

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: P301675

Luminaire Tested: **GLNA-AF-10-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301675
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-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47794.2 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

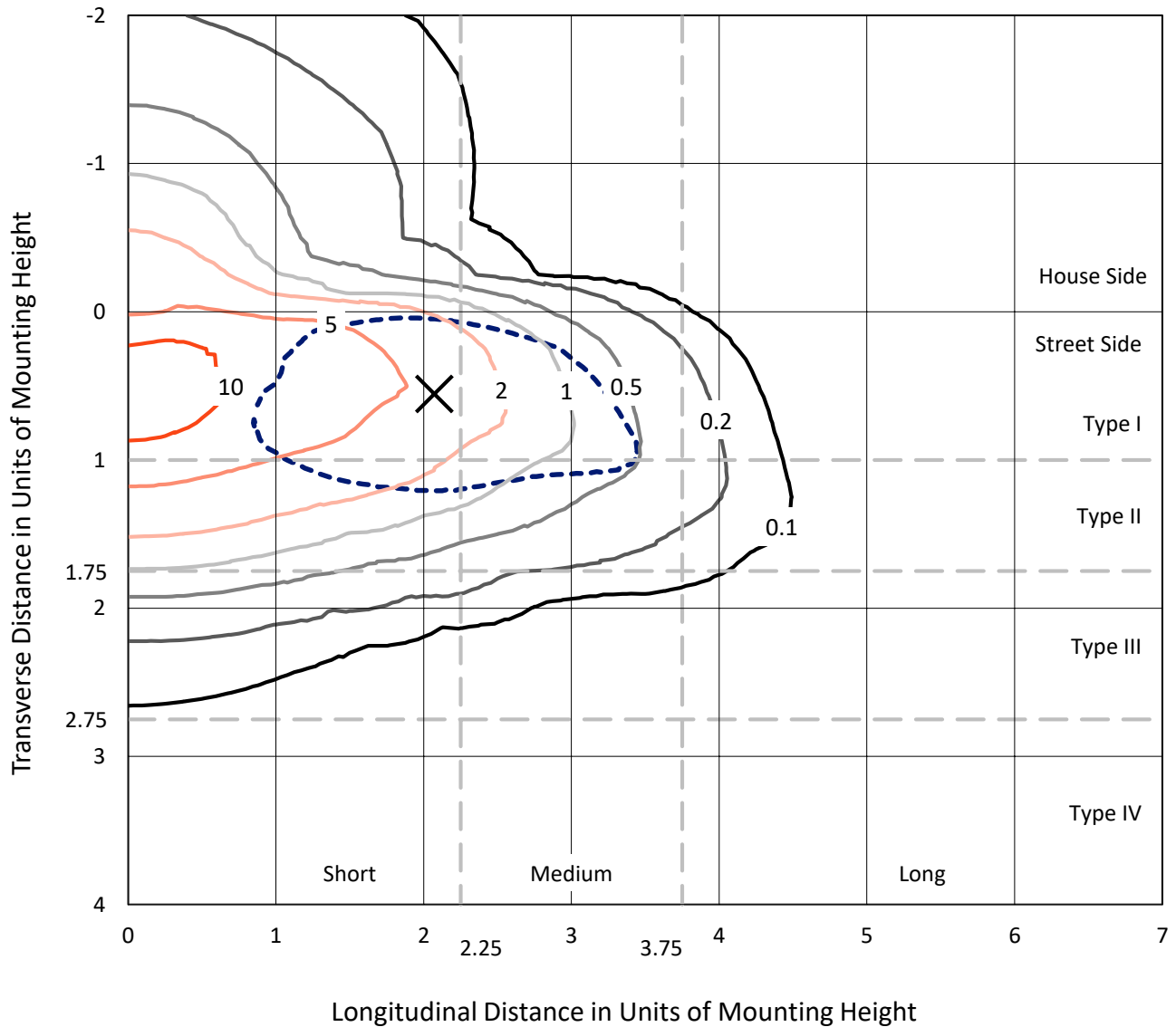
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

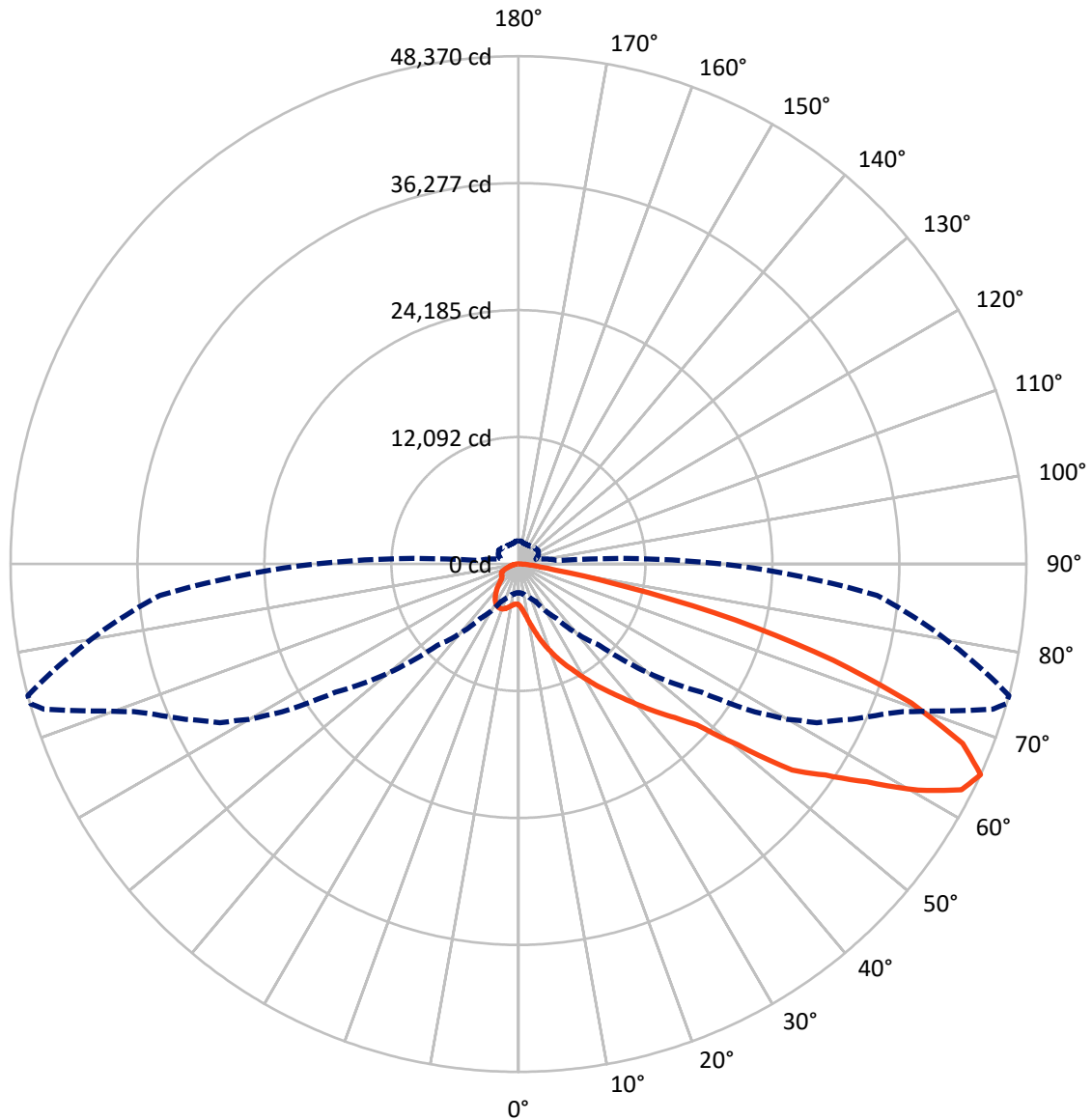
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.4 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	7368.7	0.0	7368.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	40425.4	0.0	40425.4
	% Fixture	84.6	0.0	84.6
Total	Lumens	47794.2	0.0	47794.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.1	1.0
10°-20°	1875.9	3.9
20°-30°	3848.6	8.1
30°-40°	6475.1	13.5
40°-50°	8946.8	18.7
50°-60°	11168.3	23.4
60°-70°	10050.3	21.0
70°-80°	4213.0	8.8
80°-90°	736.0	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°	47794.2	100.0
0°-180°	47794.2	100.0

Coefficient of Utilization



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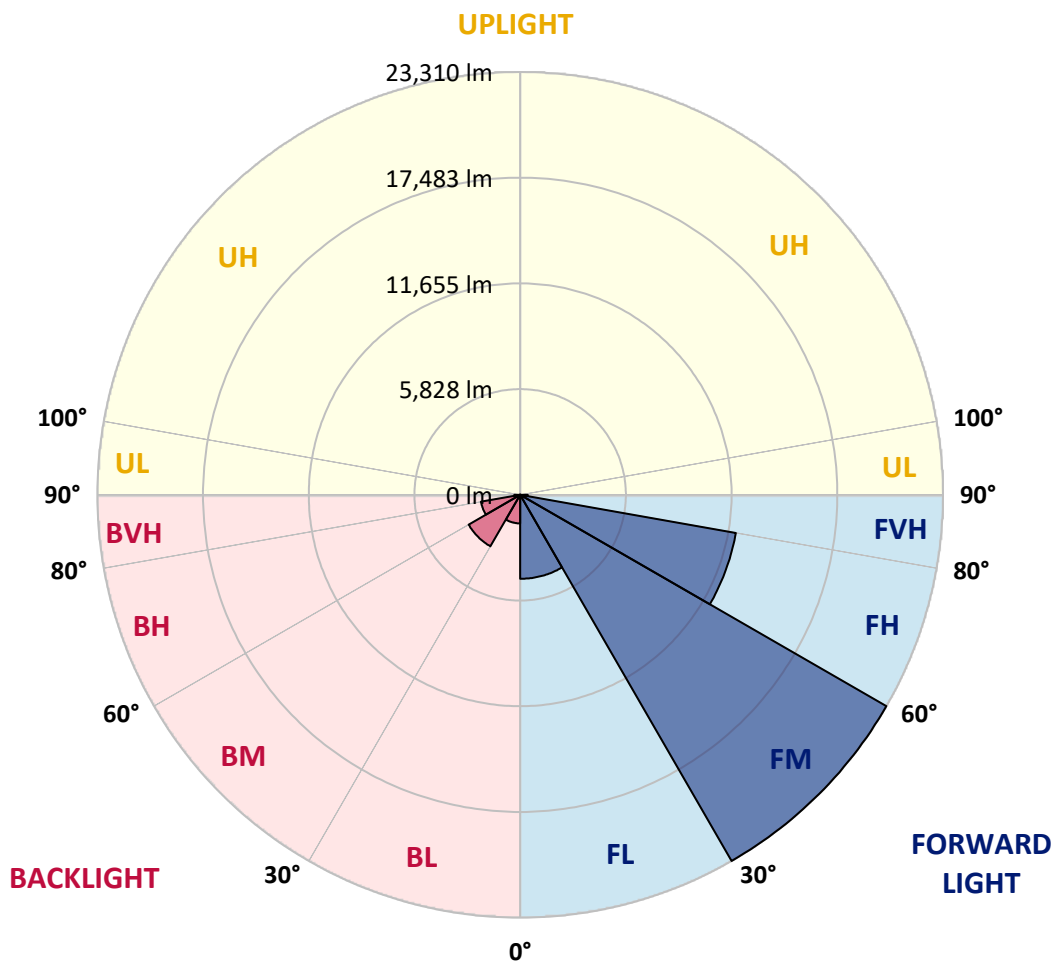
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4628.7	9.7			
FM (30°-60°)	23310.3	48.8			
FH (60°-80°)	12072.6	25.3			G5
FVH (80°-90°)	413.7	0.9			G3/500
BL (0°-30°)	1575.9	3.3	B3/2500		
BM (30°-60°)	3279.9	6.9	B3/5000		
BH (60°-80°)	2190.6	4.6	B3/2500		G3/2500
BVH (80°-90°)	322.3	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2
2.5°	4931.7	4877.4	4890.8	4800.2	4689.5	4544.5	4384.1	4382.1	4384.1	4368.0	4309.7
5°	6838.3	6773.2	6748.4	6544.3	6245.7	5820.9	5359.2	5309.6	5288.8	5237.1	5117.0
7.5°	8230.1	8193.9	8154.9	8001.3	7730.1	7255.0	6634.9	6528.9	6426.9	6402.1	6266.5
10°	9128.0	9118.6	9037.4	8996.5	8827.3	8415.3	7811.3	7709.3	7598.6	7560.4	7417.4
12.5°	9838.0	9836.0	9797.7	9809.1	9661.5	9363.5	8842.8	8750.2	8669.0	8550.9	8449.5
15°	10329.2	10331.2	10388.3	10451.4	10428.5	10227.2	9738.7	9697.7	9627.9	9546.7	9426.6
17.5°	10731.9	10743.3	10801.7	10917.1	11041.9	11025.8	10639.3	10605.0	10544.0	10433.2	10370.2
20°	11641.2	11684.1	11571.4	11571.4	11584.8	11645.9	11460.0	11433.1	11347.2	11288.2	11238.5
22.5°	13177.3	13226.9	12971.2	12711.5	12455.9	12270.0	12084.8	12118.3	12059.9	12019.0	11989.5
25°	15172.4	15211.3	14797.2	14358.4	13837.6	13159.1	12700.1	12679.3	12647.8	12623.0	12609.5
27.5°	17050.1	17066.2	16674.9	16032.0	15428.1	14453.0	13324.2	13299.4	13261.2	13213.5	13172.6
30°	18656.6	18651.9	18249.3	17635.9	16989.0	15909.9	14272.5	14195.3	14081.9	13953.0	13853.7
32.5°	20047.8	20041.0	19599.5	18964.0	18285.5	17353.4	15571.0	15412.6	15236.1	14984.5	14833.5
35°	21142.3	21138.3	20721.5	20059.2	19280.7	18713.0	17059.4	16864.8	16640.7	16303.8	16071.0
37.5°	21556.3	21556.3	21323.5	20871.2	20183.3	19794.1	18713.0	18477.4	18237.9	17855.3	17593.0
40°	21314.1	21318.8	21368.4	21285.2	20950.4	20651.7	20255.8	20115.5	19909.5	19565.9	19292.1
42.5°	20502.1	20526.9	20857.7	21262.4	21429.5	21382.5	21624.1	21561.0	21416.1	21151.7	20934.2
45°	19472.6	19549.8	19911.5	20676.6	21563.0	22013.3	22771.0	22777.7	22750.9	22608.6	22440.8
47.5°	18059.4	18167.4	18645.2	19678.7	21251.0	22626.7	23936.0	23997.0	24054.1	23961.5	23884.3
50°	16181.7	16310.5	17025.2	18396.2	20615.5	23262.2	26137.1	26413.6	26671.3	26639.7	26691.4
52.5°	14170.5	14322.1	15197.2	16724.6	19523.0	23409.2	27544.4	27994.6	28444.9	28813.4	29204.6
55°	12355.9	12274.7	13150.4	14758.3	17726.5	22746.2	28809.3	29352.2	29854.2	30306.5	30772.9
57.5°	9897.0	10030.6	10908.4	12498.8	15348.9	20875.2	29679.7	30474.3	31195.7	31944.6	32604.9
60°	7234.2	7367.8	8320.0	9935.3	12767.9	18038.6	29014.7	30218.6	31374.2	32521.1	33417.0
62.5°	4368.0	4468.0	5306.9	6845.7	9845.4	14675.1	26051.2	27630.3	29331.4	30702.4	32075.5
65°	2719.2	2775.6	3085.6	3931.8	6322.9	10956.0	21285.2	23006.5	24838.6	26578.7	28006.1
67.5°	2226.0	2246.1	2303.1	2483.7	3472.2	7144.3	15842.1	17366.8	19020.3	20703.4	22291.8
70°	2001.8	1988.4	1988.4	1999.8	2226.0	3841.2	10372.2	11365.4	12743.1	14206.7	15658.9
72.5°	1807.2	1793.8	1769.0	1735.4	1816.6	2343.4	5361.2	6110.2	7103.4	8403.9	9795.0
75°	1624.0	1605.9	1577.0	1534.1	1590.5	1769.0	2574.3	2889.0	3372.8	4065.4	4841.1
77.5°	1434.1	1411.3	1384.4	1352.9	1425.4	1375.7	1508.6	1622.0	1807.2	2029.3	2321.3
80°	1219.3	1199.2	1189.8	1174.4	1260.3	1047.6	1065.7	1135.5	1244.2	1364.3	1499.9
82.5°	954.9	954.9	990.5	997.9	1092.5	753.6	796.6	857.6	914.0	977.1	1040.8
85°	628.8	633.5	755.6	803.3	861.7	506.7	597.3	617.4	663.0	699.3	726.1
87.5°	196.6	212.7	461.7	511.4	495.3	287.2	366.4	375.8	407.3	432.2	455.0
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2
2.5°	4309.7	4282.1	4257.3	4255.3	4237.2	4212.4	4221.1	4182.8	4184.8	4164.7	4141.9
5°	5067.3	5049.2	4958.6	4933.8	4866.0	4823.0	4816.3	4725.7	4714.3	4662.6	4605.6
7.5°	6157.8	6098.7	5971.9	5910.8	5795.4	5709.5	5669.3	5549.1	5490.1	5354.5	5293.5
10°	7300.0	7225.5	7069.1	6983.2	6872.5	6734.3	6659.8	6486.0	6417.5	6293.4	6144.4
12.5°	8358.9	8284.4	8123.4	8057.6	7910.7	7763.7	7682.5	7485.9	7397.3	7198.0	7080.5
15°	9338.0	9263.5	9123.3	9055.5	8908.5	8788.4	8679.7	8485.8	8381.8	8195.9	8042.2
17.5°	10288.3	10209.1	10087.0	10025.9	9883.6	9761.5	9644.0	9460.2	9354.1	9168.9	9030.7
20°	11170.7	11111.7	11023.8	10941.9	10799.6	10688.9	10548.7	10390.3	10236.6	10100.4	9969.5
22.5°	11939.8	11917.0	11822.4	11786.1	11664.0	11568.7	11446.6	11290.9	11179.5	11007.7	10885.5
25°	12602.8	12596.1	12550.5	12539.1	12453.2	12362.6	12335.7	12206.9	12104.9	11953.2	11827.1
27.5°	13172.6	13179.3	13168.5	13200.1	13177.3	13136.3	13139.0	13096.1	13037.0	12910.2	12799.5
30°	13806.1	13769.8	13790.6	13835.6	13849.0	13853.7	13928.2	13953.0	13949.0	13865.1	13810.8
32.5°	14702.0	14616.1	14536.9	14530.2	14575.1	14593.2	14720.1	14785.8	14842.2	14862.3	14871.7
35°	15844.1	15672.3	15507.2	15419.3	15342.2	15362.3	15452.9	15559.6	15683.7	15769.6	15871.6
37.5°	17282.9	17072.9	16781.0	16572.9	16520.6	16407.8	16466.2	16550.1	16672.2	16805.8	16982.3
40°	19027.0	18708.3	18380.1	18104.3	17955.3	17746.6	17744.6	17728.5	17803.7	17927.8	18176.8
42.5°	20706.1	20422.9	20074.6	19785.4	19590.8	19312.3	19255.9	19108.9	19142.5	19251.2	19493.4
45°	22277.7	22044.9	21832.1	21498.0	21332.2	21031.6	20936.3	20762.5	20665.1	20714.8	20957.1
47.5°	23800.4	23651.4	23429.3	23212.6	23085.7	22816.6	22694.5	22569.7	22445.5	22440.8	22694.5
50°	26768.6	26689.4	26427.0	26200.9	26261.9	25931.8	25951.9	25617.0	25768.7	25786.8	26318.3
52.5°	29557.6	29834.1	30028.7	30265.6	30419.9	30449.4	30550.8	30702.4	30885.6	31247.4	31740.6
55°	31154.8	31501.0	31702.3	31883.5	32182.2	32245.3	32415.0	32616.4	32776.7	33184.1	33602.8
57.5°	33053.2	33695.4	34007.5	34294.7	34697.4	34851.0	35134.2	35353.7	35561.7	36043.5	36550.2
60°	34222.2	35005.4	35640.9	36095.2	36599.9	36962.3	37389.7	37733.3	38221.9	38799.0	39554.6
62.5°	33292.8	34441.7	35285.9	36066.4	36751.5	37444.1	38056.8	38699.7	39441.2	40314.3	41486.7
65°	29589.8	30758.8	32204.3	33014.3	33921.6	34989.3	35921.4	36962.3	37972.9	39244.6	40977.3
67.5°	23821.2	25180.2	26804.8	27621.5	28664.4	29856.2	30901.8	32172.8	33353.9	34894.0	37036.7
70°	17170.2	18927.7	20294.0	21147.0	22364.3	23592.4	24601.7	26080.7	27057.8	28636.9	30852.1
72.5°	10872.1	12258.6	13932.9	15007.3	16088.4	17333.2	18364.7	19640.4	20551.7	21990.5	23997.0
75°	5845.8	6867.8	8338.1	9358.8	10517.1	11580.1	12788.0	13643.0	14317.4	15455.6	17084.3
77.5°	2739.3	3361.4	4105.6	4890.8	5676.0	6494.7	7291.3	7983.1	8273.0	8924.7	9885.6
80°	1662.9	1864.3	2081.0	2323.3	2651.4	2915.8	3266.8	3519.8	3537.9	3743.9	4037.9
82.5°	1110.6	1185.1	1250.9	1312.0	1395.8	1461.6	1536.1	1624.0	1660.2	1707.9	1803.2
85°	757.6	793.9	807.3	846.2	836.8	859.6	889.2	918.7	934.1	932.1	975.1
87.5°	465.7	483.8	493.2	502.0	495.3	486.5	500.0	516.1	520.1	506.7	511.4
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°	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2
2.5°	4146.6	4126.5	4105.6	4092.2	4087.5	3968.1	3915.7	3882.2	3809.7	3750.6	3703.0
5°	4574.1	4531.1	4497.6	4456.6	4433.8	4130.5	4019.8	3943.2	3816.4	3741.9	3673.5
7.5°	5261.9	5141.8	5072.0	4992.8	4925.0	4377.4	4194.2	4074.1	3897.6	3798.3	3721.1
10°	6042.4	5918.2	5806.8	5684.7	5578.7	4705.6	4438.5	4252.6	4019.8	3890.9	3788.9
12.5°	6913.4	6791.3	6651.0	6494.7	6359.1	5121.7	4750.6	4486.1	4166.7	3994.9	3852.7
15°	7942.9	7727.5	7557.7	7377.1	7218.8	5619.6	5114.9	4748.5	4323.1	4090.2	3900.3
17.5°	8899.2	8673.0	8442.8	8284.4	8101.2	6177.9	5481.4	5015.0	4451.9	4151.3	3909.0
20°	9834.0	9587.0	9388.4	9175.6	8983.0	6757.1	5872.6	5250.5	4535.8	4153.3	3852.7
22.5°	10657.4	10503.0	10281.6	10050.7	9856.1	7336.2	6239.0	5449.8	4567.4	4101.6	3752.7
25°	11593.5	11431.1	11159.3	10964.7	10748.0	7926.8	6598.7	5603.5	4549.2	4004.3	3599.0
27.5°	12593.4	12412.9	12134.4	11931.1	11668.7	8539.5	6928.9	5714.2	4481.5	3845.9	3393.0
30°	13636.3	13471.2	13197.4	12992.1	12727.0	9189.1	7298.0	5788.7	4345.9	3626.5	3153.4
32.5°	14756.3	14618.1	14347.0	14132.2	13849.0	9892.3	7641.6	5811.5	4139.9	3366.1	2900.4
35°	15819.3	15724.7	15495.8	15294.5	15000.6	10557.4	8005.9	5800.1	3895.6	3080.9	2669.5
37.5°	17016.5	16959.5	16846.7	16591.0	16231.3	11460.0	8442.8	5752.5	3597.0	2798.4	2493.1
40°	18292.2	18296.9	18174.8	18000.3	17665.4	12555.2	8962.9	5659.9	3270.8	2549.4	2332.0
42.5°	19642.4	19712.9	19653.8	19529.7	19208.2	13659.1	9585.0	5547.1	2954.8	2307.2	2174.3
45°	21189.9	21275.8	21366.4	21183.2	20871.2	15116.0	10403.7	5400.2	2612.5	2105.8	2065.6
47.5°	22975.0	23110.6	23191.8	23194.4	22882.4	16921.2	11733.8	5311.6	2309.8	1970.3	2013.2
50°	26741.1	26784.7	26976.6	27311.5	27071.9	21099.3	14057.1	5257.2	2103.8	1886.4	1975.0
52.5°	32168.1	32641.2	32974.0	32951.2	32625.1	23752.8	15337.5	4976.7	1981.7	1854.9	1956.9
55°	34378.6	34969.2	35584.5	35746.9	35493.9	26017.7	16548.1	4696.2	1922.6	1877.7	1963.6
57.5°	37324.0	38319.2	39163.4	39518.4	39152.0	28915.4	18140.6	4549.2	1904.5	1938.7	2006.5
60°	40764.6	41995.3	43103.9	43741.5	43741.5	32245.3	19792.1	4488.2	1879.7	2029.3	2079.0
62.5°	42975.1	44782.3	46456.6	47390.8	47363.3	34563.8	20524.9	4280.1	1823.3	2092.4	2178.3
65°	42983.8	45133.3	47266.0	48316.2	48369.9	34279.3	19314.9	3780.2	1719.3	2101.8	2278.3
67.5°	39400.9	41692.0	44178.3	45352.7	45623.8	31555.4	16719.9	3108.4	1549.5	2011.2	2314.5
70°	33276.7	35514.1	38052.1	39206.3	39688.2	26899.5	13466.5	2395.7	1332.8	1811.9	2239.4
72.5°	26216.3	28410.7	30177.7	31021.2	31397.0	20561.1	9806.4	1809.9	1092.5	1526.7	2038.1
75°	18561.3	20208.1	21147.0	21334.9	21393.3	12394.8	5958.5	1346.2	900.6	1187.8	1721.3
77.5°	10476.2	11182.2	11105.0	11188.9	10492.3	4784.8	2595.1	963.7	742.2	902.6	1334.8
80°	4090.2	4217.0	3961.4	3882.2	3560.7	1780.4	1144.9	671.7	592.6	683.2	934.1
82.5°	1803.2	1861.6	1807.2	1821.3	1742.1	918.7	685.2	486.5	452.3	500.0	620.1
85°	993.2	1011.3	1006.6	1036.1	993.2	366.4	325.5	298.6	316.7	339.6	397.9
87.5°	483.8	488.5	473.1	497.9	481.8	185.2	160.4	169.8	185.2	189.9	189.9
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°	3884.2	3884.2	3884.2	3884.2	3884.2	3884.2
2.5°	3669.4	3651.3	3653.3	3648.6	3639.9	3639.9
5°	3637.9	3619.8	3619.8	3615.1	3603.7	3605.7
7.5°	3669.4	3639.9	3628.5	3612.4	3597.0	3597.0
10°	3705.7	3653.3	3621.8	3595.0	3574.2	3574.2
12.5°	3732.5	3651.3	3599.0	3562.7	3542.6	3542.6
15°	3741.9	3635.2	3562.7	3519.8	3501.7	3499.7
17.5°	3712.4	3574.2	3486.2	3436.6	3413.8	3407.1
20°	3621.8	3463.4	3357.4	3300.4	3268.8	3257.4
22.5°	3486.2	3305.1	3180.9	3121.9	3080.9	3074.2
25°	3296.3	3101.7	2979.6	2922.5	2900.4	2893.0
27.5°	3074.2	2893.0	2789.0	2752.8	2732.6	2730.6
30°	2864.2	2709.8	2633.3	2605.8	2581.0	2576.9
32.5°	2666.9	2569.6	2540.7	2501.8	2443.4	2436.7
35°	2526.6	2517.9	2497.7	2411.2	2339.4	2318.6
37.5°	2440.7	2524.6	2420.6	2250.8	2199.1	2194.4
40°	2391.0	2454.8	2275.6	2217.2	2221.3	2217.2
42.5°	2278.3	2343.4	2280.3	2253.5	2270.9	2275.6
45°	2164.9	2237.4	2314.5	2296.4	2339.4	2339.4
47.5°	2101.8	2209.9	2311.9	2311.9	2375.6	2397.8
50°	2029.3	2187.7	2275.6	2307.2	2357.5	2339.4
52.5°	2024.6	2148.8	2223.9	2280.3	2303.1	2282.3
55°	2031.4	2117.2	2171.6	2235.4	2262.2	2264.2
57.5°	2040.7	2099.1	2135.4	2164.9	2246.1	2246.1
60°	2062.9	2083.7	2103.8	2119.9	2226.0	2228.0
62.5°	2099.1	2067.6	2062.9	2079.0	2214.6	2205.8
65°	2156.2	2044.8	2011.2	2026.7	2203.1	2176.3
67.5°	2232.7	2011.2	1945.5	1956.9	2194.4	2135.4
70°	2303.1	1956.9	1864.3	1852.8	2108.5	2004.5
72.5°	2309.8	1893.8	1750.8	1717.3	1832.7	1732.7
75°	2196.4	1850.2	1626.7	1526.7	1513.3	1499.9
77.5°	1979.7	1825.3	1481.7	1325.4	1298.5	1307.3
80°	1656.2	1732.7	1307.3	1122.0	1269.0	1253.6
82.5°	1237.5	1529.4	1110.6	993.2	990.5	875.8
85°	687.9	1192.5	904.6	744.2	518.1	502.0
87.5°	192.6	663.0	633.5	420.8	287.2	298.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)