

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: P301650

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301650
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-06-LED-E1-T2R-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25941.3 lumens
Efficiency: N/A
Efficacy: 104.2 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 - G3

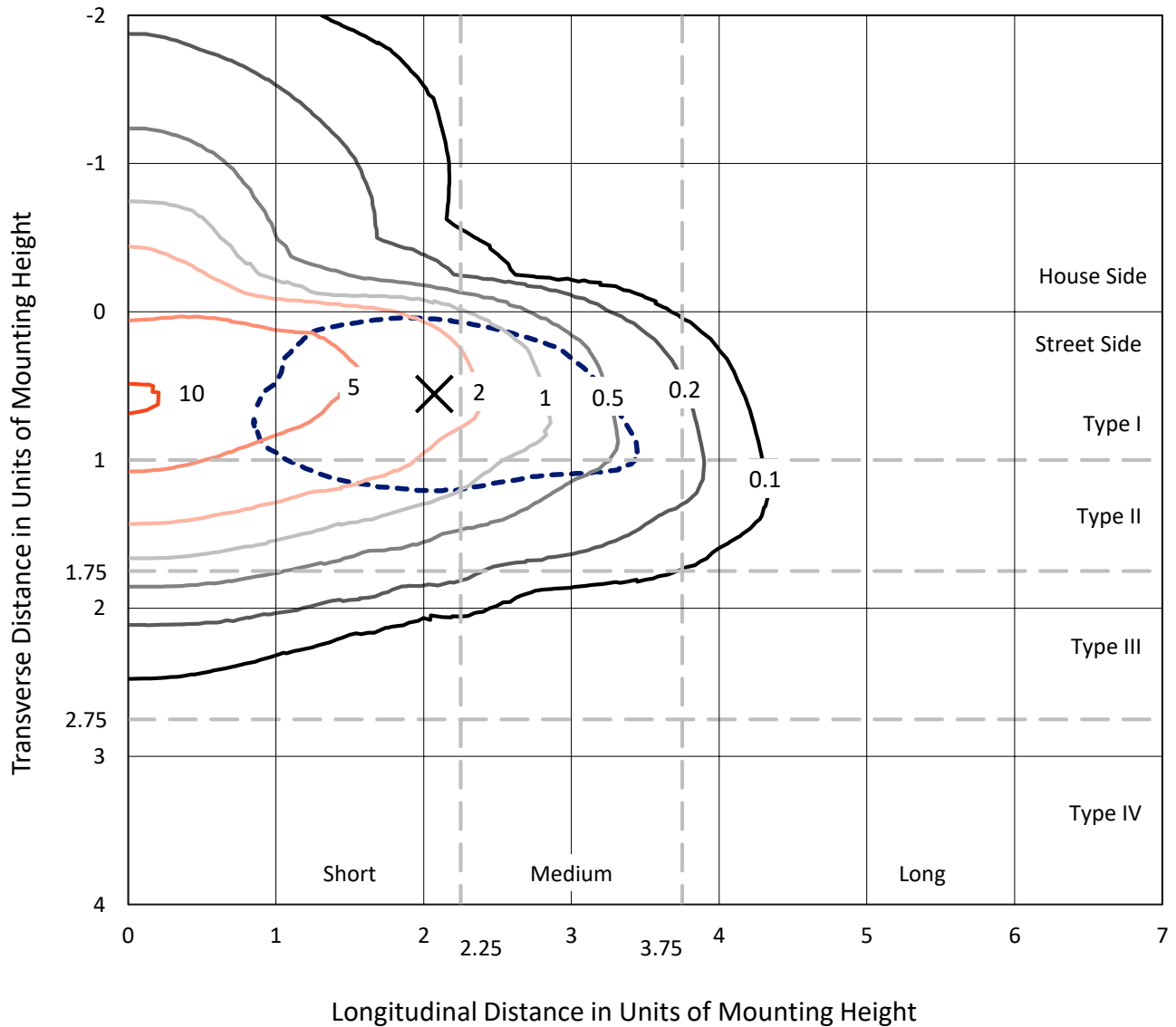
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

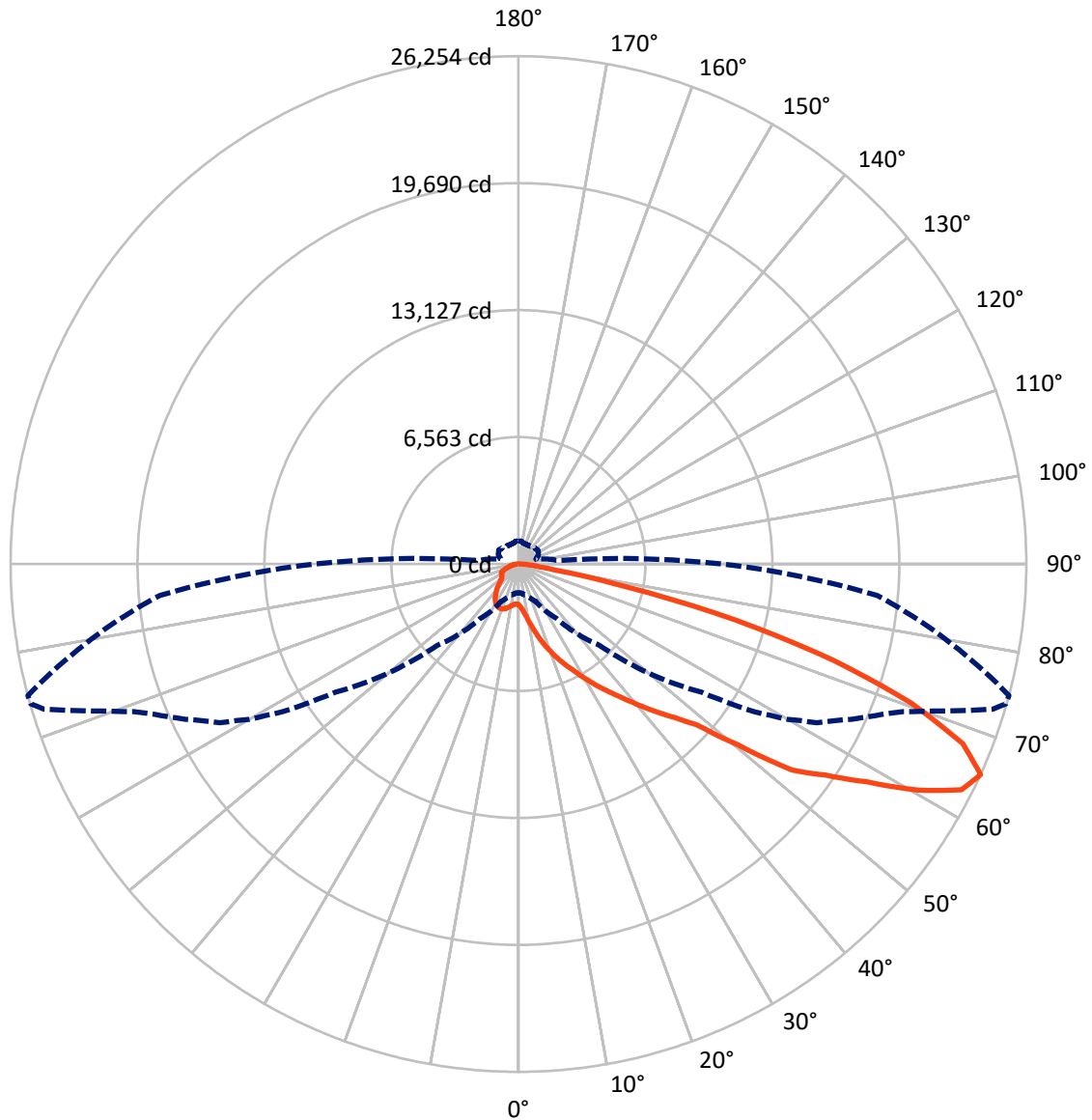
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 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	3999.5	0.0	3999.5
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	21941.8	0.0	21941.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	25941.3	0.0	25941.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.6	1.0
10°-20°	1018.2	3.9
20°-30°	2088.9	8.1
30°-40°	3514.5	13.5
40°-50°	4856.1	18.7
50°-60°	6061.8	23.4
60°-70°	5455.0	21.0
70°-80°	2286.7	8.8
80°-90°	399.5	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°	25941.3	100.0
0°-180°	25941.3	100.0



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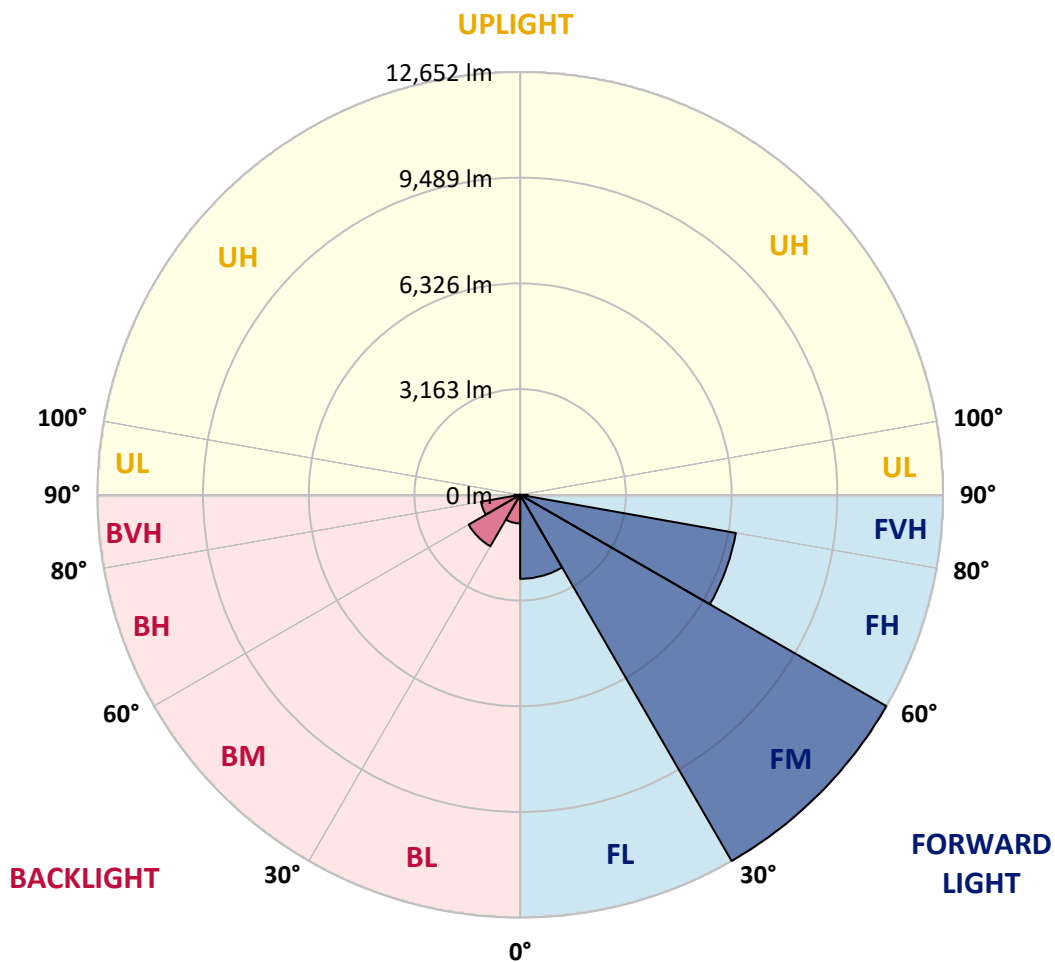
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2512.3	9.7			
FM	(30°-60°)	12652.2	48.8			
FH	(60°-80°)	6552.7	25.3			G3/7500
FVH	(80°-90°)	224.6	0.9			G2/225
BL	(0°-30°)	855.3	3.3	B2/1000		
BM	(30°-60°)	1780.2	6.9	B2/2500		
BH	(60°-80°)	1189.0	4.6	B3/2500		G3/2500
BVH	(80°-90°)	174.9	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2
2.5°	2676.8	2647.3	2654.6	2605.4	2545.3	2466.6	2379.6	2378.5	2379.6	2370.8	2339.2
5°	3711.6	3676.3	3662.8	3552.1	3390.0	3159.4	2908.8	2881.9	2870.6	2842.5	2777.3
7.5°	4467.1	4447.4	4426.3	4342.9	4195.7	3937.8	3601.3	3543.7	3488.3	3474.9	3401.3
10°	4954.4	4949.3	4905.2	4883.0	4791.2	4567.6	4239.8	4184.4	4124.3	4103.5	4026.0
12.5°	5339.8	5338.7	5317.9	5324.1	5244.0	5082.3	4799.6	4749.3	4705.3	4641.2	4586.2
15°	5606.4	5607.5	5638.5	5672.7	5660.3	5551.0	5285.9	5263.7	5225.8	5181.7	5116.5
17.5°	5825.0	5831.1	5862.8	5925.5	5993.2	5984.5	5774.7	5756.1	5723.0	5662.9	5628.6
20°	6318.5	6341.8	6280.6	6280.6	6287.9	6321.1	6220.2	6205.6	6159.0	6126.9	6100.0
22.5°	7152.3	7179.2	7040.4	6899.5	6760.7	6659.8	6559.3	6577.5	6545.8	6523.6	6507.5
25°	8235.1	8256.3	8031.5	7793.3	7510.7	7142.4	6893.3	6882.0	6864.9	6851.4	6844.1
27.5°	9254.3	9263.0	9050.7	8701.7	8373.9	7844.7	7232.0	7218.5	7197.8	7171.9	7149.7
30°	10126.3	10123.7	9905.2	9572.3	9221.1	8635.4	7746.7	7704.8	7643.2	7573.3	7519.4
32.5°	10881.4	10877.7	10638.0	10293.1	9924.9	9418.9	8451.5	8365.5	8269.7	8133.2	8051.2
35°	11475.4	11473.3	11247.1	10887.5	10465.0	10156.9	9259.4	9153.8	9032.1	8849.3	8722.9
37.5°	11700.2	11700.2	11573.8	11328.3	10954.9	10743.7	10156.9	10029.0	9899.0	9691.4	9549.0
40°	11568.7	11571.2	11598.2	11553.0	11371.3	11209.2	10994.3	10918.1	10806.3	10619.8	10471.2
42.5°	11127.9	11141.4	11321.0	11540.6	11631.3	11605.8	11737.0	11702.7	11624.0	11480.5	11362.5
45°	10569.2	10611.1	10807.4	11222.7	11703.8	11948.2	12359.5	12363.1	12348.5	12271.3	12180.2
47.5°	9802.1	9860.8	10120.1	10681.0	11534.4	12281.1	12991.8	13024.9	13055.9	13005.6	12963.7
50°	8783.0	8852.9	9240.8	9985.0	11189.5	12626.1	14186.5	14336.6	14476.4	14459.3	14487.4
52.5°	7691.3	7773.6	8248.6	9077.6	10596.5	12705.8	14950.3	15194.7	15439.1	15639.1	15851.4
55°	6706.4	6662.3	7137.7	8010.4	9621.4	12346.0	15636.9	15931.6	16204.0	16449.5	16702.7
57.5°	5371.8	5444.3	5920.7	6784.0	8330.9	11330.5	16109.3	16540.6	16932.1	17338.6	17697.0
60°	3926.5	3999.0	4515.9	5392.6	6930.1	9790.8	15748.4	16401.8	17029.0	17651.5	18137.8
62.5°	2370.8	2425.1	2880.4	3715.6	5343.8	7965.2	14139.9	14996.9	15920.3	16664.4	17409.7
65°	1475.9	1506.5	1674.8	2134.1	3431.9	5946.6	11553.0	12487.3	13481.7	14426.2	15200.9
67.5°	1208.2	1219.1	1250.1	1348.1	1884.6	3877.7	8598.7	9426.2	10323.7	11237.2	12099.4
70°	1086.5	1079.2	1079.2	1085.4	1208.2	2084.9	5629.7	6168.8	6916.6	7711.0	8499.2
72.5°	980.9	973.6	960.1	941.9	986.0	1271.9	2909.9	3316.4	3855.5	4561.4	5316.5
75°	881.5	871.6	856.0	832.7	863.3	960.1	1397.2	1568.1	1830.7	2206.6	2627.6
77.5°	778.4	766.0	751.4	734.3	773.6	746.7	818.8	880.4	980.9	1101.5	1259.9
80°	661.8	650.9	645.8	637.4	684.0	568.6	578.4	616.3	675.3	740.5	814.1
82.5°	518.3	518.3	537.6	541.6	593.0	409.0	432.4	465.5	496.1	530.3	564.9
85°	341.3	343.8	410.1	436.0	467.7	275.0	324.2	335.1	359.9	379.5	394.1
87.5°	106.7	115.5	250.6	277.6	268.8	155.9	198.9	204.0	221.1	234.6	247.0
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°	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2
2.5°	2339.2	2324.2	2310.7	2309.7	2299.8	2286.3	2291.1	2270.3	2271.4	2260.5	2248.1
5°	2750.4	2740.6	2691.4	2677.9	2641.1	2617.8	2614.2	2565.0	2558.8	2530.8	2499.8
7.5°	3342.3	3310.2	3241.4	3208.2	3145.6	3099.0	3077.1	3011.9	2979.9	2906.3	2873.1
10°	3962.2	3921.8	3836.9	3790.3	3730.2	3655.2	3614.7	3520.4	3483.2	3415.9	3335.0
12.5°	4537.0	4496.6	4409.1	4373.5	4293.7	4213.9	4169.8	4063.1	4015.0	3906.9	3843.1
15°	5068.4	5028.0	4951.9	4915.1	4835.3	4770.1	4711.1	4605.8	4549.4	4448.5	4365.1
17.5°	5584.2	5541.2	5474.9	5441.8	5364.6	5298.3	5234.5	5134.7	5077.2	4976.6	4901.6
20°	6063.2	6031.1	5983.4	5939.0	5861.7	5801.6	5725.5	5639.6	5556.1	5482.2	5411.2
22.5°	6480.6	6468.2	6416.8	6397.2	6330.9	6279.2	6212.9	6128.4	6067.9	5974.7	5908.4
25°	6840.5	6836.8	6812.0	6805.9	6759.2	6710.1	6695.5	6625.6	6570.2	6487.9	6419.4
27.5°	7149.7	7153.3	7147.5	7164.6	7152.3	7130.0	7131.5	7108.2	7076.1	7007.3	6947.2
30°	7493.5	7473.9	7485.2	7509.6	7516.9	7519.4	7559.8	7573.3	7571.1	7525.6	7496.1
32.5°	7979.8	7933.2	7890.2	7886.6	7911.0	7920.8	7989.6	8025.3	8055.9	8066.9	8072.0
35°	8599.7	8506.5	8416.9	8369.2	8327.3	8338.2	8387.4	8445.3	8512.7	8559.3	8614.7
37.5°	9380.7	9266.7	9108.2	8995.3	8966.9	8905.7	8937.4	8982.9	9049.2	9121.7	9217.5
40°	10327.3	10154.3	9976.2	9826.5	9745.7	9632.4	9631.3	9622.5	9663.3	9730.7	9865.9
42.5°	11238.7	11085.0	10895.9	10738.9	10633.3	10482.1	10451.6	10371.8	10390.0	10449.0	10580.5
45°	12091.7	11965.3	11849.9	11668.5	11578.5	11415.3	11363.6	11269.3	11216.5	11243.4	11374.9
47.5°	12918.2	12837.3	12716.8	12599.1	12530.3	12384.2	12317.9	12250.2	12182.8	12180.2	12317.9
50°	14529.2	14486.3	14343.8	14221.1	14254.2	14075.0	14086.0	13904.2	13986.5	13996.4	14284.8
52.5°	16043.0	16193.1	16298.7	16427.3	16511.1	16527.1	16582.1	16664.4	16763.9	16960.2	17227.9
55°	16909.9	17097.9	17207.1	17305.5	17467.6	17501.8	17594.0	17703.2	17790.3	18011.4	18238.7
57.5°	17940.4	18288.9	18458.3	18614.2	18832.8	18916.2	19069.9	19189.0	19301.9	19563.4	19838.4
60°	18574.9	18999.9	19344.9	19591.5	19865.4	20062.1	20294.1	20480.6	20745.8	21059.0	21469.1
62.5°	18070.4	18694.0	19152.2	19575.8	19947.7	20323.6	20656.1	21005.1	21407.6	21881.5	22517.8
65°	16060.5	16695.0	17479.6	17919.2	18411.7	18991.2	19497.1	20062.1	20610.6	21300.9	22241.3
67.5°	12929.5	13667.1	14548.9	14992.2	15558.2	16205.1	16772.6	17462.5	18103.5	18939.5	20102.5
70°	9319.5	10273.4	11015.0	11478.0	12138.7	12805.3	13353.1	14155.9	14686.2	15543.3	16745.6
72.5°	5901.1	6653.6	7562.4	8145.5	8732.3	9408.0	9967.8	10660.3	11154.9	11935.8	13024.9
75°	3172.9	3727.6	4525.7	5079.7	5708.4	6285.4	6941.0	7405.0	7771.1	8388.9	9272.9
77.5°	1486.8	1824.5	2228.4	2654.6	3080.8	3525.1	3957.5	4333.0	4490.4	4844.1	5365.6
80°	902.6	1011.9	1129.5	1261.0	1439.1	1582.6	1773.1	1910.4	1920.3	2032.1	2191.6
82.5°	602.8	643.3	678.9	712.1	757.6	793.3	833.7	881.5	901.1	927.0	978.7
85°	411.2	430.9	438.2	459.3	454.2	466.6	482.6	498.6	507.0	505.9	529.2
87.5°	252.8	262.6	267.7	272.5	268.8	264.1	271.4	280.1	282.3	275.0	277.6
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°	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2
2.5°	2250.6	2239.7	2228.4	2221.1	2218.6	2153.8	2125.4	2107.1	2067.8	2035.7	2009.9
5°	2482.7	2459.4	2441.1	2418.9	2406.5	2241.9	2181.8	2140.3	2071.4	2031.0	1993.9
7.5°	2856.0	2790.8	2752.9	2710.0	2673.2	2375.9	2276.5	2211.3	2115.5	2061.6	2019.7
10°	3279.6	3212.2	3151.8	3085.5	3027.9	2554.1	2409.1	2308.2	2181.8	2111.9	2056.5
12.5°	3752.4	3686.1	3610.0	3525.1	3451.6	2779.9	2578.5	2435.0	2261.6	2168.3	2091.1
15°	4311.2	4194.2	4102.1	4004.1	3918.1	3050.2	2776.3	2577.4	2346.4	2220.1	2117.0
17.5°	4830.2	4707.5	4582.5	4496.6	4397.1	3353.2	2975.1	2722.0	2416.4	2253.2	2121.7
20°	5337.6	5203.6	5095.7	4980.3	4875.7	3667.6	3187.5	2849.8	2461.9	2254.3	2091.1
22.5°	5784.5	5700.7	5580.5	5455.2	5349.6	3981.9	3386.4	2958.0	2479.0	2226.2	2036.8
25°	6292.6	6204.5	6057.0	5951.3	5833.7	4302.4	3581.6	3041.4	2469.2	2173.4	1953.4
27.5°	6835.4	6737.4	6586.2	6475.9	6333.4	4635.0	3760.8	3101.5	2432.4	2087.5	1841.6
30°	7401.4	7311.8	7163.2	7051.7	6907.8	4987.6	3961.1	3141.9	2358.8	1968.4	1711.6
32.5°	8009.3	7934.3	7787.1	7670.6	7516.9	5369.3	4147.6	3154.3	2247.0	1827.0	1574.3
35°	8586.3	8534.9	8410.7	8301.4	8141.9	5730.3	4345.4	3148.1	2114.4	1672.2	1449.0
37.5°	9236.1	9205.1	9143.9	9005.1	8809.9	6220.2	4582.5	3122.3	1952.3	1518.9	1353.2
40°	9928.5	9931.1	9864.8	9770.1	9588.3	6814.6	4864.8	3072.0	1775.3	1383.8	1265.7
42.5°	10661.4	10699.6	10667.5	10600.2	10425.7	7413.8	5202.5	3010.8	1603.8	1252.3	1180.1
45°	11501.3	11547.9	11597.1	11497.7	11328.3	8204.5	5646.8	2931.1	1418.0	1143.0	1121.1
47.5°	12470.2	12543.8	12587.8	12589.3	12419.9	9184.4	6368.8	2883.0	1253.7	1069.4	1092.7
50°	14514.3	14538.0	14642.2	14823.9	14693.9	11452.1	7629.8	2853.5	1141.9	1023.9	1072.0
52.5°	17459.9	17716.7	17897.4	17885.0	17708.0	12892.3	8324.7	2701.2	1075.6	1006.8	1062.1
55°	18659.7	18980.3	19314.3	19402.4	19265.1	14121.7	8981.8	2549.0	1043.6	1019.1	1065.8
57.5°	20258.4	20798.6	21256.8	21449.5	21250.6	15694.4	9846.2	2469.2	1033.7	1052.3	1089.1
60°	22125.9	22793.9	23395.6	23741.6	23741.6	17501.8	10742.6	2436.0	1020.2	1101.5	1128.4
62.5°	23325.7	24306.6	25215.4	25722.4	25707.5	18760.3	11140.3	2323.1	989.6	1135.7	1182.3
65°	23330.4	24497.1	25654.6	26224.7	26253.8	18605.8	10483.6	2051.8	933.2	1140.8	1236.6
67.5°	21385.7	22629.2	23978.8	24616.2	24763.3	17127.4	9075.1	1687.2	841.0	1091.6	1256.3
70°	18061.7	19276.0	20653.6	21280.1	21541.6	14600.3	7309.2	1300.3	723.4	983.5	1215.5
72.5°	14229.5	15420.5	16379.6	16837.4	17041.4	11160.0	5322.7	982.4	593.0	828.6	1106.2
75°	10074.6	10968.4	11478.0	11580.0	11611.7	6727.5	3234.1	730.7	488.8	644.7	934.3
77.5°	5686.2	6069.4	6027.5	6073.0	5694.9	2597.0	1408.5	523.1	402.9	489.9	724.5
80°	2220.1	2288.9	2150.1	2107.1	1932.7	966.3	621.4	364.6	321.6	370.8	507.0
82.5°	978.7	1010.4	980.9	988.6	945.6	498.6	371.9	264.1	245.5	271.4	336.6
85°	539.1	548.9	546.4	562.4	539.1	198.9	176.7	162.1	171.9	184.3	216.0
87.5°	262.6	265.2	256.8	270.3	261.5	100.5	87.1	92.2	100.5	103.1	103.1
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°	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2
2.5°	1991.7	1981.8	1982.9	1980.4	1975.6	1975.6
5°	1974.6	1964.7	1964.7	1962.2	1956.0	1957.1
7.5°	1991.7	1975.6	1969.5	1960.7	1952.3	1952.3
10°	2011.3	1982.9	1965.8	1951.2	1940.0	1940.0
12.5°	2025.9	1981.8	1953.4	1933.8	1922.8	1922.8
15°	2031.0	1973.1	1933.8	1910.4	1900.6	1899.5
17.5°	2015.0	1940.0	1892.2	1865.3	1852.9	1849.3
20°	1965.8	1879.9	1822.3	1791.3	1774.2	1768.0
22.5°	1892.2	1793.9	1726.5	1694.5	1672.2	1668.6
25°	1789.2	1683.5	1617.2	1586.3	1574.3	1570.2
27.5°	1668.6	1570.2	1513.8	1494.1	1483.2	1482.1
30°	1554.6	1470.8	1429.3	1414.4	1400.9	1398.7
32.5°	1447.5	1394.7	1379.0	1357.9	1326.2	1322.6
35°	1371.4	1366.6	1355.7	1308.7	1269.7	1258.5
37.5°	1324.7	1370.3	1313.8	1221.7	1193.6	1191.1
40°	1297.8	1332.4	1235.1	1203.5	1205.6	1203.5
42.5°	1236.6	1271.9	1237.7	1223.1	1232.6	1235.1
45°	1175.0	1214.4	1256.3	1246.4	1269.7	1269.7
47.5°	1140.8	1199.4	1254.8	1254.8	1289.4	1301.4
50°	1101.5	1187.4	1235.1	1252.3	1279.6	1269.7
52.5°	1098.9	1166.3	1207.1	1237.7	1250.1	1238.8
55°	1102.6	1149.2	1178.7	1213.3	1227.9	1229.0
57.5°	1107.7	1139.3	1159.0	1175.0	1219.1	1219.1
60°	1119.7	1131.0	1141.9	1150.6	1208.2	1209.3
62.5°	1139.3	1122.2	1119.7	1128.4	1202.0	1197.3
65°	1170.3	1109.8	1091.6	1100.0	1195.8	1181.2
67.5°	1211.8	1091.6	1055.9	1062.1	1191.1	1159.0
70°	1250.1	1062.1	1011.9	1005.7	1144.4	1088.0
72.5°	1253.7	1027.9	950.3	932.1	994.7	940.5
75°	1192.2	1004.2	882.9	828.6	821.4	814.1
77.5°	1074.5	990.7	804.2	719.4	704.8	709.5
80°	898.9	940.5	709.5	609.0	688.8	680.4
82.5°	671.7	830.1	602.8	539.1	537.6	475.3
85°	373.3	647.3	491.0	403.9	281.2	272.5
87.5°	104.5	359.9	343.8	228.4	155.9	162.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)