

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: P301585

Luminaire Tested: **GLNA-AF-05-LED-E1-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301585
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-05-LED-E1-T2R-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 29873.1 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

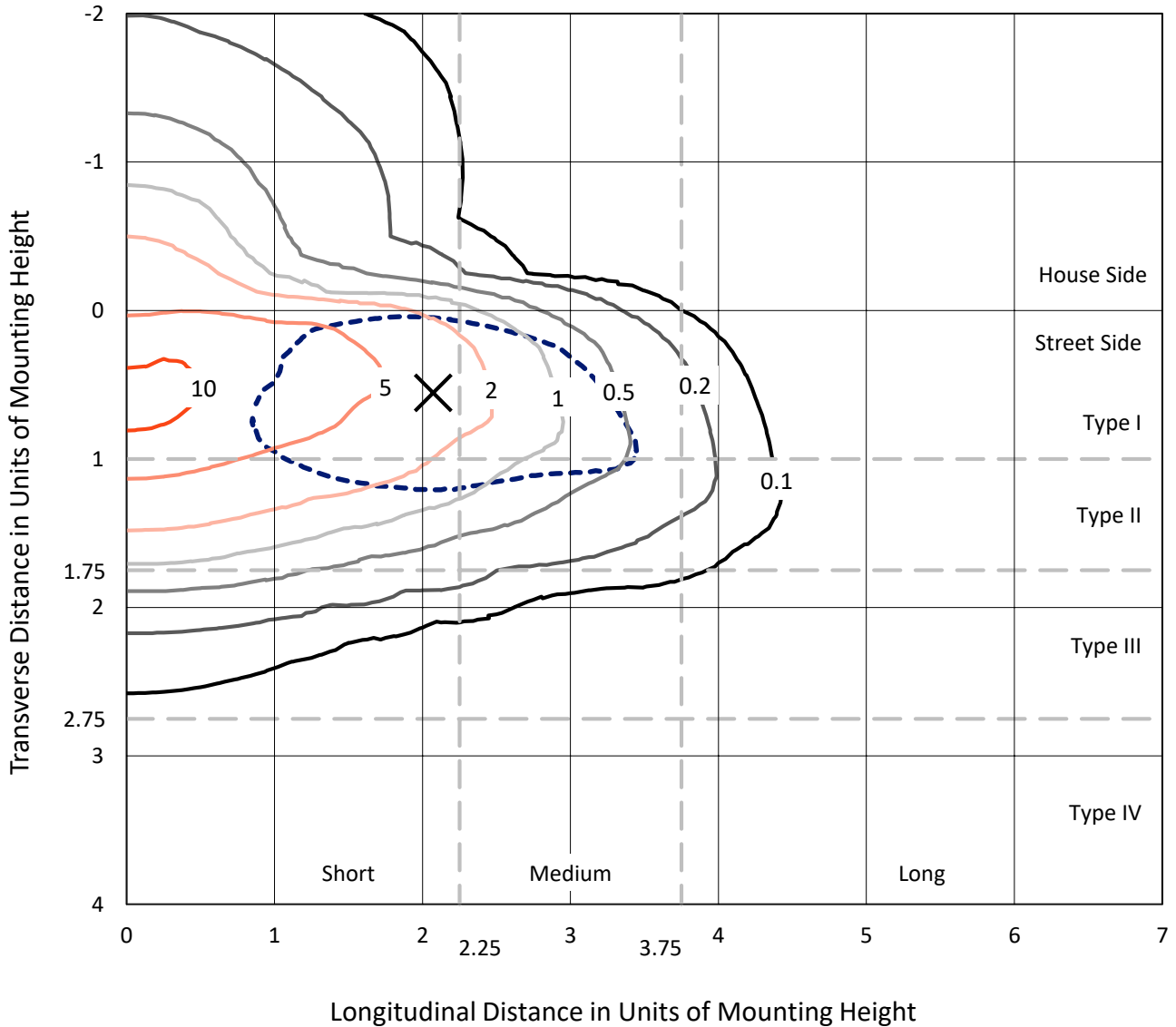
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

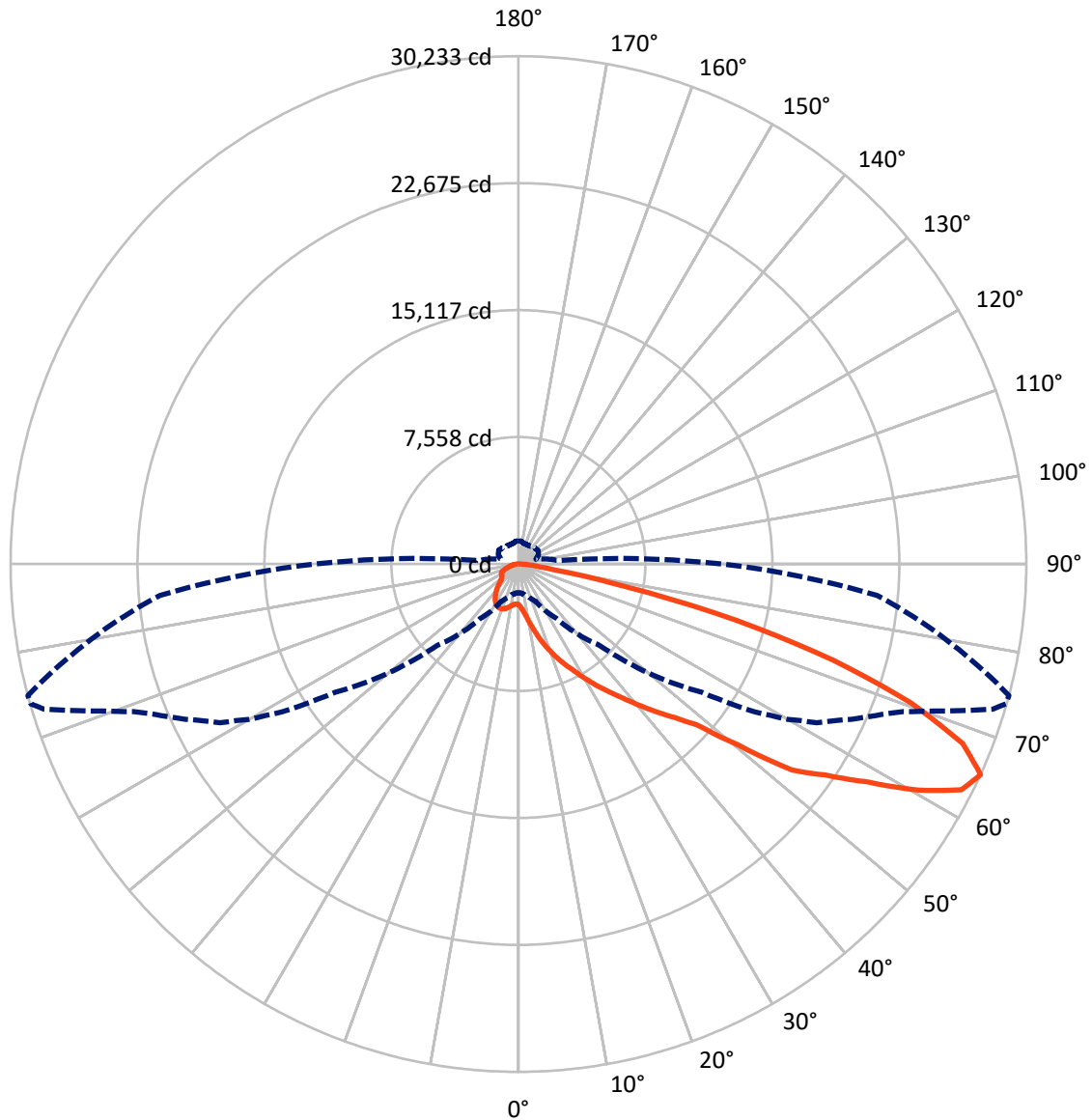
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 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	4605.7	0.0	4605.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	25267.4	0.0	25267.4
	% Fixture	84.6	0.0	84.6
Total	Lumens	29873.1	0.0	29873.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.1	1.0
10°-20°	1172.5	3.9
20°-30°	2405.5	8.1
30°-40°	4047.2	13.5
40°-50°	5592.1	18.7
50°-60°	6980.6	23.4
60°-70°	6281.8	21.0
70°-80°	2633.3	8.8
80°-90°	460.1	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°	29873.1	100.0
0°-180°	29873.1	100.0

Coefficient of Utilization



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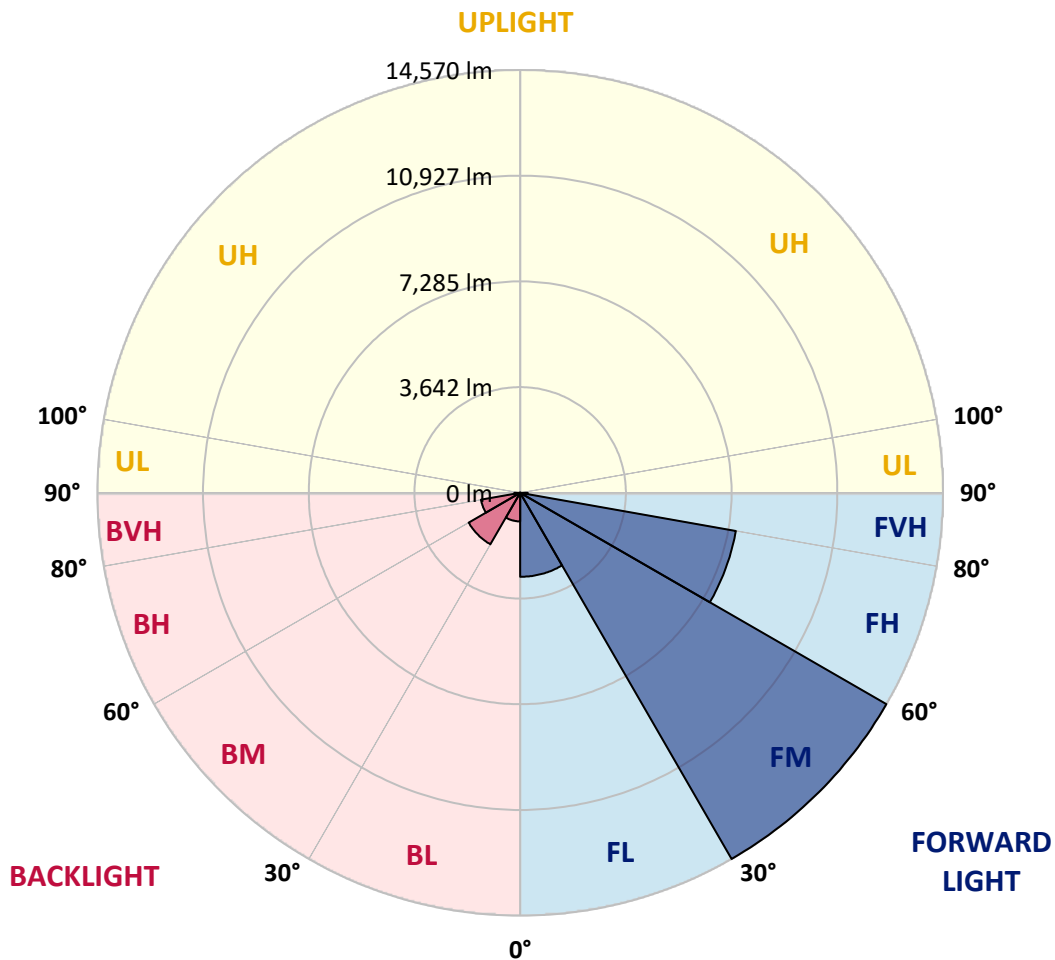
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2893.1	9.7			
FM	(30°-60°)	14569.8	48.8			
FH	(60°-80°)	7545.8	25.3			G4/12000
FVH	(80°-90°)	258.6	0.9			G3/500
BL	(0°-30°)	985.0	3.3	B2/1000		
BM	(30°-60°)	2050.1	6.9	B2/2500		
BH	(60°-80°)	1369.2	4.6	B3/2500		G3/2500
BVH	(80°-90°)	201.5	0.7			G2/225
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°	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8
2.5°	3082.5	3048.5	3056.9	3000.3	2931.1	2840.5	2740.3	2739.0	2740.3	2730.2	2693.7
5°	4274.2	4233.5	4218.0	4090.5	3903.8	3638.3	3349.7	3318.7	3305.7	3273.4	3198.3
7.5°	5144.1	5121.5	5097.1	5001.1	4831.6	4534.7	4147.1	4080.8	4017.1	4001.5	3916.8
10°	5705.3	5699.5	5648.7	5623.1	5517.4	5259.9	4882.4	4818.6	4749.4	4725.5	4636.2
12.5°	6149.1	6147.8	6123.9	6131.1	6038.8	5852.6	5527.1	5469.2	5418.4	5344.6	5281.3
15°	6456.1	6457.4	6493.1	6532.5	6518.2	6392.4	6087.0	6061.4	6017.8	5967.1	5892.0
17.5°	6707.8	6714.9	6751.4	6823.6	6901.6	6891.5	6649.9	6628.5	6590.4	6521.2	6481.7
20°	7276.2	7303.0	7232.5	7232.5	7240.9	7279.1	7162.9	7146.1	7092.4	7055.5	7024.5
22.5°	8236.3	8267.3	8107.5	7945.2	7785.4	7669.2	7553.4	7574.4	7537.9	7512.3	7493.9
25°	9483.3	9507.6	9248.8	8974.5	8649.0	8225.0	7938.0	7925.0	7905.3	7889.8	7881.4
27.5°	10656.9	10667.0	10422.4	10020.6	9643.1	9033.6	8328.1	8312.6	8288.7	8258.9	8233.3
30°	11661.1	11658.1	11406.5	11023.1	10618.7	9944.3	8920.8	8872.6	8801.7	8721.2	8659.1
32.5°	12530.6	12526.4	12250.4	11853.2	11429.1	10846.5	9732.4	9633.5	9523.1	9365.8	9271.5
35°	13214.7	13212.2	12951.7	12537.7	12051.2	11696.3	10662.8	10541.1	10401.0	10190.5	10044.9
37.5°	13473.5	13473.5	13328.0	13045.2	12615.3	12372.0	11696.3	11549.1	11399.3	11160.2	10996.2
40°	13322.1	13325.0	13356.1	13304.0	13094.7	12908.1	12660.6	12572.9	12444.2	12229.4	12058.3
42.5°	12814.5	12830.1	13036.9	13289.8	13394.2	13364.9	13515.9	13476.4	13385.8	13220.6	13084.7
45°	12171.1	12219.4	12445.4	12923.6	13477.7	13759.1	14232.7	14236.9	14220.1	14131.2	14026.3
47.5°	11287.8	11355.3	11653.9	12299.9	13282.7	14142.5	14960.9	14999.0	15034.7	14976.8	14928.6
50°	10114.1	10194.7	10641.4	11498.3	12885.4	14539.7	16336.7	16509.5	16670.5	16650.8	16683.1
52.5°	8857.1	8951.9	9498.8	10453.5	12202.6	14631.6	17216.2	17497.7	17779.1	18009.4	18253.9
55°	7722.9	7672.1	8219.5	9224.5	11079.7	14217.2	18006.9	18346.2	18660.0	18942.7	19234.2
57.5°	6186.0	6269.5	6818.1	7812.2	9593.6	13047.8	18550.9	19047.5	19498.5	19966.6	20379.3
60°	4521.6	4605.1	5200.3	6209.9	7980.4	11274.8	18135.2	18887.7	19610.0	20326.9	20886.8
62.5°	2730.2	2792.7	3317.0	4278.8	6153.7	9172.5	16283.0	17269.9	18333.2	19190.2	20048.3
65°	1699.6	1734.8	1928.6	2457.5	3952.0	6847.9	13304.0	14379.9	15525.0	16612.6	17504.8
67.5°	1391.3	1403.9	1439.5	1552.4	2170.2	4465.4	9901.9	10854.9	11888.4	12940.4	13933.2
70°	1251.2	1242.8	1242.8	1250.0	1391.3	2400.9	6483.0	7103.8	7964.9	8879.7	9787.4
72.5°	1129.6	1121.2	1105.7	1084.7	1135.4	1464.7	3351.0	3819.1	4439.9	5252.7	6122.3
75°	1015.1	1003.7	985.7	958.9	994.1	1105.7	1609.0	1805.7	2108.1	2541.0	3025.9
77.5°	896.4	882.1	865.3	845.6	890.9	859.9	942.9	1013.8	1129.6	1268.4	1450.9
80°	762.1	749.6	743.7	734.0	787.7	654.8	666.1	709.7	777.7	852.7	937.5
82.5°	596.9	596.9	619.1	623.7	682.9	471.0	497.9	536.1	571.3	610.7	650.6
85°	393.0	396.0	472.3	502.1	538.6	316.7	373.3	385.9	414.4	437.1	453.8
87.5°	122.9	133.0	288.6	319.6	309.6	179.5	229.0	234.9	254.6	270.1	284.4
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8
2.5°	2693.7	2676.5	2661.0	2659.7	2648.4	2632.9	2638.3	2614.4	2615.7	2603.1	2588.8
5°	3167.3	3155.9	3099.3	3083.8	3041.4	3014.6	3010.4	2953.8	2946.6	2914.3	2878.7
7.5°	3848.9	3811.9	3732.7	3694.5	3622.4	3568.7	3543.5	3468.4	3431.5	3346.8	3308.6
10°	4562.8	4516.2	4418.5	4364.8	4295.6	4209.2	4162.6	4054.0	4011.2	3933.6	3840.5
12.5°	5224.6	5178.1	5077.4	5036.3	4944.5	4852.6	4801.8	4678.9	4623.6	4499.0	4425.6
15°	5836.6	5790.1	5702.4	5660.0	5568.2	5493.1	5425.1	5303.9	5238.9	5122.7	5026.7
17.5°	6430.6	6381.1	6304.7	6266.6	6177.6	6101.3	6027.9	5913.0	5846.7	5730.9	5644.5
20°	6982.1	6945.2	6890.3	6839.1	6750.2	6681.0	6593.3	6494.3	6398.3	6313.1	6231.3
22.5°	7462.8	7448.6	7389.4	7366.8	7290.4	7230.9	7154.5	7057.2	6987.6	6880.2	6803.9
25°	7877.2	7873.0	7844.5	7837.4	7783.7	7727.1	7710.3	7629.8	7566.0	7471.2	7392.3
27.5°	8233.3	8237.5	8230.8	8250.5	8236.3	8210.7	8212.4	8185.5	8148.6	8069.3	8000.1
30°	8629.3	8606.6	8619.7	8647.8	8656.1	8659.1	8705.6	8721.2	8718.6	8666.2	8632.2
32.5°	9189.3	9135.6	9086.1	9081.9	9110.0	9121.3	9200.6	9241.7	9276.9	9289.5	9295.4
35°	9903.2	9795.8	9692.6	9637.7	9589.4	9602.0	9658.6	9725.3	9802.9	9856.6	9920.4
37.5°	10802.5	10671.2	10488.7	10358.7	10326.0	10255.5	10292.0	10344.4	10420.8	10504.2	10614.5
40°	11892.6	11693.4	11488.3	11315.9	11222.7	11092.3	11091.0	11081.0	11127.9	11205.5	11361.2
42.5°	12942.1	12765.1	12547.4	12366.6	12244.9	12070.9	12035.6	11943.8	11964.7	12032.7	12184.1
45°	13924.4	13778.9	13645.9	13437.0	13333.4	13145.5	13085.9	12977.3	12916.5	12947.5	13098.9
47.5°	14876.1	14783.0	14644.2	14508.7	14429.4	14261.2	14184.9	14106.9	14029.3	14026.3	14184.9
50°	16731.4	16681.9	16517.9	16376.5	16414.7	16208.3	16220.9	16011.6	16106.4	16117.7	16449.9
52.5°	18474.6	18647.4	18769.0	18917.1	19013.6	19032.0	19095.4	19190.2	19304.7	19530.7	19839.0
55°	19472.9	19689.3	19815.1	19928.4	20115.0	20154.5	20260.6	20386.4	20486.7	20741.3	21003.0
57.5°	20659.5	21060.9	21255.9	21435.5	21687.1	21783.2	21960.2	22097.3	22227.4	22528.5	22845.2
60°	21390.2	21879.7	22276.9	22560.8	22876.3	23102.8	23370.0	23584.7	23890.1	24250.8	24723.1
62.5°	20809.2	21527.3	22055.0	22542.8	22971.1	23403.9	23786.9	24188.7	24652.2	25197.9	25930.7
65°	18494.7	19225.4	20128.9	20635.2	21202.2	21869.6	22452.2	23102.8	23734.5	24529.3	25612.3
67.5°	14889.1	15738.5	16754.0	17264.5	17916.3	18661.2	19314.7	20109.2	20847.4	21810.0	23149.3
70°	10732.0	11830.5	12684.5	13217.6	13978.5	14746.1	15377.0	16301.4	16912.1	17899.1	19283.7
72.5°	6795.5	7662.1	8708.6	9380.1	10055.8	10833.9	11478.6	12276.0	12845.6	13744.9	14999.0
75°	3653.8	4292.6	5211.6	5849.6	6573.6	7238.0	7993.0	8527.4	8948.9	9660.3	10678.3
77.5°	1712.2	2101.0	2566.2	3056.9	3547.7	4059.4	4557.3	4989.8	5171.0	5578.2	6178.9
80°	1039.4	1165.2	1300.7	1452.1	1657.2	1822.5	2041.9	2200.0	2211.3	2340.1	2523.8
82.5°	694.2	740.7	781.9	820.0	872.5	913.6	960.1	1015.1	1037.7	1067.5	1127.1
85°	473.6	496.2	504.6	528.9	523.1	537.3	555.8	574.2	583.9	582.6	609.5
87.5°	291.1	302.4	308.3	313.7	309.6	304.1	312.5	322.6	325.1	316.7	319.6
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°	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8
2.5°	2591.8	2579.2	2566.2	2557.8	2554.9	2480.2	2447.5	2426.5	2381.2	2344.3	2314.5
5°	2859.0	2832.1	2811.1	2785.6	2771.3	2581.7	2512.5	2464.7	2385.4	2338.8	2296.1
7.5°	3288.9	3213.8	3170.2	3120.7	3078.3	2736.1	2621.5	2546.5	2436.2	2374.1	2325.8
10°	3776.7	3699.1	3629.5	3553.1	3486.9	2941.2	2774.2	2658.0	2512.5	2432.0	2368.2
12.5°	4321.2	4244.8	4157.1	4059.4	3974.7	3201.2	2969.3	2804.0	2604.4	2497.0	2408.0
15°	4964.6	4829.9	4723.8	4611.0	4512.0	3512.5	3197.0	2968.0	2702.1	2556.5	2437.8
17.5°	5562.3	5420.9	5277.1	5178.1	5063.6	3861.4	3426.0	3134.5	2782.6	2594.7	2443.3
20°	6146.6	5992.2	5868.1	5735.1	5614.7	4223.4	3670.6	3281.8	2835.0	2596.0	2408.0
22.5°	6661.3	6564.8	6426.4	6282.1	6160.4	4585.4	3899.6	3406.3	2854.8	2563.7	2345.6
25°	7246.4	7144.9	6975.0	6853.4	6717.9	4954.5	4124.4	3502.4	2843.4	2502.8	2249.5
27.5°	7871.4	7758.5	7584.5	7457.4	7293.4	5337.5	4330.8	3571.6	2801.1	2403.9	2120.7
30°	8523.2	8420.0	8248.9	8120.5	7954.8	5743.5	4561.5	3618.2	2716.3	2266.7	1971.0
32.5°	9223.2	9136.8	8967.4	8833.2	8656.1	6183.1	4776.3	3632.4	2587.6	2104.0	1812.9
35°	9887.6	9828.5	9685.5	9559.6	9375.9	6598.8	5004.0	3625.3	2434.9	1925.7	1668.6
37.5°	10635.9	10600.3	10529.8	10370.0	10145.2	7162.9	5277.1	3595.5	2248.2	1749.1	1558.2
40°	11433.3	11436.2	11359.9	11250.8	11041.5	7847.4	5602.1	3537.6	2044.4	1593.5	1457.6
42.5°	12277.2	12321.3	12284.4	12206.8	12005.9	8537.4	5991.0	3467.2	1846.8	1442.1	1359.0
45°	13244.5	13298.2	13354.8	13240.3	13045.2	9448.1	6502.7	3375.3	1632.9	1316.2	1291.1
47.5°	14360.2	14444.9	14495.7	14497.4	14302.3	10576.4	7334.0	3319.9	1443.7	1231.5	1258.3
50°	16714.2	16741.4	16861.4	17070.7	16920.9	13187.9	8786.2	3286.0	1315.0	1179.1	1234.4
52.5°	20106.2	20401.9	20610.0	20595.7	20391.9	14846.4	9586.5	3110.6	1238.6	1159.4	1223.1
55°	21487.9	21857.0	22241.6	22343.1	22185.0	16262.0	10343.2	2935.3	1201.7	1173.6	1227.3
57.5°	23328.8	23950.9	24478.6	24700.4	24471.4	18073.2	11338.5	2843.4	1190.4	1211.8	1254.1
60°	25479.4	26248.6	26941.6	27340.0	27340.0	20154.5	12370.8	2805.3	1174.9	1268.4	1299.4
62.5°	26861.0	27990.6	29037.1	29621.0	29603.8	21603.7	12828.8	2675.2	1139.6	1307.8	1361.5
65°	26866.5	28210.0	29543.0	30199.4	30233.0	21425.8	12072.5	2362.7	1074.6	1313.7	1424.0
67.5°	24627.0	26059.0	27613.1	28347.1	28516.6	19723.3	10450.5	1942.9	968.5	1257.1	1446.7
70°	20799.2	22197.6	23783.9	24505.4	24806.6	16813.1	8417.1	1497.4	833.0	1132.5	1399.7
72.5°	16386.1	17757.7	18862.1	19389.4	19624.3	12851.5	6129.4	1131.3	682.9	954.2	1273.9
75°	11601.5	12630.8	13217.6	13335.1	13371.6	7747.2	3724.3	841.4	562.9	742.4	1075.9
77.5°	6548.0	6989.3	6941.0	6993.5	6558.1	2990.7	1622.0	602.3	463.9	564.2	834.3
80°	2556.5	2635.8	2476.0	2426.5	2225.6	1112.8	715.6	419.9	370.4	427.0	583.9
82.5°	1127.1	1163.5	1129.6	1138.4	1088.9	574.2	428.3	304.1	282.7	312.5	387.6
85°	620.8	632.1	629.2	647.6	620.8	229.0	203.4	186.7	198.0	212.2	248.7
87.5°	302.4	305.4	295.7	311.2	301.2	115.8	100.2	106.1	115.8	118.7	118.7
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):

	135°	145°	155°	165°	175°	180°
0°	2427.8	2427.8	2427.8	2427.8	2427.8	2427.8
2.5°	2293.5	2282.2	2283.5	2280.5	2275.1	2275.1
5°	2273.8	2262.5	2262.5	2259.6	2252.4	2253.7
7.5°	2293.5	2275.1	2268.0	2257.9	2248.2	2248.2
10°	2316.2	2283.5	2263.8	2247.0	2234.0	2234.0
12.5°	2333.0	2282.2	2249.5	2226.8	2214.3	2214.3
15°	2338.8	2272.1	2226.8	2200.0	2188.7	2187.4
17.5°	2320.4	2234.0	2179.0	2148.0	2133.7	2129.5
20°	2263.8	2164.8	2098.5	2062.8	2043.1	2036.0
22.5°	2179.0	2065.8	1988.2	1951.3	1925.7	1921.5
25°	2060.3	1938.7	1862.3	1826.7	1812.9	1808.2
27.5°	1921.5	1808.2	1743.2	1720.6	1708.0	1706.7
30°	1790.2	1693.7	1645.9	1628.7	1613.2	1610.7
32.5°	1666.9	1606.1	1588.0	1563.7	1527.2	1523.0
35°	1579.2	1573.8	1561.2	1507.1	1462.2	1449.2
37.5°	1525.5	1578.0	1512.9	1406.8	1374.5	1371.6
40°	1494.5	1534.3	1422.3	1385.9	1388.4	1385.9
42.5°	1424.0	1464.7	1425.3	1408.5	1419.4	1422.3
45°	1353.1	1398.4	1446.7	1435.4	1462.2	1462.2
47.5°	1313.7	1381.2	1445.0	1445.0	1484.8	1498.7
50°	1268.4	1367.4	1422.3	1442.1	1473.5	1462.2
52.5°	1265.5	1343.1	1390.0	1425.3	1439.5	1426.5
55°	1269.7	1323.4	1357.3	1397.2	1414.0	1415.2
57.5°	1275.5	1312.0	1334.7	1353.1	1403.9	1403.9
60°	1289.4	1302.4	1315.0	1325.0	1391.3	1392.6
62.5°	1312.0	1292.3	1289.4	1299.4	1384.2	1378.7
65°	1347.7	1278.1	1257.1	1266.7	1377.0	1360.3
67.5°	1395.5	1257.1	1216.0	1223.1	1371.6	1334.7
70°	1439.5	1223.1	1165.2	1158.1	1317.9	1252.9
72.5°	1443.7	1183.7	1094.3	1073.4	1145.5	1083.0
75°	1372.9	1156.4	1016.7	954.2	945.9	937.5
77.5°	1237.4	1140.9	926.1	828.4	811.6	817.1
80°	1035.2	1083.0	817.1	701.3	793.2	783.5
82.5°	773.5	955.9	694.2	620.8	619.1	547.4
85°	429.9	745.4	565.4	465.2	323.8	313.7
87.5°	120.4	414.4	396.0	263.0	179.5	186.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)