

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: P144571

Luminaire Tested: **LDRL-RW-E06-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144571
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-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (126) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18492.5 lumens
Efficiency: N/A
Efficacy: 122.9 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

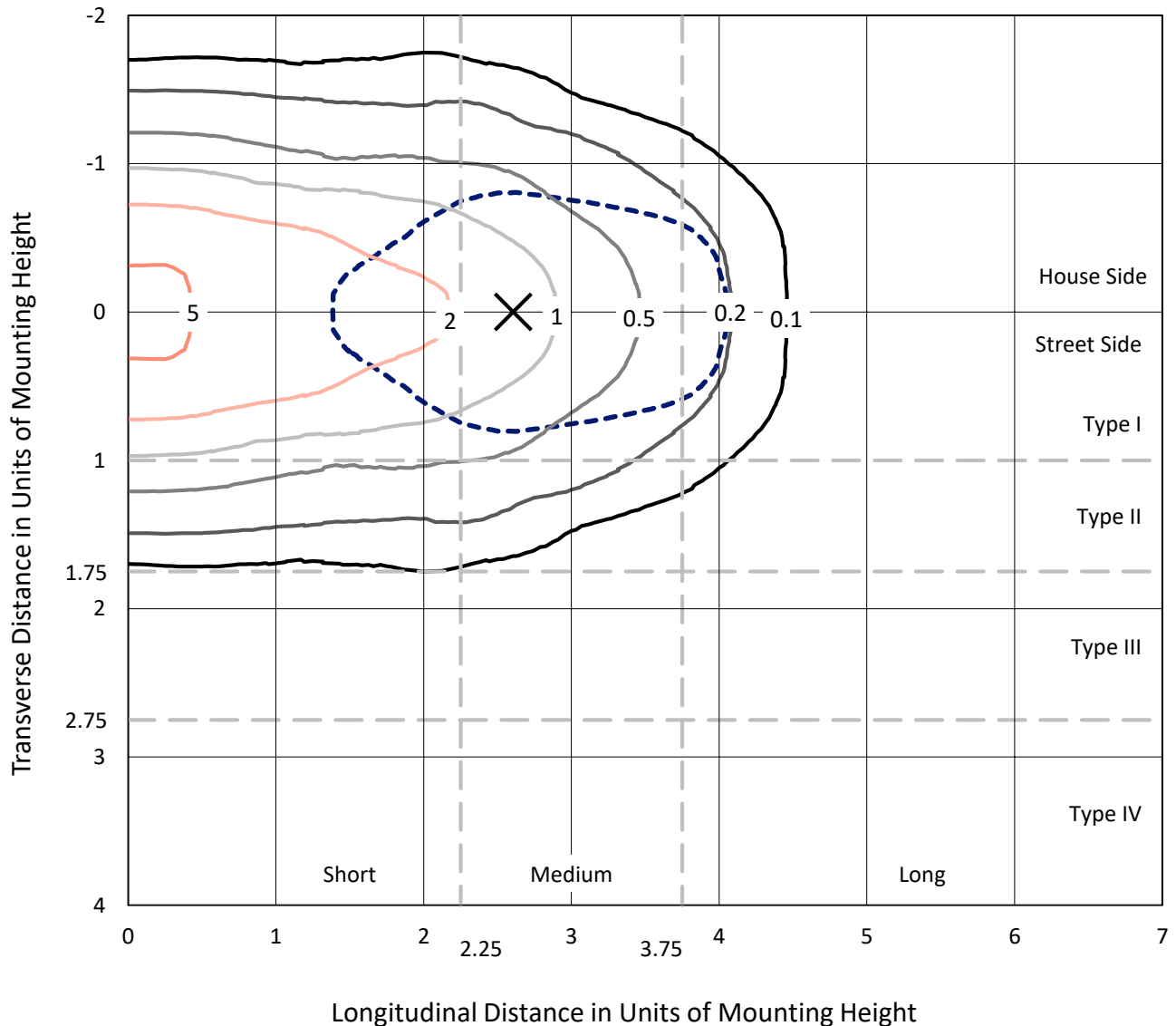
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

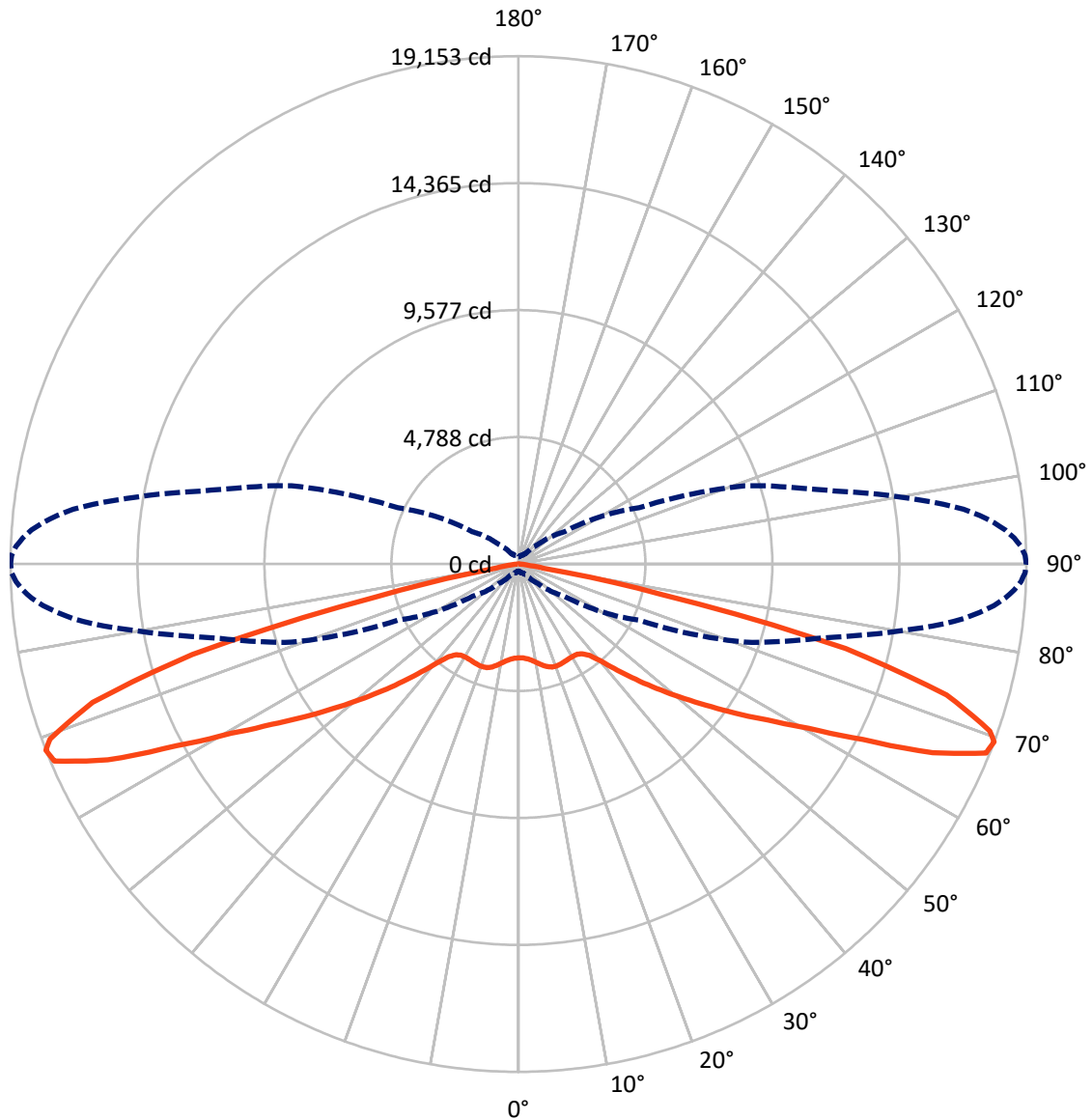


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type I - Short - Full Cutoff

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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	9246.3	0.0	9246.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9246.3	0.0	9246.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	18492.5	0.0	18492.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.5	1.9
10°-20°	1091.2	5.9
20°-30°	1767.3	9.6
30°-40°	2201.6	11.9
40°-50°	2740.8	14.8
50°-60°	3363.0	18.2
60°-70°	4147.6	22.4
70°-80°	2578.4	13.9
80°-90°	256.1	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°	18492.5	100.0
0°-180°	18492.5	100.0



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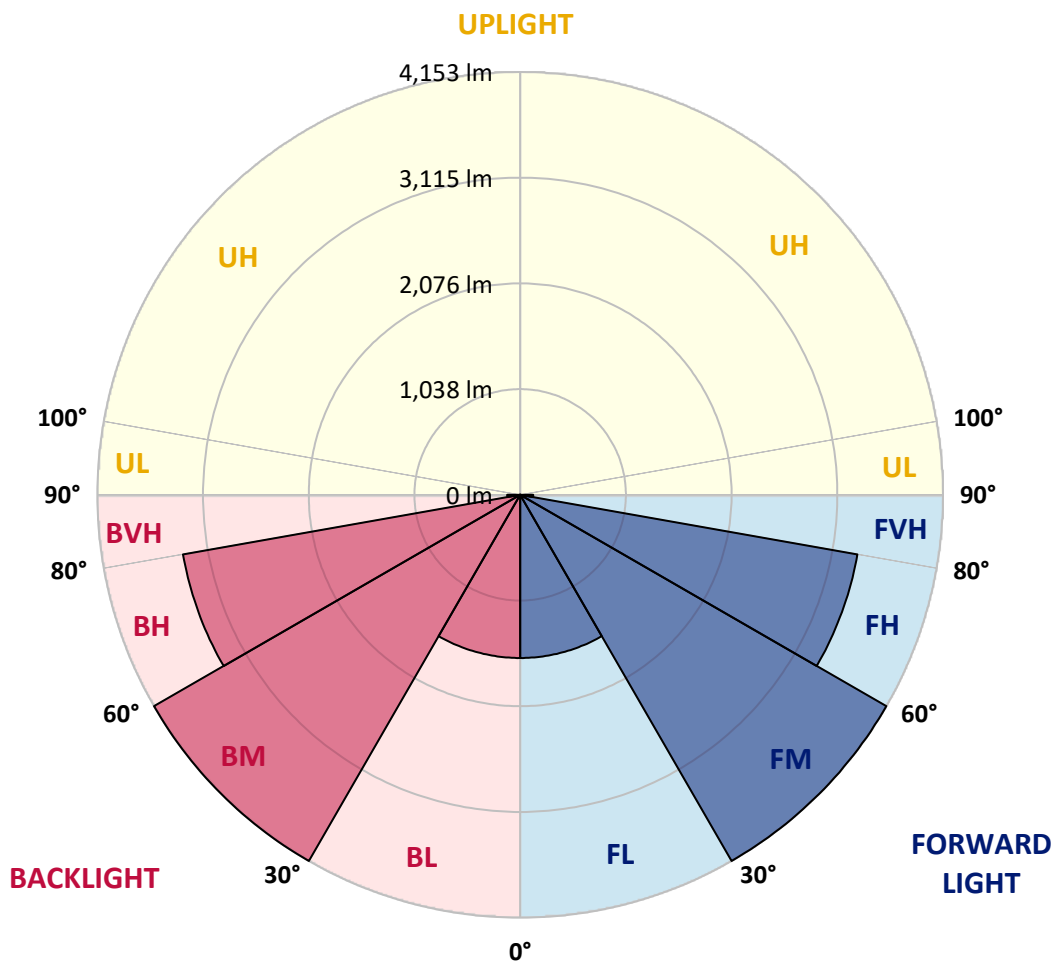
CATALOG NUMBER: LDRL-RW-E06-E-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1602.5	8.7			
FM	(30°-60°)	4152.7	22.5			
FH	(60°-80°)	3363.0	18.2			G2/5000
FVH	(80°-90°)	128.1	0.7			G2/225
BL	(0°-30°)	1602.5	8.7	B3/2500		
BM	(30°-60°)	4152.7	22.5	B3/5000		
BH	(60°-80°)	3363.0	18.2	B4/5000		G4/5000
BVH	(80°-90°)	128.1	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°	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3
2.5°	3550.6	3546.8	3553.6	3559.8	3557.9	3559.2	3556.6	3553.6	3553.8	3554.1	3554.3
5°	3578.2	3574.6	3580.7	3586.2	3588.1	3592.4	3593.6	3591.8	3592.6	3593.5	3594.4
7.5°	3611.4	3608.4	3616.4	3623.8	3638.0	3645.4	3652.7	3660.1	3660.7	3661.3	3662.0
10°	3642.9	3641.0	3654.0	3670.0	3692.8	3710.0	3731.0	3751.2	3752.8	3754.4	3756.0
12.5°	3663.2	3663.2	3682.9	3711.8	3751.2	3786.3	3822.0	3856.5	3859.7	3862.9	3866.1
15°	3662.0	3664.4	3694.6	3747.6	3815.3	3877.4	3921.2	3958.7	3961.8	3964.9	3967.9
17.5°	3636.7	3637.4	3680.4	3764.8	3870.7	3963.0	4019.6	4040.0	4041.1	4042.2	4043.3
20°	3566.0	3570.8	3631.8	3754.4	3913.8	4041.2	4094.8	4086.2	4084.3	4082.4	4080.6
22.5°	3444.6	3450.8	3532.0	3696.4	3921.8	4091.7	4147.1	4108.4	4102.4	4096.5	4090.6
25°	3275.9	3286.4	3374.4	3585.0	3867.6	4106.5	4181.0	4118.8	4109.6	4100.3	4091.1
27.5°	3080.8	3085.7	3189.8	3410.8	3741.4	4057.2	4196.4	4140.4	4128.8	4117.2	4105.6
30°	2854.8	2867.8	2976.1	3207.0	3563.5	3942.7	4190.2	4182.2	4169.3	4156.3	4143.4
32.5°	2630.1	2641.2	2747.7	2996.4	3358.4	3783.2	4159.4	4245.6	4234.8	4223.9	4213.1
35°	2403.6	2417.1	2526.6	2793.9	3154.7	3602.2	4110.8	4336.1	4331.4	4326.7	4322.1
37.5°	2204.7	2213.3	2321.0	2598.8	2976.1	3436.6	4047.4	4457.4	4468.0	4478.6	4489.2
40°	2002.2	2010.8	2123.4	2407.9	2811.8	3295.0	3988.8	4610.1	4639.0	4668.0	4696.9
42.5°	1807.6	1815.0	1924.0	2207.8	2628.9	3172.5	3953.8	4794.8	4850.3	4905.9	4961.4
45°	1608.1	1613.1	1715.2	1991.7	2420.2	3029.7	3944.6	5002.2	5082.4	5162.6	5242.8
47.5°	1411.8	1423.4	1528.7	1791.0	2181.9	2825.2	3931.0	5231.9	5338.2	5444.4	5550.7
50°	1223.9	1236.9	1345.2	1594.0	1951.7	2582.7	3862.0	5492.3	5621.8	5751.4	5881.0
52.5°	1032.5	1045.4	1153.8	1391.4	1738.0	2309.4	3670.0	5765.7	5919.7	6073.8	6227.8
55°	828.0	833.0	944.4	1182.7	1524.4	2080.3	3364.0	6016.3	6202.8	6389.4	6575.9
57.5°	602.1	618.8	729.0	950.6	1306.4	1877.8	2974.9	6144.3	6377.2	6610.0	6842.8
60°	434.6	445.7	542.4	716.6	1059.6	1678.9	2629.5	6050.8	6361.5	6672.3	6983.1
62.5°	343.5	355.8	430.4	539.9	819.4	1460.4	2404.2	5794.0	6230.0	6666.0	7102.0
65°	304.2	315.2	384.2	438.4	626.8	1235.6	2262.6	5539.8	6128.2	6716.6	7305.1
67.5°	277.6	289.4	349.7	386.6	517.8	1091.0	2195.4	5347.6	6027.2	6706.8	7386.4
69°	265.4	275.8	331.2	365.7	488.2	1041.7	2123.4	5022.6	5696.4	6370.2	7043.9
70°	258.6	267.8	318.3	352.8	476.6	1001.1	2016.9	4636.0	5286.1	5936.2	6586.4
72.5°	239.5	245.6	288.1	320.1	435.9	799.2	1521.3	3271.0	3822.2	4373.3	4924.4
75°	212.4	219.8	257.4	286.9	332.5	480.2	952.4	1898.7	2276.4	2654.0	3031.6
77.5°	182.2	190.8	221.6	268.4	267.8	312.8	578.1	1090.4	1273.8	1457.3	1640.8
80°	156.4	163.8	191.5	265.4	224.1	247.5	431.0	813.3	887.2	961.1	1034.9
82.5°	122.6	128.7	160.7	219.2	179.2	188.4	328.2	740.7	790.8	840.9	891.0
85°	76.9	79.4	117.0	151.4	127.5	113.9	211.2	570.2	606.6	643.0	679.5
87.5°	30.8	37.6	56.6	54.2	54.8	45.6	68.4	205.7	224.4	243.1	261.8
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3
2.5°	3554.6	3554.8	3553.6	3551.8	3553.6	3551.8	3552.4	3554.2	3553.6	3553.6	3552.4
5°	3595.2	3596.1	3596.1	3592.4	3594.2	3594.8	3595.4	3594.2	3594.8	3596.1	3593.6
7.5°	3662.6	3663.2	3665.0	3666.9	3665.6	3666.2	3667.5	3666.2	3664.4	3668.7	3665.6
10°	3757.6	3759.2	3759.2	3764.8	3762.4	3764.2	3769.7	3769.7	3766.6	3771.0	3769.7
12.5°	3869.3	3872.5	3871.9	3871.3	3873.8	3875.6	3881.8	3883.0	3884.2	3891.0	3888.5
15°	3971.0	3974.1	3976.6	3977.8	3982.2	3983.4	3987.0	3989.5	3991.4	3993.8	3995.0
17.5°	4044.4	4045.5	4049.2	4047.4	4053.5	4052.3	4056.6	4058.4	4060.3	4063.4	4065.2
20°	4078.8	4076.9	4077.6	4075.6	4075.7	4077.0	4077.5	4080.0	4078.8	4081.8	4084.3
22.5°	4084.7	4078.8	4075.0	4070.8	4069.0	4065.2	4065.2	4066.4	4062.2	4065.2	4069.0
25°	4081.8	4072.6	4065.8	4058.4	4051.7	4045.6	4041.8	4040.6	4037.5	4037.6	4040.6
27.5°	4094.1	4082.5	4072.6	4060.3	4051.6	4043.0	4035.0	4028.9	4022.8	4021.5	4021.6
30°	4130.5	4117.6	4106.4	4091.1	4077.6	4066.4	4055.4	4046.8	4035.0	4030.1	4024.6
32.5°	4202.3	4191.4	4176.0	4162.5	4146.5	4133.0	4118.2	4104.6	4091.0	4078.8	4073.8
35°	4317.4	4312.7	4304.1	4294.9	4279.5	4262.2	4250.0	4233.9	4218.5	4200.6	4195.8
37.5°	4499.8	4510.4	4505.4	4498.6	4494.4	4488.8	4472.2	4461.7	4451.2	4436.4	4433.4
40°	4725.8	4754.8	4783.7	4802.8	4796.0	4818.8	4822.5	4824.4	4815.1	4827.4	4829.9
42.5°	5016.9	5072.4	5124.8	5163.0	5207.3	5240.5	5283.6	5302.0	5337.2	5373.5	5394.5
45°	5322.9	5403.1	5478.2	5556.3	5633.4	5717.7	5799.6	5857.4	5941.8	6004.6	6044.0
47.5°	5657.0	5763.2	5853.1	5970.1	6081.5	6181.2	6324.7	6439.8	6542.6	6640.6	6743.4
50°	6010.5	6140.0	6250.8	6393.6	6529.1	6685.4	6853.6	7000.1	7161.4	7317.2	7455.7
52.5°	6381.9	6535.9	6685.4	6832.0	6996.4	7166.3	7348.6	7560.3	7753.6	7988.2	8156.3
55°	6762.5	6949.0	7108.4	7261.7	7436.0	7624.4	7841.1	8091.6	8337.3	8594.0	8849.0
57.5°	7075.7	7308.6	7482.8	7662.0	7849.7	8036.2	8305.3	8562.0	8873.6	9188.8	9507.7
60°	7293.9	7604.7	7815.8	8042.4	8259.8	8486.3	8776.2	9100.8	9490.4	9872.2	10305.6
62.5°	7538.0	7974.0	8270.2	8572.5	8836.7	9108.8	9496.6	9870.3	10370.8	10810.4	11355.9
65°	7893.6	8482.0	8917.9	9325.4	9680.1	10050.7	10510.6	10977.9	11550.4	12158.1	12842.1
67.5°	8065.9	8745.5	9316.2	9819.2	10272.4	10744.6	11219.2	11772.1	12417.3	13148.7	13899.8
69°	7717.7	8391.5	9047.8	9556.3	10033.5	10537.7	11045.6	11603.4	12238.8	12997.9	13794.0
70°	7236.5	7886.6	8584.2	9094.0	9575.4	10098.8	10615.8	11179.2	11786.8	12568.8	13374.0
72.5°	5475.6	6026.8	6704.0	7242.6	7748.8	8277.6	8810.2	9299.0	9915.2	10667.6	11409.5
75°	3409.3	3787.0	4395.8	4937.0	5344.0	5797.1	6297.0	6760.0	7378.8	7911.9	8625.4
77.5°	1824.2	2007.7	2362.9	2750.8	2977.4	3198.4	3524.1	3775.2	4035.7	4344.1	4639.0
80°	1108.8	1182.7	1304.0	1387.7	1356.3	1265.8	1236.8	1146.4	1179.0	1123.6	1083.6
82.5°	941.1	991.2	1065.1	1115.6	1078.6	934.0	770.2	648.3	562.1	479.6	407.5
85°	715.9	752.4	790.6	813.3	811.4	739.4	587.4	455.0	354.6	274.6	228.4
87.5°	280.5	299.2	327.0	322.6	336.8	339.2	265.4	205.0	145.9	98.6	86.2
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3	3541.3
2.5°	3549.9	3549.3	3549.9	3551.8	3551.8	3553.0	3551.8	3552.4	3550.5	3548.7	3549.9
5°	3593.6	3592.4	3593.6	3594.9	3594.9	3593.6	3596.7	3596.7	3595.4	3593.6	3594.2
7.5°	3668.8	3669.4	3667.5	3673.6	3668.2	3668.8	3672.4	3671.8	3670.6	3671.2	3671.8
10°	3773.4	3772.8	3774.0	3777.7	3772.2	3775.8	3780.2	3781.4	3778.4	3778.3	3778.9
12.5°	3889.2	3894.0	3894.7	3897.2	3897.2	3900.2	3900.8	3901.4	3903.9	3904.6	3900.8
15°	4000.0	4003.6	4006.1	4008.6	4005.5	4009.8	4014.7	4014.8	4014.2	4016.6	4012.9
17.5°	4068.3	4071.4	4075.7	4075.0	4075.7	4079.4	4082.4	4083.7	4085.0	4085.0	4085.5
20°	4089.8	4091.7	4094.2	4096.6	4097.8	4101.5	4104.0	4105.8	4107.0	4105.8	4106.5
22.5°	4072.6	4075.1	4080.0	4081.8	4082.4	4088.0	4090.4	4092.3	4093.6	4094.8	4092.9
25°	4043.0	4045.5	4050.4	4052.2	4053.5	4058.4	4061.6	4065.8	4067.0	4067.7	4068.3
27.5°	4022.8	4024.0	4027.7	4030.2	4030.8	4036.3	4040.6	4043.6	4044.3	4044.9	4044.9
30°	4023.4	4023.4	4027.7	4028.3	4027.6	4032.6	4035.0	4036.9	4038.1	4038.1	4038.8
32.5°	4065.8	4063.4	4067.1	4061.6	4062.2	4061.6	4060.9	4062.8	4061.6	4062.2	4059.7
35°	4185.9	4179.2	4173.6	4176.0	4167.5	4155.1	4161.9	4158.8	4152.0	4152.6	4154.5
37.5°	4416.2	4409.4	4415.6	4410.0	4411.8	4394.6	4398.9	4383.5	4379.2	4384.8	4368.7
40°	4825.0	4821.9	4833.6	4828.6	4831.7	4836.6	4841.0	4826.2	4801.6	4823.8	4824.3
42.5°	5391.4	5419.1	5430.2	5445.6	5462.2	5454.8	5469.6	5473.9	5446.8	5467.0	5472.0
45°	6101.8	6131.4	6165.8	6176.4	6203.4	6207.1	6218.2	6221.3	6196.6	6199.2	6204.7
47.5°	6846.2	6900.4	6941.0	6969.3	6997.6	7003.2	7009.3	6997.6	6999.4	7005.0	7005.0
50°	7577.6	7693.3	7765.4	7821.4	7870.0	7844.8	7866.3	7868.2	7875.6	7860.2	7869.4
52.5°	8346.6	8499.8	8620.6	8714.8	8744.2	8834.2	8797.2	8825.6	8844.6	8816.3	8834.8
55°	9097.6	9316.2	9510.2	9646.8	9742.9	9834.0	9848.2	9921.4	9912.8	9940.5	9928.2
57.5°	9811.8	10117.2	10394.2	10596.8	10734.7	10873.8	10968.0	11048.1	11056.1	11135.5	11090.6
60°	10675.6	11101.1	11457.5	11759.2	11963.0	12169.8	12333.0	12464.1	12494.2	12630.3	12585.4
62.5°	11841.0	12360.0	12815.6	13169.6	13623.4	13842.0	14159.6	14357.8	14481.6	14515.5	14578.9
65°	13479.4	14155.4	14756.2	15322.6	15833.0	16187.0	16554.6	16850.1	17087.2	17067.4	17164.7
67.5°	14696.5	15467.3	16190.7	16869.8	17419.0	17874.6	18296.9	18616.4	18828.2	18963.0	19020.3
69°	14569.6	15397.2	16195.0	16920.3	17486.6	17995.8	18407.1	18721.7	18964.2	19110.8	19153.3
70°	14147.9	14998.2	15829.9	16541.6	17119.2	17678.2	18096.8	18447.1	18678.0	18838.0	18862.7
72.5°	12237.5	13158.6	13894.3	14670.6	15226.6	15792.4	16055.9	16489.9	16791.0	16888.3	16886.4
75°	9230.0	9998.4	10644.8	11218.6	11716.1	12099.7	12224.0	12533.0	12783.0	12780.0	12756.5
77.5°	4970.2	5151.2	5393.2	5474.5	5627.8	5625.4	5471.4	5520.0	5661.6	5387.0	5475.7
80°	1066.4	1050.3	1036.8	1028.8	1024.4	1026.3	1031.8	996.8	1031.2	1015.8	950.6
82.5°	371.2	362.6	354.0	360.2	355.8	359.6	358.3	362.6	362.0	360.8	352.2
85°	208.7	201.4	197.0	200.1	193.3	187.2	182.8	181.0	180.4	176.0	173.6
87.5°	79.4	78.8	78.2	75.2	67.7	62.2	58.4	51.1	48.0	43.7	40.6
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)