

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: P453451

Luminaire Tested: **GALN-SA4C-727-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-20)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4C-727-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20049 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

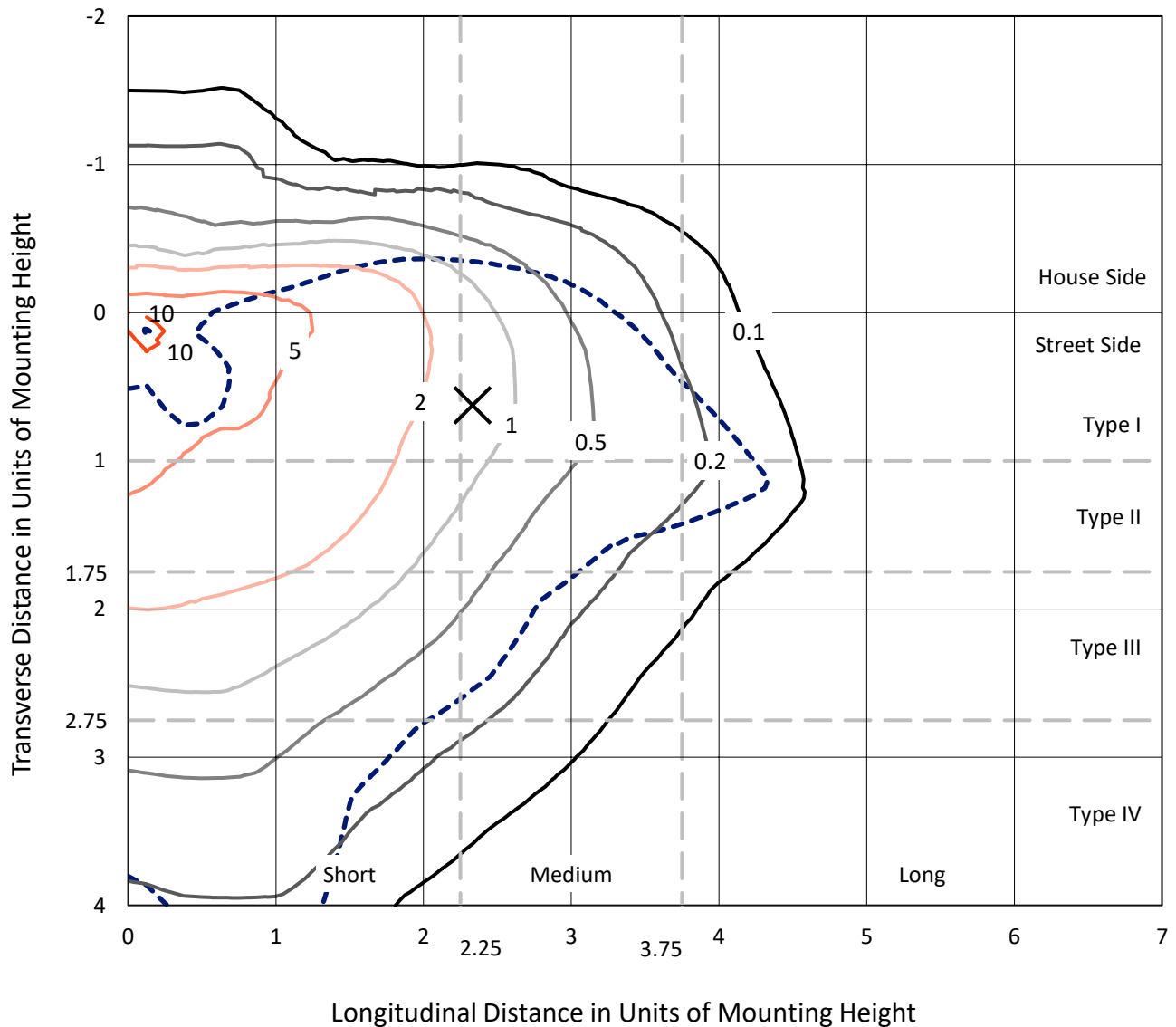
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

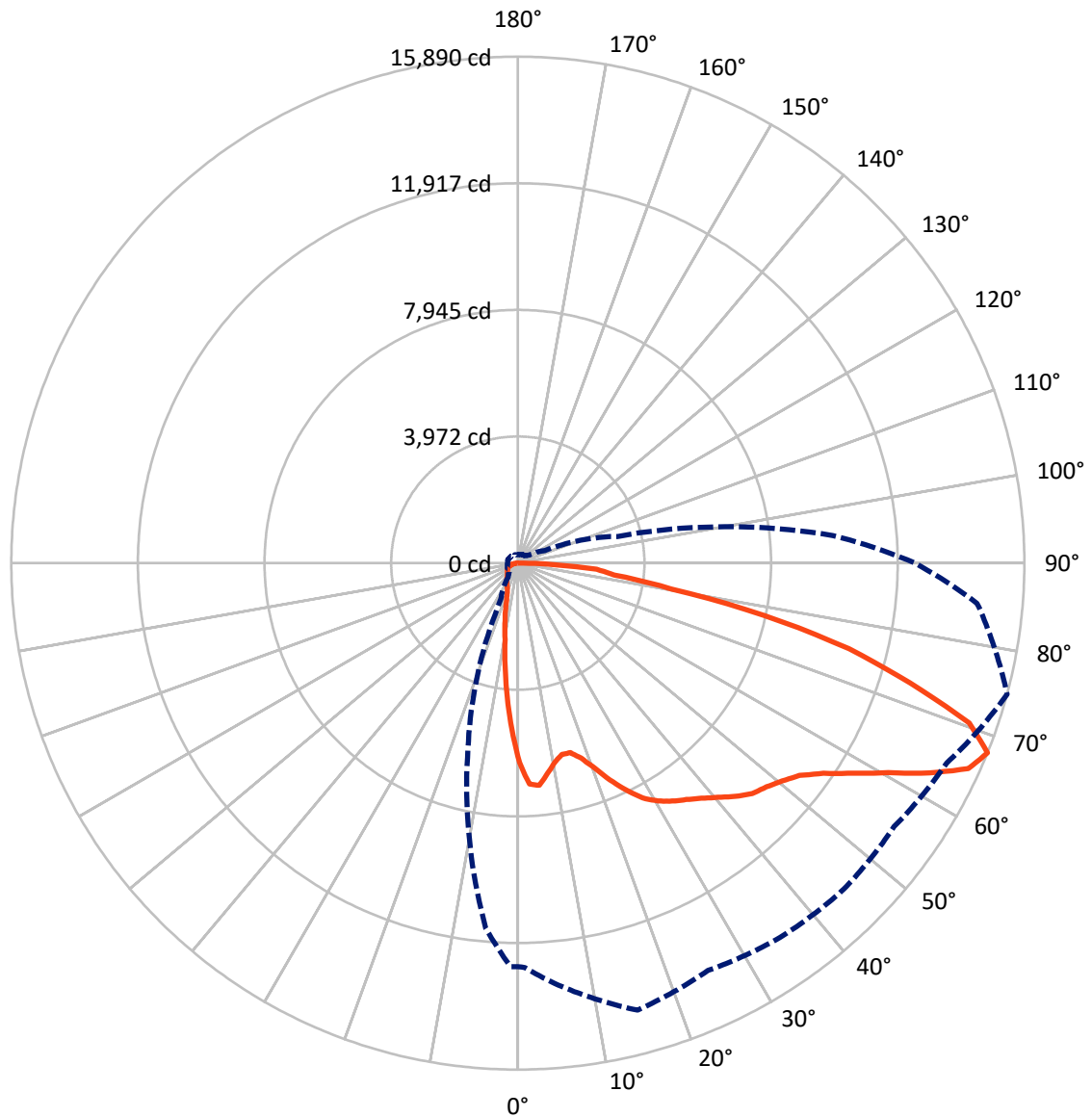
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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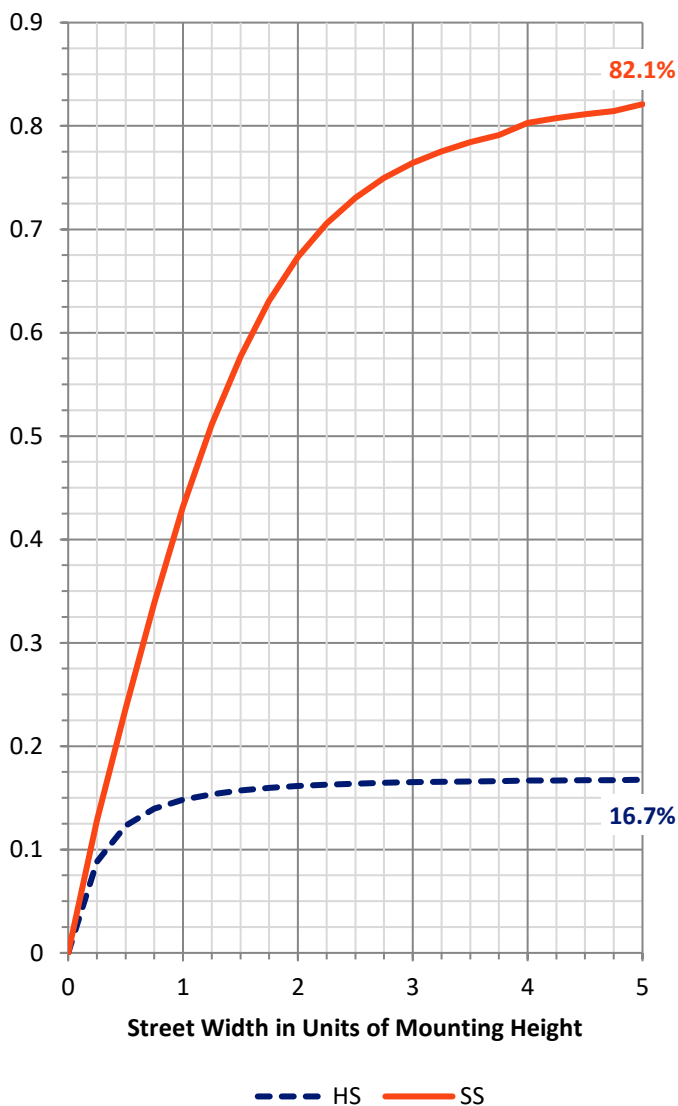
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3388.7	0.0	3388.7
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	16660.3	0.0	16660.3
	% Fixture	83.1	0.0	83.1
Total	Lumens	20049.0	0.0	20049.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.1	2.4
10°-20°	990.8	4.9
20°-30°	1425.8	7.1
30°-40°	2053.5	10.2
40°-50°	2884.7	14.4
50°-60°	4023.1	20.1
60°-70°	4783.2	23.9
70°-80°	2817.0	14.1
80°-90°	595.7	3.0
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°	20049.0	100.0
0°-180°	20049.0	100.0

Coefficient of Utilization



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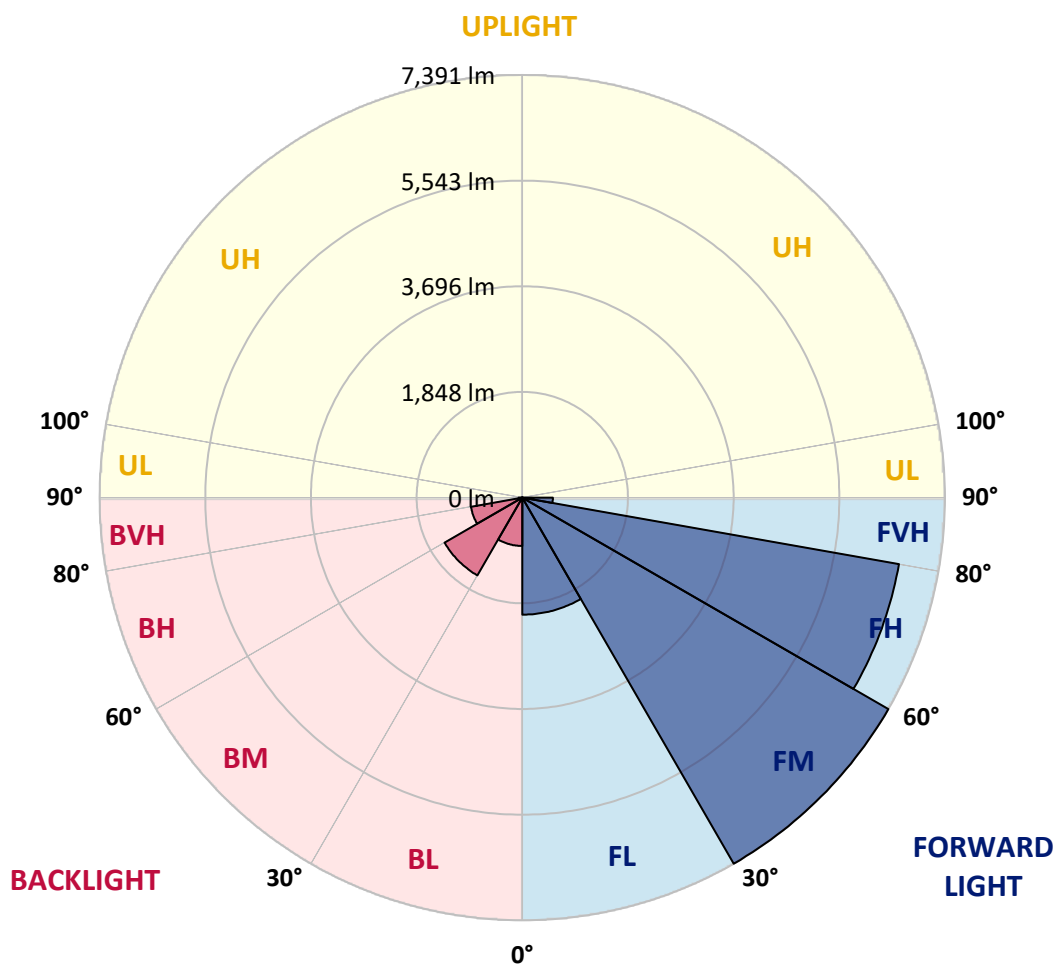
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2046.5	10.2			
FM	(30°-60°)	7391.3	36.9			
FH	(60°-80°)	6688.4	33.4			G3/7500
FVH	(80°-90°)	534.1	2.7			G4/750
BL	(0°-30°)	845.3	4.2	B2/1000		
BM	(30°-60°)	1570.0	7.8	B2/2500		
BH	(60°-80°)	911.8	4.5	B2/1000		G2/1000
BVH	(80°-90°)	61.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8
2.5°	6753.6	6762.6	6820.5	6988.9	7104.6	7147.0	7176.6	7121.3	7067.3	6936.2	6738.2
5°	6733.1	6785.8	6936.2	7314.2	7612.4	7741.0	7779.6	7613.7	7339.9	7003.0	6598.1
7.5°	6339.6	6410.3	6641.8	7275.6	7801.4	8102.3	8062.4	7762.9	7269.2	6668.8	6103.1
10°	5872.9	5951.4	6230.4	6996.6	7674.2	8088.1	8088.1	7723.0	7067.3	6353.8	5701.9
12.5°	5502.7	5584.9	5903.8	6709.9	7409.3	7801.4	7867.0	7553.3	6922.0	6154.5	5438.4
15°	5380.5	5460.2	5803.5	6536.3	7129.0	7368.2	7390.0	7287.2	6851.3	6168.6	5426.8
17.5°	5532.2	5635.1	5982.2	6587.8	6871.9	6886.0	6902.8	6983.8	6859.0	6427.1	5660.8
20°	5970.6	6081.2	6443.8	6753.6	6646.9	6500.3	6509.3	6717.6	6950.3	6853.9	6220.1
22.5°	6603.2	6699.6	7071.2	7045.5	6551.8	6249.6	6186.6	6477.2	7085.3	7386.2	6815.3
25°	7285.9	7399.0	7825.9	7478.7	6578.8	6100.5	6060.6	6335.8	7225.5	7883.7	7503.2
27.5°	8067.6	8178.1	8515.0	7915.9	6720.2	6088.9	6041.4	6322.9	7351.5	8344.0	8160.1
30°	8648.7	8750.3	8979.1	8283.6	6893.8	6166.1	6106.9	6424.5	7459.5	8659.0	8800.4
32.5°	9105.1	9210.5	9335.2	8512.4	7122.6	6306.2	6196.9	6609.6	7600.9	8899.4	9274.8
35°	9580.8	9705.5	9696.5	8715.6	7336.0	6468.2	6361.5	6877.0	7823.3	9109.0	9876.5
37.5°	10183.8	10233.9	10169.6	8898.1	7591.9	6760.1	6700.9	7274.3	8139.6	9362.2	10579.8
40°	10795.8	10896.0	10565.6	9119.3	7903.0	7309.0	7302.6	7861.9	8515.0	9659.2	11261.2
42.5°	11320.3	11405.2	10935.9	9312.1	8279.7	7978.9	8027.7	8650.0	9007.4	10003.8	11808.9
45°	11715.0	11790.9	11277.9	9498.5	8776.0	8752.8	9040.8	9494.7	9628.4	10313.6	12130.3
47.5°	12050.6	12123.9	11515.7	9781.4	9389.2	9677.2	10178.6	10375.4	10159.4	10491.1	12490.3
50°	12333.4	12355.3	11679.0	10118.2	10150.4	10809.9	11295.9	11423.2	10683.9	10745.6	12802.7
52.5°	12627.8	12599.6	11960.6	10542.5	10973.2	11884.7	12238.3	12370.7	11186.6	11059.3	13257.8
55°	13287.4	13314.4	12591.8	11077.3	11805.0	12940.3	13405.7	13278.4	11743.3	11636.6	13836.4
57.5°	14084.5	14061.4	13480.2	11914.3	12652.3	13922.5	14269.6	14065.2	12486.4	12429.9	14422.6
60°	14394.4	14425.2	14223.4	12814.3	13488.0	14782.6	15137.5	14819.9	13377.4	13351.7	14864.9
62.5°	14083.2	14256.8	14393.1	13615.2	14200.2	15415.2	15767.5	15404.9	14306.9	14493.4	15174.8
65°	13463.5	13500.8	13964.9	14294.1	14543.5	15519.3	15703.2	15510.3	15083.5	15533.5	15160.6
67.5°	12658.7	12690.8	13234.7	14516.5	14101.2	14336.5	14465.1	14408.5	14843.1	15889.6	14462.5
70°	11892.4	11866.7	12441.4	13949.5	12275.6	11918.2	12024.9	11847.4	12807.8	15019.2	13093.3
72.5°	10401.1	10493.6	11110.8	12373.3	9719.7	9138.5	9371.2	8912.3	9850.8	12863.1	10627.3
75°	8147.3	8169.1	9199.0	10384.4	7332.2	6415.5	6730.5	6538.9	7545.6	10730.2	7338.6
77.5°	5641.5	5592.7	6699.6	7931.3	5228.8	4696.6	4701.7	4610.4	5268.7	7900.4	4985.8
80°	3583.2	3508.6	4193.9	4899.7	3593.4	3844.2	3718.2	3714.3	3430.2	4874.0	3014.9
82.5°	1936.2	2018.5	2649.8	3071.5	2577.8	2971.2	2723.0	2643.3	2354.1	3050.9	1928.5
85°	882.0	959.1	1413.0	2089.2	1958.1	1979.9	1323.0	1560.8	1947.8	2477.5	1029.8
87.5°	86.1	110.6	291.8	986.1	668.5	527.1	196.7	379.3	489.8	880.7	82.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8
2.5°	6657.2	6590.3	6362.8	6175.1	5975.8	5824.1	5626.1	5493.7	5402.4	5264.8	5248.1
5°	6351.2	6187.9	5791.9	5388.2	5039.8	4777.5	4511.4	4267.1	4123.1	4078.1	4020.3
7.5°	5835.7	5560.5	5051.4	4588.6	4188.7	3797.9	3497.0	3283.6	3140.9	3057.3	2957.0
10°	5411.4	5092.5	4472.8	3905.9	3576.7	3333.7	3068.9	2840.0	2663.9	2513.5	2431.2
12.5°	5126.0	4766.0	4069.1	3608.9	3354.3	3095.9	2786.0	2528.9	2269.2	2098.2	2024.9
15°	5039.8	4659.3	3944.4	3461.0	3095.9	2757.8	2410.6	2075.1	1817.9	1655.9	1601.9
17.5°	5250.7	4790.4	3943.1	3264.3	2792.5	2388.8	1943.9	1628.9	1365.4	1244.5	1206.0
20°	5644.1	5042.4	3954.7	3070.2	2463.3	1895.1	1414.2	1155.8	1029.8	978.4	959.1
22.5°	6193.1	5426.8	3989.4	2878.6	2103.4	1455.4	1059.4	928.3	883.3	874.3	870.4
25°	6869.3	5902.5	4106.4	2706.3	1799.9	1110.8	885.8	826.7	801.0	792.0	790.7
27.5°	7491.6	6517.1	4247.9	2558.5	1506.8	957.8	801.0	750.8	725.1	723.8	726.4
30°	8053.4	7031.3	4366.1	2392.6	1284.4	851.1	745.7	695.5	671.1	669.8	677.5
32.5°	8539.4	7454.3	4453.6	2229.4	1161.0	785.5	695.5	641.5	621.0	617.1	621.0
35°	9058.8	7876.0	4413.7	2102.1	1090.2	731.5	658.3	605.6	581.1	569.6	569.6
37.5°	9651.5	8310.6	4345.6	1996.6	1058.1	686.5	626.1	574.7	550.3	538.7	537.4
40°	10298.2	8745.1	4251.7	1902.8	1026.0	659.5	604.3	550.3	520.7	509.1	506.6
42.5°	10869.1	9116.7	4174.6	1841.1	973.3	664.7	585.0	532.3	495.0	479.6	478.3
45°	11365.3	9490.8	4160.4	1805.1	929.5	657.0	579.8	518.1	474.4	457.7	455.1
47.5°	11753.6	9880.4	4241.4	1784.5	882.0	615.8	613.3	509.1	456.4	438.4	435.8
50°	12226.7	10433.2	4426.6	1742.1	838.3	577.3	648.0	507.8	442.3	419.1	412.7
52.5°	12856.7	11153.2	4677.3	1666.2	775.3	541.3	618.4	507.8	425.6	402.4	394.7
55°	13809.4	12071.2	4922.8	1559.5	686.5	493.7	558.0	492.4	401.1	380.6	375.4
57.5°	14440.6	12742.3	5079.7	1411.7	576.0	459.0	480.8	468.0	376.7	354.8	354.8
60°	14472.8	12922.3	5005.1	1225.2	506.6	426.8	417.8	471.8	354.8	331.7	329.1
62.5°	14102.5	12481.3	4616.8	1058.1	469.3	392.1	378.0	414.0	333.0	309.8	306.0
65°	13524.0	11356.3	3943.1	978.4	448.7	361.3	340.7	339.4	309.8	288.0	282.8
67.5°	12460.7	9924.1	3239.9	932.1	438.4	326.6	307.3	300.8	282.8	264.8	262.3
70°	10893.5	8311.9	2598.3	912.8	433.3	290.6	275.1	267.4	252.0	237.8	236.6
72.5°	8475.1	6742.1	2144.5	900.0	430.7	257.1	240.4	230.1	221.1	208.3	208.3
75°	6087.6	4960.1	1636.7	811.3	398.6	221.1	203.1	196.7	183.9	173.6	176.1
77.5°	3837.7	3340.2	1077.4	596.6	308.6	177.4	162.0	158.1	147.9	133.7	142.7
80°	2591.9	2348.9	628.7	375.4	194.1	129.9	124.7	123.4	111.9	96.4	97.7
82.5°	1763.9	1730.5	326.6	213.4	111.9	75.9	73.3	75.9	63.0	51.4	51.4
85°	689.1	941.1	154.3	83.6	36.0	11.6	16.7	18.0	10.3	5.1	6.4
87.5°	12.9	96.4	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8
2.5°	5222.4	5210.8	5230.1	5147.8	5164.5	5195.4	5210.8	5219.8	5347.1	5317.5	5398.5
5°	4074.3	4062.7	4137.3	4147.6	4186.1	4178.4	4215.7	4224.7	4271.0	4287.7	4400.8
7.5°	2963.5	3013.6	3098.5	3142.2	3207.7	3228.3	3209.0	3256.6	3160.2	3229.6	3250.2
10°	2381.1	2320.6	2284.6	2384.9	2397.8	2492.9	2454.3	2423.5	2480.1	2482.6	2536.6
12.5°	1982.5	1852.6	1766.5	1794.8	1825.7	1866.8	1873.2	1934.9	1976.1	2014.6	2046.8
15°	1554.4	1509.4	1431.0	1392.4	1436.1	1452.8	1492.7	1544.1	1587.8	1599.4	1643.1
17.5°	1193.1	1200.8	1188.0	1164.8	1191.8	1204.7	1207.2	1208.5	1220.1	1212.4	1276.7
20°	960.4	987.4	1019.5	1024.7	1033.7	1040.1	1028.5	984.8	986.1	1013.1	1033.7
22.5°	869.1	874.3	910.3	921.8	950.1	938.5	905.1	884.5	882.0	888.4	898.7
25°	797.1	804.8	830.5	848.5	870.4	849.8	825.4	806.1	803.5	810.0	820.3
27.5°	732.8	744.4	767.5	785.5	806.1	786.8	763.7	747.0	745.7	744.4	750.8
30°	681.4	694.3	711.0	731.5	745.7	729.0	707.1	698.1	696.8	694.3	696.8
32.5°	630.0	650.5	667.3	677.5	691.7	678.8	662.1	657.0	648.0	640.3	636.4
35°	572.1	594.0	619.7	632.5	646.7	633.8	622.3	600.4	585.0	583.7	586.3
37.5°	538.7	547.7	568.3	590.1	604.3	597.8	576.0	554.1	550.3	550.3	552.8
40°	509.1	513.0	522.0	550.3	576.0	556.7	529.7	523.3	523.3	522.0	523.3
42.5°	479.6	483.4	483.4	505.3	546.4	515.6	495.0	495.0	495.0	496.3	500.1
45°	452.6	453.8	452.6	468.0	506.6	480.8	466.7	470.6	473.1	475.7	478.3
47.5°	429.4	430.7	429.4	442.3	461.6	451.3	443.6	448.7	453.8	457.7	460.3
50°	408.8	407.6	410.1	417.8	426.8	429.4	424.3	432.0	434.6	439.7	446.1
52.5°	390.8	389.6	392.1	396.0	408.8	408.8	408.8	415.3	420.4	425.6	434.6
55°	370.3	371.6	375.4	380.6	397.3	394.7	396.0	401.1	406.3	414.0	419.1
57.5°	351.0	353.6	358.7	366.4	383.1	381.8	383.1	385.7	392.1	396.0	401.1
60°	329.1	334.3	340.7	345.8	362.6	361.3	367.7	372.8	376.7	376.7	379.3
62.5°	307.3	315.0	321.4	325.3	343.3	344.6	353.6	357.4	360.0	357.4	361.3
65°	285.4	297.0	299.6	304.7	322.7	324.0	334.3	343.3	340.7	338.1	344.6
67.5°	263.6	277.7	276.4	282.8	300.8	303.4	312.4	327.8	322.7	320.1	325.3
70°	239.1	249.4	250.7	254.6	279.0	275.1	289.3	303.4	299.6	300.8	300.8
72.5°	212.1	221.1	221.1	228.8	254.6	248.1	259.7	275.1	275.1	273.8	273.8
75°	180.0	185.1	190.3	201.9	228.8	221.1	228.8	243.0	245.6	243.0	243.0
77.5°	145.3	153.0	155.6	171.0	190.3	189.0	196.7	203.1	208.3	205.7	205.7
80°	102.9	110.6	120.9	137.6	149.1	153.0	156.9	162.0	164.6	164.6	167.1
82.5°	57.9	69.4	78.4	95.1	100.3	119.6	118.3	122.1	118.3	104.1	115.7
85°	12.9	24.4	34.7	43.7	50.1	69.4	73.3	82.3	68.1	63.0	63.0
87.5°	0.0	0.0	0.0	0.0	0.0	10.3	20.6	28.3	24.4	20.6	20.6
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8	6263.8
2.5°	5466.7	5578.5	5713.5	5946.2	6109.5	6285.6	6463.1	6652.1	6702.2	6753.6
5°	4431.7	4651.6	4771.1	5083.5	5411.4	5827.9	6168.6	6541.5	6697.1	6733.1
7.5°	3356.9	3506.0	3819.7	4136.0	4542.3	4979.4	5501.4	6082.5	6263.8	6339.6
10°	2661.3	2864.5	3139.6	3479.0	3835.2	4305.7	4894.5	5573.4	5830.5	5872.9
12.5°	2265.3	2491.6	2791.2	3149.9	3486.7	3841.6	4435.6	5136.2	5411.4	5502.7
15°	1811.5	2085.4	2431.2	2809.2	3175.6	3563.9	4165.6	4956.3	5273.8	5380.5
17.5°	1423.2	1644.4	2018.5	2428.6	2863.2	3354.3	4109.0	5042.4	5433.2	5532.2
20°	1089.0	1247.1	1562.1	1995.4	2504.5	3147.3	4123.1	5367.7	5835.7	5970.6
22.5°	941.1	1022.1	1213.7	1626.4	2195.9	2967.3	4181.0	5813.8	6378.2	6603.2
25°	852.4	894.8	1002.8	1272.8	1901.5	2792.5	4313.4	6414.2	7136.8	7285.9
27.5°	776.5	807.4	874.3	1068.4	1634.1	2630.5	4467.7	7080.2	7845.2	8067.6
30°	704.5	745.7	808.7	948.8	1463.1	2482.6	4661.8	7620.2	8441.7	8648.7
32.5°	649.3	690.4	748.3	865.3	1317.8	2327.1	4777.5	8094.6	8929.0	9105.1
35°	604.3	639.0	699.4	798.4	1207.2	2208.8	4754.4	8471.3	9400.8	9580.8
37.5°	572.1	601.7	662.1	735.4	1123.7	2085.4	4742.8	8968.8	9975.5	10183.8
40°	542.6	573.4	628.7	694.3	1040.1	1940.1	4749.3	9462.5	10587.5	10795.8
42.5°	519.4	554.1	599.1	682.7	954.0	1823.1	4749.3	9891.9	11119.8	11320.3
45°	500.1	537.4	581.1	681.4	885.8	1734.4	4717.1	10260.9	11544.0	11715.0
47.5°	483.4	524.6	587.6	658.3	869.1	1670.1	4688.8	10556.6	11889.9	12050.6
50°	471.8	520.7	624.8	631.3	874.3	1650.8	4825.1	10929.5	12194.6	12333.4
52.5°	462.8	522.0	623.5	591.4	865.3	1663.7	5109.3	11511.9	12617.6	12627.8
55°	444.8	520.7	591.4	546.4	828.0	1685.5	5474.4	12357.9	13279.7	13287.4
57.5°	426.8	506.6	549.0	507.8	752.1	1685.5	5914.1	13158.8	14078.1	14084.5
60°	408.8	527.1	482.1	474.4	653.1	1654.7	6378.2	13511.1	14328.8	14394.4
62.5°	390.8	531.0	430.7	444.8	581.1	1580.1	6724.1	13121.5	13989.4	14083.2
65°	370.3	428.1	397.3	414.0	543.8	1455.4	6614.8	12408.0	13351.7	13463.5
67.5°	345.8	362.6	361.3	381.8	531.0	1271.5	6038.8	11505.5	12665.1	12658.7
70°	316.3	325.3	329.1	351.0	506.6	1128.8	5032.1	10334.2	11748.4	11892.4
72.5°	285.4	293.1	297.0	316.3	482.1	1047.8	3905.9	8720.7	10176.1	10401.1
75°	252.0	257.1	262.3	279.0	456.4	928.3	2782.2	6657.2	7793.7	8147.3
77.5°	217.3	217.3	223.7	240.4	384.4	766.3	1866.8	4669.6	5280.2	5641.5
80°	176.1	177.4	174.9	192.9	282.8	524.6	1060.7	3119.0	3513.7	3583.2
82.5°	135.0	131.1	132.4	141.4	210.8	357.4	565.7	1937.5	1974.8	1936.2
85°	84.9	84.9	82.3	92.6	135.0	186.4	308.6	1186.7	927.0	882.0
87.5°	34.7	28.3	32.1	37.3	64.3	75.9	120.9	244.3	93.9	86.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)