

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: P833683

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

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833683
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-MQ-UPL1
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5261.8 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U3 - G1

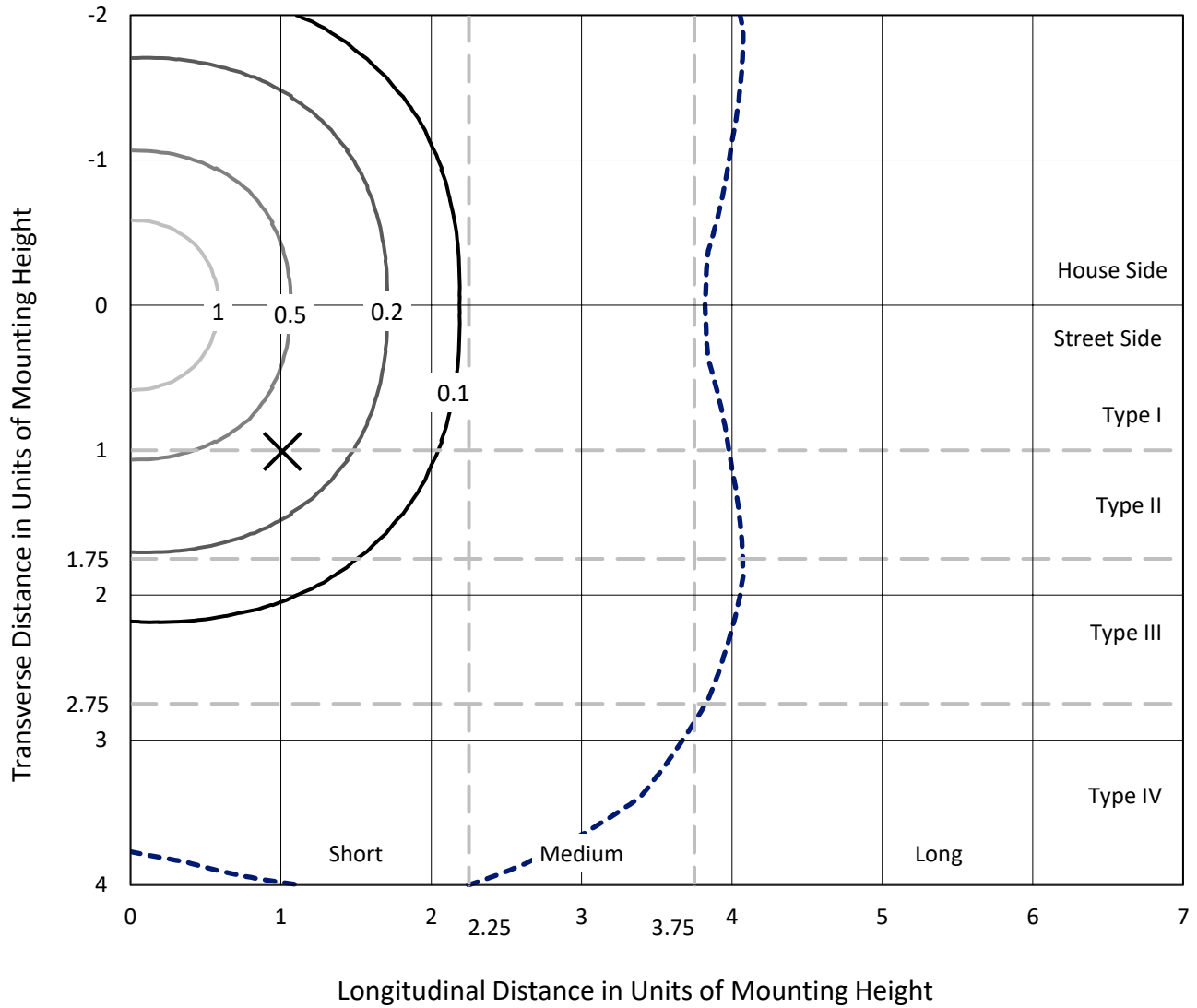
Input Watts (W): 45.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

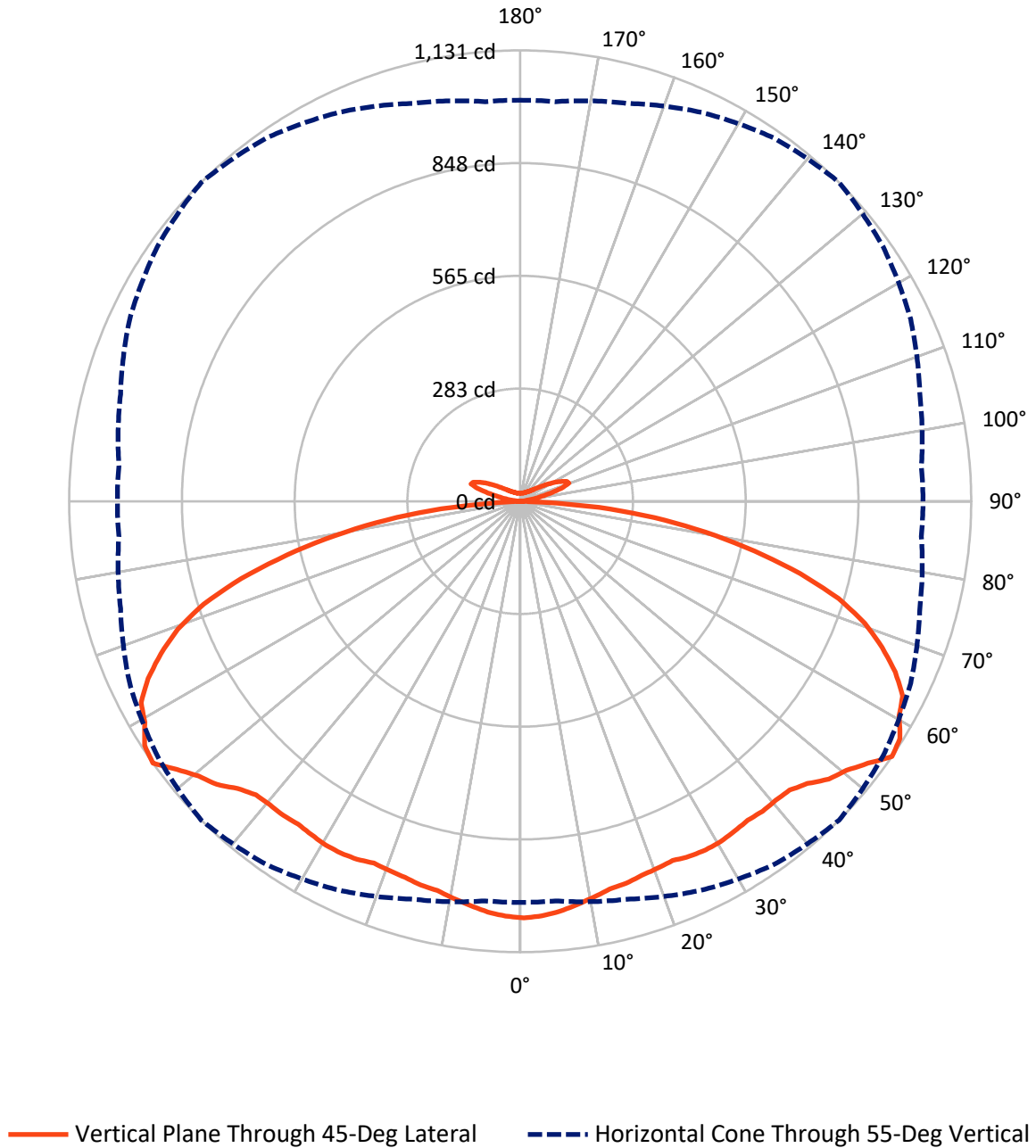
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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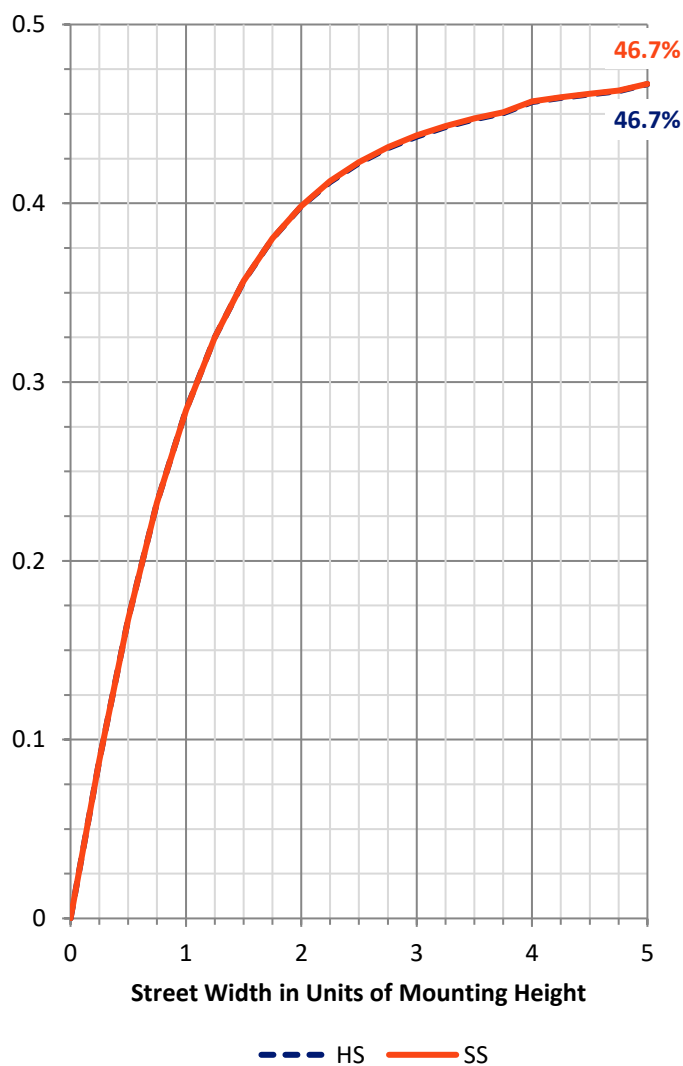
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2483.2	147.7	2630.9
	% Fixture	47.2	2.8	50.0
Street Side	Lumens	2483.2	147.7	2630.9
	% Fixture	47.2	2.8	50.0
Total	Lumens	4966.3	295.5	5261.8
	% Fixture	94.4	5.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	1.9
10°-20°	280.7	5.3
20°-30°	453.7	8.6
30°-40°	614.0	11.7
40°-50°	769.0	14.6
50°-60°	942.4	17.9
60°-70°	944.7	18.0
70°-80°	681.7	13.0
80°-90°	182.2	3.5
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	0.3
150°-160°	11.0	0.2
160°-170°	6.0	0.1
170°-180°	2.0	0.0
0°-90°	4966.3	94.4
0°-180°	5261.8	100.0

Coefficient of Utilization



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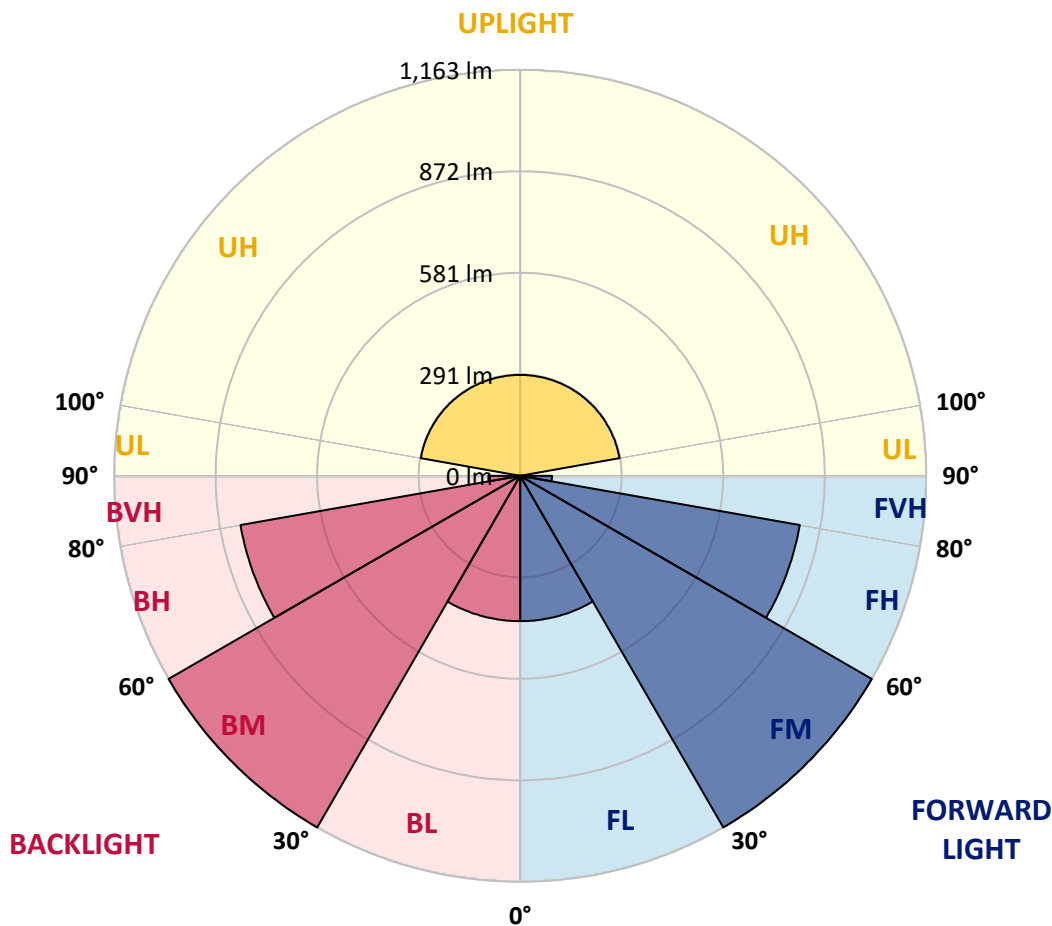
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	416.1	7.9			
FM (30°-60°)	1162.7	22.1			
FH (60°-80°)	813.2	15.5			G1/1800
FVH (80°-90°)	91.1	1.7			G1/100
BL (0°-30°)	416.1	7.9	B1/500		
BM (30°-60°)	1162.7	22.1	B2/2500		
BH (60°-80°)	813.2	15.5	B2/1000		G1/1800
BVH (80°-90°)	91.1	1.7			G1/100
UL (90°-100°)	6.6	0.1		U1/10	
UH (100°-180°)	288.9	5.5		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°	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8	1044.8
2.5°	1040.9	1040.9	1040.9	1037.0	1040.9	1040.9	1040.9	1040.9	1040.9	1040.9	1040.9
5°	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1	1033.1
7.5°	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4	1021.4
10°	1005.8	1005.8	1005.8	1005.8	1009.7	1009.7	1009.7	1009.7	1005.8	1005.8	1005.8
12.5°	994.1	994.1	994.1	998.0	998.0	998.0	998.0	998.0	998.0	998.0	994.1
15°	990.2	990.2	990.2	990.2	994.1	994.1	994.1	994.1	990.2	990.2	990.2
17.5°	982.4	982.4	982.4	986.3	986.3	986.3	986.3	986.3	982.4	982.4	982.4
20°	974.6	974.6	978.5	978.5	982.4	982.4	982.4	978.5	978.5	974.6	978.5
22.5°	974.6	974.6	974.6	978.5	978.5	978.5	978.5	974.6	974.6	974.6	974.6
25°	974.6	974.6	978.5	982.4	982.4	986.3	982.4	978.5	974.6	974.6	974.6
27.5°	978.5	978.5	982.4	986.3	986.3	990.2	986.3	982.4	978.5	978.5	978.5
30°	978.5	978.5	982.4	986.3	986.3	990.2	986.3	982.4	978.5	978.5	978.5
32.5°	970.7	974.6	978.5	982.4	986.3	986.3	986.3	982.4	978.5	974.6	974.6
35°	966.8	970.7	974.6	978.5	982.4	982.4	982.4	978.5	974.6	970.7	970.7
37.5°	962.9	962.9	970.7	974.6	978.5	986.3	982.4	974.6	970.7	966.8	966.8
40°	959.0	962.9	966.8	974.6	978.5	986.3	982.4	974.6	966.8	962.9	962.9
42.5°	959.0	959.0	966.8	974.6	982.4	990.2	986.3	978.5	966.8	962.9	959.0
45°	962.9	966.8	978.5	994.1	1001.9	1009.7	1005.8	994.1	974.6	966.8	962.9
47.5°	978.5	982.4	994.1	1009.7	1029.2	1040.9	1029.2	1009.7	994.1	982.4	978.5
50°	986.3	990.2	1009.7	1029.2	1056.5	1060.4	1056.5	1029.2	1009.7	990.2	990.2
52.5°	1001.9	1001.9	1025.3	1060.4	1083.8	1091.6	1083.8	1064.3	1025.3	1005.8	1001.9
55°	1005.8	1005.8	1033.1	1076.0	1111.1	1130.6	1111.1	1079.9	1037.0	1009.7	1009.7
57.5°	982.4	990.2	1025.3	1068.2	1111.1	1122.8	1111.1	1072.1	1029.2	994.1	990.2
60°	955.1	966.8	998.0	1048.7	1079.9	1091.6	1083.8	1048.7	1001.9	966.8	962.9
62.5°	927.9	943.4	978.5	1017.5	1064.3	1076.0	1064.3	1017.5	978.5	943.4	927.9
65°	869.4	885.0	935.6	982.4	1025.3	1033.1	1029.2	982.4	935.6	885.0	877.2
67.5°	810.9	822.6	857.7	931.8	966.8	978.5	970.7	927.9	861.6	822.6	818.7
70°	748.5	760.2	791.4	861.6	896.7	916.2	900.6	861.6	791.4	760.2	756.3
72.5°	666.7	682.2	717.3	779.7	814.8	834.3	818.7	779.7	717.3	678.3	670.5
75°	569.2	580.9	623.8	674.4	709.5	725.1	713.4	678.3	623.8	580.9	577.0
77.5°	463.9	475.6	514.6	565.3	584.8	600.4	588.7	561.4	514.6	475.6	471.7
80°	350.9	362.6	397.7	436.6	456.1	471.7	460.0	432.7	397.7	362.6	358.7
82.5°	230.0	241.7	272.9	304.1	323.6	339.2	327.5	300.2	276.8	241.7	237.8
85°	97.5	109.2	136.4	167.6	183.2	198.8	187.1	163.7	136.4	113.1	109.2
87.5°	7.8	11.7	11.7	15.6	11.7	19.5	11.7	11.7	11.7	11.7	11.7
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)