

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: P454756

Luminaire Tested: **GALN-SA5D-827-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454756
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-SA5D-827-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA 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: 24548 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

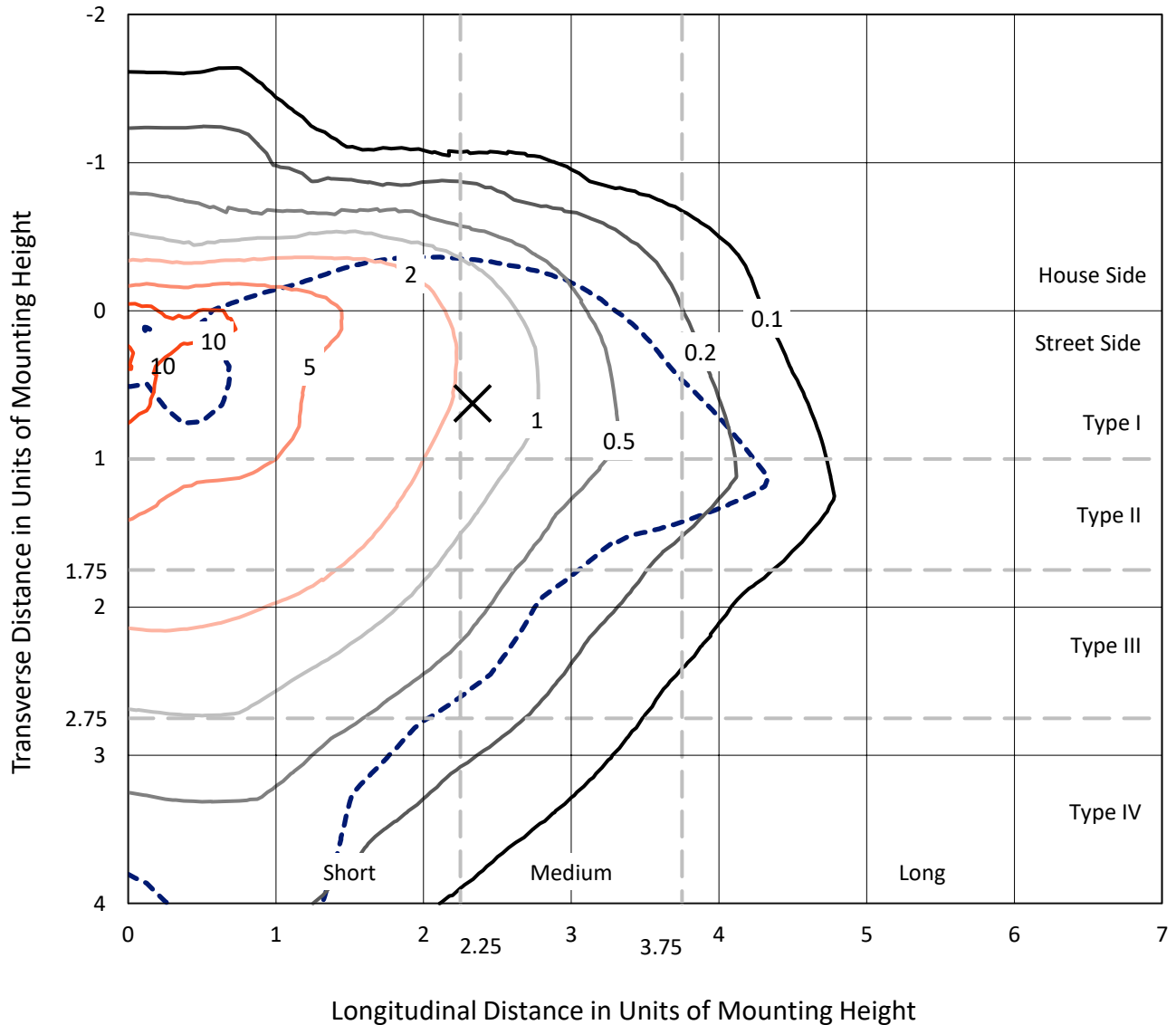
Input Watts (W): 309
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

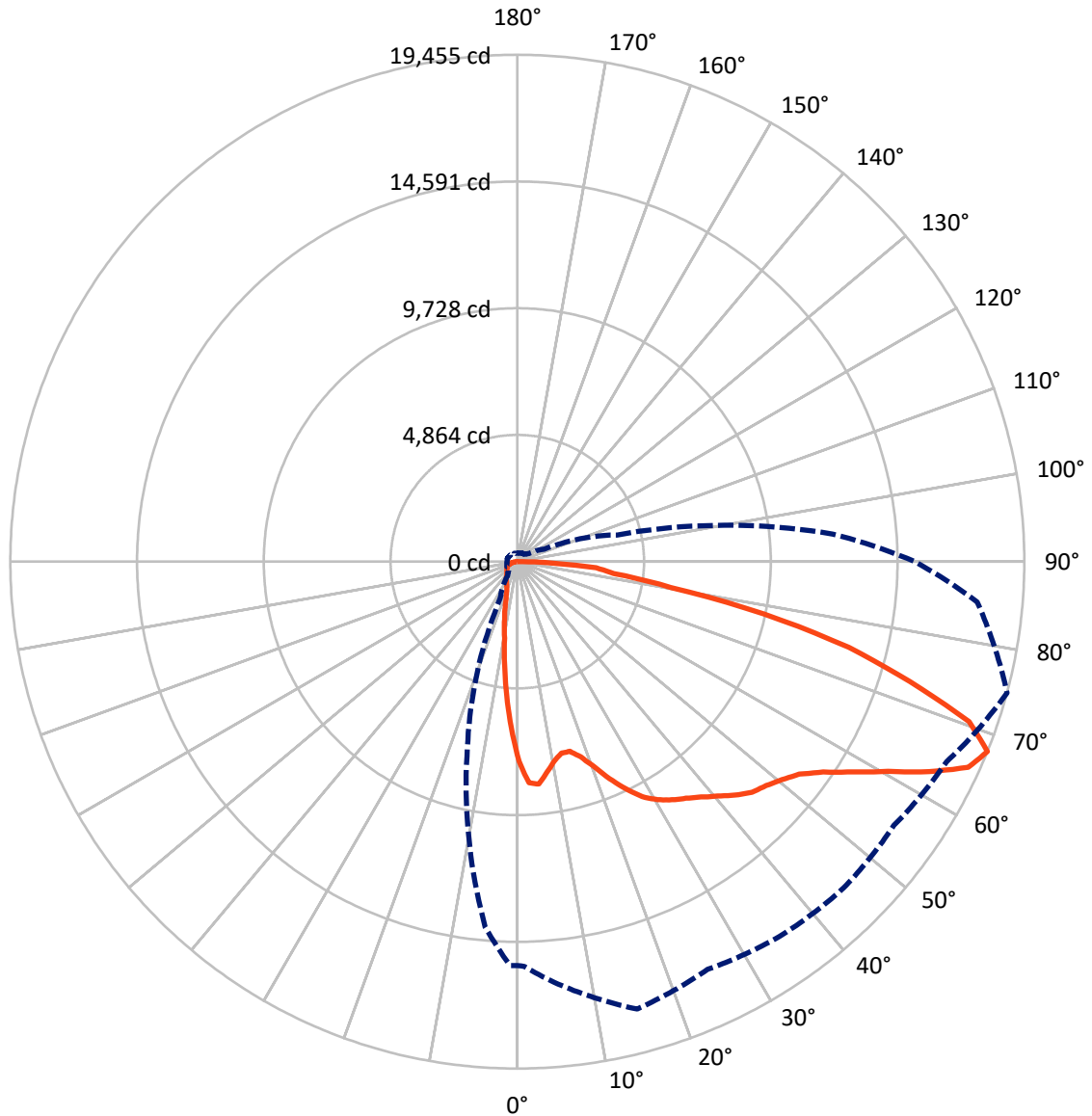
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.1 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	4149.1	0.0	4149.1
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	20398.9	0.0	20398.9
	% Fixture	83.1	0.0	83.1
Total	Lumens	24548.0	0.0	24548.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	581.7	2.4
10°-20°	1213.2	4.9
20°-30°	1745.7	7.1
30°-40°	2514.4	10.2
40°-50°	3532.0	14.4
50°-60°	4925.9	20.1
60°-70°	5856.6	23.9
70°-80°	3449.2	14.1
80°-90°	729.4	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°	24548.0	100.0
0°-180°	24548.0	100.0

Coefficient of Utilization



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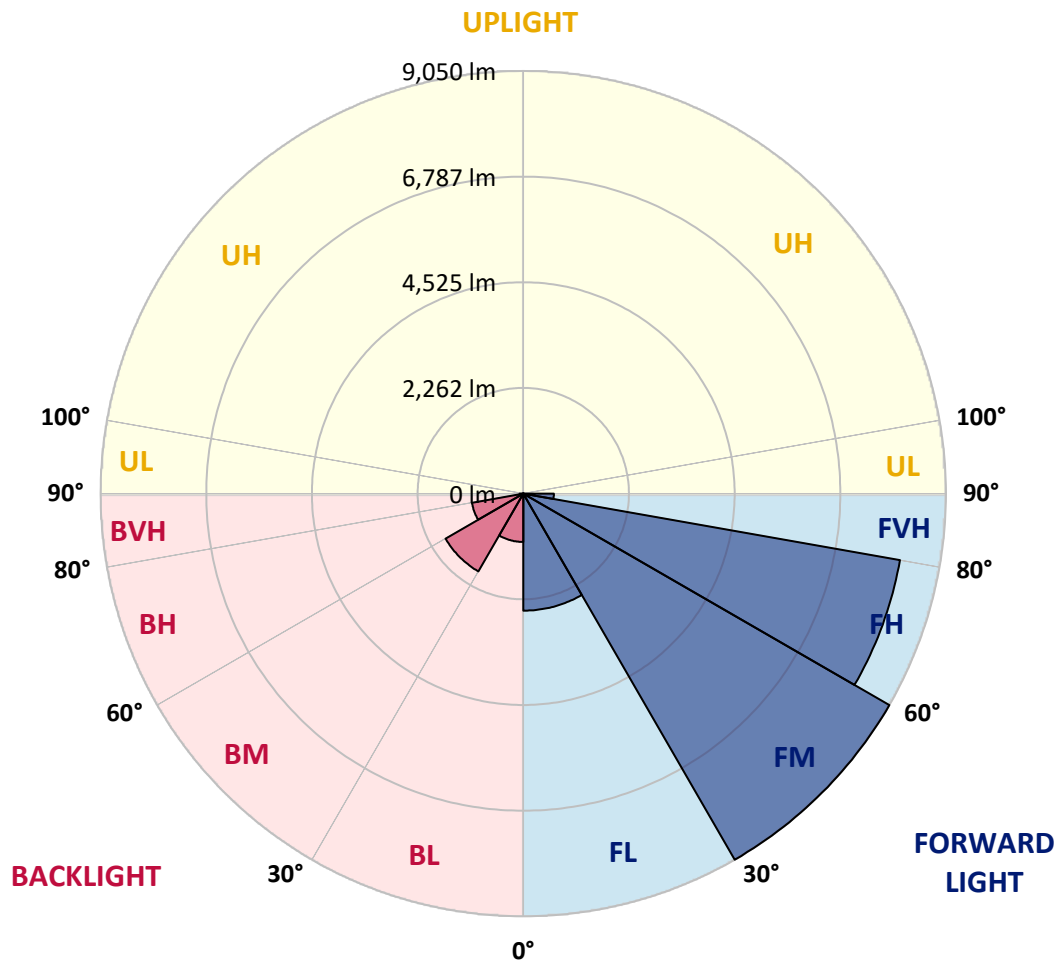
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2505.7	10.2			
FM	(30°-60°)	9049.9	36.9			
FH	(60°-80°)	8189.3	33.4			G4/12000
FVH	(80°-90°)	653.9	2.7			G4/750
BL	(0°-30°)	1034.9	4.2	B3/2500		
BM	(30°-60°)	1922.3	7.8	B2/2500		
BH	(60°-80°)	1116.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	75.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4
2.5°	8269.1	8280.2	8351.0	8557.2	8698.9	8750.8	8787.0	8719.4	8653.2	8492.7	8250.2
5°	8243.9	8308.5	8492.7	8955.5	9320.7	9478.1	9525.3	9322.3	8987.0	8574.5	8078.7
7.5°	7762.3	7848.8	8132.2	8908.3	9552.1	9920.4	9871.6	9504.9	8900.4	8165.2	7472.6
10°	7190.8	7286.9	7628.4	8566.7	9396.2	9903.1	9903.1	9456.1	8653.2	7779.6	6981.5
12.5°	6737.5	6838.2	7228.6	8215.6	9072.0	9552.1	9632.4	9248.3	8475.4	7535.6	6658.8
15°	6587.9	6685.5	7105.8	8003.1	8728.8	9021.6	9048.4	8922.4	8388.8	7552.9	6644.6
17.5°	6773.7	6899.6	7324.6	8066.1	8414.0	8431.3	8451.7	8550.9	8398.2	7869.3	6931.1
20°	7310.5	7445.8	7889.8	8269.1	8138.5	7959.0	7970.0	8225.1	8510.0	8391.9	7615.9
22.5°	8085.0	8203.0	8658.0	8626.5	8022.0	7652.1	7574.9	7930.7	8675.3	9043.6	8344.7
25°	8920.8	9059.4	9582.0	9157.0	8055.0	7469.5	7420.7	7757.5	8846.9	9652.8	9186.9
27.5°	9877.9	10013.3	10425.8	9692.2	8228.2	7455.3	7397.0	7741.8	9001.1	10216.4	9991.3
30°	10589.5	10713.8	10994.0	10142.4	8440.7	7549.7	7477.3	7866.1	9133.4	10602.1	10775.2
32.5°	11148.3	11277.4	11430.1	10422.6	8720.9	7721.3	7587.5	8092.8	9306.5	10896.4	11356.1
35°	11730.7	11883.4	11872.4	10671.3	8982.2	7919.7	7789.0	8420.3	9578.8	11153.0	12092.8
37.5°	12469.0	12530.4	12451.7	10894.9	9295.5	8277.0	8204.6	8906.7	9966.1	11463.1	12953.9
40°	13218.3	13341.1	12936.6	11165.6	9676.4	8949.2	8941.3	9626.1	10425.8	11826.8	13788.2
42.5°	13860.6	13964.5	13389.9	11401.7	10137.7	9769.3	9829.1	10591.0	11028.7	12248.6	14458.8
45°	14343.9	14436.8	13808.7	11630.0	10745.3	10717.0	11069.6	11625.3	11789.0	12628.0	14852.3
47.5°	14754.7	14844.5	14099.9	11976.3	11496.2	11848.8	12462.7	12703.6	12439.1	12845.3	15293.1
50°	15101.1	15127.8	14299.8	12388.8	12428.1	13235.7	13830.7	13986.5	13081.4	13156.9	15675.6
52.5°	15461.5	15426.9	14644.5	12908.2	13435.6	14551.7	14984.6	15146.7	13696.9	13541.0	16232.9
55°	16269.1	16302.1	15417.5	13563.1	14454.1	15844.1	16413.9	16258.1	14378.5	14247.8	16941.3
57.5°	17245.1	17216.7	16505.2	14587.9	15491.4	17046.7	17471.8	17221.5	15288.4	15219.1	17659.1
60°	17624.5	17662.2	17415.1	15689.8	16514.7	18099.9	18534.3	18145.5	16379.3	16347.8	18200.6
62.5°	17243.5	17456.0	17622.9	16670.5	17386.8	18874.3	19305.7	18861.8	17517.4	17745.7	18580.0
65°	16484.8	16530.4	17098.7	17501.7	17807.1	19001.9	19227.0	18990.8	18468.2	19019.2	18562.7
67.5°	15499.3	15538.7	16204.5	17774.0	17265.5	17553.6	17711.0	17641.8	18173.8	19455.2	17707.9
70°	14561.1	14529.6	15233.3	17079.8	15030.2	14592.6	14723.3	14506.0	15681.9	18389.5	16031.4
72.5°	12735.1	12848.4	13604.0	15149.9	11900.8	11189.2	11474.2	10912.2	12061.3	15749.6	13012.1
75°	9975.5	10002.3	11263.2	12714.6	8977.5	7855.1	8240.8	8006.2	9238.8	13138.1	8985.4
77.5°	6907.5	6847.7	8203.0	9711.1	6402.2	5750.5	5756.8	5645.0	6451.0	9673.3	6104.6
80°	4387.2	4295.9	5135.0	5999.2	4399.8	4706.8	4552.5	4547.8	4199.9	5967.7	3691.4
82.5°	2370.7	2471.5	3244.4	3760.7	3156.2	3637.9	3334.1	3236.5	2882.3	3735.5	2361.3
85°	1079.9	1174.3	1730.0	2558.0	2397.5	2424.2	1619.8	1911.0	2384.9	3033.4	1260.9
87.5°	105.5	135.4	357.3	1207.4	818.6	645.4	240.8	464.4	599.8	1078.3	100.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4
2.5°	8151.1	8069.2	7790.6	7560.8	7316.8	7131.0	6888.6	6726.4	6614.7	6446.2	6425.8
5°	7776.4	7576.5	7091.7	6597.4	6170.8	5849.6	5523.8	5224.7	5048.4	4993.3	4922.4
7.5°	7145.2	6808.3	6184.9	5618.2	5128.7	4650.1	4281.8	4020.4	3845.7	3743.4	3620.6
10°	6625.7	6235.3	5476.6	4782.3	4379.4	4081.8	3757.6	3477.4	3261.7	3077.5	2976.8
12.5°	6276.2	5835.5	4982.3	4418.7	4107.0	3790.6	3411.2	3096.4	2778.4	2569.1	2479.3
15°	6170.8	5704.8	4829.6	4237.7	3790.6	3376.6	2951.6	2540.7	2225.9	2027.5	1961.4
17.5°	6428.9	5865.4	4828.0	3996.8	3419.1	2924.8	2380.2	1994.5	1671.8	1523.8	1476.6
20°	6910.6	6173.9	4842.2	3759.1	3016.1	2320.3	1731.6	1415.2	1260.9	1197.9	1174.3
22.5°	7582.8	6644.6	4884.7	3524.6	2575.3	1782.0	1297.1	1136.6	1081.5	1070.4	1065.7
25°	8410.8	7227.0	5027.9	3313.6	2203.8	1360.1	1084.6	1012.2	980.7	969.7	968.1
27.5°	9172.7	7979.5	5201.1	3132.6	1844.9	1172.8	980.7	919.3	887.8	886.3	889.4
30°	9860.6	8609.2	5345.9	2929.5	1572.6	1042.1	913.0	851.6	821.7	820.1	829.6
32.5°	10455.7	9127.1	5452.9	2729.6	1421.5	961.8	851.6	785.5	760.3	755.6	760.3
35°	11091.6	9643.4	5404.1	2573.8	1334.9	895.7	806.0	741.4	711.5	697.4	697.4
37.5°	11817.3	10175.5	5320.7	2444.7	1295.5	840.6	766.6	703.7	673.7	659.6	658.0
40°	12609.1	10707.5	5205.8	2329.8	1256.2	807.6	739.9	673.7	637.5	623.4	620.2
42.5°	13308.1	11162.5	5111.3	2254.2	1191.6	813.8	716.2	651.7	606.1	587.2	585.6
45°	13915.7	11620.6	5094.0	2210.1	1138.1	804.4	710.0	634.4	580.9	560.4	557.3
47.5°	14391.1	12097.5	5193.2	2185.0	1079.9	754.0	750.9	623.4	558.8	536.8	533.6
50°	14970.4	12774.4	5419.9	2133.0	1026.4	706.8	793.4	621.8	541.5	513.2	505.3
52.5°	15741.7	13656.0	5726.8	2040.1	949.2	662.7	757.2	621.8	521.1	492.7	483.3
55°	16908.2	14779.9	6027.5	1909.5	840.6	604.5	683.2	602.9	491.1	466.0	459.7
57.5°	17681.1	15601.6	6219.6	1728.4	705.2	562.0	588.7	573.0	461.2	434.5	434.5
60°	17720.5	15822.0	6128.3	1500.2	620.2	522.6	511.6	577.7	434.5	406.1	403.0
62.5°	17267.1	15282.1	5652.9	1295.5	574.6	480.1	462.8	506.9	407.7	379.4	374.7
65°	16558.7	13904.7	4828.0	1197.9	549.4	442.3	417.2	415.6	379.4	352.6	346.3
67.5°	15256.9	12151.0	3966.9	1141.3	536.8	399.8	376.2	368.4	346.3	324.3	321.1
70°	13338.0	10177.0	3181.4	1117.7	530.5	355.8	336.9	327.4	308.5	291.2	289.6
72.5°	10377.0	8255.0	2625.7	1101.9	527.3	314.8	294.4	281.8	270.8	255.0	255.0
75°	7453.7	6073.2	2003.9	993.3	488.0	270.8	248.7	240.8	225.1	212.5	215.7
77.5°	4698.9	4089.7	1319.2	730.4	377.8	217.2	198.3	193.6	181.0	163.7	174.7
80°	3173.5	2876.0	769.8	459.7	237.7	159.0	152.7	151.1	137.0	118.1	119.6
82.5°	2159.8	2118.8	399.8	261.3	137.0	92.9	89.7	92.9	77.1	63.0	63.0
85°	843.8	1152.3	188.9	102.3	44.1	14.2	20.5	22.0	12.6	6.3	7.9
87.5°	15.7	118.1	4.7	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°	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4
2.5°	6394.3	6380.1	6403.7	6303.0	6323.5	6361.2	6380.1	6391.1	6547.0	6510.8	6610.0
5°	4988.6	4974.4	5065.7	5078.3	5125.5	5116.1	5161.7	5172.7	5229.4	5249.9	5388.4
7.5°	3628.5	3689.9	3793.8	3847.3	3927.6	3952.8	3929.1	3987.4	3869.3	3954.3	3979.5
10°	2915.4	2841.4	2797.3	2920.1	2935.8	3052.3	3005.1	2967.3	3036.6	3039.7	3105.8
12.5°	2427.4	2268.4	2162.9	2197.5	2235.3	2285.7	2293.6	2369.1	2419.5	2466.7	2506.1
15°	1903.2	1848.1	1752.1	1704.8	1758.4	1778.8	1827.6	1890.6	1944.1	1958.3	2011.8
17.5°	1460.8	1470.3	1454.5	1426.2	1459.3	1475.0	1478.1	1479.7	1493.9	1484.4	1563.2
20°	1175.9	1209.0	1248.3	1254.6	1265.6	1273.5	1259.3	1205.8	1207.4	1240.4	1265.6
22.5°	1064.1	1070.4	1114.5	1128.7	1163.3	1149.1	1108.2	1083.0	1079.9	1087.8	1100.3
25°	976.0	985.4	1016.9	1039.0	1065.7	1040.5	1010.6	987.0	983.9	991.7	1004.3
27.5°	897.3	911.4	939.8	961.8	987.0	963.4	935.1	914.6	913.0	911.4	919.3
30°	834.3	850.1	870.5	895.7	913.0	892.6	865.8	854.8	853.2	850.1	853.2
32.5°	771.3	796.5	817.0	829.6	846.9	831.2	810.7	804.4	793.4	783.9	779.2
35°	700.5	727.3	758.8	774.5	791.8	776.1	761.9	735.1	716.2	714.7	717.8
37.5°	659.6	670.6	695.8	722.5	739.9	732.0	705.2	678.5	673.7	673.7	676.9
40°	623.4	628.1	639.1	673.7	705.2	681.6	648.6	640.7	640.7	639.1	640.7
42.5°	587.2	591.9	591.9	618.7	669.0	631.2	606.1	606.1	606.1	607.6	612.4
45°	554.1	555.7	554.1	573.0	620.2	588.7	571.4	576.1	579.3	582.4	585.6
47.5°	525.8	527.3	525.8	541.5	565.1	552.5	543.1	549.4	555.7	560.4	563.6
50°	500.6	499.0	502.2	511.6	522.6	525.8	519.5	528.9	532.1	538.4	546.2
52.5°	478.5	477.0	480.1	484.8	500.6	500.6	500.6	508.5	514.8	521.1	532.1
55°	453.4	454.9	459.7	466.0	486.4	483.3	484.8	491.1	497.4	506.9	513.2
57.5°	429.7	432.9	439.2	448.6	469.1	467.5	469.1	472.3	480.1	484.8	491.1
60°	403.0	409.3	417.2	423.5	443.9	442.3	450.2	456.5	461.2	461.2	464.4
62.5°	376.2	385.7	393.5	398.3	420.3	421.9	432.9	437.6	440.8	437.6	442.3
65°	349.5	363.6	366.8	373.1	395.1	396.7	409.3	420.3	417.2	414.0	421.9
67.5°	322.7	340.0	338.4	346.3	368.4	371.5	382.5	401.4	395.1	392.0	398.3
70°	292.8	305.4	307.0	311.7	341.6	336.9	354.2	371.5	366.8	368.4	368.4
72.5°	259.7	270.8	270.8	280.2	311.7	303.8	318.0	336.9	336.9	335.3	335.3
75°	220.4	226.7	233.0	247.1	280.2	270.8	280.2	297.5	300.7	297.5	297.5
77.5°	177.9	187.3	190.5	209.4	233.0	231.4	240.8	248.7	255.0	251.9	251.9
80°	125.9	135.4	148.0	168.4	182.6	187.3	192.0	198.3	201.5	201.5	204.6
82.5°	70.8	85.0	96.0	116.5	122.8	146.4	144.8	149.5	144.8	127.5	141.7
85°	15.7	29.9	42.5	53.5	61.4	85.0	89.7	100.7	83.4	77.1	77.1
87.5°	0.0	0.0	0.0	0.0	0.0	12.6	25.2	34.6	29.9	25.2	25.2
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°	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4	7669.4
2.5°	6693.4	6830.3	6995.6	7280.6	7480.5	7696.1	7913.4	8144.8	8206.2	8269.1
5°	5426.2	5695.4	5841.8	6224.3	6625.7	7135.7	7552.9	8009.4	8199.9	8243.9
7.5°	4110.2	4292.8	4676.9	5064.1	5561.6	6096.8	6735.9	7447.4	7669.4	7762.3
10°	3258.5	3507.3	3844.1	4259.7	4695.8	5271.9	5992.9	6824.0	7138.9	7190.8
12.5°	2773.7	3050.7	3417.5	3856.7	4269.2	4703.6	5430.9	6288.8	6625.7	6737.5
15°	2218.0	2553.3	2976.8	3439.6	3888.2	4363.6	5100.3	6068.4	6457.3	6587.9
17.5°	1742.6	2013.4	2471.5	2973.6	3505.7	4107.0	5031.1	6173.9	6652.5	6773.7
20°	1333.3	1526.9	1912.6	2443.1	3066.5	3853.6	5048.4	6572.2	7145.2	7310.5
22.5°	1152.3	1251.5	1486.0	1991.3	2688.7	3633.2	5119.2	7118.4	7809.5	8085.0
25°	1043.7	1095.6	1227.9	1558.4	2328.2	3419.1	5281.4	7853.6	8738.2	8920.8
27.5°	950.8	988.6	1070.4	1308.1	2000.8	3220.8	5470.3	8669.0	9605.6	9877.9
30°	862.6	913.0	990.2	1161.7	1791.4	3039.7	5708.0	9330.1	10336.0	10589.5
32.5°	795.0	845.3	916.2	1059.4	1613.5	2849.3	5849.6	9911.0	10932.6	11148.3
35°	739.9	782.4	856.4	977.6	1478.1	2704.4	5821.3	10372.2	11510.4	11730.7
37.5°	700.5	736.7	810.7	900.4	1375.8	2553.3	5807.1	10981.4	12214.0	12469.0
40°	664.3	702.1	769.8	850.1	1273.5	2375.4	5815.0	11585.9	12963.3	13218.3
42.5°	636.0	678.5	733.6	835.9	1168.0	2232.2	5815.0	12111.7	13615.0	13860.6
45°	612.4	658.0	711.5	834.3	1084.6	2123.6	5775.6	12563.5	14134.5	14343.9
47.5°	591.9	642.3	719.4	806.0	1064.1	2044.9	5741.0	12925.5	14558.0	14754.7
50°	577.7	637.5	765.0	772.9	1070.4	2021.2	5907.9	13382.1	14931.0	15101.1
52.5°	566.7	639.1	763.5	724.1	1059.4	2037.0	6255.8	14095.2	15448.9	15461.5
55°	544.7	637.5	724.1	669.0	1013.8	2063.7	6702.8	15131.0	16259.6	16269.1
57.5°	522.6	620.2	672.2	621.8	920.9	2063.7	7241.2	16111.7	17237.2	17245.1
60°	500.6	645.4	590.3	580.9	799.7	2026.0	7809.5	16543.0	17544.2	17624.5
62.5°	478.5	650.1	527.3	544.7	711.5	1934.7	8232.9	16066.0	17128.6	17243.5
65°	453.4	524.2	486.4	506.9	665.9	1782.0	8099.1	15192.4	16347.8	16484.8
67.5°	423.5	443.9	442.3	467.5	650.1	1556.9	7393.9	14087.3	15507.2	15499.3
70°	387.2	398.3	403.0	429.7	620.2	1382.1	6161.3	12653.2	14384.8	14561.1
72.5°	349.5	358.9	363.6	387.2	590.3	1283.0	4782.3	10677.6	12459.6	12735.1
75°	308.5	314.8	321.1	341.6	558.8	1136.6	3406.5	8151.1	9542.6	9975.5
77.5°	266.0	266.0	273.9	294.4	470.7	938.2	2285.7	5717.4	6465.1	6907.5
80°	215.7	217.2	214.1	236.1	346.3	642.3	1298.7	3818.9	4302.2	4387.2
82.5°	165.3	160.6	162.1	173.2	258.2	437.6	692.6	2372.3	2417.9	2370.7
85°	103.9	103.9	100.7	113.3	165.3	228.3	377.8	1453.0	1135.0	1079.9
87.5°	42.5	34.6	39.4	45.7	78.7	92.9	148.0	299.1	114.9	105.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)