

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: P191398

Luminaire Tested: **GLEON-AF-10-LED-E1-T2R-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191398
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-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41369.2 lumens
Efficiency: N/A
Efficacy: 128.1 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 - G4

Input Watts (W): 323
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

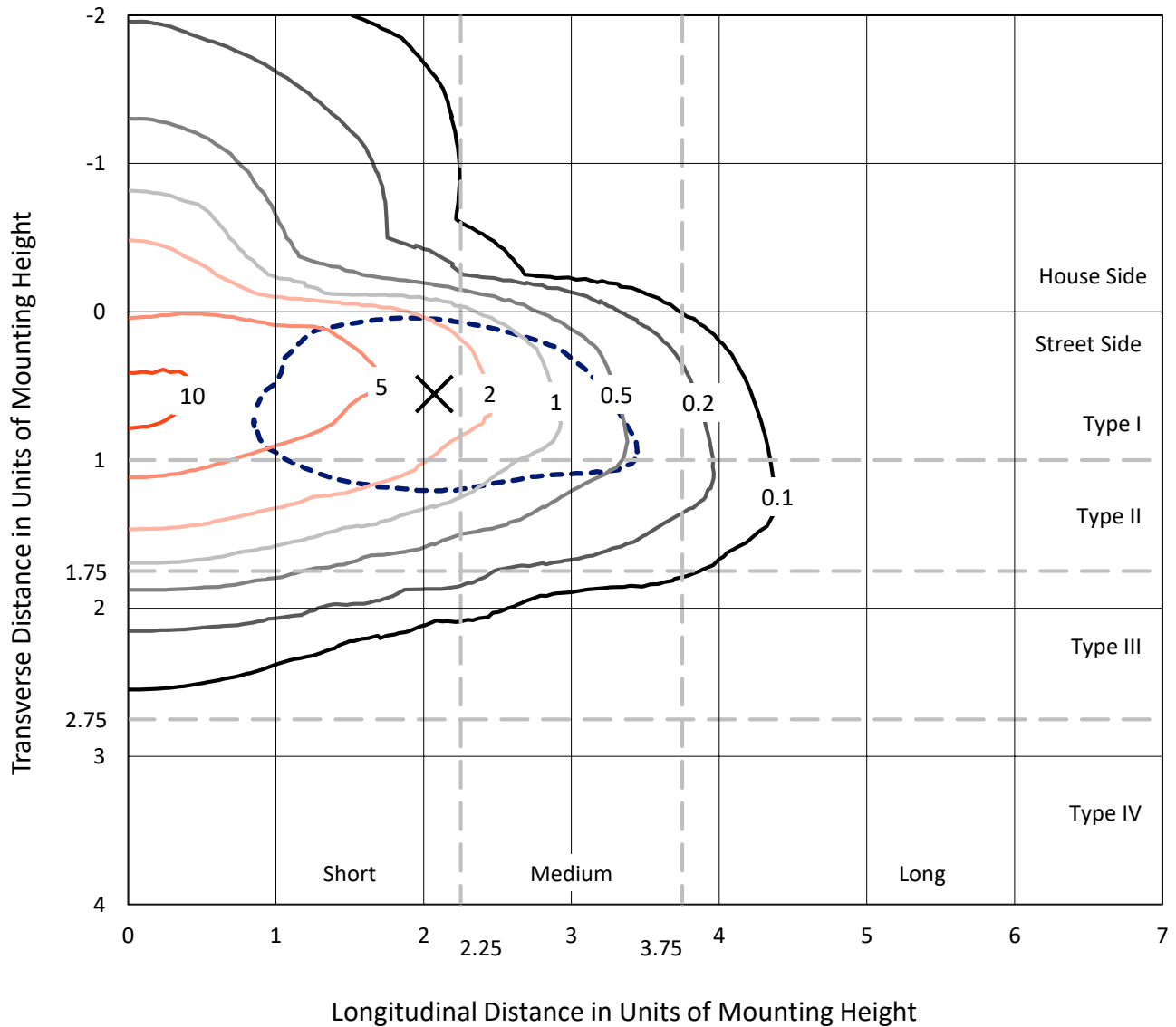


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Iso-Footcandle Lines of Horizontal Illumination

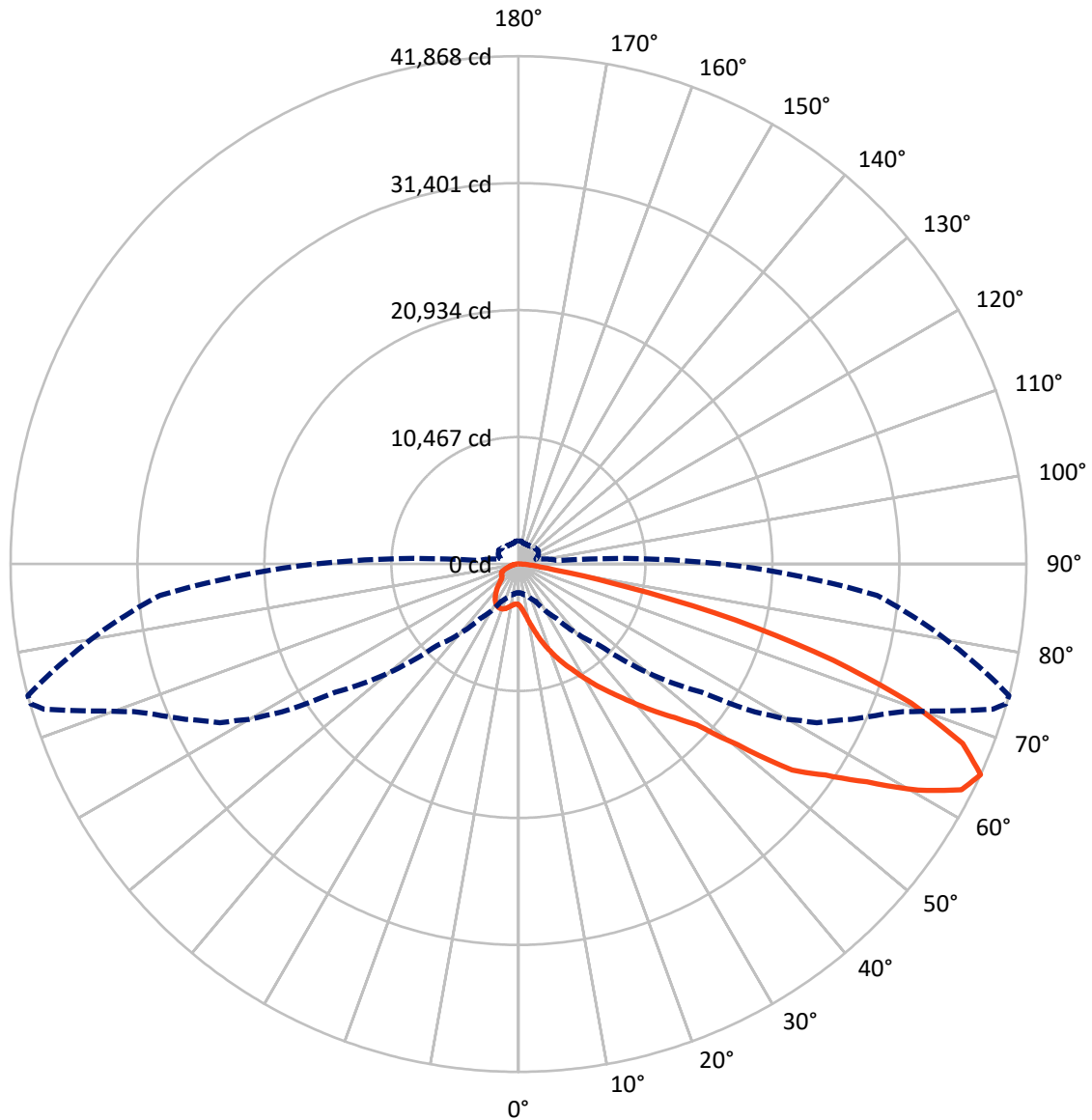
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.6 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	6378.2	0.0	6378.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	34991.0	0.0	34991.0
	% Fixture	84.6	0.0	84.6
Total	Lumens	41369.2	0.0	41369.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.6	1.0
10°-20°	1623.7	3.9
20°-30°	3331.3	8.1
30°-40°	5604.7	13.5
40°-50°	7744.1	18.7
50°-60°	9667.0	23.4
60°-70°	8699.2	21.0
70°-80°	3646.6	8.8
80°-90°	637.1	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°	41369.2	100.0
0°-180°	41369.2	100.0



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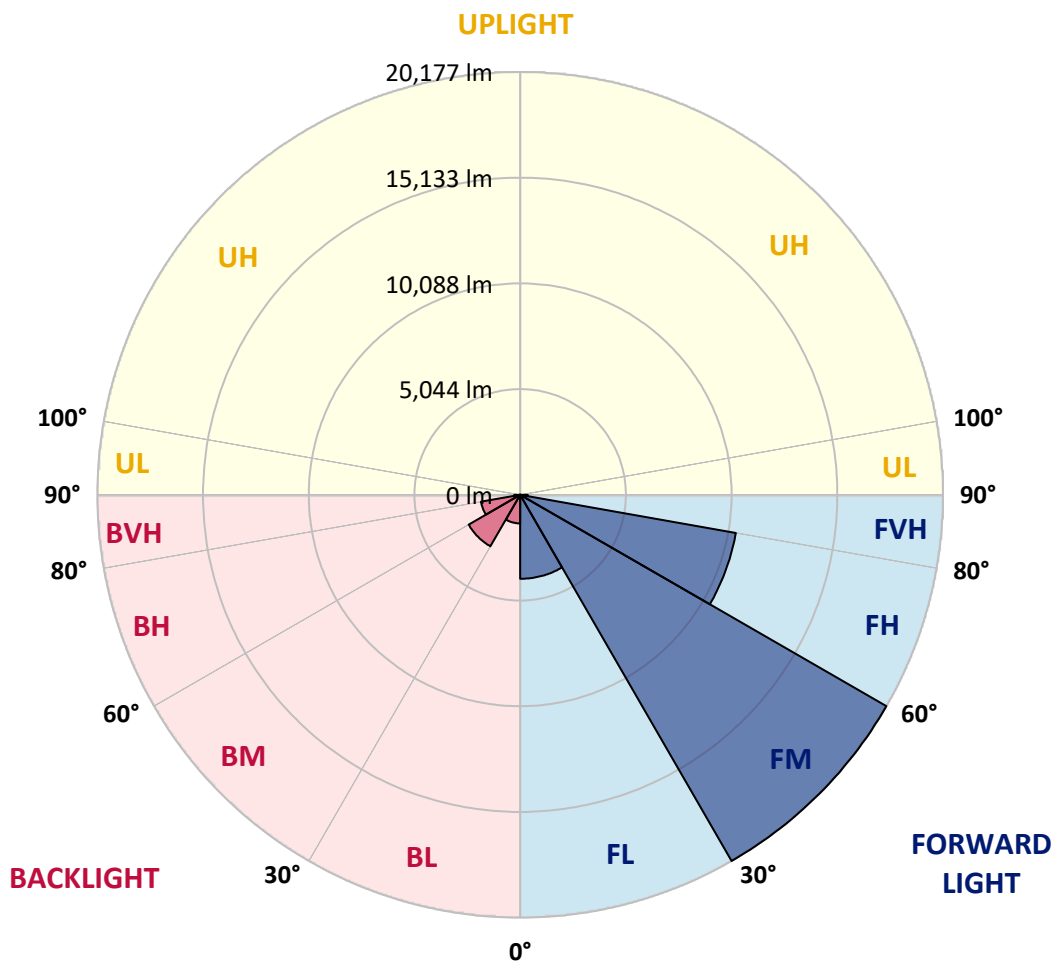
CATALOG NUMBER: GLEON-AF-10-LED-E1-T2R-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4006.5	9.7			
FM (30°-60°)	20176.7	48.8			
FH (60°-80°)	10449.7	25.3			G4/12000
FVH (80°-90°)	358.1	0.9			G3/500
BL (0°-30°)	1364.0	3.3	B3/2500		
BM (30°-60°)	2839.0	6.9	B3/5000		
BH (60°-80°)	1896.1	4.6	B3/2500		G3/2500
BVH (80°-90°)	279.0	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0
2.5°	4268.7	4221.6	4233.4	4155.0	4059.1	3933.8	3794.7	3792.8	3794.7	3781.0	3730.2
5°	5919.3	5862.5	5840.9	5664.8	5406.3	5038.1	4638.7	4595.6	4578.0	4533.0	4429.2
7.5°	7123.5	7092.2	7058.9	6925.8	6690.8	6279.6	5743.1	5651.1	5562.9	5541.4	5423.9
10°	7900.9	7893.1	7822.6	7787.3	7640.4	7284.1	6761.3	6673.1	6577.2	6543.9	6420.6
12.5°	8515.8	8513.7	8480.5	8490.3	8363.0	8104.5	7654.1	7573.9	7503.3	7401.6	7313.5
15°	8940.6	8942.5	8991.5	9046.4	9026.8	8852.5	8429.5	8394.3	8333.6	8263.1	8159.4
17.5°	9289.2	9298.9	9349.9	9449.7	9557.4	9543.7	9208.9	9179.6	9126.7	9030.7	8975.9
20°	10076.3	10113.5	10015.6	10015.6	10027.4	10080.3	9919.7	9896.1	9821.8	9770.8	9727.8
22.5°	11405.9	11449.0	11227.7	11002.4	10781.2	10620.7	10460.1	10489.4	10438.6	10403.3	10377.8
25°	13132.8	13166.2	12807.9	12427.9	11977.6	11390.1	10992.7	10975.0	10947.6	10926.1	10914.4
27.5°	14758.1	14771.8	14433.0	13876.9	13354.1	12510.2	11533.2	11511.6	11478.3	11437.2	11401.9
30°	16148.3	16144.4	15795.9	15265.3	14705.2	13771.3	12353.6	12287.0	12189.1	12077.5	11991.3
32.5°	17352.5	17346.7	16964.8	16414.7	15827.2	15020.5	13477.5	13340.4	13187.7	12970.4	12839.2
35°	18300.3	18296.4	17936.1	17362.3	16688.7	16197.3	14765.9	14597.5	14403.7	14111.9	13910.3
37.5°	18658.6	18658.6	18456.9	18065.3	17470.1	17133.3	16197.3	15993.6	15786.1	15455.2	15228.1
40°	18449.1	18453.0	18496.1	18423.7	18133.8	17875.3	17532.7	17411.3	17233.1	16935.5	16698.5
42.5°	17746.2	17767.6	18053.5	18404.0	18549.0	18507.8	18717.3	18662.5	18537.2	18308.2	18120.1
45°	16855.2	16921.8	17235.1	17896.9	18664.5	19054.1	19710.1	19715.9	19692.5	19569.2	19424.2
47.5°	15631.4	15725.4	16138.6	17033.4	18394.3	19584.8	20718.5	20771.4	20820.3	20740.0	20673.5
50°	14006.2	14117.8	14736.5	15923.2	17844.0	20135.0	22623.8	22862.6	23085.9	23058.4	23103.4
52.5°	12265.5	12396.6	13154.4	14476.2	16898.3	20262.3	23841.7	24231.4	24621.0	24940.2	25278.9
55°	10695.1	10624.6	11382.4	12774.5	15343.5	19688.5	24936.3	25406.2	25840.9	26232.4	26635.9
57.5°	8566.6	8682.2	9441.9	10818.4	13285.6	18069.2	25690.1	26377.4	27002.0	27650.2	28221.9
60°	6262.0	6377.5	7201.9	8599.9	11051.4	15613.8	25114.5	26156.1	27156.7	28149.5	28924.9
62.5°	3781.0	3867.3	4593.7	5925.1	8521.6	12702.1	22549.3	23916.1	25388.5	26575.1	27763.7
65°	2353.6	2402.6	2670.8	3403.2	5472.9	9483.1	18423.7	19913.8	21499.8	23005.6	24241.1
67.5°	1926.7	1944.4	1993.3	2149.9	3005.6	6183.6	13712.5	15032.3	16463.6	17920.5	19295.0
70°	1732.9	1721.1	1721.1	1730.9	1926.7	3324.8	8977.8	9837.4	11029.9	12296.8	13553.9
72.5°	1564.5	1552.7	1531.3	1501.9	1572.4	2028.6	4640.6	5288.8	6148.3	7274.3	8478.5
75°	1405.9	1390.3	1364.8	1327.6	1376.6	1531.3	2228.3	2500.5	2919.5	3518.6	4190.3
77.5°	1241.5	1221.8	1198.4	1171.0	1233.6	1190.5	1306.0	1403.9	1564.5	1756.4	2009.0
80°	1055.4	1037.8	1029.9	1016.2	1090.7	906.6	922.3	983.0	1077.0	1180.7	1298.2
82.5°	826.3	826.3	857.6	863.5	945.7	652.0	689.3	742.2	791.0	845.9	900.7
85°	544.3	548.3	654.0	695.1	746.0	438.6	516.9	534.6	573.7	605.1	628.5
87.5°	170.3	184.0	399.5	442.5	428.8	248.7	317.2	325.0	352.4	374.0	393.5
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°	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0
2.5°	3730.2	3706.7	3685.1	3683.1	3667.5	3646.0	3653.8	3620.5	3622.5	3604.9	3585.2
5°	4386.1	4370.5	4292.1	4270.6	4211.8	4174.7	4168.7	4090.5	4080.7	4035.6	3986.6
7.5°	5329.9	5279.0	5169.4	5116.5	5016.7	4942.2	4907.0	4803.2	4752.3	4634.8	4581.9
10°	6318.8	6254.1	6119.0	6044.6	5948.7	5829.2	5764.6	5613.9	5555.1	5447.4	5318.1
12.5°	7235.1	7170.5	7031.5	6974.7	6847.4	6720.2	6649.7	6479.3	6403.0	6230.6	6128.8
15°	8082.9	8018.4	7897.0	7838.3	7710.9	7607.2	7513.2	7344.8	7254.7	7094.2	6961.0
17.5°	8905.4	8836.9	8731.1	8678.2	8554.8	8449.2	8347.3	8188.7	8096.7	7936.2	7816.7
20°	9669.0	9618.1	9541.8	9471.3	9347.9	9252.0	9130.6	8993.5	8860.4	8742.9	8629.3
22.5°	10334.8	10315.2	10233.0	10201.6	10095.9	10013.7	9907.9	9772.8	9676.9	9528.1	9422.3
25°	10908.5	10902.6	10863.4	10853.7	10779.2	10701.0	10677.5	10565.9	10477.7	10346.5	10236.9
27.5°	11401.9	11407.8	11398.0	11425.4	11405.9	11370.6	11372.6	11335.3	11284.5	11174.8	11078.9
30°	11950.2	11918.9	11936.5	11975.7	11987.4	11991.3	12056.0	12077.5	12073.6	12001.2	11954.1
32.5°	12725.6	12651.2	12582.7	12576.8	12616.0	12631.6	12741.3	12798.0	12847.0	12864.6	12872.5
35°	13714.4	13565.7	13422.6	13346.3	13279.7	13297.3	13375.7	13467.8	13575.4	13649.8	13737.9
37.5°	14959.7	14777.6	14525.1	14344.9	14299.9	14202.0	14252.9	14325.4	14431.1	14546.7	14699.4
40°	16469.5	16193.4	15909.4	15670.6	15541.4	15361.1	15359.2	15345.5	15410.1	15517.9	15733.2
42.5°	17922.4	17677.6	17376.0	17125.4	16957.0	16716.1	16667.2	16540.0	16569.3	16663.4	16872.9
45°	19283.2	19081.5	18897.5	18607.7	18464.8	18204.3	18122.1	17971.3	17887.1	17930.2	18139.7
47.5°	20601.0	20471.8	20279.9	20091.9	19982.3	19749.3	19643.5	19535.8	19428.1	19424.2	19643.5
50°	23170.0	23101.5	22874.4	22678.5	22731.4	22445.6	22463.2	22173.4	22304.5	22320.3	22780.4
52.5°	25584.4	25823.3	25991.6	26197.3	26330.3	26355.8	26444.0	26575.1	26733.8	27047.0	27473.9
55°	26966.7	27266.3	27440.7	27597.3	27855.8	27910.6	28057.4	28231.7	28370.7	28723.1	29085.5
57.5°	28609.6	29165.7	29435.9	29684.6	30033.1	30166.3	30411.0	30601.0	30781.1	31198.2	31636.8
60°	29621.9	30299.4	30849.6	31243.3	31679.9	31993.2	32363.3	32660.9	33083.9	33583.2	34237.1
62.5°	28817.1	29811.9	30542.2	31217.8	31811.1	32410.3	32940.9	33497.0	34139.2	34895.1	35909.4
65°	25611.8	26624.1	27875.3	28576.3	29361.6	30285.7	31092.5	31993.2	32868.4	33968.9	35468.8
67.5°	20618.7	21795.5	23201.3	23908.2	24811.0	25842.8	26747.5	27847.9	28870.0	30203.4	32057.8
70°	14861.8	16383.3	17566.0	18304.2	19357.6	20420.9	21294.2	22574.8	23420.7	24787.4	26704.4
72.5°	9410.5	10610.9	12059.9	12989.9	13925.9	15002.9	15895.7	17000.1	17789.2	19034.6	20771.4
75°	5059.7	5944.8	7217.5	8100.6	9103.1	10023.5	11069.0	11809.3	12392.7	13377.6	14787.5
77.5°	2371.2	2909.7	3553.9	4233.4	4912.8	5621.6	6310.9	6910.1	7160.8	7724.6	8556.9
80°	1439.2	1613.5	1801.4	2010.9	2294.9	2523.9	2827.4	3046.8	3062.4	3240.6	3495.2
82.5°	961.5	1026.0	1082.8	1135.7	1208.1	1264.9	1329.5	1405.9	1437.2	1478.4	1560.6
85°	655.9	687.3	699.1	732.3	724.5	744.1	769.6	794.9	808.6	806.7	843.9
87.5°	403.3	419.0	426.9	434.7	428.8	420.9	432.7	446.4	450.4	438.6	442.5
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°	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0
2.5°	3589.1	3571.5	3553.9	3542.2	3538.3	3434.5	3389.4	3360.1	3297.4	3246.5	3205.4
5°	3959.2	3922.1	3892.6	3857.4	3837.8	3575.4	3479.6	3413.0	3303.3	3238.7	3179.9
7.5°	4554.5	4450.8	4390.0	4321.5	4262.7	3788.9	3630.2	3526.5	3373.8	3287.7	3221.1
10°	5230.0	5122.3	5026.4	4920.7	4828.6	4072.8	3841.8	3681.2	3479.6	3367.9	3279.8
12.5°	5984.0	5878.2	5756.8	5621.6	5504.2	4433.1	4112.0	3882.9	3606.8	3458.0	3334.6
15°	6874.8	6688.9	6542.0	6385.4	6248.3	4863.9	4427.2	4110.0	3742.0	3540.2	3375.7
17.5°	7703.1	7507.3	7307.6	7170.5	7011.9	5347.6	4744.4	4341.1	3853.6	3593.1	3383.6
20°	8511.8	8298.4	8126.0	7942.0	7775.6	5848.8	5083.1	4544.8	3926.0	3595.1	3334.6
22.5°	9224.6	9091.4	8899.5	8699.8	8531.4	6350.1	5400.4	4717.0	3953.4	3550.0	3248.5
25°	10035.1	9894.2	9659.2	9490.8	9302.9	6861.1	5711.7	4850.2	3937.7	3465.9	3115.3
27.5°	10900.7	10744.1	10503.1	10327.0	10099.8	7391.7	5997.7	4946.2	3878.9	3328.8	2937.1
30°	11803.3	11660.4	11423.5	11245.3	11016.2	7953.7	6316.8	5010.7	3761.5	3138.8	2729.5
32.5°	12772.6	12653.2	12418.2	12232.1	11987.4	8562.7	6614.4	5030.4	3583.3	2913.7	2510.2
35°	13692.9	13610.7	13412.9	13238.6	12984.1	9138.4	6929.7	5020.5	3371.9	2666.9	2310.5
37.5°	14728.8	14679.8	14581.9	14360.6	14049.3	9919.7	7307.6	4979.4	3113.4	2422.1	2157.8
40°	15833.1	15837.0	15731.2	15580.5	15290.7	10867.4	7758.0	4899.1	2831.4	2206.8	2018.8
42.5°	17002.1	17062.8	17011.9	16904.2	16626.1	11823.0	8296.4	4801.2	2557.3	1997.2	1881.7
45°	18341.4	18415.8	18494.1	18335.6	18065.3	13084.0	9005.2	4674.0	2261.5	1823.0	1787.7
47.5°	19886.4	20003.8	20074.3	20076.2	19806.1	14646.5	10156.6	4597.6	1999.3	1705.5	1742.7
50°	23146.5	23183.7	23350.2	23640.0	23432.4	18263.0	12167.6	4550.6	1821.1	1633.0	1709.5
52.5°	27844.0	28253.2	28541.0	28521.5	28239.5	20559.9	13275.9	4307.7	1715.3	1605.6	1693.7
55°	29757.0	30268.1	30800.7	30941.7	30722.4	22520.0	14323.4	4065.0	1664.3	1625.2	1699.6
57.5°	32306.4	33168.1	33898.4	34205.8	33888.6	25028.2	15701.9	3937.7	1648.7	1678.0	1736.9
60°	35284.7	36349.9	37309.4	37861.6	37861.6	27910.6	17131.3	3884.9	1627.2	1756.4	1799.5
62.5°	37197.8	38762.3	40211.3	41019.9	40996.5	29917.6	17765.7	3704.7	1578.2	1811.2	1885.6
65°	37205.6	39065.8	40912.3	41820.8	41867.8	29670.9	16718.2	3272.0	1488.2	1819.1	1971.8
67.5°	34104.0	36087.6	38239.4	39255.7	39490.7	27313.4	14472.2	2690.4	1341.3	1740.8	2003.1
70°	28803.4	30740.0	32937.0	33935.6	34352.6	23283.6	11656.5	2073.6	1153.3	1568.4	1938.5
72.5°	22692.2	24591.6	26120.8	26851.2	27176.3	17797.1	8488.3	1566.4	945.7	1321.8	1764.3
75°	16066.1	17491.6	18304.2	18466.7	18517.7	10728.4	5157.6	1165.0	779.3	1028.0	1490.1
77.5°	9067.9	9678.9	9612.3	9684.7	9081.7	4141.3	2245.9	834.1	642.2	781.2	1155.3
80°	3540.2	3649.9	3428.6	3360.1	3082.0	1541.0	990.8	581.5	513.0	591.4	808.6
82.5°	1560.6	1611.5	1564.5	1576.3	1507.7	794.9	593.3	420.9	391.6	432.7	536.5
85°	859.6	875.2	871.3	896.8	859.6	317.2	281.9	258.5	274.2	293.7	344.6
87.5°	419.0	423.0	409.3	430.8	417.1	160.6	139.0	146.9	160.6	164.5	164.5
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°	3362.0	3362.0	3362.0	3362.0	3362.0	3362.0
2.5°	3176.1	3160.3	3162.4	3158.4	3150.6	3150.6
5°	3148.6	3132.9	3132.9	3129.0	3119.2	3121.2
7.5°	3176.1	3150.6	3140.8	3127.1	3113.4	3113.4
10°	3207.4	3162.4	3134.9	3111.4	3093.8	3093.8
12.5°	3230.9	3160.3	3115.3	3084.0	3066.4	3066.4
15°	3238.7	3146.6	3084.0	3046.8	3031.1	3029.2
17.5°	3213.2	3093.8	3017.4	2974.3	2954.8	2948.9
20°	3134.9	2997.9	2905.8	2856.9	2829.5	2819.7
22.5°	3017.4	2860.8	2753.1	2702.1	2666.9	2661.0
25°	2852.9	2684.5	2578.8	2529.9	2510.2	2504.4
27.5°	2661.0	2504.4	2414.4	2383.0	2365.4	2363.4
30°	2478.9	2345.8	2279.2	2255.7	2234.2	2230.2
32.5°	2308.6	2224.4	2198.9	2165.7	2114.7	2108.8
35°	2187.2	2179.4	2161.7	2087.3	2024.6	2007.0
37.5°	2112.8	2185.2	2095.1	1948.3	1903.3	1899.3
40°	2069.7	2124.6	1969.8	1919.0	1922.8	1919.0
42.5°	1971.8	2028.6	1973.8	1950.3	1965.9	1969.8
45°	1873.8	1936.5	2003.1	1987.5	2024.6	2024.6
47.5°	1819.1	1913.0	2001.2	2001.2	2056.0	2075.6
50°	1756.4	1893.5	1969.8	1997.2	2040.3	2024.6
52.5°	1752.5	1860.1	1924.8	1973.8	1993.3	1975.7
55°	1758.4	1832.7	1879.8	1934.6	1958.1	1960.1
57.5°	1766.2	1817.1	1848.5	1873.8	1944.4	1944.4
60°	1785.8	1803.4	1821.1	1834.8	1926.7	1928.7
62.5°	1817.1	1789.7	1785.8	1799.5	1917.0	1909.1
65°	1866.1	1770.1	1740.8	1754.5	1907.2	1883.7
67.5°	1932.7	1740.8	1684.0	1693.7	1899.3	1848.5
70°	1993.3	1693.7	1613.5	1603.7	1824.9	1734.8
72.5°	1999.3	1638.9	1515.6	1486.1	1586.1	1499.9
75°	1901.3	1601.7	1407.9	1321.8	1310.0	1298.2
77.5°	1713.3	1580.2	1282.6	1147.4	1123.9	1131.8
80°	1433.4	1499.9	1131.8	971.2	1098.4	1084.7
82.5°	1071.0	1323.7	961.5	859.6	857.6	757.8
85°	595.3	1032.0	783.3	644.3	448.4	434.7
87.5°	166.4	573.7	548.3	364.2	248.7	258.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)