

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: P821191

Luminaire Tested: **TT-D1-735-24VDC-DL-HSS**

Issue Date: 12/2/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P821191  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-D1-735-24VDC-DL-HSS  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
3500K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

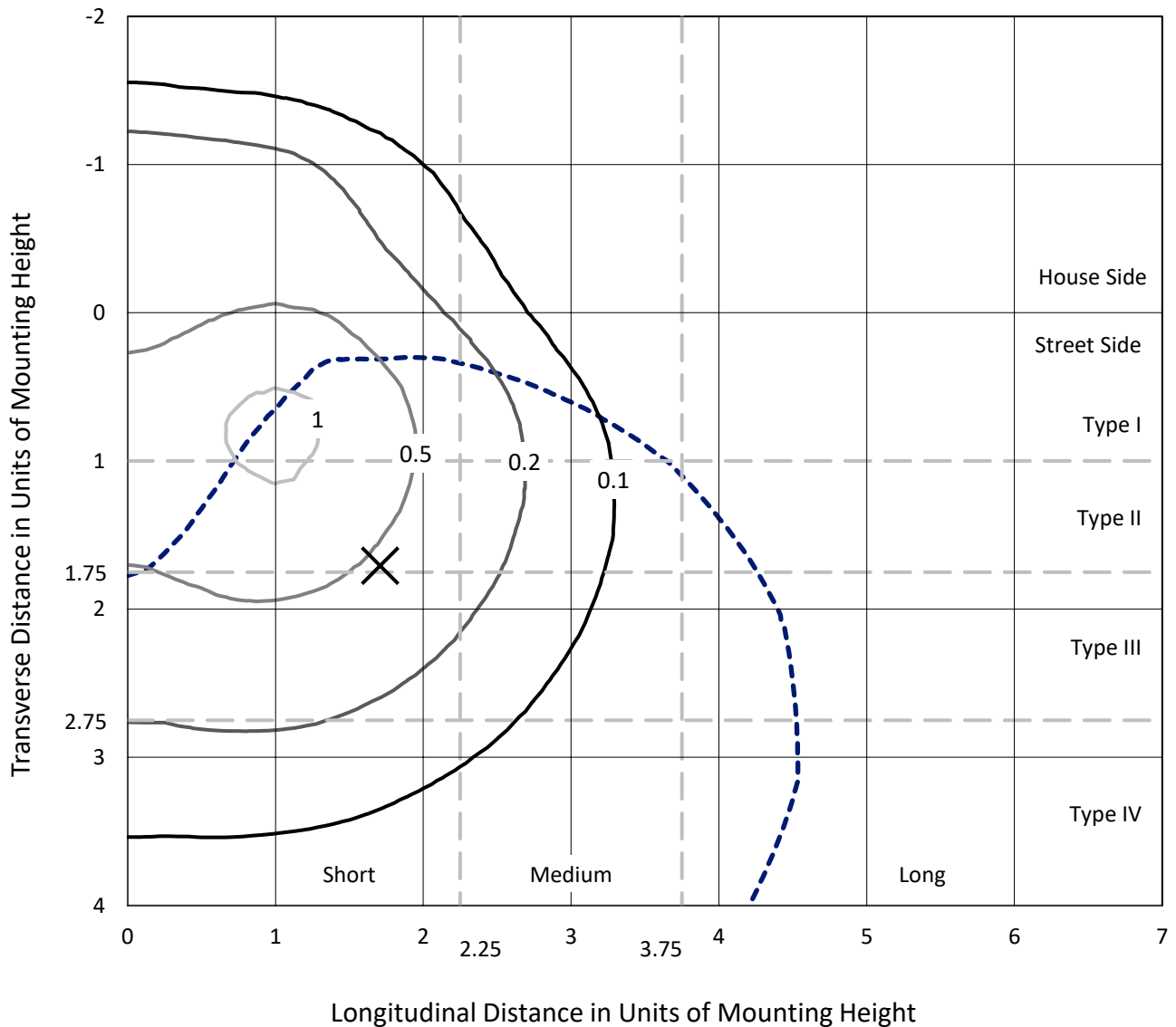
Lumens per Lamp: N/A  
Luminaire Lumens: 2769 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U1 - G2

Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 FT

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### Iso-Footcandle Lines of Horizontal Illumination

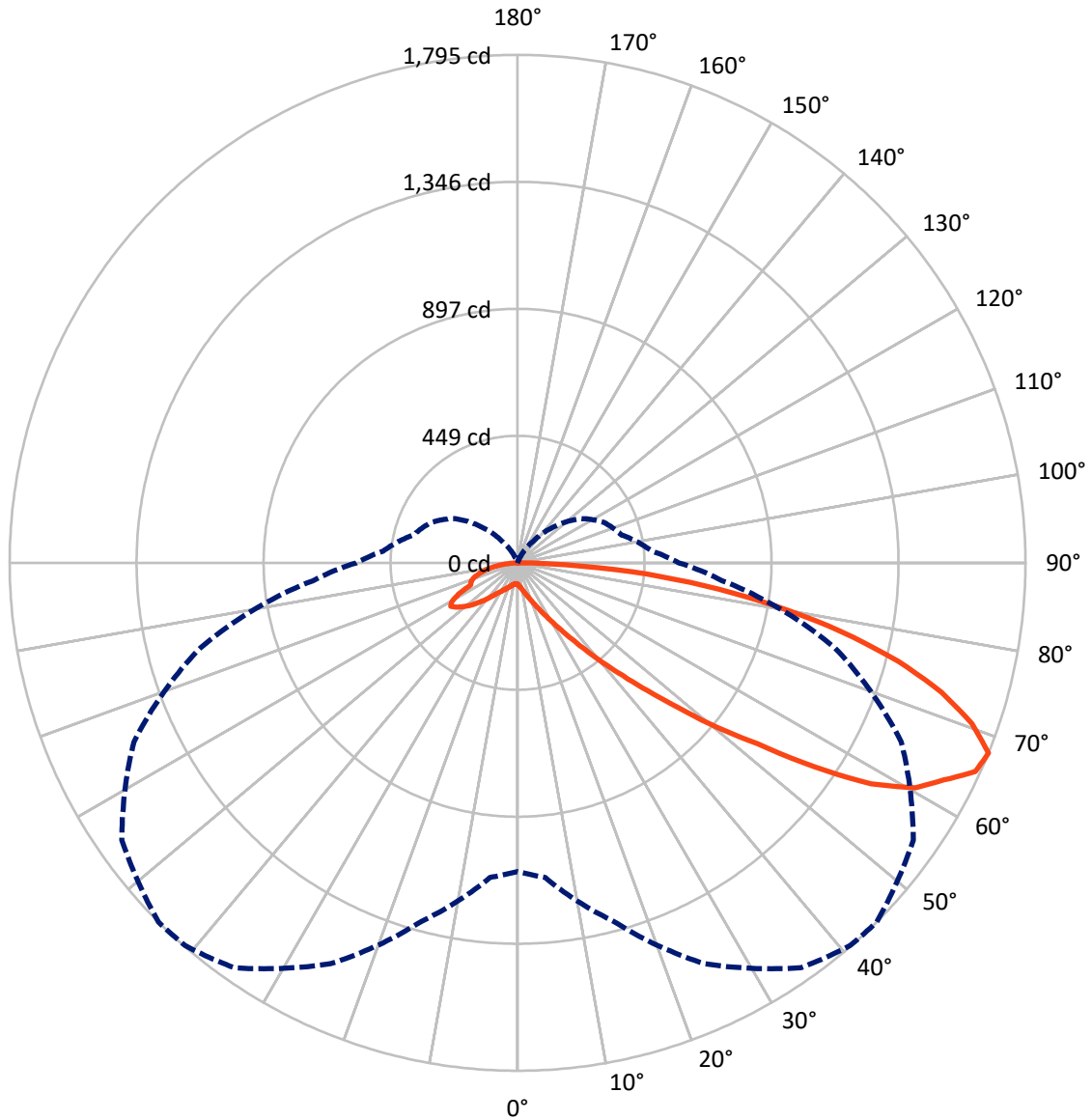
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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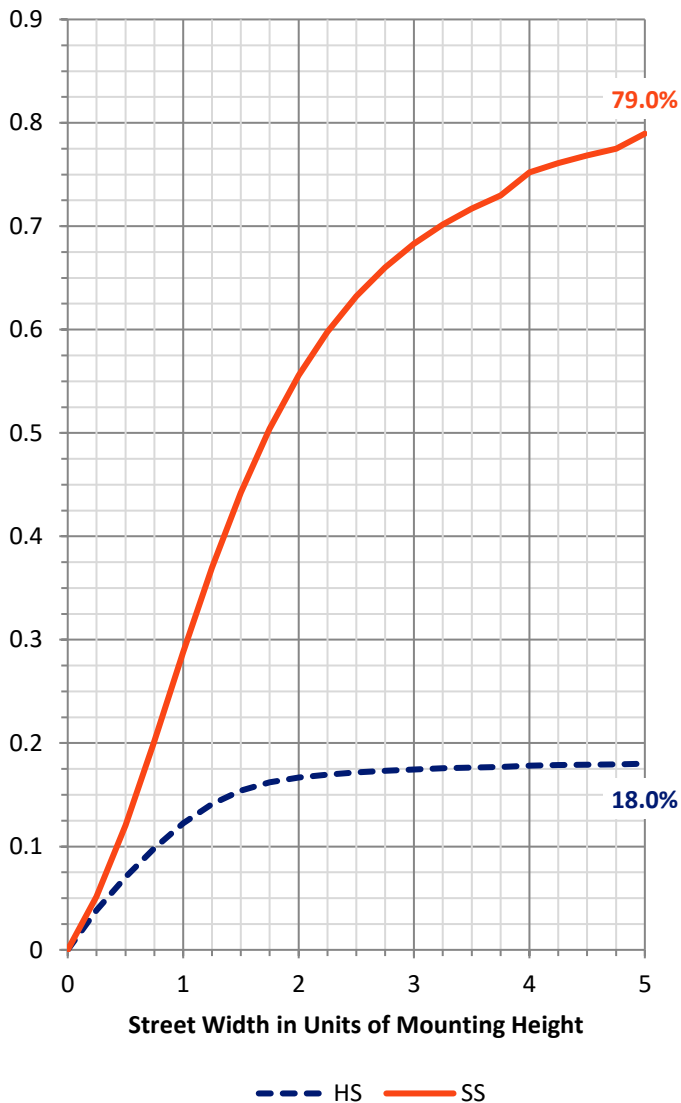
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	503.1	0.6	503.7
	% Fixture	18.2	0.0	18.2
<b>Street Side</b>	Lumens	2259.2	6.2	2265.3
	% Fixture	81.6	0.2	81.8
<b>Total</b>	Lumens	2762.2	6.8	2769.0
	% Fixture	99.8	0.2	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.8	0.3
10°-20°	29.1	1.1
20°-30°	67.2	2.4
30°-40°	143.3	5.2
40°-50°	299.9	10.8
50°-60°	568.8	20.5
60°-70°	774.2	28.0
70°-80°	665.6	24.0
80°-90°	206.4	7.5
90°-100°	4.4	0.2
100°-110°	1.3	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	2762.2	99.8
0°-180°	2769.0	100.0

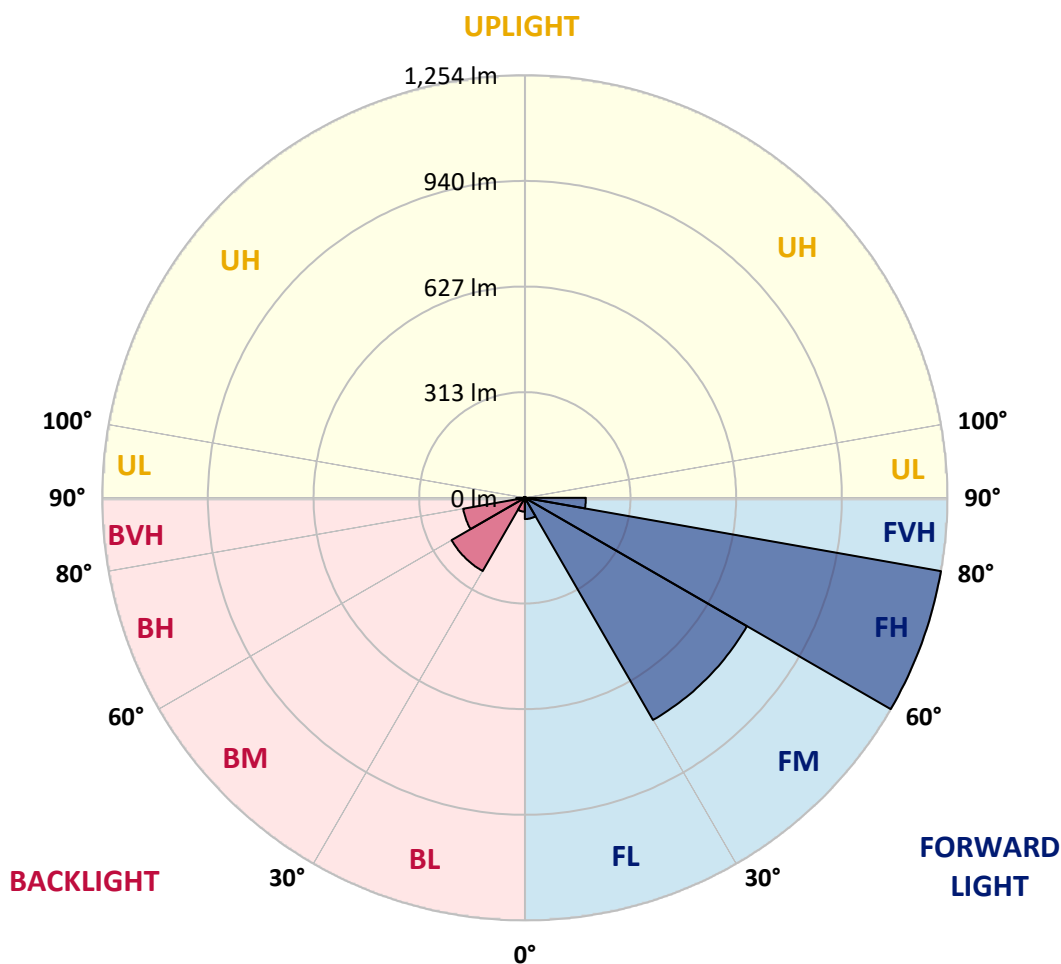


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	63.1	2.3			
FM (30°-60°)	761.0	27.5			
FH (60°-80°)	1253.9	45.3			G1/1800
FVH (80°-90°)	181.1	6.5			G2/225
BL (0°-30°)	41.0	1.5	B0/110		
BM (30°-60°)	251.0	9.1	B1/1000		
BH (60°-80°)	185.8	6.7	B1/500		G1/500
BVH (80°-90°)	25.3	0.9			G1/100
UL (90°-100°)	4.4	0.2		U1/10	
UH (100°-180°)	2.4	0.1		U1/10	

**BUG Rating: B1-U1-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
0°	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
2.5°	82.2	81.6	81.6	81.1	81.1	79.9	79.9	79.3	78.7	78.1	76.9
5°	88.1	87.5	87.5	86.9	86.3	85.2	84.6	83.4	82.2	81.1	79.9
7.5°	95.1	94.6	94.6	94.0	92.8	91.0	90.4	88.7	86.9	85.2	83.4
10°	104.0	103.4	103.4	102.2	101.0	99.3	98.1	95.7	94.0	91.0	88.1
12.5°	113.4	112.8	112.8	111.6	109.2	108.1	106.9	104.0	101.0	97.5	94.0
15°	123.9	123.9	123.9	123.3	121.0	118.6	117.5	113.9	110.4	105.1	100.4
17.5°	137.4	136.8	136.8	135.7	132.7	131.6	129.8	125.7	120.4	114.5	108.7
20°	153.9	153.3	152.1	151.5	148.6	147.4	145.1	140.4	133.3	125.7	117.5
22.5°	170.3	170.3	169.7	170.3	168.0	166.8	163.9	157.4	149.2	138.0	128.0
25°	189.1	189.7	190.9	192.6	189.7	188.5	186.2	178.0	168.0	153.9	139.8
27.5°	212.6	212.6	215.6	218.5	216.1	215.6	212.0	203.2	189.1	172.1	155.6
30°	237.9	238.5	243.2	248.4	247.3	247.3	244.3	234.3	217.3	197.3	174.4
32.5°	267.2	269.6	274.3	280.2	284.3	284.3	283.1	272.5	252.6	225.5	197.3
35°	306.0	301.9	310.7	319.5	328.3	330.1	330.7	320.7	297.8	263.7	225.5
37.5°	339.5	338.9	352.4	367.7	382.4	388.2	390.0	380.6	351.2	306.6	256.1
40°	378.2	381.8	400.0	422.9	447.5	457.5	462.2	451.7	415.2	357.7	291.3
42.5°	418.8	429.3	452.2	486.9	524.5	539.2	544.5	534.5	491.6	421.7	336.0
45°	466.3	481.0	511.6	560.9	610.2	632.0	643.7	640.2	596.1	509.2	393.5
47.5°	525.1	535.6	577.3	643.7	713.6	749.4	765.9	775.9	713.0	599.7	444.0
50°	591.4	593.2	650.8	734.8	836.9	884.5	913.3	908.6	834.0	703.6	508.0
52.5°	658.4	656.6	731.8	845.8	979.7	1041.9	1061.3	1080.7	1007.3	862.2	610.8
55°	734.8	731.2	825.8	970.3	1136.5	1218.7	1273.3	1300.4	1184.6	966.7	655.5
57.5°	798.2	809.3	928.0	1101.8	1333.8	1437.2	1473.0	1458.3	1282.1	1019.6	677.2
60°	878.6	895.1	1030.2	1273.9	1504.7	1581.7	1614.6	1547.6	1344.4	1059.5	692.5
62.5°	954.4	975.6	1142.4	1413.7	1611.6	1682.1	1690.3	1617.5	1431.9	1138.3	737.1
65°	1025.5	1049.6	1254.0	1496.5	1705.0	1763.8	1777.9	1720.3	1524.7	1184.6	754.7
67.5°	1090.7	1115.9	1311.5	1562.9	1746.7	1792.0	1794.9	1707.4	1495.9	1160.6	726.5
70°	1140.6	1151.8	1339.1	1561.1	1697.4	1715.0	1703.3	1615.2	1428.4	1111.2	686.0
72.5°	1150.6	1158.8	1300.9	1474.2	1560.5	1577.0	1567.6	1490.1	1322.1	1023.1	620.2
75°	1100.1	1101.8	1198.2	1318.0	1380.8	1400.8	1388.5	1316.8	1162.3	898.6	533.9
77.5°	967.9	971.4	1029.6	1110.1	1162.9	1180.0	1170.6	1104.8	973.8	754.7	441.7
80°	767.1	774.1	815.8	871.6	919.8	937.4	926.2	873.4	766.5	593.2	344.8
82.5°	522.7	531.5	569.7	616.1	658.4	675.4	666.0	632.6	552.7	427.6	246.1
85°	264.3	273.7	313.0	356.5	393.5	411.7	408.8	394.7	340.1	263.7	148.6
87.5°	41.7	45.8	62.3	82.8	105.7	122.8	112.2	111.0	88.1	70.5	35.8
90°	17.0	17.0	16.4	15.9	14.1	12.9	12.3	10.0	7.6	4.7	1.8
92.5°	15.3	15.3	14.7	13.5	12.3	11.7	10.6	8.8	6.5	4.1	1.8
95°	12.3	12.3	11.7	11.2	10.0	9.4	8.2	7.0	5.3	3.5	1.8
97.5°	9.4	9.4	8.8	8.2	7.6	6.5	6.5	5.3	3.5	2.3	1.2
100°	7.0	7.0	6.5	5.9	5.3	4.7	4.7	3.5	2.3	1.8	1.2
102.5°	4.7	4.7	4.7	4.1	3.5	3.5	2.9	2.3	1.8	1.2	1.2
105°	2.9	2.9	2.9	2.9	2.3	1.8	1.8	1.2	1.2	1.2	1.2
107.5°	1.8	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2
110°	1.2	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	1.2	0.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
112.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
115°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
117.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
120°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
122.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
125°	0.0	0.0	0.0	0.6	0.0	0.6	0.6	0.6	0.6	0.6	0.6
127.5°	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.6	0.6	0.6	0.6
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
145°	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
147.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
175°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
2.5°	76.9	76.4	75.2	74.6	73.4	73.4	72.8	72.2	72.2	72.2	72.2
5°	78.7	78.1	76.9	75.8	74.6	73.4	72.8	72.2	72.2	72.2	71.7
7.5°	82.2	81.1	79.3	77.5	75.8	74.6	74.0	73.4	72.8	72.8	72.8
10°	86.3	85.2	82.2	80.5	78.1	76.4	75.8	75.2	74.6	74.6	74.6
12.5°	91.6	89.9	86.3	83.4	81.1	79.3	78.1	77.5	77.5	76.9	77.5
15°	98.1	95.7	91.0	87.5	84.6	82.8	81.6	81.1	81.1	81.1	80.5
17.5°	105.1	102.2	96.3	92.2	88.7	86.9	85.8	85.2	85.2	85.2	85.2
20°	113.4	109.2	102.8	97.5	94.0	91.6	90.4	90.4	89.9	90.4	90.4
22.5°	122.2	117.5	109.2	103.4	98.7	96.3	95.1	95.1	95.1	95.7	96.3
25°	132.7	126.9	116.9	109.2	104.0	101.6	100.4	101.0	101.0	101.6	101.6
27.5°	146.8	138.0	125.7	116.3	110.4	107.5	106.3	106.9	107.5	107.5	107.5
30°	162.7	152.1	135.1	125.1	118.1	114.5	113.4	113.9	114.5	115.7	115.1
32.5°	182.1	169.2	149.2	135.1	127.5	123.3	122.2	121.6	122.8	123.9	123.9
35°	205.6	189.1	165.6	149.2	138.0	132.7	131.6	131.0	131.6	132.7	133.9
37.5°	230.8	210.9	182.1	165.0	152.7	146.8	143.9	141.5	142.1	142.7	144.5
40°	259.6	234.9	200.9	180.3	169.2	162.1	158.0	154.5	155.6	155.6	156.2
42.5°	296.0	264.9	224.4	198.5	186.8	179.1	172.7	168.6	166.2	166.8	164.5
45°	343.6	304.8	253.7	224.4	207.9	196.2	188.5	180.3	174.4	175.6	172.1
47.5°	382.9	336.5	281.3	249.0	231.4	216.7	200.9	189.1	180.9	179.7	177.4
50°	431.1	375.3	313.0	276.0	257.3	234.9	216.1	196.2	182.7	179.1	179.7
52.5°	512.2	443.4	358.3	312.5	279.6	253.1	224.4	196.8	178.5	173.3	175.0
55°	541.5	466.3	381.8	342.4	310.1	269.0	227.9	190.3	166.8	162.1	162.7
57.5°	548.0	466.3	383.5	351.8	324.8	281.9	226.1	175.6	144.5	140.4	139.8
60°	551.5	463.4	377.1	344.8	315.4	269.6	203.2	141.5	111.0	108.1	106.3
62.5°	584.4	488.1	383.5	339.5	297.8	236.7	154.5	90.4	61.7	61.1	59.9
65°	594.4	496.9	391.8	343.0	278.4	183.8	91.6	30.5	6.5	7.0	5.9
67.5°	569.7	476.9	380.0	337.7	272.5	179.1	88.1	25.8	0.0	0.0	0.0
70°	535.6	448.1	359.4	319.5	260.2	172.1	86.3	25.8	0.0	0.0	0.0
72.5°	481.6	407.0	326.6	294.8	239.0	158.0	80.5	24.7	0.0	0.0	0.0
75°	418.2	354.2	286.0	261.4	212.0	138.6	72.2	22.3	0.0	0.0	0.0
77.5°	350.1	295.4	239.0	220.2	179.1	118.1	61.1	18.8	0.0	0.0	0.0
80°	274.9	233.8	188.5	175.6	141.5	94.0	48.7	14.7	0.0	0.0	0.0
82.5°	197.9	169.7	139.2	128.6	104.0	68.1	35.2	10.0	0.0	0.0	0.0
85°	122.2	106.3	89.9	83.4	65.8	42.3	21.1	5.3	0.0	0.0	0.0
87.5°	36.4	35.2	31.7	31.1	22.3	12.9	4.7	0.6	0.0	0.0	0.0
90°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)