

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: P301627

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301627
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-02-LED-E1-T2R-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 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: 9879.2 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

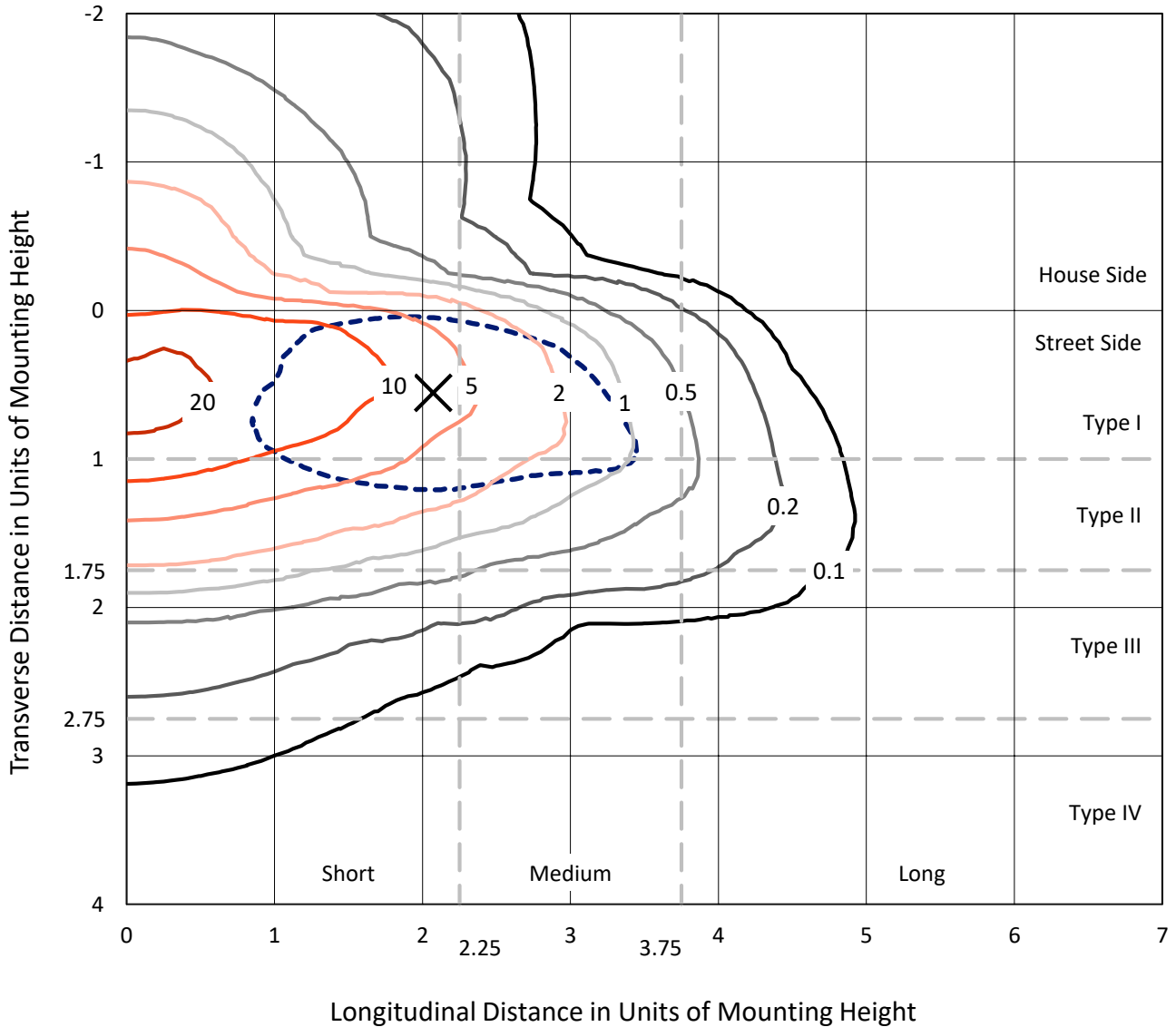
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

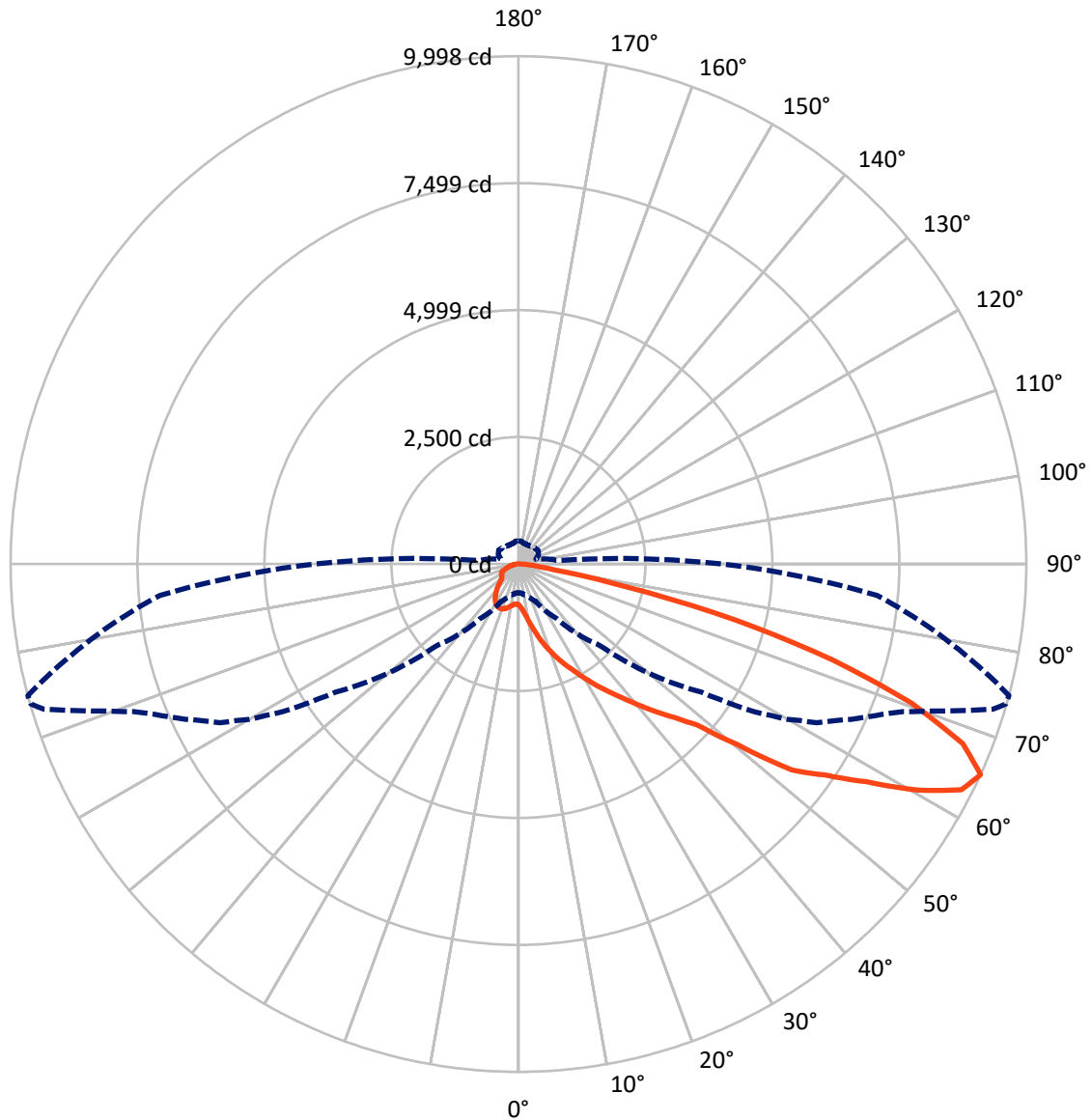
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 24.9 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	1523.1	0.0	1523.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	8356.1	0.0	8356.1
	% Fixture	84.6	0.0	84.6
Total	Lumens	9879.2	0.0	9879.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	1.0
10°-20°	387.7	3.9
20°-30°	795.5	8.1
30°-40°	1338.4	13.5
40°-50°	1849.3	18.7
50°-60°	2308.5	23.4
60°-70°	2077.4	21.0
70°-80°	870.8	8.8
80°-90°	152.1	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°	9879.2	100.0
0°-180°	9879.2	100.0

Coefficient of Utilization



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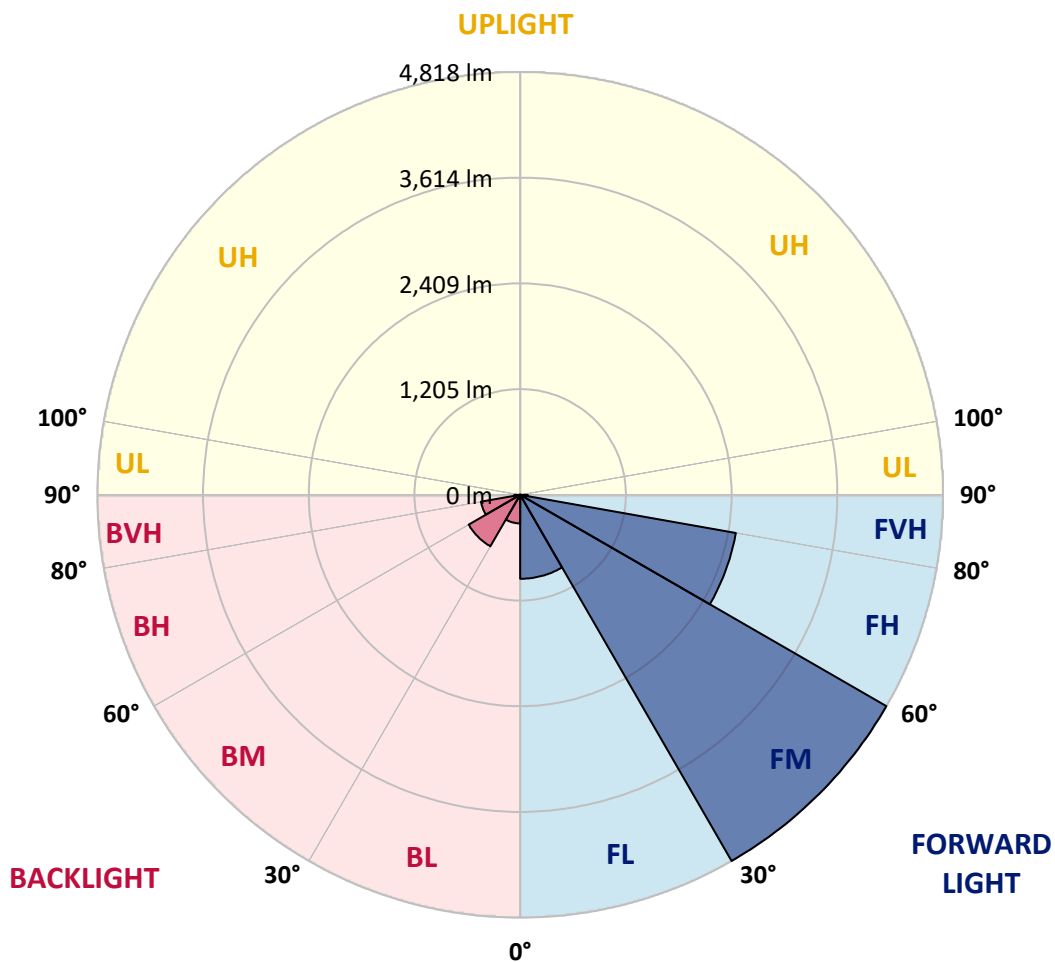
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	956.8	9.7			
FM	(30°-60°)	4818.3	48.8			
FH	(60°-80°)	2495.5	25.3			G2/5000
FVH	(80°-90°)	85.5	0.9			G1/100
BL	(0°-30°)	325.7	3.3	B1/500		
BM	(30°-60°)	678.0	6.9	B1/1000		
BH	(60°-80°)	452.8	4.6	B1/500		G1/500
BVH	(80°-90°)	66.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	1019.4	1008.2	1010.9	992.2	969.3	939.4	906.2	905.8	906.2	902.9	890.8
5°	1413.5	1400.0	1394.9	1352.7	1291.0	1203.2	1107.8	1097.5	1093.2	1082.5	1057.7
7.5°	1701.2	1693.7	1685.7	1653.9	1597.8	1499.6	1371.5	1349.6	1328.5	1323.3	1295.3
10°	1886.8	1884.8	1868.1	1859.6	1824.6	1739.5	1614.6	1593.5	1570.7	1562.8	1533.2
12.5°	2033.6	2033.1	2025.2	2027.6	1997.1	1935.5	1827.8	1808.7	1791.9	1767.5	1746.6
15°	2135.1	2135.5	2147.3	2160.3	2155.6	2114.0	2013.0	2004.6	1990.1	1973.3	1948.5
17.5°	2218.3	2220.7	2232.7	2256.6	2282.4	2279.1	2199.2	2192.1	2179.5	2156.6	2143.6
20°	2406.3	2415.2	2391.8	2391.8	2394.6	2407.2	2368.8	2363.3	2345.5	2333.3	2323.0
22.5°	2723.8	2734.1	2681.2	2627.5	2574.7	2536.3	2498.0	2504.9	2492.8	2484.4	2478.3
25°	3136.2	3144.2	3058.6	2967.9	2860.3	2720.0	2625.2	2620.9	2614.3	2609.2	2606.4
27.5°	3524.3	3527.6	3446.8	3313.9	3189.0	2987.5	2754.2	2749.0	2741.1	2731.3	2722.8
30°	3856.4	3855.4	3772.2	3645.4	3511.7	3288.6	2950.2	2934.2	2910.8	2884.1	2863.6
32.5°	4143.9	4142.6	4051.3	3919.9	3779.7	3587.0	3218.6	3185.9	3149.4	3097.4	3066.1
35°	4370.2	4369.4	4283.2	4146.3	3985.4	3868.0	3526.3	3486.0	3439.7	3370.1	3321.9
37.5°	4455.8	4455.8	4407.6	4314.2	4172.0	4091.5	3868.0	3819.4	3769.8	3690.8	3636.5
40°	4405.7	4406.7	4416.9	4399.7	4330.5	4268.8	4187.0	4158.0	4115.4	4044.4	3987.8
42.5°	4237.9	4243.0	4311.4	4395.0	4429.6	4419.9	4469.8	4456.7	4426.8	4372.1	4327.2
45°	4025.1	4041.0	4115.8	4273.9	4457.2	4550.2	4706.9	4708.2	4702.7	4673.3	4638.6
47.5°	3732.9	3755.3	3854.0	4067.7	4392.7	4677.0	4947.7	4960.3	4972.1	4952.9	4937.0
50°	3344.8	3371.4	3519.2	3802.6	4261.3	4808.4	5402.6	5459.8	5513.1	5506.5	5517.2
52.5°	2929.1	2960.4	3141.3	3457.0	4035.5	4838.8	5693.5	5786.6	5879.7	5955.8	6036.7
55°	2554.0	2537.2	2718.2	3050.6	3664.1	4701.7	5955.0	6067.2	6171.0	6264.5	6360.9
57.5°	2045.8	2073.4	2254.8	2583.6	3172.7	4315.0	6134.9	6299.2	6448.3	6603.1	6739.6
60°	1495.3	1522.9	1719.8	2053.7	2639.2	3728.6	5997.4	6246.3	6485.2	6722.2	6907.4
62.5°	902.9	923.6	1097.0	1415.0	2035.1	3033.4	5384.9	5711.3	6062.9	6346.3	6630.1
65°	562.1	573.7	637.8	812.7	1307.0	2264.6	4399.7	4755.5	5134.2	5493.9	5789.0
67.5°	460.1	464.3	476.1	513.4	717.7	1476.8	3274.6	3589.8	3931.6	4279.5	4607.8
70°	413.8	411.0	411.0	413.4	460.1	794.0	2144.0	2349.3	2634.0	2936.6	3236.8
72.5°	373.6	370.8	365.7	358.7	375.5	484.4	1108.2	1263.0	1468.3	1737.1	2024.7
75°	335.7	331.9	326.0	317.1	328.8	365.7	532.1	597.2	697.2	840.3	1000.7
77.5°	296.4	291.7	286.2	279.6	294.6	284.4	311.8	335.3	373.6	419.5	479.8
80°	252.0	247.9	245.9	242.7	260.5	216.5	220.3	234.7	257.2	282.0	310.0
82.5°	197.4	197.4	204.7	206.3	225.8	155.8	164.7	177.3	188.9	202.0	215.1
85°	130.0	130.9	156.2	166.0	178.1	104.7	123.5	127.6	137.0	144.5	150.1
87.5°	40.6	44.0	95.4	105.7	102.4	59.4	75.7	77.7	84.2	89.3	94.0
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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	890.8	885.1	880.0	879.6	875.8	870.7	872.5	864.6	865.0	860.9	856.1
5°	1047.4	1043.7	1025.0	1019.8	1005.8	996.9	995.6	976.8	974.5	963.8	952.0
7.5°	1272.8	1260.6	1234.4	1221.8	1197.9	1180.2	1171.9	1147.0	1134.8	1106.8	1094.2
10°	1508.9	1493.5	1461.2	1443.5	1420.6	1392.0	1376.6	1340.7	1326.5	1300.9	1270.1
12.5°	1727.8	1712.4	1679.1	1665.5	1635.2	1604.8	1588.0	1547.4	1529.0	1487.8	1463.6
15°	1930.2	1914.8	1885.8	1871.8	1841.4	1816.6	1794.1	1754.0	1732.5	1694.1	1662.4
17.5°	2126.6	2110.3	2085.0	2072.4	2043.0	2017.7	1993.5	1955.5	1933.5	1895.3	1866.7
20°	2309.0	2296.8	2278.7	2261.7	2232.3	2209.4	2180.4	2147.7	2115.9	2087.8	2060.7
22.5°	2468.0	2463.3	2443.7	2436.2	2411.0	2391.3	2366.0	2333.9	2310.8	2275.3	2250.1
25°	2605.1	2603.7	2594.2	2591.9	2574.1	2555.4	2549.8	2523.2	2502.1	2470.8	2444.7
27.5°	2722.8	2724.2	2722.0	2728.5	2723.8	2715.3	2715.9	2707.0	2694.8	2668.6	2645.7
30°	2853.8	2846.3	2850.6	2859.9	2862.6	2863.6	2879.0	2884.1	2883.3	2866.0	2854.7
32.5°	3039.0	3021.2	3004.8	3003.4	3012.7	3016.5	3042.7	3056.3	3067.9	3072.1	3074.0
35°	3275.0	3239.5	3205.4	3187.2	3171.3	3175.4	3194.2	3216.2	3241.9	3259.6	3280.7
37.5°	3572.4	3529.0	3468.7	3425.7	3414.9	3391.6	3403.6	3421.0	3446.2	3473.8	3510.3
40°	3933.0	3867.1	3799.2	3742.2	3711.4	3668.3	3667.9	3664.6	3680.1	3705.8	3757.2
42.5°	4280.0	4221.5	4149.5	4089.7	4049.5	3991.9	3980.3	3949.9	3956.8	3979.3	4029.4
45°	4604.9	4556.8	4512.8	4443.7	4409.4	4347.3	4327.6	4291.7	4271.6	4281.8	4331.9
47.5°	4919.6	4888.8	4842.9	4798.1	4771.9	4716.3	4691.0	4665.2	4639.6	4638.6	4691.0
50°	5533.2	5516.8	5462.6	5415.8	5428.4	5360.2	5364.4	5295.1	5326.5	5330.2	5440.1
52.5°	6109.7	6166.8	6207.0	6256.0	6287.9	6294.0	6315.0	6346.3	6384.2	6459.0	6560.9
55°	6439.8	6511.4	6553.0	6590.5	6652.2	6665.2	6700.3	6741.9	6775.1	6859.3	6945.8
57.5°	6832.2	6965.0	7029.5	7088.9	7172.1	7203.8	7262.4	7307.7	7350.7	7450.3	7555.1
60°	7073.9	7235.8	7367.1	7461.0	7565.3	7640.2	7728.6	7799.6	7900.6	8019.9	8176.1
62.5°	6881.8	7119.2	7293.7	7455.1	7596.7	7739.8	7866.5	7999.4	8152.7	8333.1	8575.5
65°	6116.3	6358.0	6656.8	6824.2	7011.7	7232.4	7425.1	7640.2	7849.1	8112.0	8470.2
67.5°	4923.9	5204.8	5540.7	5709.5	5925.0	6171.4	6387.5	6650.2	6894.4	7212.7	7655.6
70°	3549.1	3912.4	4194.9	4371.2	4622.8	4876.6	5085.3	5391.0	5593.0	5919.4	6377.2
72.5°	2247.3	2533.9	2880.0	3102.1	3325.5	3582.9	3796.1	4059.7	4248.1	4545.5	4960.3
75°	1208.3	1419.6	1723.5	1934.5	2173.9	2393.7	2643.3	2820.1	2959.5	3194.7	3531.4
77.5°	566.2	694.8	848.7	1010.9	1173.2	1342.5	1507.1	1650.1	1710.1	1844.8	2043.4
80°	343.7	385.3	430.2	480.2	548.1	602.7	675.3	727.6	731.3	773.9	834.6
82.5°	229.6	245.0	258.6	271.2	288.5	302.1	317.5	335.7	343.2	353.0	372.7
85°	156.6	164.1	166.9	174.9	173.0	177.7	183.8	189.9	193.1	192.7	201.6
87.5°	96.3	100.0	102.0	103.8	102.4	100.6	103.3	106.7	107.5	104.7	105.7
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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	857.1	853.0	848.7	845.9	844.9	820.2	809.4	802.5	787.5	775.3	765.4
5°	945.5	936.6	929.7	921.2	916.5	853.8	830.9	815.1	788.9	773.5	759.3
7.5°	1087.7	1062.8	1048.4	1032.0	1018.0	904.8	867.0	842.1	805.7	785.1	769.2
10°	1249.0	1223.3	1200.3	1175.0	1153.1	972.7	917.5	879.0	830.9	804.3	783.2
12.5°	1429.0	1403.8	1374.8	1342.5	1314.5	1058.7	982.0	927.3	861.3	825.8	796.4
15°	1641.8	1597.3	1562.2	1524.9	1492.1	1161.6	1057.3	981.5	893.6	845.5	806.2
17.5°	1839.5	1792.7	1745.2	1712.4	1674.6	1277.0	1133.0	1036.6	920.2	858.1	808.0
20°	2032.7	1981.7	1940.6	1896.6	1856.8	1396.7	1213.9	1085.3	937.6	858.5	796.4
22.5°	2202.9	2171.0	2125.2	2077.5	2037.3	1516.4	1289.6	1126.5	944.1	847.8	775.7
25°	2396.4	2362.9	2306.7	2266.5	2221.6	1638.5	1364.0	1158.3	940.3	827.7	743.9
27.5°	2603.1	2565.8	2508.2	2466.2	2412.0	1765.1	1432.2	1181.2	926.3	795.0	701.3
30°	2818.7	2784.5	2728.0	2685.5	2630.7	1899.4	1508.5	1196.5	898.3	749.6	651.8
32.5°	3050.2	3021.6	2965.6	2921.2	2862.6	2044.8	1579.5	1201.3	855.7	695.8	599.5
35°	3269.9	3250.4	3203.1	3161.4	3100.7	2182.3	1654.9	1198.9	805.2	636.8	551.8
37.5°	3517.4	3505.6	3482.3	3429.4	3355.1	2368.8	1745.2	1189.1	743.5	578.4	515.3
40°	3781.1	3782.0	3756.8	3720.7	3651.5	2595.2	1852.7	1169.9	676.1	527.0	482.0
42.5°	4060.2	4074.7	4062.5	4036.9	3970.4	2823.4	1981.3	1146.6	610.8	476.9	449.4
45°	4380.0	4397.8	4416.5	4378.7	4314.2	3124.5	2150.5	1116.2	540.0	435.3	427.0
47.5°	4749.0	4777.0	4793.8	4794.4	4729.9	3497.7	2425.4	1097.9	477.5	407.3	416.1
50°	5527.5	5536.5	5576.2	5645.4	5595.9	4361.3	2905.6	1086.7	434.9	389.9	408.2
52.5°	6649.3	6747.1	6815.9	6811.1	6743.7	4909.8	3170.3	1028.7	409.6	383.4	404.5
55°	7106.2	7228.3	7355.5	7389.0	7336.7	5378.0	3420.6	970.7	397.4	388.1	405.9
57.5°	7715.0	7920.7	8095.2	8168.6	8092.9	5976.9	3749.7	940.3	393.7	400.7	414.8
60°	8426.2	8680.6	8909.8	9041.5	9041.5	6665.2	4091.1	927.7	388.5	419.5	429.7
62.5°	8883.1	9256.7	9602.8	9795.9	9790.2	7144.5	4242.6	884.7	376.9	432.5	450.3
65°	8884.9	9329.2	9770.1	9987.1	9998.2	7085.7	3992.5	781.4	355.4	434.5	470.9
67.5°	8144.3	8617.9	9131.8	9374.6	9430.6	6522.6	3456.1	642.5	320.3	415.7	478.4
70°	6878.4	7340.9	7865.5	8104.1	8203.7	5560.2	2783.6	495.2	275.5	374.5	462.9
72.5°	5419.0	5872.6	6237.8	6412.2	6489.9	4250.1	2027.0	374.1	225.8	315.6	421.3
75°	3836.7	4177.1	4371.2	4410.0	4422.1	2562.1	1231.6	278.3	186.2	245.5	355.8
77.5°	2165.5	2311.4	2295.4	2312.8	2168.8	989.0	536.4	199.2	153.4	186.6	275.9
80°	845.5	871.7	818.8	802.5	736.0	368.0	236.6	138.9	122.5	141.2	193.1
82.5°	372.7	384.8	373.6	376.5	360.1	189.9	141.6	100.6	93.5	103.3	128.2
85°	205.3	209.0	208.1	214.2	205.3	75.7	67.3	61.7	65.5	70.2	82.3
87.5°	100.0	101.0	97.8	102.9	99.6	38.3	33.2	35.1	38.3	39.3	39.3
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):

	135°	145°	155°	165°	175°	180°
0°	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	758.5	754.7	755.2	754.2	752.4	752.4
5°	752.0	748.2	748.2	747.3	744.9	745.3
7.5°	758.5	752.4	750.0	746.7	743.5	743.5
10°	766.0	755.2	748.6	743.1	738.8	738.8
12.5°	771.5	754.7	743.9	736.4	732.3	732.3
15°	773.5	751.4	736.4	727.6	723.8	723.4
17.5°	767.4	738.8	720.6	710.4	705.6	704.3
20°	748.6	715.9	694.0	682.2	675.7	673.3
22.5°	720.6	683.2	657.5	645.3	636.8	635.4
25°	681.4	641.1	615.9	604.1	599.5	598.0
27.5°	635.4	598.0	576.5	569.0	564.8	564.4
30°	592.0	560.1	544.3	538.6	533.5	532.7
32.5°	551.3	531.1	525.2	517.1	505.1	503.7
35°	522.3	520.5	516.3	498.4	483.6	479.3
37.5°	504.5	521.8	500.3	465.2	454.6	453.6
40°	494.2	507.4	470.4	458.3	459.1	458.3
42.5°	470.9	484.4	471.4	465.8	469.4	470.4
45°	447.5	462.5	478.4	474.7	483.6	483.6
47.5°	434.5	456.8	477.9	477.9	491.0	495.6
50°	419.5	452.2	470.4	476.9	487.3	483.6
52.5°	418.5	444.2	459.7	471.4	476.1	471.8
55°	419.9	437.6	448.9	462.1	467.6	468.0
57.5°	421.8	433.9	441.4	447.5	464.3	464.3
60°	426.4	430.7	434.9	438.2	460.1	460.5
62.5°	433.9	427.4	426.4	429.7	457.8	456.0
65°	445.7	422.7	415.7	418.9	455.4	449.9
67.5°	461.5	415.7	402.1	404.5	453.6	441.4
70°	476.1	404.5	385.3	383.0	435.8	414.3
72.5°	477.5	391.5	361.9	355.0	378.8	358.2
75°	454.0	382.4	336.2	315.6	312.8	310.0
77.5°	409.2	377.3	306.3	274.0	268.4	270.2
80°	342.3	358.2	270.2	231.9	262.3	259.1
82.5°	255.8	316.1	229.6	205.3	204.7	181.0
85°	142.2	246.5	187.0	153.8	107.1	103.8
87.5°	39.8	137.0	130.9	87.0	59.4	61.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)