

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: P198358

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198358
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-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: 4893.7 lumens
Efficiency: N/A
Efficacy: 95.2 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

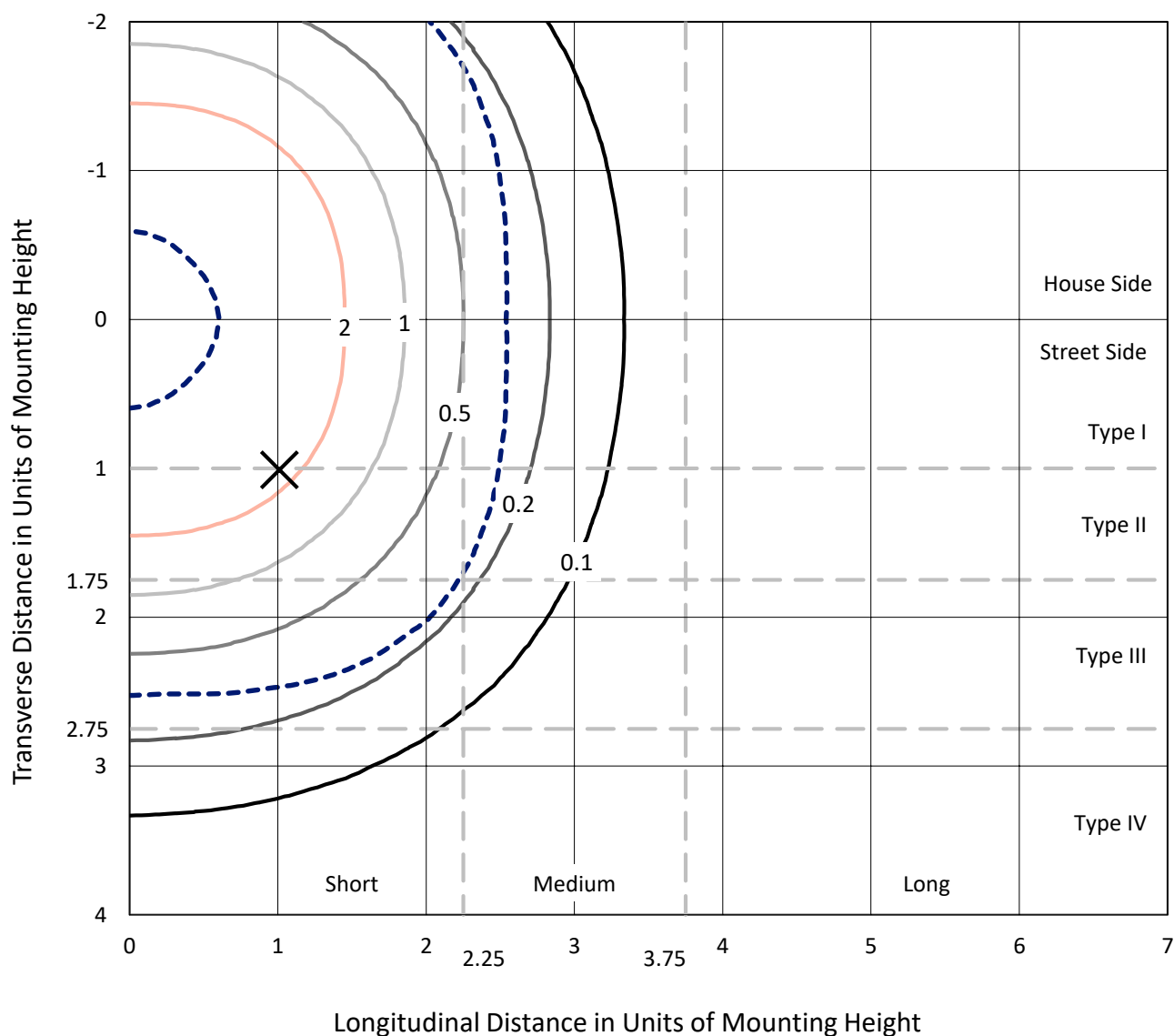


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

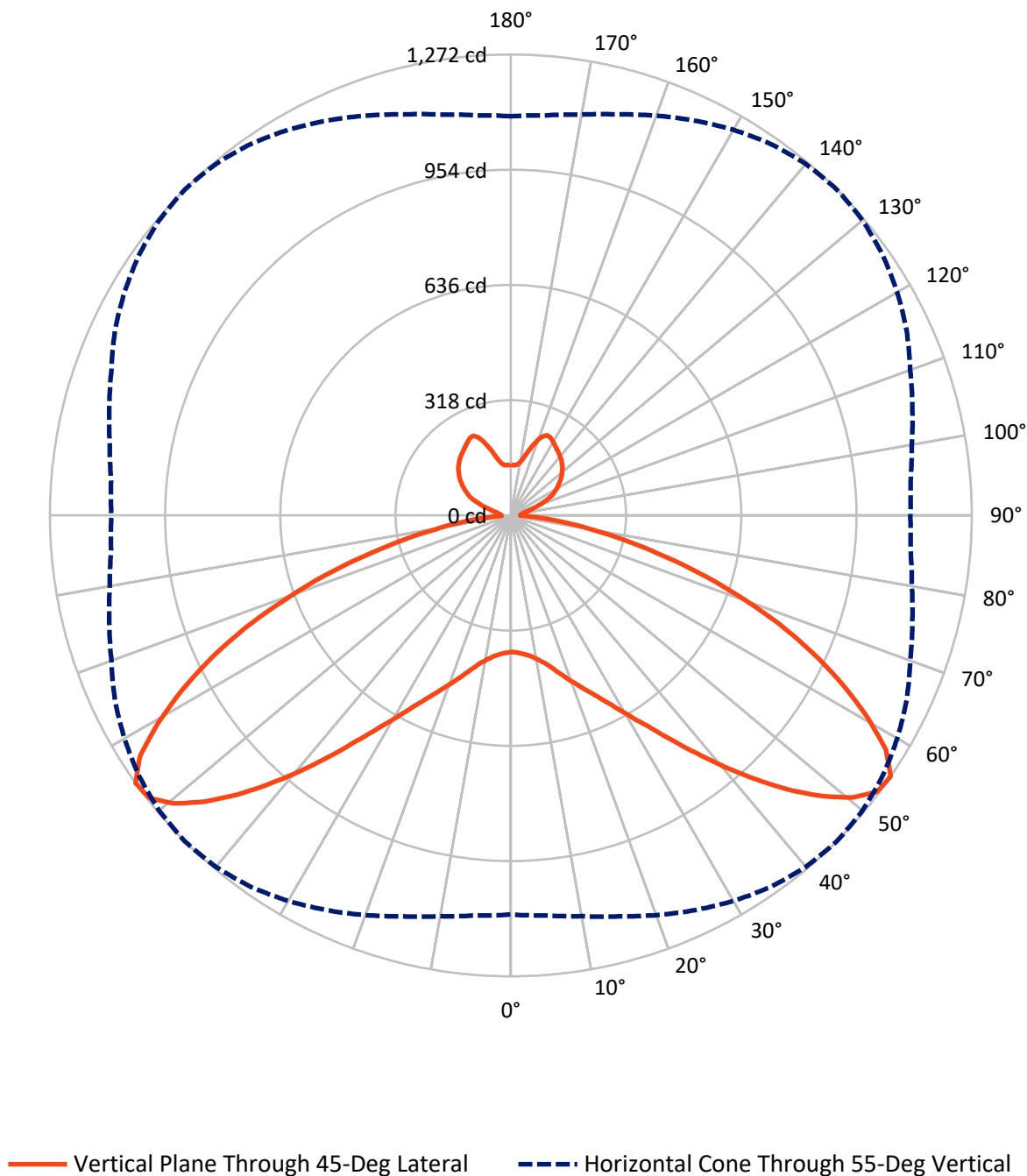


Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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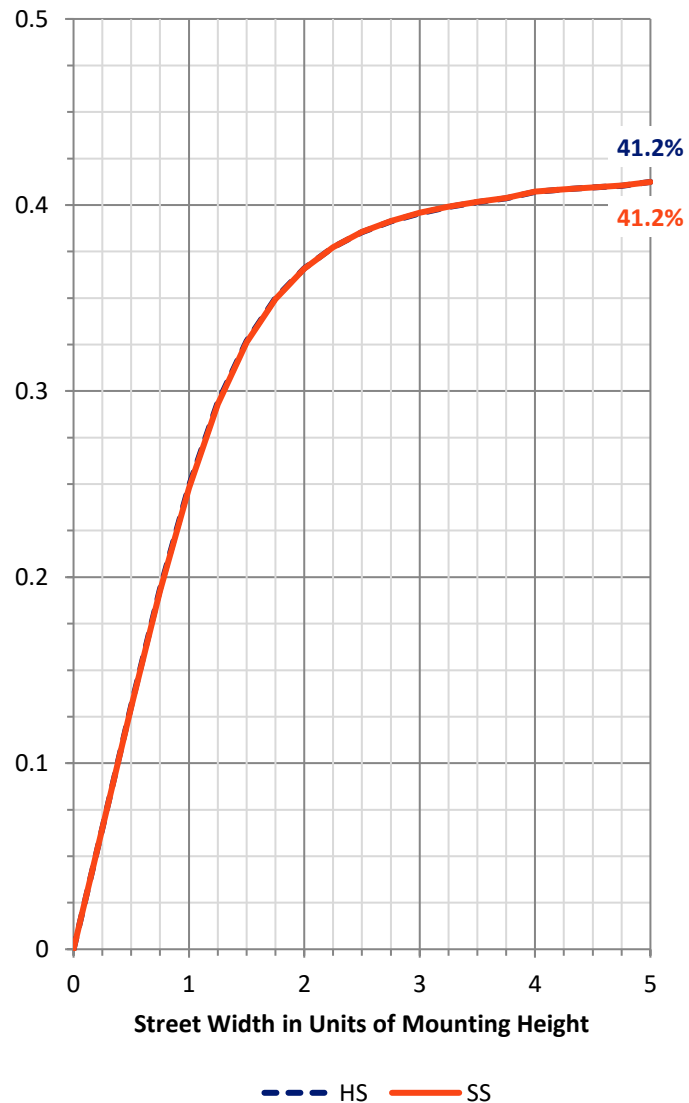
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2034.9	412.0	2446.8
	% Fixture	41.6	8.4	50.0
Street Side	Lumens	2034.9	412.0	2446.8
	% Fixture	41.6	8.4	50.0
Total	Lumens	4069.7	824.0	4893.7
	% Fixture	83.2	16.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	0.8
10°-20°	126.2	2.6
20°-30°	257.0	5.3
30°-40°	469.3	9.6
40°-50°	796.9	16.3
50°-60°	1037.8	21.2
60°-70°	839.3	17.2
70°-80°	412.4	8.4
80°-90°	93.7	1.9
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	1.1
170°-180°	13.6	0.3
0°-90°	4069.7	83.2
0°-180°	4893.7	100.0

Coefficient of Utilization



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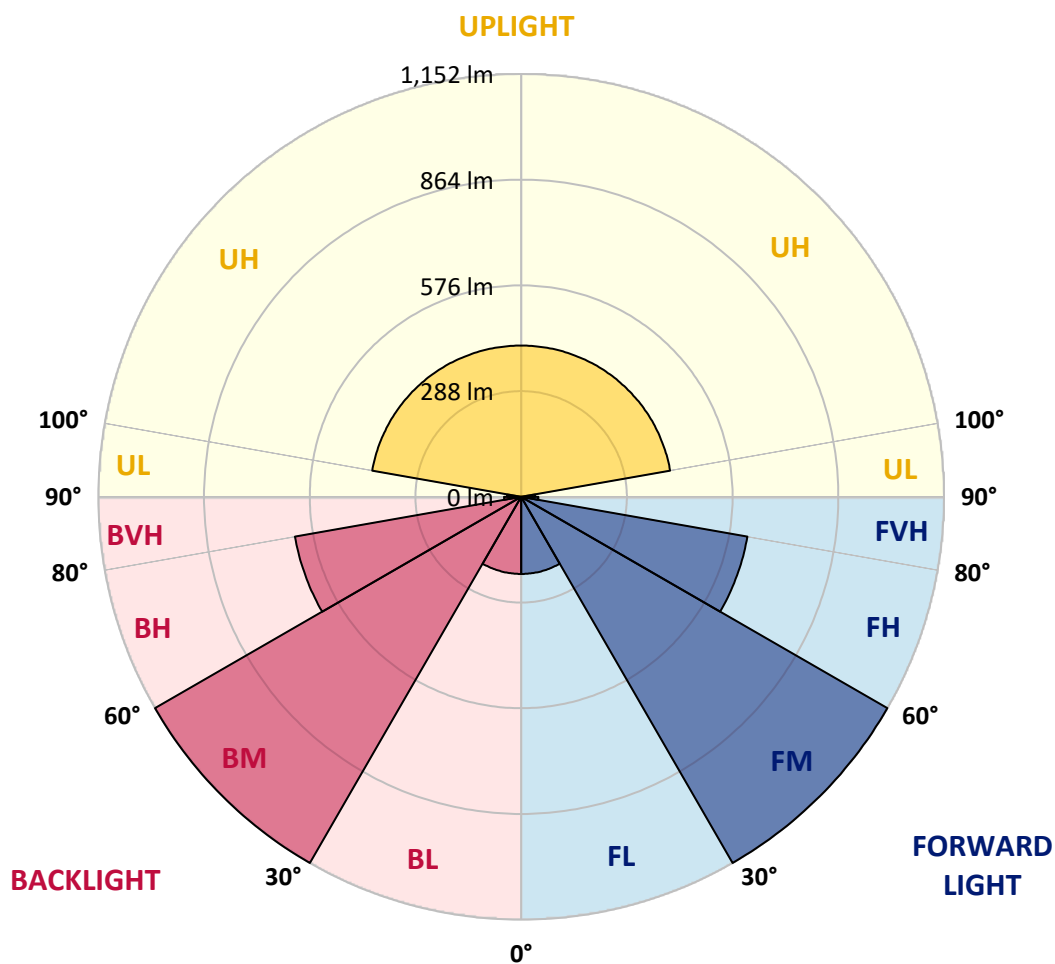
CATALOG NUMBER: TT-C2-LED-E1-WQ-SG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.2	4.3			
FM	(30°-60°)	1152.0	23.5			
FH	(60°-80°)	625.9	12.8			G0/660
FVH	(80°-90°)	46.8	1.0			G1/100
BL	(0°-30°)	210.2	4.3	B1/500		
BM	(30°-60°)	1152.0	23.5	B2/2500		
BH	(60°-80°)	625.9	12.8	B2/1000		G0/660
BVH	(80°-90°)	46.8	1.0			G1/100
UL	(90°-100°)	38.3	0.8		U2/50	
UH	(100°-180°)	412.0	8.4		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°	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7
2.5°	378.3	378.3	378.3	378.3	378.3	378.3	379.2	379.2	379.2	379.2	379.2
5°	383.3	383.3	383.3	384.2	384.2	384.2	384.2	384.2	384.2	384.2	384.2
7.5°	390.8	390.0	390.8	390.8	390.8	391.7	391.7	390.8	391.7	391.7	391.7
10°	401.6	400.8	401.6	401.6	401.6	402.5	402.5	402.5	402.5	403.3	403.3
12.5°	417.4	416.6	417.4	418.3	417.4	418.3	418.3	418.3	418.3	418.3	418.3
15°	437.4	436.6	437.4	438.2	437.4	439.0	439.0	438.2	438.2	439.0	439.0
17.5°	461.5	459.9	460.6	461.5	461.5	463.2	463.2	462.3	463.2	464.0	463.2
20°	486.4	484.8	485.7	488.1	488.1	489.0	490.6	489.8	490.6	491.4	490.6
22.5°	513.9	513.0	513.9	516.4	516.4	517.2	519.7	519.7	519.7	520.5	519.7
25°	543.8	543.0	543.8	546.3	546.3	548.0	551.3	551.3	552.2	553.0	552.2
27.5°	578.8	577.9	579.5	582.1	583.0	585.4	589.6	590.4	591.2	592.1	590.4
30°	619.5	617.8	620.3	624.5	626.2	629.5	634.5	636.1	637.0	639.4	637.8
32.5°	666.0	664.4	667.7	672.7	675.2	680.2	686.9	688.5	691.0	692.7	690.2
35°	720.9	720.1	723.5	730.9	735.1	740.9	750.1	752.5	754.2	757.6	754.2
37.5°	781.6	780.8	786.7	795.0	802.5	811.6	821.5	825.7	828.2	832.4	828.2
40°	849.0	848.1	855.6	865.7	874.8	886.4	898.9	904.7	909.7	913.9	908.9
42.5°	918.1	918.1	927.2	938.0	951.3	965.4	979.6	986.2	994.5	997.0	991.2
45°	984.6	985.3	994.5	1007.8	1026.9	1045.2	1061.0	1069.4	1078.5	1081.0	1073.5
47.5°	1047.8	1048.6	1056.9	1074.4	1096.0	1116.7	1135.9	1147.5	1156.6	1157.5	1151.7
50°	1099.3	1102.6	1113.4	1129.2	1151.7	1173.3	1196.6	1211.6	1220.7	1223.2	1217.4
52.5°	1119.3	1125.1	1137.6	1157.5	1183.3	1205.7	1231.5	1250.6	1261.4	1265.6	1260.7
55°	1100.9	1107.6	1122.6	1145.1	1173.3	1201.5	1228.2	1250.6	1265.6	1271.5	1266.4
57.5°	1060.2	1061.0	1076.0	1098.5	1124.2	1153.3	1179.1	1199.9	1214.0	1219.9	1219.1
60°	989.5	989.5	1003.7	1025.3	1045.2	1075.2	1096.8	1112.6	1122.6	1129.2	1127.5
62.5°	894.8	894.8	907.2	929.6	949.6	975.4	996.2	1012.8	1019.4	1026.9	1028.6
65°	789.1	789.1	800.8	823.2	841.5	864.8	884.7	900.5	907.2	916.4	914.7
67.5°	676.9	676.1	686.9	705.9	723.5	745.1	764.2	779.2	786.7	797.5	790.0
70°	561.3	561.3	570.4	585.4	597.8	619.5	637.8	652.8	658.6	667.7	663.6
72.5°	451.5	450.7	458.2	469.8	479.8	498.9	509.7	526.4	531.3	543.8	537.2
75°	352.5	350.9	356.7	365.0	371.7	384.2	392.5	405.8	410.0	418.3	415.0
77.5°	265.3	264.4	266.9	272.8	277.7	287.7	291.1	297.7	301.0	309.3	302.7
80°	190.4	188.0	190.4	193.8	195.5	202.9	203.7	206.3	207.9	213.7	207.0
82.5°	128.1	124.8	126.4	128.9	128.9	133.0	133.9	133.0	136.3	138.0	134.7
85°	73.1	70.7	71.5	73.1	72.4	74.8	74.8	74.0	76.5	76.5	74.8
87.5°	24.2	22.5	23.3	24.2	24.2	24.9	25.8	24.9	26.6	26.6	24.9
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°	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7
2.5°	379.2	379.2	379.2	379.2	379.2	379.2	379.2	379.2
5°	384.2	384.2	384.2	384.2	384.2	383.3	383.3	383.3
7.5°	391.7	391.7	391.7	391.7	391.7	390.8	390.8	390.8
10°	403.3	402.5	402.5	402.5	402.5	401.6	402.5	401.6
12.5°	418.3	419.1	419.1	418.3	419.1	417.4	417.4	417.4
15°	439.0	438.2	438.2	438.2	438.2	437.4	437.4	437.4
17.5°	462.3	462.3	461.5	461.5	460.6	459.9	459.9	459.9
20°	489.8	489.0	488.1	487.3	486.4	484.8	484.0	484.0
22.5°	518.1	517.2	516.4	515.6	514.7	513.0	511.4	511.4
25°	549.6	548.0	547.1	545.5	543.8	542.1	541.4	540.5
27.5°	587.9	586.3	583.7	581.3	577.9	577.1	575.5	575.5
30°	633.6	631.2	627.8	623.7	620.3	617.0	615.4	614.5
32.5°	686.9	683.6	677.7	672.7	666.9	663.6	661.1	659.4
35°	749.2	744.2	737.6	730.1	722.6	716.8	712.7	712.7
37.5°	822.4	814.9	804.9	795.8	785.0	778.3	773.3	770.0
40°	902.2	891.4	878.9	867.3	854.9	845.7	838.2	839.0
42.5°	981.3	972.1	957.1	943.0	927.2	914.7	905.6	904.7
45°	1064.4	1052.7	1034.4	1016.1	997.8	982.9	972.1	970.4
47.5°	1141.7	1129.2	1107.6	1085.2	1065.2	1048.6	1037.0	1035.3
50°	1204.9	1190.0	1167.5	1143.4	1121.8	1103.5	1091.0	1087.7
52.5°	1245.7	1229.0	1204.9	1175.8	1152.6	1131.7	1116.7	1112.6
55°	1252.3	1230.7	1204.9	1172.5	1146.7	1123.4	1106.8	1101.8
57.5°	1206.6	1183.3	1160.0	1131.7	1105.9	1081.0	1067.7	1061.0
60°	1117.6	1099.3	1080.2	1054.4	1033.6	1010.3	999.5	996.2
62.5°	1015.3	999.5	982.0	955.5	938.0	917.2	907.2	903.1
65°	905.6	887.3	870.6	849.0	829.9	812.4	798.3	796.6
67.5°	784.1	765.1	750.8	731.8	712.7	696.0	686.9	681.9
70°	656.1	640.3	626.2	605.3	592.9	577.1	570.4	565.4
72.5°	528.9	519.7	502.2	489.0	474.8	462.3	458.2	453.2
75°	409.1	398.3	385.0	376.7	365.9	359.3	355.9	352.5
77.5°	300.2	291.1	283.6	280.2	275.2	268.6	266.1	263.6
80°	207.9	203.7	198.8	197.9	194.6	189.6	188.7	188.0
82.5°	134.7	132.3	130.6	130.6	128.9	125.5	124.8	124.8
85°	74.8	74.0	74.8	74.0	72.4	70.7	70.7	70.7
87.5°	24.9	24.9	25.8	26.6	24.2	24.2	23.3	23.3
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)