.1	16.3	16.3	15.6	15.6	14.8	14.1
-47.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	13.4	13.4	13.4	13.4
-55°	11.9	11.9	11.1	11.9	11.1	11.9	11.9	11.9	11.9	11.9	11.9
-65°	9.6	9.6	9.6	9.6	9.6	9.6	10.4	11.1	11.1	11.1	11.1
-75°	8.2	8.2	8.2	8.2	8.9	9.6	10.4	9.6	8.9	8.2	7.4
-85°	6.7	7.4	9.6	8.9	6.7	17.1	25.2	26.7	26.7	26.0	26.7
-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°	27.5	28.2	28.2	28.2	27.5	27.5	27.5	28.2	29.7	30.4	31.2
75°	11.9	17.8	25.2	26.0	26.0	25.2	26.7	28.2	27.5	28.2	30.4
65°	9.6	8.9	8.2	10.4	17.1	25.2	26.0	26.0	28.2	27.5	29.7
55°	11.9	11.1	10.4	8.9	8.2	11.9	19.3	26.0	25.2	28.2	28.9
47.5°	12.6	12.6	11.9	10.4	8.9	8.2	12.6	24.5	26.0	28.2	28.2
42.5°	14.1	13.4	12.6	11.1	9.6	8.2	8.9	20.0	26.0	27.5	28.2
37.5°	16.3	14.8	13.4	11.9	9.6	8.2	6.7	16.3	25.2	26.7	27.5
33°	25.2	20.0	15.6	12.6	10.4	8.2	6.7	13.4	24.5	26.0	26.7
29°	74.2	36.4	20.8	14.8	11.1	8.2	6.7	11.1	23.7	24.5	26.0
25.5°	170.7	96.5	40.8	18.5	11.9	8.2	5.9	8.9	23.0	23.7	25.2
22.5°	1115.9	161.7	91.3	24.5	13.4	8.2	5.9	7.4	23.0	23.0	25.2
19.5°	1910.6	1007.6	135.8	35.6	14.8	8.2	5.2	5.9	22.3	22.3	24.5
17°	2455.9	1544.0	153.6	54.2	15.6	8.2	5.2	5.2	21.5	22.3	24.5
15°	2783.9	1948.4	167.7	83.8	17.1	7.4	4.5	4.5	20.8	21.5	23.7
13°	3031.7	2289.7	723.4	117.2	18.5	7.4	4.5	3.7	20.0	21.5	23.7
11°	3209.0	2559.8	866.6	137.3	20.0	7.4	4.5	3.0	20.0	20.8	23.7
9°	3325.5	2770.5	993.5	162.5	21.5	7.4	3.7	2.2	20.0	20.8	23.0
7°	3406.4	2928.5	1723.6	180.3	23.0	7.4	3.7	2.2	19.3	20.8	23.0
5°	3460.5	3028.7	1870.5	184.0	23.7	8.2	3.7	2.2	19.3	20.8	23.0
3°	3487.2	3092.5	1967.7	186.2	25.2	8.2	3.7	2.2	19.3	20.8	23.0
1°	3502.1	3125.2	2018.1	187.0	25.2	8.2	3.7	2.2	19.3	20.0	23.0
0°	3505.0	3128.1	2023.3	476.3	25.2	8.2	3.7	2.2	19.3	20.0	23.0
-1°	3506.5	3124.4	2017.4	187.0	25.2	8.2	3.7	2.2	19.3	20.0	23.0
-3°	3502.1	3091.8	1969.2	186.2	25.2	8.2	3.7	2.2	19.3	20.8	23.0
-5°	3486.5	3019.8	1868.3	184.0	24.5	8.2	3.7	2.2	19.3	20.8	23.0
-7°	3442.7	2921.9	1094.4	180.3	23.0	7.4	3.7	2.2	19.3	20.8	23.0
-9°	3350.0	2771.2	988.3	159.5	21.5	7.4	3.7	2.2	19.3	20.8	23.0
-11°	3209.0	2556.1	863.6	137.3	19.3	7.4	4.5	3.0	20.0	20.8	23.0
-13°	3020.5	2277.8	721.2	118.7	17.8	7.4	4.5	3.0	20.0	20.8	23.7
-15°	2760.9	1929.1	166.9	83.8	16.3	7.4	4.5	3.7	20.8	21.5	23.7
-17°	2429.9	1526.2	152.8	54.2	15.6	7.4	4.5	4.5	20.8	21.5	23.7
-19.5°	1857.1	992.7	134.3	34.1	14.1	7.4	5.2	5.9	21.5	22.3	24.5
-22.5°	1083.3	160.3	89.0	23.0	12.6	8.2	5.2	7.4	22.3	23.0	24.5
-25.5°	167.7	93.5	39.3	17.8	11.9	8.2	5.9	8.9	23.0	23.7	25.2
-29°	68.3	34.1	20.8	14.8	11.1	8.2	6.7	11.1	23.7	24.5	25.2
-33°	24.5	19.3	15.6	12.6	10.4	8.2	6.7	13.4	24.5	25.2	26.0
-37.5°	16.3	14.8	13.4	11.9	10.4	8.2	7.4	16.3	25.2	26.7	26.7
-42.5°	14.1	13.4	12.6	11.1	9.6	8.2	8.9	20.8	26.0	27.5	27.5
-47.5°	12.6	12.6	11.9	11.1	9.6	8.2	12.6	24.5	26.0	28.2	28.2
-55°	11.9	11.9	10.4	9.6	8.2	12.6	20.0	26.0	26.0	28.2	28.9
-65°	10.4	8.9	8.2	10.4	17.8	25.2	26.7	26.0	28.2	27.5	29.7
-75°	11.9	18.5	25.2	26.0	26.7	26.0	26.7	28.9	28.2	28.2	30.4
-85°	28.2	28.9	28.9	28.2	28.2	27.5	28.2	28.9	29.7	30.4	31.2
-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)