

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: McGRAW-EDISON

Report Number: P301615

Luminaire Tested: **GLNA-AF-10-LED-E1-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301615
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-T2R-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59159.9 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

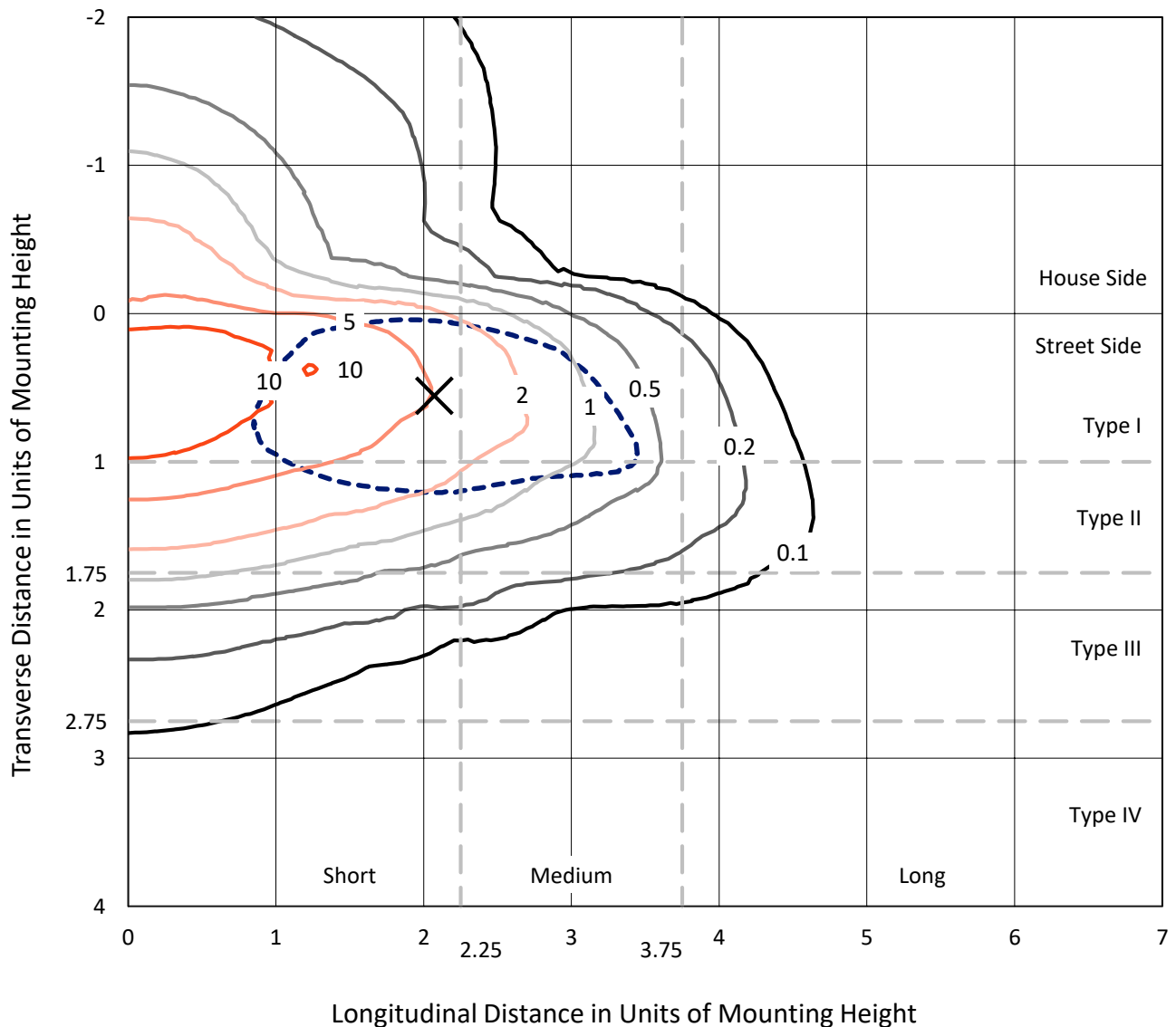
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

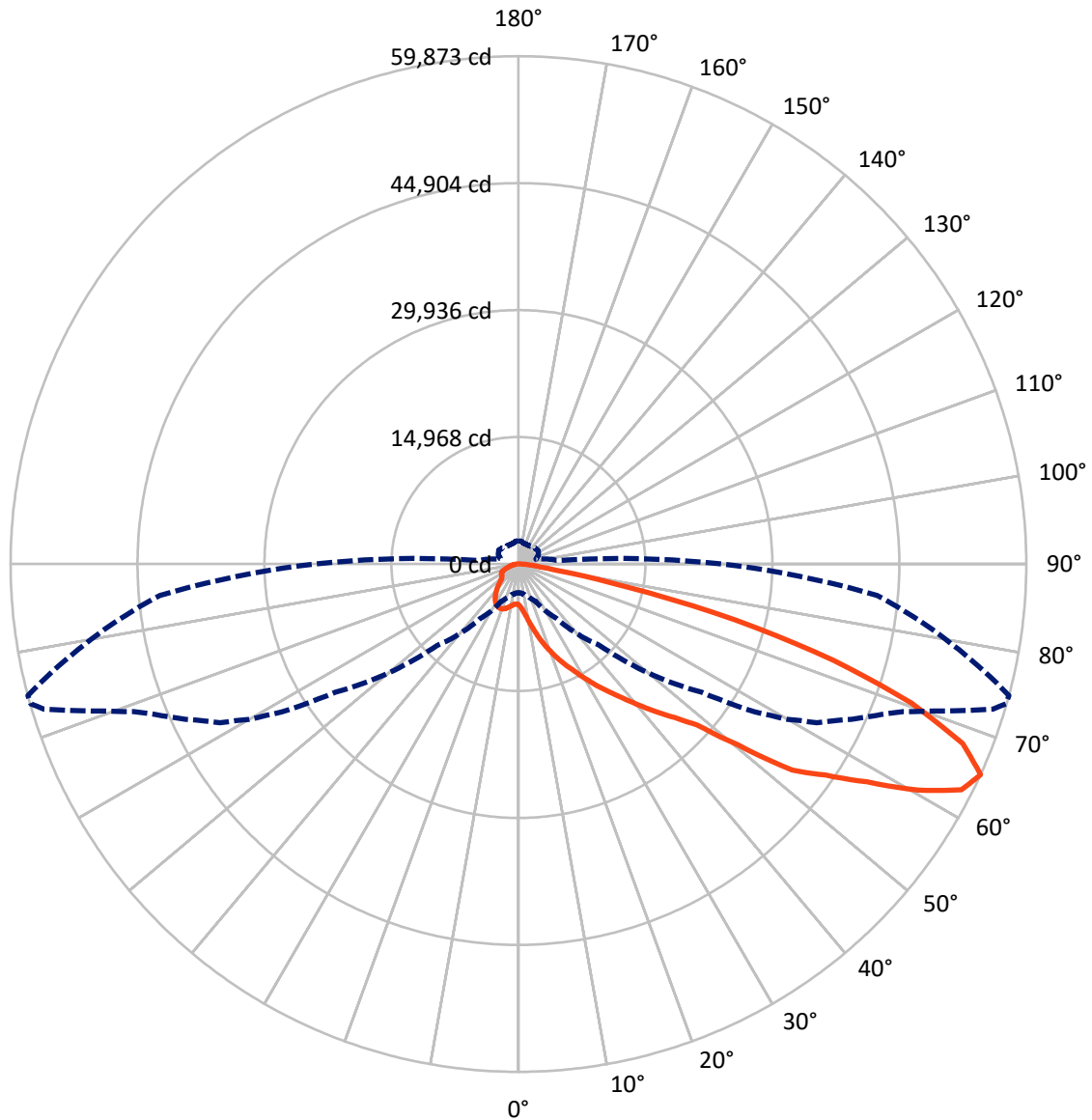
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.6 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9121.1	0.0	9121.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	50038.8	0.0	50038.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	59159.9	0.0	59159.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	594.3	1.0
10°-20°	2321.9	3.9
20°-30°	4763.9	8.1
30°-40°	8015.0	13.5
40°-50°	11074.4	18.7
50°-60°	13824.2	23.4
60°-70°	12440.3	21.0
70°-80°	5214.9	8.8
80°-90°	911.1	1.5
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°	59159.9	100.0
0°-180°	59159.9	100.0



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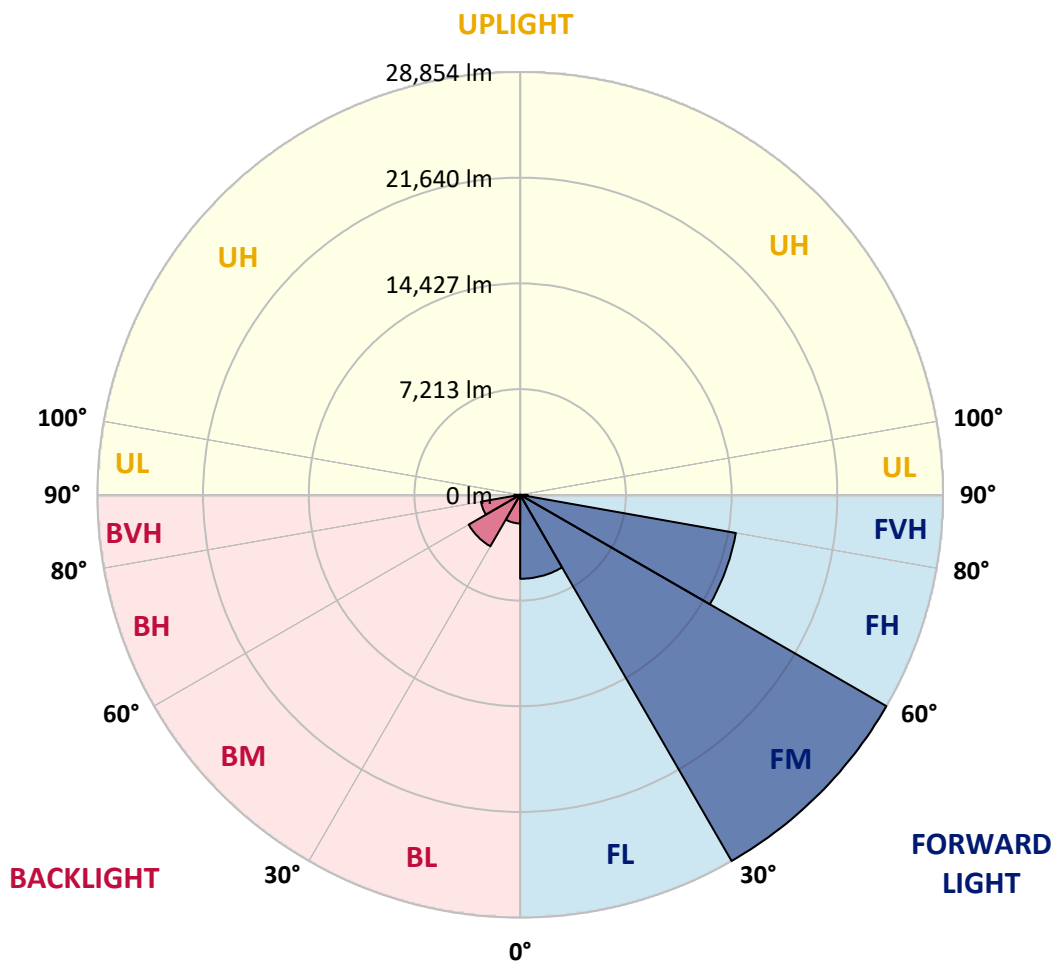
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5729.5	9.7			
FM	(30°-60°)	28853.7	48.8			
FH	(60°-80°)	14943.6	25.3			G5
FVH	(80°-90°)	512.1	0.9			G4/750
BL	(0°-30°)	1950.6	3.3	B3/2500		
BM	(30°-60°)	4059.9	6.9	B3/5000		
BH	(60°-80°)	2711.6	4.6	B4/5000		G4/5000
BVH	(80°-90°)	399.0	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9
2.5°	6104.5	6037.3	6053.9	5941.7	5804.7	5625.3	5426.7	5424.2	5426.7	5406.8	5334.5
5°	8464.5	8383.9	8353.1	8100.6	7731.0	7205.2	6633.7	6572.2	6546.5	6482.5	6333.8
7.5°	10187.3	10142.4	10094.2	9904.0	9568.4	8980.3	8212.8	8081.5	7955.3	7924.5	7756.7
10°	11298.7	11287.1	11186.5	11135.9	10926.5	10416.5	9668.9	9542.7	9405.6	9358.3	9181.3
12.5°	12177.5	12175.0	12127.7	12141.8	11959.1	11590.2	10945.6	10831.0	10730.5	10584.3	10458.9
15°	12785.6	12788.1	12858.7	12936.7	12908.5	12659.3	12054.6	12003.9	11917.5	11817.0	11668.3
17.5°	13284.0	13298.1	13370.4	13513.2	13667.7	13647.8	13169.3	13127.0	13051.4	12914.3	12836.2
20°	14409.5	14462.7	14323.1	14323.1	14339.7	14415.3	14185.2	14152.0	14045.7	13972.6	13911.1
22.5°	16310.9	16372.4	16055.9	15734.4	15417.9	15187.8	14958.6	15000.1	14927.8	14877.2	14840.6
25°	18780.5	18828.6	18316.1	17772.9	17128.3	16288.5	15720.3	15694.6	15655.5	15624.8	15608.2
27.5°	21104.7	21124.6	20640.3	19844.5	19096.9	17890.0	16492.8	16462.1	16414.7	16355.8	16305.1
30°	23093.3	23087.5	22589.1	21829.8	21029.1	19693.4	17666.5	17571.0	17430.6	17271.1	17148.2
32.5°	24815.2	24806.9	24260.4	23473.7	22633.9	21480.1	19273.9	19077.8	18859.4	18547.9	18361.0
35°	26170.0	26165.1	25649.2	24829.4	23865.8	23163.0	21116.3	20875.4	20598.0	20181.0	19892.7
37.5°	26682.6	26682.6	26394.3	25834.5	24983.0	24501.2	23163.0	22871.5	22574.9	22101.5	21776.7
40°	26382.7	26388.5	26450.0	26347.0	25932.5	25562.8	25072.7	24899.1	24644.1	24218.8	23879.9
42.5°	25377.6	25408.3	25817.8	26318.7	26525.6	26467.4	26766.5	26688.4	26509.0	26181.7	25912.5
45°	24103.4	24198.9	24646.6	25593.6	26690.9	27248.2	28186.1	28194.4	28161.1	27985.0	27777.4
47.5°	22354.0	22487.7	23079.1	24358.4	26304.6	28007.5	29628.1	29703.7	29774.3	29659.7	29564.1
50°	20029.8	20189.3	21073.9	22771.0	25518.0	28794.1	32352.7	32694.9	33013.9	32974.8	33038.8
52.5°	17540.3	17728.0	18811.2	20701.8	24165.7	28976.0	34094.6	34651.9	35209.3	35665.4	36149.6
55°	15294.2	15193.7	16277.7	18267.9	21942.0	28155.3	35660.4	36332.4	36953.7	37513.6	38090.9
57.5°	12250.6	12415.9	13502.4	15471.1	18998.9	25839.4	36737.7	37721.2	38614.2	39541.2	40358.6
60°	8954.5	9119.9	10298.6	12298.0	15804.2	22328.2	35914.6	37404.8	38835.2	40254.8	41363.7
62.5°	5406.8	5530.6	6568.9	8473.6	12186.7	18164.9	32246.3	34200.9	36306.6	38003.7	39703.2
65°	3365.8	3435.6	3819.4	4866.9	7826.5	13561.4	26347.0	28477.6	30745.3	32899.2	34666.1
67.5°	2755.3	2780.2	2850.8	3074.3	4297.9	8843.2	19609.5	21496.7	23543.5	25626.8	27593.0
70°	2477.9	2461.3	2461.3	2475.4	2755.3	4754.7	12838.7	14068.1	15773.5	17585.1	19382.7
72.5°	2237.0	2220.4	2189.6	2148.1	2248.6	2900.7	6636.2	7563.2	8792.6	10402.4	12124.4
75°	2010.2	1987.8	1952.1	1898.9	1968.7	2189.6	3186.4	3576.0	4174.9	5032.2	5992.4
77.5°	1775.1	1746.9	1713.7	1674.6	1764.3	1702.9	1867.3	2007.7	2237.0	2511.9	2873.3
80°	1509.3	1484.4	1472.8	1453.7	1560.0	1296.7	1319.1	1405.5	1540.0	1688.7	1856.5
82.5°	1182.0	1182.0	1226.1	1235.2	1352.3	932.8	986.0	1061.6	1131.4	1209.4	1288.4
85°	778.3	784.1	935.3	994.3	1066.6	627.2	739.3	764.2	820.7	865.6	898.8
87.5°	243.4	263.3	571.5	633.0	613.0	355.5	453.5	465.2	504.2	534.9	563.2
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9
2.5°	5334.5	5300.5	5269.7	5267.2	5244.8	5214.1	5224.9	5177.5	5180.0	5155.1	5126.9
5°	6272.3	6249.9	6137.8	6107.0	6023.1	5970.0	5961.7	5849.5	5835.4	5771.4	5700.8
7.5°	7622.2	7549.1	7392.1	7316.5	7173.6	7067.3	7017.4	6868.8	6795.7	6627.9	6552.3
10°	9036.0	8943.8	8750.2	8643.9	8506.8	8335.7	8243.5	8028.4	7943.6	7790.0	7605.6
12.5°	10346.7	10254.5	10055.2	9973.8	9791.9	9609.9	9509.4	9266.0	9156.4	8909.7	8764.3
15°	11558.7	11466.5	11292.9	11209.0	11027.1	10878.4	10743.8	10503.7	10375.0	10144.9	9954.7
17.5°	12734.9	12636.9	12485.7	12410.1	12234.0	12082.8	11937.5	11709.9	11578.6	11349.4	11178.2
20°	13827.2	13754.1	13645.3	13544.0	13367.9	13230.8	13057.2	12861.2	12670.9	12502.3	12340.3
22.5°	14779.2	14750.9	14633.8	14588.9	14437.8	14319.8	14168.6	13975.9	13838.0	13625.4	13474.2
25°	15599.9	15591.5	15535.1	15520.9	15414.6	15302.5	15269.3	15109.8	14983.5	14795.8	14639.6
27.5°	16305.1	16313.4	16300.1	16339.1	16310.9	16260.2	16263.6	16210.4	16137.3	15980.3	15843.2
30°	17089.2	17044.4	17070.1	17125.8	17142.4	17148.2	17240.4	17271.1	17266.2	17162.3	17095.0
32.5°	18198.2	18091.8	17993.8	17985.5	18041.2	18063.6	18220.6	18302.0	18371.8	18396.7	18408.3
35°	19612.0	19399.3	19195.0	19086.1	18990.6	19015.5	19127.7	19259.8	19413.4	19519.8	19646.0
37.5°	21392.9	21132.9	20771.6	20514.1	20449.3	20309.7	20382.0	20485.8	20637.0	20802.3	21020.8
40°	23551.8	23157.2	22751.0	22409.6	22225.2	21966.9	21964.4	21944.5	22037.5	22191.2	22499.3
42.5°	25630.1	25279.6	24848.5	24490.4	24249.6	23904.8	23835.1	23653.1	23694.7	23829.2	24129.1
45°	27575.5	27287.3	27024.0	26610.3	26405.1	26033.0	25915.0	25699.9	25579.4	25640.9	25940.8
47.5°	29460.3	29275.9	29000.9	28732.6	28575.6	28242.5	28091.4	27936.9	27783.2	27777.4	28091.4
50°	33134.3	33036.3	32711.5	32431.6	32507.2	32098.5	32123.4	31708.9	31896.6	31919.1	32577.0
52.5°	36586.6	36928.8	37169.7	37462.9	37654.0	37690.5	37815.9	38003.7	38230.4	38678.2	39288.7
55°	38563.5	38992.2	39241.4	39465.6	39835.3	39913.4	40123.5	40372.7	40571.3	41075.5	41593.8
57.5°	40913.5	41708.4	42094.7	42450.2	42948.6	43138.8	43489.4	43761.0	44018.5	44614.9	45242.1
60°	42360.5	43329.9	44116.5	44678.9	45303.5	45752.1	46281.2	46706.5	47311.3	48025.6	48961.0
62.5°	41210.0	42632.1	43677.1	44643.2	45491.3	46348.5	47106.9	47902.7	48820.6	49901.3	51352.4
65°	36626.4	38073.4	39862.7	40865.3	41988.4	43310.0	44463.7	45752.1	47003.1	48577.2	50722.0
67.5°	29486.1	31168.1	33179.2	34190.1	35480.9	36956.2	38250.4	39823.7	41285.6	43192.0	45844.3
70°	21253.3	23428.9	25120.1	26175.9	27682.7	29202.8	30452.1	32282.9	33492.3	35446.9	38188.9
72.5°	13457.6	15173.7	17246.2	18576.1	19914.3	21455.2	22731.9	24311.0	25439.1	27220.0	29703.7
75°	7235.9	8501.0	10321.0	11584.4	13018.2	14333.9	15829.1	16887.4	17722.2	19131.0	21147.0
77.5°	3390.8	4160.8	5082.0	6053.9	7025.7	8039.2	9025.2	9881.6	10240.4	11047.0	12236.5
80°	2058.4	2307.6	2575.9	2875.8	3282.0	3609.2	4043.7	4356.8	4379.3	4634.3	4998.1
82.5°	1374.7	1467.0	1548.4	1623.9	1727.8	1809.2	1901.4	2010.2	2055.1	2114.0	2232.0
85°	937.8	982.7	999.3	1047.5	1035.8	1064.1	1100.6	1137.2	1156.3	1153.8	1207.0
87.5°	576.5	598.9	610.5	621.3	613.0	602.2	618.8	638.8	643.8	627.2	633.0
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9
2.5°	5132.7	5107.7	5082.0	5065.4	5059.6	4911.7	4846.9	4805.4	4715.7	4642.6	4583.6
5°	5661.8	5608.6	5567.1	5516.4	5488.2	5112.7	4975.7	4881.0	4724.0	4631.8	4547.1
7.5°	6513.2	6364.5	6278.2	6180.1	6096.2	5418.4	5191.6	5043.0	4824.5	4701.6	4606.0
10°	7479.3	7325.6	7187.7	7036.5	6905.3	5824.6	5494.0	5263.9	4975.7	4816.2	4689.9
12.5°	8557.5	8406.3	8232.7	8039.2	7871.4	6339.6	5880.3	5553.0	5157.6	4944.9	4768.8
15°	9831.7	9565.1	9354.9	9131.5	8935.4	6956.0	6331.3	5877.8	5351.1	5062.9	4827.8
17.5°	11015.4	10735.5	10450.6	10254.5	10027.8	7647.1	6784.9	6207.5	5510.6	5138.5	4838.6
20°	12172.5	11866.9	11621.0	11357.7	11119.3	8363.9	7269.1	6499.1	5614.5	5141.0	4768.8
22.5°	13191.8	13000.7	12726.6	12440.8	12200.0	9080.8	7722.7	6745.8	5653.5	5077.0	4645.1
25°	14350.5	14149.5	13813.1	13572.2	13303.9	9811.8	8167.9	6936.0	5631.1	4956.6	4454.8
27.5°	15588.2	15364.8	15020.1	14768.4	14443.6	10570.2	8576.6	7073.1	5547.2	4760.5	4199.8
30°	16879.1	16674.7	16335.8	16081.6	15753.5	11374.3	9033.5	7165.3	5379.4	4488.9	3903.3
32.5°	18265.5	18094.3	17758.7	17492.9	17142.4	12244.8	9458.8	7193.5	5124.4	4166.6	3590.1
35°	19581.2	19464.1	19180.8	18931.6	18567.8	13068.0	9909.8	7179.4	4822.0	3813.6	3304.4
37.5°	21063.1	20992.5	20853.0	20536.5	20091.3	14185.2	10450.6	7120.4	4452.4	3463.9	3085.9
40°	22642.2	22648.0	22496.9	22280.9	21866.4	15540.9	11094.3	7005.8	4048.7	3155.7	2886.6
42.5°	24313.5	24400.7	24327.6	24174.0	23776.1	16907.3	11864.4	6866.3	3657.4	2855.8	2691.3
45°	26229.0	26335.3	26447.5	26220.7	25834.5	18710.7	12877.8	6684.3	3233.8	2606.6	2556.8
47.5°	28438.6	28606.4	28706.9	28710.2	28324.0	20945.2	14524.1	6574.7	2859.1	2438.8	2492.0
50°	33100.3	33154.3	33391.8	33806.3	33509.8	26116.9	17399.9	6507.4	2604.1	2335.0	2444.6
52.5°	39817.8	40403.5	40815.5	40787.2	40383.5	29401.3	18984.8	6160.2	2452.9	2296.0	2422.2
55°	42554.0	43285.0	44046.7	44247.8	43934.6	32204.8	20483.3	5813.0	2379.9	2324.2	2430.5
57.5°	46199.8	47431.7	48476.7	48916.1	48462.6	35791.6	22454.5	5631.1	2357.4	2399.8	2483.7
60°	50458.6	51982.1	53354.3	54143.5	54143.5	39913.4	24498.8	5555.5	2326.7	2511.9	2573.4
62.5°	53194.8	55431.8	57504.3	58660.6	58626.5	42783.3	25405.8	5298.0	2256.9	2590.0	2696.3
65°	53205.6	55866.3	58506.1	59806.1	59872.5	42431.1	23908.1	4679.1	2128.2	2601.6	2820.1
67.5°	48770.7	51606.6	54684.2	56137.9	56473.5	39059.4	20696.0	3847.6	1918.0	2489.5	2865.0
70°	41190.1	43959.5	47101.1	48529.8	49126.3	33296.3	16668.9	2965.5	1649.7	2242.8	2771.9
72.5°	32450.7	35167.0	37354.1	38398.2	38863.4	25450.7	12138.5	2240.3	1352.3	1889.8	2522.7
75°	22975.3	25013.8	26175.9	26408.4	26480.7	15342.3	7375.5	1666.3	1114.8	1470.3	2130.7
77.5°	12967.5	13841.3	13745.8	13849.6	12987.4	5922.6	3212.2	1192.8	918.7	1117.2	1652.2
80°	5062.9	5219.9	4903.4	4805.4	4407.5	2203.7	1417.1	831.5	733.5	845.6	1156.3
82.5°	2232.0	2304.3	2237.0	2254.4	2156.4	1137.2	848.1	602.2	559.9	618.8	767.5
85°	1229.4	1251.8	1246.0	1282.5	1229.4	453.5	402.9	369.6	392.1	420.3	492.6
87.5°	598.9	604.7	585.6	616.4	596.4	229.3	198.5	210.2	229.3	235.1	235.1
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):

	135°	145°	155°	165°	175°	180°
0°	4807.9	4807.9	4807.9	4807.9	4807.9	4807.9
2.5°	4542.1	4519.6	4522.1	4516.3	4505.5	4505.5
5°	4503.0	4480.6	4480.6	4474.8	4460.7	4463.2
7.5°	4542.1	4505.5	4491.4	4471.5	4452.4	4452.4
10°	4586.9	4522.1	4483.1	4449.9	4424.1	4424.1
12.5°	4620.1	4519.6	4454.8	4410.0	4385.1	4385.1
15°	4631.8	4499.7	4410.0	4356.8	4334.4	4331.9
17.5°	4595.2	4424.1	4315.3	4253.8	4225.6	4217.3
20°	4483.1	4287.1	4155.8	4085.2	4046.2	4032.0
22.5°	4315.3	4091.0	3937.3	3864.2	3813.6	3805.3
25°	4080.2	3839.3	3688.1	3617.5	3590.1	3581.0
27.5°	3805.3	3581.0	3452.2	3407.4	3382.5	3380.0
30°	3545.3	3354.2	3259.5	3225.5	3194.7	3189.7
32.5°	3301.1	3180.6	3144.9	3096.7	3024.4	3016.1
35°	3127.4	3116.6	3091.7	2984.6	2895.7	2869.9
37.5°	3021.1	3125.0	2996.2	2786.0	2722.1	2716.3
40°	2959.7	3038.6	2816.8	2744.5	2749.5	2744.5
42.5°	2820.1	2900.7	2822.6	2789.4	2811.0	2816.8
45°	2679.7	2769.4	2865.0	2842.5	2895.7	2895.7
47.5°	2601.6	2735.4	2861.6	2861.6	2940.5	2968.0
50°	2511.9	2708.0	2816.8	2855.8	2918.1	2895.7
52.5°	2506.1	2659.8	2752.8	2822.6	2850.8	2825.1
55°	2514.4	2620.7	2688.0	2766.9	2800.2	2802.7
57.5°	2526.0	2598.3	2643.2	2679.7	2780.2	2780.2
60°	2553.5	2579.2	2604.1	2624.1	2755.3	2757.8
62.5°	2598.3	2559.3	2553.5	2573.4	2741.2	2730.4
65°	2668.9	2531.0	2489.5	2508.6	2727.1	2693.8
67.5°	2763.6	2489.5	2408.1	2422.2	2716.3	2643.2
70°	2850.8	2422.2	2307.6	2293.5	2609.9	2481.2
72.5°	2859.1	2344.1	2167.2	2125.7	2268.5	2144.8
75°	2718.8	2290.1	2013.5	1889.8	1873.1	1856.5
77.5°	2450.5	2259.4	1834.1	1640.6	1607.3	1618.1
80°	2050.1	2144.8	1618.1	1388.9	1570.8	1551.7
82.5°	1531.7	1893.1	1374.7	1229.4	1226.1	1084.0
85°	851.4	1476.1	1119.7	921.2	641.3	621.3
87.5°	238.4	820.7	784.1	520.8	355.5	369.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)