

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: P833685

Luminaire Tested: **TTN-D2-830-U-MQ-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833685  
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-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3000K, 80 CRI LEDS AND MEDIUM DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

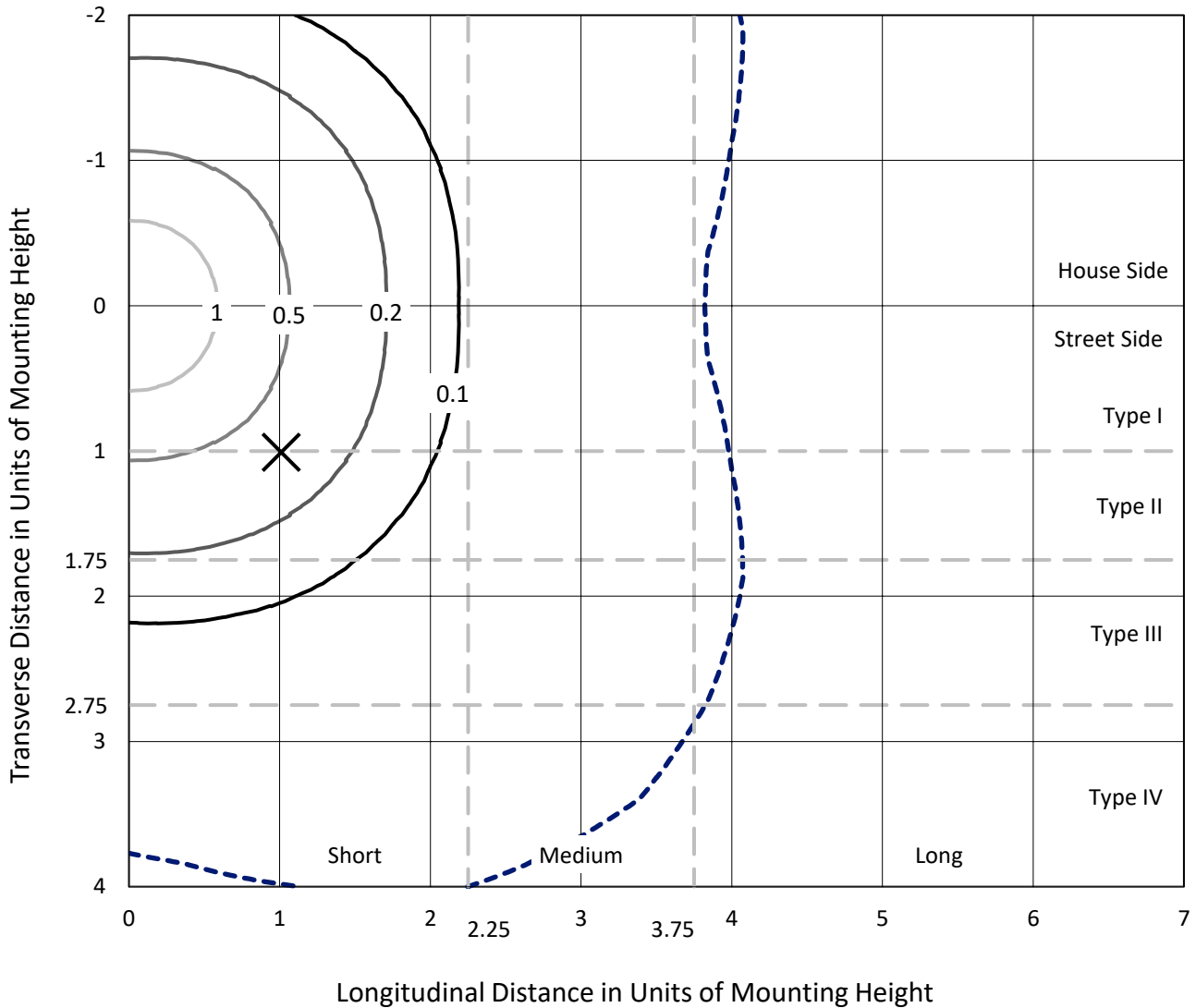
Lumens per Lamp: N/A  
Luminaire Lumens: 5707.6 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1  
  
Input Watts (W): 49.5  
Input Voltage (V): NR  
Input Current (Ain): 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

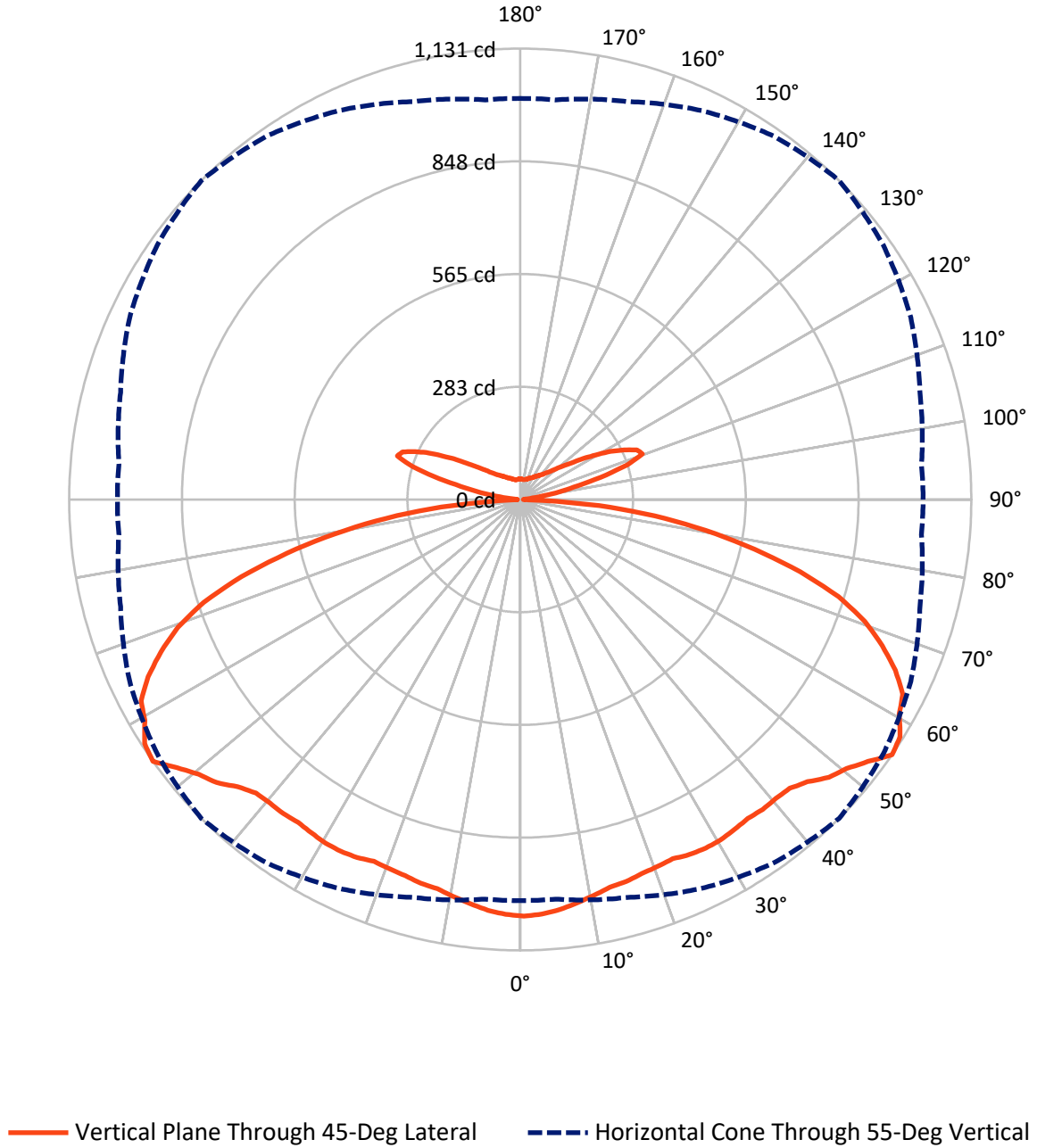
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



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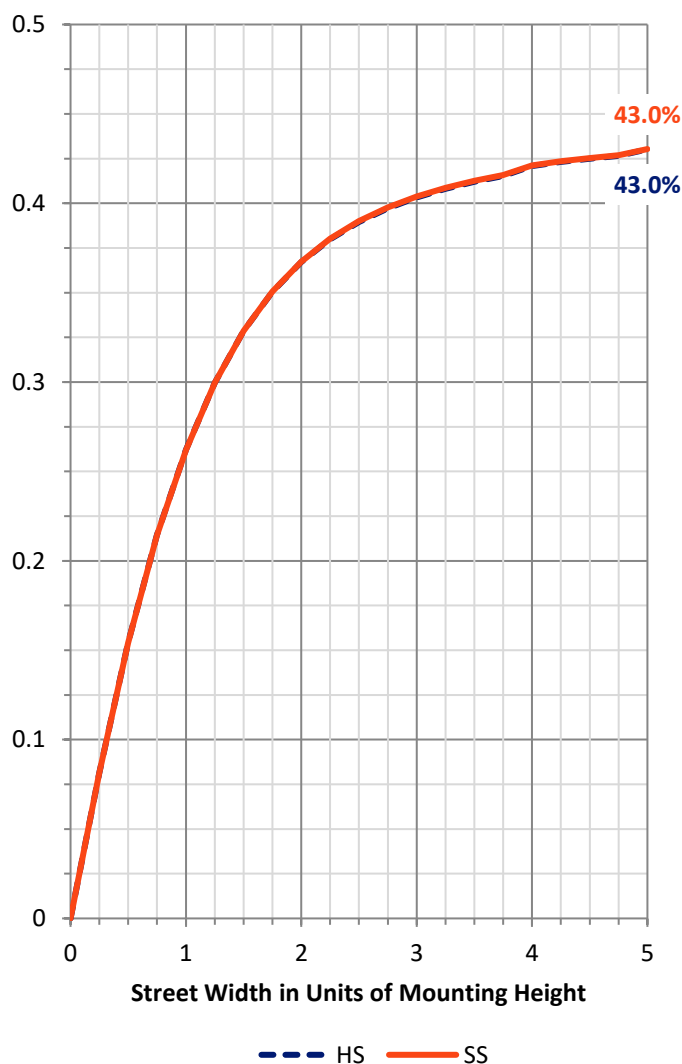
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2483.5	370.3	2853.8
	% Fixture	43.5	6.5	50.0
<b>Street Side</b>	Lumens	2483.5	370.3	2853.8
	% Fixture	43.5	6.5	50.0
<b>Total</b>	Lumens	4966.9	740.7	5707.6
	% Fixture	87.0	13.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.8	1.7
10°-20°	280.7	4.9
20°-30°	453.7	7.9
30°-40°	614.0	10.8
40°-50°	769.0	13.5
50°-60°	942.4	16.5
60°-70°	944.7	16.6
70°-80°	681.7	11.9
80°-90°	182.8	3.2
90°-100°	16.5	0.3
100°-110°	168.0	2.9
110°-120°	245.6	4.3
120°-130°	142.5	2.5
130°-140°	75.5	1.3
140°-150°	44.9	0.8
150°-160°	27.6	0.5
160°-170°	15.1	0.3
170°-180°	4.9	0.1
0°-90°	4966.9	87.0
0°-180°	5707.6	100.0

**Coefficient of Utilization**



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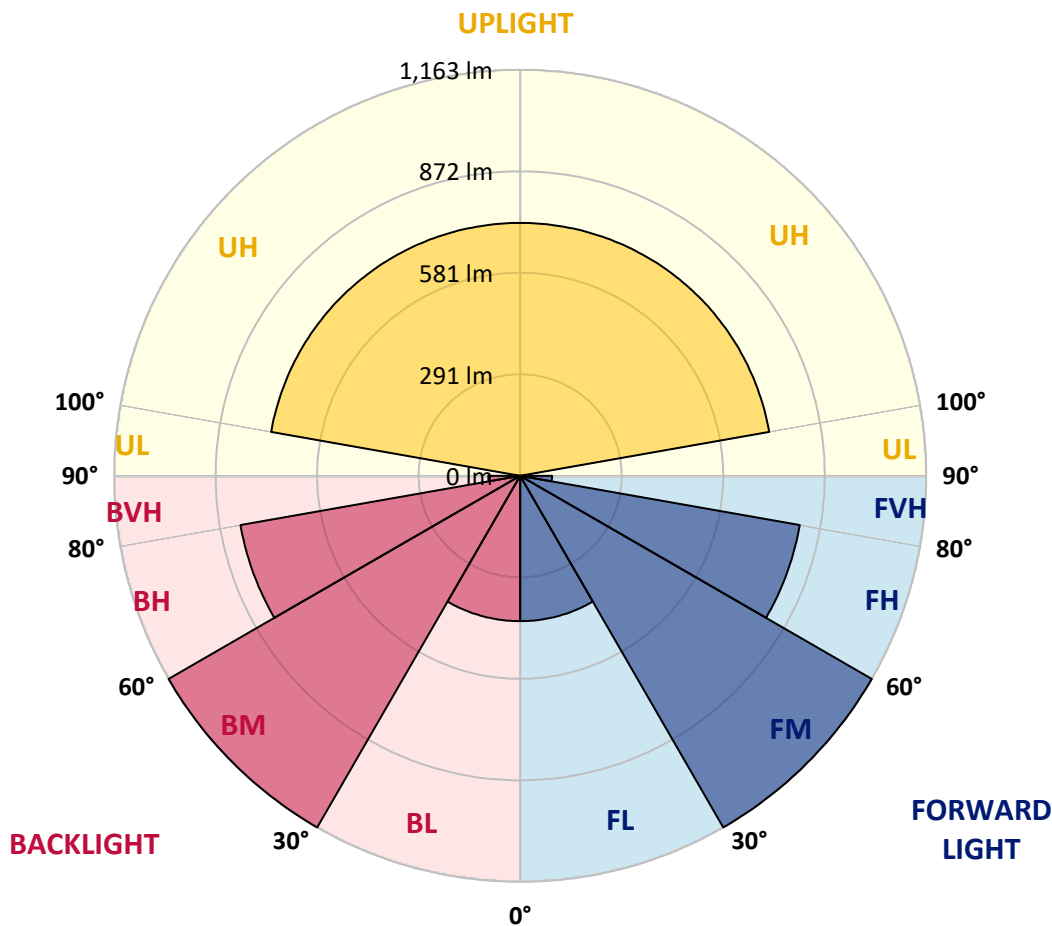
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	416.1	7.3			
FM (30°-60°)	1162.7	20.4			
FH (60°-80°)	813.2	14.2			G1/1800
FVH (80°-90°)	91.4	1.6			G1/100
BL (0°-30°)	416.1	7.3	B1/500		
BM (30°-60°)	1162.7	20.4	B2/2500		
BH (60°-80°)	813.2	14.2	B2/1000		G1/1800
BVH (80°-90°)	91.4	1.6			G1/100
UL (90°-100°)	16.5	0.3		U2/50	
UH (100°-180°)	724.2	12.7		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°	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°	6.3	6.3	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.3	6.3
92.5°	6.3	6.3	6.3	8.9	10.1	8.9	10.1	7.6	7.6	6.3	6.3
95°	7.6	7.6	8.9	11.4	13.9	15.2	15.2	8.9	8.9	7.6	7.6
97.5°	10.1	11.4	11.4	13.9	22.8	41.8	25.3	12.7	12.7	11.4	10.1
100°	16.5	17.7	17.7	31.7	67.2	90.0	64.6	32.9	24.1	17.7	17.7
102.5°	53.2	55.8	68.4	102.6	152.1	138.1	116.6	110.2	76.0	60.8	58.3
105°	135.6	134.3	144.5	171.1	212.9	209.1	192.6	174.9	150.8	139.4	139.4
107.5°	178.7	178.7	187.5	210.4	242.0	282.6	286.4	226.8	198.9	186.3	185.0
110°	201.5	201.5	209.1	228.1	269.9	326.9	324.4	280.0	245.8	229.4	226.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	206.5	207.8	218.0	247.1	292.7	318.1	306.7	288.9	273.7	261.0	258.5
115°	214.2	214.2	225.6	253.4	278.8	288.9	276.2	262.3	252.2	247.1	249.6
117.5°	211.6	215.4	218.0	233.2	249.6	257.2	250.9	231.9	224.3	221.8	218.0
120°	196.4	196.4	198.9	206.5	215.4	219.2	216.7	204.0	197.7	196.4	193.9
122.5°	174.9	176.1	174.9	178.7	185.0	188.8	186.3	176.1	173.6	173.6	171.1
125°	153.3	153.3	152.1	154.6	158.4	157.1	158.4	153.3	152.1	152.1	150.8
127.5°	138.1	136.9	134.3	135.6	136.9	136.9	138.1	133.1	134.3	135.6	134.3
130°	122.9	122.9	120.4	120.4	120.4	117.8	120.4	117.8	119.1	120.4	121.6
132.5°	109.0	109.0	105.2	103.9	103.9	103.9	105.2	103.9	106.4	109.0	109.0
135°	97.6	97.6	93.8	95.0	95.0	93.8	95.0	93.8	96.3	97.6	97.6
137.5°	88.7	88.7	86.2	86.2	86.2	84.9	86.2	86.2	87.4	90.0	91.2
140°	81.1	81.1	79.8	79.8	78.6	79.8	79.8	79.8	81.1	82.4	82.4
142.5°	77.3	76.0	74.8	73.5	74.8	74.8	74.8	73.5	74.8	77.3	77.3
145°	71.0	71.0	69.7	69.7	69.7	71.0	69.7	69.7	71.0	71.0	72.2
147.5°	67.2	67.2	65.9	67.2	67.2	67.2	67.2	65.9	67.2	67.2	68.4
150°	65.9	64.6	63.4	64.6	64.6	63.4	63.4	63.4	63.4	64.6	64.6
152.5°	62.1	62.1	60.8	62.1	60.8	60.8	60.8	60.8	60.8	62.1	63.4
155°	59.6	59.6	58.3	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
157.5°	57.0	58.3	57.0	57.0	57.0	57.0	57.0	57.0	57.0	58.3	58.3
160°	55.8	55.8	55.8	55.8	54.5	54.5	54.5	55.8	55.8	55.8	57.0
162.5°	54.5	54.5	54.5	54.5	53.2	53.2	53.2	53.2	54.5	54.5	55.8
165°	54.5	53.2	53.2	53.2	52.0	52.0	52.0	52.0	53.2	54.5	53.2
167.5°	52.0	52.0	52.0	52.0	52.0	50.7	50.7	52.0	52.0	52.0	53.2
170°	52.0	52.0	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	52.0
172.5°	52.0	52.0	52.0	52.0	50.7	50.7	50.7	50.7	50.7	52.0	52.0
175°	52.0	52.0	52.0	52.0	50.7	50.7	50.7	52.0	52.0	52.0	50.7
177.5°	52.0	52.0	52.0	52.0	50.7	52.0	52.0	52.0	52.0	52.0	52.0
180°	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0

(END OF REPORT)