

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: P198292

Luminaire Tested: **TT-C1-LED-E1-WQ-SG-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198292
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C1-LED-E1-WQ-SG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS AND DIMMING OCCUPANCY SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4178.1 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B2 - U4 - G1

Input Watts (W): 45.4
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

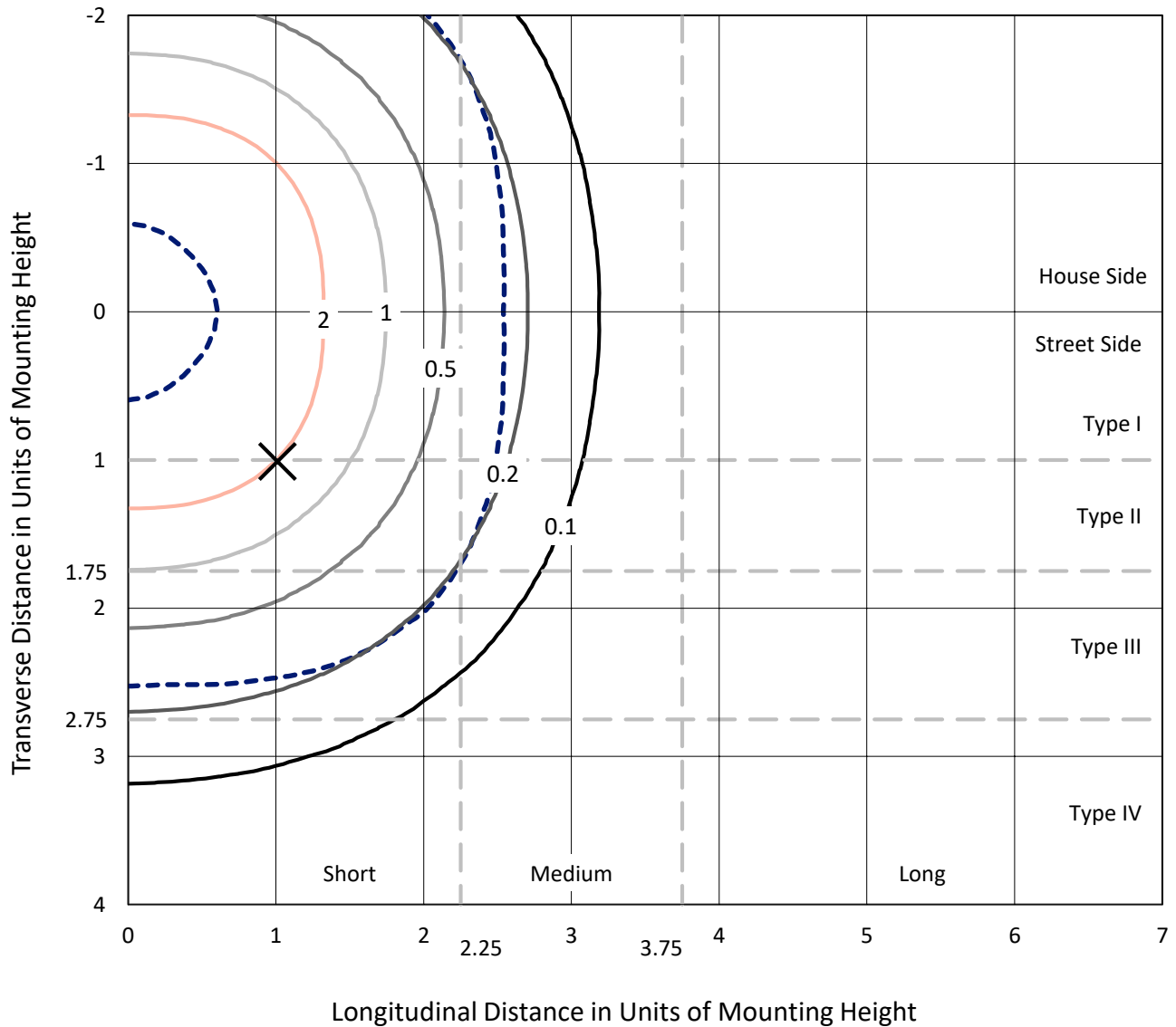


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Iso-Footcandle Lines of Horizontal Illumination

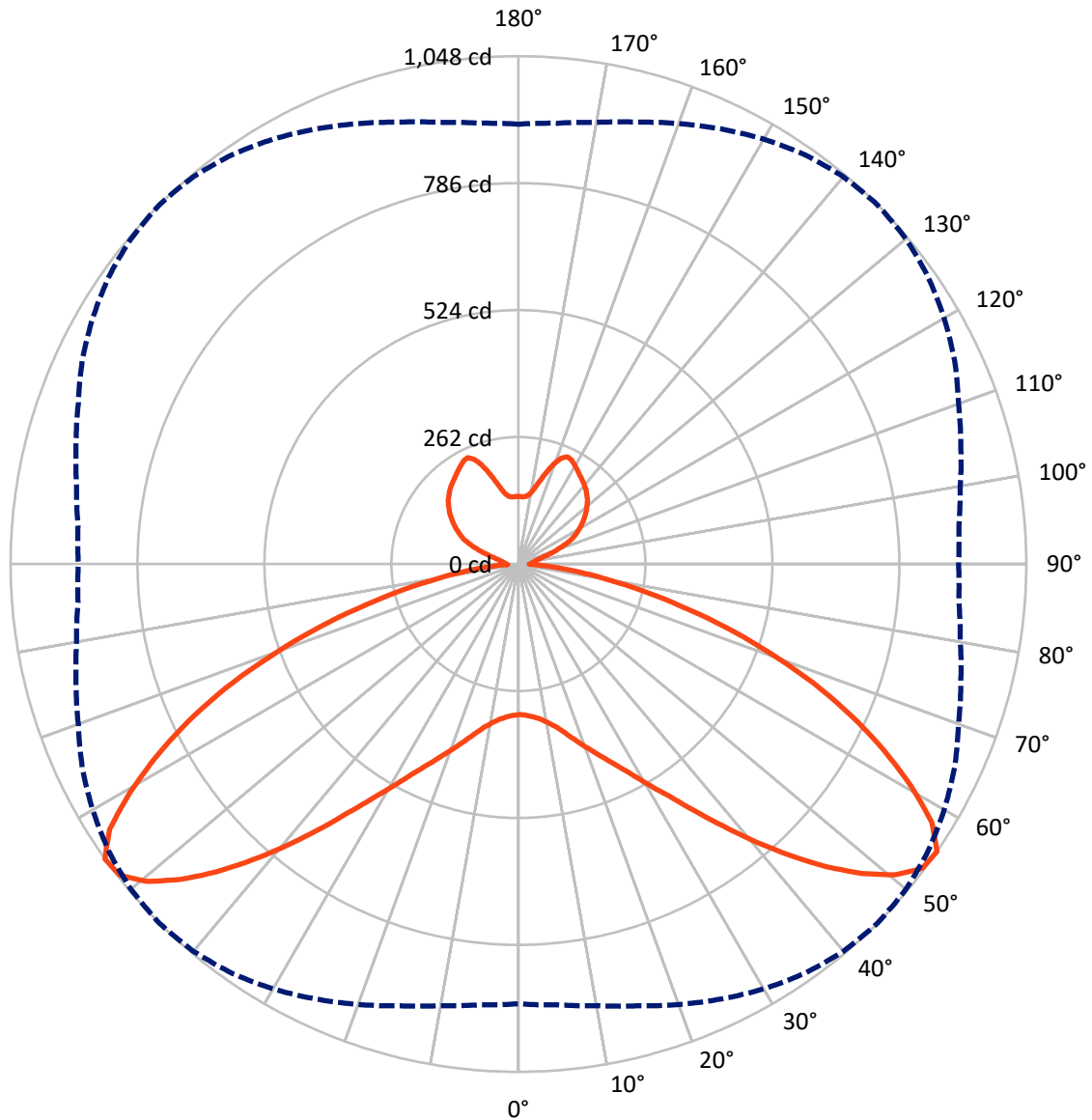
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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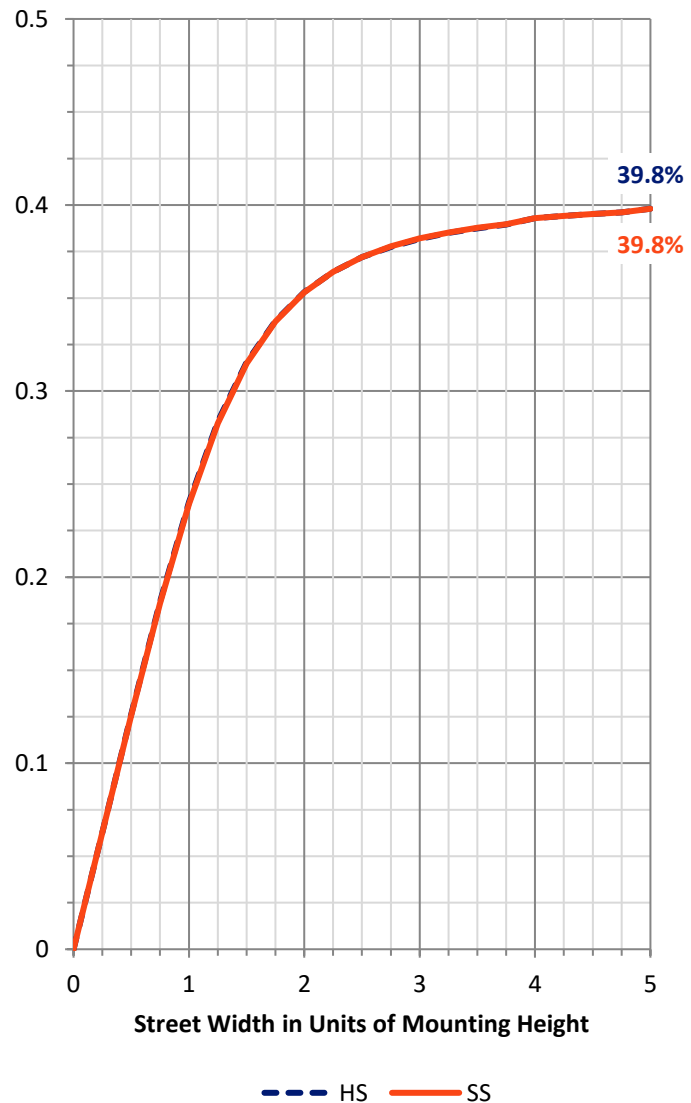
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1677.1	412.0	2089.0
	% Fixture	40.1	9.9	50.0
Street Side	Lumens	1677.1	412.0	2089.0
	% Fixture	40.1	9.9	50.0
Total	Lumens	3354.1	824.0	4178.1
	% Fixture	80.3	19.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	0.7
10°-20°	104.0	2.5
20°-30°	211.8	5.1
30°-40°	386.7	9.3
40°-50°	656.6	15.7
50°-60°	855.1	20.5
60°-70°	691.6	16.6
70°-80°	339.8	8.1
80°-90°	77.9	1.9
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.9
120°-130°	148.7	3.6
130°-140°	153.2	3.7
140°-150°	136.0	3.3
150°-160°	103.7	2.5
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3354.1	80.3
0°-180°	4178.1	100.0



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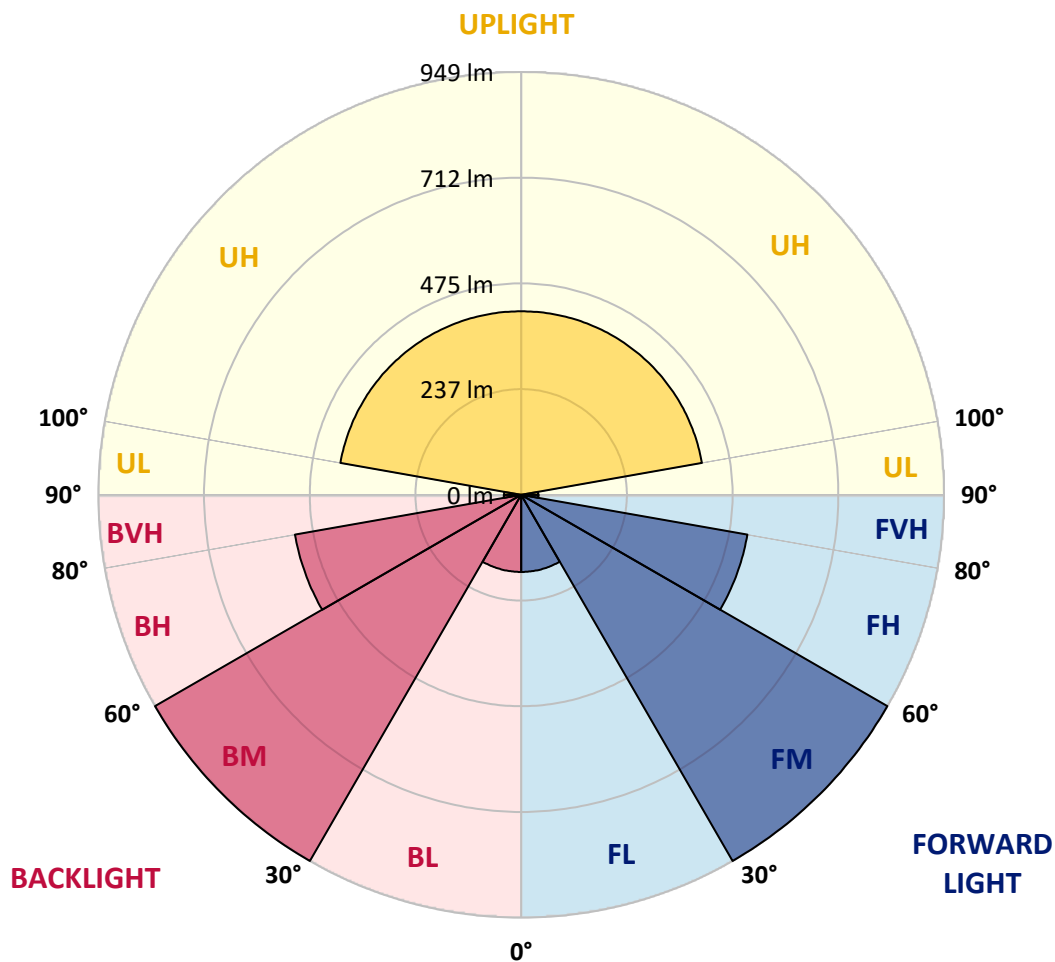
CATALOG NUMBER: TT-C1-LED-E1-WQ-SG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	173.2	4.1			
FM	(30°-60°)	949.2	22.7			
FH	(60°-80°)	515.7	12.3			G0/660
FVH	(80°-90°)	39.0	0.9			G1/100
BL	(0°-30°)	173.2	4.1	B1/500		
BM	(30°-60°)	949.2	22.7	B1/1000		
BH	(60°-80°)	515.7	12.3	B2/1000		G0/660
BVH	(80°-90°)	39.0	0.9			G1/100
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	9.9		U3/500	

BUG Rating: B2-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	310.4	310.4	310.4	310.4	310.4	310.4	310.4	310.4	310.4	310.4	310.4
2.5°	311.7	311.7	311.7	311.7	311.7	311.7	312.4	312.4	312.4	312.4	312.4
5°	315.9	315.9	315.9	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6
7.5°	322.0	321.3	322.0	322.0	322.0	322.7	322.7	322.0	322.7	322.7	322.7
10°	330.9	330.2	330.9	330.9	330.9	331.6	331.6	331.6	331.6	332.3	332.3
12.5°	344.0	343.3	344.0	344.7	344.0	344.7	344.7	344.7	344.7	344.7	344.7
15°	360.4	359.7	360.4	361.1	360.4	361.8	361.8	361.1	361.1	361.8	361.8
17.5°	380.3	378.9	379.6	380.3	380.3	381.7	381.7	381.0	381.7	382.3	381.7
20°	400.8	399.5	400.2	402.2	402.2	402.9	404.2	403.6	404.2	404.9	404.2
22.5°	423.4	422.7	423.4	425.5	425.5	426.2	428.2	428.2	428.2	428.9	428.2
25°	448.1	447.4	448.1	450.1	450.1	451.5	454.3	454.3	455.0	455.7	455.0
27.5°	476.9	476.2	477.5	479.6	480.3	482.4	485.8	486.5	487.1	487.8	486.5
30°	510.5	509.1	511.1	514.5	515.9	518.7	522.8	524.1	524.8	526.9	525.5
32.5°	548.8	547.5	550.2	554.3	556.4	560.4	566.0	567.3	569.3	570.7	568.7
35°	594.0	593.4	596.1	602.3	605.7	610.5	618.0	620.1	621.5	624.2	621.5
37.5°	644.0	643.3	648.2	655.1	661.2	668.7	676.9	680.4	682.5	685.9	682.5
40°	699.6	698.9	705.0	713.3	720.8	730.4	740.7	745.5	749.6	753.0	748.9
42.5°	756.5	756.5	764.0	772.9	783.9	795.5	807.1	812.6	819.5	821.5	816.7
45°	811.3	811.9	819.5	830.4	846.2	861.2	874.3	881.1	888.6	890.7	884.6
47.5°	863.3	864.0	870.8	885.3	903.1	920.2	935.9	945.5	953.0	953.7	949.0
50°	905.8	908.5	917.4	930.5	949.0	966.8	986.0	998.3	1005.8	1007.9	1003.1
52.5°	922.3	927.0	937.3	953.7	975.0	993.5	1014.7	1030.5	1039.4	1042.8	1038.7
55°	907.1	912.7	925.0	943.5	966.8	990.0	1012.0	1030.5	1042.8	1047.6	1043.5
57.5°	873.6	874.3	886.6	905.1	926.3	950.3	971.5	988.7	1000.3	1005.2	1004.5
60°	815.3	815.3	827.0	844.8	861.2	885.9	903.8	916.7	925.0	930.5	929.1
62.5°	737.3	737.3	747.5	766.0	782.5	803.7	820.9	834.5	840.0	846.2	847.6
65°	650.2	650.2	659.8	678.3	693.4	712.6	729.0	742.0	747.5	755.1	753.7
67.5°	557.7	557.1	566.0	581.7	596.1	613.9	629.7	642.0	648.2	657.1	650.9
70°	462.5	462.5	470.0	482.4	492.6	510.5	525.5	537.9	542.6	550.2	546.8
72.5°	372.1	371.4	377.5	387.1	395.3	411.1	420.0	433.7	437.8	448.1	442.6
75°	290.5	289.2	293.9	300.8	306.3	316.6	323.4	334.4	337.8	344.7	341.9
77.5°	218.6	217.9	219.9	224.8	228.8	237.1	239.8	245.3	248.0	254.9	249.4
80°	156.9	154.9	156.9	159.6	161.0	167.2	167.8	169.9	171.3	176.1	170.6
82.5°	105.5	102.8	104.1	106.2	106.2	109.6	110.3	109.6	112.3	113.7	111.0
85°	60.3	58.2	58.9	60.3	59.6	61.7	61.7	61.0	63.0	63.0	61.7
87.5°	19.9	18.5	19.2	19.9	19.9	20.5	21.2	20.5	21.9	21.9	20.5
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	310.4	310.4	310.4	310.4	310.4	310.4	310.4	310.4
2.5°	312.4	312.4	312.4	312.4	312.4	312.4	312.4	312.4
5°	316.6	316.6	316.6	316.6	316.6	315.9	315.9	315.9
7.5°	322.7	322.7	322.7	322.7	322.7	322.0	322.0	322.0
10°	332.3	331.6	331.6	331.6	331.6	330.9	331.6	330.9
12.5°	344.7	345.3	345.3	344.7	345.3	344.0	344.0	344.0
15°	361.8	361.1	361.1	361.1	361.1	360.4	360.4	360.4
17.5°	381.0	381.0	380.3	380.3	379.6	378.9	378.9	378.9
20°	403.6	402.9	402.2	401.5	400.8	399.5	398.8	398.8
22.5°	426.9	426.2	425.5	424.8	424.1	422.7	421.4	421.4
25°	452.9	451.5	450.8	449.5	448.1	446.7	446.1	445.4
27.5°	484.4	483.1	481.0	478.9	476.2	475.5	474.2	474.2
30°	522.1	520.1	517.3	513.9	511.1	508.4	507.0	506.3
32.5°	566.0	563.2	558.4	554.3	549.5	546.8	544.7	543.3
35°	617.3	613.2	607.7	601.6	595.4	590.6	587.2	587.2
37.5°	677.6	671.5	663.3	655.7	646.8	641.3	637.2	634.4
40°	743.4	734.5	724.2	714.6	704.4	696.8	690.7	691.4
42.5°	808.5	801.0	788.6	777.0	764.0	753.7	746.2	745.5
45°	877.0	867.4	852.3	837.3	822.2	809.9	801.0	799.6
47.5°	940.7	930.5	912.7	894.2	877.7	864.0	854.4	853.0
50°	992.8	980.5	962.0	942.1	924.3	909.2	898.9	896.2
52.5°	1026.4	1012.7	992.8	968.8	949.7	932.5	920.2	916.7
55°	1031.9	1014.1	992.8	966.1	944.8	925.6	912.0	907.8
57.5°	994.2	975.0	955.8	932.5	911.3	890.7	879.7	874.3
60°	920.9	905.8	890.0	868.8	851.7	832.5	823.6	820.9
62.5°	836.6	823.6	809.2	787.3	772.9	755.8	747.5	744.1
65°	746.2	731.1	717.4	699.6	683.8	669.4	657.8	656.4
67.5°	646.1	630.4	618.7	603.0	587.2	573.5	566.0	561.8
70°	540.6	527.6	515.9	498.8	488.5	475.5	470.0	465.9
72.5°	435.8	428.2	413.8	402.9	391.3	381.0	377.5	373.4
75°	337.1	328.2	317.3	310.4	301.5	296.0	293.2	290.5
77.5°	247.3	239.8	233.7	230.9	226.8	221.3	219.3	217.2
80°	171.3	167.8	163.8	163.1	160.3	156.2	155.5	154.9
82.5°	111.0	109.0	107.6	107.6	106.2	103.4	102.8	102.8
85°	61.7	61.0	61.7	61.0	59.6	58.2	58.2	58.2
87.5°	20.5	20.5	21.2	21.9	19.9	19.9	19.2	19.2
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)