

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: LUMARK

Report Number: P144569

Luminaire Tested: **LDRL-RW-E06-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144569
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33700)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-RW-E06-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (126) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16460.4 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 150.5
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

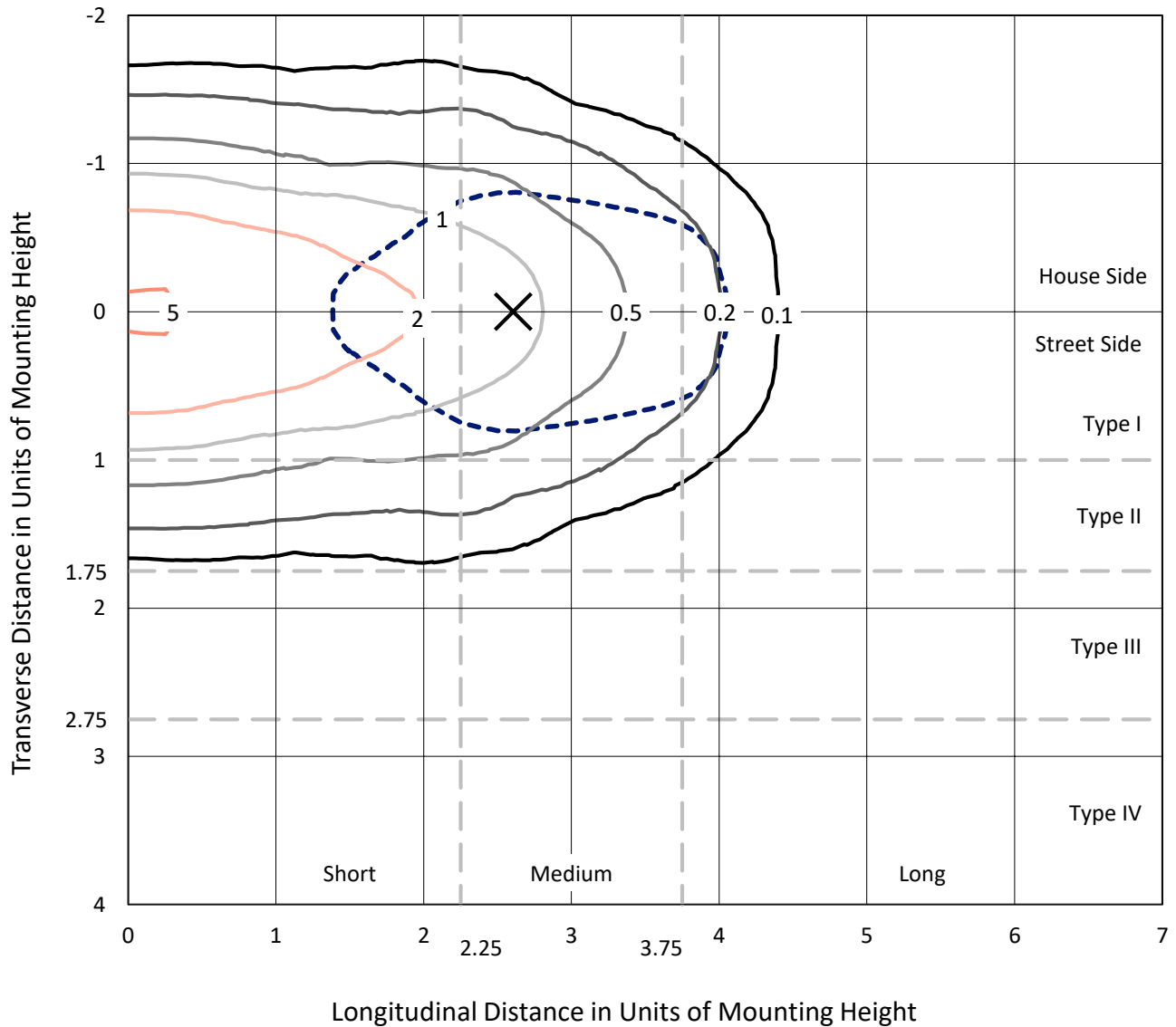


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Iso-Footcandle Lines of Horizontal Illumination

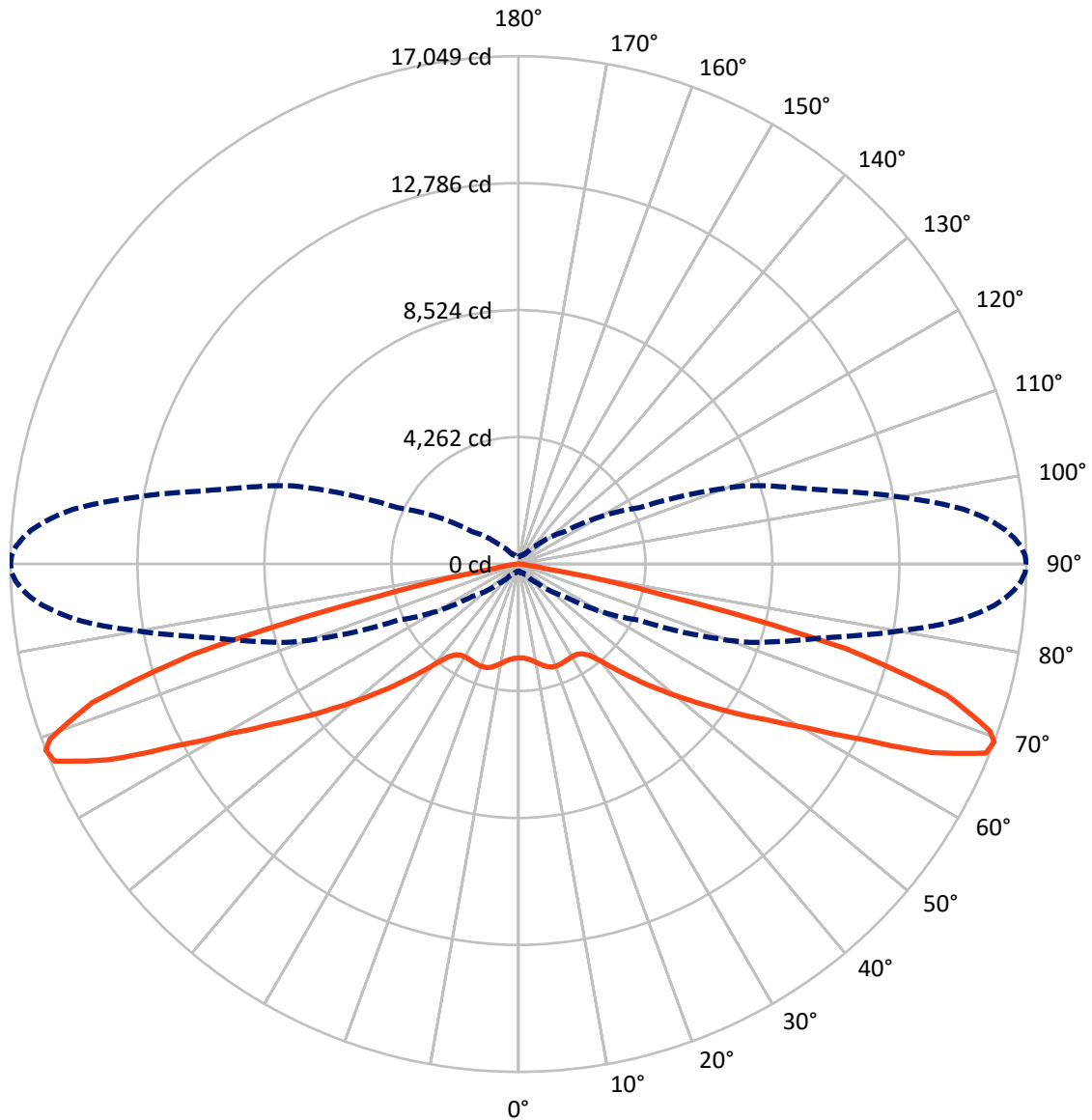
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8230.2	0.0	8230.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8230.2	0.0	8230.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	16460.4	0.0	16460.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.4	1.9
10°-20°	971.3	5.9
20°-30°	1573.1	9.6
30°-40°	1959.7	11.9
40°-50°	2439.6	14.8
50°-60°	2993.5	18.2
60°-70°	3691.9	22.4
70°-80°	2295.1	13.9
80°-90°	228.0	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	16460.4	100.0
0°-180°	16460.4	100.0



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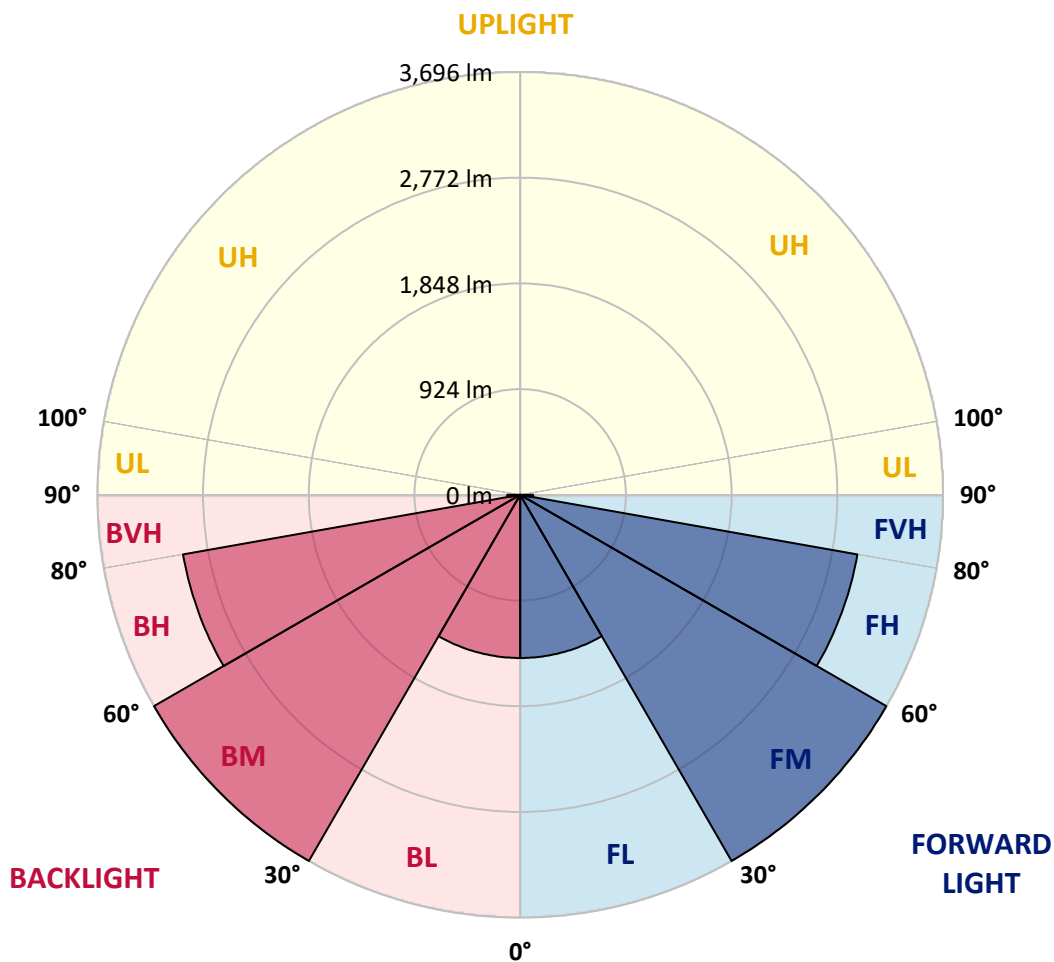
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1426.4	8.7			
FM	(30°-60°)	3696.4	22.5			
FH	(60°-80°)	2993.5	18.2			G2/5000
FVH	(80°-90°)	114.0	0.7			G2/225
BL	(0°-30°)	1426.4	8.7	B3/2500		
BM	(30°-60°)	3696.4	22.5	B3/5000		
BH	(60°-80°)	2993.5	18.2	B4/5000		G4/5000
BVH	(80°-90°)	114.0	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2
2.5°	3160.4	3157.1	3163.1	3168.6	3167.0	3168.0	3165.8	3163.1	3163.3	3163.5	3163.8
5°	3185.0	3181.8	3187.2	3192.2	3193.8	3197.6	3198.8	3197.1	3197.9	3198.6	3199.4
7.5°	3214.6	3211.9	3219.0	3225.6	3238.2	3244.8	3251.4	3257.9	3258.4	3259.0	3259.6
10°	3242.6	3241.0	3252.4	3266.7	3287.0	3302.3	3320.9	3339.0	3340.4	3341.9	3343.3
12.5°	3260.6	3260.6	3278.2	3304.0	3339.0	3370.2	3402.0	3432.8	3435.6	3438.4	3441.3
15°	3259.5	3261.8	3288.6	3335.8	3396.0	3451.4	3490.2	3523.7	3526.4	3529.2	3532.0
17.5°	3237.1	3237.6	3276.0	3351.1	3445.4	3527.6	3578.0	3596.0	3597.0	3598.0	3599.0
20°	3174.1	3178.4	3232.8	3341.8	3483.7	3597.2	3644.8	3637.2	3635.5	3633.8	3632.2
22.5°	3066.1	3071.6	3143.9	3290.2	3490.8	3642.1	3691.4	3656.8	3651.6	3646.4	3641.1
25°	2916.0	2925.2	3003.6	3191.0	3442.6	3655.2	3721.6	3666.2	3658.0	3649.8	3641.5
27.5°	2742.2	2746.6	2839.2	3036.0	3330.2	3611.4	3735.2	3685.4	3675.1	3664.8	3654.5
30°	2541.1	2552.6	2649.0	2854.6	3171.9	3509.4	3729.8	3722.6	3711.1	3699.6	3688.1
32.5°	2341.1	2351.0	2445.8	2667.2	2989.4	3367.6	3702.4	3779.1	3769.5	3759.8	3750.2
35°	2139.4	2151.5	2249.0	2486.8	2808.0	3206.4	3659.0	3859.6	3855.5	3851.3	3847.1
37.5°	1962.4	1970.1	2066.0	2313.1	2649.0	3059.0	3602.6	3967.6	3977.0	3986.4	3995.9
40°	1782.2	1789.8	1890.1	2143.3	2502.8	2933.0	3550.6	4103.5	4129.3	4155.0	4180.8
42.5°	1609.0	1615.5	1712.5	1965.2	2340.0	2823.9	3519.4	4267.9	4317.3	4366.8	4416.2
45°	1431.4	1435.8	1526.8	1772.8	2154.2	2696.8	3511.1	4452.6	4523.9	4595.3	4666.6
47.5°	1256.6	1267.0	1360.7	1594.2	1942.2	2514.8	3499.0	4657.0	4751.6	4846.2	4940.7
50°	1089.4	1100.9	1197.4	1418.8	1737.2	2298.9	3437.7	4888.8	5004.1	5119.4	5234.7
52.5°	919.0	930.6	1026.9	1238.5	1547.0	2055.6	3266.7	5132.1	5269.2	5406.3	5543.5
55°	737.0	741.4	840.6	1052.8	1356.8	1851.8	2994.4	5355.2	5521.2	5687.2	5853.3
57.5°	536.0	550.8	648.8	846.1	1162.8	1671.4	2648.0	5469.2	5676.4	5883.6	6090.9
60°	386.9	396.8	482.8	637.8	943.1	1494.4	2340.6	5385.8	5662.5	5939.1	6215.8
62.5°	305.8	316.8	383.0	480.6	729.4	1299.9	2140.0	5157.4	5545.4	5933.5	6321.6
65°	270.7	280.6	342.0	390.2	557.9	1099.8	2014.0	4931.0	5454.8	5978.6	6502.4
67.5°	247.2	257.5	311.2	344.2	460.8	971.0	1954.2	4760.0	5364.9	5969.8	6574.7
69°	236.2	245.5	294.8	325.5	434.6	927.2	1890.1	4470.6	5070.4	5670.1	6269.9
70°	230.2	238.4	283.4	314.0	424.2	891.1	1795.3	4126.5	4705.2	5283.9	5862.6
72.5°	213.2	218.6	256.5	285.0	388.0	711.3	1354.1	2911.5	3402.1	3892.7	4383.3
75°	189.0	195.6	229.1	255.4	296.0	427.4	847.8	1690.1	2026.2	2362.4	2698.5
77.5°	162.2	169.9	197.3	238.9	238.4	278.4	514.6	970.6	1133.8	1297.2	1460.5
80°	139.2	145.8	170.4	236.2	199.5	220.3	383.6	723.9	789.7	855.4	921.2
82.5°	109.0	114.6	143.0	195.1	159.4	167.7	292.1	659.2	703.9	748.5	793.1
85°	68.5	70.6	104.1	134.8	113.4	101.4	188.0	507.4	539.9	572.4	604.8
87.5°	27.4	33.4	50.4	48.2	48.8	40.6	60.8	183.0	199.7	216.4	233.0
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2
2.5°	3164.0	3164.2	3163.1	3161.5	3163.2	3161.5	3162.0	3163.7	3163.2	3163.1	3162.0
5°	3200.2	3201.0	3201.0	3197.6	3199.3	3199.8	3200.4	3199.3	3199.8	3201.0	3198.8
7.5°	3260.1	3260.6	3262.3	3264.0	3262.9	3263.4	3264.4	3263.4	3261.8	3265.6	3262.8
10°	3344.7	3346.2	3346.2	3351.1	3348.8	3350.5	3355.4	3355.4	3352.7	3356.6	3355.4
12.5°	3444.2	3447.0	3446.4	3445.9	3448.1	3449.8	3455.2	3456.3	3457.4	3463.4	3461.2
15°	3534.7	3537.4	3539.6	3540.6	3544.5	3545.6	3548.9	3551.1	3552.8	3554.9	3556.0
17.5°	3600.0	3601.0	3604.2	3602.6	3608.1	3607.0	3610.8	3612.4	3614.1	3616.8	3618.5
20°	3630.6	3628.9	3629.4	3627.8	3627.8	3629.0	3629.5	3631.6	3630.6	3633.3	3635.5
22.5°	3635.8	3630.6	3627.3	3623.4	3621.8	3618.5	3618.5	3619.6	3615.8	3618.5	3621.8
25°	3633.3	3625.1	3619.0	3612.5	3606.4	3601.0	3597.7	3596.6	3593.8	3593.8	3596.6
27.5°	3644.2	3633.8	3625.1	3614.2	3606.4	3598.8	3591.6	3586.2	3580.7	3579.6	3579.6
30°	3676.6	3665.0	3655.2	3641.5	3629.4	3619.6	3609.8	3602.0	3591.6	3587.3	3582.4
32.5°	3740.5	3730.9	3717.2	3705.1	3690.8	3678.8	3665.6	3653.6	3641.6	3630.6	3626.2
35°	3843.0	3838.8	3831.2	3823.0	3809.2	3793.8	3782.9	3768.6	3755.0	3739.1	3734.6
37.5°	4005.3	4014.7	4010.4	4004.3	4000.4	3995.6	3980.8	3971.4	3962.1	3949.0	3946.2
40°	4206.5	4232.3	4258.0	4275.0	4269.0	4289.3	4292.5	4294.2	4286.0	4296.9	4299.2
42.5°	4465.6	4515.0	4561.6	4595.6	4635.0	4664.6	4703.0	4719.5	4750.7	4783.0	4801.7
45°	4738.0	4809.3	4876.2	4945.8	5014.3	5089.4	5162.3	5213.8	5288.8	5344.8	5379.8
47.5°	5035.3	5129.9	5209.9	5314.0	5413.2	5502.0	5629.7	5732.2	5823.7	5910.8	6002.4
50°	5350.0	5465.3	5564.0	5691.1	5811.6	5950.8	6100.4	6230.8	6374.5	6513.1	6636.4
52.5°	5680.6	5817.7	5950.8	6081.3	6227.6	6378.8	6541.0	6729.6	6901.6	7110.4	7260.0
55°	6019.3	6185.4	6327.3	6463.8	6618.9	6786.6	6979.5	7202.4	7421.2	7649.6	7876.6
57.5°	6298.2	6505.4	6660.5	6820.0	6987.2	7153.2	7392.6	7621.2	7898.5	8179.0	8463.0
60°	6492.4	6769.0	6957.0	7158.6	7352.1	7553.8	7811.9	8100.7	8447.6	8787.4	9173.2
62.5°	6709.7	7097.8	7361.4	7630.5	7865.6	8107.8	8453.1	8785.7	9231.2	9622.5	10108.0
65°	7026.2	7550.0	7938.0	8300.7	8616.4	8946.2	9355.6	9771.6	10281.2	10822.1	11430.9
67.5°	7179.6	7784.5	8292.4	8740.2	9143.6	9563.9	9986.4	10478.5	11052.8	11703.8	12372.4
69°	6869.6	7469.4	8053.6	8506.2	8931.0	9379.8	9831.8	10328.4	10893.9	11569.6	12278.2
70°	6441.3	7020.0	7640.9	8094.6	8523.2	8989.0	9449.4	9950.8	10491.7	11187.6	11904.4
72.5°	4873.9	5364.4	5967.3	6446.8	6897.2	7368.0	7842.0	8277.2	8825.7	9495.4	10155.7
75°	3034.7	3370.8	3912.8	4394.5	4756.8	5160.0	5605.0	6017.2	6567.9	7042.5	7677.6
77.5°	1623.8	1787.0	2103.2	2448.5	2650.2	2846.9	3136.8	3360.4	3592.2	3866.8	4129.2
80°	986.9	1052.7	1160.7	1235.2	1207.3	1126.7	1100.9	1020.4	1049.4	1000.2	964.5
82.5°	837.7	882.3	948.0	993.0	960.2	831.3	685.6	577.0	500.3	426.9	362.8
85°	637.2	669.7	703.6	723.9	722.3	658.2	522.8	405.0	315.6	244.4	203.3
87.5°	249.6	266.3	291.0	287.2	299.8	302.0	236.2	182.5	129.9	87.6	76.7
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2	3152.2
2.5°	3159.9	3159.3	3159.8	3161.4	3161.4	3162.5	3161.4	3162.0	3160.4	3158.7	3159.8
5°	3198.7	3197.6	3198.7	3199.8	3199.8	3198.8	3201.5	3201.5	3200.4	3198.8	3199.3
7.5°	3265.6	3266.1	3264.5	3270.0	3265.0	3265.6	3268.9	3268.3	3267.2	3267.8	3268.3
10°	3358.8	3358.2	3359.4	3362.6	3357.7	3361.0	3364.8	3365.9	3363.2	3363.2	3363.7
12.5°	3461.8	3466.2	3466.8	3469.0	3469.0	3471.6	3472.2	3472.8	3475.0	3475.5	3472.2
15°	3560.4	3563.7	3565.9	3568.1	3565.4	3569.2	3573.6	3573.6	3573.0	3575.2	3571.9
17.5°	3621.2	3624.0	3627.8	3627.2	3627.8	3631.1	3633.8	3635.0	3636.0	3636.0	3636.6
20°	3640.4	3642.1	3644.2	3646.4	3647.6	3650.8	3653.0	3654.7	3655.8	3654.6	3655.2
22.5°	3625.1	3627.3	3631.6	3633.3	3633.8	3638.8	3641.0	3642.6	3643.7	3644.8	3643.2
25°	3598.8	3601.0	3605.4	3607.0	3608.1	3612.5	3615.2	3619.0	3620.2	3620.7	3621.3
27.5°	3580.7	3581.8	3585.0	3587.3	3587.8	3592.8	3596.6	3599.4	3599.9	3600.4	3600.4
30°	3581.2	3581.2	3585.1	3585.6	3585.1	3589.4	3591.6	3593.3	3594.4	3594.4	3594.9
32.5°	3619.0	3616.9	3620.2	3615.2	3615.8	3615.2	3614.6	3616.3	3615.2	3615.8	3613.6
35°	3725.9	3719.9	3715.0	3717.2	3709.5	3698.6	3704.6	3701.8	3695.8	3696.4	3698.0
37.5°	3930.9	3924.8	3930.4	3925.4	3927.0	3911.7	3915.6	3901.8	3898.0	3903.0	3888.7
40°	4294.8	4292.0	4302.4	4298.0	4300.8	4305.2	4309.0	4295.8	4273.9	4293.6	4294.2
42.5°	4799.0	4823.6	4833.4	4847.2	4862.0	4855.4	4868.5	4872.4	4848.2	4866.3	4870.7
45°	5431.4	5457.6	5488.4	5497.6	5521.8	5525.0	5534.9	5537.7	5515.7	5518.0	5522.8
47.5°	6093.9	6142.1	6178.2	6203.4	6228.7	6233.6	6239.1	6228.6	6230.3	6235.2	6235.3
50°	6744.9	6848.0	6912.0	6961.9	7005.2	6982.7	7001.9	7003.6	7010.2	6996.4	7004.7
52.5°	7429.4	7565.8	7673.2	7757.1	7783.4	7863.4	7830.5	7855.7	7872.8	7847.5	7863.9
55°	8098.0	8292.5	8465.2	8586.8	8672.2	8753.4	8766.0	8831.2	8823.5	8848.2	8837.2
57.5°	8733.6	9005.4	9252.0	9432.3	9555.1	9679.0	9762.8	9834.0	9841.2	9911.8	9871.9
60°	9502.5	9881.2	10198.4	10467.0	10648.4	10832.6	10977.8	11094.4	11121.4	11242.4	11202.4
62.5°	10539.9	11001.8	11407.4	11722.5	12126.4	12320.9	12603.7	12780.2	12890.3	12920.4	12976.9
65°	11998.2	12599.8	13134.7	13638.9	14093.2	14408.2	14735.4	14998.5	15209.4	15191.9	15278.5
67.5°	13081.6	13767.6	14411.6	15016.0	15504.8	15910.4	16286.3	16570.8	16759.2	16879.2	16930.2
69°	12968.7	13705.2	14415.4	15061.0	15565.2	16018.3	16384.4	16664.4	16880.4	17010.8	17048.6
70°	12593.3	13350.1	14090.4	14724.0	15238.0	15735.6	16108.2	16420.0	16625.6	16768.0	16789.9
72.5°	10892.8	11712.7	12367.5	13058.5	13553.4	14057.0	14291.6	14677.9	14945.9	15032.4	15030.8
75°	8215.8	8899.6	9475.1	9985.8	10428.7	10770.0	10880.7	11155.8	11378.3	11375.6	11354.8
77.5°	4424.0	4585.2	4800.6	4872.9	5009.4	5007.2	4870.2	4913.4	5039.5	4795.0	4874.0
80°	949.2	934.9	922.8	915.8	911.9	913.5	918.5	887.2	918.0	904.2	846.1
82.5°	330.5	322.8	315.1	320.6	316.8	320.0	319.0	322.8	322.2	321.1	313.5
85°	185.8	179.2	175.4	178.1	172.0	166.6	162.8	161.1	160.6	156.7	154.5
87.5°	70.7	70.2	69.6	66.8	60.3	55.4	52.0	45.4	42.7	39.0	36.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)