

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: P833532

Luminaire Tested: **TTN-D2-735-U-MQ-CG-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833532  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND  
Test Lab: INNOVATION CENTER  
Issue Date: 5/15/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: TTN-D2-735-U-MQ-CG-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND MEDIUM DISTRIBUTION WITH CLEAR GLASS  
Light Source: -  
Ballast/Driver: -

**Summary**

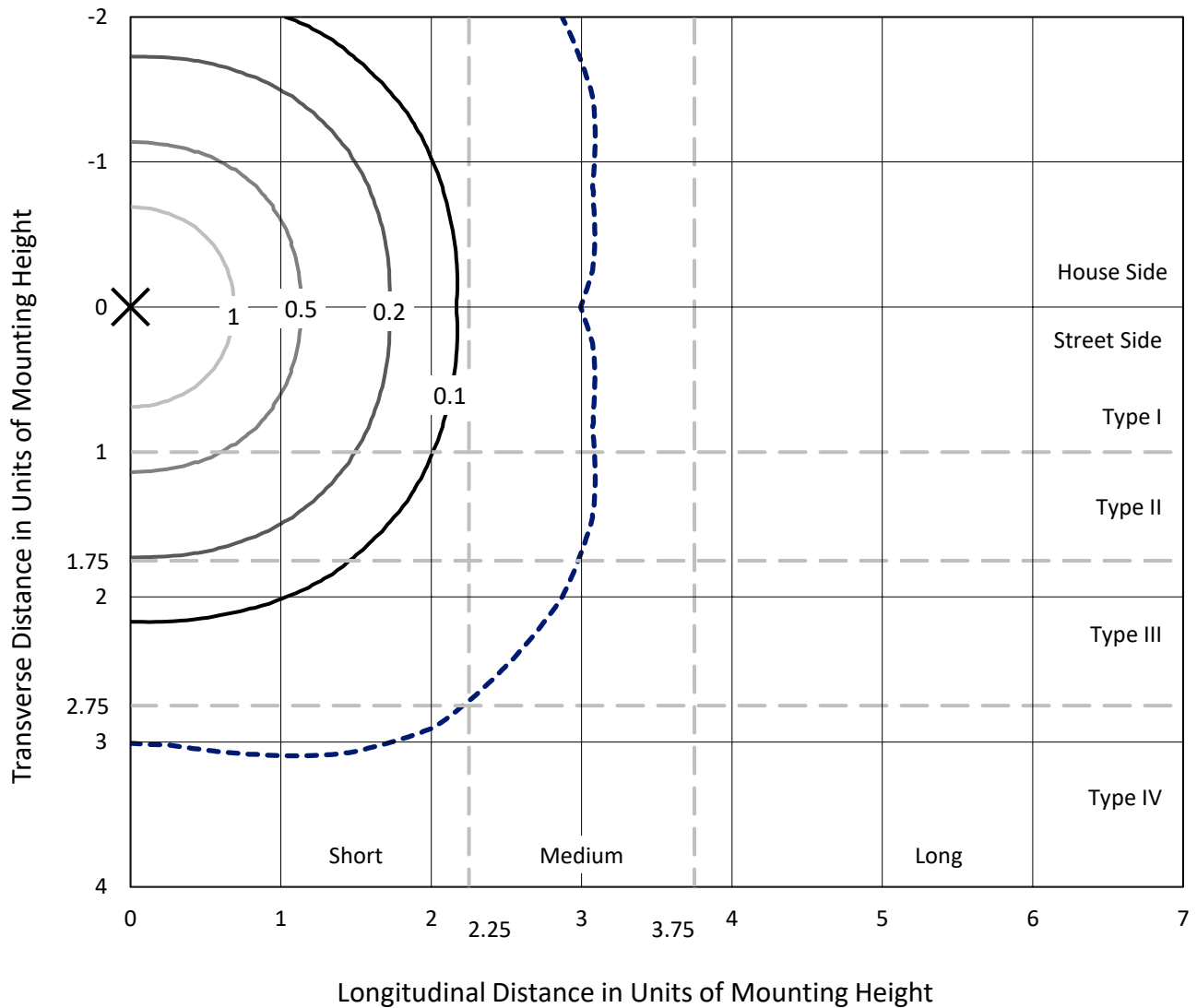
Lumens per Lamp: N/A  
Luminaire Lumens: 5834.7 lumens  
Efficiency: N/A  
Efficacy: 117.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1  
  
Input Watts (W): 49.5  
Input Voltage (V): NR  
Input Current (Ain): 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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

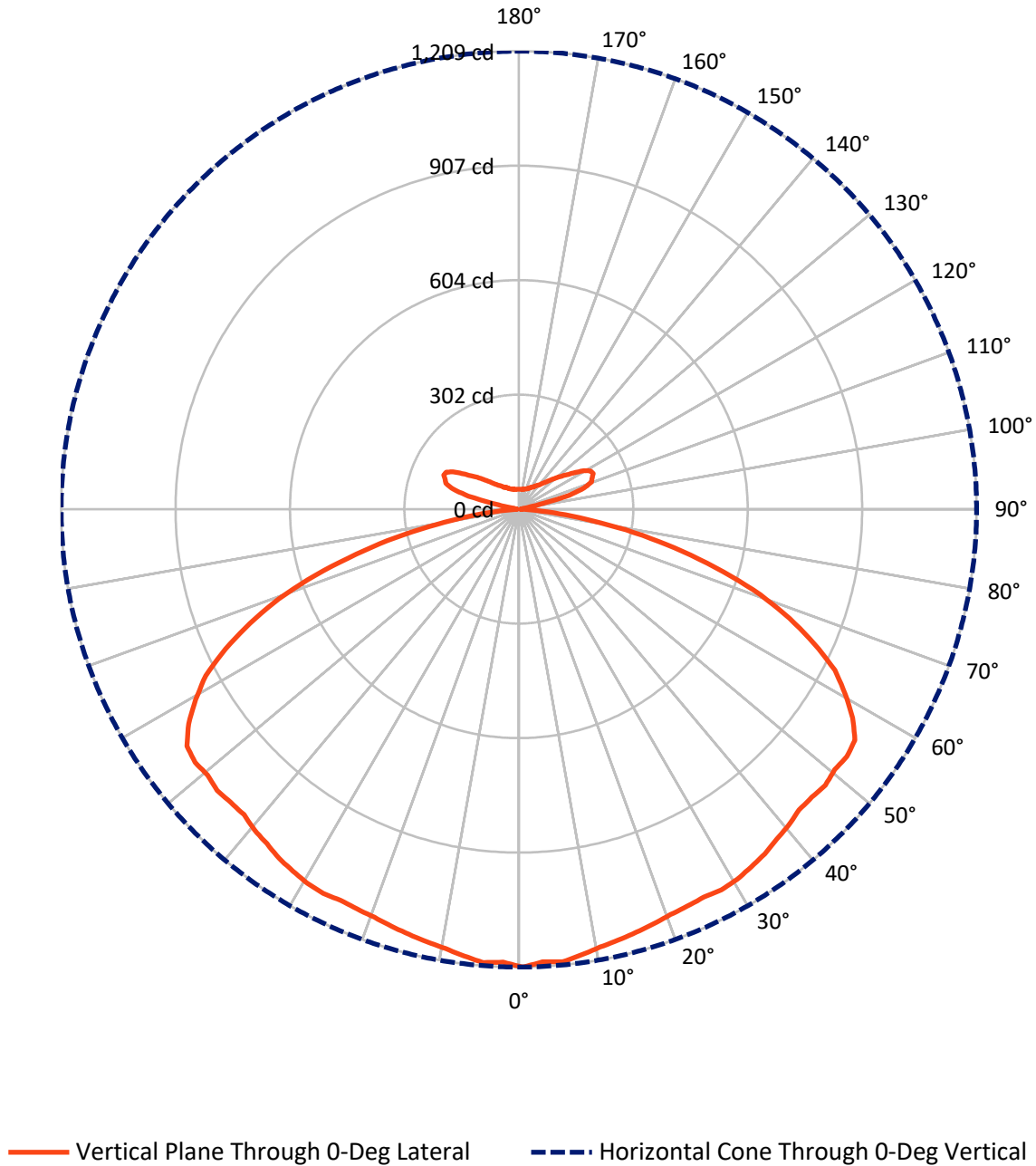
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



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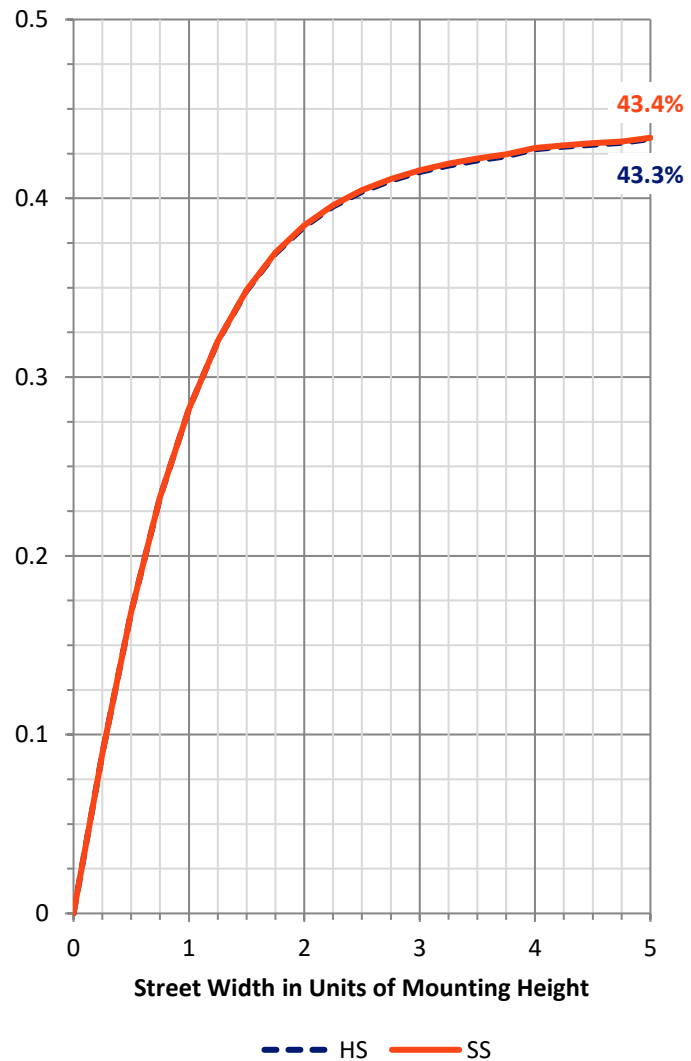
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2541.0	376.3	2917.3
	% Fixture	43.6	6.4	50.0
<b>Street Side</b>	Lumens	2541.0	376.3	2917.3
	% Fixture	43.6	6.4	50.0
<b>Total</b>	Lumens	5082.0	752.7	5834.7
	% Fixture	87.1	12.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.5	1.9
10°-20°	328.4	5.6
20°-30°	528.3	9.1
30°-40°	705.7	12.1
40°-50°	857.4	14.7
50°-60°	996.2	17.1
60°-70°	919.1	15.8
70°-80°	538.1	9.2
80°-90°	95.3	1.6
90°-100°	16.8	0.3
100°-110°	170.7	2.9
110°-120°	249.6	4.3
120°-130°	144.9	2.5
130°-140°	76.7	1.3
140°-150°	45.6	0.8
150°-160°	28.1	0.5
160°-170°	15.3	0.3
170°-180°	5.0	0.1
0°-90°	5082.0	87.1
0°-180°	5834.7	100.0

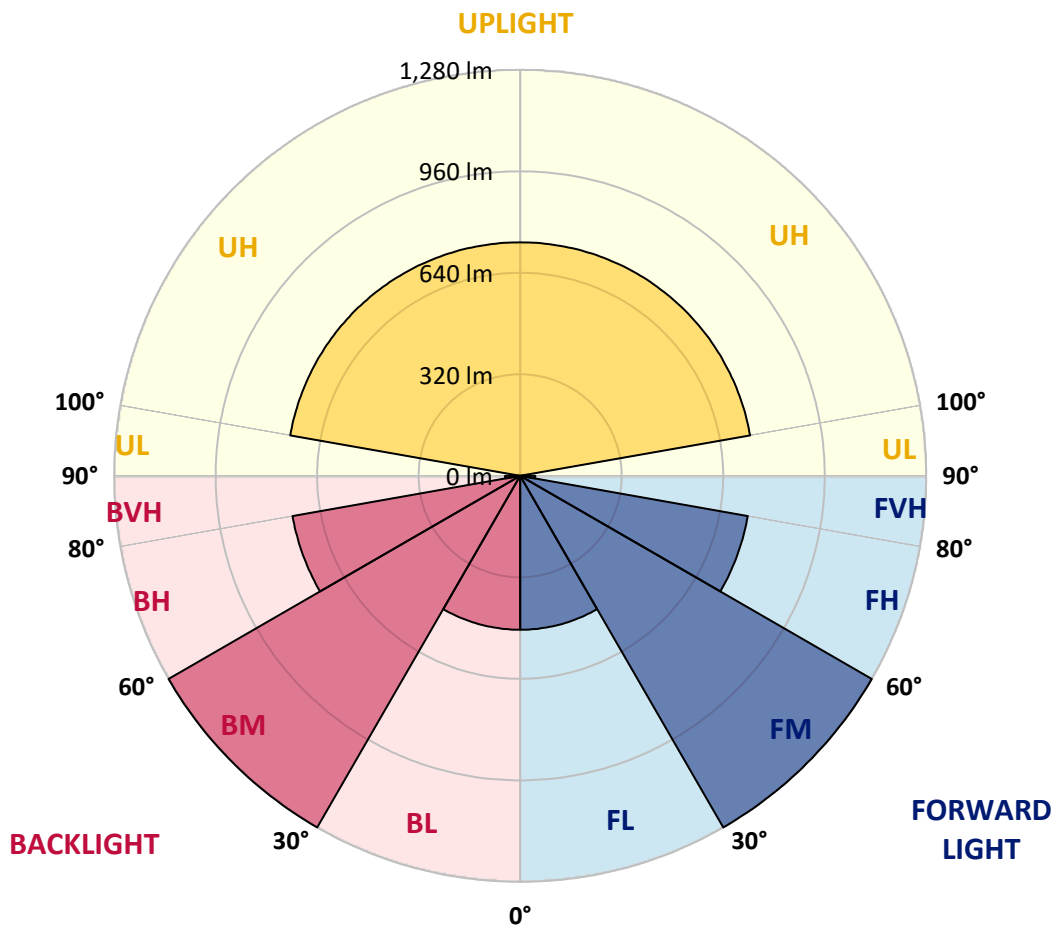


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.1	8.3			
FM (30°-60°)	1279.7	21.9			
FH (60°-80°)	728.6	12.5			G1/1800
FVH (80°-90°)	47.6	0.8			G1/100
BL (0°-30°)	485.1	8.3	B1/500		
BM (30°-60°)	1279.7	21.9	B2/2500		
BH (60°-80°)	728.6	12.5	B2/1000		G1/1800
BVH (80°-90°)	47.6	0.8			G1/100
UL (90°-100°)	16.8	0.3		U2/50	
UH (100°-180°)	735.8	12.6		U4/1000	

**BUG Rating: B2-U4-G1**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8
2.5°	1196.4	1200.5	1196.4	1196.4	1196.4	1196.4	1196.4	1196.4	1196.4	1196.4	1200.5
5°	1200.5	1200.5	1200.5	1200.5	1196.4	1196.4	1196.4	1196.4	1196.4	1200.5	1200.5
7.5°	1188.1	1188.1	1188.1	1188.1	1188.1	1184.0	1188.1	1188.1	1188.1	1188.1	1188.1
10°	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8	1175.8
12.5°	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1163.4	1163.4
15°	1159.3	1159.3	1159.3	1159.3	1163.4	1163.4	1159.3	1159.3	1159.3	1159.3	1159.3
17.5°	1151.0	1151.0	1151.0	1151.0	1155.1	1155.1	1155.1	1151.0	1151.0	1151.0	1151.0
20°	1142.8	1142.8	1142.8	1142.8	1146.9	1146.9	1146.9	1146.9	1146.9	1142.8	1142.8
22.5°	1138.6	1138.6	1138.6	1138.6	1142.8	1142.8	1142.8	1142.8	1138.6	1138.6	1138.6
25°	1134.5	1138.6	1138.6	1138.6	1142.8	1146.9	1146.9	1142.8	1138.6	1134.5	1134.5
27.5°	1138.6	1138.6	1138.6	1142.8	1142.8	1146.9	1146.9	1142.8	1138.6	1138.6	1138.6
30°	1134.5	1134.5	1134.5	1138.6	1142.8	1146.9	1142.8	1142.8	1138.6	1134.5	1134.5
32.5°	1126.3	1126.3	1130.4	1134.5	1138.6	1138.6	1138.6	1134.5	1130.4	1126.3	1126.3
35°	1118.0	1118.0	1118.0	1122.1	1130.4	1130.4	1130.4	1126.3	1122.1	1118.0	1113.9
37.5°	1105.6	1109.7	1109.7	1118.0	1122.1	1126.3	1122.1	1118.0	1109.7	1105.6	1105.6
40°	1097.4	1097.4	1101.5	1109.7	1118.0	1118.0	1113.9	1109.7	1101.5	1097.4	1097.4
42.5°	1085.0	1085.0	1093.2	1101.5	1113.9	1113.9	1109.7	1101.5	1093.2	1085.0	1085.0
45°	1085.0	1085.0	1093.2	1109.7	1118.0	1126.3	1118.0	1109.7	1093.2	1085.0	1080.9
47.5°	1089.1	1089.1	1097.4	1118.0	1134.5	1142.8	1130.4	1113.9	1097.4	1089.1	1085.0
50°	1080.9	1085.0	1101.5	1122.1	1142.8	1146.9	1142.8	1118.0	1101.5	1080.9	1080.9
52.5°	1085.0	1085.0	1105.6	1138.6	1159.3	1167.5	1159.3	1138.6	1101.5	1080.9	1080.9
55°	1076.7	1072.6	1101.5	1138.6	1171.6	1188.1	1171.6	1138.6	1097.4	1072.6	1068.5
57.5°	1039.6	1039.6	1076.7	1113.9	1155.1	1163.4	1151.0	1113.9	1072.6	1039.6	1031.4
60°	990.1	994.2	1031.4	1072.6	1109.7	1113.9	1105.6	1072.6	1031.4	994.2	981.9
62.5°	936.5	944.7	981.9	1023.1	1068.5	1076.7	1064.4	1023.1	973.6	948.9	928.2
65°	858.1	870.5	911.7	957.1	1006.6	1002.5	1002.5	953.0	915.9	874.6	854.0
67.5°	771.5	783.8	812.7	874.6	915.9	911.7	907.6	874.6	812.7	783.8	771.5
70°	676.6	684.8	713.7	775.6	812.7	816.8	804.5	771.5	713.7	693.1	672.5
72.5°	565.2	569.3	610.6	660.1	697.2	693.1	689.0	660.1	606.4	585.8	561.1
75°	445.5	449.7	486.8	532.2	561.1	556.9	552.8	532.2	486.8	462.1	441.4
77.5°	334.2	330.0	367.2	400.2	416.7	420.8	412.5	396.0	363.0	342.4	330.0
80°	218.6	214.5	247.5	272.3	284.7	284.7	280.5	268.2	243.4	226.9	218.6
82.5°	123.8	119.6	140.3	156.8	169.1	165.0	160.9	152.6	140.3	127.9	119.6
85°	45.4	45.4	57.8	66.0	74.3	74.3	70.1	66.0	53.6	49.5	45.4
87.5°	4.1	4.1	8.3	12.4	12.4	12.4	8.3	8.3	4.1	4.1	4.1
90°	6.4	6.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.4	6.4
92.5°	6.4	6.4	6.4	9.0	10.3	9.0	10.3	7.7	7.7	6.4	6.4
95°	7.7	7.7	9.0	11.6	14.2	15.5	15.5	9.0	9.0	7.7	7.7
97.5°	10.3	11.6	11.6	14.2	23.2	42.5	25.8	12.9	12.9	11.6	10.3
100°	16.7	18.0	18.0	32.2	68.2	91.4	65.7	33.5	24.5	18.0	18.0
102.5°	54.1	56.7	69.5	104.3	154.5	140.4	118.5	112.0	77.3	61.8	59.2
105°	137.8	136.5	146.8	173.8	216.3	212.5	195.7	177.7	153.2	141.6	141.6
107.5°	181.6	181.6	190.6	213.8	245.9	287.1	291.0	230.5	202.2	189.3	188.0
110°	204.7	204.7	212.5	231.8	274.3	332.2	329.6	284.6	249.8	233.1	230.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	209.9	211.2	221.5	251.1	297.5	323.2	311.6	293.6	278.1	265.3	262.7
115°	217.6	217.6	229.2	257.5	283.3	293.6	280.7	266.5	256.2	251.1	253.7
117.5°	215.0	218.9	221.5	236.9	253.7	261.4	255.0	235.6	227.9	225.3	221.5
120°	199.6	199.6	202.2	209.9	218.9	222.8	220.2	207.3	200.9	199.6	197.0
122.5°	177.7	179.0	177.7	181.6	188.0	191.9	189.3	179.0	176.4	176.4	173.8
125°	155.8	155.8	154.5	157.1	161.0	159.7	161.0	155.8	154.5	154.5	153.2
127.5°	140.4	139.1	136.5	137.8	139.1	139.1	140.4	135.2	136.5	137.8	136.5
130°	124.9	124.9	122.3	122.3	122.3	119.8	122.3	119.8	121.0	122.3	123.6
132.5°	110.7	110.7	106.9	105.6	105.6	105.6	106.9	105.6	108.2	110.7	110.7
135°	99.2	99.2	95.3	96.6	96.6	95.3	96.6	95.3	97.9	99.2	99.2
137.5°	90.1	90.1	87.6	87.6	87.6	86.3	87.6	87.6	88.8	91.4	92.7
140°	82.4	82.4	81.1	81.1	79.8	81.1	81.1	81.1	82.4	83.7	83.7
142.5°	78.5	77.3	76.0	74.7	76.0	76.0	76.0	74.7	76.0	78.5	78.5
145°	72.1	72.1	70.8	70.8	70.8	72.1	70.8	70.8	72.1	72.1	73.4
147.5°	68.2	68.2	67.0	68.2	68.2	68.2	68.2	67.0	68.2	68.2	69.5
150°	67.0	65.7	64.4	65.7	65.7	64.4	64.4	64.4	64.4	65.7	65.7
152.5°	63.1	63.1	61.8	63.1	61.8	61.8	61.8	61.8	61.8	63.1	64.4
155°	60.5	60.5	59.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
157.5°	57.9	59.2	57.9	57.9	57.9	57.9	57.9	57.9	57.9	59.2	59.2
160°	56.7	56.7	56.7	56.7	55.4	55.4	55.4	56.7	56.7	56.7	57.9
162.5°	55.4	55.4	55.4	55.4	54.1	54.1	54.1	54.1	55.4	55.4	56.7
165°	55.4	54.1	54.1	54.1	52.8	52.8	52.8	52.8	54.1	55.4	54.1
167.5°	52.8	52.8	52.8	52.8	52.8	51.5	51.5	52.8	52.8	52.8	54.1
170°	52.8	52.8	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	52.8
172.5°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	51.5	51.5	52.8	52.8
175°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	52.8	52.8	52.8	51.5
177.5°	52.8	52.8	52.8	52.8	51.5	52.8	52.8	52.8	52.8	52.8	52.8
180°	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8

(END OF REPORT)