

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: P198296

Luminaire Tested: **TT-C2-LED-E1-CQ-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198296
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C2-LED-E1-CQ-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (168) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4615.6 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B1 - U4 - G1

Input Watts (W): 51.4
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: 25 FT

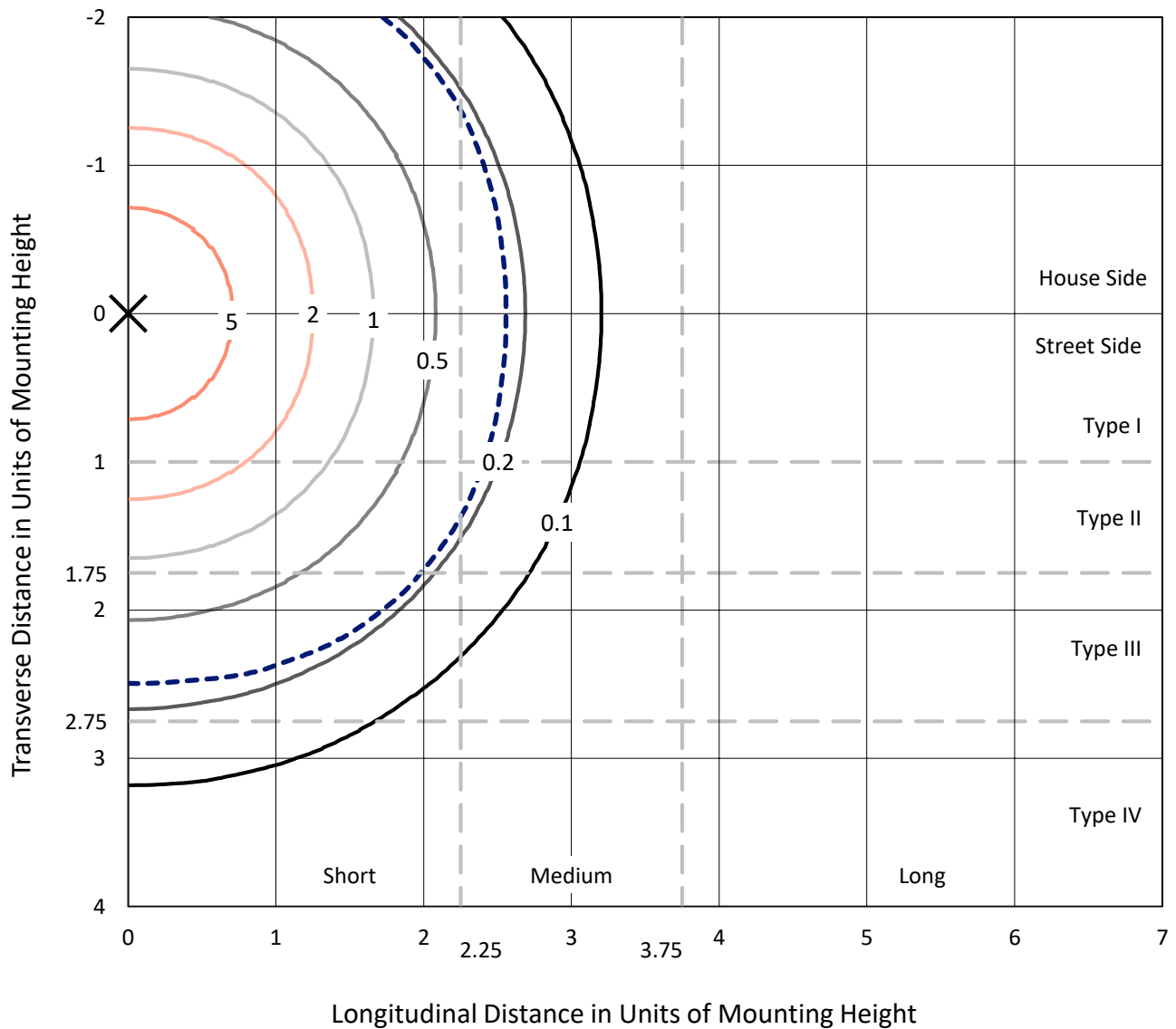


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

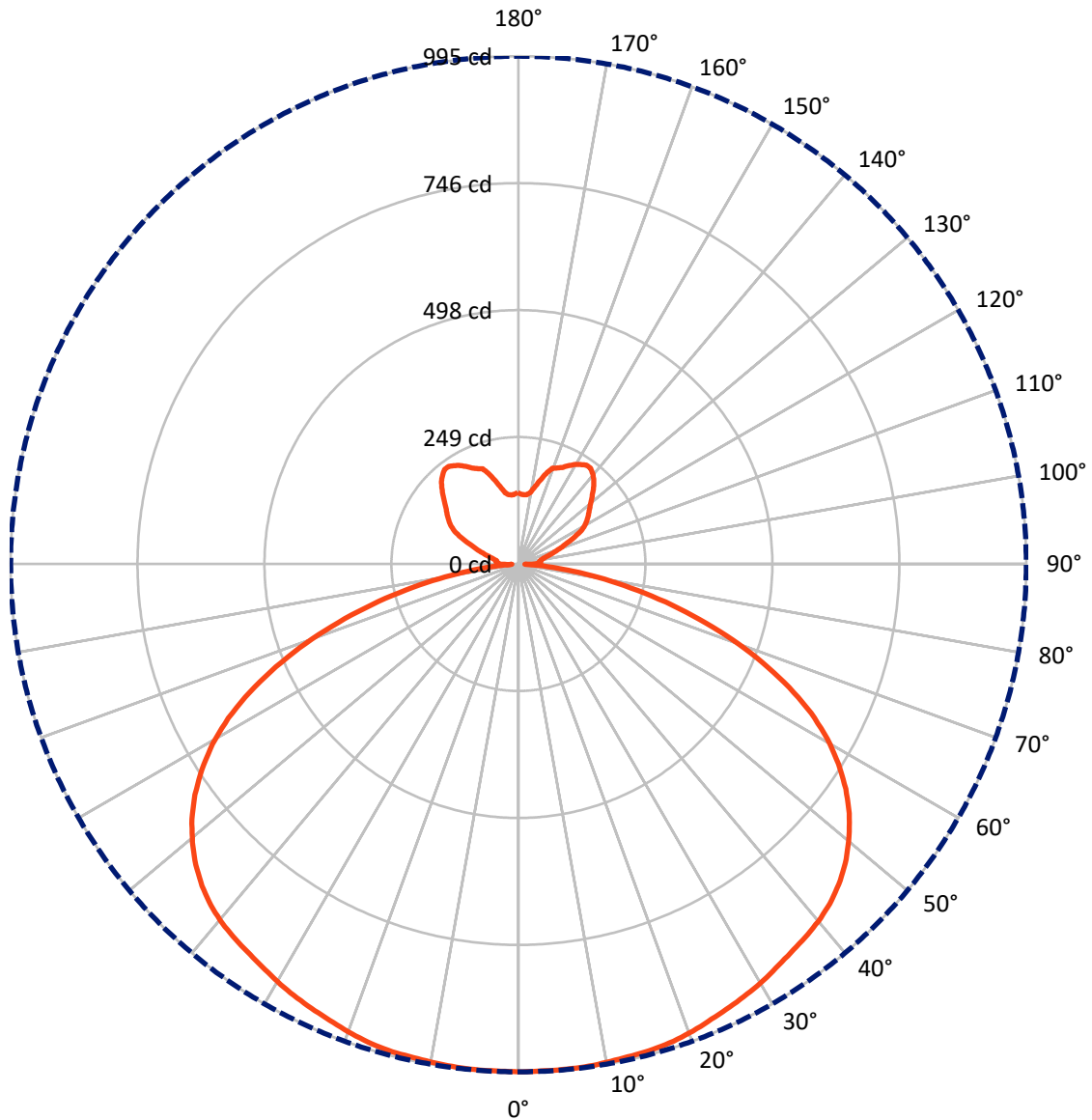


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 0-Deg Vertical

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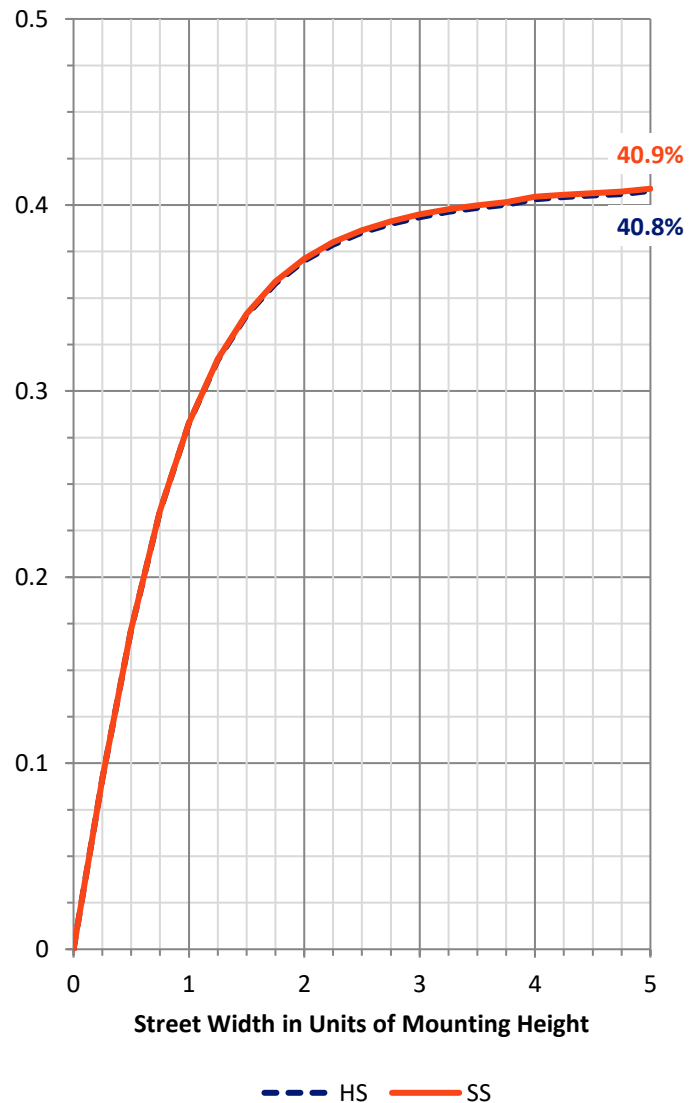
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1895.8	412.0	2307.8
	% Fixture	41.1	8.9	50.0
Street Side	Lumens	1895.8	412.0	2307.8
	% Fixture	41.1	8.9	50.0
Total	Lumens	3791.6	824.0	4615.6
	% Fixture	82.1	17.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	2.1
10°-20°	279.3	6.1
20°-30°	444.8	9.6
30°-40°	583.2	12.6
40°-50°	687.8	14.9
50°-60°	712.4	15.4
60°-70°	595.8	12.9
70°-80°	324.7	7.0
80°-90°	68.8	1.5
90°-100°	38.3	0.8
100°-110°	59.4	1.3
110°-120°	119.3	2.6
120°-130°	148.7	3.2
130°-140°	153.2	3.3
140°-150°	136.0	2.9
150°-160°	103.7	2.2
160°-170°	51.8	1.1
170°-180°	13.6	0.3
0°-90°	3791.6	82.1
0°-180°	4615.6	100.0



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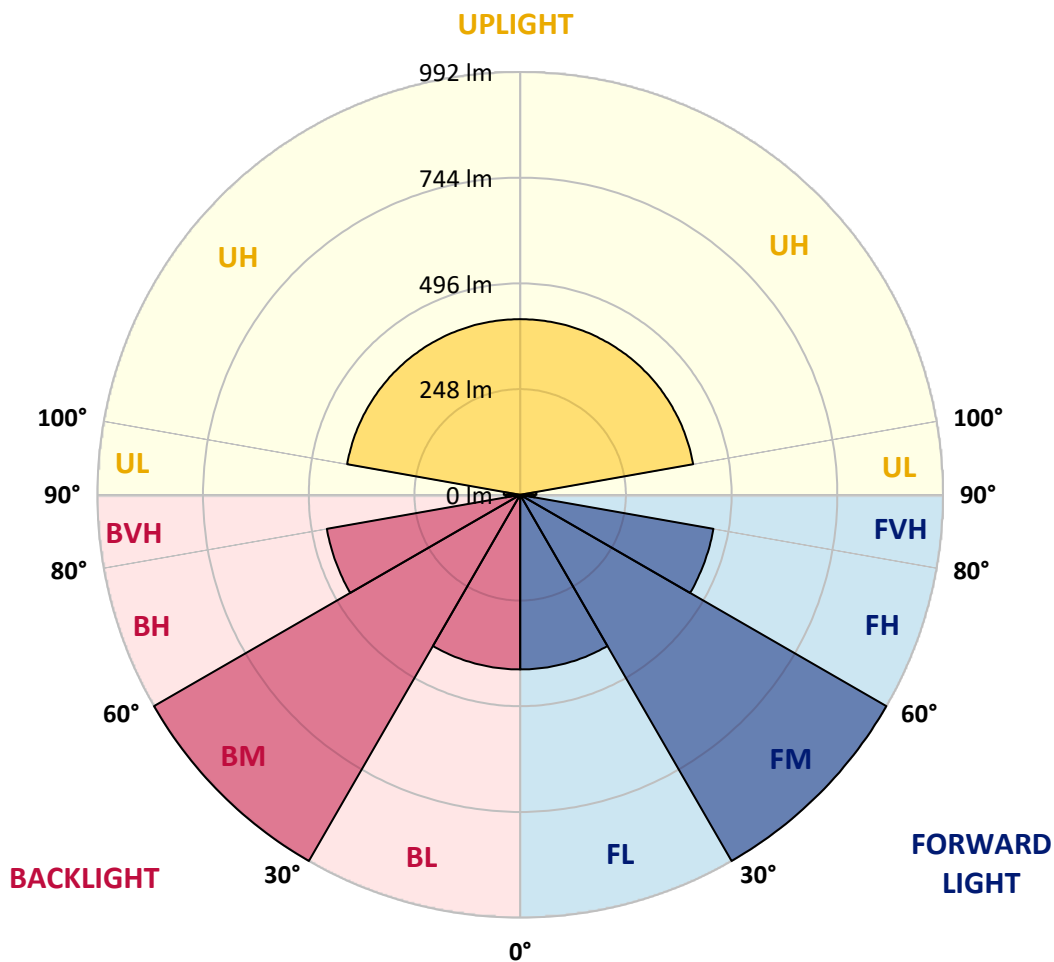
CATALOG NUMBER: TT-C2-LED-E1-CQ-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	409.5	8.9			
FM	(30°-60°)	991.7	21.5			
FH	(60°-80°)	460.2	10.0			G0/660
FVH	(80°-90°)	34.4	0.7			G1/100
BL	(0°-30°)	409.5	8.9	B1/500		
BM	(30°-60°)	991.7	21.5	B1/1000		
BH	(60°-80°)	460.2	10.0	B1/500		G0/660
BVH	(80°-90°)	34.4	0.7			G1/100
UL	(90°-100°)	38.3	0.8		U2/50	
UH	(100°-180°)	412.0	8.9		U3/500	

BUG Rating: B1-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3
2.5°	994.5	995.3	995.3	995.3	995.3	995.3	995.3	995.3	994.5	995.3	995.3
5°	994.5	994.5	994.5	994.5	995.3	994.5	994.5	994.5	994.5	994.5	994.5
7.5°	993.7	992.9	992.9	992.9	992.9	992.9	993.7	993.7	993.7	993.7	993.7
10°	991.3	991.3	991.3	991.3	991.3	991.3	991.3	991.3	991.3	991.3	991.3
12.5°	988.9	988.9	988.9	988.9	989.7	989.7	989.7	989.7	989.7	989.7	988.9
15°	987.3	987.3	987.3	987.3	987.3	987.3	987.3	987.3	987.3	987.3	987.3
17.5°	983.3	983.3	983.3	983.3	984.1	984.1	984.1	984.1	984.1	984.1	984.1
20°	977.0	977.0	977.0	977.0	977.0	977.8	978.6	978.6	978.6	978.6	978.6
22.5°	969.0	969.0	969.8	969.8	970.6	970.6	971.4	971.4	971.4	971.4	971.4
25°	961.8	961.8	961.8	962.6	962.6	962.6	963.4	964.2	964.2	964.2	963.4
27.5°	954.7	954.7	954.7	955.5	955.5	955.5	956.3	956.3	957.0	956.3	956.3
30°	946.7	945.9	945.9	946.7	947.5	947.5	948.3	948.3	948.3	948.3	947.5
32.5°	937.1	937.1	937.9	938.7	938.7	939.5	940.3	940.3	940.3	941.1	939.5
35°	928.4	929.2	929.2	930.0	931.5	932.3	933.1	933.9	933.9	933.9	932.3
37.5°	921.2	922.0	922.8	924.4	926.0	927.6	929.2	930.8	930.0	930.0	927.6
40°	912.4	913.2	914.8	916.4	919.6	921.2	923.6	925.2	926.0	925.2	922.8
42.5°	900.5	901.3	902.9	905.3	909.2	912.4	914.8	917.2	918.0	917.2	914.8
45°	884.5	885.3	886.9	890.1	894.9	898.1	902.1	904.5	906.0	906.0	903.7
47.5°	864.6	865.4	867.8	871.0	875.8	879.8	884.5	887.7	889.3	890.9	888.5
50°	839.9	840.7	843.9	847.9	851.9	857.4	863.0	867.8	870.2	871.0	870.2
52.5°	812.0	812.8	816.0	820.0	825.6	831.9	838.3	843.9	847.1	848.7	847.1
55°	778.5	780.1	782.5	788.1	794.5	800.1	808.0	814.4	818.4	819.2	818.4
57.5°	739.5	741.9	744.3	750.7	757.0	765.0	771.4	777.8	782.5	783.3	783.3
60°	695.7	697.3	699.7	706.0	713.2	718.8	727.5	733.9	737.9	737.9	738.7
62.5°	643.9	645.5	649.5	654.2	662.2	667.8	675.0	681.3	685.3	686.9	686.1
65°	583.3	584.9	587.3	593.7	600.0	606.4	613.6	619.2	623.2	624.0	623.2
67.5°	516.4	518.0	519.6	527.5	533.9	536.3	545.1	549.8	552.2	553.0	553.0
70°	445.5	446.3	448.6	452.6	459.8	462.2	467.8	471.8	473.3	476.5	474.1
72.5°	371.3	372.9	378.5	379.3	384.9	388.1	389.7	389.7	393.7	393.7	394.5
75°	298.0	298.8	301.2	302.0	306.0	306.0	305.2	306.8	310.0	310.0	310.8
77.5°	225.5	225.5	229.5	226.3	227.9	224.7	226.3	224.7	227.1	226.3	227.1
80°	157.8	157.8	160.2	157.0	157.8	154.6	155.4	154.6	154.6	155.4	155.4
82.5°	97.2	98.0	99.6	97.2	97.2	94.8	95.6	96.4	96.4	95.6	94.8
85°	47.8	47.8	49.4	48.6	47.8	46.2	47.0	47.8	47.8	47.0	47.0
87.5°	12.8	12.8	13.5	13.5	12.8	12.0	12.8	13.5	13.5	13.5	12.8
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°	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3
2.5°	994.5	994.5	995.3	994.5	995.3	994.5	995.3	995.3
5°	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5
7.5°	992.9	993.7	992.9	992.9	992.9	993.7	992.9	993.7
10°	991.3	991.3	991.3	991.3	991.3	991.3	991.3	991.3
12.5°	988.9	988.9	988.9	988.9	988.9	988.9	988.9	988.1
15°	987.3	986.5	986.5	986.5	985.7	985.7	985.7	985.7
17.5°	984.1	983.3	982.5	982.5	982.5	982.5	981.8	981.8
20°	978.6	977.8	977.0	977.0	976.2	976.2	975.4	975.4
22.5°	970.6	970.6	969.8	969.0	969.0	968.2	968.2	967.4
25°	963.4	962.6	961.8	961.0	960.2	960.2	959.4	958.6
27.5°	955.5	953.9	953.1	952.3	951.5	950.7	949.9	949.1
30°	946.7	945.1	943.5	942.7	941.1	939.5	938.7	937.9
32.5°	937.9	936.3	933.9	931.5	930.0	928.4	926.8	926.0
35°	930.8	927.6	925.2	922.0	919.6	917.2	916.4	915.6
37.5°	925.2	922.0	918.0	914.8	912.4	909.2	907.6	906.0
40°	919.6	915.6	910.8	906.8	903.7	899.7	898.1	896.5
42.5°	911.6	906.8	902.1	897.3	892.5	888.5	886.1	884.5
45°	900.5	895.7	890.1	883.7	879.0	874.2	871.8	870.2
47.5°	885.3	880.5	874.2	868.6	863.0	858.2	855.0	853.5
50°	867.0	862.2	855.8	849.5	843.9	838.3	835.9	833.5
52.5°	843.9	839.9	832.7	828.0	821.6	816.0	813.6	812.0
55°	815.2	811.2	804.0	799.3	792.9	788.1	784.9	782.5
57.5°	780.1	777.0	769.0	764.2	757.8	753.0	750.7	749.1
60°	737.1	733.9	726.0	721.2	715.6	710.0	708.4	706.8
62.5°	683.7	682.1	675.8	670.2	664.6	659.0	657.4	656.6
65°	621.6	620.0	614.4	609.6	604.8	600.0	598.5	596.9
67.5°	550.6	549.8	545.1	541.1	537.9	533.1	532.3	530.7
70°	474.9	473.3	469.4	466.2	463.8	459.8	459.0	457.4
72.5°	396.0	395.3	392.9	388.9	388.9	383.3	382.5	381.7
75°	309.2	313.2	310.0	308.4	308.4	305.2	305.2	304.4
77.5°	226.3	230.3	232.7	229.5	232.7	229.5	229.5	228.7
80°	154.6	157.8	160.2	157.8	161.8	159.4	159.4	162.6
82.5°	94.0	97.2	98.8	98.0	100.4	99.6	98.8	101.2
85°	46.2	47.8	48.6	48.6	49.4	47.8	49.4	50.2
87.5°	12.0	12.8	13.5	12.8	13.5	13.5	13.5	14.3
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)