

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: P301633

Luminaire Tested: **GLNA-AF-03-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301633
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-03-LED-E1-T2R-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14741.6 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 124
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

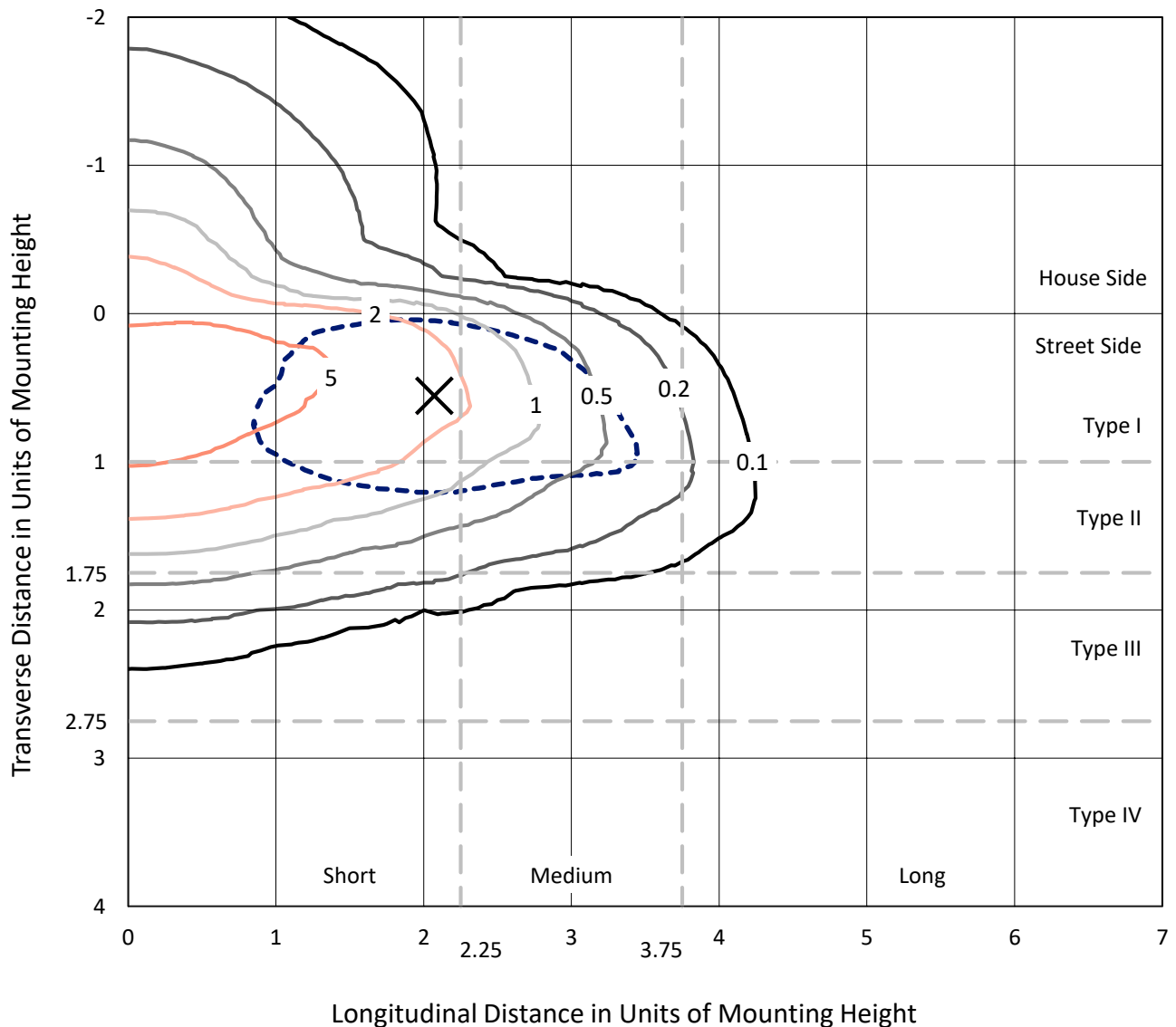


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Iso-Footcandle Lines of Horizontal Illumination

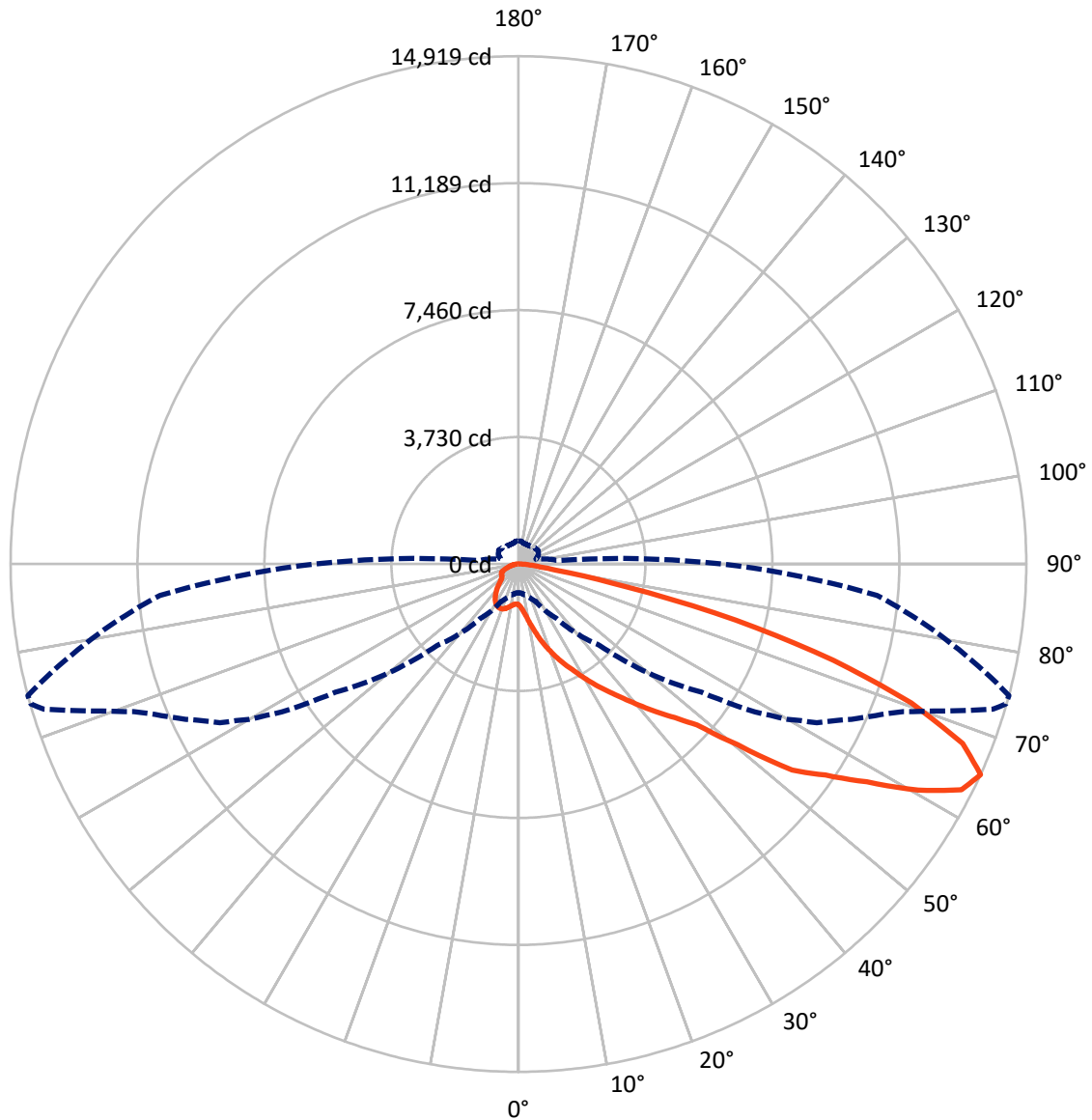
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.3 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	2272.8	0.0	2272.8
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	12468.8	0.0	12468.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	14741.6	0.0	14741.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	1.0
10°-20°	578.6	3.9
20°-30°	1187.1	8.1
30°-40°	1997.2	13.5
40°-50°	2759.5	18.7
50°-60°	3444.7	23.4
60°-70°	3099.9	21.0
70°-80°	1299.4	8.8
80°-90°	227.0	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°	14741.6	100.0
0°-180°	14741.6	100.0

Coefficient of Utilization



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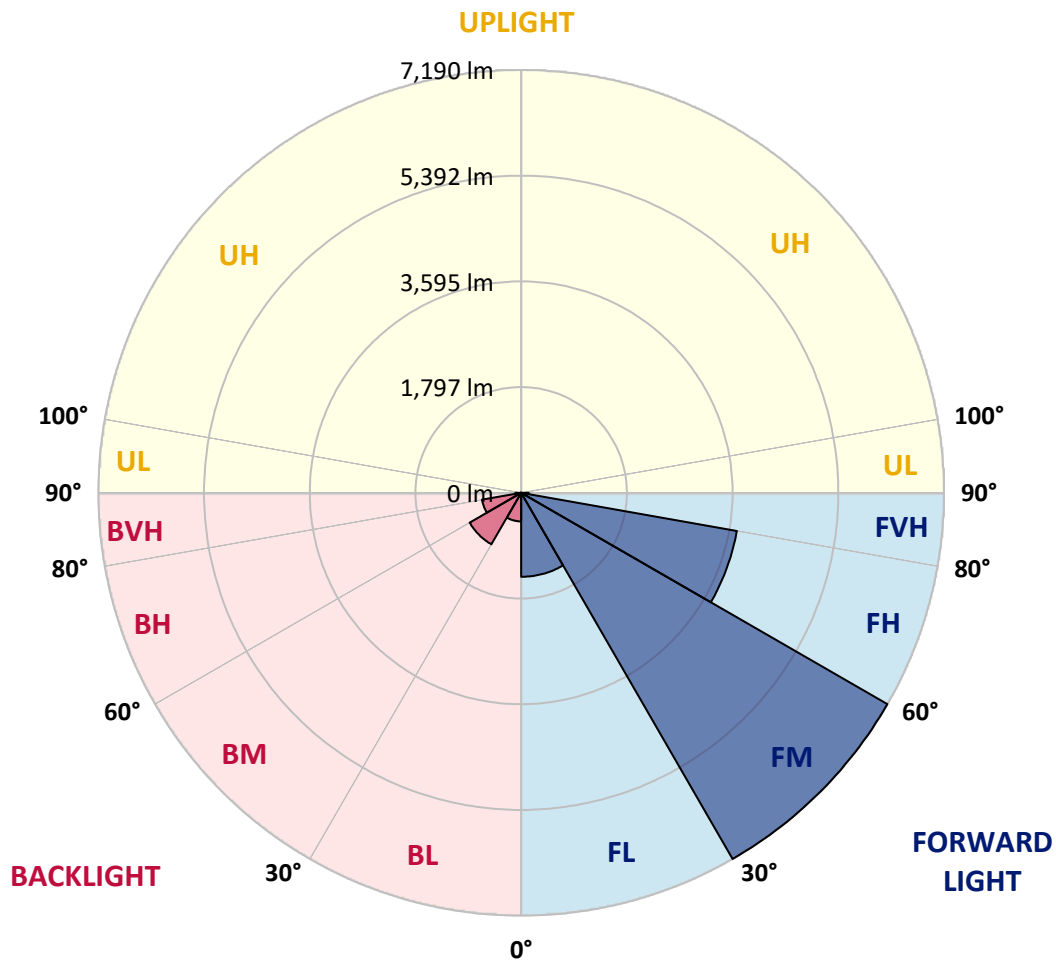
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1427.7	9.7			
FM	(30°-60°)	7189.8	48.8			
FH	(60°-80°)	3723.7	25.3			G2/5000
FVH	(80°-90°)	127.6	0.9			G2/225
BL	(0°-30°)	486.1	3.3	B1/500		
BM	(30°-60°)	1011.6	6.9	B2/2500		
BH	(60°-80°)	675.7	4.6	B2/1000		G2/1000
BVH	(80°-90°)	99.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0
2.5°	1521.1	1504.4	1508.5	1480.6	1446.4	1401.7	1352.2	1351.6	1352.2	1347.3	1329.3
5°	2109.2	2089.1	2081.5	2018.5	1926.4	1795.4	1653.0	1637.7	1631.3	1615.3	1578.3
7.5°	2538.5	2527.3	2515.3	2467.9	2384.3	2237.7	2046.5	2013.8	1982.3	1974.6	1932.8
10°	2815.4	2812.5	2787.5	2774.9	2722.7	2595.6	2409.3	2377.9	2343.7	2331.9	2287.8
12.5°	3034.4	3033.8	3022.0	3025.5	2980.0	2888.1	2727.5	2698.9	2673.8	2637.4	2606.2
15°	3185.9	3186.6	3204.1	3223.6	3216.6	3154.5	3003.8	2991.2	2969.6	2944.6	2907.5
17.5°	3310.1	3313.6	3331.6	3367.3	3405.7	3400.8	3281.6	3271.0	3252.2	3218.0	3198.6
20°	3590.6	3603.8	3569.1	3569.1	3573.2	3592.0	3534.7	3526.4	3499.9	3481.7	3466.4
22.5°	4064.4	4079.7	4000.8	3920.7	3841.9	3784.5	3727.4	3737.8	3719.7	3707.1	3698.0
25°	4679.7	4691.8	4564.0	4428.7	4268.1	4058.8	3917.2	3910.8	3901.1	3893.4	3889.3
27.5°	5258.9	5263.9	5143.2	4944.9	4758.6	4457.9	4109.7	4102.1	4090.3	4075.6	4062.9
30°	5754.4	5753.0	5628.8	5439.6	5240.1	4907.2	4402.2	4378.4	4343.4	4303.7	4273.0
32.5°	6183.5	6181.4	6045.2	5849.2	5640.0	5352.5	4802.7	4753.9	4699.4	4621.8	4575.2
35°	6521.1	6519.9	6391.3	6187.0	5946.9	5771.8	5261.8	5201.8	5132.6	5028.7	4956.9
37.5°	6648.8	6648.8	6577.0	6437.5	6225.3	6105.3	5771.8	5699.2	5625.3	5507.3	5426.3
40°	6574.1	6575.5	6590.9	6565.2	6461.9	6369.8	6247.7	6204.4	6140.9	6034.9	5950.4
42.5°	6323.6	6331.3	6433.3	6558.1	6609.7	6595.2	6669.7	6650.3	6605.5	6524.0	6456.9
45°	6006.1	6029.9	6141.5	6377.4	6650.9	6789.8	7023.5	7025.5	7017.2	6973.4	6921.6
47.5°	5570.2	5603.5	5750.9	6069.7	6554.6	6979.0	7382.8	7401.6	7419.2	7390.6	7366.8
50°	4991.1	5030.8	5251.2	5674.1	6358.6	7175.0	8061.7	8147.0	8226.5	8216.7	8232.7
52.5°	4370.7	4417.5	4687.4	5158.5	6021.6	7220.3	8495.7	8634.6	8773.5	8887.2	9007.8
55°	3811.0	3786.0	4056.1	4552.0	5467.5	7015.8	8885.9	9053.4	9208.2	9347.7	9491.6
57.5°	3052.6	3093.8	3364.6	3855.1	4734.2	6438.7	9154.4	9399.4	9622.0	9853.0	10056.6
60°	2231.3	2272.5	2566.2	3064.4	3938.1	5563.8	8949.3	9320.6	9677.0	10030.8	10307.1
62.5°	1347.3	1378.1	1636.8	2111.5	3036.7	4526.4	8035.2	8522.2	9046.9	9469.8	9893.3
65°	838.7	856.1	951.7	1212.7	1950.2	3379.3	6565.2	7096.1	7661.2	8197.9	8638.2
67.5°	686.6	692.8	710.4	766.1	1070.9	2203.6	4886.3	5356.6	5866.6	6385.7	6875.7
70°	617.4	613.3	613.3	616.8	686.6	1184.8	3199.2	3505.5	3930.5	4381.9	4829.8
72.5°	557.4	553.3	545.6	535.3	560.3	722.8	1653.6	1884.6	2190.9	2592.1	3021.2
75°	500.9	495.3	486.4	473.2	490.6	545.6	794.0	891.1	1040.3	1253.9	1493.2
77.5°	442.3	435.3	427.0	417.3	439.6	424.3	465.3	500.3	557.4	625.9	716.0
80°	376.1	369.9	367.0	362.2	388.7	323.1	328.7	350.2	383.8	420.8	462.6
82.5°	294.5	294.5	305.5	307.8	337.0	232.4	245.7	264.5	281.9	301.4	321.0
85°	193.9	195.4	233.1	247.8	265.8	156.3	184.2	190.4	204.5	215.7	224.0
87.5°	60.6	65.6	142.4	157.7	152.8	88.6	113.0	115.9	125.6	133.3	140.3
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°	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0
2.5°	1329.3	1320.8	1313.1	1312.5	1306.9	1299.3	1301.9	1290.1	1290.8	1284.6	1277.5
5°	1563.0	1557.4	1529.4	1521.8	1500.9	1487.6	1485.5	1457.6	1454.1	1438.1	1420.5
7.5°	1899.3	1881.1	1842.0	1823.1	1787.5	1761.0	1748.6	1711.6	1693.4	1651.5	1632.7
10°	2251.6	2228.6	2180.4	2153.9	2119.7	2077.1	2054.1	2000.5	1979.4	1941.1	1895.2
12.5°	2578.2	2555.2	2505.6	2485.3	2440.0	2394.6	2369.6	2308.9	2281.6	2220.1	2183.9
15°	2880.2	2857.2	2814.0	2793.1	2747.7	2710.7	2677.2	2617.3	2585.3	2527.9	2480.5
17.5°	3173.3	3148.9	3111.2	3092.4	3048.5	3010.8	2974.6	2917.9	2885.2	2828.1	2785.4
20°	3445.5	3427.3	3400.2	3374.9	3331.0	3296.9	3253.6	3204.8	3157.4	3115.3	3075.0
22.5°	3682.7	3675.7	3646.5	3635.3	3597.6	3568.2	3530.6	3482.5	3448.2	3395.2	3357.5
25°	3887.2	3885.1	3871.1	3867.5	3841.0	3813.1	3804.8	3765.1	3733.6	3686.8	3647.9
27.5°	4062.9	4065.0	4061.7	4071.4	4064.4	4051.8	4052.6	4039.3	4021.1	3982.0	3947.8
30°	4258.3	4247.1	4253.6	4267.4	4271.6	4273.0	4296.0	4303.7	4302.4	4276.5	4259.8
32.5°	4534.7	4508.2	4483.7	4481.7	4495.5	4501.1	4540.2	4560.5	4577.9	4584.1	4587.0
35°	4886.9	4834.0	4783.0	4755.9	4732.1	4738.3	4766.3	4799.2	4837.5	4864.0	4895.4
37.5°	5330.7	5265.9	5175.9	5111.7	5095.6	5060.8	5078.8	5104.7	5142.4	5183.6	5238.0
40°	5868.7	5770.4	5669.1	5584.1	5538.1	5473.7	5473.1	5468.2	5491.3	5529.6	5606.4
42.5°	6386.6	6299.2	6191.8	6102.6	6042.5	5956.6	5939.3	5893.9	5904.3	5937.8	6012.5
45°	6871.3	6799.5	6733.9	6630.8	6579.7	6486.9	6457.6	6403.9	6373.9	6389.2	6464.0
47.5°	7341.0	7295.0	7226.5	7159.6	7120.5	7037.5	6999.9	6961.4	6923.1	6921.6	6999.9
50°	8256.5	8232.0	8151.1	8081.4	8100.2	7998.4	8004.6	7901.3	7948.1	7953.6	8117.6
52.5°	9116.7	9202.0	9262.0	9335.1	9382.7	9391.8	9423.0	9469.8	9526.3	9637.9	9790.0
55°	9609.3	9716.1	9778.2	9834.1	9926.2	9945.7	9998.1	10060.1	10109.6	10235.3	10364.4
57.5°	10194.9	10393.0	10489.2	10577.8	10702.0	10749.4	10836.8	10904.4	10968.6	11117.2	11273.5
60°	10555.5	10797.0	10993.0	11133.2	11288.8	11400.6	11532.4	11638.4	11789.1	11967.1	12200.2
62.5°	10268.8	10623.1	10883.5	11124.3	11335.6	11549.2	11738.2	11936.5	12165.2	12434.5	12796.1
65°	9126.6	9487.2	9933.1	10182.9	10462.7	10792.0	11079.6	11400.6	11712.3	12104.5	12639.0
67.5°	7347.4	7766.5	8267.6	8519.5	8841.2	9208.8	9531.3	9923.3	10287.6	10762.7	11423.6
70°	5295.9	5838.0	6259.5	6522.5	6898.0	7276.8	7588.1	8044.3	8345.7	8832.7	9516.0
72.5°	3353.4	3781.0	4297.4	4628.8	4962.3	5346.2	5664.4	6057.9	6338.9	6782.7	7401.6
75°	1803.1	2118.3	2571.8	2886.6	3243.9	3571.8	3944.3	4208.0	4416.0	4767.1	5269.5
77.5°	844.9	1036.8	1266.3	1508.5	1750.7	2003.2	2248.9	2462.3	2551.7	2752.7	3049.1
80°	512.9	575.0	641.9	716.6	817.8	899.4	1007.6	1085.6	1091.2	1154.8	1245.4
82.5°	342.6	365.5	385.8	404.7	430.5	450.8	473.8	500.9	512.1	526.8	556.2
85°	233.7	244.9	249.0	261.0	258.1	265.1	274.3	283.4	288.1	287.5	300.8
87.5°	143.6	149.2	152.1	154.8	152.8	150.1	154.2	159.2	160.4	156.3	157.7
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°	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0
2.5°	1279.0	1272.8	1266.3	1262.2	1260.8	1223.9	1207.8	1197.4	1175.1	1156.8	1142.1
5°	1410.8	1397.6	1387.2	1374.6	1367.6	1274.0	1239.8	1216.3	1177.1	1154.2	1133.0
7.5°	1623.0	1585.9	1564.4	1540.0	1519.1	1350.2	1293.7	1256.6	1202.2	1171.5	1147.7
10°	1863.7	1825.4	1791.1	1753.4	1720.7	1451.4	1369.0	1311.7	1239.8	1200.1	1168.6
12.5°	2132.4	2094.7	2051.4	2003.2	1961.4	1579.7	1465.3	1383.7	1285.2	1232.2	1188.3
15°	2449.9	2383.4	2331.1	2275.4	2226.5	1733.3	1577.6	1464.6	1333.4	1261.6	1203.0
17.5°	2744.8	2675.1	2604.1	2555.2	2498.7	1905.5	1690.7	1546.8	1373.1	1280.4	1205.7
20°	3033.2	2957.0	2895.7	2830.1	2770.7	2084.1	1811.3	1619.5	1399.0	1281.0	1188.3
22.5°	3287.1	3239.5	3171.2	3100.0	3040.0	2262.8	1924.3	1680.9	1408.7	1265.1	1157.5
25°	3575.9	3525.8	3442.0	3381.9	3315.1	2444.9	2035.3	1728.3	1403.2	1235.1	1110.1
27.5°	3884.3	3828.6	3742.7	3680.0	3599.1	2633.9	2137.1	1762.5	1382.3	1186.2	1046.5
30°	4206.0	4155.0	4070.6	4007.3	3925.5	2834.3	2251.0	1785.5	1340.4	1118.6	972.6
32.5°	4551.4	4508.8	4425.2	4358.9	4271.6	3051.2	2357.0	1792.5	1276.9	1038.2	894.6
35°	4879.3	4850.1	4779.5	4717.4	4626.8	3256.3	2469.3	1789.0	1201.6	950.3	823.4
37.5°	5248.5	5231.0	5196.2	5117.3	5006.4	3534.7	2604.1	1774.3	1109.4	863.1	769.0
40°	5642.0	5643.5	5605.8	5552.0	5448.7	3872.5	2764.5	1745.7	1008.9	786.3	719.3
42.5°	6058.5	6080.2	6062.0	6023.7	5924.6	4213.0	2956.4	1710.9	911.4	711.6	670.6
45°	6535.8	6562.3	6590.2	6533.7	6437.5	4662.4	3208.9	1665.6	805.8	649.5	637.1
47.5°	7086.4	7128.2	7153.2	7154.1	7057.8	5219.2	3619.2	1638.3	712.4	607.7	621.0
50°	8248.0	8261.4	8320.6	8423.9	8350.0	6507.9	4335.7	1621.5	648.9	581.8	609.2
52.5°	9921.9	10067.8	10170.5	10163.4	10062.8	7326.3	4730.7	1535.0	611.2	572.1	603.6
55°	10603.7	10785.8	10975.6	11025.7	10947.7	8024.9	5104.1	1448.5	593.0	579.1	605.6
57.5°	11512.2	11819.1	12079.5	12189.0	12076.0	8918.6	5595.2	1403.2	587.4	598.0	618.9
60°	12573.4	12953.0	13294.9	13491.6	13491.6	9945.7	6104.6	1384.3	579.8	625.9	641.2
62.5°	13255.2	13812.6	14329.0	14617.2	14608.7	10660.8	6330.7	1320.2	562.4	645.4	671.9
65°	13257.9	13920.9	14578.7	14902.6	14919.1	10573.1	5957.5	1166.0	530.3	648.3	702.7
67.5°	12152.8	12859.4	13626.3	13988.5	14072.2	9732.9	5157.1	958.8	477.9	620.3	713.9
70°	10263.8	10953.9	11736.7	12092.8	12241.4	8296.8	4153.6	738.9	411.1	558.9	690.7
72.5°	8086.1	8763.0	9308.0	9568.1	9684.1	6341.8	3024.7	558.2	337.0	470.9	628.6
75°	5725.0	6233.0	6522.5	6580.5	6598.5	3823.0	1837.8	415.2	277.8	366.4	530.9
77.5°	3231.3	3449.0	3425.2	3451.1	3236.2	1475.8	800.4	297.2	228.9	278.4	411.7
80°	1261.6	1300.7	1221.8	1197.4	1098.3	549.1	353.1	207.2	182.8	210.7	288.1
82.5°	556.2	574.2	557.4	561.8	537.3	283.4	211.3	150.1	139.5	154.2	191.3
85°	306.3	311.9	310.5	319.6	306.3	113.0	100.4	92.1	97.7	104.7	122.7
87.5°	149.2	150.7	145.9	153.6	148.6	57.1	49.5	52.4	57.1	58.6	58.6
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):

	135°	145°	155°	165°	175°	180°
0°	1198.0	1198.0	1198.0	1198.0	1198.0	1198.0
2.5°	1131.8	1126.2	1126.8	1125.4	1122.7	1122.7
5°	1122.1	1116.5	1116.5	1115.0	1111.5	1112.1
7.5°	1131.8	1122.7	1119.2	1114.2	1109.4	1109.4
10°	1143.0	1126.8	1117.1	1108.8	1102.4	1102.4
12.5°	1151.3	1126.2	1110.1	1098.9	1092.7	1092.7
15°	1154.2	1121.2	1098.9	1085.6	1080.1	1079.4
17.5°	1145.0	1102.4	1075.3	1060.0	1052.9	1050.9
20°	1117.1	1068.3	1035.6	1018.0	1008.2	1004.7
22.5°	1075.3	1019.4	981.1	962.9	950.3	948.2
25°	1016.7	956.7	919.0	901.4	894.6	892.3
27.5°	948.2	892.3	860.2	849.1	842.8	842.2
30°	883.4	835.8	812.2	803.7	796.1	794.8
32.5°	822.6	792.5	783.6	771.6	753.6	751.6
35°	779.3	776.6	770.4	743.7	721.6	715.1
37.5°	752.8	778.7	746.6	694.2	678.3	676.8
40°	737.5	757.2	701.9	683.9	685.1	683.9
42.5°	702.7	722.8	703.3	695.1	700.4	701.9
45°	667.7	690.1	713.9	708.3	721.6	721.6
47.5°	648.3	681.6	713.1	713.1	732.7	739.6
50°	625.9	674.8	701.9	711.6	727.1	721.6
52.5°	624.5	662.8	686.0	703.3	710.4	704.0
55°	626.5	653.0	669.8	689.5	697.8	698.4
57.5°	629.4	647.5	658.6	667.7	692.8	692.8
60°	636.3	642.7	648.9	653.9	686.6	687.2
62.5°	647.5	637.7	636.3	641.2	683.1	680.4
65°	665.0	630.7	620.3	625.1	679.5	671.3
67.5°	688.6	620.3	600.1	603.6	676.8	658.6
70°	710.4	603.6	575.0	571.5	650.4	618.3
72.5°	712.4	584.1	540.0	529.7	565.3	534.4
75°	677.5	570.7	501.7	470.9	466.8	462.6
77.5°	610.6	563.0	457.0	408.8	400.5	403.2
80°	510.8	534.4	403.2	346.1	391.4	386.7
82.5°	381.7	471.7	342.6	306.3	305.5	270.1
85°	212.2	367.8	279.0	229.5	159.8	154.8
87.5°	59.4	204.5	195.4	129.8	88.6	92.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)