

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: P198385

Luminaire Tested: **TT-C3-LED-E1-MQ-CG-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198385
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-C3-LED-E1-MQ-CG-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6383.6 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G2

Input Watts (W): 62.4
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

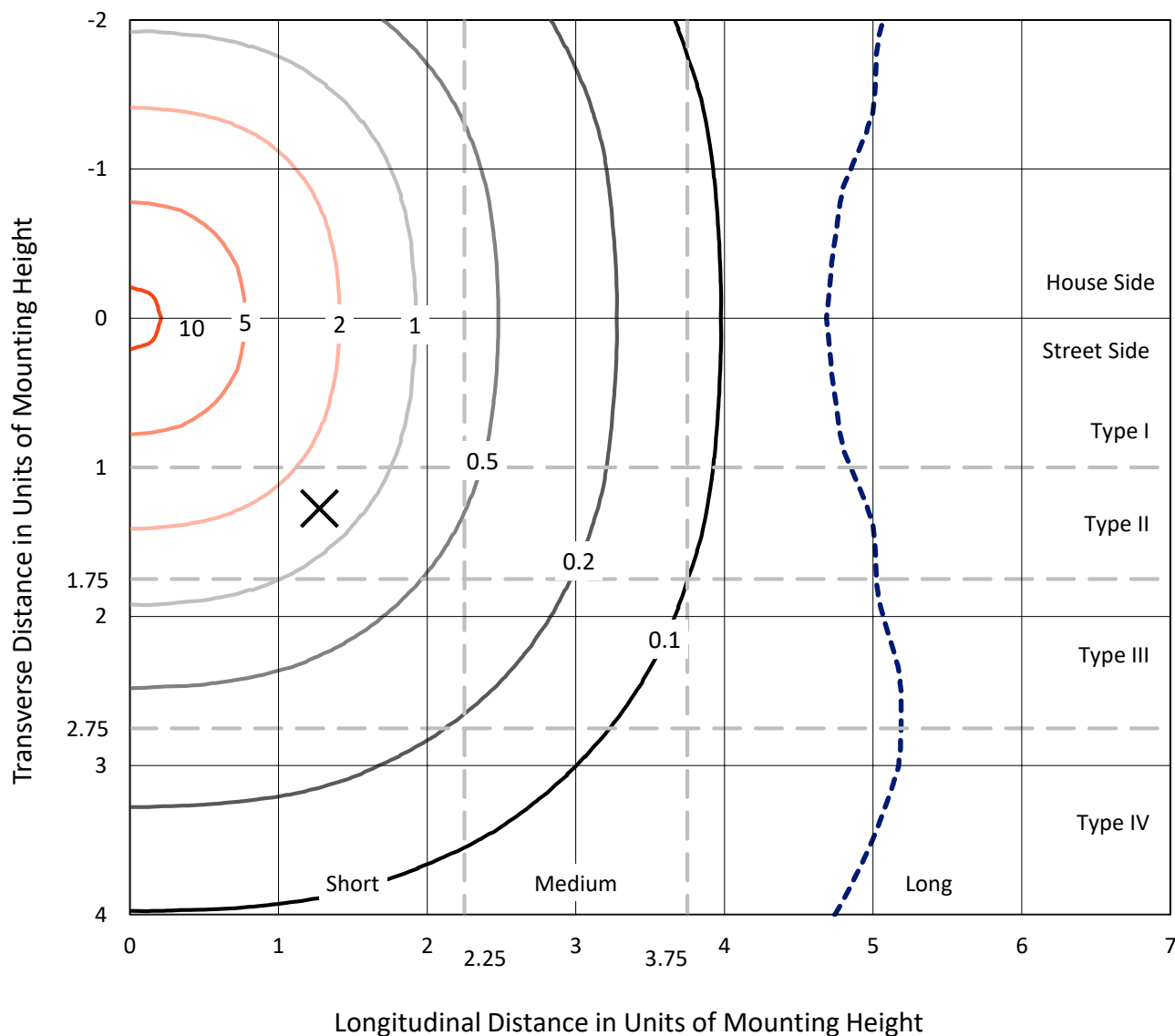


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

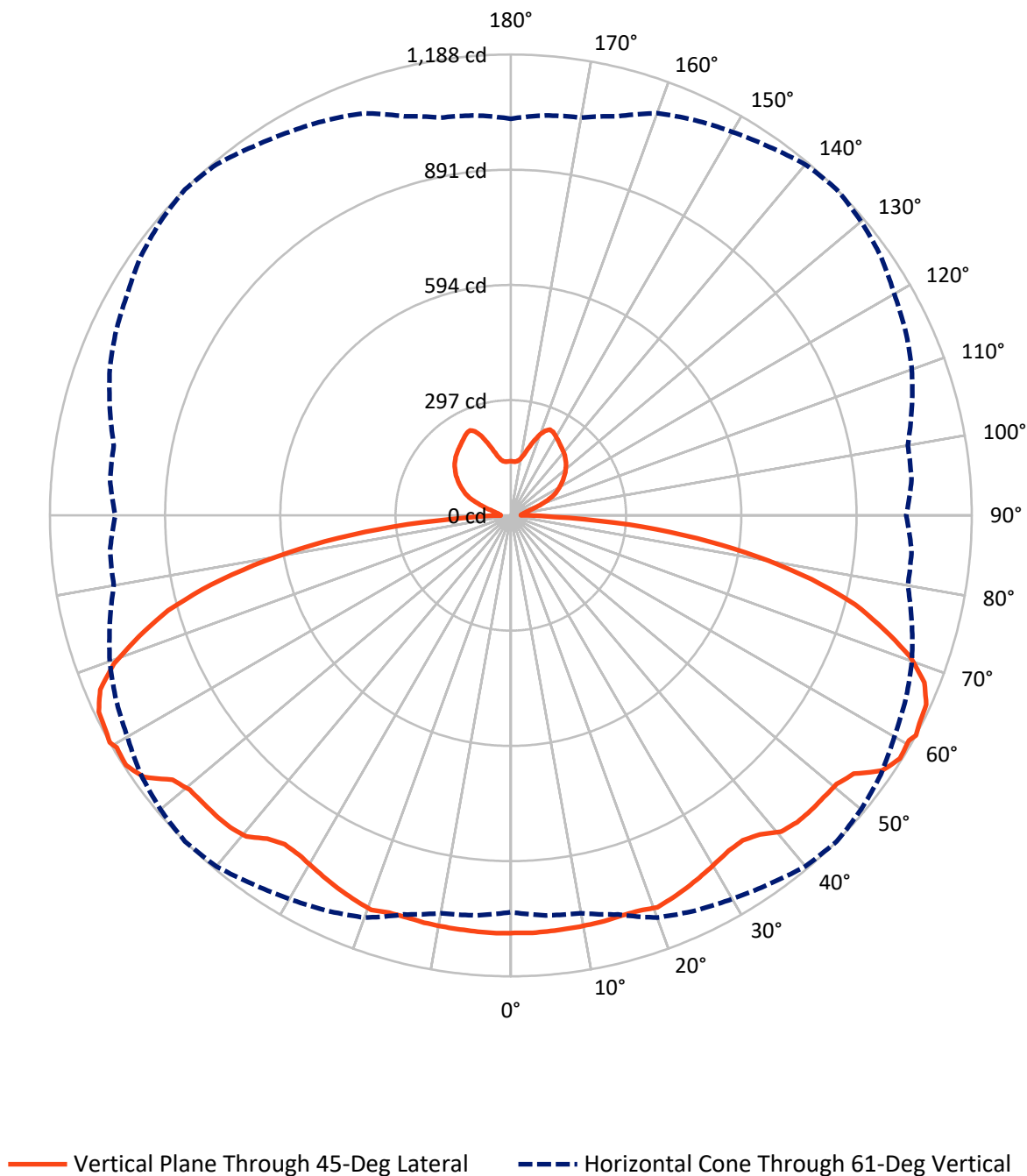


Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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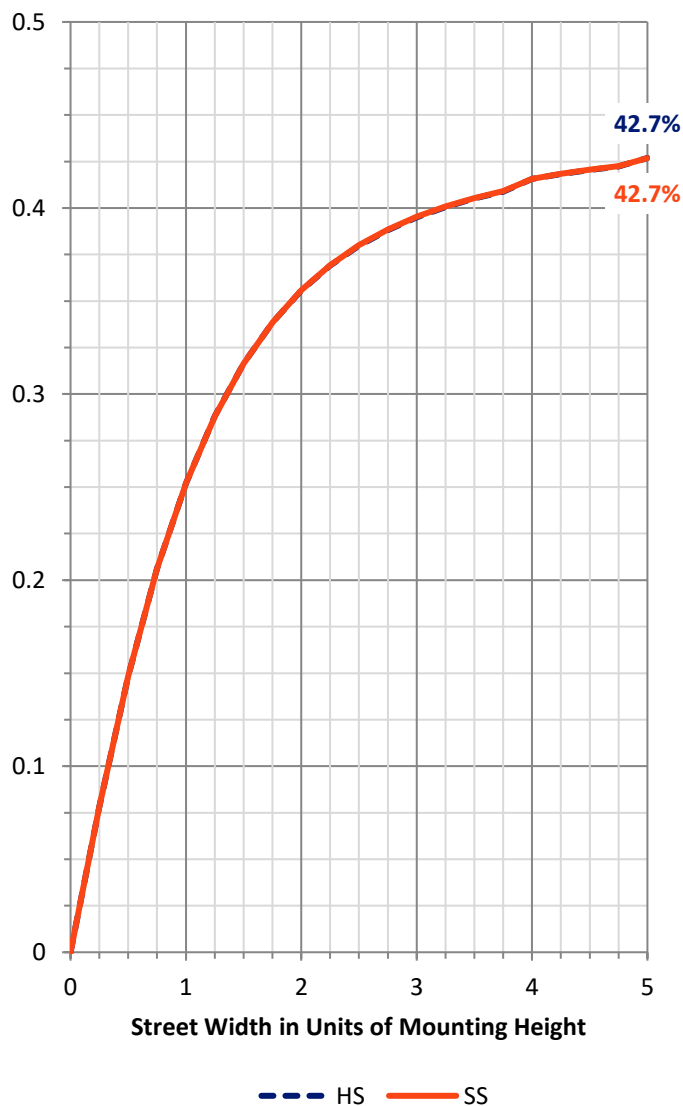
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2779.8	412.0	3191.8
	% Fixture	43.5	6.5	50.0
Street Side	Lumens	2779.8	412.0	3191.8
	% Fixture	43.5	6.5	50.0
Total	Lumens	5559.7	824.0	6383.6
	% Fixture	87.1	12.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	1.6
10°-20°	303.6	4.8
20°-30°	488.4	7.7
30°-40°	647.0	10.1
40°-50°	817.1	12.8
50°-60°	979.1	15.3
60°-70°	1070.5	16.8
70°-80°	857.0	13.4
80°-90°	294.3	4.6
90°-100°	38.3	0.6
100°-110°	59.4	0.9
110°-120°	119.3	1.9
120°-130°	148.7	2.3
130°-140°	153.2	2.4
140°-150°	136.0	2.1
150°-160°	103.7	1.6
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	5559.7	87.1
0°-180°	6383.6	100.0

Coefficient of Utilization



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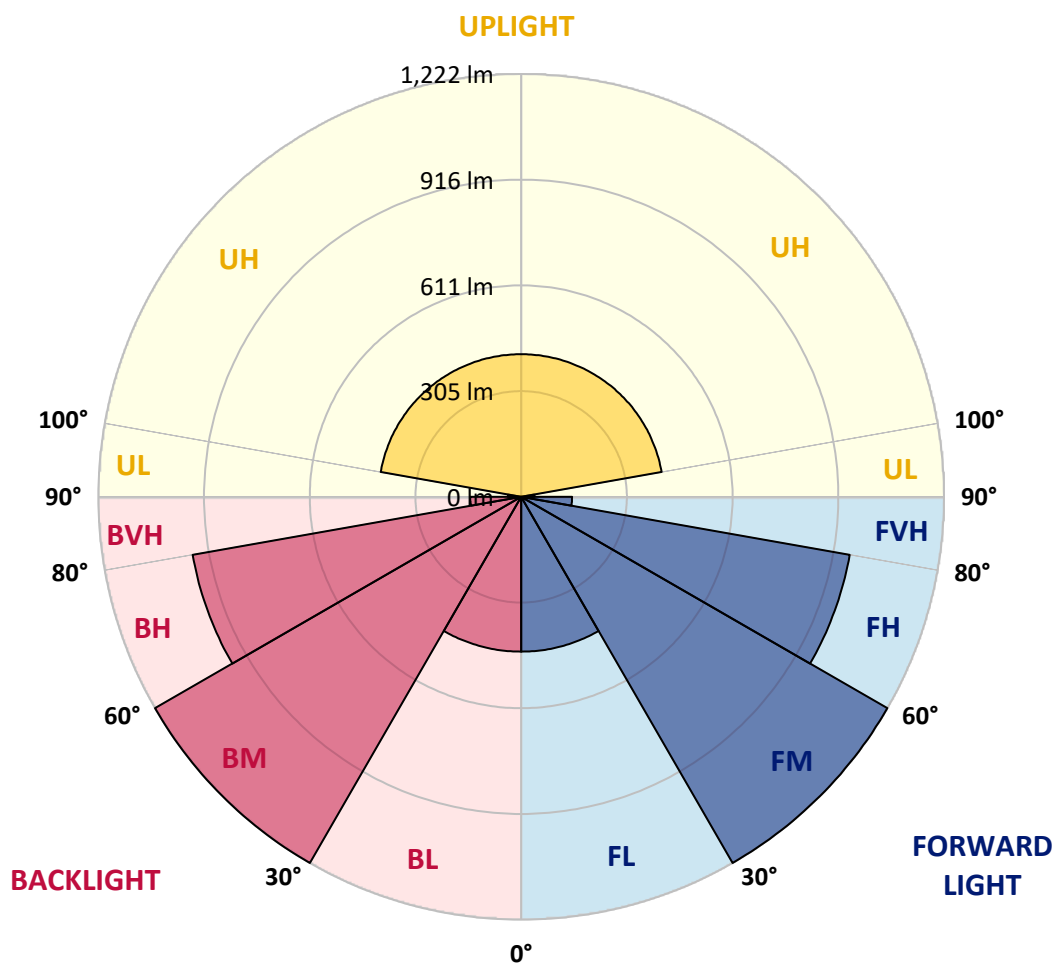
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	447.3	7.0			
FM	(30°-60°)	1221.6	19.1			
FH	(60°-80°)	963.7	15.1			G1/1800
FVH	(80°-90°)	147.2	2.3			G2/225
BL	(0°-30°)	447.3	7.0	B1/500		
BM	(30°-60°)	1221.6	19.1	B2/2500		
BH	(60°-80°)	963.7	15.1	B2/1000		G1/1800
BVH	(80°-90°)	147.2	2.3			G2/225
UL	(90°-100°)	38.3	0.6		U2/50	
UH	(100°-180°)	412.0	6.5		U3/500	

BUG Rating: B2-U4-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1077.3	1076.3	1077.3	1077.3	1077.3	1077.3	1077.3	1077.3	1077.3	1077.3	1077.3
5°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
7.5°	1075.2	1075.2	1075.2	1075.2	1075.2	1075.2	1075.2	1075.2	1076.3	1075.2	1076.3
10°	1073.2	1073.2	1073.2	1073.2	1074.2	1074.2	1074.2	1074.2	1074.2	1074.2	1074.2
12.5°	1071.1	1071.1	1071.1	1071.1	1072.2	1072.2	1072.2	1072.2	1073.2	1073.2	1072.2
15°	1069.0	1068.0	1068.0	1069.0	1069.0	1070.1	1070.1	1070.1	1071.1	1070.1	1070.1
17.5°	1066.9	1065.9	1066.9	1068.0	1068.0	1069.0	1070.1	1070.1	1071.1	1071.1	1071.1
20°	1070.1	1069.0	1070.1	1071.1	1072.2	1074.2	1075.2	1076.3	1077.3	1078.4	1078.4
22.5°	1063.9	1062.9	1063.9	1063.9	1065.0	1065.9	1068.0	1069.0	1070.1	1070.1	1070.1
25°	1054.6	1054.6	1055.6	1055.6	1056.7	1057.6	1058.7	1059.7	1059.7	1060.8	1059.7
27.5°	1044.2	1044.2	1045.3	1045.3	1047.4	1047.4	1048.4	1049.3	1050.4	1050.4	1050.4
30°	1031.9	1031.9	1032.8	1033.8	1035.9	1037.0	1038.0	1039.1	1040.1	1040.1	1040.1
32.5°	1020.4	1019.4	1020.4	1022.5	1025.6	1027.7	1029.8	1030.8	1030.8	1030.8	1031.9
35°	1011.1	1012.1	1014.2	1016.2	1020.4	1022.5	1024.5	1027.7	1028.7	1028.7	1028.7
37.5°	1013.2	1014.2	1017.3	1021.5	1026.6	1032.8	1037.0	1041.1	1044.2	1043.2	1042.1
40°	1026.6	1028.7	1033.8	1040.1	1048.4	1056.7	1062.9	1068.0	1071.1	1072.2	1071.1
42.5°	1028.7	1030.8	1034.9	1044.2	1053.5	1062.9	1071.1	1076.3	1080.5	1081.5	1080.5
45°	1027.7	1027.7	1033.8	1044.2	1053.5	1062.9	1073.2	1080.5	1084.6	1084.6	1084.6
47.5°	1020.4	1023.6	1027.7	1038.0	1050.4	1059.7	1070.1	1077.3	1082.5	1085.6	1082.5
50°	1020.4	1020.4	1027.7	1034.9	1046.3	1062.9	1077.3	1084.6	1089.8	1088.7	1089.8
52.5°	1018.3	1024.5	1028.7	1039.1	1059.7	1076.3	1087.7	1098.1	1105.3	1106.4	1104.3
55°	1037.0	1038.0	1047.4	1066.9	1086.7	1105.3	1125.9	1141.4	1153.9	1161.2	1150.8
57.5°	1051.4	1046.3	1065.0	1081.5	1104.3	1132.2	1163.3	1175.6	1184.9	1182.8	1186.0
60°	1031.9	1039.1	1052.5	1070.1	1106.4	1134.2	1150.8	1164.3	1175.6	1178.8	1174.6
61°	1022.5	1034.9	1041.1	1065.0	1103.2	1124.0	1141.4	1160.1	1180.9	1188.1	1178.8
62.5°	1007.0	1026.6	1024.5	1062.9	1086.7	1110.4	1143.5	1165.4	1179.8	1181.9	1179.8
65°	1007.9	1004.9	1028.7	1056.7	1080.5	1122.9	1150.8	1164.3	1172.6	1176.7	1174.6
67.5°	974.8	964.6	993.5	1013.2	1053.5	1086.7	1113.6	1133.2	1145.6	1149.7	1144.6
70°	898.4	905.6	926.2	956.3	989.4	1029.8	1054.6	1080.5	1090.7	1091.8	1091.8
72.5°	824.8	829.0	849.6	877.6	915.8	951.1	975.9	996.6	1006.0	1007.0	1009.0
75°	727.5	731.6	755.5	781.4	819.7	849.6	867.2	892.1	905.6	916.9	907.6
77.5°	614.7	622.0	640.6	668.5	703.8	720.3	751.3	780.4	789.7	792.7	789.7
80°	487.5	496.8	513.4	550.6	566.1	593.0	623.0	635.4	643.7	645.8	646.9
82.5°	350.8	358.1	375.7	401.5	419.2	440.8	461.6	477.1	486.4	484.3	483.3
85°	207.0	209.1	227.7	245.3	258.7	272.1	288.7	300.1	302.2	306.3	305.2
87.5°	62.1	63.1	71.4	80.7	87.0	93.2	103.5	116.9	120.1	111.8	112.9
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

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0
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°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
2.5°	1077.3	1077.3	1077.3	1077.3	1077.3	1077.3	1076.3	1077.3
5°	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3	1076.3
7.5°	1076.3	1075.2	1075.2	1075.2	1075.2	1075.2	1075.2	1075.2
10°	1074.2	1074.2	1074.2	1074.2	1073.2	1073.2	1073.2	1073.2
12.5°	1072.2	1072.2	1072.2	1072.2	1071.1	1071.1	1071.1	1071.1
15°	1070.1	1070.1	1070.1	1070.1	1069.0	1069.0	1069.0	1069.0
17.5°	1071.1	1070.1	1069.0	1069.0	1068.0	1066.9	1066.9	1066.9
20°	1077.3	1076.3	1074.2	1072.2	1071.1	1070.1	1070.1	1070.1
22.5°	1069.0	1068.0	1065.9	1065.0	1065.0	1063.9	1062.9	1062.9
25°	1059.7	1057.6	1057.6	1056.7	1056.7	1054.6	1054.6	1053.5
27.5°	1049.3	1048.4	1047.4	1046.3	1046.3	1045.3	1044.2	1043.2
30°	1040.1	1038.0	1035.9	1034.9	1033.8	1032.8	1032.8	1032.8
32.5°	1030.8	1028.7	1027.7	1024.5	1022.5	1021.5	1020.4	1020.4
35°	1027.7	1024.5	1022.5	1019.4	1016.2	1014.2	1013.2	1011.1
37.5°	1040.1	1035.9	1032.8	1027.7	1020.4	1017.3	1014.2	1013.2
40°	1066.9	1062.9	1056.7	1048.4	1040.1	1033.8	1028.7	1026.6
42.5°	1076.3	1071.1	1062.9	1054.6	1044.2	1034.9	1030.8	1028.7
45°	1079.4	1074.2	1062.9	1052.5	1043.2	1034.9	1028.7	1026.6
47.5°	1076.3	1069.0	1058.7	1050.4	1037.0	1026.6	1022.5	1019.4
50°	1083.5	1077.3	1063.9	1045.3	1033.8	1027.7	1020.4	1019.4
52.5°	1098.1	1086.7	1074.2	1060.8	1039.1	1026.6	1022.5	1017.3
55°	1141.4	1125.9	1104.3	1082.5	1069.0	1049.3	1037.0	1037.0
57.5°	1174.6	1162.2	1134.2	1105.3	1080.5	1065.9	1047.4	1048.4
60°	1165.4	1148.8	1135.3	1106.4	1071.1	1051.4	1044.2	1030.8
61°	1164.3	1141.4	1122.9	1100.1	1070.1	1039.1	1037.0	1019.4
62.5°	1166.3	1145.6	1110.4	1086.7	1063.9	1023.6	1022.5	1006.0
65°	1164.3	1144.6	1127.0	1082.5	1051.4	1034.9	999.7	1013.2
67.5°	1132.2	1114.6	1082.5	1057.6	1010.0	989.4	969.7	969.7
70°	1081.5	1055.6	1024.5	993.5	961.4	926.2	908.6	898.4
72.5°	996.6	974.8	950.0	916.9	877.6	845.5	829.0	821.8
75°	890.1	866.2	844.5	819.7	778.3	751.3	733.7	728.6
77.5°	778.3	757.5	719.3	695.5	667.5	636.5	621.0	614.7
80°	635.4	624.0	597.2	558.8	545.4	507.1	496.8	487.5
82.5°	477.1	464.6	439.8	413.0	396.4	374.6	356.0	354.0
85°	300.1	291.8	276.3	256.6	236.0	223.5	207.0	211.2
87.5°	111.8	106.6	97.2	84.9	75.6	67.3	59.0	62.1
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
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)