

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: P833521

Luminaire Tested: **TTN-D2-735-U-CQ-UPL1**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833521
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-CQ-UPL1
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5340.9 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U3 - G1

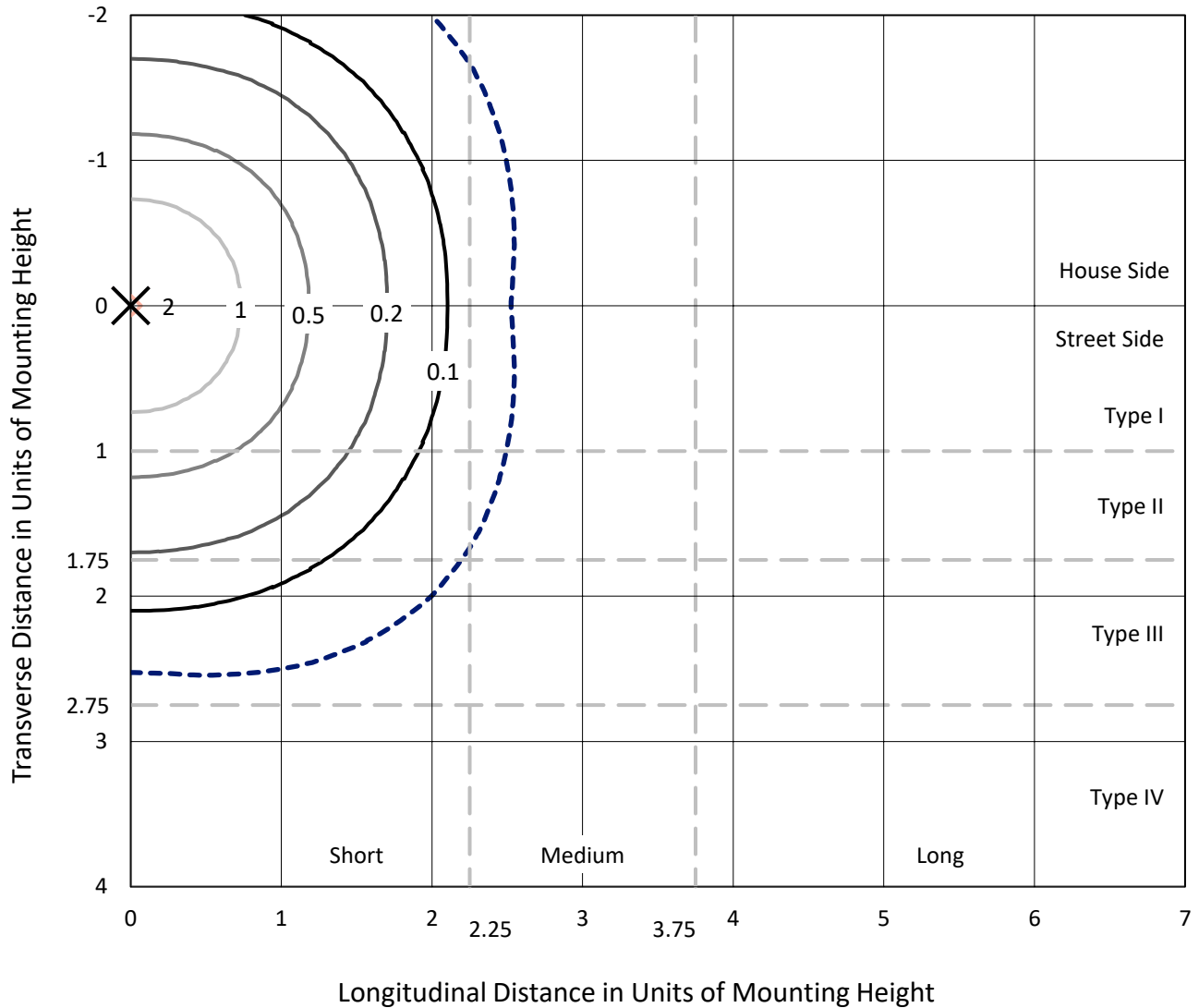
Input Watts (W): 45.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

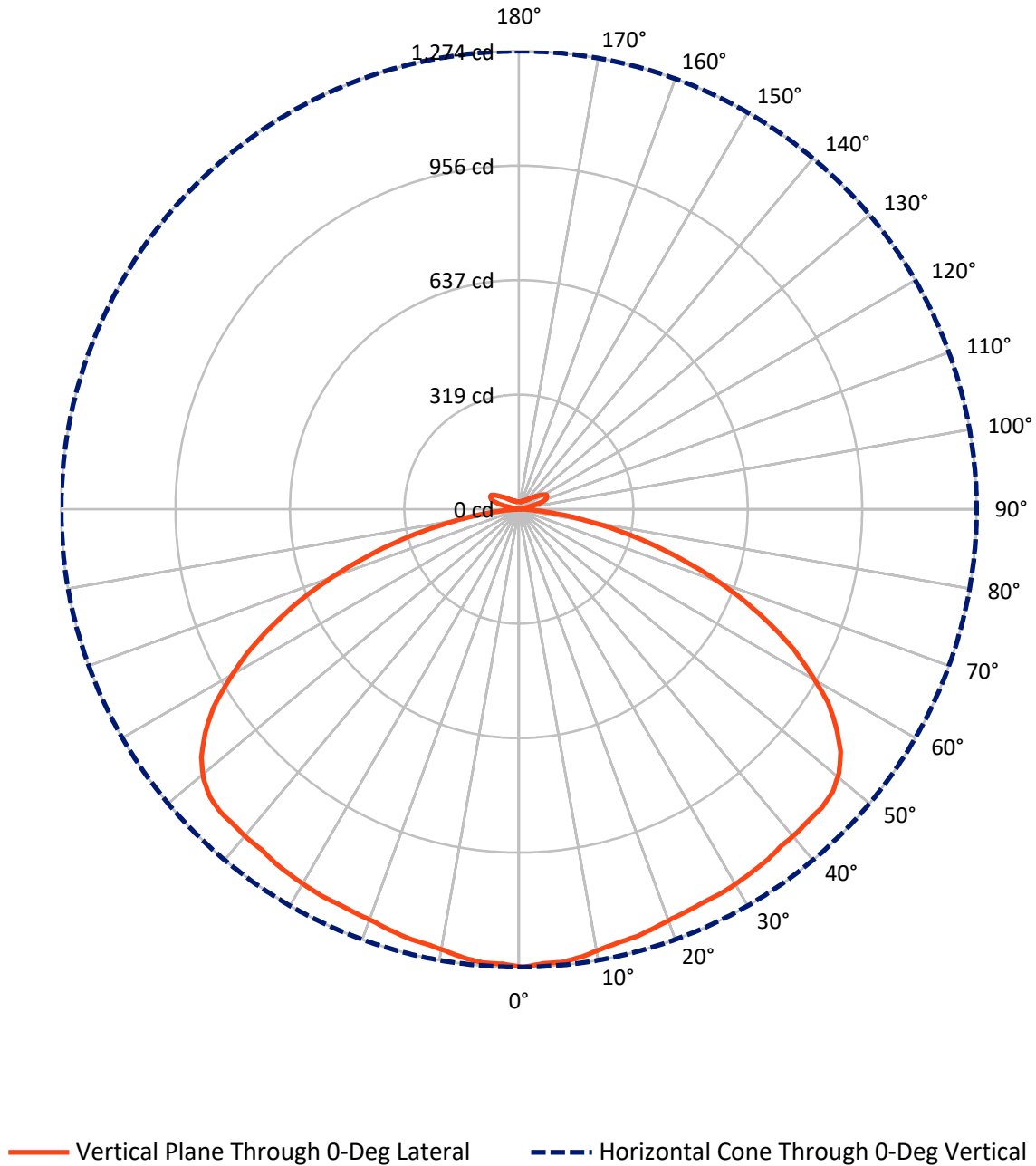
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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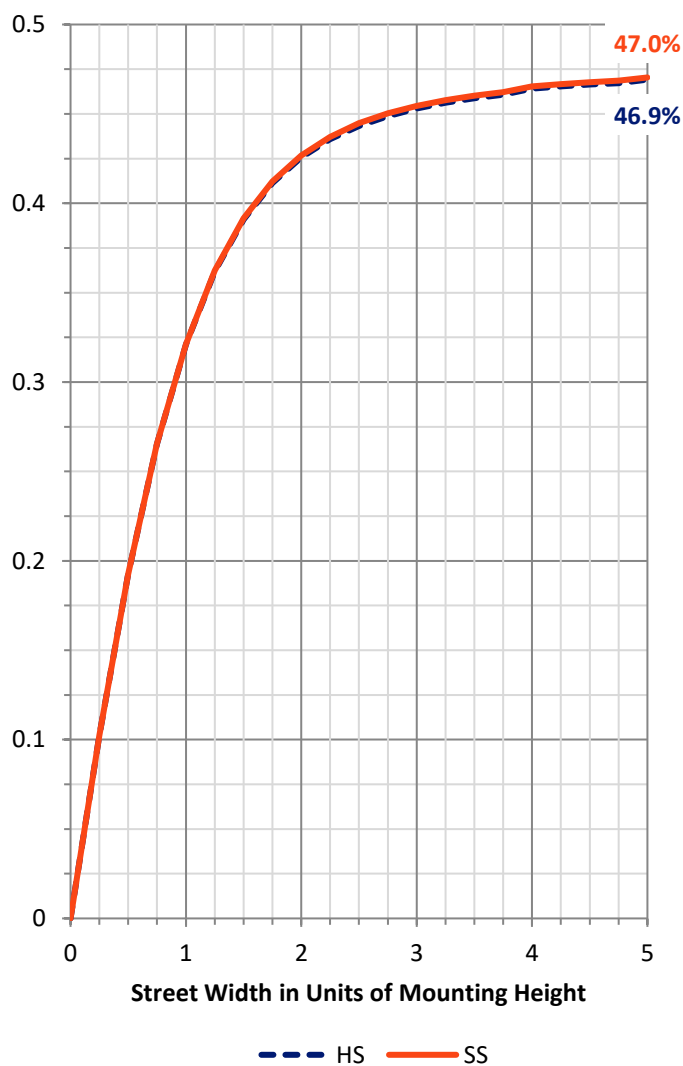
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2520.2	150.2	2670.4
	% Fixture	47.2	2.8	50.0
Street Side	Lumens	2520.2	150.2	2670.4
	% Fixture	47.2	2.8	50.0
Total	Lumens	5040.4	300.5	5340.9
	% Fixture	94.4	5.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.2	2.2
10°-20°	348.9	6.5
20°-30°	561.9	10.5
30°-40°	755.7	14.1
40°-50°	932.4	17.5
50°-60°	1000.3	18.7
60°-70°	811.2	15.2
70°-80°	429.9	8.0
80°-90°	79.9	1.5
90°-100°	6.7	0.1
100°-110°	68.2	1.3
110°-120°	99.6	1.9
120°-130°	57.8	1.1
130°-140°	30.6	0.6
140°-150°	18.2	0.3
150°-160°	11.2	0.2
160°-170°	6.1	0.1
170°-180°	2.0	0.0
0°-90°	5040.4	94.4
0°-180°	5340.9	100.0

Coefficient of Utilization



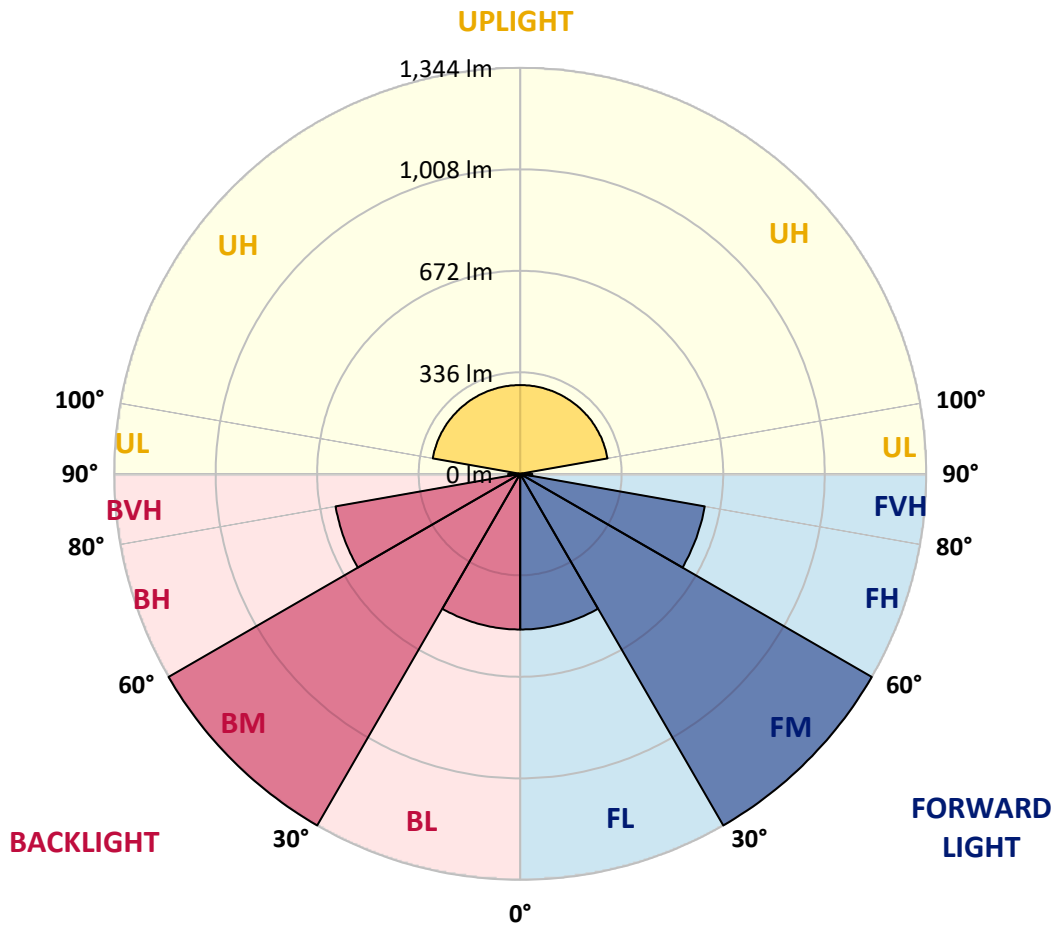
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.5	9.7			
FM (30°-60°)	1344.2	25.2			
FH (60°-80°)	620.6	11.6			G0/660
FVH (80°-90°)	40.0	0.7			G1/100
BL (0°-30°)	515.5	9.7	B2/1000		
BM (30°-60°)	1344.2	25.2	B2/2500		
BH (60°-80°)	620.6	11.6	B2/1000		G0/660
BVH (80°-90°)	40.0	0.7			G1/100
UL (90°-100°)	6.7	0.1		U1/10	
UH (100°-180°)	293.8	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°	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4	1274.4
2.5°	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2	1270.3
5°	1266.2	1266.2	1266.2	1266.2	1262.1	1266.2	1266.2	1266.2	1266.2	1266.2	1266.2
7.5°	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9
10°	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6
12.5°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
15°	1233.2	1233.2	1233.2	1233.2	1233.2	1233.2	1233.2	1233.2	1233.2	1229.1	1229.1
17.5°	1224.9	1224.9	1224.9	1224.9	1229.1	1229.1	1229.1	1224.9	1224.9	1224.9	1224.9
20°	1216.7	1216.7	1216.7	1220.8	1220.8	1220.8	1220.8	1220.8	1216.7	1216.7	1216.7
22.5°	1212.6	1212.6	1212.6	1212.6	1216.7	1216.7	1216.7	1216.7	1212.6	1212.6	1212.6
25°	1208.4	1208.4	1212.6	1212.6	1216.7	1216.7	1216.7	1212.6	1212.6	1208.4	1208.4
27.5°	1208.4	1208.4	1212.6	1212.6	1216.7	1216.7	1216.7	1216.7	1212.6	1208.4	1208.4
30°	1204.3	1208.4	1208.4	1212.6	1216.7	1216.7	1216.7	1212.6	1208.4	1204.3	1204.3
32.5°	1200.2	1200.2	1204.3	1208.4	1212.6	1212.6	1212.6	1208.4	1204.3	1200.2	1196.1
35°	1196.1	1196.1	1196.1	1204.3	1208.4	1208.4	1208.4	1204.3	1196.1	1191.9	1191.9
37.5°	1187.8	1191.9	1196.1	1200.2	1208.4	1208.4	1208.4	1200.2	1191.9	1187.8	1183.7
40°	1187.8	1187.8	1196.1	1200.2	1212.6	1212.6	1208.4	1200.2	1191.9	1183.7	1179.6
42.5°	1183.7	1187.8	1196.1	1208.4	1220.8	1220.8	1216.7	1204.3	1191.9	1183.7	1179.6
45°	1183.7	1183.7	1196.1	1212.6	1229.1	1233.2	1224.9	1212.6	1196.1	1179.6	1179.6
47.5°	1175.5	1175.5	1191.9	1212.6	1233.2	1237.3	1233.2	1212.6	1191.9	1179.6	1175.5
50°	1154.8	1154.8	1175.5	1200.2	1224.9	1233.2	1224.9	1208.4	1179.6	1163.1	1159.0
52.5°	1121.8	1121.8	1142.5	1175.5	1200.2	1212.6	1204.3	1183.7	1154.8	1130.1	1126.0
55°	1072.3	1076.5	1097.1	1134.2	1163.1	1175.5	1167.2	1142.5	1109.5	1084.7	1076.5
57.5°	1014.6	1014.6	1043.5	1080.6	1109.5	1121.8	1113.6	1088.8	1051.7	1027.0	1018.7
60°	936.2	940.4	965.1	1014.6	1043.5	1055.8	1047.6	1018.7	977.5	948.6	940.4
62.5°	857.9	862.0	886.7	928.0	961.0	969.2	961.0	932.1	895.0	866.1	857.9
65°	767.1	771.3	800.1	837.3	862.0	874.4	862.0	837.3	804.3	775.4	771.3
67.5°	672.3	676.4	705.3	738.3	763.0	771.3	758.9	738.3	705.3	680.5	672.3
70°	573.3	577.4	602.2	631.0	651.7	659.9	651.7	626.9	602.2	577.4	573.3
72.5°	470.2	474.3	499.1	523.8	540.3	548.5	536.2	519.7	494.9	474.3	470.2
75°	371.2	371.2	391.8	412.4	428.9	433.1	424.8	412.4	391.8	375.3	367.1
77.5°	276.3	276.3	297.0	309.3	317.6	325.8	317.6	305.2	292.8	276.3	276.3
80°	185.6	185.6	202.1	210.3	218.6	222.7	218.6	210.3	202.1	189.7	185.6
82.5°	111.4	111.4	119.6	127.9	127.9	132.0	132.0	127.9	119.6	111.4	111.4
85°	49.5	45.4	53.6	57.7	57.7	61.9	61.9	57.7	53.6	49.5	49.5
87.5°	4.1	8.2	8.2	12.4	12.4	12.4	12.4	12.4	8.2	8.2	8.2
90°	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.6	2.6
92.5°	2.6	2.6	2.6	3.6	4.1	3.6	4.1	3.1	3.1	2.6	2.6
95°	3.1	3.1	3.6	4.6	5.7	6.2	6.2	3.6	3.6	3.1	3.1
97.5°	4.1	4.6	4.6	5.7	9.3	17.0	10.3	5.1	5.1	4.6	4.1
100°	6.7	7.2	7.2	12.9	27.2	36.5	26.2	13.4	9.8	7.2	7.2
102.5°	21.6	22.6	27.8	41.6	61.7	56.0	47.3	44.7	30.8	24.7	23.6
105°	55.0	54.5	58.6	69.4	86.4	84.8	78.1	70.9	61.2	56.5	56.5
107.5°	72.5	72.5	76.1	85.3	98.2	114.6	116.2	92.0	80.7	75.6	75.0
110°	81.7	81.7	84.8	92.5	109.5	132.6	131.6	113.6	99.7	93.0	92.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.8	84.3	88.4	100.2	118.7	129.0	124.4	117.2	111.0	105.9	104.9
115°	86.9	86.9	91.5	102.8	113.1	117.2	112.1	106.4	102.3	100.2	101.3
117.5°	85.8	87.4	88.4	94.6	101.3	104.4	101.8	94.1	91.0	90.0	88.4
120°	79.7	79.7	80.7	83.8	87.4	88.9	87.9	82.8	80.2	79.7	78.6
122.5°	70.9	71.5	70.9	72.5	75.0	76.6	75.6	71.5	70.4	70.4	69.4
125°	62.2	62.2	61.7	62.7	64.3	63.7	64.3	62.2	61.7	61.7	61.2
127.5°	56.0	55.5	54.5	55.0	55.5	55.5	56.0	54.0	54.5	55.0	54.5
130°	49.9	49.9	48.8	48.8	48.8	47.8	48.8	47.8	48.3	48.8	49.3
132.5°	44.2	44.2	42.7	42.2	42.2	42.2	42.7	42.2	43.2	44.2	44.2
135°	39.6	39.6	38.0	38.6	38.6	38.0	38.6	38.0	39.1	39.6	39.6
137.5°	36.0	36.0	35.0	35.0	35.0	34.4	35.0	35.0	35.5	36.5	37.0
140°	32.9	32.9	32.4	32.4	31.9	32.4	32.4	32.4	32.9	33.4	33.4
142.5°	31.4	30.8	30.3	29.8	30.3	30.3	30.3	29.8	30.3	31.4	31.4
145°	28.8	28.8	28.3	28.3	28.3	28.8	28.3	28.3	28.8	28.8	29.3
147.5°	27.2	27.2	26.7	27.2	27.2	27.2	27.2	26.7	27.2	27.2	27.8
150°	26.7	26.2	25.7	26.2	26.2	25.7	25.7	25.7	25.7	26.2	26.2
152.5°	25.2	25.2	24.7	25.2	24.7	24.7	24.7	24.7	24.7	25.2	25.7
155°	24.2	24.2	23.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
157.5°	23.1	23.6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.6	23.6
160°	22.6	22.6	22.6	22.6	22.1	22.1	22.1	22.6	22.6	22.6	23.1
162.5°	22.1	22.1	22.1	22.1	21.6	21.6	21.6	21.6	22.1	22.1	22.6
165°	22.1	21.6	21.6	21.6	21.1	21.1	21.1	21.1	21.6	22.1	21.6
167.5°	21.1	21.1	21.1	21.1	21.1	20.6	20.6	21.1	21.1	21.1	21.6
170°	21.1	21.1	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	21.1
172.5°	21.1	21.1	21.1	21.1	20.6	20.6	20.6	20.6	20.6	21.1	21.1
175°	21.1	21.1	21.1	21.1	20.6	20.6	20.6	21.1	21.1	21.1	20.6
177.5°	21.1	21.1	21.1	21.1	20.6	21.1	21.1	21.1	21.1	21.1	21.1
180°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1

(END OF REPORT)