

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: P198348

Luminaire Tested: **TT-C2-LED-E1-WQ-CG-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198348
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-WQ-CG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH CLEAR 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: 4941.5 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G1

Input Watts (W): 51.4
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

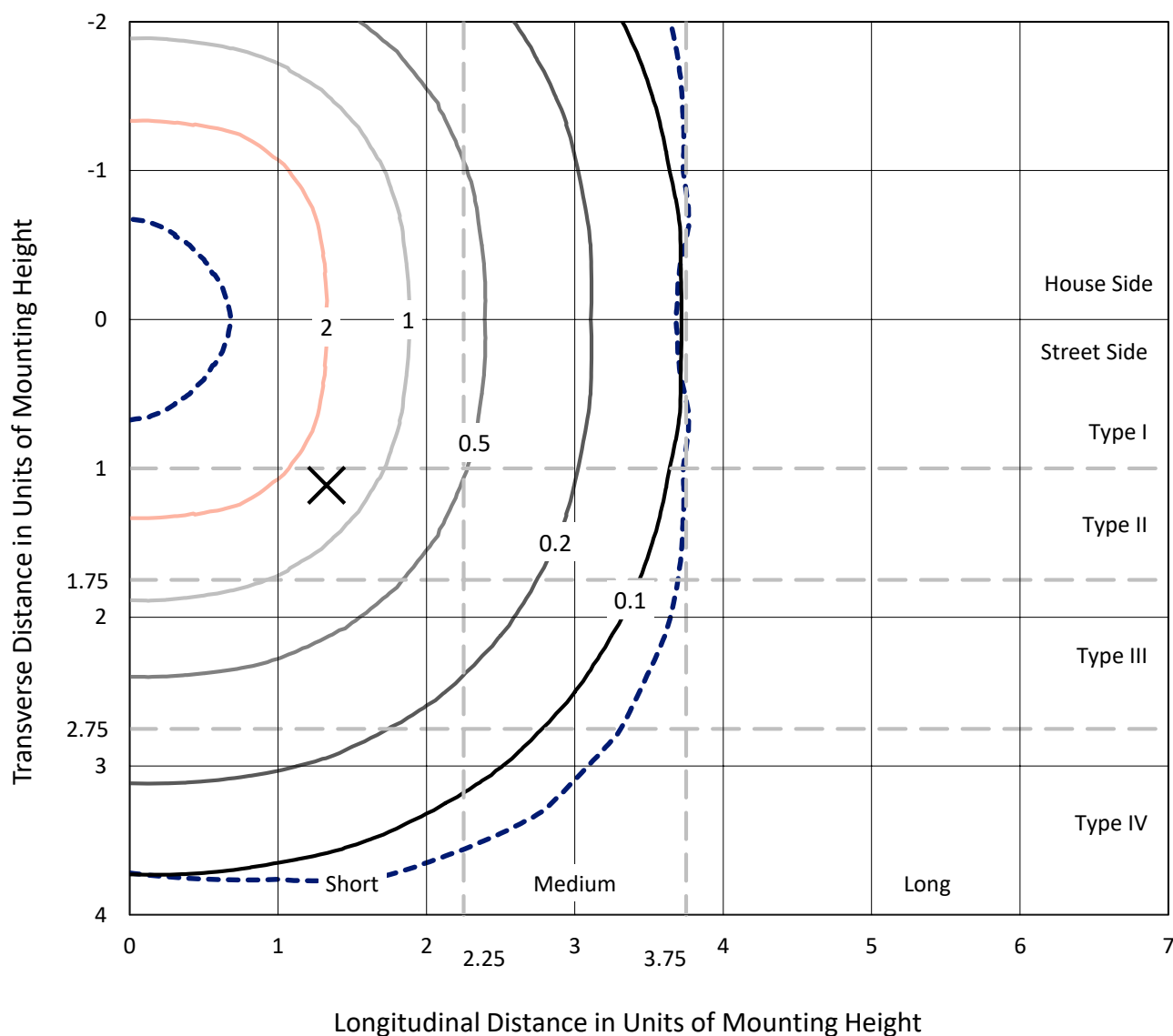


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

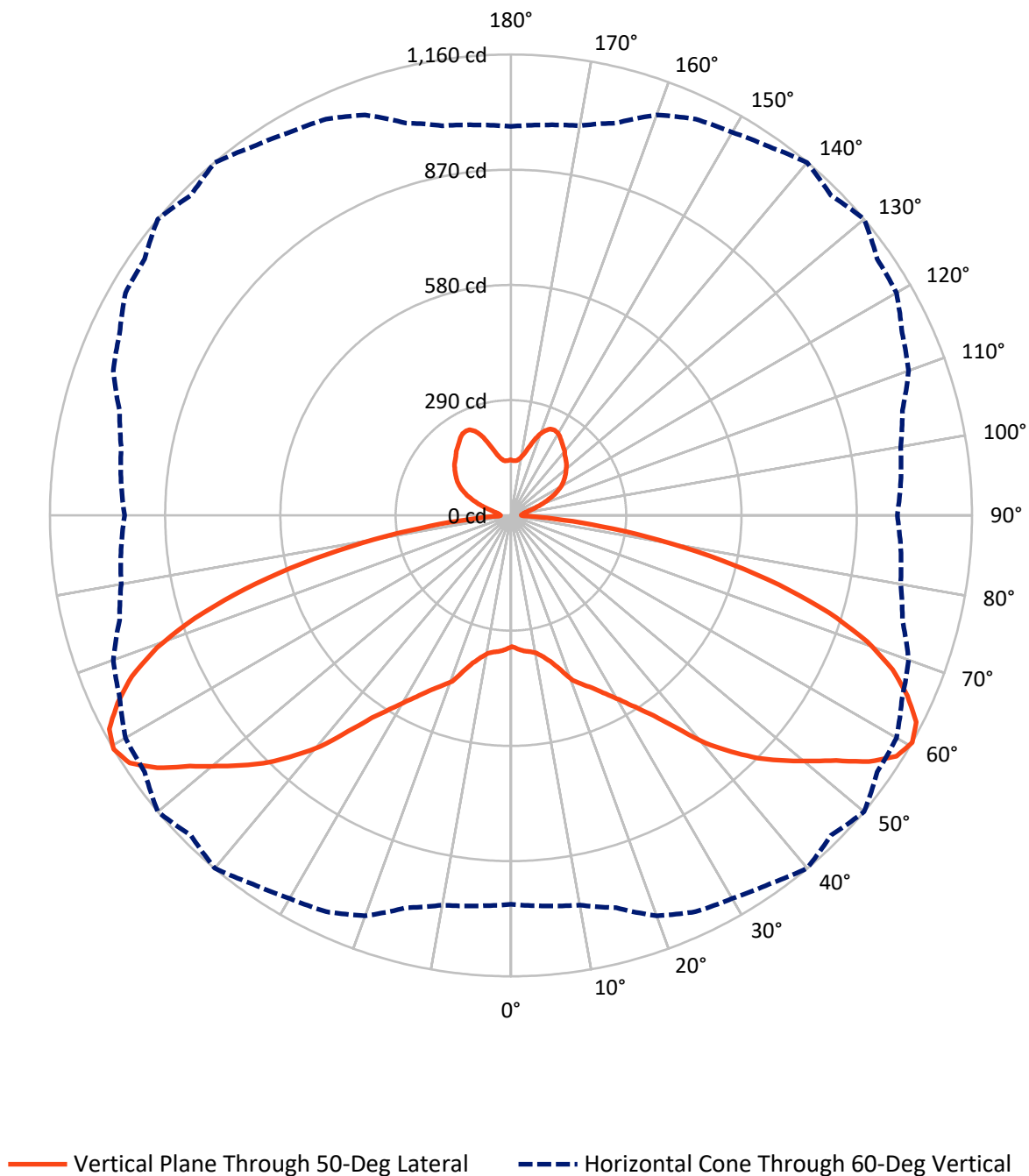


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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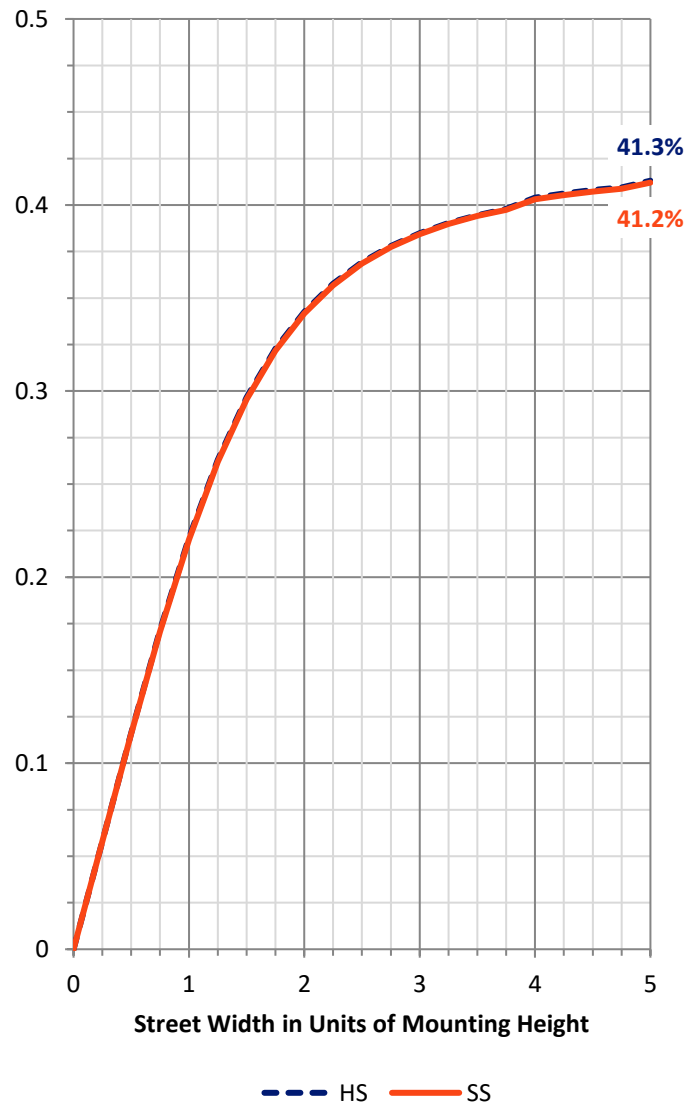
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2058.7	412.0	2470.7
	% Fixture	41.7	8.3	50.0
Street Side	Lumens	2058.7	412.0	2470.7
	% Fixture	41.7	8.3	50.0
Total	Lumens	4117.5	824.0	4941.5
	% Fixture	83.3	16.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	0.7
10°-20°	111.0	2.2
20°-30°	224.0	4.5
30°-40°	387.2	7.8
40°-50°	643.1	13.0
50°-60°	914.0	18.5
60°-70°	998.4	20.2
70°-80°	663.3	13.4
80°-90°	143.6	2.9
90°-100°	38.3	0.8
100°-110°	59.4	1.2
110°-120°	119.3	2.4
120°-130°	148.7	3.0
130°-140°	153.2	3.1
140°-150°	136.0	2.8
150°-160°	103.7	2.1
160°-170°	51.8	1.0
170°-180°	13.6	0.3
0°-90°	4117.5	83.3
0°-180°	4941.5	100.0

Coefficient of Utilization



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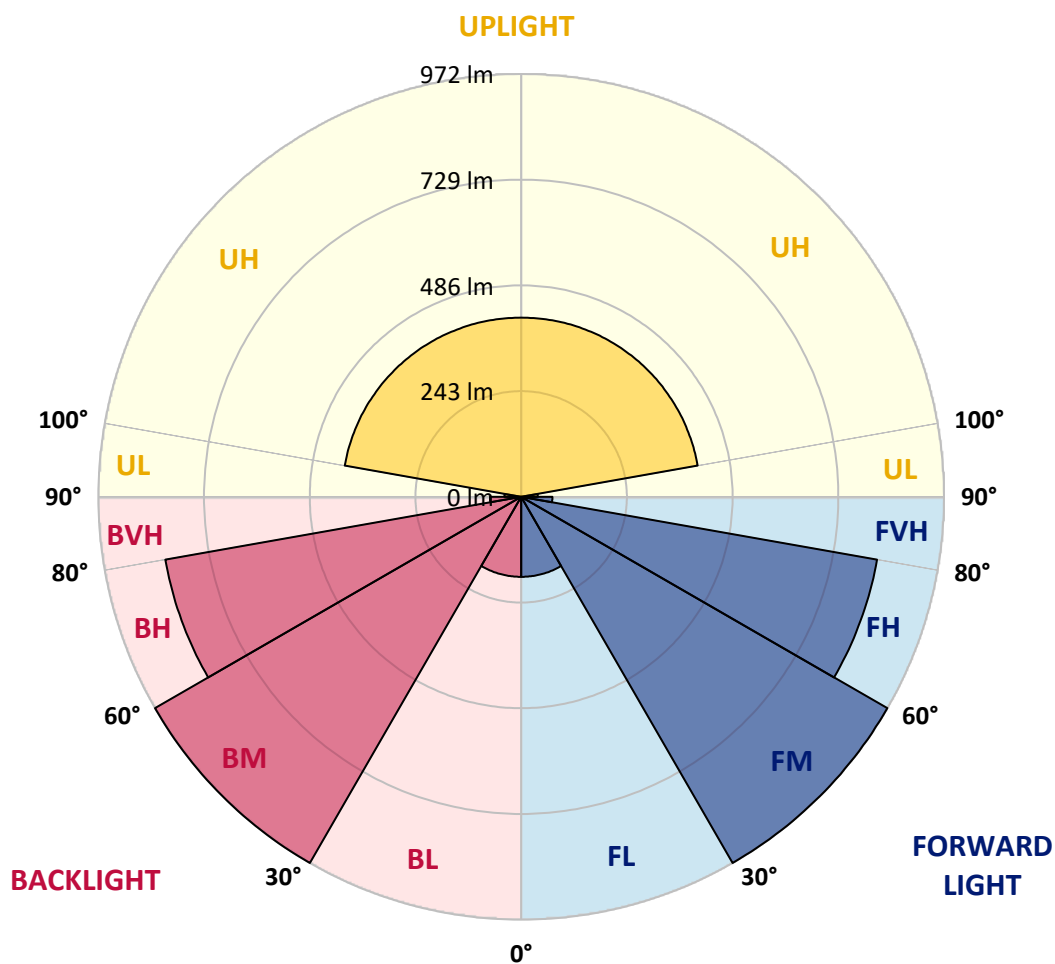
CATALOG NUMBER: TT-C2-LED-E1-WQ-CG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	183.9	3.7			
FM	(30°-60°)	972.2	19.7			
FH	(60°-80°)	830.8	16.8			G1/1800
FVH	(80°-90°)	71.8	1.5			G1/100
BL	(0°-30°)	183.9	3.7	B1/500		
BM	(30°-60°)	972.2	19.7	B1/1000		
BH	(60°-80°)	830.8	16.8	B2/1000		G1/1800
BVH	(80°-90°)	71.8	1.5			G1/100
UL	(90°-100°)	38.3	0.8		U2/50	
UH	(100°-180°)	412.0	8.3		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°	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0
2.5°	336.8	336.8	336.8	336.8	336.8	336.8	336.8	336.8	336.0	336.8	336.8
5°	340.2	340.2	340.2	341.1	341.1	341.1	341.9	341.9	341.9	342.8	342.8
7.5°	342.8	342.8	342.8	342.8	343.6	343.6	343.6	344.5	344.5	345.3	346.2
10°	353.8	353.8	353.8	353.8	353.8	353.0	353.0	353.0	352.1	352.1	352.1
12.5°	367.4	368.3	369.1	369.1	369.1	369.1	367.4	365.7	365.7	365.7	365.7
15°	380.2	381.0	381.9	383.6	384.5	385.3	385.3	385.3	385.3	385.3	383.6
17.5°	400.6	401.5	401.5	402.3	403.2	403.2	404.0	406.6	410.0	411.7	410.0
20°	432.1	433.8	434.6	434.6	435.5	434.6	436.3	438.0	440.6	442.3	443.1
22.5°	455.0	456.7	459.3	459.3	459.3	458.4	460.2	461.0	460.2	460.2	461.9
25°	472.9	474.6	476.3	477.2	478.9	482.3	485.7	485.7	483.1	482.3	482.3
27.5°	495.9	498.4	498.4	499.3	501.0	503.5	506.9	509.5	511.2	509.5	508.6
30°	525.6	527.3	528.2	527.3	530.7	531.6	532.4	534.1	539.3	542.7	538.4
32.5°	548.6	551.2	553.7	557.1	564.8	568.2	567.3	569.0	570.7	574.1	575.0
35°	583.5	587.7	588.6	591.1	600.5	605.6	613.3	617.5	616.7	612.4	618.4
37.5°	636.2	641.3	642.2	646.4	655.8	660.0	668.5	679.6	682.1	676.2	679.6
40°	691.5	698.3	704.3	713.6	728.9	734.0	744.2	750.2	758.7	759.5	753.6
42.5°	738.3	745.9	745.9	762.1	779.1	793.6	806.3	807.2	813.1	821.6	813.1
45°	788.5	794.4	797.0	810.6	820.8	839.5	858.2	865.0	867.6	869.3	871.8
47.5°	834.4	842.1	844.6	856.5	867.6	884.6	896.5	916.9	922.0	915.2	922.0
50°	863.3	871.8	878.6	903.3	922.9	937.3	947.5	965.4	975.6	970.5	971.3
52.5°	908.4	910.9	917.8	931.4	959.4	998.6	1010.5	1016.4	1030.9	1038.5	1024.9
55°	969.6	978.1	983.2	999.4	1013.9	1041.9	1087.0	1096.4	1093.0	1116.8	1093.8
57.5°	979.8	992.6	1008.8	1039.4	1064.9	1080.2	1108.3	1140.6	1139.7	1143.1	1144.0
60°	979.0	986.6	996.0	1022.4	1072.6	1100.6	1113.4	1132.9	1159.3	1138.9	1160.2
62.5°	973.0	984.1	994.3	1013.0	1040.2	1080.2	1115.9	1113.4	1149.1	1132.9	1144.8
65°	937.3	947.5	966.2	990.9	1024.1	1042.8	1078.5	1101.5	1096.4	1118.5	1096.4
67.5°	875.2	884.6	899.9	928.8	963.7	990.9	1003.7	1041.9	1037.7	1062.3	1036.0
70°	790.2	802.1	819.9	840.3	874.4	903.3	917.8	942.4	954.3	952.6	950.9
72.5°	688.1	698.3	712.8	734.9	763.8	791.9	802.9	821.6	841.2	835.2	836.9
75°	574.1	582.6	593.7	607.3	634.5	656.6	669.4	686.4	701.7	697.5	695.8
77.5°	442.3	452.5	464.4	477.2	488.2	508.6	518.0	529.9	542.7	540.1	541.0
80°	309.6	318.1	325.8	339.4	347.9	354.7	364.9	370.0	379.3	377.6	380.2
82.5°	188.8	194.8	199.9	206.7	214.3	212.6	213.5	219.4	227.1	222.8	229.7
85°	92.7	91.9	97.0	98.7	103.8	102.9	102.1	105.5	109.7	107.2	107.2
87.5°	23.8	23.8	23.8	24.7	27.2	29.8	27.2	28.9	30.6	31.5	30.6
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°	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0
2.5°	336.0	336.8	336.0	336.8	336.8	336.8	336.8	336.0
5°	342.8	341.9	341.9	341.9	341.1	340.2	340.2	340.2
7.5°	346.2	346.2	345.3	344.5	343.6	343.6	345.3	344.5
10°	353.8	354.7	355.5	356.4	355.5	354.7	354.7	353.8
12.5°	365.7	366.6	368.3	370.0	370.0	369.1	367.4	366.6
15°	382.8	381.9	382.8	384.5	384.5	381.9	379.3	378.5
17.5°	406.6	404.0	402.3	402.3	404.0	401.5	398.9	399.8
20°	439.7	435.5	434.6	432.1	434.6	434.6	430.4	430.4
22.5°	463.6	460.2	456.7	454.2	457.6	459.3	455.0	451.6
25°	485.7	484.8	479.7	477.2	477.2	478.0	472.1	472.9
27.5°	507.8	507.8	504.4	500.1	498.4	501.0	495.9	494.2
30°	534.1	531.6	534.1	528.2	523.9	526.5	526.5	523.1
32.5°	568.2	564.8	567.3	560.5	554.6	553.7	549.5	544.4
35°	616.7	608.1	603.9	600.5	588.6	587.7	586.9	582.6
37.5°	677.9	666.8	657.5	658.3	641.3	637.1	637.1	631.1
40°	751.0	744.2	730.6	725.5	708.5	697.5	696.6	685.5
42.5°	802.1	804.6	786.8	774.9	761.2	744.2	745.1	733.2
45°	858.2	853.1	836.9	817.4	811.4	792.7	793.6	781.7
47.5°	911.8	893.1	884.6	863.3	854.0	832.7	835.2	826.7
50°	964.5	944.1	934.8	911.8	896.5	874.4	871.8	854.0
52.5°	1020.7	1001.1	988.3	955.2	934.8	917.8	910.9	902.4
55°	1093.8	1074.3	1042.8	1010.5	995.2	968.8	966.2	955.2
57.5°	1126.1	1110.8	1077.7	1056.4	1025.8	998.6	988.3	967.1
60°	1125.3	1120.2	1086.2	1064.9	1019.8	996.0	984.9	972.2
62.5°	1115.9	1110.0	1070.0	1046.2	1005.4	984.9	976.4	960.3
65°	1097.2	1076.8	1041.1	1021.5	977.3	959.4	940.7	926.3
67.5°	1044.5	1002.0	985.8	961.1	917.8	899.0	881.2	866.7
70°	945.8	914.3	899.9	869.3	831.8	819.9	797.8	781.7
72.5°	819.9	802.9	787.6	754.4	728.1	716.2	694.1	680.4
75°	680.4	670.2	649.0	624.3	600.5	596.2	572.4	567.3
77.5°	528.2	518.8	501.8	484.0	472.9	464.4	443.1	441.4
80°	370.0	364.0	350.4	342.8	335.1	327.5	313.0	311.3
82.5°	218.6	214.3	215.2	207.5	203.3	201.6	190.5	191.4
85°	105.5	102.1	102.1	102.1	97.8	97.0	90.2	91.0
87.5°	30.6	27.2	27.2	27.2	25.5	25.5	22.1	23.0
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)