

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: P833672

Luminaire Tested: **TTN-D2-830-U-CQ-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833672
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-UPL2
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: 5298.9 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U4 - G1

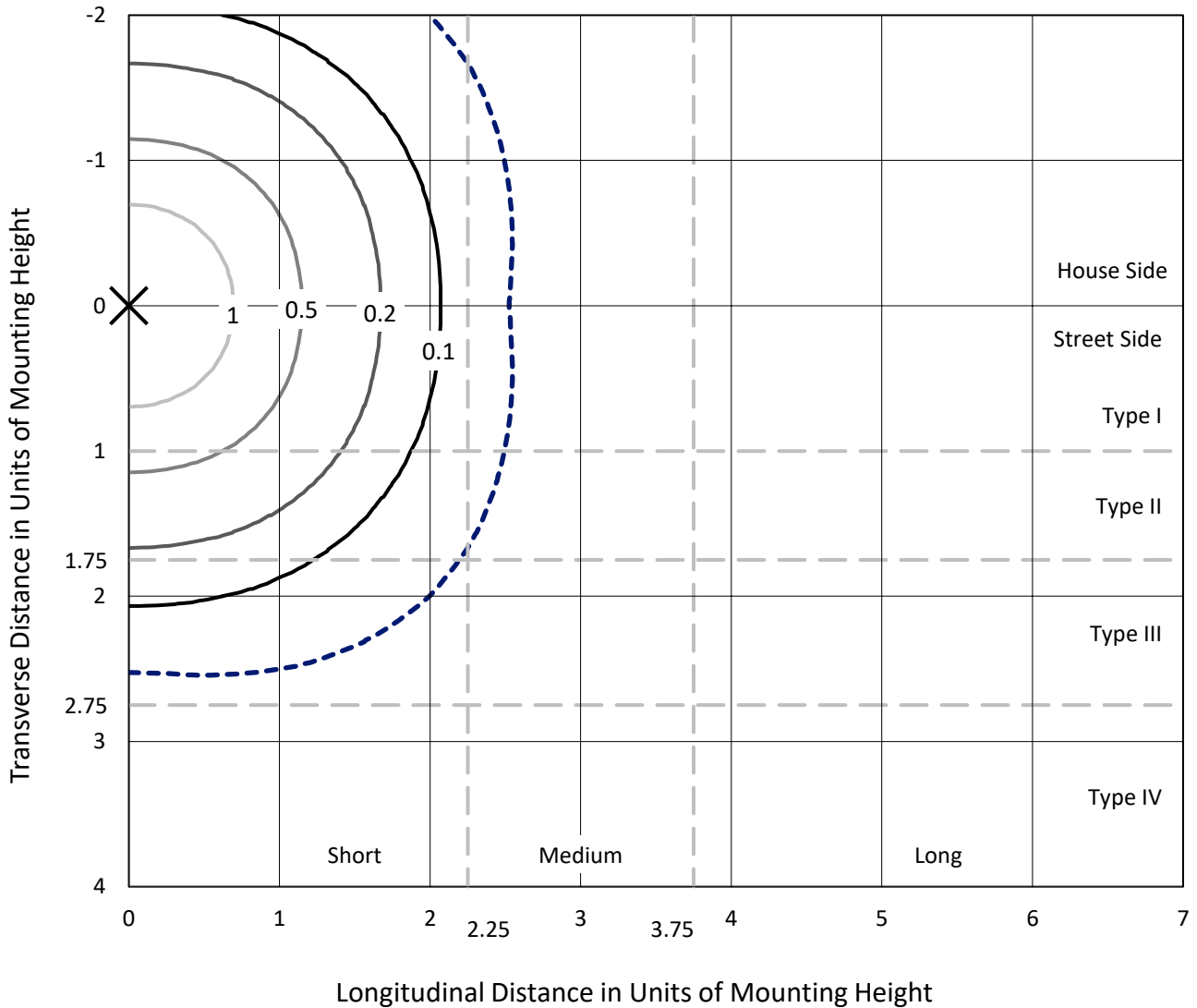
Input Watts (W): 47
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

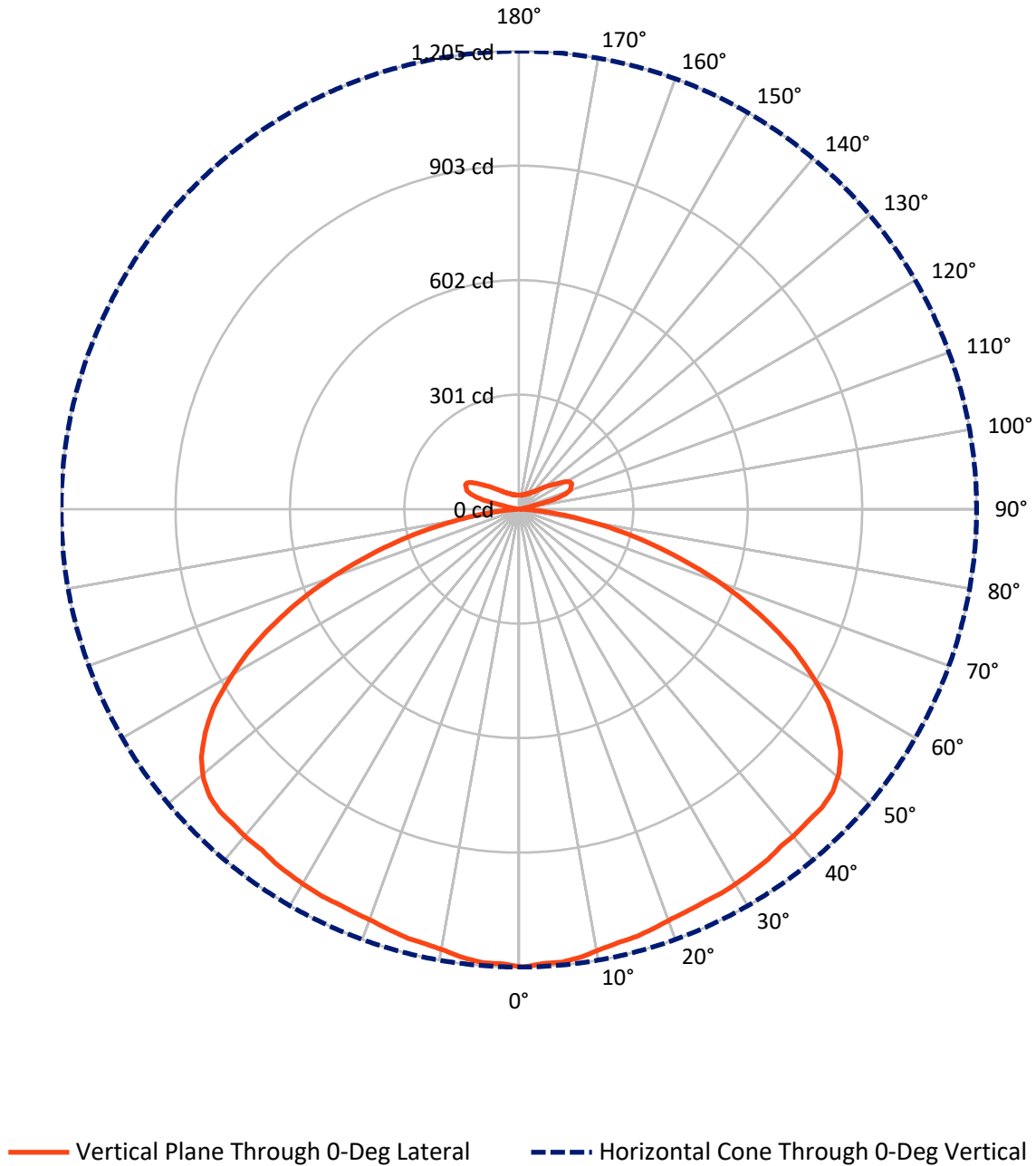
✕ Max cd
 - - - 1/2 Max cd



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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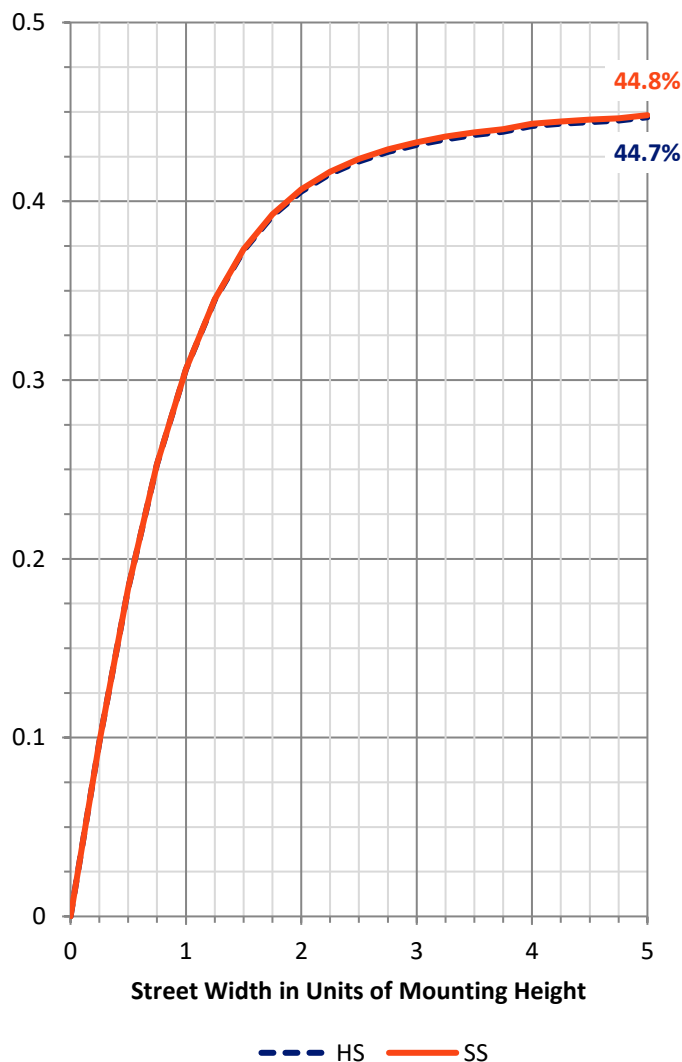
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2382.4	267.0	2649.4
	% Fixture	45.0	5.0	50.0
Street Side	Lumens	2382.4	267.0	2649.4
	% Fixture	45.0	5.0	50.0
Total	Lumens	4764.8	534.0	5298.9
	% Fixture	89.9	10.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	2.1
10°-20°	329.8	6.2
20°-30°	531.1	10.0
30°-40°	714.3	13.5
40°-50°	881.4	16.6
50°-60°	945.6	17.8
60°-70°	766.8	14.5
70°-80°	406.4	7.7
80°-90°	75.9	1.4
90°-100°	11.9	0.2
100°-110°	121.1	2.3
110°-120°	177.1	3.3
120°-130°	102.8	1.9
130°-140°	54.4	1.0
140°-150°	32.3	0.6
150°-160°	19.9	0.4
160°-170°	10.9	0.2
170°-180°	3.5	0.1
0°-90°	4764.8	89.9
0°-180°	5298.9	100.0

Coefficient of Utilization



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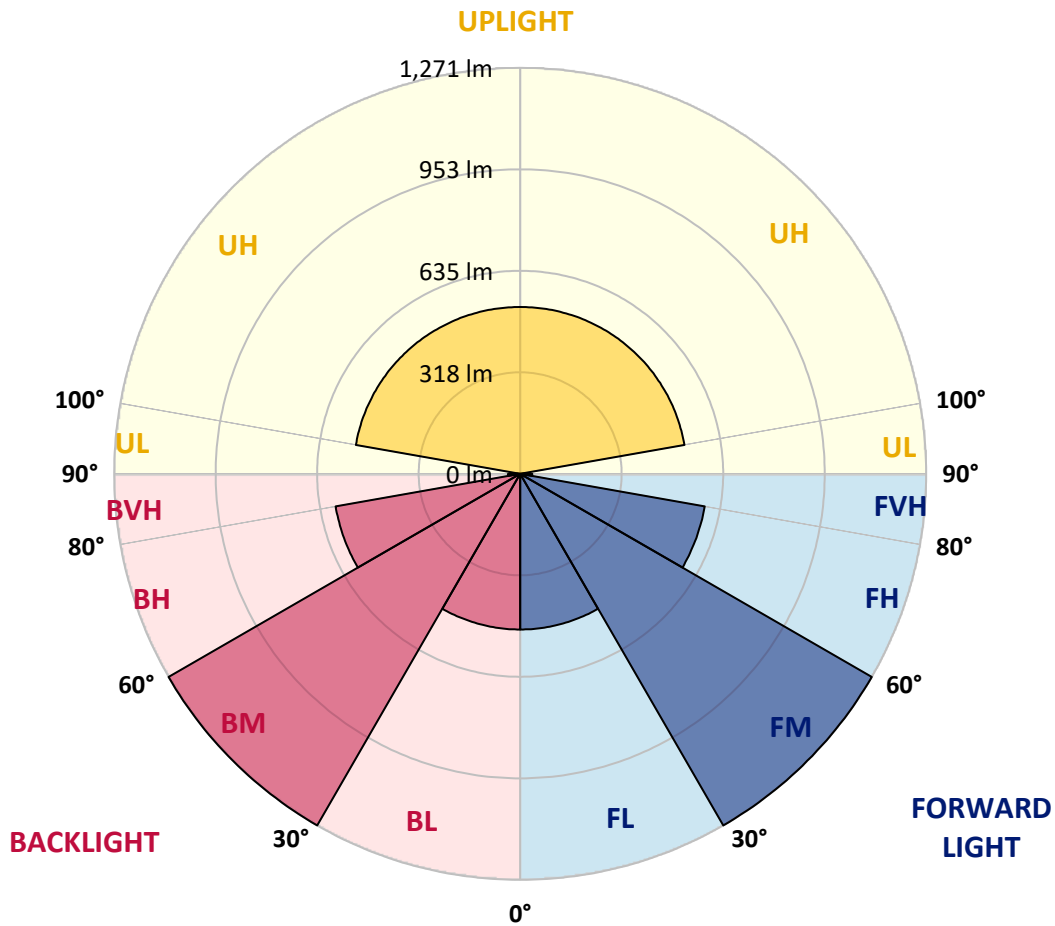
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	487.3	9.2			
FM (30°-60°)	1270.6	24.0			
FH (60°-80°)	586.6	11.1			G0/660
FVH (80°-90°)	37.9	0.7			G1/100
BL (0°-30°)	487.3	9.2	B1/500		
BM (30°-60°)	1270.6	24.0	B2/2500		
BH (60°-80°)	586.6	11.1	B2/1000		G0/660
BVH (80°-90°)	37.9	0.7			G1/100
UL (90°-100°)	11.9	0.2		U2/50	
UH (100°-180°)	522.1	9.9		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°	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°	4.6	4.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.6	4.6
92.5°	4.6	4.6	4.6	6.4	7.3	6.4	7.3	5.5	5.5	4.6	4.6
95°	5.5	5.5	6.4	8.2	10.1	11.0	11.0	6.4	6.4	5.5	5.5
97.5°	7.3	8.2	8.2	10.1	16.4	30.2	18.3	9.1	9.1	8.2	7.3
100°	11.9	12.8	12.8	22.8	48.4	64.9	46.6	23.8	17.4	12.8	12.8
102.5°	38.4	40.2	49.3	74.0	109.6	99.6	84.1	79.5	54.8	43.9	42.0
105°	97.8	96.8	104.2	123.3	153.5	150.8	138.9	126.1	108.7	100.5	100.5
107.5°	128.8	128.8	135.2	151.7	174.5	203.7	206.5	163.5	143.4	134.3	133.4
110°	145.3	145.3	150.8	164.5	194.6	235.7	233.9	201.9	177.3	165.4	163.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	148.9	149.8	157.1	178.2	211.1	229.3	221.1	208.3	197.4	188.2	186.4
115°	154.4	154.4	162.6	182.7	201.0	208.3	199.2	189.1	181.8	178.2	180.0
117.5°	152.6	155.3	157.1	168.1	180.0	185.5	180.9	167.2	161.7	159.9	157.1
120°	141.6	141.6	143.4	148.9	155.3	158.1	156.2	147.1	142.5	141.6	139.8
122.5°	126.1	127.0	126.1	128.8	133.4	136.1	134.3	127.0	125.2	125.2	123.3
125°	110.6	110.6	109.6	111.5	114.2	113.3	114.2	110.6	109.6	109.6	108.7
127.5°	99.6	98.7	96.8	97.8	98.7	98.7	99.6	95.9	96.8	97.8	96.8
130°	88.6	88.6	86.8	86.8	86.8	85.0	86.8	85.0	85.9	86.8	87.7
132.5°	78.6	78.6	75.8	74.9	74.9	74.9	75.8	74.9	76.7	78.6	78.6
135°	70.4	70.4	67.6	68.5	68.5	67.6	68.5	67.6	69.4	70.4	70.4
137.5°	64.0	64.0	62.1	62.1	62.1	61.2	62.1	62.1	63.0	64.9	65.8
140°	58.5	58.5	57.6	57.6	56.6	57.6	57.6	57.6	58.5	59.4	59.4
142.5°	55.7	54.8	53.9	53.0	53.9	53.9	53.9	53.0	53.9	55.7	55.7
145°	51.2	51.2	50.3	50.3	50.3	51.2	50.3	50.3	51.2	51.2	52.1
147.5°	48.4	48.4	47.5	48.4	48.4	48.4	48.4	47.5	48.4	48.4	49.3
150°	47.5	46.6	45.7	46.6	46.6	45.7	45.7	45.7	45.7	46.6	46.6
152.5°	44.8	44.8	43.9	44.8	43.9	43.9	43.9	43.9	43.9	44.8	45.7
155°	42.9	42.9	42.0	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
157.5°	41.1	42.0	41.1	41.1	41.1	41.1	41.1	41.1	41.1	42.0	42.0
160°	40.2	40.2	40.2	40.2	39.3	39.3	39.3	40.2	40.2	40.2	41.1
162.5°	39.3	39.3	39.3	39.3	38.4	38.4	38.4	38.4	39.3	39.3	40.2
165°	39.3	38.4	38.4	38.4	37.5	37.5	37.5	37.5	38.4	39.3	38.4
167.5°	37.5	37.5	37.5	37.5	37.5	36.5	36.5	37.5	37.5	37.5	38.4
170°	37.5	37.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	37.5
172.5°	37.5	37.5	37.5	37.5	36.5	36.5	36.5	36.5	36.5	37.5	37.5
175°	37.5	37.5	37.5	37.5	36.5	36.5	36.5	37.5	37.5	37.5	36.5
177.5°	37.5	37.5	37.5	37.5	36.5	37.5	37.5	37.5	37.5	37.5	37.5
180°	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5

(END OF REPORT)