

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: P191428

Luminaire Tested: **GLEON-AF-10-LED-E1-T2R-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-10-LED-E1-T2R-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 68878.3 lumens
Efficiency: N/A
Efficacy: 107.6 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

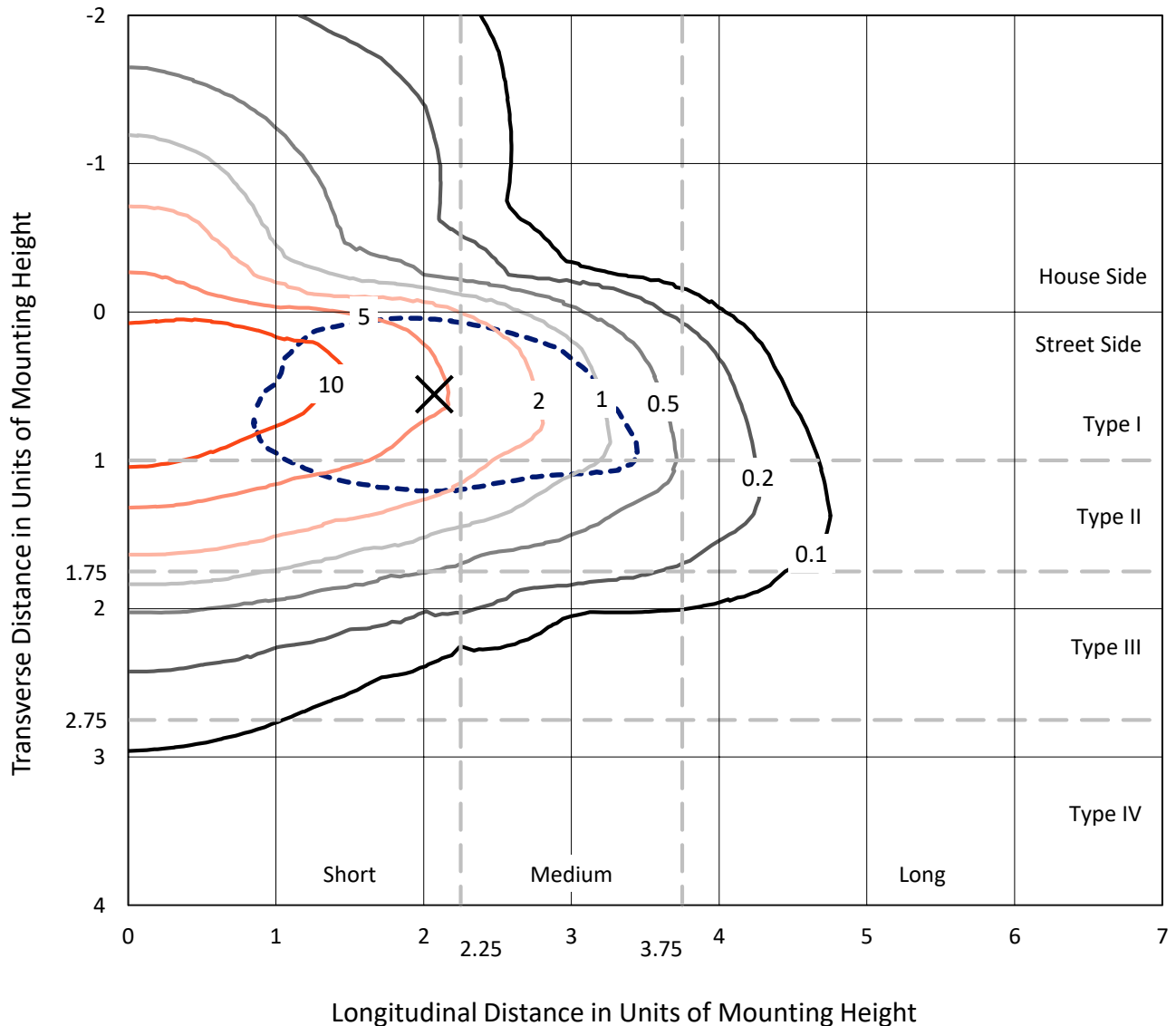
Input Watts (W): 640
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

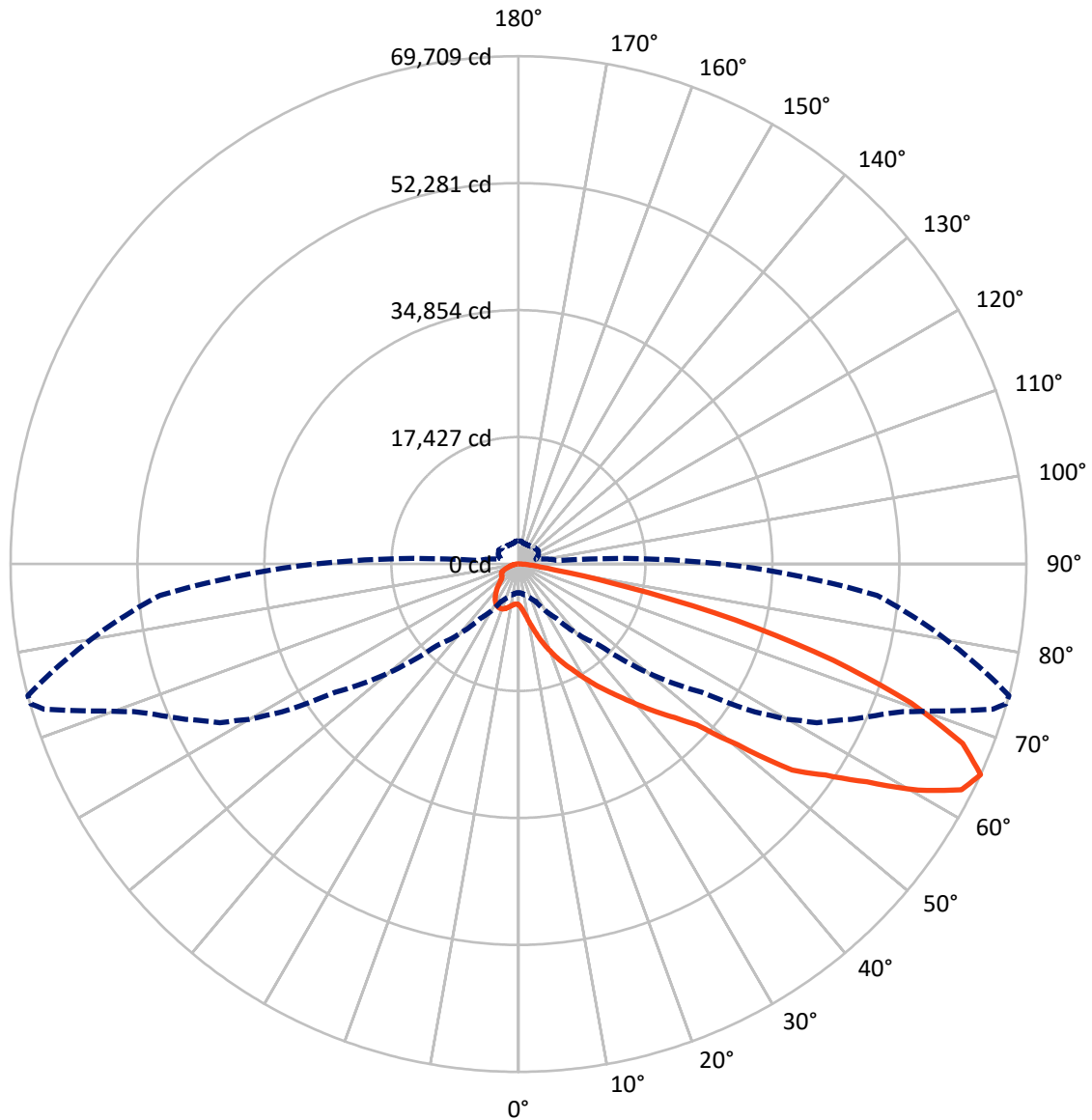
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.3 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	10619.4	0.0	10619.4
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	58258.9	0.0	58258.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	68878.3	0.0	68878.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	691.9	1.0
10°-20°	2703.4	3.9
20°-30°	5546.5	8.1
30°-40°	9331.6	13.5
40°-50°	12893.7	18.7
50°-60°	16095.2	23.4
60°-70°	14483.9	21.0
70°-80°	6071.5	8.8
80°-90°	1060.7	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°	68878.3	100.0
0°-180°	68878.3	100.0



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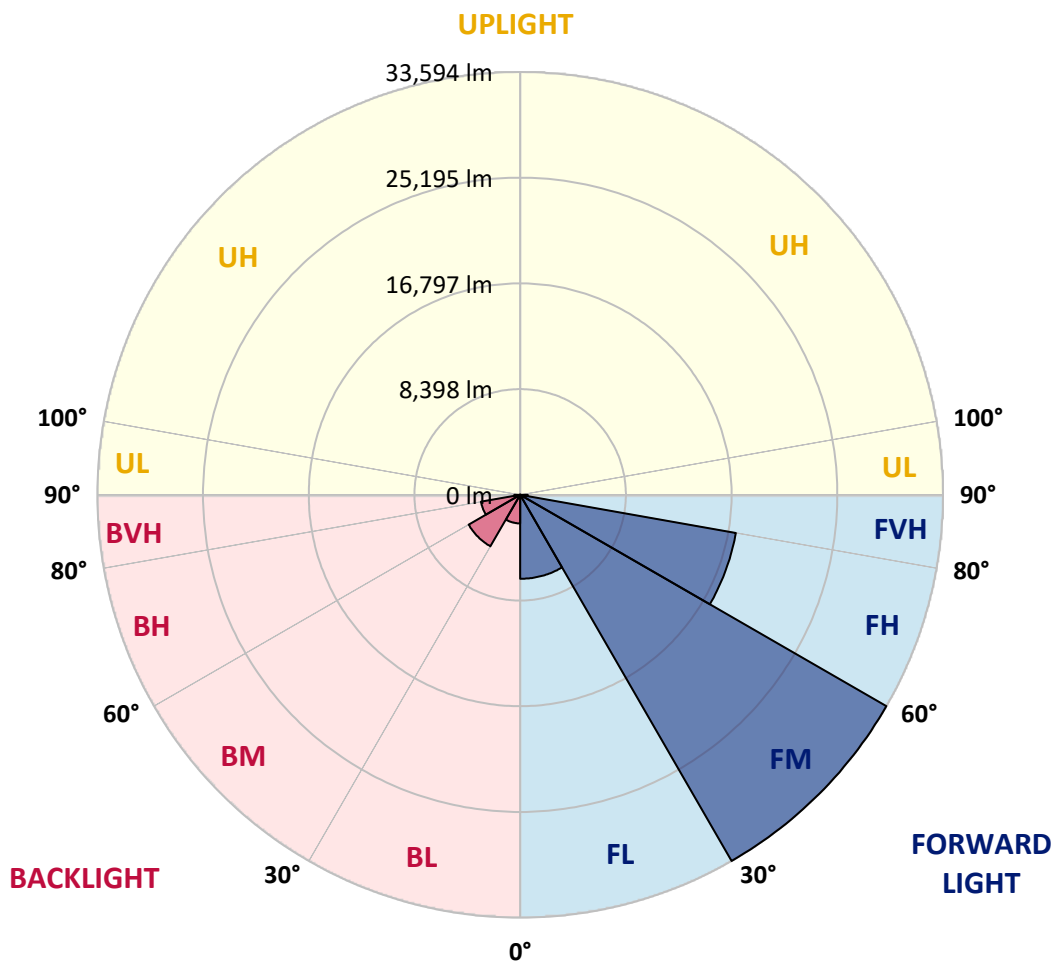
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6670.7	9.7			
FM (30°-60°)	33593.6	48.8			
FH (60°-80°)	17398.4	25.3			G5
FVH (80°-90°)	596.2	0.9			G4/750
BL (0°-30°)	2271.1	3.3	B3/2500		
BM (30°-60°)	4726.8	6.9	B3/5000		
BH (60°-80°)	3157.0	4.6	B4/5000		G4/5000
BVH (80°-90°)	464.5	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°	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7
2.5°	7107.2	7028.9	7048.4	6918.0	6758.3	6549.6	6318.2	6314.9	6318.2	6295.3	6210.6
5°	9855.4	9760.9	9725.0	9431.6	9001.3	8388.4	7723.3	7651.6	7622.2	7547.2	7374.5
7.5°	11860.4	11808.2	11752.9	11531.2	11139.9	10455.3	9562.0	9408.8	9262.1	9226.2	9030.6
10°	13154.7	13141.6	13024.3	12965.6	12721.1	12127.8	11257.3	11110.6	10950.9	10895.4	10690.0
12.5°	14178.4	14175.1	14119.7	14136.1	13924.1	13493.7	12743.9	12610.3	12492.9	12323.4	12176.7
15°	14885.9	14889.2	14970.6	15061.9	15029.3	14739.2	14035.0	13976.3	13875.2	13757.9	13585.1
17.5°	15466.2	15482.5	15567.3	15733.5	15912.8	15890.0	15332.5	15283.6	15195.5	15035.8	14944.5
20°	16776.7	16838.7	16675.7	16675.7	16695.3	16783.2	16516.0	16476.8	16352.9	16268.2	16196.5
22.5°	18990.4	19062.1	18693.7	18318.8	17950.4	17683.0	17415.7	17464.6	17379.8	17321.2	17278.8
25°	21865.9	21921.2	21324.6	20692.1	19942.3	18964.3	18302.5	18273.2	18227.6	18191.6	18172.1
27.5°	24571.8	24594.6	24030.5	23104.7	22234.2	20829.1	19202.3	19166.4	19111.0	19042.5	18983.9
30°	26886.5	26880.0	26299.7	25416.1	24483.7	22928.6	20568.3	20457.5	20294.4	20108.7	19965.1
32.5°	28891.5	28881.7	28245.9	27329.9	26351.8	25008.6	22439.7	22211.4	21957.1	21595.2	21376.8
35°	30469.4	30462.9	29863.0	28907.8	27786.3	26968.0	24584.8	24304.5	23981.6	23496.0	23160.1
37.5°	31066.0	31066.0	30730.2	30078.1	29087.1	28526.3	26968.0	26628.9	26283.4	25732.4	25354.2
40°	30717.2	30723.7	30795.4	30674.8	30192.3	29761.9	29191.4	28989.3	28692.6	28197.0	27802.6
42.5°	29546.8	29582.6	30058.6	30642.2	30883.4	30815.0	31163.8	31072.5	30863.9	30482.4	30169.5
45°	28063.4	28174.2	28695.9	29797.8	31075.8	31724.6	32816.7	32826.5	32787.3	32582.0	32340.7
47.5°	26025.8	26182.3	26870.2	28360.1	30625.9	32608.1	34495.6	34583.7	34665.2	34531.5	34420.7
50°	23319.9	23505.7	24535.9	26511.6	29709.8	33524.1	37667.8	38065.5	38437.2	38391.5	38466.5
52.5°	20421.6	20640.1	21901.7	24102.4	28135.1	33736.1	39695.6	40344.4	40993.1	41524.5	42088.6
55°	17806.9	17689.6	18951.3	21269.2	25546.6	32780.9	41518.1	42300.4	43024.3	43676.3	44347.9
57.5°	14263.2	14455.5	15720.5	18012.3	22120.2	30084.7	42773.3	43917.5	44957.6	46036.7	46988.6
60°	10426.0	10618.3	11990.8	14318.5	18400.3	25996.5	41814.8	43549.2	45215.0	46867.9	48159.0
62.5°	6295.3	6438.8	7648.3	9865.2	14188.2	21148.6	37543.9	39819.5	42271.2	44246.8	46225.7
65°	3918.7	4000.2	4446.9	5666.1	9112.1	15788.9	30674.8	33155.8	35796.5	38303.6	40360.7
67.5°	3208.0	3237.3	3318.9	3579.6	5004.4	10295.6	22830.8	25028.2	27411.4	29836.9	32125.6
70°	2885.2	2865.7	2865.7	2882.0	3208.0	5535.7	14947.8	16379.0	18364.4	20473.7	22566.8
72.5°	2604.8	2585.3	2549.4	2500.5	2617.9	3377.5	7726.6	8805.7	10236.9	12111.4	14116.4
75°	2340.8	2314.7	2272.3	2210.4	2291.9	2549.4	3710.0	4163.2	4860.9	5858.5	6976.7
77.5°	2067.0	2034.3	1995.2	1949.5	2053.9	1982.2	2174.5	2337.5	2604.8	2924.3	3344.9
80°	1757.2	1727.9	1714.9	1692.1	1815.9	1509.5	1535.6	1636.6	1793.1	1965.9	2161.5
82.5°	1375.8	1375.8	1427.9	1437.8	1574.6	1085.7	1147.5	1235.6	1317.2	1408.4	1499.6
85°	906.3	912.9	1088.9	1157.4	1242.2	730.3	860.7	890.1	955.2	1007.4	1046.5
87.5°	283.7	306.5	665.0	736.8	714.0	414.1	528.1	541.1	586.9	622.7	655.3
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°	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7
2.5°	6210.6	6171.5	6135.7	6132.4	6106.3	6070.4	6083.5	6028.0	6031.3	6002.0	5969.3
5°	7302.7	7276.7	7146.2	7110.4	7012.6	6950.6	6940.8	6810.5	6794.1	6719.2	6637.7
7.5°	8874.1	8789.4	8606.8	8518.8	8352.5	8228.6	8169.9	7997.1	7912.4	7716.7	7628.8
10°	10520.5	10412.9	10188.0	10064.1	9904.3	9705.5	9597.9	9346.9	9249.0	9069.8	8854.6
12.5°	12046.3	11938.7	11707.2	11612.6	11400.8	11188.8	11071.5	10787.8	10660.7	10373.8	10204.2
15°	13457.9	13350.3	13148.2	13050.4	12838.4	12665.7	12509.3	12228.9	12078.9	11811.5	11589.8
17.5°	14827.2	14713.1	14537.1	14449.0	14243.6	14067.5	13898.0	13634.0	13480.8	13213.4	13014.5
20°	16098.6	16013.9	15886.7	15769.4	15564.0	15404.2	15202.1	14973.9	14752.2	14556.6	14367.4
22.5°	17207.1	17174.5	17037.6	16985.4	16809.3	16672.5	16496.4	16271.5	16111.7	15863.9	15687.9
25°	18162.3	18152.6	18087.3	18071.0	17947.2	17816.7	17777.7	17591.8	17445.1	17226.7	17044.1
27.5°	18983.9	18993.6	18977.4	19023.0	18990.4	18931.8	18934.9	18873.0	18788.2	18605.7	18446.0
30°	19896.7	19844.5	19873.9	19939.1	19958.7	19965.1	20072.8	20108.7	20102.1	19981.5	19903.2
32.5°	21187.8	21063.9	20949.7	20940.0	21005.2	21031.3	21213.9	21308.4	21389.9	21419.2	21432.3
35°	22834.1	22586.3	22348.3	22221.3	22110.4	22139.7	22270.2	22423.3	22602.6	22726.5	22873.3
37.5°	24907.5	24604.4	24183.8	23883.9	23808.9	23645.9	23730.6	23851.3	24027.4	24219.7	24474.0
40°	27421.1	26961.5	26488.7	26091.0	25875.8	25575.9	25572.6	25549.8	25657.4	25836.7	26195.3
42.5°	29840.2	29432.6	28930.6	28513.3	28232.9	27831.9	27750.4	27538.6	27587.4	27743.9	28092.8
45°	32106.0	31770.2	31463.7	30981.2	30743.3	30309.6	30172.8	29921.7	29781.5	29853.2	30202.1
47.5°	34300.1	34084.9	33765.5	33452.4	33269.8	32881.9	32705.9	32526.6	32347.2	32340.7	32705.9
50°	38577.4	38463.3	38085.1	37759.1	37847.1	37371.2	37400.5	36918.0	37136.4	37162.5	37928.7
52.5°	42597.2	42994.9	43275.3	43617.6	43839.3	43881.6	44028.4	44246.8	44510.8	45032.5	45743.2
55°	44898.8	45397.6	45687.7	45948.6	46379.0	46470.2	46714.8	47004.9	47236.4	47823.2	48426.3
57.5°	47634.1	48560.0	49009.9	49424.0	50004.2	50226.0	50633.4	50949.7	51249.6	51944.0	52674.3
60°	49319.6	50447.6	51363.7	52019.0	52746.0	53267.6	53883.8	54379.3	55083.5	55914.9	57003.8
62.5°	47979.7	49635.8	50851.9	51976.6	52964.4	53962.1	54845.6	55771.5	56840.8	58099.2	59788.0
65°	42642.8	44328.3	46411.6	47578.7	48886.0	50424.8	51768.0	53267.6	54724.9	56557.1	59054.4
67.5°	34329.4	36288.8	38629.6	39806.5	41309.4	43027.5	44533.7	46365.9	48067.7	50287.9	53375.2
70°	24744.6	27277.7	29246.9	30476.0	32229.9	34000.1	35454.1	37586.3	38994.7	41270.2	44461.9
72.5°	15668.3	17666.8	20079.3	21627.8	23186.2	24979.3	26465.9	28304.6	29618.5	31691.9	34583.7
75°	8424.2	9897.9	12016.9	13487.3	15156.4	16688.7	18429.7	19662.0	20633.5	22273.3	24620.7
77.5°	3948.1	4844.6	5917.2	7048.4	8179.7	9359.9	10507.4	11505.1	11922.4	12861.3	14246.8
80°	2396.3	2686.4	2999.3	3348.2	3820.9	4202.4	4707.6	5072.8	5098.9	5395.6	5819.4
82.5°	1600.7	1708.3	1802.8	1890.9	2011.5	2106.1	2213.7	2340.8	2393.0	2461.4	2598.3
85°	1092.1	1144.3	1163.9	1219.3	1206.3	1238.9	1281.2	1323.6	1346.4	1343.1	1405.1
87.5°	671.6	697.7	710.7	723.7	714.0	700.9	720.5	743.3	749.8	730.3	736.8
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7
2.5°	5975.9	5946.5	5917.2	5897.6	5891.1	5718.3	5643.3	5594.4	5490.1	5405.4	5336.8
5°	6592.0	6530.1	6481.2	6422.5	6389.9	5953.1	5793.3	5682.5	5499.9	5392.3	5294.5
7.5°	7583.1	7410.4	7309.3	7195.1	7097.3	6308.4	6044.3	5871.5	5617.2	5473.8	5362.9
10°	8707.9	8528.5	8368.9	8192.8	8039.6	6781.1	6396.4	6129.1	5793.3	5607.5	5460.7
12.5°	9963.0	9787.0	9584.8	9359.9	9164.3	7381.0	6846.3	6464.8	6005.2	5757.5	5552.1
15°	11446.4	11136.7	10892.2	10631.3	10403.1	8098.2	7371.2	6843.0	6230.2	5894.3	5620.5
17.5°	12825.5	12499.4	12166.9	11938.7	11674.6	8903.5	7899.3	7227.8	6415.9	5982.4	5633.6
20°	14171.9	13816.5	13529.6	13223.2	12946.1	9738.1	8463.4	7566.8	6536.7	5985.6	5552.1
22.5°	15358.6	15136.9	14817.4	14484.9	14204.5	10572.7	8991.5	7853.7	6582.3	5910.6	5408.5
25°	16708.3	16473.6	16082.3	15801.9	15489.0	11423.6	9509.9	8075.4	6556.2	5770.5	5186.9
27.5°	18149.3	17888.4	17487.4	17194.1	16815.9	12307.1	9985.8	8235.2	6458.4	5542.2	4890.2
30°	19652.2	19414.2	19019.7	18723.1	18341.6	13242.7	10517.3	8342.8	6262.7	5226.1	4544.7
32.5°	21266.0	21067.2	20675.9	20366.1	19958.7	14256.7	11012.8	8375.3	5966.1	4851.1	4179.5
35°	22798.3	22661.3	22332.0	22041.9	21618.1	15215.2	11537.7	8359.0	5614.0	4440.3	3847.0
37.5°	24522.9	24441.4	24278.4	23909.9	23391.6	16516.0	12166.9	8290.6	5183.6	4032.8	3592.7
40°	26361.6	26368.1	26192.0	25941.0	25458.6	18093.9	12916.7	8156.9	4714.2	3674.2	3361.2
42.5°	28307.9	28409.0	28324.2	28144.9	27682.0	19684.8	13813.3	7993.8	4257.7	3325.3	3133.0
45°	30537.8	30661.7	30792.1	30528.1	30078.1	21784.4	14993.5	7782.0	3765.5	3035.2	2976.5
47.5°	33110.2	33305.7	33423.1	33426.4	32976.5	24385.9	16910.4	7654.8	3328.6	2839.6	2901.5
50°	38538.2	38600.2	38877.3	39359.9	39014.2	30407.4	20258.6	7576.6	3031.9	2719.0	2846.2
52.5°	46359.4	47040.8	47520.0	47487.4	47017.9	34231.6	22103.8	7172.3	2855.9	2673.3	2820.1
55°	49544.6	50395.5	51282.2	51516.9	51151.8	37495.0	23848.1	6768.0	2771.2	2705.9	2829.8
57.5°	53789.3	55223.7	56439.8	56951.7	56423.5	41671.2	26143.1	6556.2	2745.1	2794.0	2891.8
60°	58748.0	60521.5	62119.0	63038.3	63038.3	46470.2	28523.0	6468.1	2709.2	2924.3	2996.1
62.5°	61933.1	64538.0	66950.5	68296.9	68257.8	49811.9	29579.3	6168.2	2627.7	3015.7	3139.5
65°	61946.2	65043.3	68117.7	69630.3	69708.6	49401.1	27835.2	5447.7	2477.7	3028.7	3283.0
67.5°	56782.1	60084.7	63667.5	65359.6	65750.8	45475.9	24095.8	4479.5	2233.2	2898.3	3335.1
70°	47956.9	51181.2	54839.1	56501.8	57196.1	38766.5	19407.7	3452.5	1920.2	2611.4	3227.5
72.5°	37781.9	40944.2	43490.4	44706.5	45247.7	29631.5	14132.8	2608.1	1574.6	2200.6	2937.4
75°	26749.6	29123.0	30476.0	30746.5	30831.2	17862.4	8587.3	1939.8	1297.5	1711.6	2481.0
77.5°	15097.7	16115.0	16004.1	16124.7	15120.5	6895.2	3739.4	1388.9	1069.3	1300.8	1923.5
80°	5894.3	6076.9	5708.6	5594.4	5131.5	2565.8	1649.6	968.2	854.2	984.6	1346.4
82.5°	2598.3	2683.1	2604.8	2624.4	2510.3	1323.6	987.9	700.9	652.0	720.5	893.2
85°	1431.2	1457.3	1450.7	1493.2	1431.2	528.1	469.4	430.4	456.4	489.1	573.8
87.5°	697.7	704.2	681.4	717.2	694.4	267.3	231.5	244.5	267.3	273.8	273.8
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):

	135°	145°	155°	165°	175°	180°
0°	5597.7	5597.7	5597.7	5597.7	5597.7	5597.7
2.5°	5287.9	5261.9	5265.1	5258.6	5245.6	5245.6
5°	5242.3	5216.2	5216.2	5209.7	5193.4	5196.7
7.5°	5287.9	5245.6	5229.3	5206.5	5183.6	5183.6
10°	5340.1	5265.1	5219.5	5180.4	5151.1	5151.1
12.5°	5379.3	5261.9	5186.9	5134.7	5105.4	5105.4
15°	5392.3	5239.0	5134.7	5072.8	5046.7	5043.5
17.5°	5349.9	5151.1	5023.9	4952.2	4919.6	4909.8
20°	5219.5	4991.3	4838.0	4756.5	4710.9	4694.6
22.5°	5023.9	4763.1	4583.7	4499.0	4440.3	4430.5
25°	4750.1	4469.7	4293.6	4212.1	4179.5	4169.8
27.5°	4430.5	4169.8	4019.8	3967.6	3938.3	3935.0
30°	4127.4	3905.6	3794.8	3755.7	3719.9	3713.3
32.5°	3843.7	3703.5	3661.1	3605.7	3521.0	3511.2
35°	3641.6	3628.5	3599.3	3475.4	3371.0	3341.7
37.5°	3517.7	3638.3	3488.4	3243.9	3168.9	3162.4
40°	3446.0	3537.3	3279.7	3195.0	3201.4	3195.0
42.5°	3283.0	3377.5	3286.2	3247.2	3273.2	3279.7
45°	3120.0	3224.3	3335.1	3309.0	3371.0	3371.0
47.5°	3028.7	3185.2	3331.9	3331.9	3423.2	3455.7
50°	2924.3	3152.5	3279.7	3325.3	3397.1	3371.0
52.5°	2917.9	3097.2	3204.7	3286.2	3318.9	3289.5
55°	2927.6	3051.5	3129.7	3221.1	3260.1	3263.4
57.5°	2940.7	3025.4	3077.5	3120.0	3237.3	3237.3
60°	2973.3	3002.6	3031.9	3054.7	3208.0	3211.2
62.5°	3025.4	2979.8	2973.3	2996.1	3191.7	3178.6
65°	3106.9	2947.2	2898.3	2921.1	3175.3	3136.3
67.5°	3217.8	2898.3	2803.7	2820.1	3162.4	3077.5
70°	3318.9	2820.1	2686.4	2670.1	3038.5	2888.5
72.5°	3328.6	2728.7	2523.3	2474.4	2640.7	2497.2
75°	3165.6	2666.8	2344.1	2200.6	2181.0	2161.5
77.5°	2852.6	2630.9	2135.4	1910.5	1871.3	1884.4
80°	2386.4	2497.2	1884.4	1617.1	1828.9	1806.1
82.5°	1783.3	2203.8	1600.7	1431.2	1427.9	1261.7
85°	991.1	1718.1	1304.1	1072.6	746.5	723.7
87.5°	277.1	955.2	912.9	606.4	414.1	430.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)