

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: P191331

Luminaire Tested: **GLEON-AF-03-LED-E1-SLR**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24296)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-03-LED-E1-SLR
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16336.5 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 166
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

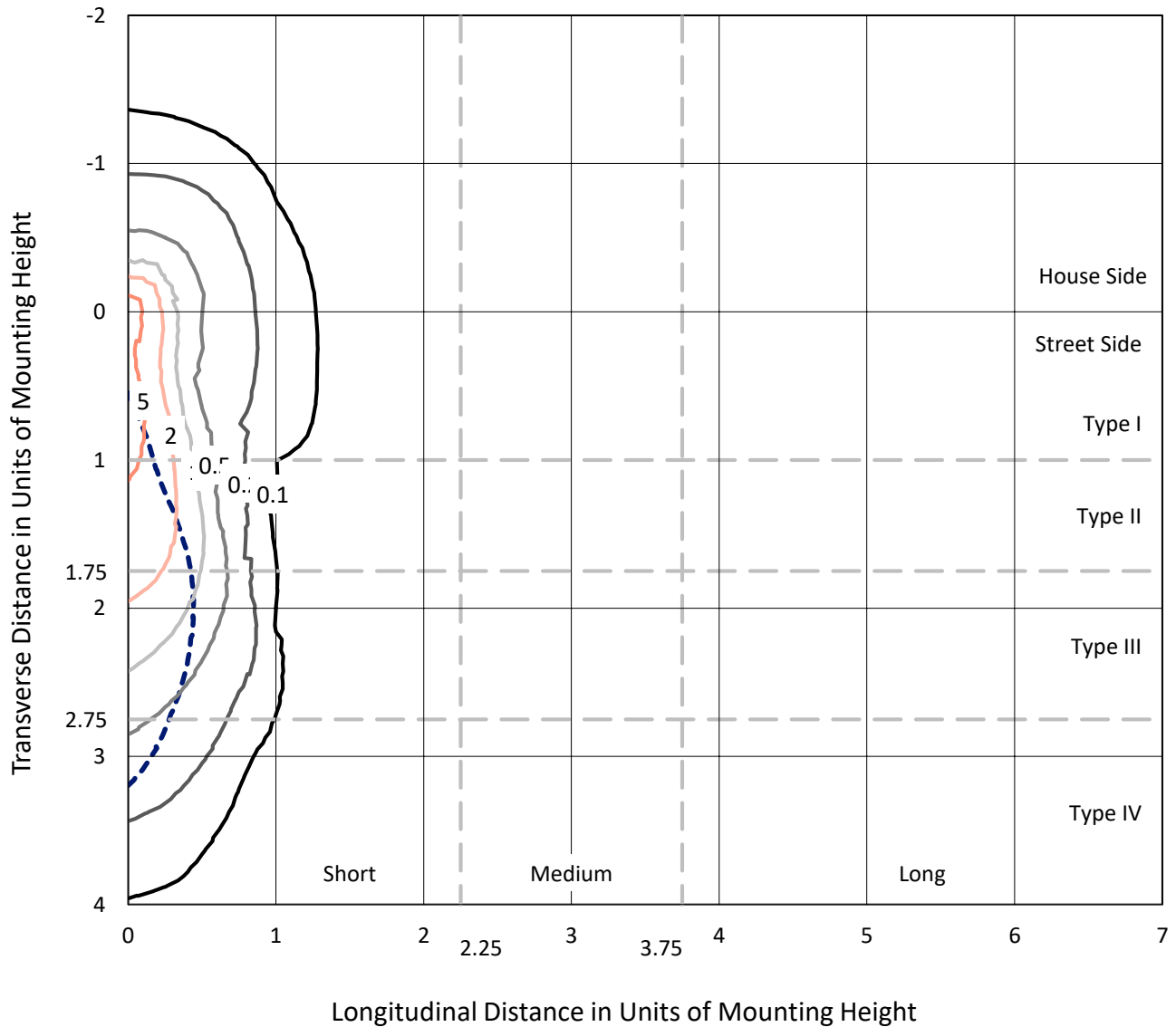


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

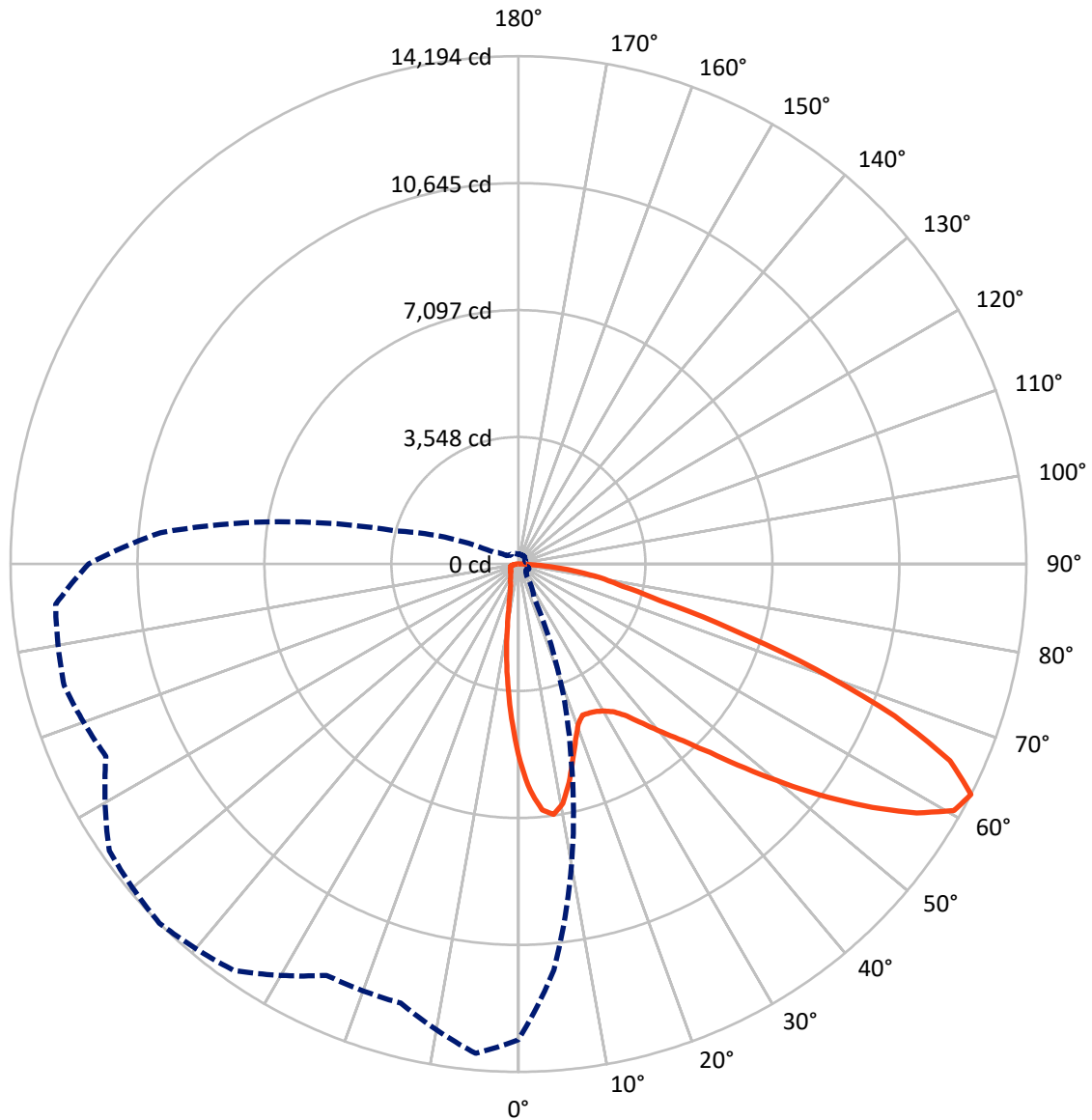


Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2703.5	0.0	2703.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	13633.1	0.0	13633.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	16336.5	0.0	16336.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.8	2.5
10°-20°	736.8	4.5
20°-30°	1074.2	6.6
30°-40°	1654.4	10.1
40°-50°	2434.9	14.9
50°-60°	3571.4	21.9
60°-70°	3992.4	24.4
70°-80°	1954.6	12.0
80°-90°	516.1	3.2
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°	16336.5	100.0
0°-180°	16336.5	100.0

Coefficient of Utilization



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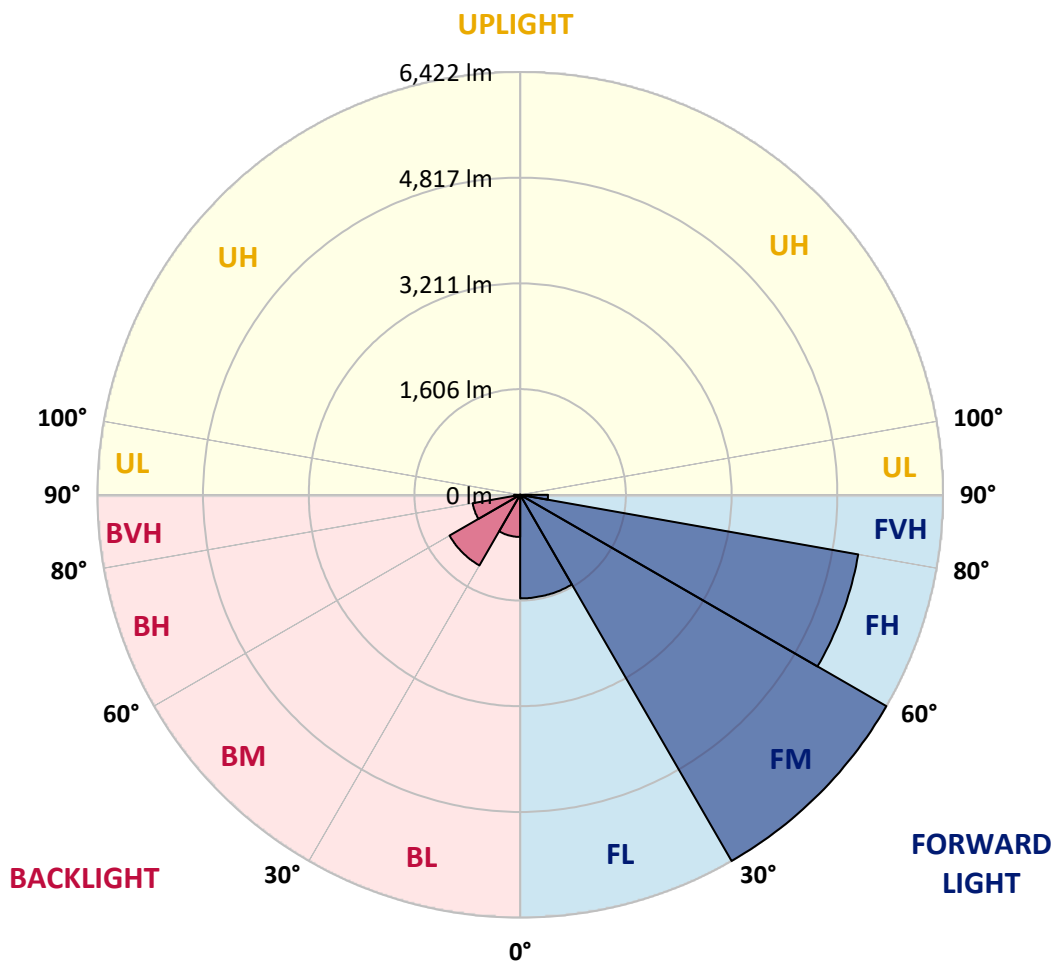
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1573.2	9.6			
FM	(30°-60°)	6422.0	39.3			
FH	(60°-80°)	5214.1	31.9			G3/7500
FVH	(80°-90°)	423.8	2.6			G3/500
BL	(0°-30°)	639.6	3.9	B2/1000		
BM	(30°-60°)	1238.7	7.6	B2/2500		
BH	(60°-80°)	732.9	4.5	B2/1000		G2/1000
BVH	(80°-90°)	92.2	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3
2.5°	5734.9	5618.1	5424.2	5222.1	5099.1	4955.4	4843.2	4744.3	4546.8	4508.1	4543.2
5°	5392.7	5158.3	4792.8	4424.7	4179.5	3916.4	3711.6	3547.3	3296.7	3252.7	3305.7
7.5°	4844.1	4563.8	4080.7	3611.0	3264.3	2935.7	2714.8	2538.8	2343.0	2258.6	2264.0
10°	4370.8	4054.7	3483.5	2972.5	2688.7	2466.9	2281.0	2100.5	1902.1	1771.9	1735.9
12.5°	4105.8	3742.2	3083.9	2627.7	2364.6	2131.0	1930.8	1737.7	1525.7	1392.8	1355.1
15°	4060.1	3664.9	2933.9	2406.8	2077.2	1781.7	1545.6	1330.0	1111.7	1004.0	981.5
17.5°	4258.5	3803.2	2885.4	2210.1	1806.8	1442.3	1152.1	911.6	733.7	679.9	675.4
20°	4639.3	4069.0	2879.1	2025.0	1540.2	1112.7	802.8	627.7	549.6	534.3	535.2
22.5°	5173.6	4481.2	2956.3	1885.9	1295.0	829.8	603.4	525.4	494.8	480.5	480.5
25°	5865.1	5048.8	3134.1	1784.4	1082.2	662.8	532.5	485.8	457.1	447.2	449.0
27.5°	6535.0	5601.1	3340.8	1704.4	943.0	601.7	504.7	462.5	437.3	427.5	432.0
30°	7057.7	6091.4	3513.1	1595.8	872.0	584.6	514.5	471.5	435.6	420.3	421.1
32.5°	7490.6	6520.7	3657.8	1517.6	809.2	501.1	443.7	424.7	420.3	402.3	393.3
35°	8043.8	6988.6	3754.7	1519.5	779.5	447.2	395.2	361.9	337.7	317.0	317.0
37.5°	8692.1	7525.5	3858.0	1540.2	768.7	415.8	378.1	344.8	322.4	302.6	299.0
40°	9333.3	8051.9	3952.3	1559.9	762.4	396.9	364.6	334.1	313.4	293.7	288.3
42.5°	9878.4	8484.7	4036.7	1569.8	740.9	395.2	354.8	326.9	307.1	285.6	280.2
45°	10281.7	8847.5	4127.4	1585.1	719.3	402.3	354.8	326.0	301.8	281.1	275.7
47.5°	10641.8	9273.2	4279.2	1585.1	693.3	388.8	366.4	326.9	300.8	279.3	274.8
50°	11124.1	9856.8	4566.6	1548.2	656.4	374.5	386.2	323.3	292.8	275.7	270.3
52.5°	11788.6	10604.9	5022.8	1484.5	599.9	346.7	383.5	321.5	284.7	266.7	260.4
55°	12574.3	11406.0	5520.3	1409.9	515.5	326.9	370.0	317.0	275.7	255.9	249.7
57.5°	13187.7	11957.4	5870.5	1295.0	441.8	316.1	327.8	312.5	264.9	244.3	238.9
60°	13432.0	11935.9	5966.6	1141.4	405.9	307.1	286.4	350.3	255.9	235.3	229.0
62.5°	13300.0	11384.4	5697.1	1033.7	397.8	295.4	268.5	324.2	248.8	229.0	220.0
65°	12690.2	10407.4	4983.2	1004.9	421.1	283.8	256.9	254.1	238.9	220.0	211.0
67.5°	11362.0	8947.1	3990.0	1007.6	450.8	272.1	245.2	232.6	225.5	210.1	202.0
70°	9254.3	7073.9	2974.3	1014.8	466.1	258.6	232.6	219.1	211.0	195.8	190.4
72.5°	6804.5	5452.0	2160.7	968.1	468.8	243.4	215.5	203.9	195.8	179.6	175.1
75°	4655.4	4170.5	1498.8	802.0	408.6	221.8	196.7	185.9	180.6	160.7	158.0
77.5°	3400.9	3130.5	959.1	595.4	315.2	194.9	173.3	165.2	161.6	140.1	136.5
80°	2729.1	2476.8	599.9	407.7	230.8	163.5	145.5	141.0	137.4	115.8	113.1
82.5°	1893.1	1658.7	385.2	264.9	173.3	126.6	115.0	113.1	107.7	88.0	85.3
85°	998.6	900.7	244.3	180.6	125.7	87.2	79.9	79.9	77.2	58.4	56.6
87.5°	127.6	207.5	123.9	94.3	69.2	38.6	38.6	37.7	40.4	33.2	28.7
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3
2.5°	4460.6	4503.6	4462.3	4465.1	4510.9	4647.4	4709.4	4760.5	4815.3	4851.2	4867.4
5°	3232.9	3333.5	3367.7	3439.5	3545.4	3719.7	3788.8	3839.1	3872.4	3892.1	3900.2
7.5°	2211.0	2272.1	2340.3	2456.1	2687.0	2789.3	2835.1	2823.4	2785.7	2772.3	2758.8
10°	1666.8	1642.6	1630.0	1693.7	1880.5	1983.8	2016.1	1984.6	1964.1	1968.5	1991.0
12.5°	1291.4	1249.1	1198.0	1190.8	1313.9	1406.4	1427.0	1428.8	1466.5	1499.7	1549.2
15°	941.1	936.6	911.6	896.2	966.3	1041.8	1050.7	1066.8	1101.0	1125.2	1168.3
17.5°	663.7	687.9	707.7	717.5	770.5	824.4	814.5	806.4	800.2	800.2	820.8
20°	535.2	551.4	576.5	605.3	659.2	696.8	672.6	640.3	616.9	609.8	612.4
22.5°	482.2	494.8	509.2	534.3	582.9	608.9	582.9	559.5	536.1	528.0	525.4
25°	455.3	471.5	485.0	503.8	539.7	557.7	532.5	515.5	501.1	491.2	484.1
27.5°	440.1	454.4	458.0	467.0	497.6	513.7	501.1	493.9	485.0	476.0	467.0
30°	423.9	421.1	414.9	415.8	440.1	456.2	455.3	457.1	456.2	453.5	451.7
32.5°	387.1	381.7	376.2	381.7	404.2	418.5	419.4	423.0	423.0	422.1	429.2
35°	322.4	332.3	338.6	354.8	381.7	394.2	388.8	379.8	363.7	353.8	352.9
37.5°	298.2	299.9	310.8	333.2	362.8	374.5	366.4	345.8	335.0	333.2	335.8
40°	286.4	288.3	294.5	315.2	344.8	356.5	349.3	334.1	324.2	323.3	327.8
42.5°	278.3	280.2	283.8	298.2	322.4	336.8	337.7	326.9	315.2	316.1	320.6
45°	273.9	274.8	273.9	281.1	303.5	320.6	327.8	320.6	310.8	312.5	317.9
47.5°	273.0	270.3	266.7	268.5	291.8	308.9	317.9	315.2	310.8	312.5	317.0
50°	269.4	263.1	258.6	257.8	281.1	299.0	307.1	307.1	308.9	312.5	317.0
52.5°	258.6	251.4	251.4	248.8	273.9	290.9	296.3	297.3	299.9	306.3	312.5
55°	245.2	242.4	245.2	240.7	268.5	284.7	287.3	289.2	290.9	296.3	305.4
57.5°	233.5	229.9	236.2	234.4	264.0	278.3	278.3	282.0	282.0	289.2	296.3
60°	227.2	220.0	222.7	224.5	257.8	273.0	271.2	274.8	276.6	282.8	288.3
62.5°	219.1	212.9	212.9	217.3	250.5	264.9	264.0	266.7	273.9	275.7	281.1
65°	209.2	206.5	203.9	209.2	243.4	255.9	256.9	260.4	266.7	268.5	273.0
67.5°	199.4	200.3	194.9	200.3	237.1	246.9	246.9	254.1	256.9	260.4	264.9
70°	188.6	189.5	184.9	191.3	232.6	237.1	236.2	246.0	247.9	250.5	255.0
72.5°	175.1	175.1	173.3	182.3	225.5	227.2	225.5	233.5	234.4	237.1	238.9
75°	160.7	160.7	159.0	171.5	221.0	216.5	211.0	217.3	219.1	221.0	221.0
77.5°	141.9	143.7	143.7	159.0	205.6	212.0	194.0	197.5	200.3	201.1	198.5
80°	118.6	123.1	124.8	144.5	172.5	195.8	173.3	176.0	176.9	176.9	173.3
82.5°	90.7	98.8	103.3	124.8	132.1	164.4	150.9	153.5	150.9	145.5	143.7
85°	62.9	73.7	79.1	95.2	99.6	126.6	125.7	125.7	120.3	113.1	112.2
87.5°	34.2	40.4	44.0	56.6	68.2	85.3	92.5	89.8	85.3	80.8	81.7
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3
2.5°	4951.8	5073.9	5268.8	5417.9	5567.8	5712.5	5868.7	5988.1	6089.6	6129.1	6249.5
5°	3981.9	4134.6	4318.7	4650.9	4886.2	5145.7	5445.7	5842.7	5995.3	6206.3	6552.1
7.5°	2815.4	2953.7	3250.0	3518.5	3851.7	4219.0	4624.0	5171.8	5372.1	5710.6	6273.8
10°	2102.3	2263.1	2501.0	2727.4	3021.0	3396.4	3861.5	4474.1	4717.4	5084.7	5733.1
12.5°	1693.7	1883.2	2135.5	2348.4	2575.6	2840.5	3292.3	3963.9	4289.9	4611.5	5267.0
15°	1301.3	1499.7	1734.1	2004.5	2255.0	2540.6	3013.8	3748.4	4123.8	4458.7	5018.3
17.5°	900.7	1070.4	1365.9	1647.9	1968.5	2334.0	2936.6	3794.2	4242.4	4628.5	5061.4
20°	638.5	735.5	977.9	1304.9	1704.4	2163.3	2922.3	4034.9	4617.7	5058.7	5338.0
22.5°	537.0	573.0	713.9	1013.8	1475.5	2035.9	2972.5	4372.6	5124.3	5687.3	5778.9
25°	489.5	511.0	584.6	795.7	1271.6	1943.4	3142.2	4875.5	5751.0	6315.9	6299.7
27.5°	463.4	485.8	534.3	671.8	1118.1	1885.9	3312.0	5471.8	6467.7	6998.4	6797.3
30°	455.3	485.8	537.0	633.1	1008.5	1795.2	3451.1	5995.3	7019.1	7459.2	7023.6
32.5°	449.0	453.5	476.9	546.1	904.3	1689.2	3545.4	6464.9	7558.8	7897.4	7349.6
35°	362.8	385.2	423.0	489.5	843.2	1625.5	3545.4	6870.0	8090.4	8340.1	7660.3
37.5°	349.3	369.1	402.3	458.9	809.2	1594.1	3474.6	7260.7	8633.8	8842.1	7916.2
40°	342.2	358.3	389.7	435.6	794.7	1558.1	3371.2	7605.5	9164.5	9345.0	8155.1
42.5°	336.8	351.2	380.7	421.1	775.9	1518.6	3287.8	7882.1	9625.1	9774.3	8383.2
45°	334.1	349.3	381.7	428.4	738.2	1466.5	3259.8	8181.2	10004.2	10132.6	8630.1
47.5°	334.1	352.0	386.2	443.7	693.3	1412.6	3347.0	8575.4	10362.5	10425.4	8921.2
50°	331.3	351.2	398.7	428.4	627.7	1344.4	3551.8	9072.0	10750.4	10757.7	9289.3
52.5°	326.0	349.3	429.2	419.4	552.3	1254.5	3828.4	9709.6	11324.3	11367.4	9865.8
55°	319.7	346.7	421.1	398.7	490.3	1147.6	4054.7	10484.6	12130.8	12250.1	10713.7
57.5°	311.6	343.1	407.7	370.0	449.9	1010.3	4136.4	11052.2	12693.8	12993.7	11669.1
60°	304.4	340.3	368.2	352.9	424.7	894.5	3978.4	10939.9	12655.2	13301.7	12516.0
62.5°	297.3	343.1	335.8	342.2	413.1	819.9	3565.2	10041.0	12014.9	12983.9	13143.7
65°	289.2	318.9	317.0	333.2	410.4	790.2	2955.4	8693.0	10777.4	11979.0	13291.9
67.5°	278.3	294.5	303.5	321.5	419.4	764.2	2385.2	7170.9	9057.6	10473.0	12519.6
70°	266.7	280.2	290.1	307.1	414.0	752.6	1983.8	5655.0	7187.0	8583.5	10995.6
72.5°	251.4	263.1	272.1	288.3	408.6	746.2	1675.7	4554.0	5365.8	6376.1	8940.0
75°	233.5	244.3	250.5	266.7	391.6	683.4	1317.5	3853.5	4015.2	4435.4	7120.6
77.5°	212.9	221.0	226.3	244.3	346.7	568.5	952.8	2972.5	3118.0	3220.4	5459.2
80°	188.6	196.7	199.4	216.5	287.3	444.6	621.4	2195.7	2332.2	2355.5	3565.2
82.5°	160.7	168.8	168.8	184.9	235.3	319.7	407.7	1504.2	1531.2	1610.2	2519.9
85°	129.3	135.6	135.6	143.7	182.3	238.9	280.2	755.2	747.2	853.1	2183.2
87.5°	92.5	97.0	101.5	103.3	130.2	158.0	168.8	229.9	151.8	174.2	1401.9
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3	5519.3
2.5°	6340.1	6391.4	6339.2	6301.6	6139.0	6005.2	5826.5	5734.9
5°	6815.2	6945.4	6901.4	6743.4	6404.0	6022.2	5588.5	5392.7
7.5°	6757.7	7060.4	7067.6	6772.1	6271.9	5709.7	5122.4	4844.1
10°	6310.5	6697.6	6808.0	6521.6	5990.8	5362.2	4688.7	4370.8
12.5°	5811.2	6190.2	6274.6	6175.9	5732.2	5100.8	4417.5	4105.8
15°	5402.6	5572.3	5672.9	5759.1	5510.3	4996.7	4402.2	4060.1
17.5°	5153.8	5135.0	5163.8	5313.7	5355.9	5116.2	4635.7	4258.5
20°	5064.0	4775.7	4768.6	4975.1	5283.1	5400.8	5091.8	4639.3
22.5°	5113.4	4646.4	4587.2	4832.3	5321.8	5811.2	5690.0	5173.6
25°	5284.1	4657.2	4609.6	4846.7	5461.8	6248.6	6335.6	5865.1
27.5°	5552.6	4725.5	4662.6	4906.0	5647.8	6615.8	6971.5	6535.0
30°	5807.6	4844.1	4765.9	5022.8	5817.5	6761.4	7361.3	7057.7
32.5°	6117.5	5065.9	4928.5	5237.4	6027.6	6993.0	7708.8	7490.6
35°	6421.0	5381.9	5211.3	5568.7	6262.0	7281.4	8105.8	8043.8
37.5°	6754.1	5795.0	5654.1	5997.2	6582.7	7553.5	8612.2	8692.1
40°	7109.8	6342.9	6175.9	6622.2	7080.1	7894.7	9141.2	9333.3
42.5°	7468.2	6950.8	6751.5	7204.1	7627.0	8231.5	9593.7	9878.4
45°	7878.5	7610.9	7516.6	8006.0	8152.4	8552.1	9927.8	10281.7
47.5°	8356.3	8359.9	8511.7	8707.4	8682.3	8914.8	10263.7	10641.8
50°	8914.0	9294.7	9629.6	9759.9	9228.2	9304.6	10729.8	11124.1
52.5°	9583.9	10412.8	10827.6	10742.3	9816.4	9780.5	11468.0	11788.6
55°	10421.7	11596.4	12008.6	11947.6	10492.7	10429.0	12387.5	12574.3
57.5°	11391.7	12743.2	13122.2	12847.3	11304.5	11140.2	13148.2	13187.7
60°	12243.9	13652.0	13984.2	13679.8	12123.5	11897.2	13623.2	13432.0
62.5°	12718.0	13960.0	14193.5	13865.8	12684.8	12703.7	13727.5	13300.0
65°	12506.1	13181.4	13256.8	13229.9	12540.3	13171.5	13353.0	12690.2
67.5°	11345.9	11213.0	11339.5	11514.6	11300.9	12555.5	12315.7	11362.0
70°	9301.9	8571.8	8824.2	8941.8	9038.8	10804.3	10689.4	9254.3
72.5°	7010.1	6005.2	6204.6	6180.4	6629.3	8666.1	8313.1	6804.5
75°	4967.0	4071.8	4096.8	4087.0	4625.8	6780.2	6019.6	4655.4
77.5°	3475.4	2950.1	2963.5	3019.2	3109.9	5113.4	4300.7	3400.9
80°	2389.7	2238.8	2313.4	2317.8	2155.3	3435.0	3177.3	2729.1
82.5°	1779.9	1556.3	1538.3	1564.4	1689.2	2783.0	2441.8	1893.1
85°	1457.5	921.4	740.9	928.5	1497.0	2756.1	1621.9	998.6
87.5°	820.8	437.3	197.5	366.4	597.2	1824.8	468.8	127.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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