

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: P144570

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144570
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
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (126) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18022 lumens
Efficiency: N/A
Efficacy: 119.7 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

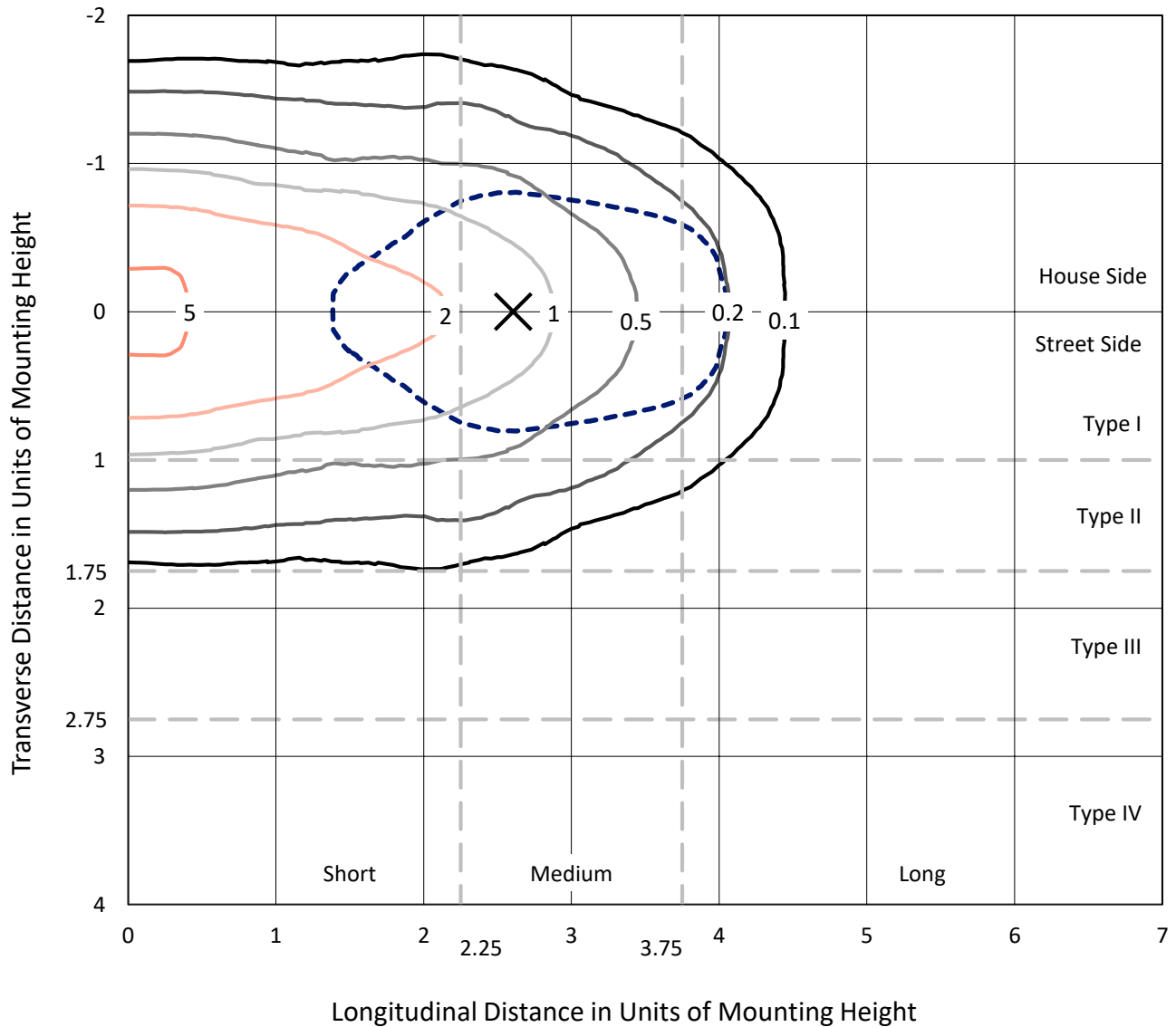
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

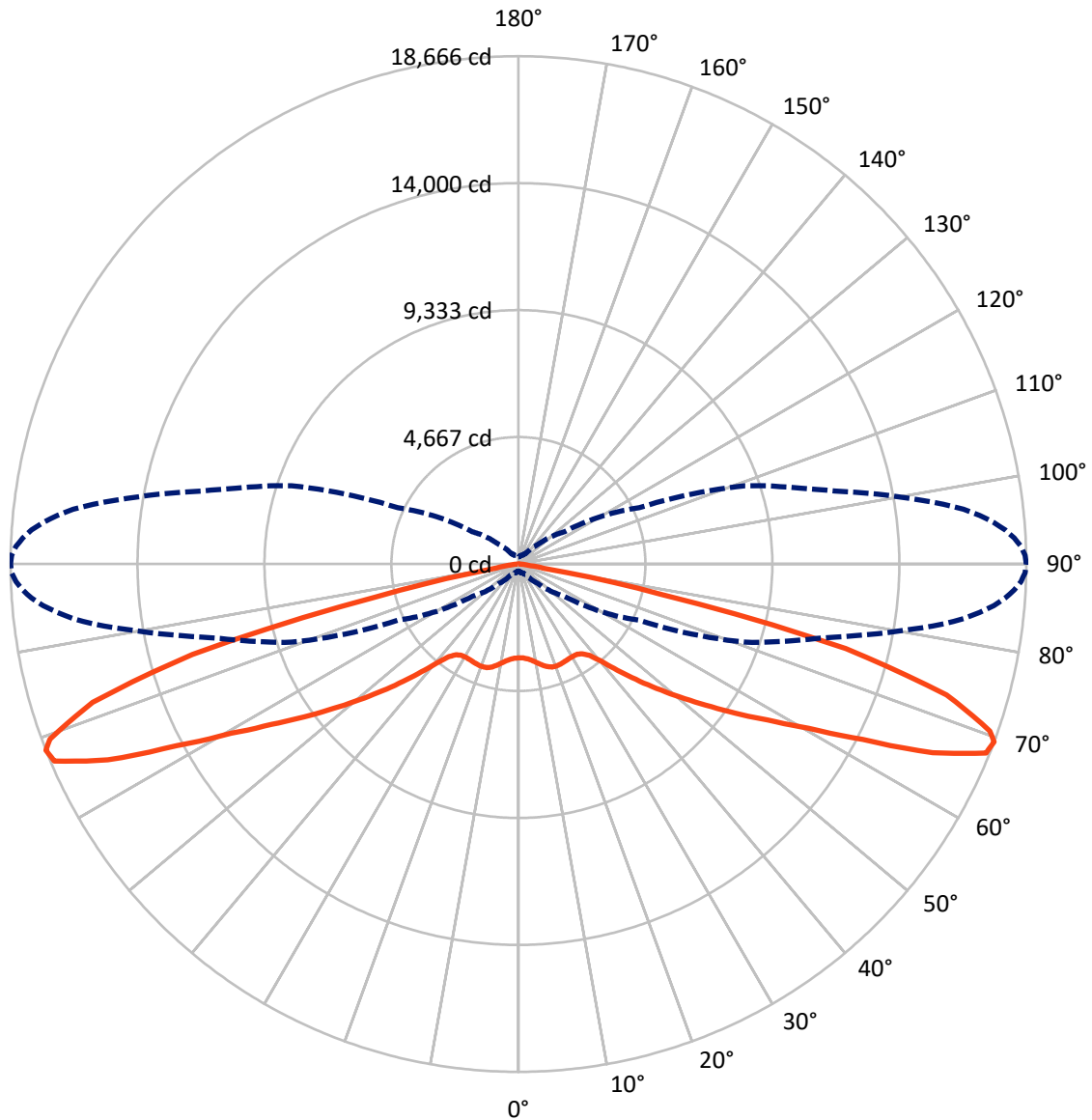
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	9011.0	0.0	9011.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9011.0	0.0	9011.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	18022.0	0.0	18022.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.7	1.9
10°-20°	1063.4	5.9
20°-30°	1722.3	9.6
30°-40°	2145.6	11.9
40°-50°	2671.0	14.8
50°-60°	3277.5	18.2
60°-70°	4042.1	22.4
70°-80°	2512.8	13.9
80°-90°	249.6	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°	18022.0	100.0
0°-180°	18022.0	100.0



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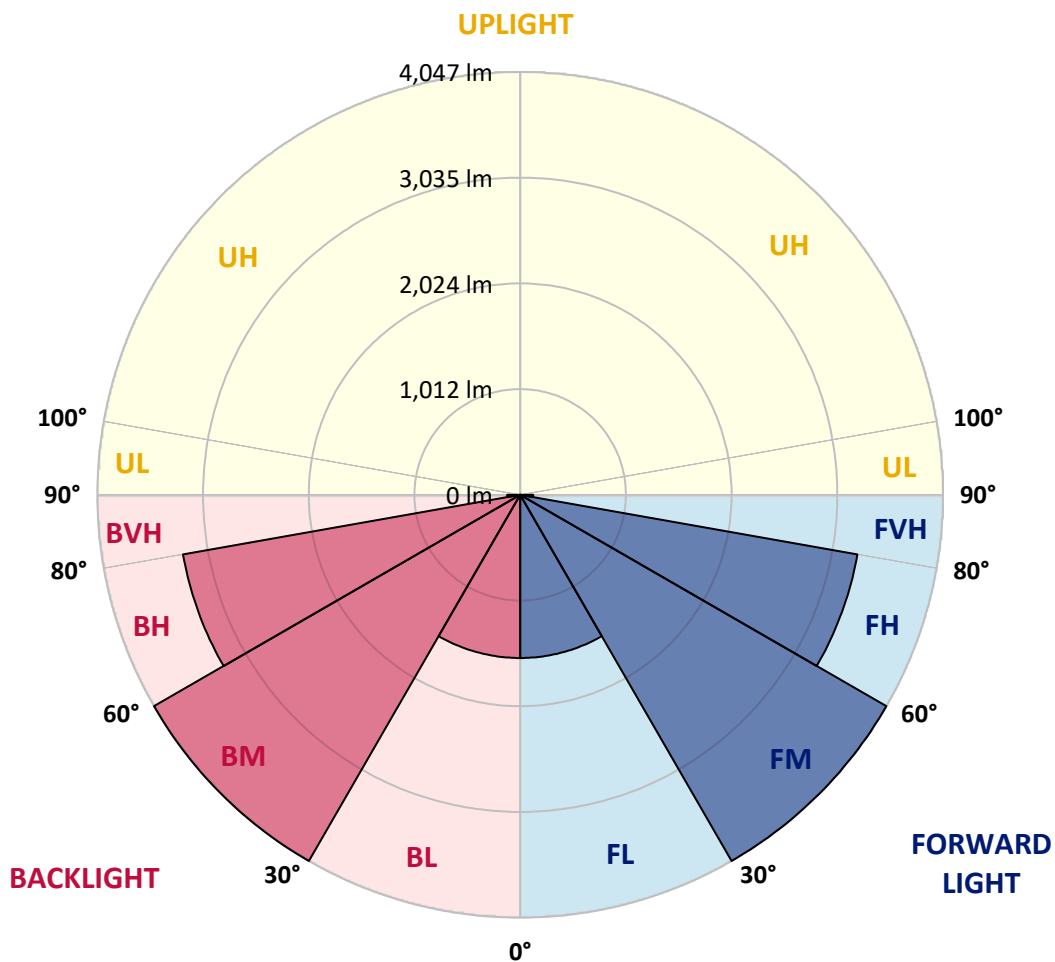
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1561.7	8.7			
FM	(30°-60°)	4047.0	22.5			
FH	(60°-80°)	3277.5	18.2			G2/5000
FVH	(80°-90°)	124.8	0.7			G2/225
BL	(0°-30°)	1561.7	8.7	B3/2500		
BM	(30°-60°)	4047.0	22.5	B3/5000		
BH	(60°-80°)	3277.5	18.2	B4/5000		G4/5000
BVH	(80°-90°)	124.8	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°	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2
2.5°	3460.2	3456.6	3463.2	3469.2	3467.4	3468.6	3466.2	3463.2	3463.4	3463.7	3463.9
5°	3487.2	3483.6	3489.6	3495.0	3496.8	3501.0	3502.2	3500.4	3501.2	3502.1	3502.9
7.5°	3519.6	3516.6	3524.4	3531.6	3545.4	3552.6	3559.8	3567.0	3567.6	3568.2	3568.8
10°	3550.2	3548.4	3561.0	3576.6	3598.8	3615.6	3636.0	3655.8	3657.4	3658.9	3660.5
12.5°	3570.0	3570.0	3589.2	3617.4	3655.8	3690.0	3724.8	3758.4	3761.5	3764.6	3767.8
15°	3568.8	3571.2	3600.6	3652.2	3718.2	3778.8	3821.4	3858.0	3861.0	3864.0	3867.0
17.5°	3544.2	3544.8	3586.8	3669.0	3772.2	3862.2	3917.4	3937.2	3938.3	3939.4	3940.4
20°	3475.2	3480.0	3539.4	3658.8	3814.2	3938.4	3990.6	3982.2	3980.4	3978.6	3976.8
22.5°	3357.0	3363.0	3442.2	3602.4	3822.0	3987.6	4041.6	4003.8	3998.0	3992.3	3986.5
25°	3192.6	3202.8	3288.6	3493.8	3769.2	4002.0	4074.6	4014.0	4005.0	3996.0	3987.0
27.5°	3002.4	3007.2	3108.6	3324.0	3646.2	3954.0	4089.6	4035.0	4023.7	4012.4	4001.2
30°	2782.2	2794.8	2900.4	3125.4	3472.8	3842.4	4083.6	4075.8	4063.2	4050.6	4038.0
32.5°	2563.2	2574.0	2677.8	2920.2	3273.0	3687.0	4053.6	4137.6	4127.0	4116.5	4105.9
35°	2342.4	2355.6	2462.4	2722.8	3074.4	3510.6	4006.2	4225.8	4221.2	4216.7	4212.1
37.5°	2148.6	2157.0	2262.0	2532.6	2900.4	3349.2	3944.4	4344.0	4354.3	4364.6	4375.0
40°	1951.2	1959.6	2069.4	2346.6	2740.2	3211.2	3887.4	4492.8	4521.0	4549.2	4577.4
42.5°	1761.6	1768.8	1875.0	2151.6	2562.0	3091.8	3853.2	4672.8	4726.9	4781.0	4835.2
45°	1567.2	1572.0	1671.6	1941.0	2358.6	2952.6	3844.2	4875.0	4953.1	5031.2	5109.4
47.5°	1375.8	1387.2	1489.8	1745.4	2126.4	2753.4	3831.0	5098.8	5202.4	5305.9	5409.5
50°	1192.8	1205.4	1311.0	1553.4	1902.0	2517.0	3763.8	5352.6	5478.8	5605.1	5731.3
52.5°	1006.2	1018.8	1124.4	1356.0	1693.8	2250.6	3576.6	5619.0	5769.1	5919.2	6069.4
55°	807.0	811.8	920.4	1152.6	1485.6	2027.4	3278.4	5863.2	6045.0	6226.8	6408.6
57.5°	586.8	603.0	710.4	926.4	1273.2	1830.0	2899.2	5988.0	6214.9	6441.8	6668.8
60°	423.6	434.4	528.6	698.4	1032.6	1636.2	2562.6	5896.8	6199.7	6502.6	6805.4
62.5°	334.8	346.8	419.4	526.2	798.6	1423.2	2343.0	5646.6	6071.5	6496.4	6921.4
65°	296.4	307.2	374.4	427.2	610.8	1204.2	2205.0	5398.8	5972.3	6545.8	7119.2
67.5°	270.6	282.0	340.8	376.8	504.6	1063.2	2139.6	5211.6	5873.9	6536.2	7198.4
69°	258.6	268.8	322.8	356.4	475.8	1015.2	2069.4	4894.8	5551.4	6208.1	6864.7
70°	252.0	261.0	310.2	343.8	464.4	975.6	1965.6	4518.0	5151.6	5785.2	6418.8
72.5°	233.4	239.4	280.8	312.0	424.8	778.8	1482.6	3187.8	3724.9	4262.0	4799.2
75°	207.0	214.2	250.8	279.6	324.0	468.0	928.2	1850.4	2218.4	2586.5	2954.5
77.5°	177.6	186.0	216.0	261.6	261.0	304.8	563.4	1062.6	1241.4	1420.2	1599.0
80°	152.4	159.6	186.6	258.6	218.4	241.2	420.0	792.6	864.6	936.6	1008.6
82.5°	119.4	125.4	156.6	213.6	174.6	183.6	319.8	721.8	770.6	819.5	868.3
85°	75.0	77.4	114.0	147.6	124.2	111.0	205.8	555.6	591.1	626.6	662.2
87.5°	30.0	36.6	55.2	52.8	53.4	44.4	66.6	200.4	218.6	236.9	255.1
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°	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2
2.5°	3464.2	3464.4	3463.2	3461.4	3463.2	3461.4	3462.0	3463.8	3463.2	3463.2	3462.0
5°	3503.8	3504.6	3504.6	3501.0	3502.8	3503.4	3504.0	3502.8	3503.4	3504.6	3502.2
7.5°	3569.4	3570.0	3571.8	3573.6	3572.4	3573.0	3574.2	3573.0	3571.2	3575.4	3572.4
10°	3662.0	3663.6	3663.6	3669.0	3666.6	3668.4	3673.8	3673.8	3670.8	3675.0	3673.8
12.5°	3770.9	3774.0	3773.4	3772.8	3775.2	3777.0	3783.0	3784.2	3785.4	3792.0	3789.6
15°	3870.0	3873.0	3875.4	3876.6	3880.8	3882.0	3885.6	3888.0	3889.8	3892.2	3893.4
17.5°	3941.5	3942.6	3946.2	3944.4	3950.4	3949.2	3953.4	3955.2	3957.0	3960.0	3961.8
20°	3975.0	3973.2	3973.8	3972.0	3972.0	3973.2	3973.8	3976.2	3975.0	3978.0	3980.4
22.5°	3980.8	3975.0	3971.4	3967.2	3965.4	3961.8	3961.8	3963.0	3958.8	3961.8	3965.4
25°	3978.0	3969.0	3962.4	3955.2	3948.6	3942.6	3939.0	3937.8	3934.8	3934.8	3937.8
27.5°	3989.9	3978.6	3969.0	3957.0	3948.6	3940.2	3932.4	3926.4	3920.4	3919.2	3919.2
30°	4025.4	4012.8	4002.0	3987.0	3973.8	3963.0	3952.2	3943.8	3932.4	3927.6	3922.2
32.5°	4095.4	4084.8	4069.8	4056.6	4041.0	4027.8	4013.4	4000.2	3987.0	3975.0	3970.2
35°	4207.6	4203.0	4194.6	4185.6	4170.6	4153.8	4141.8	4126.2	4111.2	4093.8	4089.0
37.5°	4385.3	4395.6	4390.8	4384.2	4380.0	4374.6	4358.4	4348.2	4338.0	4323.6	4320.6
40°	4605.6	4633.8	4662.0	4680.6	4674.0	4696.2	4699.8	4701.6	4692.6	4704.6	4707.0
42.5°	4889.3	4943.4	4994.4	5031.6	5074.8	5107.2	5149.2	5167.2	5201.4	5236.8	5257.2
45°	5187.5	5265.6	5338.8	5415.0	5490.0	5572.2	5652.0	5708.4	5790.6	5851.8	5890.2
47.5°	5513.0	5616.6	5704.2	5818.2	5926.8	6024.0	6163.8	6276.0	6376.2	6471.6	6571.8
50°	5857.6	5983.8	6091.8	6231.0	6363.0	6515.4	6679.2	6822.0	6979.2	7131.0	7266.0
52.5°	6219.5	6369.6	6515.4	6658.2	6818.4	6984.0	7161.6	7368.0	7556.4	7785.0	7948.8
55°	6590.4	6772.2	6927.6	7077.0	7246.8	7430.4	7641.6	7885.8	8125.2	8375.4	8623.8
57.5°	6895.7	7122.6	7292.4	7467.0	7650.0	7831.8	8094.0	8344.2	8647.8	8955.0	9265.8
60°	7108.3	7411.2	7617.0	7837.8	8049.6	8270.4	8553.0	8869.2	9249.0	9621.0	10043.4
62.5°	7346.3	7771.2	8059.8	8354.4	8611.8	8877.0	9255.0	9619.2	10107.0	10535.4	11067.0
65°	7692.7	8266.2	8691.0	9088.2	9433.8	9795.0	10243.2	10698.6	11256.6	11848.8	12515.4
67.5°	7860.7	8523.0	9079.2	9569.4	10011.0	10471.2	10933.8	11472.6	12101.4	12814.2	13546.2
69°	7521.4	8178.0	8817.6	9313.2	9778.2	10269.6	10764.6	11308.2	11927.4	12667.2	13443.0
70°	7052.4	7686.0	8365.8	8862.6	9331.8	9841.8	10345.8	10894.8	11487.0	12249.0	13033.8
72.5°	5336.3	5873.4	6533.4	7058.4	7551.6	8067.0	8586.0	9062.4	9663.0	10396.2	11119.2
75°	3322.6	3690.6	4284.0	4811.4	5208.0	5649.6	6136.8	6588.0	7191.0	7710.6	8406.0
77.5°	1777.8	1956.6	2302.8	2680.8	2901.6	3117.0	3434.4	3679.2	3933.0	4233.6	4521.0
80°	1080.6	1152.6	1270.8	1352.4	1321.8	1233.6	1205.4	1117.2	1149.0	1095.0	1056.0
82.5°	917.2	966.0	1038.0	1087.2	1051.2	910.2	750.6	631.8	547.8	467.4	397.2
85°	697.7	733.2	770.4	792.6	790.8	720.6	572.4	443.4	345.6	267.6	222.6
87.5°	273.4	291.6	318.6	314.4	328.2	330.6	258.6	199.8	142.2	96.0	84.0
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2	3451.2
2.5°	3459.6	3459.0	3459.6	3461.4	3461.4	3462.6	3461.4	3462.0	3460.2	3458.4	3459.6
5°	3502.2	3501.0	3502.2	3503.4	3503.4	3502.2	3505.2	3505.2	3504.0	3502.2	3502.8
7.5°	3575.4	3576.0	3574.2	3580.2	3574.8	3575.4	3579.0	3578.4	3577.2	3577.8	3578.4
10°	3677.4	3676.8	3678.0	3681.6	3676.2	3679.8	3684.0	3685.2	3682.2	3682.2	3682.8
12.5°	3790.2	3795.0	3795.6	3798.0	3798.0	3801.0	3801.6	3802.2	3804.6	3805.2	3801.6
15°	3898.2	3901.8	3904.2	3906.6	3903.6	3907.8	3912.6	3912.6	3912.0	3914.4	3910.8
17.5°	3964.8	3967.8	3972.0	3971.4	3972.0	3975.6	3978.6	3979.8	3981.0	3981.0	3981.6
20°	3985.8	3987.6	3990.0	3992.4	3993.6	3997.2	3999.6	4001.4	4002.6	4001.4	4002.0
22.5°	3969.0	3971.4	3976.2	3978.0	3978.6	3984.0	3986.4	3988.2	3989.4	3990.6	3988.8
25°	3940.2	3942.6	3947.4	3949.2	3950.4	3955.2	3958.2	3962.4	3963.6	3964.2	3964.8
27.5°	3920.4	3921.6	3925.2	3927.6	3928.2	3933.6	3937.8	3940.8	3941.4	3942.0	3942.0
30°	3921.0	3921.0	3925.2	3925.8	3925.2	3930.0	3932.4	3934.2	3935.4	3935.4	3936.0
32.5°	3962.4	3960.0	3963.6	3958.2	3958.8	3958.2	3957.6	3959.4	3958.2	3958.8	3956.4
35°	4079.4	4072.8	4067.4	4069.8	4061.4	4049.4	4056.0	4053.0	4046.4	4047.0	4048.8
37.5°	4303.8	4297.2	4303.2	4297.8	4299.6	4282.8	4287.0	4272.0	4267.8	4273.2	4257.6
40°	4702.2	4699.2	4710.6	4705.8	4708.8	4713.6	4717.8	4703.4	4679.4	4701.0	4701.6
42.5°	5254.2	5281.2	5292.0	5307.0	5323.2	5316.0	5330.4	5334.6	5308.2	5328.0	5332.8
45°	5946.6	5975.4	6009.0	6019.2	6045.6	6049.2	6060.0	6063.0	6039.0	6041.4	6046.8
47.5°	6672.0	6724.8	6764.4	6792.0	6819.6	6825.0	6831.0	6819.6	6821.4	6826.8	6826.8
50°	7384.8	7497.6	7567.8	7622.4	7669.8	7645.2	7666.2	7668.0	7675.2	7660.2	7669.2
52.5°	8134.2	8283.6	8401.2	8493.0	8521.8	8609.4	8573.4	8601.0	8619.6	8592.0	8610.0
55°	8866.2	9079.2	9268.2	9401.4	9495.0	9583.8	9597.6	9669.0	9660.6	9687.6	9675.6
57.5°	9562.2	9859.8	10129.8	10327.2	10461.6	10597.2	10689.0	10767.0	10774.8	10852.2	10808.4
60°	10404.0	10818.6	11166.0	11460.0	11658.6	11860.2	12019.2	12147.0	12176.4	12309.0	12265.2
62.5°	11539.8	12045.6	12489.6	12834.6	13276.8	13489.8	13799.4	13992.6	14113.2	14146.2	14208.0
65°	13136.4	13795.2	14380.8	14932.8	15430.2	15775.2	16133.4	16421.4	16652.4	16633.2	16728.0
67.5°	14322.6	15073.8	15778.8	16440.6	16975.8	17419.8	17831.4	18142.8	18349.2	18480.6	18536.4
69°	14199.0	15005.4	15783.0	16489.8	17041.8	17538.0	17938.8	18245.4	18481.8	18624.6	18666.0
70°	13788.0	14616.6	15427.2	16120.8	16683.6	17228.4	17636.4	17977.8	18202.8	18358.8	18382.8
72.5°	11926.2	12823.8	13540.8	14297.4	14839.2	15390.6	15647.4	16070.4	16363.8	16458.6	16456.8
75°	8995.2	9744.0	10374.0	10933.2	11418.0	11791.8	11913.0	12214.2	12457.8	12454.8	12432.0
77.5°	4843.8	5020.2	5256.0	5335.2	5484.6	5482.2	5332.2	5379.6	5517.6	5250.0	5336.4
80°	1039.2	1023.6	1010.4	1002.6	998.4	1000.2	1005.6	971.4	1005.0	990.0	926.4
82.5°	361.8	353.4	345.0	351.0	346.8	350.4	349.2	353.4	352.8	351.6	343.2
85°	203.4	196.2	192.0	195.0	188.4	182.4	178.2	176.4	175.8	171.6	169.2
87.5°	77.4	76.8	76.2	73.2	66.0	60.6	57.0	49.8	46.8	42.6	39.6
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)