

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: P192197

Luminaire Tested: **GLEON-AF-09-LED-E1-T2R-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192197
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-09-LED-E1-T2R-7050-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K, 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: 36527 lumens
Efficiency: N/A
Efficacy: 126.0 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): 290
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

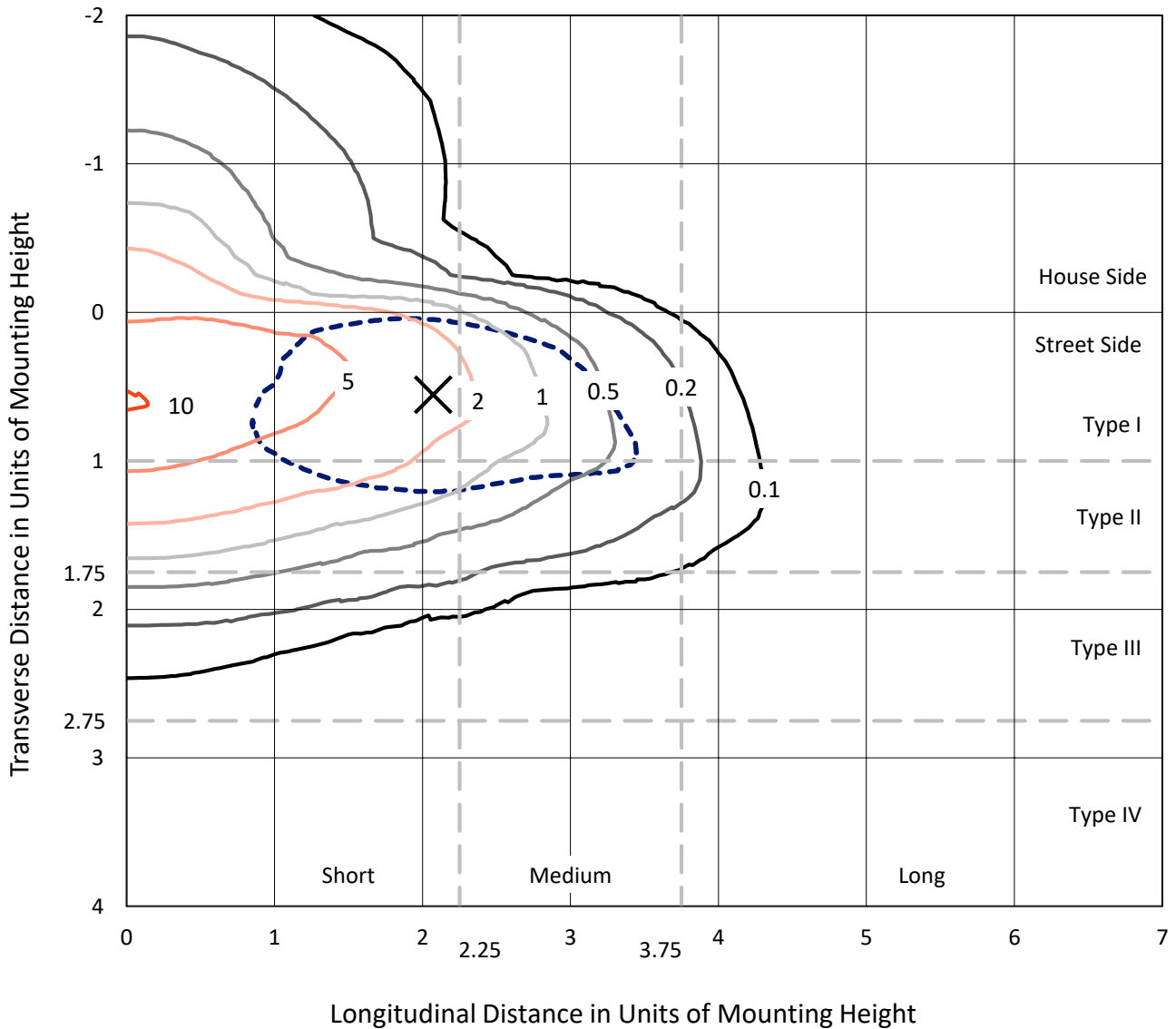


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Iso-Footcandle Lines of Horizontal Illumination

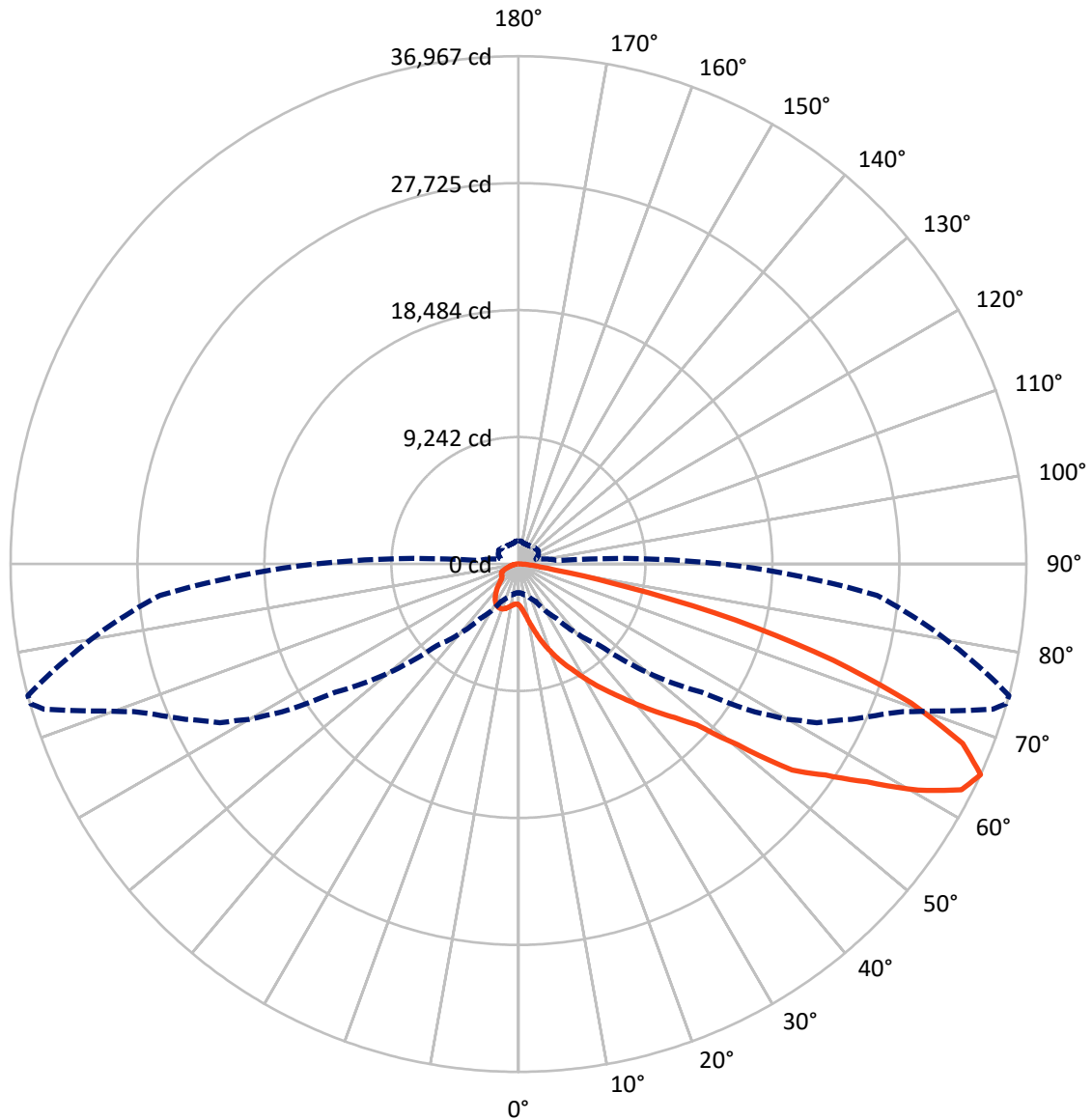
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.2 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	5631.6	0.0	5631.6
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	30895.4	0.0	30895.4
	% Fixture	84.6	0.0	84.6
Total	Lumens	36527.0	0.0	36527.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.9	1.0
10°-20°	1433.6	3.9
20°-30°	2941.3	8.1
30°-40°	4948.7	13.5
40°-50°	6837.7	18.7
50°-60°	8535.5	23.4
60°-70°	7681.0	21.0
70°-80°	3219.8	8.8
80°-90°	562.5	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°	36527.0	100.0
0°-180°	36527.0	100.0

Coefficient of Utilization



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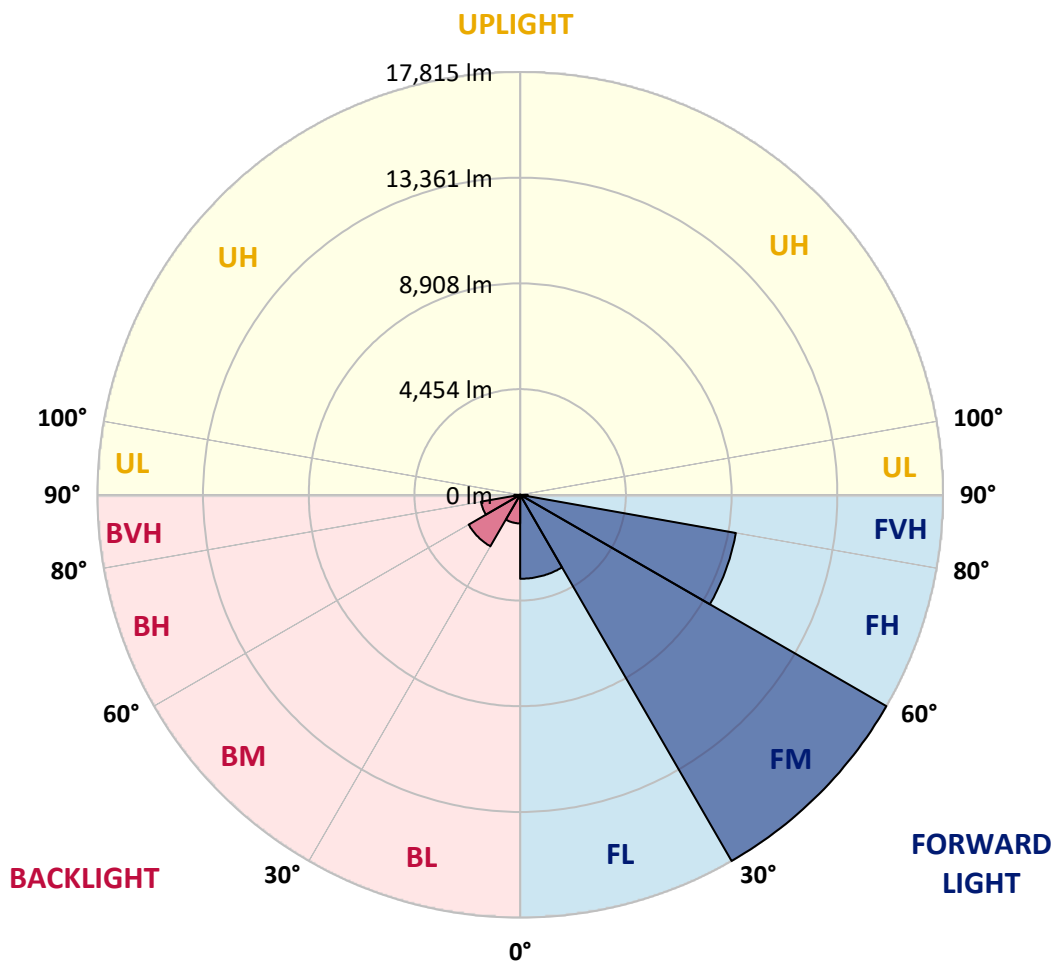
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3537.5	9.7			
FM (30°-60°)	17815.1	48.8			
FH (60°-80°)	9226.6	25.3			G4/12000
FVH (80°-90°)	316.2	0.9			G3/500
BL (0°-30°)	1204.4	3.3	B3/2500		
BM (30°-60°)	2506.7	6.9	B3/5000		
BH (60°-80°)	1674.2	4.6	B3/2500		G3/2500
BVH (80°-90°)	246.3	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5
2.5°	3769.0	3727.5	3737.9	3668.7	3584.0	3473.4	3350.6	3348.9	3350.6	3338.5	3293.6
5°	5226.5	5176.3	5157.3	5001.7	4773.5	4448.5	4095.8	4057.7	4042.2	4002.4	3910.8
7.5°	6289.7	6262.1	6232.7	6115.1	5907.6	5544.6	5070.9	4989.6	4911.8	4892.8	4789.0
10°	6976.1	6969.2	6906.9	6875.8	6746.2	6431.5	5969.9	5892.1	5807.4	5778.0	5669.1
12.5°	7519.0	7517.2	7487.9	7496.5	7384.1	7155.9	6758.3	6687.4	6625.1	6535.2	6457.4
15°	7894.1	7895.9	7939.1	7987.5	7970.2	7816.3	7442.9	7411.8	7358.2	7295.9	7204.3
17.5°	8201.9	8210.5	8255.5	8343.7	8438.7	8426.6	8131.0	8105.1	8058.4	7973.7	7925.3
20°	8896.9	8929.8	8843.3	8843.3	8853.7	8900.4	8758.6	8737.8	8672.2	8627.2	8589.2
22.5°	10070.8	10108.9	9913.5	9714.7	9519.3	9377.5	9235.8	9261.7	9216.8	9185.6	9163.2
25°	11595.7	11625.1	11308.7	10973.3	10575.7	10057.0	9706.0	9690.5	9666.3	9647.2	9636.9
27.5°	13030.7	13042.8	12743.7	12252.7	11791.1	11045.9	10183.2	10164.2	10134.8	10098.5	10067.4
30°	14258.2	14254.8	13947.0	13478.5	12984.0	12159.3	10907.6	10848.8	10762.4	10663.8	10587.8
32.5°	15321.5	15316.3	14979.2	14493.3	13974.7	13262.4	11900.0	11779.0	11644.1	11452.2	11336.4
35°	16158.3	16154.8	15836.7	15330.1	14735.4	14301.4	13037.6	12888.9	12717.8	12460.2	12282.1
37.5°	16474.7	16474.7	16296.6	15950.8	15425.2	15127.9	14301.4	14121.6	13938.4	13646.2	13445.6
40°	16289.7	16293.1	16331.2	16267.2	16011.3	15783.1	15480.6	15373.4	15216.0	14953.2	14744.0
42.5°	15669.0	15688.0	15940.4	16249.9	16377.8	16341.5	16526.5	16478.1	16367.5	16165.2	15999.2
45°	14882.4	14941.1	15217.8	15802.1	16479.9	16823.9	17403.1	17408.3	17387.5	17278.6	17150.7
47.5°	13801.8	13884.8	14249.6	15039.7	16241.3	17292.4	18293.5	18340.1	18383.4	18312.5	18253.7
50°	12366.8	12465.4	13011.7	14059.4	15755.4	17778.3	19975.7	20186.6	20383.7	20359.5	20399.3
52.5°	10829.8	10945.7	11614.7	12781.7	14920.4	17890.6	21051.1	21395.1	21739.2	22021.0	22320.1
55°	9443.2	9381.0	10050.1	11279.3	13547.6	17384.1	22017.5	22432.4	22816.3	23162.0	23518.2
57.5°	7563.9	7665.9	8336.7	9552.2	11730.6	15954.3	22683.1	23290.0	23841.5	24413.8	24918.6
60°	5529.0	5631.0	6358.9	7593.3	9757.9	13786.2	22174.8	23094.6	23978.1	24854.6	25539.3
62.5°	3338.5	3414.6	4056.0	5231.6	7524.2	11215.4	19910.0	21116.8	22416.9	23464.6	24514.0
65°	2078.1	2121.4	2358.2	3004.8	4832.3	8373.1	16267.2	17582.9	18983.3	20312.8	21403.8
67.5°	1701.2	1716.8	1760.0	1898.3	2653.9	5459.9	12107.5	13272.7	14536.6	15822.9	17036.6
70°	1530.1	1519.7	1519.7	1528.3	1701.2	2935.7	7927.0	8686.0	9738.9	10857.5	11967.4
72.5°	1381.4	1371.0	1352.0	1326.1	1388.3	1791.1	4097.5	4669.8	5428.7	6422.9	7486.1
75°	1241.3	1227.5	1205.0	1172.2	1215.4	1352.0	1967.5	2207.8	2577.8	3106.8	3699.8
77.5°	1096.1	1078.8	1058.1	1033.9	1089.2	1051.2	1153.2	1239.6	1381.4	1550.8	1773.8
80°	931.9	916.3	909.4	897.3	963.0	800.5	814.3	867.9	950.9	1042.5	1146.3
82.5°	729.6	729.6	757.3	762.4	835.1	575.7	608.6	655.3	698.5	746.9	795.3
85°	480.6	484.1	577.5	613.8	658.7	387.3	456.4	472.0	506.6	534.2	555.0
87.5°	150.4	162.5	352.7	390.7	378.6	219.6	280.1	287.0	311.2	330.2	347.5
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°	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5
2.5°	3293.6	3272.8	3253.8	3252.1	3238.2	3219.2	3226.1	3196.7	3198.5	3182.9	3165.6
5°	3872.7	3858.9	3789.7	3770.7	3718.9	3686.0	3680.8	3611.7	3603.0	3563.3	3520.0
7.5°	4706.1	4661.1	4564.3	4517.6	4429.4	4363.7	4332.6	4241.0	4196.0	4092.3	4045.6
10°	5579.2	5522.1	5402.8	5337.1	5252.4	5146.9	5089.9	4956.7	4904.9	4809.8	4695.7
12.5°	6388.3	6331.2	6208.5	6158.3	6046.0	5933.6	5871.3	5720.9	5653.5	5501.4	5411.4
15°	7136.9	7079.8	6972.6	6920.8	6808.4	6716.8	6633.8	6485.1	6405.6	6263.8	6146.2
17.5°	7863.0	7802.5	7709.2	7662.5	7553.6	7460.2	7370.3	7230.3	7149.0	7007.2	6901.8
20°	8537.3	8492.3	8424.9	8362.7	8253.8	8169.0	8061.9	7940.8	7823.3	7719.5	7619.3
22.5°	9125.1	9107.8	9035.2	9007.6	8914.2	8841.6	8748.2	8628.9	8544.2	8412.8	8319.5
25°	9631.7	9626.5	9591.9	9583.3	9517.6	9448.4	9427.7	9329.1	9251.3	9135.5	9038.7
27.5°	10067.4	10072.6	10063.9	10088.1	10070.8	10039.7	10041.4	10008.6	9963.6	9866.8	9782.1
30°	10551.5	10523.8	10539.4	10573.9	10584.3	10587.8	10644.8	10663.8	10660.4	10596.4	10554.9
32.5°	11236.1	11170.4	11109.9	11104.7	11139.3	11153.1	11249.9	11300.1	11343.3	11358.9	11365.8
35°	12109.2	11977.8	11851.6	11784.2	11725.4	11740.9	11810.1	11891.4	11986.4	12052.1	12129.9
37.5°	13208.8	13048.0	12825.0	12665.9	12626.1	12539.7	12584.6	12648.6	12742.0	12844.0	12978.8
40°	14541.8	14298.0	14047.3	13836.4	13722.3	13563.2	13561.5	13549.4	13606.4	13701.5	13891.7
42.5°	15824.6	15608.5	15342.2	15120.9	14972.3	14759.6	14716.4	14604.0	14629.9	14712.9	14897.9
45°	17026.2	16848.1	16685.6	16429.7	16303.5	16073.6	16000.9	15867.8	15793.5	15831.5	16016.5
47.5°	18189.7	18075.6	17906.2	17740.2	17643.4	17437.7	17344.3	17249.2	17154.1	17150.7	17344.3
50°	20458.0	20397.5	20197.0	20024.1	20070.8	19818.4	19833.9	19578.0	19693.9	19707.7	20114.0
52.5°	22589.8	22800.7	22949.4	23130.9	23248.5	23271.0	23348.8	23464.6	23604.6	23881.3	24258.2
55°	23810.4	24074.9	24228.8	24367.1	24595.3	24643.7	24773.4	24927.2	25050.0	25361.2	25681.0
57.5°	25260.9	25751.9	25990.5	26210.1	26517.8	26635.4	26851.5	27019.2	27178.3	27546.5	27933.8
60°	26154.8	26753.0	27238.8	27586.3	27971.8	28248.5	28575.2	28838.0	29211.5	29652.3	30229.8
62.5°	25444.2	26322.5	26967.3	27563.8	28087.7	28616.7	29085.2	29576.3	30143.3	30810.7	31706.3
65°	22614.0	23507.8	24612.6	25231.5	25924.8	26740.9	27453.2	28248.5	29021.3	29992.9	31317.3
67.5°	18205.3	19244.4	20485.7	21109.8	21906.9	22818.0	23616.7	24588.4	25490.9	26668.2	28305.5
70°	13122.3	14465.7	15509.9	16161.7	17091.9	18030.7	18801.8	19932.5	20679.3	21886.1	23578.7
72.5°	8309.1	9368.9	10648.3	11469.5	12295.9	13246.8	14035.2	15010.3	15707.0	16806.6	18340.1
75°	4467.5	5248.9	6372.7	7152.5	8037.6	8850.2	9773.5	10427.0	10942.2	11811.8	13056.6
77.5°	2093.7	2569.1	3137.9	3737.9	4337.8	4963.7	5572.2	6101.3	6322.6	6820.5	7555.3
80°	1270.7	1424.6	1590.6	1775.6	2026.3	2228.5	2496.5	2690.2	2704.0	2861.3	3086.1
82.5°	848.9	905.9	956.1	1002.8	1066.7	1116.9	1173.9	1241.3	1269.0	1305.3	1377.9
85°	579.2	606.8	617.2	646.6	639.7	657.0	679.5	701.9	714.0	712.3	745.2
87.5°	356.2	370.0	376.9	383.8	378.6	371.7	382.1	394.2	397.6	387.3	390.7
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°	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5
2.5°	3169.1	3153.5	3137.9	3127.6	3124.1	3032.5	2992.7	2966.8	2911.5	2866.5	2830.2
5°	3495.8	3463.0	3437.0	3405.9	3388.6	3157.0	3072.3	3013.5	2916.7	2859.6	2807.7
7.5°	4021.4	3929.8	3876.2	3815.7	3763.8	3345.4	3205.4	3113.7	2978.9	2902.8	2844.0
10°	4617.9	4522.8	4438.1	4344.7	4263.5	3596.1	3392.1	3250.3	3072.3	2973.7	2895.9
12.5°	5283.5	5190.2	5083.0	4963.7	4859.9	3914.2	3630.7	3428.4	3184.6	3053.2	2944.3
15°	6070.2	5905.9	5776.2	5637.9	5516.9	4294.6	3909.0	3629.0	3303.9	3125.8	2980.6
17.5°	6801.5	6628.6	6452.2	6331.2	6191.2	4721.6	4189.1	3833.0	3402.5	3172.5	2987.5
20°	7515.5	7327.1	7174.9	7012.4	6865.5	5164.2	4488.2	4012.8	3466.4	3174.3	2944.3
22.5°	8144.8	8027.3	7857.8	7681.5	7532.8	5606.8	4768.3	4164.9	3490.6	3134.5	2868.2
25°	8860.6	8736.1	8528.7	8380.0	8214.0	6058.1	5043.2	4282.5	3476.8	3060.1	2750.7
27.5°	9624.8	9486.5	9273.8	9118.2	8917.7	6526.6	5295.6	4367.2	3424.9	2939.1	2593.3
30°	10421.8	10295.6	10086.4	9929.1	9726.8	7022.8	5577.4	4424.2	3321.2	2771.4	2410.1
32.5°	11277.6	11172.1	10964.7	10800.4	10584.3	7560.5	5840.2	4441.5	3163.9	2572.6	2216.4
35°	12090.2	12017.6	11842.9	11689.1	11464.3	8068.8	6118.6	4432.9	2977.2	2354.8	2040.1
37.5°	13004.8	12961.5	12875.1	12679.7	12404.8	8758.6	6452.2	4396.6	2748.9	2138.6	1905.2
40°	13979.9	13983.3	13890.0	13756.8	13501.0	9595.4	6849.9	4325.7	2500.0	1948.5	1782.5
42.5°	15012.0	15065.6	15020.7	14925.6	14680.1	10439.1	7325.3	4239.3	2257.9	1763.5	1661.5
45°	16194.6	16260.3	16329.4	16189.4	15950.8	11552.5	7951.2	4126.9	1996.9	1609.6	1578.5
47.5°	17558.7	17662.4	17724.7	17726.4	17487.8	12932.2	8967.8	4059.5	1765.2	1505.9	1538.7
50°	20437.3	20470.1	20617.1	20873.0	20689.7	16125.4	10743.4	4018.0	1607.9	1441.9	1509.3
52.5°	24584.9	24946.3	25200.4	25183.1	24934.2	18153.4	11721.9	3803.6	1514.5	1417.7	1495.5
55°	26274.1	26725.3	27195.6	27320.0	27126.4	19884.1	12646.9	3589.2	1469.6	1435.0	1500.7
57.5°	28525.1	29285.8	29930.7	30202.1	29922.0	22098.8	13864.0	3476.8	1455.7	1481.7	1533.5
60°	31154.7	32095.3	32942.4	33430.0	33430.0	24643.7	15126.1	3430.1	1436.7	1550.8	1588.9
62.5°	32843.9	34225.3	35504.6	36218.7	36197.9	26415.8	15686.3	3271.1	1393.5	1599.2	1664.9
65°	32850.8	34493.2	36123.6	36925.8	36967.3	26198.0	14761.3	2889.0	1314.0	1606.1	1741.0
67.5°	30112.2	31863.6	33763.6	34660.9	34868.4	24116.4	12778.3	2375.5	1184.3	1537.0	1768.7
70°	25432.1	27142.0	29081.8	29963.5	30331.8	20558.3	10292.1	1830.9	1018.3	1384.8	1711.6
72.5°	20036.2	21713.2	23063.5	23708.4	23995.4	15714.0	7494.8	1383.1	835.1	1167.0	1557.7
75°	14185.6	15444.2	16161.7	16305.2	16350.2	9472.6	4553.9	1028.7	688.1	907.7	1315.7
77.5°	8006.5	8545.9	8487.2	8551.1	8018.6	3656.6	1983.0	736.5	567.1	689.8	1020.0
80°	3125.8	3222.7	3027.3	2966.8	2721.3	1360.6	874.8	513.5	453.0	522.1	714.0
82.5°	1377.9	1422.9	1381.4	1391.8	1331.3	701.9	523.9	371.7	345.8	382.1	473.7
85°	759.0	772.8	769.4	791.8	759.0	280.1	249.0	228.2	242.0	259.3	304.3
87.5°	370.0	373.4	361.3	380.4	368.3	141.8	122.8	129.7	141.8	145.2	145.2
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):

	135°	145°	155°	165°	175°	180°
0°	2968.5	2968.5	2968.5	2968.5	2968.5	2968.5
2.5°	2804.3	2790.4	2792.2	2788.7	2781.8	2781.8
5°	2780.1	2766.2	2766.2	2762.8	2754.1	2755.9
7.5°	2804.3	2781.8	2773.2	2761.0	2748.9	2748.9
10°	2831.9	2792.2	2768.0	2747.2	2731.7	2731.7
12.5°	2852.7	2790.4	2750.7	2723.0	2707.5	2707.5
15°	2859.6	2778.3	2723.0	2690.2	2676.3	2674.6
17.5°	2837.1	2731.7	2664.2	2626.2	2608.9	2603.7
20°	2768.0	2646.9	2565.7	2522.5	2498.3	2489.6
22.5°	2664.2	2525.9	2430.8	2385.9	2354.8	2349.6
25°	2519.0	2370.3	2277.0	2233.7	2216.4	2211.3
27.5°	2349.6	2211.3	2131.7	2104.1	2088.5	2086.8
30°	2188.8	2071.2	2012.4	1991.7	1972.7	1969.2
32.5°	2038.4	1964.0	1941.6	1912.2	1867.2	1862.0
35°	1931.2	1924.3	1908.7	1843.0	1787.7	1772.1
37.5°	1865.5	1929.4	1849.9	1720.3	1680.5	1677.0
40°	1827.4	1875.9	1739.3	1694.3	1697.8	1694.3
42.5°	1741.0	1791.1	1742.7	1722.0	1735.8	1739.3
45°	1654.6	1709.9	1768.7	1754.8	1787.7	1787.7
47.5°	1606.1	1689.1	1766.9	1766.9	1815.3	1832.6
50°	1550.8	1671.8	1739.3	1763.5	1801.5	1787.7
52.5°	1547.4	1642.5	1699.5	1742.7	1760.0	1744.5
55°	1552.6	1618.2	1659.7	1708.2	1728.9	1730.6
57.5°	1559.5	1604.4	1632.1	1654.6	1716.8	1716.8
60°	1576.8	1592.3	1607.9	1620.0	1701.2	1703.0
62.5°	1604.4	1580.2	1576.8	1588.9	1692.6	1685.7
65°	1647.6	1562.9	1537.0	1549.1	1683.9	1663.2
67.5°	1706.4	1537.0	1486.9	1495.5	1677.0	1632.1
70°	1760.0	1495.5	1424.6	1416.0	1611.3	1531.8
72.5°	1765.2	1447.1	1338.2	1312.2	1400.4	1324.3
75°	1678.8	1414.2	1243.1	1167.0	1156.6	1146.3
77.5°	1512.8	1395.2	1132.4	1013.1	992.4	999.3
80°	1265.6	1324.3	999.3	857.5	969.9	957.8
82.5°	945.7	1168.7	848.9	759.0	757.3	669.1
85°	525.6	911.1	691.6	568.8	395.9	383.8
87.5°	147.0	506.6	484.1	321.6	219.6	228.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)