

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: P833888

Luminaire Tested: **TTN-D3-735-U-DL-UPL2**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833888  
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-D3-735-U-DL-UPL2  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

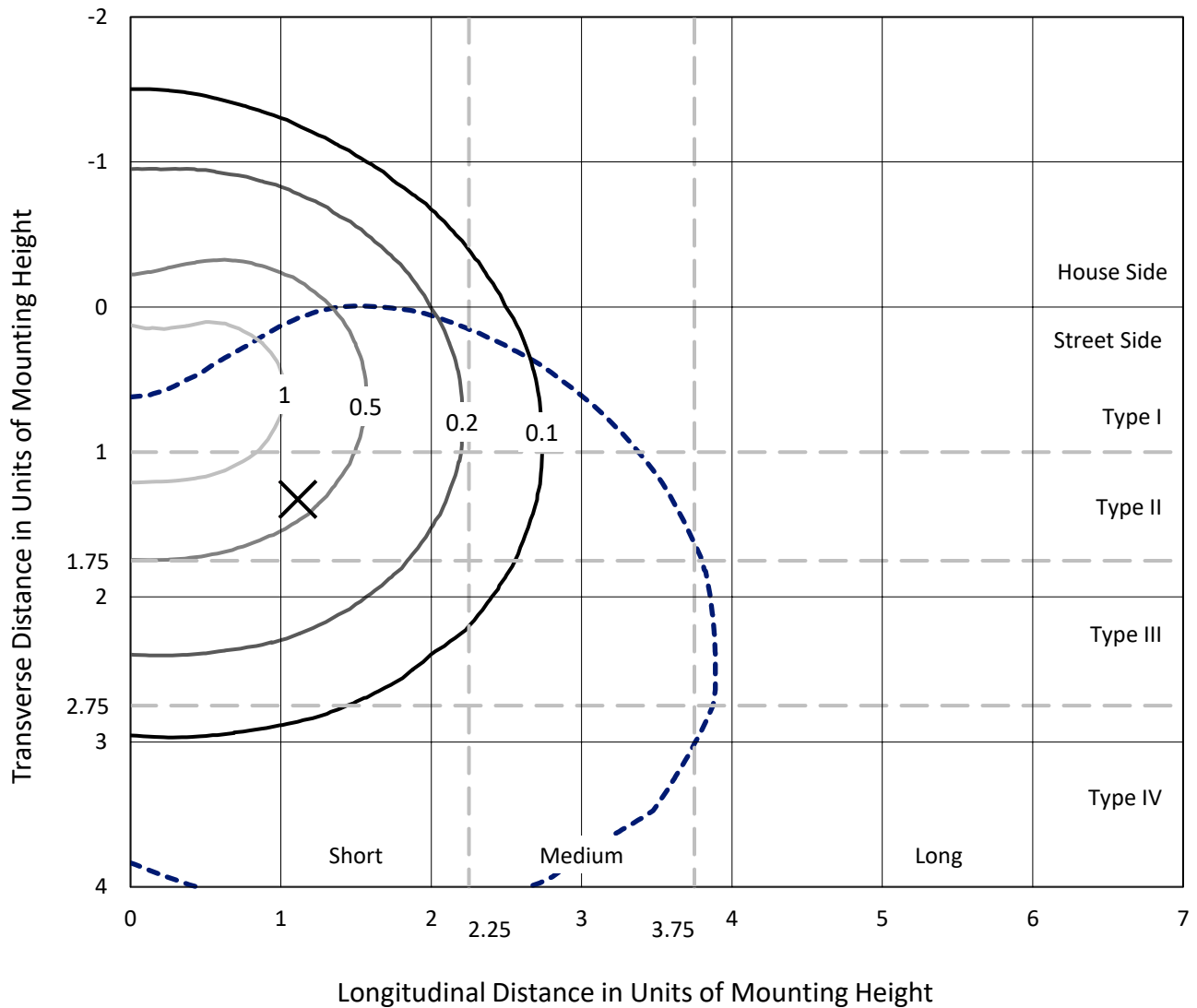
Lumens per Lamp: N/A  
Luminaire Lumens: 6866.8 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U4 - G2  
  
Input Watts (W): 63.7  
Input Voltage (V): NR  
Input Current (Ain): 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

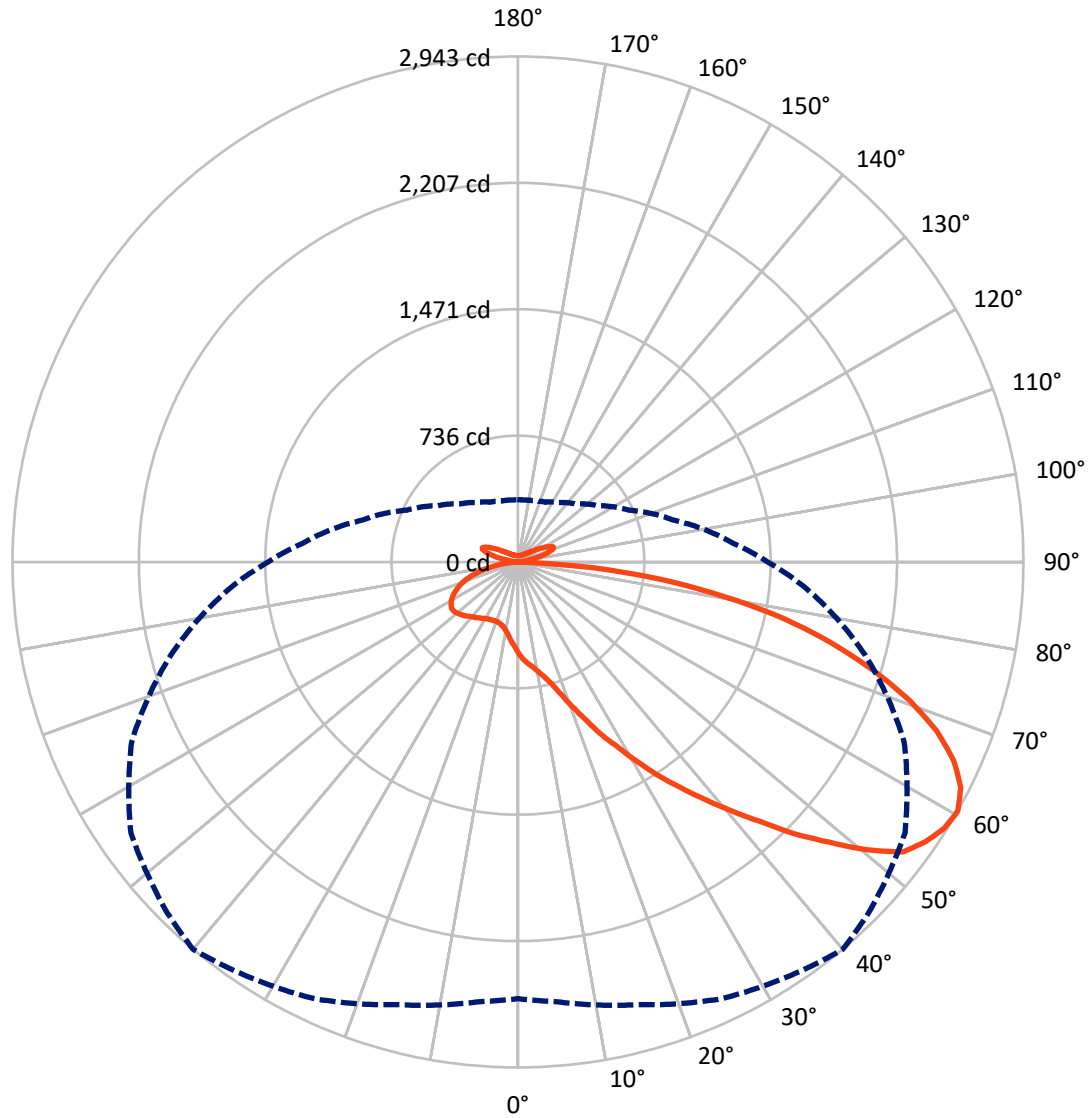
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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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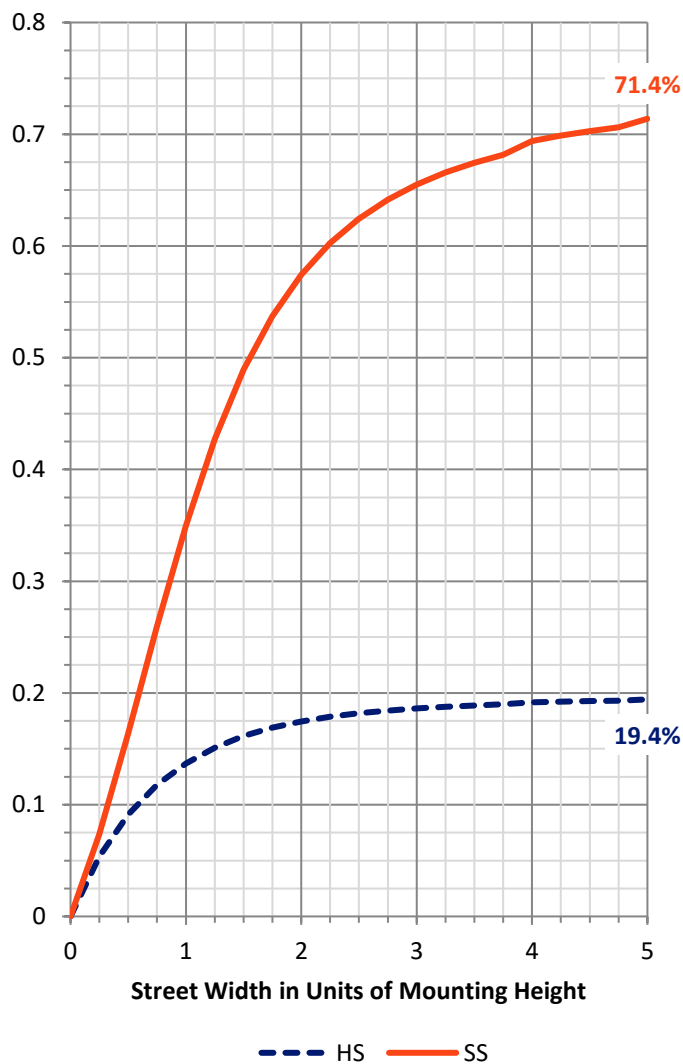
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1346.9	271.5	1618.4
	% Fixture	19.6	4.0	23.6
<b>Street Side</b>	Lumens	4976.9	271.5	5248.4
	% Fixture	72.5	4.0	76.4
<b>Total</b>	Lumens	6323.7	543.0	6866.8
	% Fixture	92.1	7.9	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	0.7
10°-20°	160.3	2.3
20°-30°	338.6	4.9
30°-40°	618.8	9.0
40°-50°	1005.6	14.6
50°-60°	1397.7	20.4
60°-70°	1448.9	21.1
70°-80°	1038.2	15.1
80°-90°	265.5	3.9
90°-100°	12.1	0.2
100°-110°	123.2	1.8
110°-120°	180.1	2.6
120°-130°	104.5	1.5
130°-140°	55.4	0.8
140°-150°	32.9	0.5
150°-160°	20.2	0.3
160°-170°	11.0	0.2
170°-180°	3.6	0.1
0°-90°	6323.7	92.1
0°-180°	6866.8	100.0

**Coefficient of Utilization**



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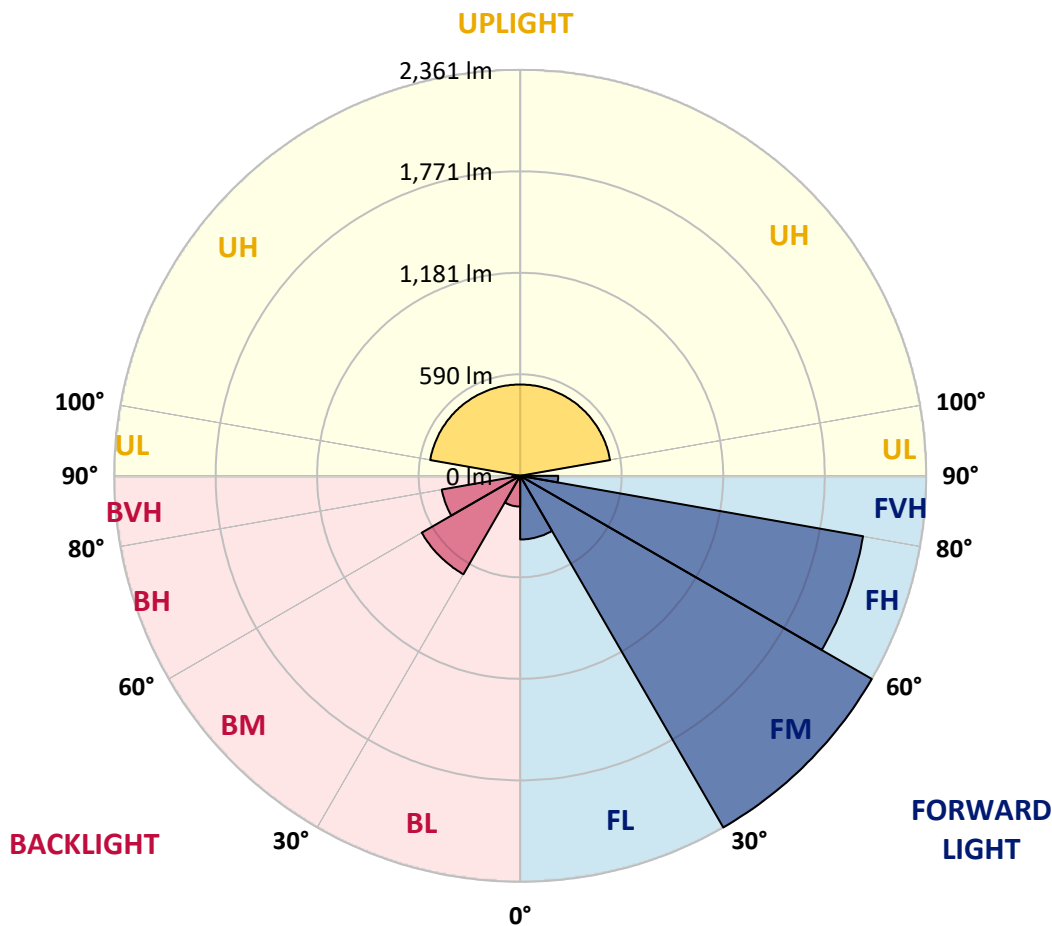
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	370.0	5.4			
FM (30°-60°)	2361.0	34.4			
FH (60°-80°)	2025.0	29.5			G2/5000
FVH (80°-90°)	220.9	3.2			G2/225
BL (0°-30°)	179.1	2.6	B1/500		
BM (30°-60°)	661.1	9.6	B1/1000		
BH (60°-80°)	462.2	6.7	B1/500		G1/500
BVH (80°-90°)	44.6	0.6			G1/100
UL (90°-100°)	12.1	0.2		U2/50	
UH (100°-180°)	530.9	7.7		U4/1000	

**BUG Rating: B1-U4-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5
2.5°	571.0	571.0	571.0	571.0	565.5	565.5	560.0	554.5	549.0	543.5	532.5
5°	620.4	620.4	614.9	609.4	598.4	592.9	587.4	576.5	565.5	554.5	538.0
7.5°	642.3	642.3	642.3	636.8	620.4	614.9	603.9	587.4	571.0	554.5	532.5
10°	680.8	680.8	675.3	669.8	653.3	647.8	636.8	614.9	587.4	560.0	532.5
12.5°	730.2	724.7	719.2	713.7	697.2	686.3	669.8	647.8	614.9	581.9	549.0
15°	790.6	779.6	779.6	768.6	752.1	735.7	724.7	691.7	658.8	614.9	571.0
17.5°	856.4	851.0	845.5	834.5	818.0	807.0	790.6	752.1	708.2	653.3	603.9
20°	938.8	927.8	933.3	916.8	900.4	894.9	867.4	823.5	768.6	708.2	647.8
22.5°	1037.6	1026.6	1026.6	1010.2	999.2	988.2	960.8	911.4	840.0	774.1	697.2
25°	1147.4	1136.4	1136.4	1125.5	1114.5	1103.5	1070.6	1015.7	933.3	851.0	763.1
27.5°	1268.2	1257.2	1257.2	1251.7	1224.3	1207.8	1180.4	1120.0	1037.6	933.3	829.0
30°	1394.5	1383.5	1394.5	1383.5	1367.0	1334.1	1301.1	1235.3	1141.9	1026.6	900.4
32.5°	1493.3	1493.3	1498.8	1509.8	1498.8	1471.3	1432.9	1378.0	1251.7	1109.0	966.3
35°	1608.6	1608.6	1619.6	1636.0	1630.5	1603.1	1564.7	1504.3	1372.5	1202.3	1037.6
37.5°	1734.9	1734.9	1745.8	1773.3	1762.3	1745.8	1718.4	1641.5	1493.3	1295.7	1114.5
40°	1872.1	1866.6	1877.6	1916.0	1921.5	1899.6	1866.6	1789.8	1619.6	1416.4	1196.8
42.5°	2009.4	2003.9	2025.8	2064.3	2069.8	2064.3	2031.3	1943.5	1751.3	1537.2	1279.2
45°	2146.6	2146.6	2179.6	2239.9	2267.4	2256.4	2229.0	2119.2	1916.0	1663.5	1389.0
47.5°	2289.4	2289.4	2333.3	2410.1	2443.1	2437.6	2426.6	2294.8	2075.2	1795.3	1482.3
50°	2399.2	2399.2	2470.5	2558.4	2613.3	2635.2	2580.3	2459.5	2212.5	1910.5	1559.2
52.5°	2509.0	2509.0	2580.3	2717.6	2772.5	2805.4	2734.1	2607.8	2366.2	2014.9	1630.5
55°	2563.9	2574.8	2673.7	2805.4	2893.3	2876.8	2904.2	2734.1	2465.0	2091.7	1674.5
57.5°	2569.3	2585.8	2695.6	2832.9	2931.7	2926.2	2931.7	2778.0	2503.5	2108.2	1680.0
60°	2541.9	2569.3	2668.2	2805.4	2898.8	2942.7	2887.8	2750.5	2481.5	2091.7	1674.5
62.5°	2476.0	2530.9	2635.2	2739.5	2876.8	2893.3	2849.3	2734.1	2421.1	2075.2	1647.0
65°	2327.8	2388.2	2536.4	2657.2	2767.0	2789.0	2739.5	2640.7	2360.7	1998.4	1559.2
67.5°	2179.6	2218.0	2344.3	2530.9	2607.8	2629.7	2613.3	2498.0	2256.4	1844.7	1454.9
70°	2009.4	2058.8	2157.6	2349.7	2426.6	2421.1	2470.5	2338.8	2097.2	1712.9	1345.1
72.5°	1778.8	1850.2	1949.0	2108.2	2201.5	2168.6	2245.4	2135.6	1888.6	1548.2	1196.8
75°	1509.8	1570.2	1696.4	1822.7	1927.0	1888.6	1949.0	1872.1	1647.0	1350.6	1026.6
77.5°	1207.8	1279.2	1394.5	1509.8	1581.1	1581.1	1608.6	1542.7	1367.0	1109.0	840.0
80°	894.9	960.8	1065.1	1147.4	1213.3	1218.8	1246.2	1213.3	1054.1	861.9	642.3
82.5°	592.9	625.9	719.2	785.1	851.0	845.5	889.4	867.4	735.7	592.9	428.2
85°	252.5	274.5	351.4	406.3	466.7	444.7	505.1	499.6	395.3	285.5	192.2
87.5°	11.0	16.5	16.5	11.0	16.5	5.5	16.5	22.0	16.5	11.0	11.0
90°	4.6	4.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.6
92.5°	4.6	4.6	4.6	6.5	7.4	7.0	6.5	7.4	5.6	5.6	4.6
95°	5.6	5.6	6.5	8.4	10.2	10.6	11.1	11.1	6.5	6.5	5.6
97.5°	7.4	8.4	8.4	10.2	16.7	23.7	30.7	18.6	9.3	9.3	8.4
100°	12.1	13.0	13.0	23.2	49.2	57.6	66.0	47.4	24.2	17.7	13.0
102.5°	39.0	40.9	50.2	75.3	111.5	106.4	101.3	85.5	80.8	55.7	44.6
105°	99.4	98.5	105.9	125.4	156.1	154.7	153.3	141.2	128.2	110.6	102.2
107.5°	131.0	131.0	137.5	154.2	177.4	192.3	207.2	210.0	166.3	145.9	136.6
110°	147.7	147.7	153.3	167.2	197.9	218.8	239.7	237.8	205.3	180.2	168.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
112.5°	151.4	152.4	159.8	181.2	214.6	223.9	233.2	224.8	211.8	200.7	191.4
115°	157.0	157.0	165.4	185.8	204.4	208.1	211.8	202.5	192.3	184.9	181.2
117.5°	155.1	157.9	159.8	170.9	183.0	185.8	188.6	183.9	170.0	164.4	162.6
120°	144.0	144.0	145.9	151.4	157.9	159.3	160.7	158.9	149.6	144.9	144.0
122.5°	128.2	129.1	128.2	131.0	135.6	137.0	138.4	136.6	129.1	127.3	127.3
125°	112.4	112.4	111.5	113.3	116.1	115.6	115.2	116.1	112.4	111.5	111.5
127.5°	101.3	100.3	98.5	99.4	100.3	100.3	100.3	101.3	97.5	98.5	99.4
130°	90.1	90.1	88.3	88.3	88.3	87.4	86.4	88.3	86.4	87.3	88.3
132.5°	79.9	79.9	77.1	76.2	76.2	76.2	76.2	77.1	76.2	78.0	79.9
135°	71.5	71.5	68.7	69.7	69.7	69.2	68.7	69.7	68.7	70.6	71.5
137.5°	65.0	65.0	63.2	63.2	63.2	62.7	62.2	63.2	63.2	64.1	66.0
140°	59.5	59.5	58.5	58.5	57.6	58.0	58.5	58.5	58.5	59.5	60.4
142.5°	56.7	55.7	54.8	53.9	54.8	54.8	54.8	54.8	53.9	54.8	56.7
145°	52.0	52.0	51.1	51.1	51.1	51.6	52.0	51.1	51.1	52.0	52.0
147.5°	49.2	49.2	48.3	49.2	49.2	49.2	49.2	49.2	48.3	49.2	49.2
150°	48.3	47.4	46.5	47.4	47.4	47.0	46.5	46.5	46.5	46.5	47.4
152.5°	45.5	45.5	44.6	45.5	44.6	44.6	44.6	44.6	44.6	44.6	45.5
155°	43.7	43.7	42.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
157.5°	41.8	42.7	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	42.7
160°	40.9	40.9	40.9	40.9	39.9	39.9	39.9	39.9	40.9	40.9	40.9
162.5°	39.9	39.9	39.9	39.9	39.0	39.0	39.0	39.0	39.0	39.9	39.9
165°	39.9	39.0	39.0	39.0	38.1	38.1	38.1	38.1	38.1	39.0	39.9
167.5°	38.1	38.1	38.1	38.1	38.1	37.7	37.2	37.2	38.1	38.1	38.1
170°	38.1	38.1	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
172.5°	38.1	38.1	38.1	38.1	37.2	37.2	37.2	37.2	37.2	37.2	38.1
175°	38.1	38.1	38.1	38.1	37.2	37.2	37.2	37.2	38.1	38.1	38.1
177.5°	38.1	38.1	38.1	38.1	37.2	37.7	38.1	38.1	38.1	38.1	38.1
180°	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5	532.5
2.5°	532.5	527.0	516.1	510.6	505.1	494.1	494.1	488.6	488.6	488.6	483.1
5°	532.5	521.6	510.6	494.1	483.1	472.1	461.2	450.2	444.7	444.7	439.2
7.5°	521.6	510.6	494.1	477.6	461.2	439.2	428.2	406.3	400.8	395.3	395.3
10°	521.6	510.6	483.1	461.2	439.2	417.2	400.8	378.8	362.3	356.9	356.9
12.5°	527.0	510.6	483.1	455.7	428.2	400.8	378.8	356.9	340.4	329.4	329.4
15°	549.0	527.0	494.1	455.7	422.7	389.8	367.8	340.4	323.9	312.9	312.9
17.5°	576.5	554.5	505.1	461.2	422.7	384.3	356.9	329.4	312.9	302.0	296.5
20°	614.9	581.9	527.0	466.7	422.7	384.3	351.4	323.9	302.0	291.0	291.0
22.5°	658.8	620.4	549.0	477.6	428.2	384.3	351.4	318.4	296.5	285.5	285.5
25°	713.7	664.3	581.9	499.6	439.2	389.8	351.4	318.4	296.5	285.5	285.5
27.5°	774.1	719.2	614.9	521.6	450.2	395.3	351.4	318.4	296.5	285.5	285.5
30°	829.0	768.6	647.8	543.5	466.7	400.8	356.9	323.9	302.0	291.0	285.5
32.5°	889.4	812.5	680.8	565.5	477.6	411.8	362.3	329.4	302.0	291.0	291.0
35°	949.8	867.4	713.7	592.9	494.1	422.7	367.8	334.9	307.4	296.5	296.5
37.5°	1015.7	927.8	752.1	614.9	510.6	433.7	378.8	340.4	312.9	302.0	302.0
40°	1092.5	988.2	790.6	642.3	527.0	444.7	384.3	351.4	323.9	312.9	312.9
42.5°	1163.9	1043.1	829.0	664.3	543.5	455.7	395.3	356.9	334.9	323.9	323.9
45°	1235.3	1109.0	867.4	691.7	560.0	472.1	406.3	373.3	345.9	334.9	334.9
47.5°	1317.6	1169.4	911.4	713.7	576.5	483.1	417.2	384.3	356.9	351.4	345.9
50°	1383.5	1213.3	938.8	735.7	587.4	494.1	428.2	389.8	367.8	356.9	356.9
52.5°	1443.9	1257.2	960.8	746.6	592.9	499.6	439.2	400.8	378.8	367.8	367.8
55°	1476.8	1273.7	977.2	746.6	598.4	505.1	439.2	400.8	378.8	373.3	367.8
57.5°	1476.8	1273.7	966.3	735.7	587.4	494.1	433.7	395.3	378.8	367.8	367.8
60°	1454.9	1257.2	938.8	713.7	571.0	477.6	422.7	384.3	367.8	362.3	362.3
62.5°	1421.9	1229.8	916.8	686.3	549.0	455.7	406.3	367.8	356.9	356.9	351.4
65°	1334.1	1147.4	867.4	647.8	516.1	428.2	384.3	351.4	340.4	334.9	329.4
67.5°	1240.8	1070.6	790.6	603.9	472.1	400.8	356.9	329.4	312.9	312.9	307.4
70°	1147.4	988.2	719.2	543.5	422.7	367.8	323.9	296.5	285.5	285.5	285.5
72.5°	1021.2	883.9	636.8	477.6	373.3	323.9	291.0	263.5	258.0	258.0	252.5
75°	872.9	752.1	538.0	406.3	312.9	274.5	247.1	219.6	219.6	219.6	219.6
77.5°	713.7	609.4	428.2	323.9	247.1	219.6	203.1	181.2	181.2	181.2	181.2
80°	538.0	450.2	312.9	236.1	181.2	159.2	148.2	137.3	142.7	142.7	137.3
82.5°	351.4	296.5	197.6	148.2	115.3	104.3	104.3	93.3	98.8	98.8	98.8
85°	153.7	131.8	82.4	65.9	54.9	54.9	54.9	49.4	54.9	54.9	54.9
87.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	0.0	5.5	11.0	5.5
90°	4.6	4.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.6	4.6
92.5°	4.6	4.6	5.6	5.6	7.4	6.5	7.4	6.5	4.6	4.6	4.6
95°	5.6	5.6	6.5	6.5	11.1	11.1	10.2	8.4	6.5	5.6	5.6
97.5°	7.4	8.4	9.3	9.3	18.6	30.7	16.7	10.2	8.4	8.4	7.4
100°	13.0	13.0	17.7	24.2	47.4	66.0	49.2	23.2	13.0	13.0	12.1
102.5°	42.7	44.6	55.7	80.8	85.5	101.3	111.5	75.3	50.2	40.9	39.0
105°	102.2	102.2	110.6	128.2	141.2	153.3	156.1	125.4	105.9	98.5	99.4
107.5°	135.6	136.6	145.9	166.3	210.0	207.2	177.4	154.2	137.5	131.0	131.0
110°	166.3	168.2	180.2	205.3	237.8	239.7	197.9	167.2	153.3	147.7	147.7



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	189.5	191.4	200.7	211.8	224.8	233.2	214.6	181.2	159.8	152.4	151.4
115°	183.0	181.2	184.9	192.3	202.5	211.8	204.4	185.8	165.4	157.0	157.0
117.5°	159.8	162.6	164.4	170.0	183.9	188.6	183.0	170.9	159.8	157.9	155.1
120°	142.1	144.0	144.9	149.6	158.9	160.7	157.9	151.4	145.9	144.0	144.0
122.5°	125.4	127.3	127.3	129.1	136.6	138.4	135.6	131.0	128.2	129.1	128.2
125°	110.6	111.5	111.5	112.4	116.1	115.2	116.1	113.3	111.5	112.4	112.4
127.5°	98.5	99.4	98.5	97.5	101.3	100.3	100.3	99.4	98.5	100.3	101.3
130°	89.2	88.3	87.3	86.4	88.3	86.4	88.3	88.3	88.3	90.1	90.1
132.5°	79.9	79.9	78.0	76.2	77.1	76.2	76.2	76.2	77.1	79.9	79.9
135°	71.5	71.5	70.6	68.7	69.7	68.7	69.7	69.7	68.7	71.5	71.5
137.5°	66.9	66.0	64.1	63.2	63.2	62.2	63.2	63.2	63.2	65.0	65.0
140°	60.4	60.4	59.5	58.5	58.5	58.5	57.6	58.5	58.5	59.5	59.5
142.5°	56.7	56.7	54.8	53.9	54.8	54.8	54.8	53.9	54.8	55.7	56.7
145°	53.0	52.0	52.0	51.1	51.1	52.0	51.1	51.1	51.1	52.0	52.0
147.5°	50.2	49.2	49.2	48.3	49.2	49.2	49.2	49.2	48.3	49.2	49.2
150°	47.4	47.4	46.5	46.5	46.5	46.5	47.4	47.4	46.5	47.4	48.3
152.5°	46.5	45.5	44.6	44.6	44.6	44.6	44.6	45.5	44.6	45.5	45.5
155°	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	42.7	43.7	43.7
157.5°	42.7	42.7	41.8	41.8	41.8	41.8	41.8	41.8	41.8	42.7	41.8
160°	41.8	40.9	40.9	40.9	39.9	39.9	39.9	40.9	40.9	40.9	40.9
162.5°	40.9	39.9	39.9	39.0	39.0	39.0	39.0	39.9	39.9	39.9	39.9
165°	39.0	39.9	39.0	38.1	38.1	38.1	38.1	39.0	39.0	39.0	39.9
167.5°	39.0	38.1	38.1	38.1	37.2	37.2	38.1	38.1	38.1	38.1	38.1
170°	38.1	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	38.1	38.1
172.5°	38.1	38.1	37.2	37.2	37.2	37.2	37.2	38.1	38.1	38.1	38.1
175°	37.2	38.1	38.1	38.1	37.2	37.2	37.2	38.1	38.1	38.1	38.1
177.5°	38.1	38.1	38.1	38.1	38.1	38.1	37.2	38.1	38.1	38.1	38.1
180°	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1

(END OF REPORT)