

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: P833671

Luminaire Tested: **TTN-D2-830-U-CQ-UPL1**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833671
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-D2-830-U-CQ-UPL1
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5059.9 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U3 - G1

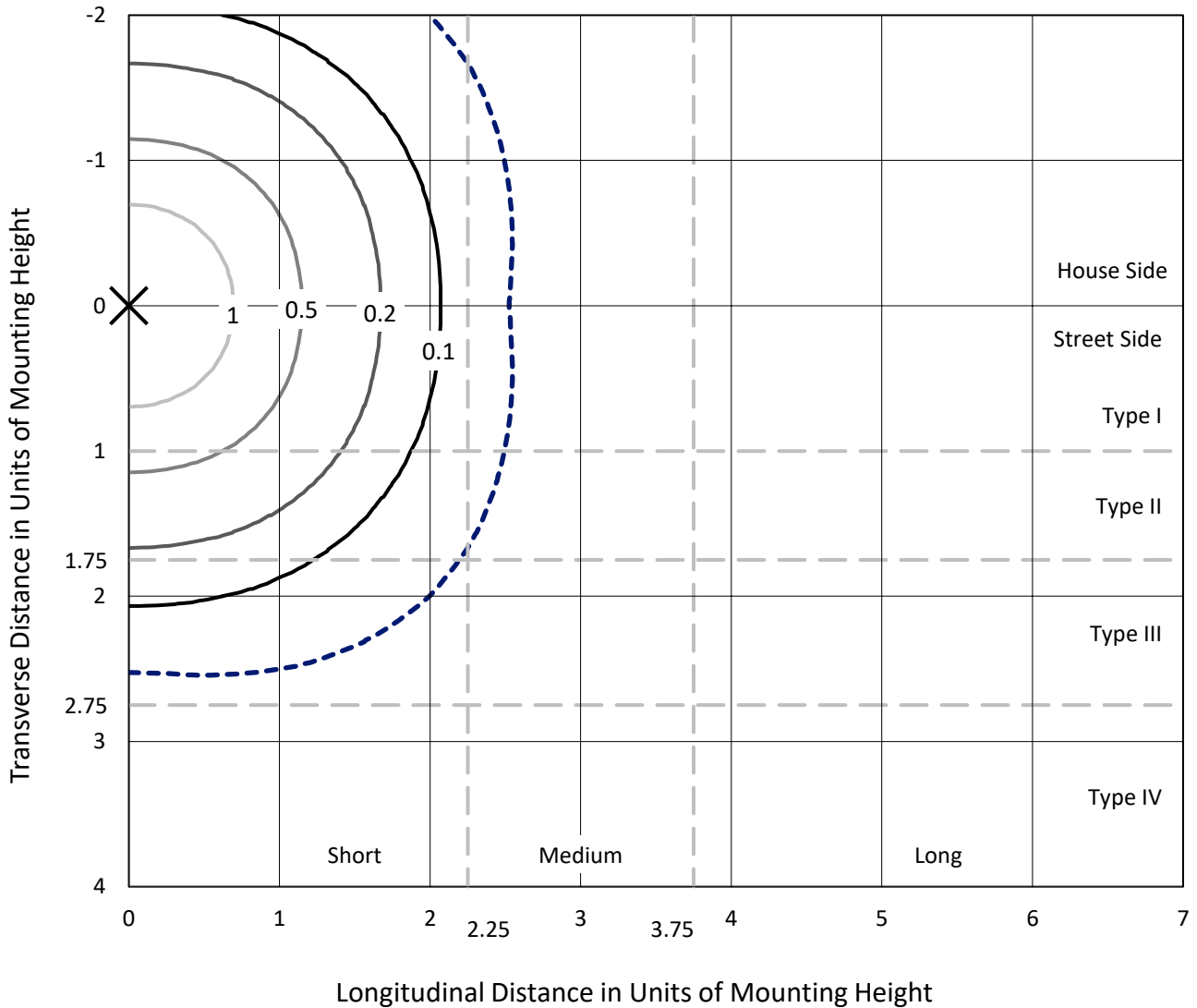
Input Watts (W): 45.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

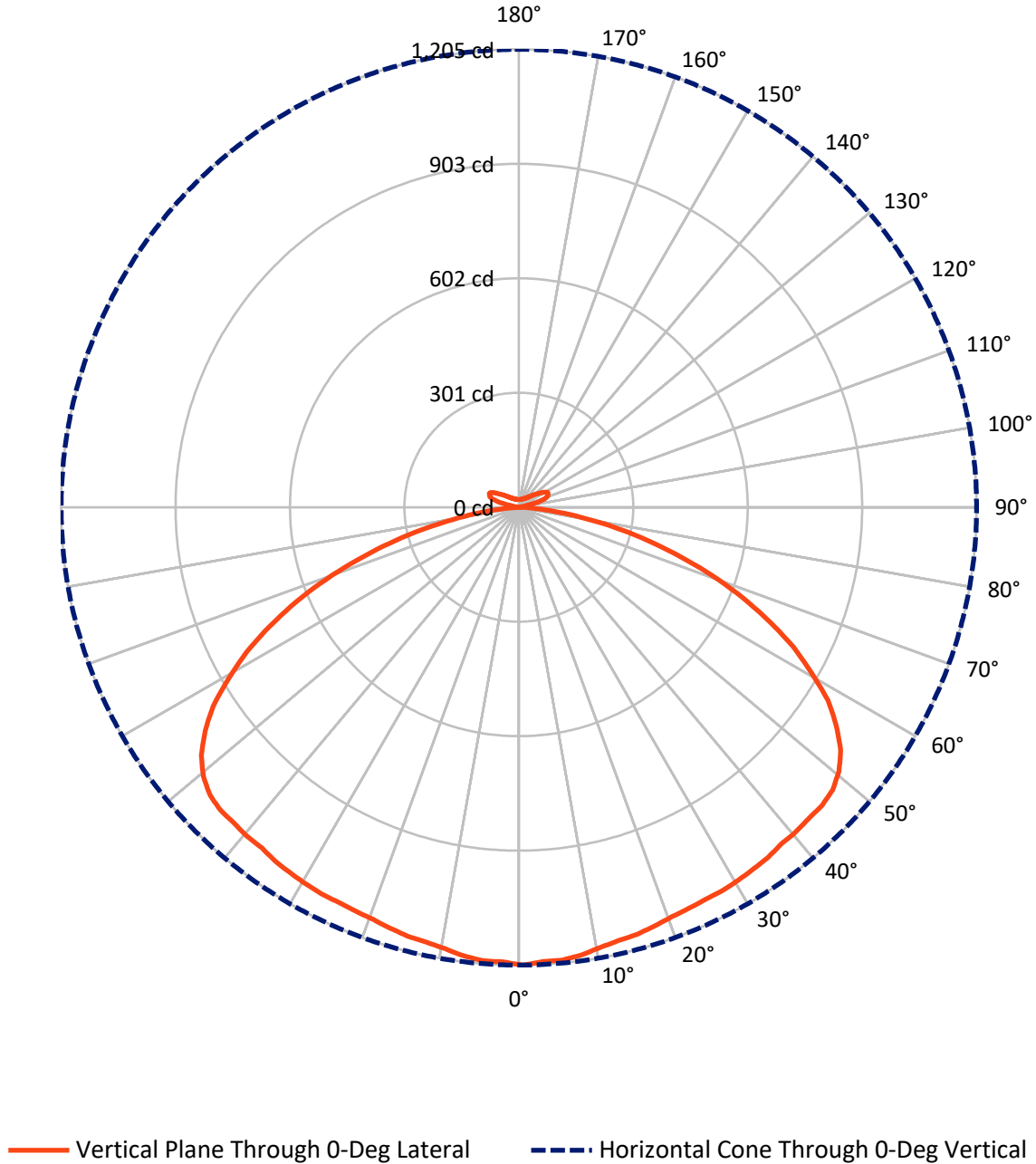
✕ Max cd
 - - - 1/2 Max cd



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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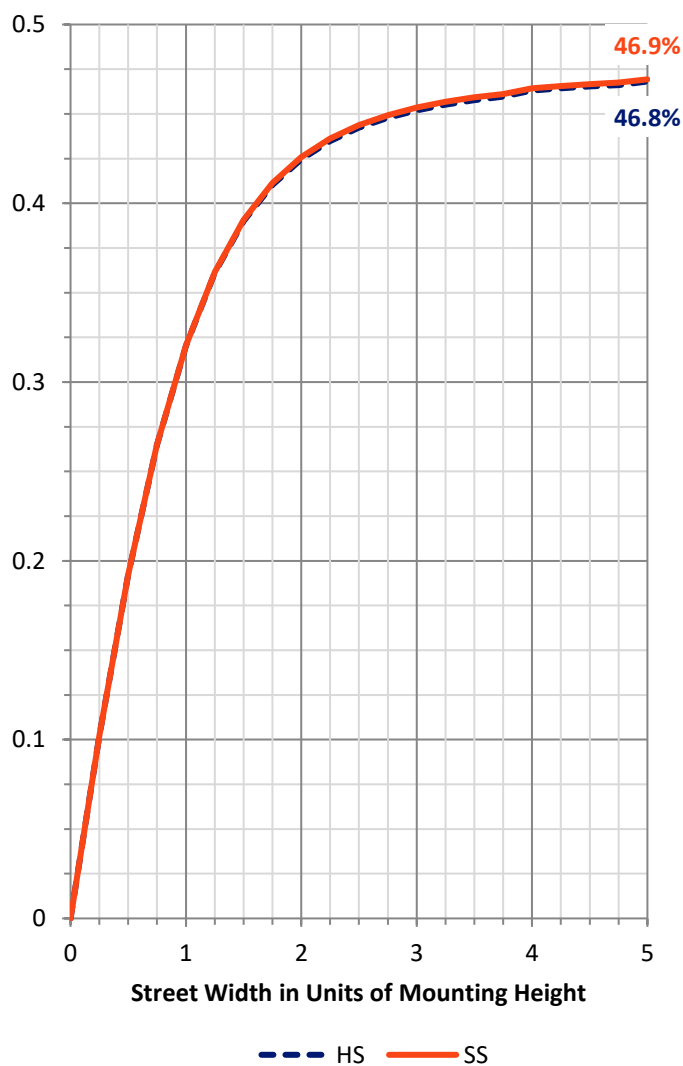
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2382.2	147.7	2530.0
	% Fixture	47.1	2.9	50.0
Street Side	Lumens	2382.2	147.7	2530.0
	% Fixture	47.1	2.9	50.0
Total	Lumens	4764.5	295.5	5059.9
	% Fixture	94.2	5.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	2.2
10°-20°	329.8	6.5
20°-30°	531.1	10.5
30°-40°	714.3	14.1
40°-50°	881.4	17.4
50°-60°	945.6	18.7
60°-70°	766.8	15.2
70°-80°	406.4	8.0
80°-90°	75.6	1.5
90°-100°	6.6	0.1
100°-110°	67.0	1.3
110°-120°	98.0	1.9
120°-130°	56.9	1.1
130°-140°	30.1	0.6
140°-150°	17.9	0.4
150°-160°	11.0	0.2
160°-170°	6.0	0.1
170°-180°	2.0	0.0
0°-90°	4764.5	94.2
0°-180°	5059.9	100.0

Coefficient of Utilization

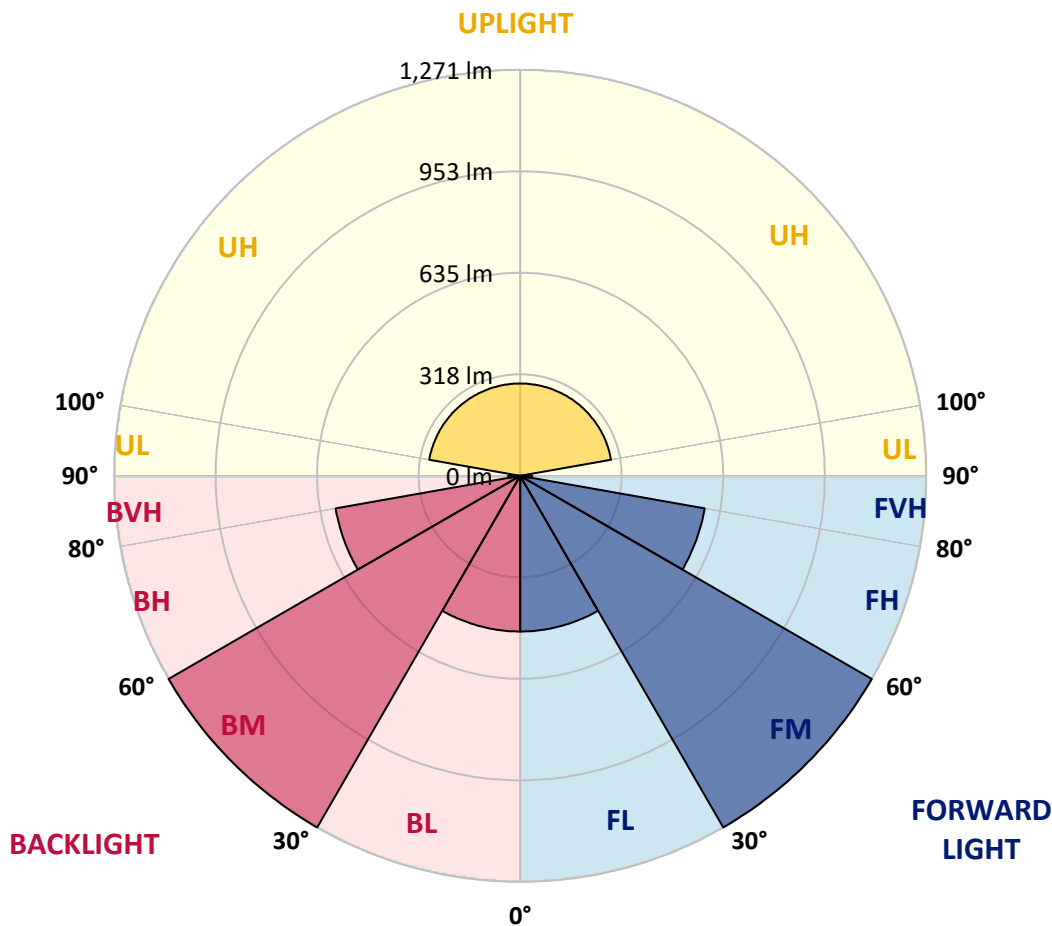


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	487.3	9.6			
FM (30°-60°)	1270.6	25.1			
FH (60°-80°)	586.6	11.6			G0/660
FVH (80°-90°)	37.8	0.7			G1/100
BL (0°-30°)	487.3	9.6	B1/500		
BM (30°-60°)	1270.6	25.1	B2/2500		
BH (60°-80°)	586.6	11.6	B2/1000		G0/660
BVH (80°-90°)	37.8	0.7			G1/100
UL (90°-100°)	6.6	0.1		U1/10	
UH (100°-180°)	288.9	5.7		U3/500	

BUG Rating: B2-U3-G1
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6	1204.6
2.5°	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8	1200.7
5°	1196.8	1196.8	1196.8	1196.8	1193.0	1196.8	1196.8	1196.8	1196.8	1196.8	1196.8
7.5°	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1	1189.1
10°	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4	1177.4
12.5°	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6	1169.6
15°	1165.7	1165.7	1165.7	1165.7	1165.7	1165.7	1165.7	1165.7	1165.7	1161.8	1161.8
17.5°	1157.9	1157.9	1157.9	1157.9	1161.8	1161.8	1161.8	1157.9	1157.9	1157.9	1157.9
20°	1150.1	1150.1	1150.1	1154.0	1154.0	1154.0	1154.0	1154.0	1150.1	1150.1	1150.1
22.5°	1146.2	1146.2	1146.2	1146.2	1150.1	1150.1	1150.1	1150.1	1146.2	1146.2	1146.2
25°	1142.3	1142.3	1146.2	1146.2	1150.1	1150.1	1150.1	1146.2	1146.2	1142.3	1142.3
27.5°	1142.3	1142.3	1146.2	1146.2	1150.1	1150.1	1150.1	1150.1	1146.2	1142.3	1142.3
30°	1138.4	1142.3	1142.3	1146.2	1150.1	1150.1	1150.1	1146.2	1142.3	1138.4	1138.4
32.5°	1134.5	1134.5	1138.4	1142.3	1146.2	1146.2	1146.2	1142.3	1138.4	1134.5	1130.6
35°	1130.6	1130.6	1130.6	1138.4	1142.3	1142.3	1142.3	1138.4	1130.6	1126.7	1126.7
37.5°	1122.8	1126.7	1130.6	1134.5	1142.3	1142.3	1142.3	1134.5	1126.7	1122.8	1118.9
40°	1122.8	1122.8	1130.6	1134.5	1146.2	1146.2	1142.3	1134.5	1126.7	1118.9	1115.0
42.5°	1118.9	1122.8	1130.6	1142.3	1154.0	1154.0	1150.1	1138.4	1126.7	1118.9	1115.0
45°	1118.9	1118.9	1130.6	1146.2	1161.8	1165.7	1157.9	1146.2	1130.6	1115.0	1115.0
47.5°	1111.1	1111.1	1126.7	1146.2	1165.7	1169.6	1165.7	1146.2	1126.7	1115.0	1111.1
50°	1091.6	1091.6	1111.1	1134.5	1157.9	1165.7	1157.9	1142.3	1115.0	1099.4	1095.5
52.5°	1060.4	1060.4	1079.9	1111.1	1134.5	1146.2	1138.4	1118.9	1091.6	1068.2	1064.3
55°	1013.6	1017.5	1037.0	1072.1	1099.4	1111.1	1103.3	1079.9	1048.7	1025.3	1017.5
57.5°	959.0	959.0	986.3	1021.4	1048.7	1060.4	1052.6	1029.2	994.1	970.7	962.9
60°	885.0	888.9	912.3	959.0	986.3	998.0	990.2	962.9	924.0	896.7	888.9
62.5°	810.9	814.8	838.2	877.2	908.4	916.2	908.4	881.1	846.0	818.7	810.9
65°	725.1	729.0	756.3	791.4	814.8	826.5	814.8	791.4	760.2	732.9	729.0
67.5°	635.5	639.4	666.6	697.8	721.2	729.0	717.3	697.8	666.6	643.3	635.5
70°	541.9	545.8	569.2	596.5	616.0	623.8	616.0	592.6	569.2	545.8	541.9
72.5°	444.4	448.3	471.7	495.1	510.7	518.5	506.8	491.2	467.8	448.3	444.4
75°	350.9	350.9	370.4	389.9	405.4	409.3	401.5	389.9	370.4	354.8	347.0
77.5°	261.2	261.2	280.7	292.4	300.2	308.0	300.2	288.5	276.8	261.2	261.2
80°	175.4	175.4	191.0	198.8	206.6	210.5	206.6	198.8	191.0	179.3	175.4
82.5°	105.3	105.3	113.1	120.9	120.9	124.8	124.8	120.9	113.1	105.3	105.3
85°	46.8	42.9	50.7	54.6	54.6	58.5	58.5	54.6	50.7	46.8	46.8
87.5°	3.9	7.8	7.8	11.7	11.7	11.7	11.7	11.7	7.8	7.8	7.8
90°	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5	2.5
92.5°	2.5	2.5	2.5	3.5	4.0	3.5	4.0	3.0	3.0	2.5	2.5
95°	3.0	3.0	3.5	4.5	5.6	6.1	6.1	3.5	3.5	3.0	3.0
97.5°	4.0	4.5	4.5	5.6	9.1	16.7	10.1	5.1	5.1	4.5	4.0
100°	6.6	7.1	7.1	12.6	26.8	35.9	25.8	13.1	9.6	7.1	7.1
102.5°	21.2	22.2	27.3	40.9	60.7	55.1	46.5	44.0	30.3	24.3	23.3
105°	54.1	53.6	57.6	68.2	84.9	83.4	76.8	69.8	60.2	55.6	55.6
107.5°	71.3	71.3	74.8	83.9	96.6	112.7	114.2	90.5	79.4	74.3	73.8
110°	80.4	80.4	83.4	91.0	107.7	130.4	129.4	111.7	98.1	91.5	90.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	82.4	82.9	86.9	98.6	116.8	126.9	122.3	115.3	109.2	104.1	103.1
115°	85.4	85.4	90.0	101.1	111.2	115.3	110.2	104.6	100.6	98.6	99.6
117.5°	84.4	85.9	86.9	93.0	99.6	102.6	100.1	92.5	89.5	88.5	86.9
120°	78.4	78.4	79.4	82.4	85.9	87.5	86.4	81.4	78.9	78.4	77.3
122.5°	69.8	70.3	69.8	71.3	73.8	75.3	74.3	70.3	69.3	69.3	68.2
125°	61.2	61.2	60.7	61.7	63.2	62.7	63.2	61.2	60.7	60.7	60.2
127.5°	55.1	54.6	53.6	54.1	54.6	54.6	55.1	53.1	53.6	54.1	53.6
130°	49.0	49.0	48.0	48.0	48.0	47.0	48.0	47.0	47.5	48.0	48.5
132.5°	43.5	43.5	42.0	41.5	41.5	41.5	42.0	41.5	42.5	43.5	43.5
135°	38.9	38.9	37.4	37.9	37.9	37.4	37.9	37.4	38.4	38.9	38.9
137.5°	35.4	35.4	34.4	34.4	34.4	33.9	34.4	34.4	34.9	35.9	36.4
140°	32.4	32.4	31.8	31.8	31.3	31.8	31.8	31.8	32.4	32.9	32.9
142.5°	30.8	30.3	29.8	29.3	29.8	29.8	29.8	29.3	29.8	30.8	30.8
145°	28.3	28.3	27.8	27.8	27.8	28.3	27.8	27.8	28.3	28.3	28.8
147.5°	26.8	26.8	26.3	26.8	26.8	26.8	26.8	26.3	26.8	26.8	27.3
150°	26.3	25.8	25.3	25.8	25.8	25.3	25.3	25.3	25.3	25.8	25.8
152.5°	24.8	24.8	24.3	24.8	24.3	24.3	24.3	24.3	24.3	24.8	25.3
155°	23.8	23.8	23.3	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
157.5°	22.7	23.3	22.7	22.7	22.7	22.7	22.7	22.7	22.7	23.3	23.3
160°	22.2	22.2	22.2	22.2	21.7	21.7	21.7	22.2	22.2	22.2	22.7
162.5°	21.7	21.7	21.7	21.7	21.2	21.2	21.2	21.2	21.7	21.7	22.2
165°	21.7	21.2	21.2	21.2	20.7	20.7	20.7	20.7	21.2	21.7	21.2
167.5°	20.7	20.7	20.7	20.7	20.7	20.2	20.2	20.7	20.7	20.7	21.2
170°	20.7	20.7	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.7
172.5°	20.7	20.7	20.7	20.7	20.2	20.2	20.2	20.2	20.2	20.7	20.7
175°	20.7	20.7	20.7	20.7	20.2	20.2	20.2	20.7	20.7	20.7	20.2
177.5°	20.7	20.7	20.7	20.7	20.2	20.7	20.7	20.7	20.7	20.7	20.7
180°	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7

(END OF REPORT)