

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: P832809

Luminaire Tested: **TTN-D0-735-U-DL-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P832809  
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-D0-735-U-DL-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

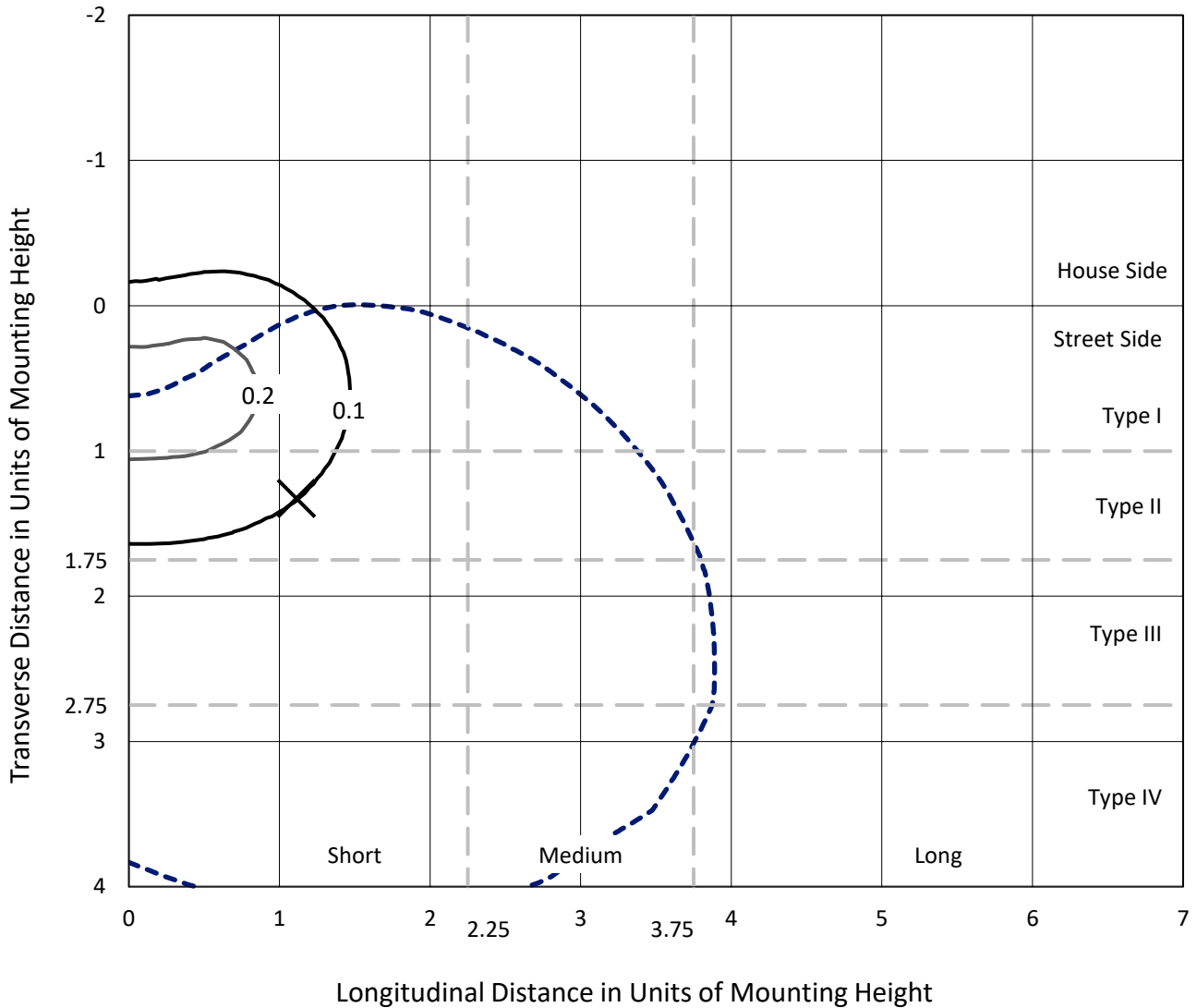
Lumens per Lamp: N/A  
Luminaire Lumens: 1845.7 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U4 - G1  
  
Input Watts (W): 17.7  
Input Voltage (V): NR  
Input Current (Ain): 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

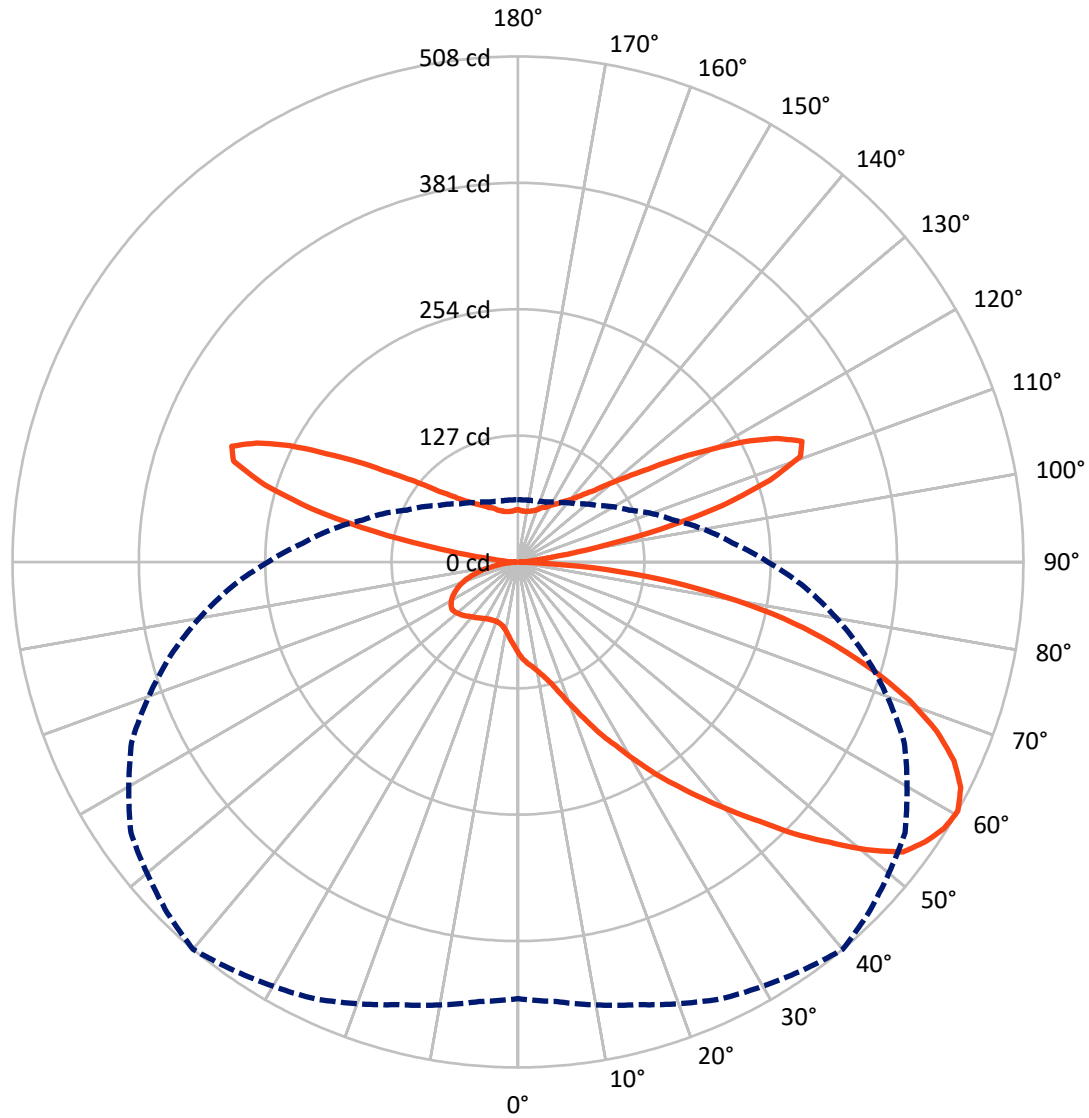
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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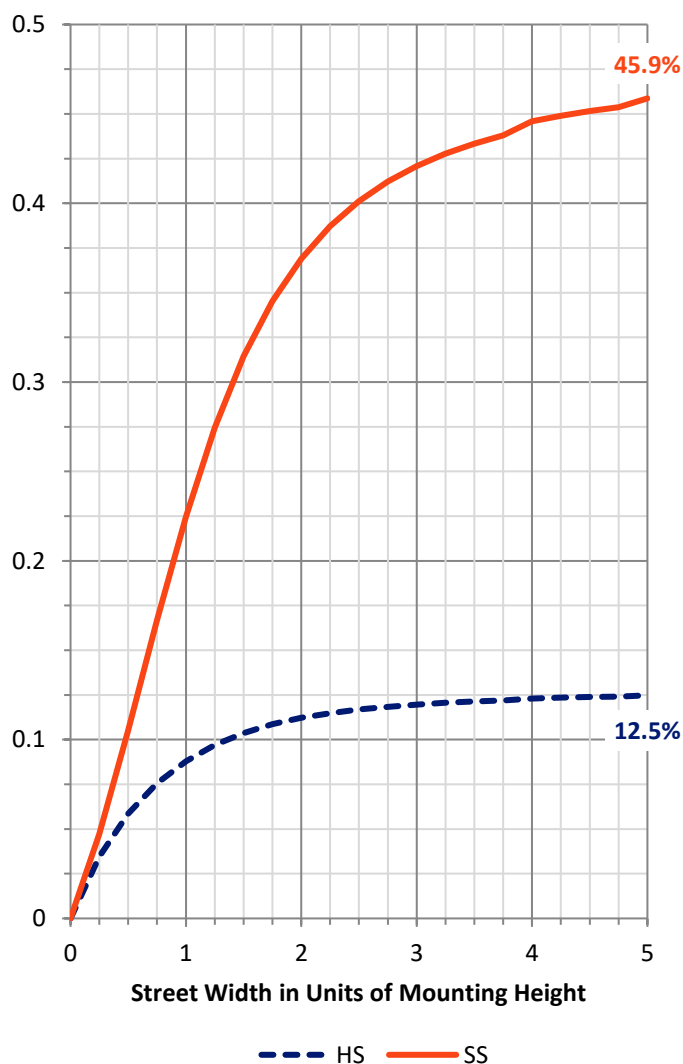
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	233.0	376.3	609.4
	% Fixture	12.6	20.4	33.0
<b>Street Side</b>	Lumens	860.0	376.3	1236.3
	% Fixture	46.6	20.4	67.0
<b>Total</b>	Lumens	1093.0	752.7	1845.7
	% Fixture	59.2	40.8	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.7	0.5
10°-20°	27.7	1.5
20°-30°	58.5	3.2
30°-40°	106.9	5.8
40°-50°	173.7	9.4
50°-60°	241.4	13.1
60°-70°	250.2	13.6
70°-80°	179.3	9.7
80°-90°	46.7	2.5
90°-100°	16.8	0.9
100°-110°	170.7	9.3
110°-120°	249.6	13.5
120°-130°	144.9	7.8
130°-140°	76.7	4.2
140°-150°	45.6	2.5
150°-160°	28.1	1.5
160°-170°	15.3	0.8
170°-180°	5.0	0.3
0°-90°	1093.0	59.2
0°-180°	1845.7	100.0

**Coefficient of Utilization**



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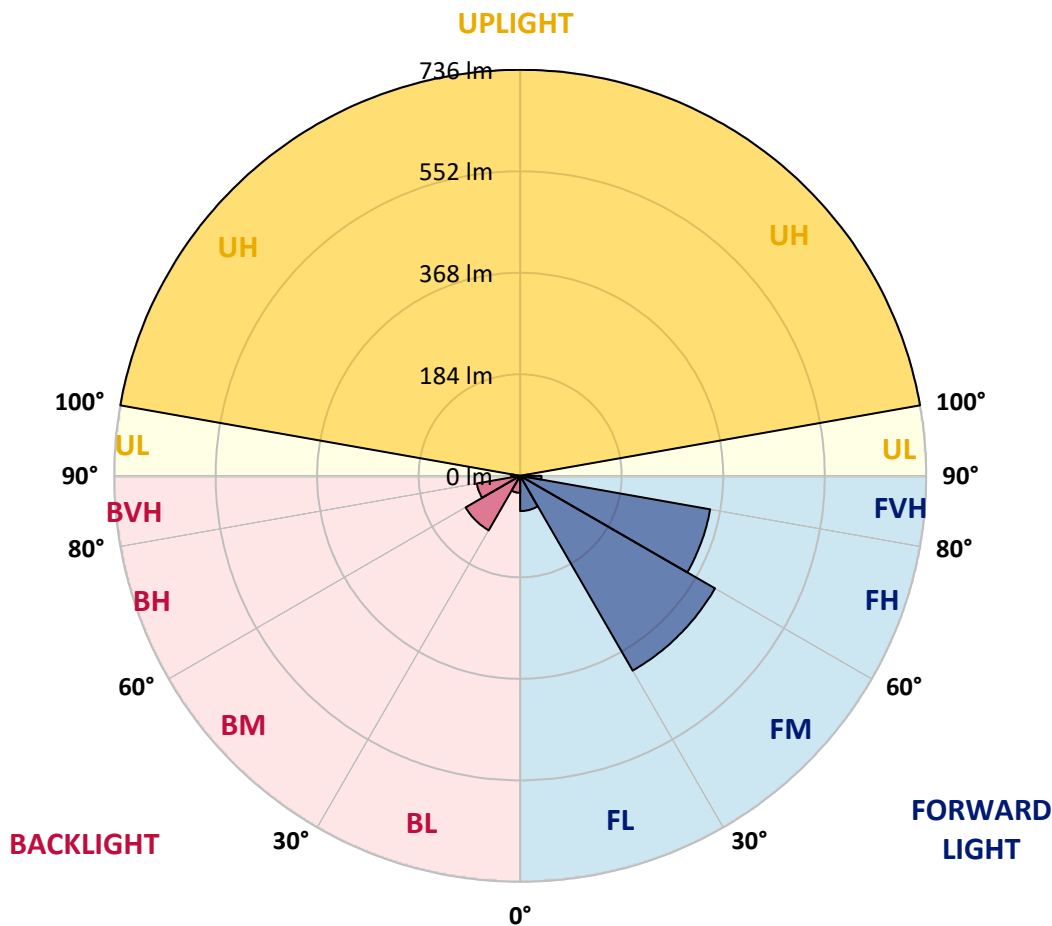
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	63.9	3.5			
FM (30°-60°)	407.8	22.1			
FH (60°-80°)	349.7	18.9			G0/660
FVH (80°-90°)	38.6	2.1			G1/100
BL (0°-30°)	30.9	1.7	B0/110		
BM (30°-60°)	114.2	6.2	B0/220		
BH (60°-80°)	79.8	4.3	B0/110		G0/110
BVH (80°-90°)	8.1	0.4			G0/10
UL (90°-100°)	16.8	0.9		U2/50	
UH (100°-180°)	735.8	39.9		U4/1000	

**BUG Rating: B0-U4-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
2.5°	98.6	98.6	98.6	98.6	97.7	97.7	96.7	95.8	94.8	93.9	92.0
5°	107.1	107.1	106.2	105.2	103.3	102.4	101.5	99.6	97.7	95.8	92.9
7.5°	110.9	110.9	110.9	110.0	107.1	106.2	104.3	101.5	98.6	95.8	92.0
10°	117.6	117.6	116.6	115.7	112.8	111.9	110.0	106.2	101.5	96.7	92.0
12.5°	126.1	125.2	124.2	123.3	120.4	118.5	115.7	111.9	106.2	100.5	94.8
15°	136.5	134.6	134.6	132.7	129.9	127.1	125.2	119.5	113.8	106.2	98.6
17.5°	147.9	147.0	146.0	144.1	141.3	139.4	136.5	129.9	122.3	112.8	104.3
20°	162.1	160.2	161.2	158.3	155.5	154.5	149.8	142.2	132.7	122.3	111.9
22.5°	179.2	177.3	177.3	174.5	172.6	170.7	165.9	157.4	145.1	133.7	120.4
25°	198.2	196.3	196.3	194.4	192.5	190.6	184.9	175.4	161.2	147.0	131.8
27.5°	219.0	217.1	217.1	216.2	211.4	208.6	203.9	193.4	179.2	161.2	143.2
30°	240.8	238.9	240.8	238.9	236.1	230.4	224.7	213.3	197.2	177.3	155.5
32.5°	257.9	257.9	258.8	260.7	258.8	254.1	247.5	238.0	216.2	191.5	166.9
35°	277.8	277.8	279.7	282.5	281.6	276.9	270.2	259.8	237.0	207.6	179.2
37.5°	299.6	299.6	301.5	306.3	304.4	301.5	296.8	283.5	257.9	223.8	192.5
40°	323.3	322.4	324.3	330.9	331.9	328.1	322.4	309.1	279.7	244.6	206.7
42.5°	347.0	346.1	349.9	356.5	357.5	356.5	350.8	335.6	302.5	265.5	220.9
45°	370.7	370.7	376.4	386.8	391.6	389.7	384.9	366.0	330.9	287.3	239.9
47.5°	395.4	395.4	403.0	416.2	421.9	421.0	419.1	396.3	358.4	310.0	256.0
50°	414.3	414.3	426.7	441.8	451.3	455.1	445.6	424.8	382.1	330.0	269.3
52.5°	433.3	433.3	445.6	469.3	478.8	484.5	472.2	450.4	408.7	348.0	281.6
55°	442.8	444.7	461.7	484.5	499.7	496.8	501.6	472.2	425.7	361.2	289.2
57.5°	443.7	446.6	465.5	489.2	506.3	505.4	506.3	479.8	432.4	364.1	290.1
60°	439.0	443.7	460.8	484.5	500.6	508.2	498.7	475.0	428.6	361.2	289.2
62.5°	427.6	437.1	455.1	473.1	496.8	499.7	492.1	472.2	418.1	358.4	284.4
65°	402.0	412.4	438.0	458.9	477.9	481.7	473.1	456.1	407.7	345.1	269.3
67.5°	376.4	383.1	404.9	437.1	450.4	454.2	451.3	431.4	389.7	318.6	251.3
70°	347.0	355.6	372.6	405.8	419.1	418.1	426.7	403.9	362.2	295.8	232.3
72.5°	307.2	319.5	336.6	364.1	380.2	374.5	387.8	368.8	326.2	267.4	206.7
75°	260.7	271.2	293.0	314.8	332.8	326.2	336.6	323.3	284.4	233.2	177.3
77.5°	208.6	220.9	240.8	260.7	273.1	273.1	277.8	266.4	236.1	191.5	145.1
80°	154.5	165.9	183.9	198.2	209.5	210.5	215.2	209.5	182.0	148.9	110.9
82.5°	102.4	108.1	124.2	135.6	147.0	146.0	153.6	149.8	127.1	102.4	74.0
85°	43.6	47.4	60.7	70.2	80.6	76.8	87.2	86.3	68.3	49.3	33.2
87.5°	1.9	2.8	2.8	1.9	2.8	0.9	2.8	3.8	2.8	1.9	1.9
90°	6.4	6.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.4
92.5°	6.4	6.4	6.4	9.0	10.3	9.6	9.0	10.3	7.7	7.7	6.4
95°	7.7	7.7	9.0	11.6	14.2	14.8	15.5	15.5	9.0	9.0	7.7
97.5°	10.3	11.6	11.6	14.2	23.2	32.8	42.5	25.8	12.9	12.9	11.6
100°	16.7	18.0	18.0	32.2	68.2	79.8	91.4	65.7	33.5	24.5	18.0
102.5°	54.1	56.7	69.5	104.3	154.5	147.4	140.4	118.5	112.0	77.3	61.8
105°	137.8	136.5	146.8	173.8	216.3	214.4	212.5	195.7	177.7	153.2	141.6
107.5°	181.6	181.6	190.6	213.8	245.9	266.5	287.1	291.0	230.5	202.2	189.3
110°	204.7	204.7	212.5	231.8	274.3	303.2	332.2	329.6	284.6	249.8	233.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
112.5°	209.9	211.2	221.5	251.1	297.5	310.4	323.2	311.6	293.6	278.1	265.3
115°	217.6	217.6	229.2	257.5	283.3	288.5	293.6	280.7	266.5	256.2	251.1
117.5°	215.0	218.9	221.5	236.9	253.7	257.5	261.4	255.0	235.6	227.9	225.3
120°	199.6	199.6	202.2	209.9	218.9	220.8	222.8	220.2	207.3	200.9	199.6
122.5°	177.7	179.0	177.7	181.6	188.0	190.0	191.9	189.3	179.0	176.4	176.4
125°	155.8	155.8	154.5	157.1	161.0	160.4	159.7	161.0	155.8	154.5	154.5
127.5°	140.4	139.1	136.5	137.8	139.1	139.1	139.1	140.4	135.2	136.5	137.8
130°	124.9	124.9	122.3	122.3	122.3	121.0	119.8	122.3	119.8	121.0	122.3
132.5°	110.7	110.7	106.9	105.6	105.6	105.6	105.6	106.9	105.6	108.2	110.7
135°	99.2	99.2	95.3	96.6	96.6	95.9	95.3	96.6	95.3	97.9	99.2
137.5°	90.1	90.1	87.6	87.6	87.6	86.9	86.3	87.6	87.6	88.8	91.4
140°	82.4	82.4	81.1	81.1	79.8	80.4	81.1	81.1	81.1	82.4	83.7
142.5°	78.5	77.3	76.0	74.7	76.0	76.0	76.0	76.0	74.7	76.0	78.5
145°	72.1	72.1	70.8	70.8	70.8	71.4	72.1	70.8	70.8	72.1	72.1
147.5°	68.2	68.2	67.0	68.2	68.2	68.2	68.2	68.2	67.0	68.2	68.2
150°	67.0	65.7	64.4	65.7	65.7	65.1	64.4	64.4	64.4	64.4	65.7
152.5°	63.1	63.1	61.8	63.1	61.8	61.8	61.8	61.8	61.8	61.8	63.1
155°	60.5	60.5	59.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
157.5°	57.9	59.2	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	59.2
160°	56.7	56.7	56.7	56.7	55.4	55.4	55.4	55.4	56.7	56.7	56.7
162.5°	55.4	55.4	55.4	55.4	54.1	54.1	54.1	54.1	54.1	55.4	55.4
165°	55.4	54.1	54.1	54.1	52.8	52.8	52.8	52.8	52.8	54.1	55.4
167.5°	52.8	52.8	52.8	52.8	52.8	52.2	51.5	51.5	52.8	52.8	52.8
170°	52.8	52.8	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
172.5°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	51.5	51.5	51.5	52.8
175°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	51.5	52.8	52.8	52.8
177.5°	52.8	52.8	52.8	52.8	51.5	52.2	52.8	52.8	52.8	52.8	52.8
180°	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
2.5°	92.0	91.0	89.1	88.2	87.2	85.3	85.3	84.4	84.4	84.4	83.4
5°	92.0	90.1	88.2	85.3	83.4	81.5	79.6	77.7	76.8	76.8	75.9
7.5°	90.1	88.2	85.3	82.5	79.6	75.9	74.0	70.2	69.2	68.3	68.3
10°	90.1	88.2	83.4	79.6	75.9	72.1	69.2	65.4	62.6	61.6	61.6
12.5°	91.0	88.2	83.4	78.7	74.0	69.2	65.4	61.6	58.8	56.9	56.9
15°	94.8	91.0	85.3	78.7	73.0	67.3	63.5	58.8	55.9	54.0	54.0
17.5°	99.6	95.8	87.2	79.6	73.0	66.4	61.6	56.9	54.0	52.1	51.2
20°	106.2	100.5	91.0	80.6	73.0	66.4	60.7	55.9	52.1	50.3	50.3
22.5°	113.8	107.1	94.8	82.5	74.0	66.4	60.7	55.0	51.2	49.3	49.3
25°	123.3	114.7	100.5	86.3	75.9	67.3	60.7	55.0	51.2	49.3	49.3
27.5°	133.7	124.2	106.2	90.1	77.7	68.3	60.7	55.0	51.2	49.3	49.3
30°	143.2	132.7	111.9	93.9	80.6	69.2	61.6	55.9	52.1	50.3	49.3
32.5°	153.6	140.3	117.6	97.7	82.5	71.1	62.6	56.9	52.1	50.3	50.3
35°	164.0	149.8	123.3	102.4	85.3	73.0	63.5	57.8	53.1	51.2	51.2
37.5°	175.4	160.2	129.9	106.2	88.2	74.9	65.4	58.8	54.0	52.1	52.1
40°	188.7	170.7	136.5	110.9	91.0	76.8	66.4	60.7	55.9	54.0	54.0
42.5°	201.0	180.1	143.2	114.7	93.9	78.7	68.3	61.6	57.8	55.9	55.9
45°	213.3	191.5	149.8	119.5	96.7	81.5	70.2	64.5	59.7	57.8	57.8
47.5°	227.6	202.0	157.4	123.3	99.6	83.4	72.1	66.4	61.6	60.7	59.7
50°	238.9	209.5	162.1	127.1	101.5	85.3	74.0	67.3	63.5	61.6	61.6
52.5°	249.4	217.1	165.9	128.9	102.4	86.3	75.9	69.2	65.4	63.5	63.5
55°	255.1	220.0	168.8	128.9	103.3	87.2	75.9	69.2	65.4	64.5	63.5
57.5°	255.1	220.0	166.9	127.1	101.5	85.3	74.9	68.3	65.4	63.5	63.5
60°	251.3	217.1	162.1	123.3	98.6	82.5	73.0	66.4	63.5	62.6	62.6
62.5°	245.6	212.4	158.3	118.5	94.8	78.7	70.2	63.5	61.6	61.6	60.7
65°	230.4	198.2	149.8	111.9	89.1	74.0	66.4	60.7	58.8	57.8	56.9
67.5°	214.3	184.9	136.5	104.3	81.5	69.2	61.6	56.9	54.0	54.0	53.1
70°	198.2	170.7	124.2	93.9	73.0	63.5	55.9	51.2	49.3	49.3	49.3
72.5°	176.4	152.7	110.0	82.5	64.5	55.9	50.3	45.5	44.6	44.6	43.6
75°	150.8	129.9	92.9	70.2	54.0	47.4	42.7	37.9	37.9	37.9	37.9
77.5°	123.3	105.2	74.0	55.9	42.7	37.9	35.1	31.3	31.3	31.3	31.3
80°	92.9	77.7	54.0	40.8	31.3	27.5	25.6	23.7	24.7	24.7	23.7
82.5°	60.7	51.2	34.1	25.6	19.9	18.0	18.0	16.1	17.1	17.1	17.1
85°	26.5	22.8	14.2	11.4	9.5	9.5	9.5	8.5	9.5	9.5	9.5
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.0	0.9	1.9	0.9
90°	6.4	6.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.4	6.4
92.5°	6.4	6.4	7.7	7.7	10.3	9.0	10.3	9.0	6.4	6.4	6.4
95°	7.7	7.7	9.0	9.0	15.5	15.5	14.2	11.6	9.0	7.7	7.7
97.5°	10.3	11.6	12.9	12.9	25.8	42.5	23.2	14.2	11.6	11.6	10.3
100°	18.0	18.0	24.5	33.5	65.7	91.4	68.2	32.2	18.0	18.0	16.7
102.5°	59.2	61.8	77.3	112.0	118.5	140.4	154.5	104.3	69.5	56.7	54.1
105°	141.6	141.6	153.2	177.7	195.7	212.5	216.3	173.8	146.8	136.5	137.8
107.5°	188.0	189.3	202.2	230.5	291.0	287.1	245.9	213.8	190.6	181.6	181.6
110°	230.5	233.1	249.8	284.6	329.6	332.2	274.3	231.8	212.5	204.7	204.7



REPORT NUMBER: P832809  
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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	262.7	265.3	278.1	293.6	311.6	323.2	297.5	251.1	221.5	211.2	209.9
115°	253.7	251.1	256.2	266.5	280.7	293.6	283.3	257.5	229.2	217.6	217.6
117.5°	221.5	225.3	227.9	235.6	255.0	261.4	253.7	236.9	221.5	218.9	215.0
120°	197.0	199.6	200.9	207.3	220.2	222.8	218.9	209.9	202.2	199.6	199.6
122.5°	173.8	176.4	176.4	179.0	189.3	191.9	188.0	181.6	177.7	179.0	177.7
125°	153.2	154.5	154.5	155.8	161.0	159.7	161.0	157.1	154.5	155.8	155.8
127.5°	136.5	137.8	136.5	135.2	140.4	139.1	139.1	137.8	136.5	139.1	140.4
130°	123.6	122.3	121.0	119.8	122.3	119.8	122.3	122.3	122.3	124.9	124.9
132.5°	110.7	110.7	108.2	105.6	106.9	105.6	105.6	105.6	106.9	110.7	110.7
135°	99.2	99.2	97.9	95.3	96.6	95.3	96.6	96.6	95.3	99.2	99.2
137.5°	92.7	91.4	88.8	87.6	87.6	86.3	87.6	87.6	87.6	90.1	90.1
140°	83.7	83.7	82.4	81.1	81.1	81.1	79.8	81.1	81.1	82.4	82.4
142.5°	78.5	78.5	76.0	74.7	76.0	76.0	76.0	74.7	76.0	77.3	78.5
145°	73.4	72.1	72.1	70.8	70.8	72.1	70.8	70.8	70.8	72.1	72.1
147.5°	69.5	68.2	68.2	67.0	68.2	68.2	68.2	68.2	67.0	68.2	68.2
150°	65.7	65.7	64.4	64.4	64.4	64.4	65.7	65.7	64.4	65.7	67.0
152.5°	64.4	63.1	61.8	61.8	61.8	61.8	61.8	63.1	61.8	63.1	63.1
155°	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	59.2	60.5	60.5
157.5°	59.2	59.2	57.9	57.9	57.9	57.9	57.9	57.9	57.9	59.2	57.9
160°	57.9	56.7	56.7	56.7	55.4	55.4	55.4	56.7	56.7	56.7	56.7
162.5°	56.7	55.4	55.4	54.1	54.1	54.1	54.1	55.4	55.4	55.4	55.4
165°	54.1	55.4	54.1	52.8	52.8	52.8	52.8	54.1	54.1	54.1	55.4
167.5°	54.1	52.8	52.8	52.8	51.5	51.5	52.8	52.8	52.8	52.8	52.8
170°	52.8	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	52.8	52.8
172.5°	52.8	52.8	51.5	51.5	51.5	51.5	51.5	52.8	52.8	52.8	52.8
175°	51.5	52.8	52.8	52.8	51.5	51.5	51.5	52.8	52.8	52.8	52.8
177.5°	52.8	52.8	52.8	52.8	52.8	52.8	51.5	52.8	52.8	52.8	52.8
180°	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8

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