

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: P226478

Luminaire Tested: **IST-AF-450-LED-E1-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226478  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35938)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-450-LED-E1-T3-7050  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III  
Light Source: (16) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

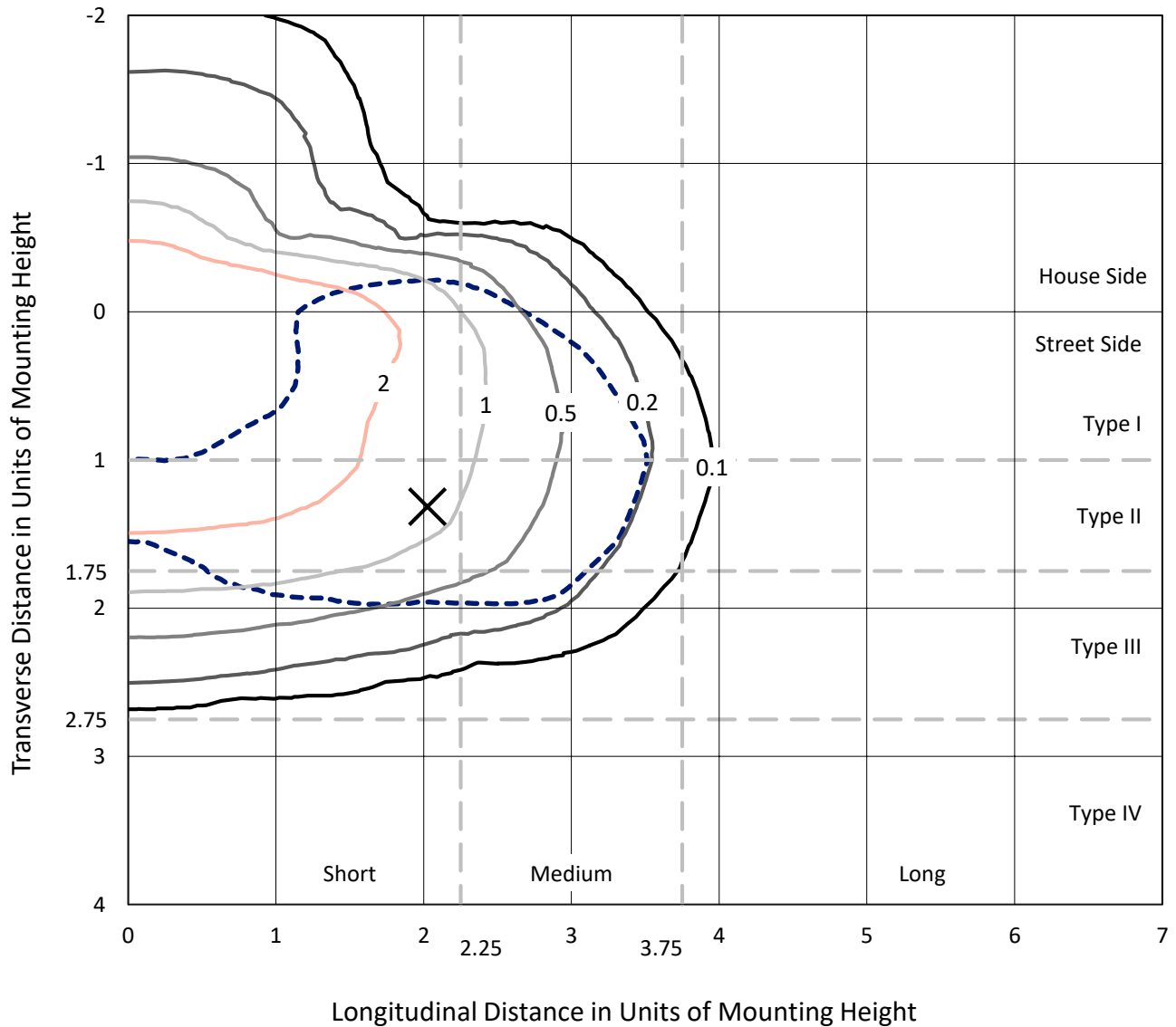
Lumens per Lamp: N/A  
Luminaire Lumens: 3143.5 lumens  
Efficiency: N/A  
Efficacy: 124.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Cutoff  
BUG Rating: B1 - U1 - G1  
  
Input Watts (W): 25.31  
Input Voltage (V): 120  
Input Current (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: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

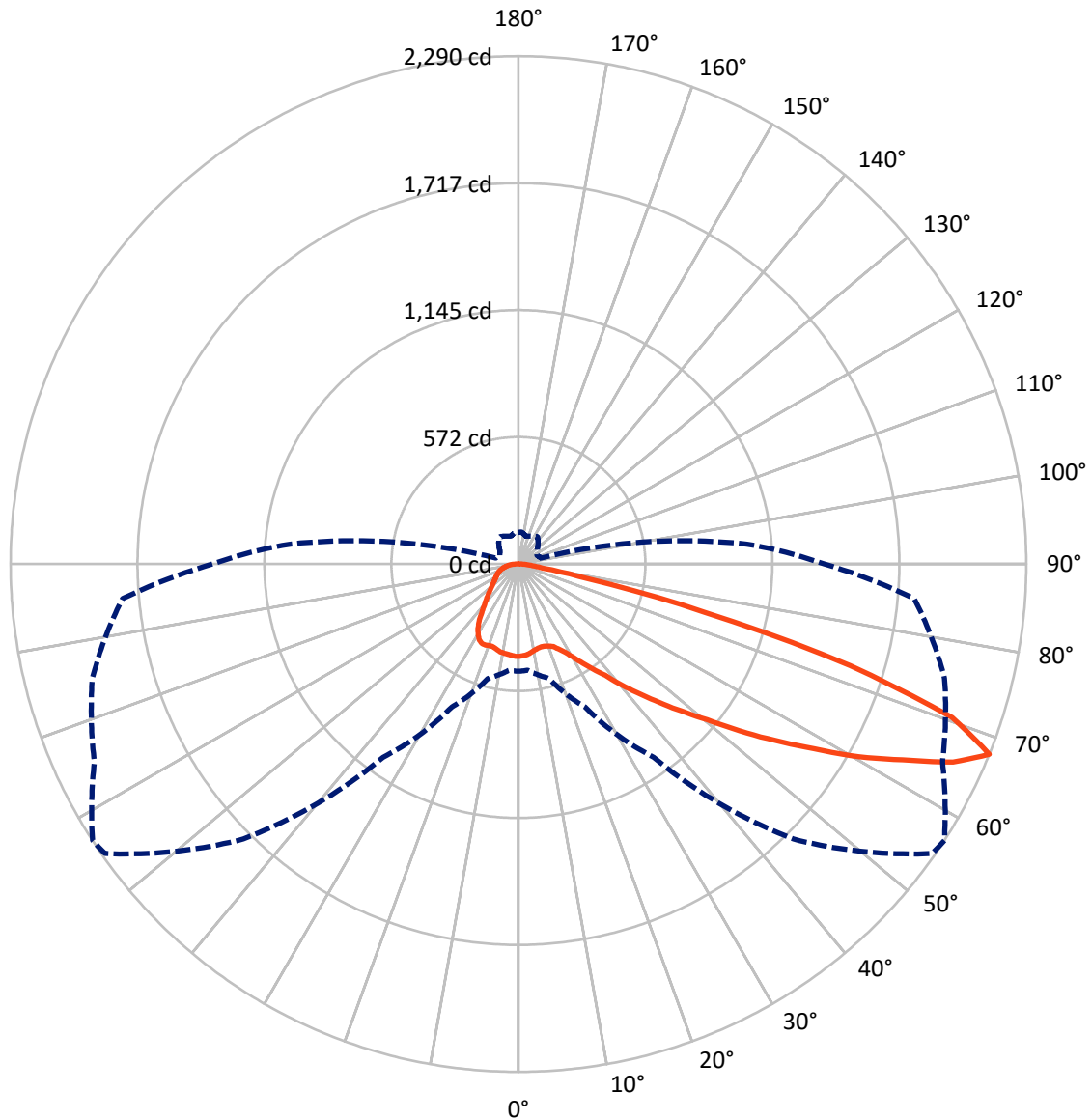
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 fc  
 Type III - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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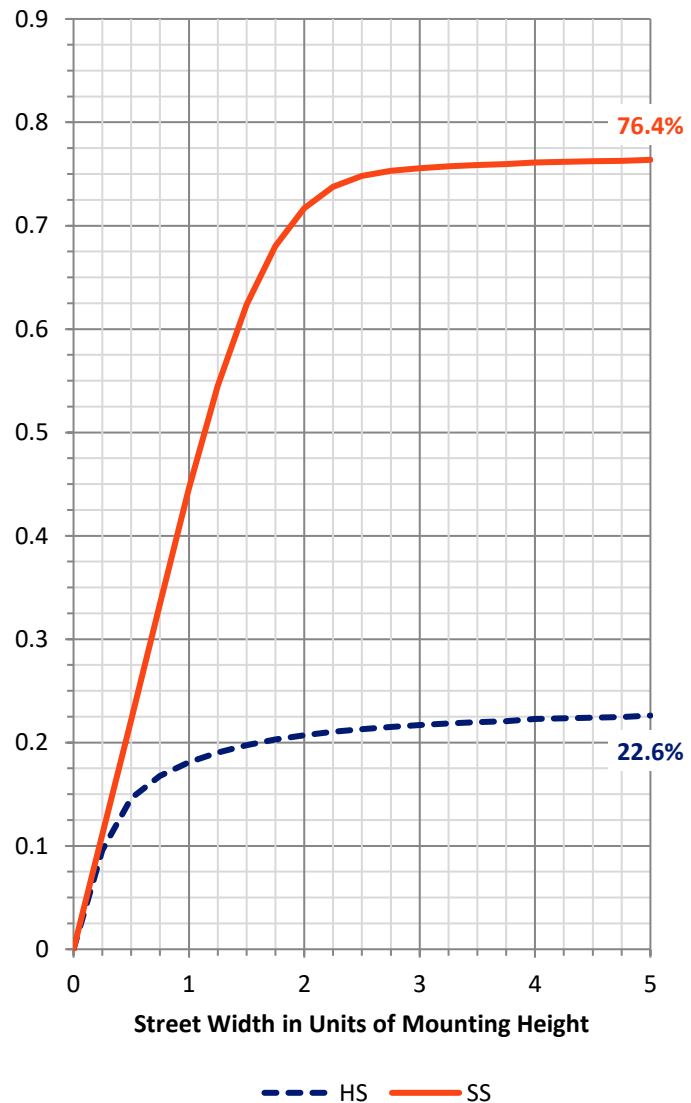
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	731.5	0.9	732.5
	% Fixture	23.3	0.0	23.3
<b>Street Side</b>	Lumens	2410.8	0.3	2411.1
	% Fixture	76.7	0.0	76.7
<b>Total</b>	Lumens	3142.4	1.2	3143.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.9	1.2
10°-20°	112.0	3.6
20°-30°	192.7	6.1
30°-40°	313.3	10.0
40°-50°	505.4	16.1
50°-60°	753.5	24.0
60°-70°	848.6	27.0
70°-80°	327.2	10.4
80°-90°	50.7	1.6
90°-100°	1.2	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3142.4	100.0
0°-180°	3143.5	100.0



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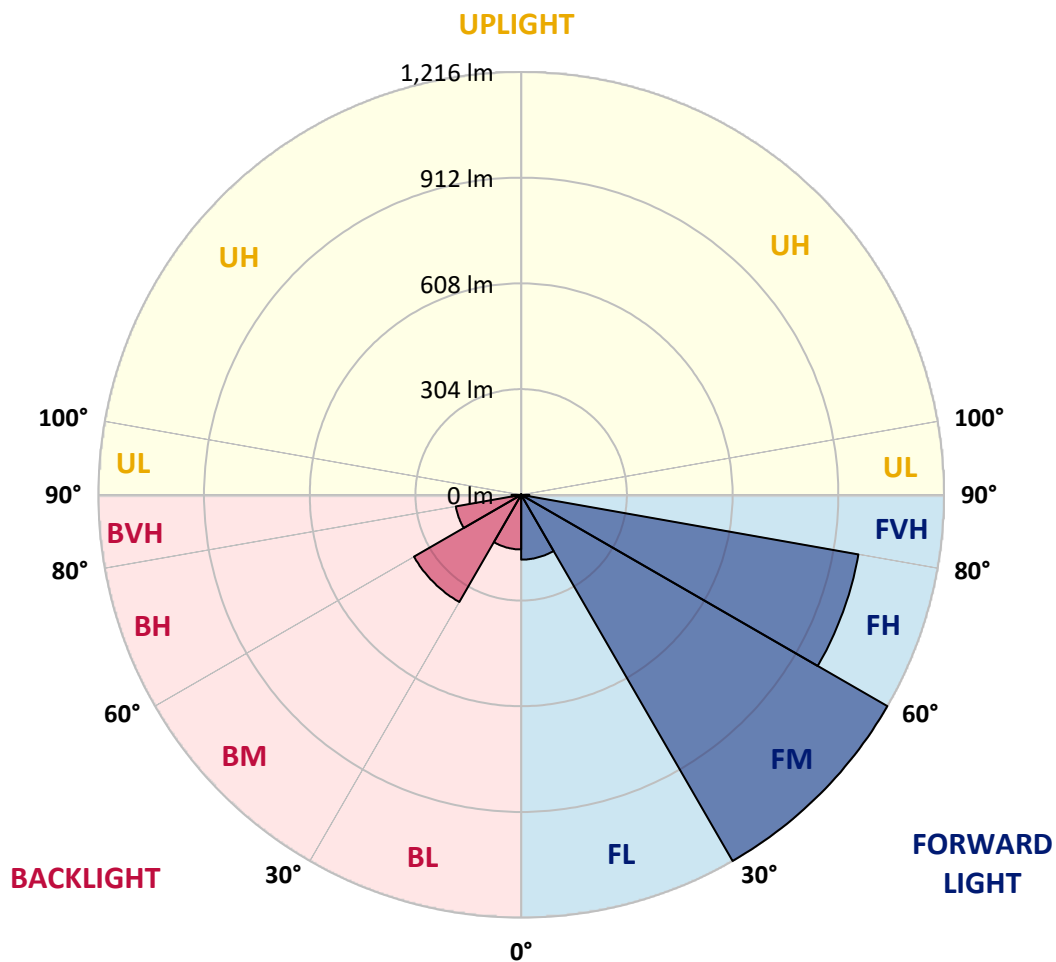
CATALOG NUMBER: IST-AF-450-LED-E1-T3-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	186.5	5.9			
FM	(30°-60°)	1216.2	38.7			
FH	(60°-80°)	984.9	31.3			G1/1800
FVH	(80°-90°)	23.3	0.7			G1/100
BL	(0°-30°)	157.2	5.0	B1/500		
BM	(30°-60°)	356.0	11.3	B1/1000		
BH	(60°-80°)	190.9	6.1	B1/500		G1/500
BVH	(80°-90°)	27.4	0.9			G1/100
UL	(90°-100°)	1.2	0.0		U1/10	
UH	(100°-180°)	0.9	0.0		U1/10	

**BUG Rating: B1-U1-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6
2.5°	413.4	414.3	415.2	414.8	414.8	414.8	414.8	413.8	415.2	415.2	414.3
5°	406.6	407.0	407.5	408.4	409.3	410.2	410.7	410.7	411.1	410.7	409.8
7.5°	396.5	397.0	398.8	398.8	399.7	401.6	402.5	403.4	404.7	404.7	404.3
10°	393.4	393.4	393.4	392.0	392.9	393.4	394.7	394.7	398.4	400.2	401.1
12.5°	397.0	396.5	396.5	392.9	389.7	388.4	389.7	390.2	394.3	397.0	398.8
15°	405.2	405.2	404.3	398.8	392.5	387.4	387.0	387.0	390.2	394.3	397.5
17.5°	424.3	426.1	419.8	411.1	400.6	392.5	389.3	388.8	391.1	394.3	397.5
20°	460.7	460.3	450.7	435.2	417.0	403.4	395.6	394.7	394.3	396.1	399.7
22.5°	504.0	502.2	490.8	471.2	446.2	421.1	406.1	404.3	400.6	402.0	407.0
25°	550.4	550.9	536.8	511.3	479.9	449.8	427.1	425.2	417.5	416.6	422.0
27.5°	596.9	602.8	583.7	559.5	522.2	486.2	453.0	450.3	443.4	441.2	446.6
30°	664.7	662.4	638.8	607.3	570.0	524.9	493.1	488.1	474.4	477.6	483.5
32.5°	722.1	727.1	705.7	668.3	619.2	571.8	535.0	532.2	519.0	522.7	530.9
35°	792.2	804.0	775.8	729.8	682.5	633.7	589.6	582.3	571.8	579.1	585.5
37.5°	872.3	878.2	856.4	797.2	748.9	697.9	647.9	636.5	625.1	640.1	651.5
40°	948.8	958.4	930.1	880.1	824.1	775.3	720.7	718.4	692.0	708.4	738.0
42.5°	1062.2	1074.0	1028.9	970.7	920.1	861.4	809.5	797.2	768.5	791.7	841.4
45°	1141.4	1140.9	1110.4	1062.2	1031.2	974.3	904.2	889.6	858.7	889.6	956.1
47.5°	1170.1	1176.9	1166.4	1160.5	1149.6	1108.1	1004.8	991.1	962.0	1008.0	1069.4
50°	1212.4	1210.6	1210.6	1247.0	1278.4	1269.8	1122.7	1103.1	1072.6	1127.7	1216.0
52.5°	1223.3	1206.9	1232.4	1302.1	1401.8	1409.1	1259.8	1248.8	1212.4	1266.1	1374.9
55°	1192.8	1188.7	1229.3	1330.3	1487.4	1539.3	1418.6	1403.6	1362.6	1408.6	1546.6
57.5°	1124.5	1135.0	1200.1	1324.4	1546.6	1654.0	1593.0	1571.6	1512.9	1540.7	1716.9
60°	1053.1	1058.1	1144.1	1303.5	1562.5	1733.7	1776.0	1763.7	1663.1	1679.5	1843.0
62.5°	973.8	962.0	1051.2	1286.2	1544.8	1843.4	1953.6	1944.0	1825.2	1820.2	1932.7
65°	752.6	769.0	845.0	1063.1	1423.2	1929.0	2165.3	2153.0	2006.0	1936.3	1923.1
67.5°	483.5	480.3	534.0	710.7	1063.5	1753.3	2275.9	2289.6	2109.3	1988.7	1791.1
70°	173.5	178.5	198.5	322.8	583.2	1168.2	2006.4	2074.2	2033.3	1890.8	1457.8
72.5°	105.6	105.6	120.2	145.2	236.3	554.1	1430.0	1564.3	1659.5	1558.0	1076.7
75°	82.9	82.4	87.4	100.2	127.5	181.7	760.3	864.1	1064.4	1076.3	612.8
77.5°	65.6	65.1	70.1	76.0	95.2	96.1	242.7	316.0	488.5	459.8	219.0
80°	52.8	52.4	56.0	57.8	69.7	66.5	97.4	112.9	171.2	150.2	94.7
82.5°	47.8	47.8	51.4	44.2	48.3	46.9	60.6	64.6	86.0	89.2	56.9
85°	31.0	31.9	48.3	42.8	31.4	28.7	38.7	41.0	53.7	58.7	27.8
87.5°	14.6	15.9	36.9	35.5	20.9	15.5	21.9	23.2	29.1	36.0	16.4
90°	2.7	2.7	4.6	5.0	2.7	2.7	3.6	3.2	3.2	4.6	4.6
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6
2.5°	415.7	414.8	415.2	415.7	416.1	417.5	417.9	417.9	417.9	417.5	418.4
5°	410.7	409.8	409.8	411.1	412.5	414.3	417.0	419.3	420.2	420.7	420.7
7.5°	405.2	404.3	404.7	407.0	409.3	410.7	413.4	414.8	418.4	418.4	419.3
10°	401.6	402.5	402.9	405.2	407.0	407.0	406.6	405.7	404.7	407.0	406.1
12.5°	399.3	400.6	400.2	402.9	403.8	400.2	394.7	387.4	386.5	387.4	388.4
15°	398.4	398.4	399.7	399.7	395.2	387.9	381.1	381.5	382.4	385.2	385.2
17.5°	398.4	398.8	399.7	396.5	388.4	382.0	380.6	379.2	374.2	372.9	371.5
20°	401.6	400.6	401.6	395.6	388.4	383.3	372.9	362.9	353.3	349.2	347.4
22.5°	409.3	407.9	407.5	401.6	392.5	375.6	355.1	339.6	323.2	317.8	316.0
25°	423.0	422.5	419.3	415.2	389.7	356.9	331.0	306.4	288.6	279.1	279.5
27.5°	447.1	447.1	445.3	427.1	375.6	333.7	298.7	273.6	255.4	246.3	244.9
30°	483.5	484.4	485.3	430.2	353.3	299.6	263.2	246.3	235.4	228.5	228.1
32.5°	528.6	533.6	527.7	426.6	322.8	258.1	235.4	229.5	224.0	219.4	219.0
35°	588.2	601.9	564.5	412.0	288.6	229.9	218.5	214.4	210.3	207.2	207.6
37.5°	668.3	681.6	588.2	387.4	244.9	214.0	209.0	202.6	196.2	189.4	188.5
40°	763.0	758.9	596.4	341.0	217.6	206.2	199.4	191.2	180.3	170.3	168.5
42.5°	857.7	830.4	589.6	283.6	199.9	199.4	189.9	179.4	168.5	159.8	159.8
45°	963.8	893.3	568.6	229.9	185.8	192.1	180.3	169.4	159.3	153.0	152.5
47.5°	1064.0	952.0	534.0	191.7	171.6	182.6	173.0	163.0	153.4	148.0	146.6
50°	1181.4	1018.9	507.6	165.7	158.0	173.0	168.9	159.8	150.7	144.3	143.4
52.5°	1300.3	1084.0	487.6	148.0	145.7	165.7	167.1	161.6	152.1	139.8	138.9
55°	1424.6	1165.5	447.5	133.9	134.8	160.3	169.4	165.3	158.4	138.4	137.5
57.5°	1528.8	1240.6	377.4	124.3	126.1	156.2	170.3	162.5	154.8	139.3	137.9
60°	1610.3	1292.1	276.8	116.6	118.4	151.6	166.2	153.0	143.0	139.3	137.0
62.5°	1635.4	1293.9	183.9	107.4	112.5	143.9	158.9	148.0	136.1	137.9	137.0
65°	1572.5	1225.6	131.6	98.8	107.4	134.8	155.7	143.0	132.9	140.2	139.3
67.5°	1379.0	1032.6	105.6	92.0	100.6	125.2	149.8	138.4	130.2	145.2	142.5
70°	1074.5	740.7	89.7	85.1	93.3	116.1	141.6	133.4	126.6	141.1	137.5
72.5°	708.4	436.2	79.2	78.8	84.7	108.4	132.5	128.8	120.6	127.9	122.5
75°	369.7	202.1	68.7	71.5	75.1	101.5	124.3	120.6	111.5	114.3	112.5
77.5°	145.2	94.7	59.6	62.8	66.9	91.5	113.8	110.2	102.4	100.2	99.7
80°	79.7	63.7	49.6	53.7	56.5	82.4	102.9	98.8	90.6	89.2	87.9
82.5°	50.5	41.4	41.0	43.7	47.3	73.3	92.4	86.0	79.2	93.3	75.6
85°	23.7	24.6	29.1	32.8	36.9	62.4	80.6	73.8	66.9	65.1	57.8
87.5°	13.2	16.4	19.1	22.3	25.5	43.7	63.7	57.4	50.1	42.8	44.2
90°	3.2	3.2	5.5	5.0	5.5	6.4	31.4	28.2	25.0	11.8	7.7
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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)