

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: P198433

Luminaire Tested: **TT-C4-LED-E1-MQ-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198433
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C4-LED-E1-MQ-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
MEDIUM DISTRIBUTION
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6420.3 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G2

Input Watts (W): 75.4
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

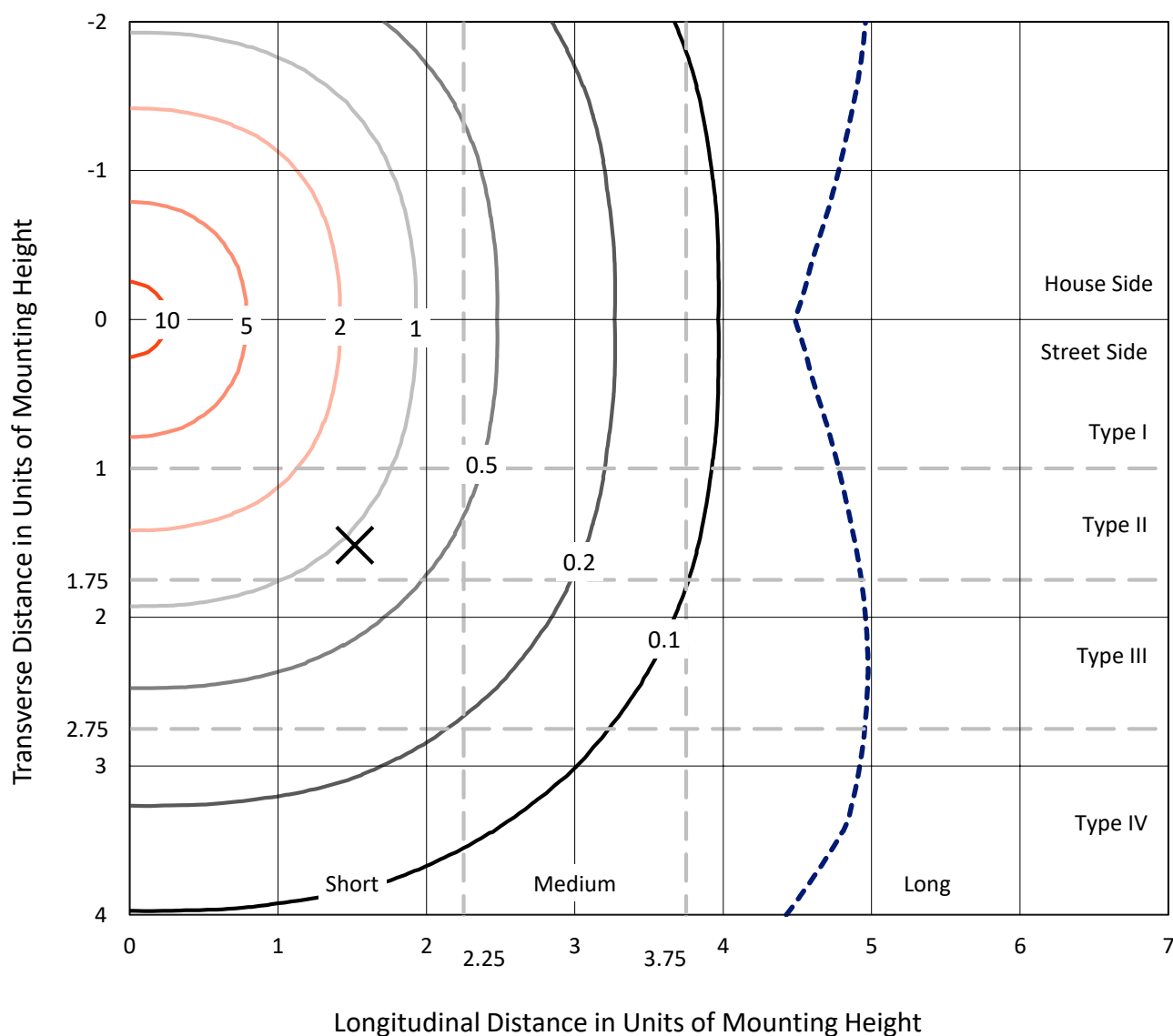


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

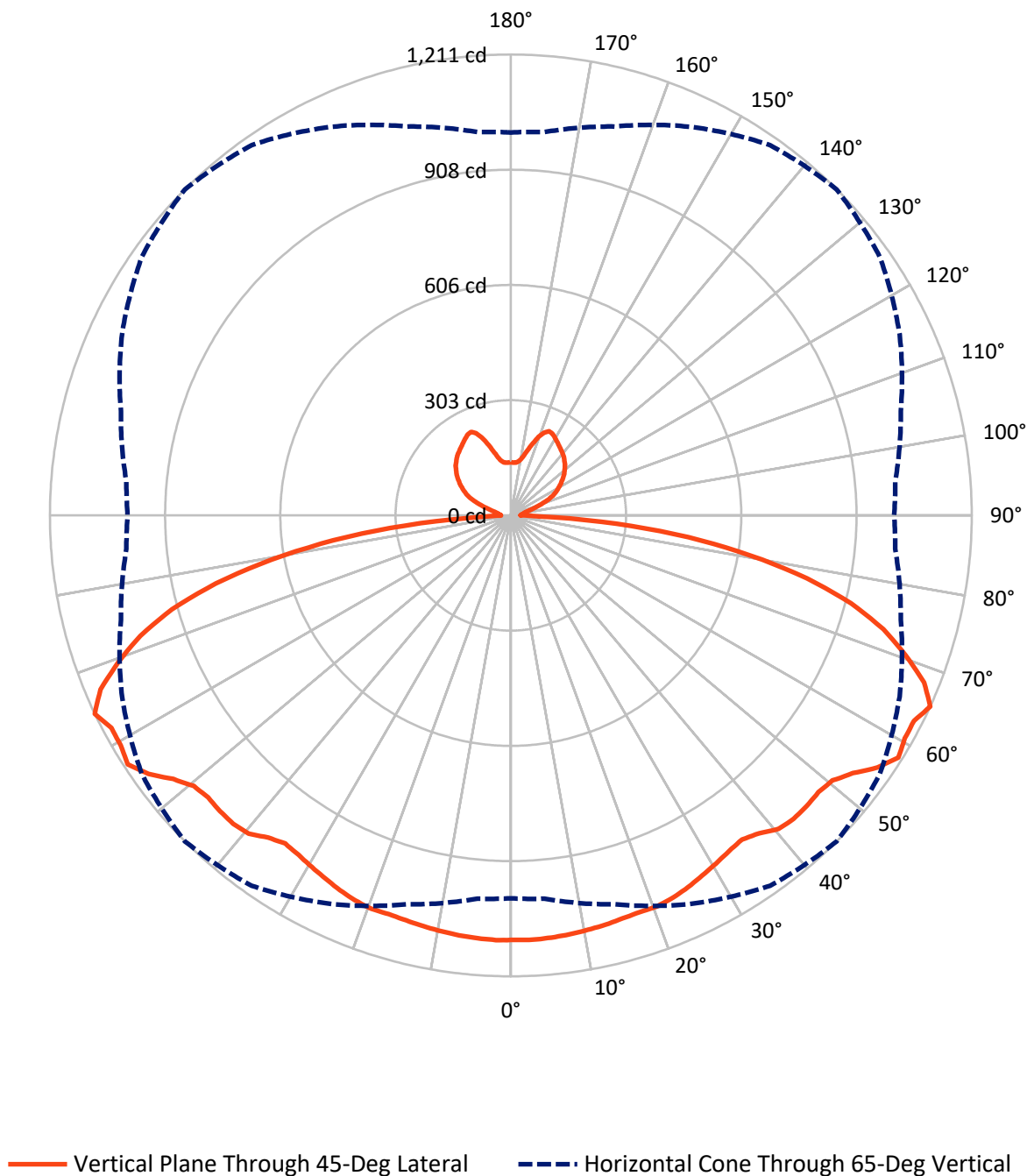


Based on 10 foot mounting height. Maximum calculated value = 11.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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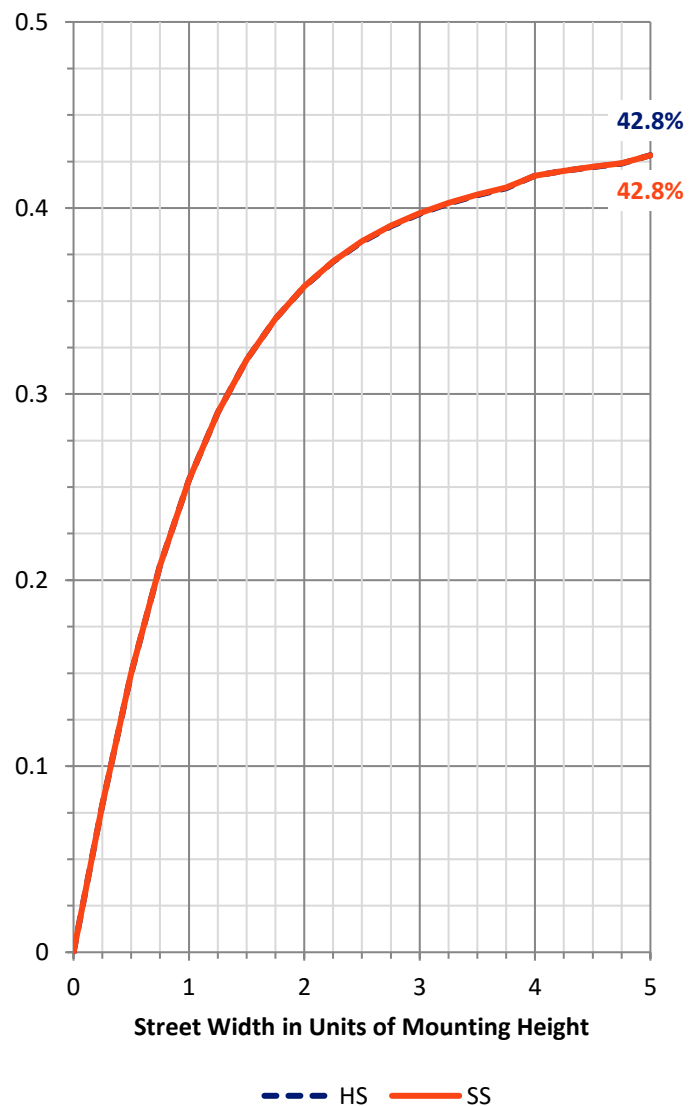
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2797.5	412.7	3210.1
	% Fixture	43.6	6.4	50.0
Street Side	Lumens	2797.5	412.7	3210.1
	% Fixture	43.6	6.4	50.0
Total	Lumens	5594.9	825.3	6420.3
	% Fixture	87.1	12.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	1.7
10°-20°	311.4	4.9
20°-30°	498.2	7.8
30°-40°	658.1	10.3
40°-50°	822.7	12.8
50°-60°	987.7	15.4
60°-70°	1079.6	16.8
70°-80°	857.8	13.4
80°-90°	273.4	4.3
90°-100°	38.4	0.6
100°-110°	59.5	0.9
110°-120°	119.6	1.9
120°-130°	148.9	2.3
130°-140°	153.3	2.4
140°-150°	136.3	2.1
150°-160°	103.9	1.6
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	5594.9	87.1
0°-180°	6420.3	100.0

Coefficient of Utilization



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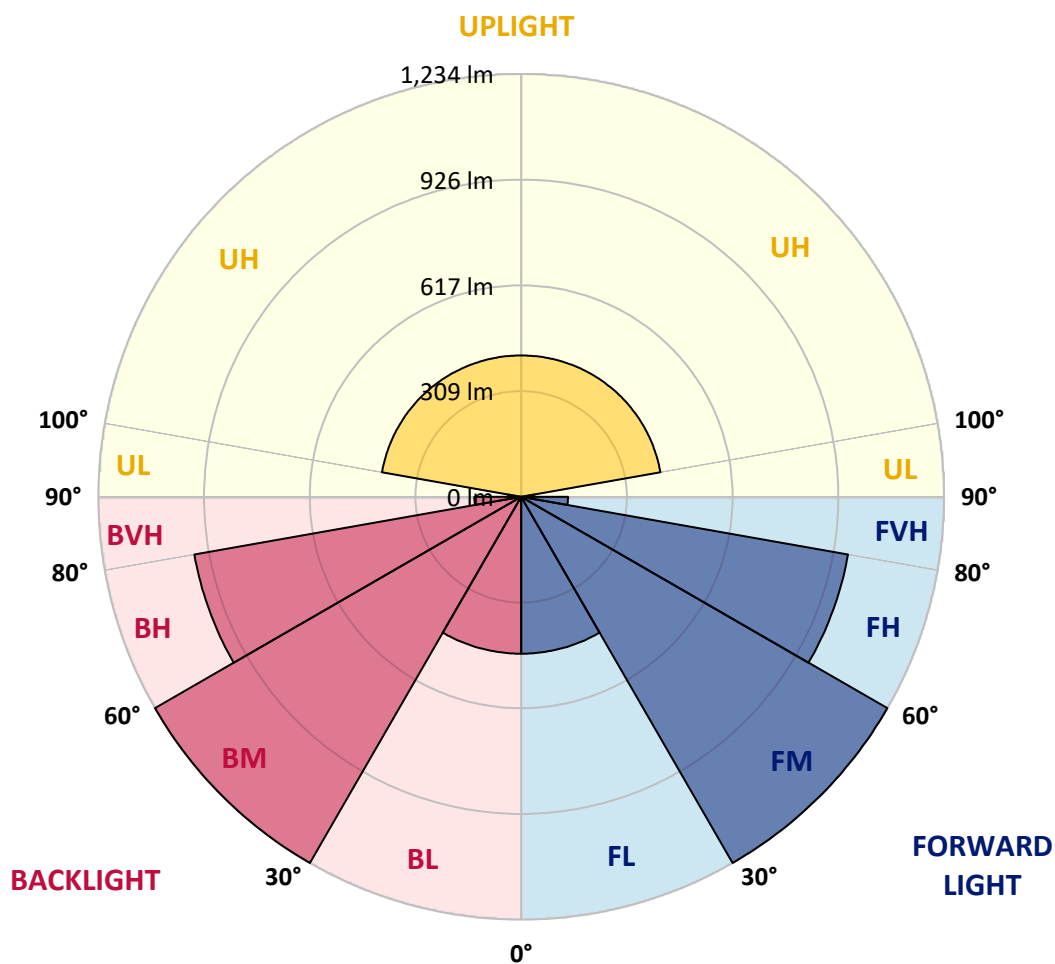
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	457.9	7.1			
FM	(30°-60°)	1234.2	19.2			
FH	(60°-80°)	968.7	15.1			G1/1800
FVH	(80°-90°)	136.7	2.1			G2/225
BL	(0°-30°)	457.9	7.1	B1/500		
BM	(30°-60°)	1234.2	19.2	B2/2500		
BH	(60°-80°)	968.7	15.1	B2/1000		G1/1800
BVH	(80°-90°)	136.7	2.1			G2/225
UL	(90°-100°)	38.4	0.6		U2/50	
UH	(100°-180°)	412.7	6.4		U3/500	

BUG Rating: B2-U4-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4	1115.4
2.5°	1116.4	1116.4	1116.4	1116.4	1115.4	1116.4	1115.4	1115.4	1116.4	1116.4	1116.4
5°	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4	1114.4
7.5°	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5	1111.5
10°	1107.6	1108.5	1108.5	1108.5	1107.6	1107.6	1107.6	1108.5	1108.5	1107.6	1107.6
12.5°	1103.7	1103.7	1104.6	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1102.7
15°	1097.8	1097.8	1098.8	1098.8	1098.8	1098.8	1098.8	1097.8	1097.8	1096.8	1096.8
17.5°	1092.9	1092.9	1094.9	1094.9	1095.8	1095.8	1095.8	1093.9	1093.9	1091.9	1091.9
20°	1091.9	1091.9	1092.9	1094.9	1095.8	1096.8	1095.8	1093.9	1091.9	1090.0	1090.0
22.5°	1085.1	1086.1	1088.0	1089.0	1091.0	1091.0	1091.0	1088.0	1087.1	1085.1	1085.1
25°	1076.3	1075.3	1078.3	1080.2	1082.2	1082.2	1081.2	1079.2	1078.3	1075.3	1075.3
27.5°	1062.6	1063.6	1065.6	1068.5	1071.4	1071.4	1070.5	1068.5	1066.5	1064.6	1063.6
30°	1050.9	1051.9	1053.9	1056.8	1058.7	1061.7	1058.7	1056.8	1053.9	1052.9	1051.9
32.5°	1038.2	1039.2	1042.1	1047.0	1049.9	1051.9	1049.9	1048.0	1043.1	1040.2	1039.2
35°	1029.4	1030.4	1033.3	1040.2	1046.0	1046.0	1046.0	1041.2	1035.3	1030.4	1029.4
37.5°	1030.4	1032.4	1039.2	1049.0	1058.7	1059.7	1058.7	1049.0	1040.2	1032.4	1031.4
40°	1038.2	1040.2	1051.9	1066.5	1079.2	1083.2	1080.2	1066.5	1052.9	1042.1	1039.2
42.5°	1037.2	1040.2	1052.9	1071.4	1084.1	1090.0	1084.1	1071.4	1054.8	1043.1	1039.2
45°	1033.3	1035.3	1049.0	1068.5	1084.1	1090.0	1085.1	1070.5	1051.9	1038.2	1035.3
47.5°	1027.5	1029.4	1040.2	1063.6	1081.2	1087.1	1082.2	1066.5	1043.1	1032.4	1030.4
50°	1019.7	1025.5	1043.1	1067.5	1091.0	1094.9	1091.9	1069.5	1045.1	1029.4	1021.6
52.5°	1027.5	1026.5	1047.0	1091.0	1112.5	1125.2	1115.4	1089.0	1051.9	1031.4	1029.4
55°	1045.1	1052.9	1075.3	1116.4	1151.5	1169.1	1155.4	1119.3	1077.3	1051.9	1047.0
57.5°	1044.1	1053.9	1093.9	1134.9	1188.6	1200.4	1184.7	1139.8	1091.9	1058.7	1046.0
60°	1038.2	1042.1	1072.4	1145.7	1175.9	1189.6	1175.9	1140.8	1080.2	1043.1	1043.1
62.5°	1018.7	1025.5	1073.4	1124.2	1167.1	1188.6	1172.0	1128.1	1072.4	1032.4	1019.7
65°	1006.0	1010.9	1057.8	1126.1	1187.7	1211.1	1183.8	1127.1	1060.7	1013.8	1007.0
67.5°	965.9	974.7	1018.7	1092.9	1152.5	1171.1	1160.3	1091.0	1018.7	975.7	965.0
70°	897.6	902.5	963.0	1033.3	1088.0	1100.7	1085.1	1040.2	957.2	909.3	894.7
72.5°	813.6	820.4	876.1	954.2	1007.0	1023.6	1005.0	957.2	871.2	828.2	814.6
75°	728.6	735.4	771.6	856.6	900.5	924.0	902.5	850.7	773.5	731.5	725.7
77.5°	606.5	617.3	672.9	729.6	771.6	796.0	777.4	729.6	669.0	619.2	600.7
80°	476.6	484.4	536.2	586.0	624.1	639.7	630.9	586.0	537.2	486.4	477.6
82.5°	334.0	338.9	383.8	423.9	470.8	470.8	461.0	431.7	382.9	338.9	340.9
85°	178.7	184.6	218.8	250.0	279.3	279.3	270.5	252.0	217.8	183.6	179.7
87.5°	36.1	40.0	52.7	57.6	68.4	73.3	66.4	60.6	52.7	42.0	42.0
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	49.0
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	60.0
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	75.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.0
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	113.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	129.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	142.0
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	150.0
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.0
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	163.0
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	176.0
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.0
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.0
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	202.0
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	206.0
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	211.0
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	216.0
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.0
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	219.0
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	215.0
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	192.0
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	174.0
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	160.0
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	151.0
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	144.0
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)