

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: P226457

Luminaire Tested: **IST-AF-450-LED-E1-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226457
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-T3-8030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2565.1 lumens
Efficiency: N/A
Efficacy: 101.3 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

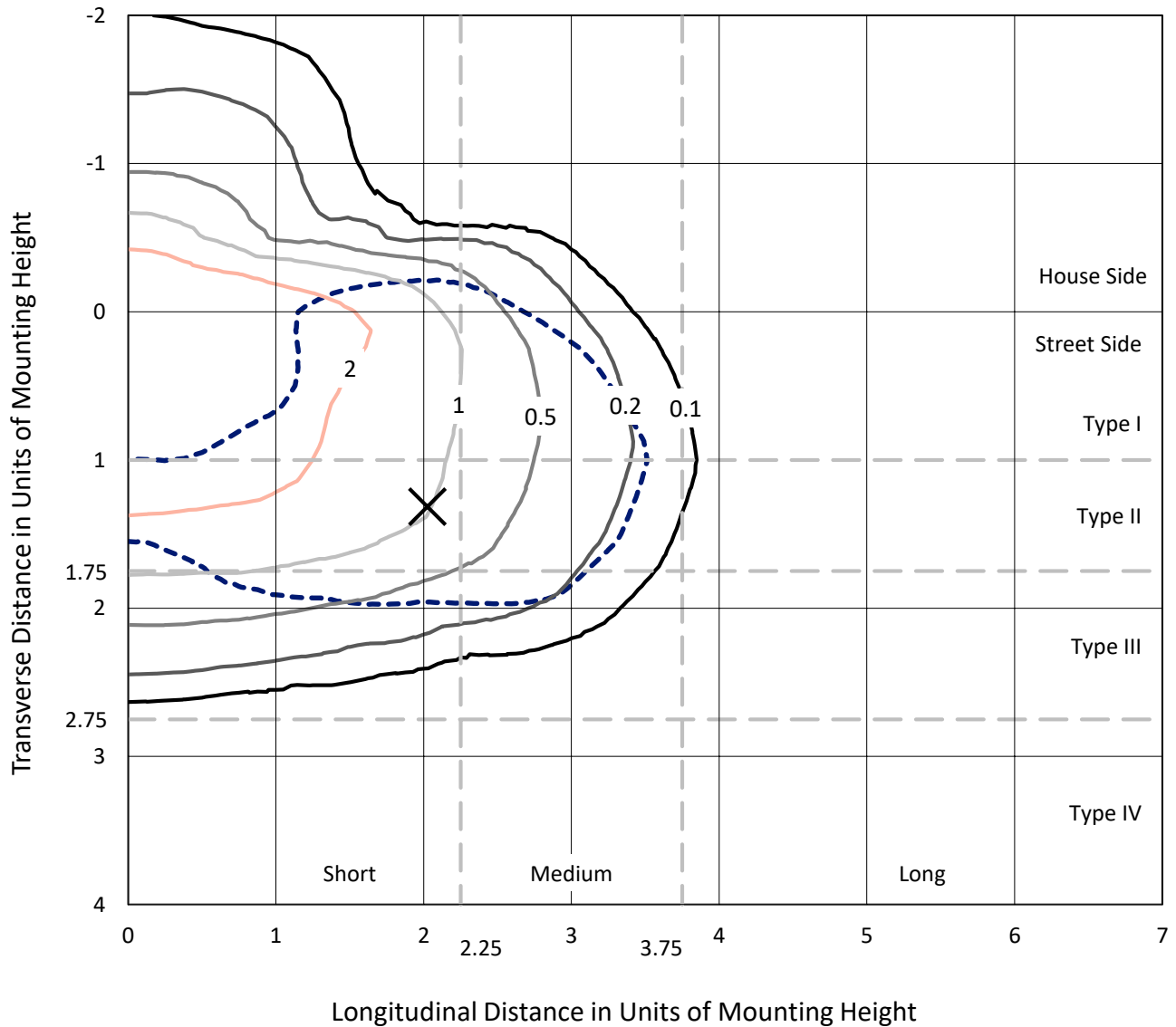
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

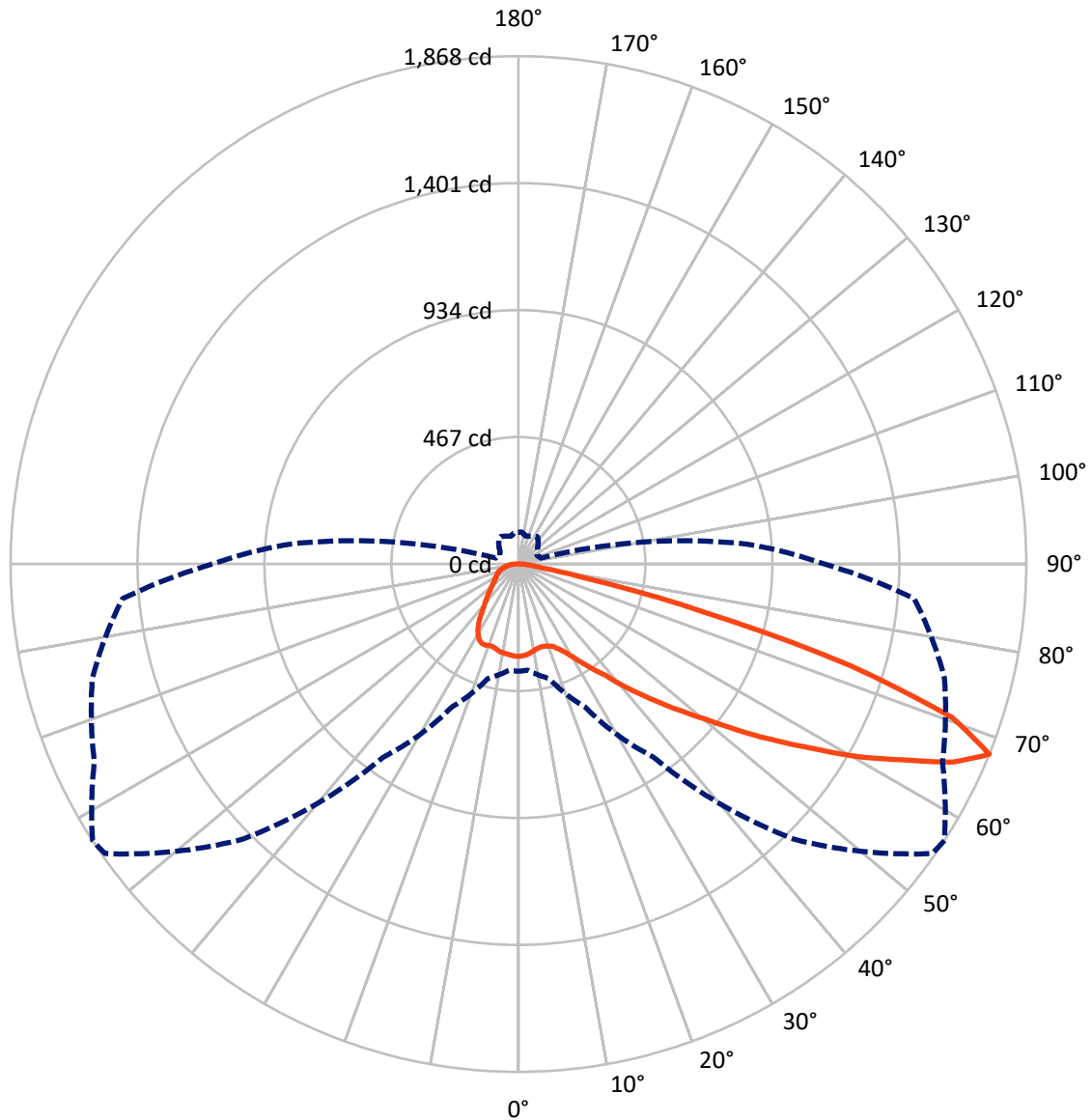
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 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
House Side	Lumens	596.9	0.8	597.7
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	1967.2	0.2	1967.4
	% Fixture	76.7	0.0	76.7
Total	Lumens	2564.2	1.0	2565.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	1.2
10°-20°	91.4	3.6
20°-30°	157.3	6.1
30°-40°	255.7	10.0
40°-50°	412.4	16.1
50°-60°	614.8	24.0
60°-70°	692.5	27.0
70°-80°	267.0	10.4
80°-90°	41.4	1.6
90°-100°	1.0	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°	2564.2	100.0
0°-180°	2565.1	100.0



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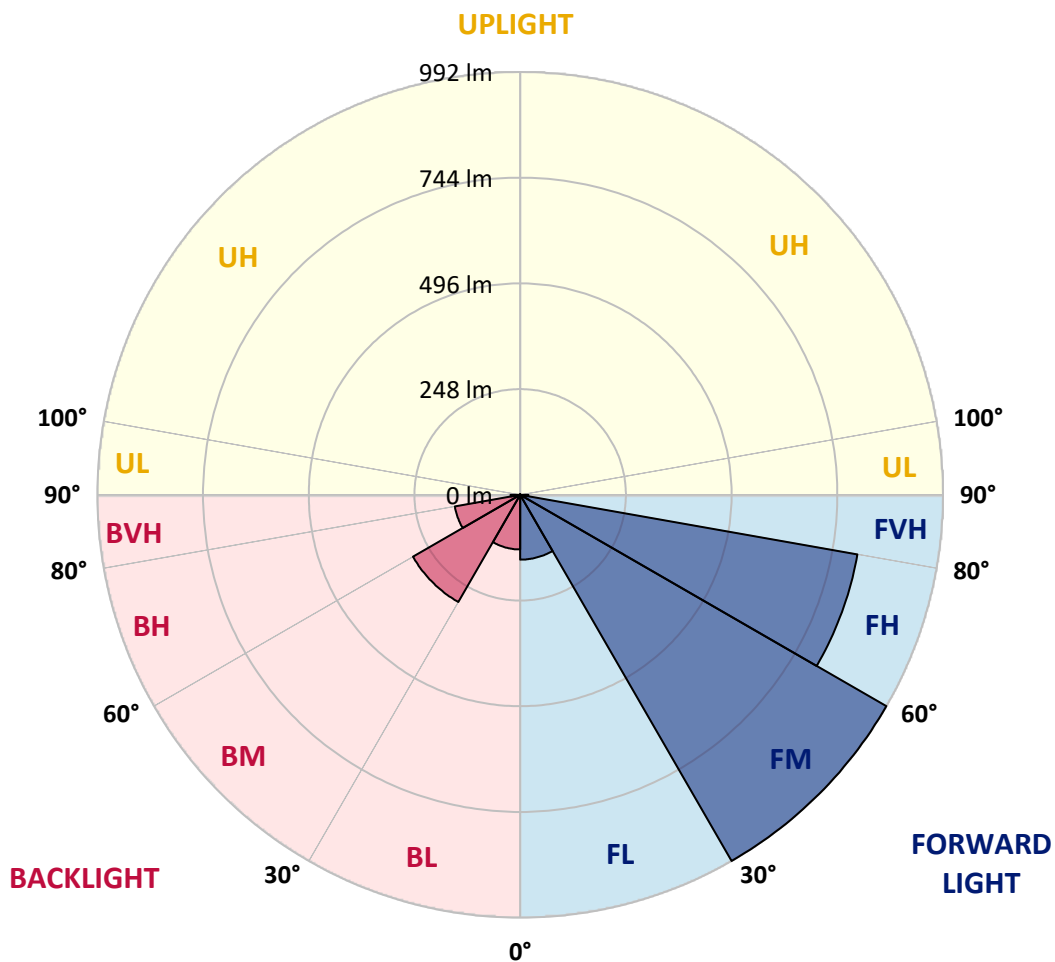
CATALOG NUMBER: IST-AF-450-LED-E1-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	152.2	5.9			
FM	(30°-60°)	992.4	38.7			
FH	(60°-80°)	803.7	31.3			G1/1800
FVH	(80°-90°)	19.0	0.7			G1/100
BL	(0°-30°)	128.3	5.0	B1/500		
BM	(30°-60°)	290.5	11.3	B1/1000		
BH	(60°-80°)	155.8	6.1	B1/500		G1/500
BVH	(80°-90°)	22.4	0.9			G1/100
UL	(90°-100°)	1.0	0.0		U1/10	
UH	(100°-180°)	0.8	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°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	337.3	338.1	338.8	338.4	338.4	338.4	338.4	337.7	338.8	338.8	338.1
5°	331.8	332.1	332.5	333.2	334.0	334.7	335.1	335.1	335.5	335.1	334.4
7.5°	323.6	324.0	325.4	325.4	326.2	327.7	328.4	329.2	330.3	330.3	329.9
10°	321.0	321.0	321.0	319.9	320.6	321.0	322.1	322.1	325.1	326.6	327.3
12.5°	324.0	323.6	323.6	320.6	318.0	316.9	318.0	318.4	321.7	324.0	325.4
15°	330.6	330.6	329.9	325.4	320.2	316.2	315.8	315.8	318.4	321.7	324.3
17.5°	346.2	347.7	342.5	335.5	326.9	320.2	317.6	317.3	319.1	321.7	324.3
20°	376.0	375.6	367.8	355.2	340.3	329.2	322.8	322.1	321.7	323.2	326.2
22.5°	411.3	409.8	400.5	384.5	364.1	343.6	331.4	329.9	326.9	328.0	332.1
25°	449.2	449.5	438.0	417.2	391.6	367.0	348.5	347.0	340.7	339.9	344.4
27.5°	487.0	491.9	476.3	456.6	426.1	396.8	369.6	367.4	361.8	360.0	364.4
30°	542.4	540.5	521.2	495.6	465.1	428.3	402.3	398.3	387.1	389.7	394.5
32.5°	589.2	593.3	575.8	545.4	505.2	466.6	436.5	434.3	423.5	426.5	433.2
35°	646.4	656.1	633.0	595.5	556.9	517.1	481.1	475.2	466.6	472.6	477.8
37.5°	711.8	716.6	698.8	650.5	611.1	569.5	528.7	519.4	510.1	522.3	531.6
40°	774.2	782.0	759.0	718.1	672.4	632.7	588.1	586.2	564.7	578.1	602.2
42.5°	866.7	876.4	839.6	792.1	750.8	702.9	660.5	650.5	627.1	646.1	686.5
45°	931.4	931.0	906.1	866.7	841.5	795.0	737.8	725.9	700.7	725.9	780.2
47.5°	954.8	960.3	951.8	947.0	938.1	904.2	819.9	808.8	785.0	822.5	872.7
50°	989.3	987.8	987.8	1017.6	1043.2	1036.1	916.1	900.2	875.3	920.2	992.3
52.5°	998.2	984.9	1005.7	1062.5	1143.9	1149.8	1028.0	1019.0	989.3	1033.2	1122.0
55°	973.3	970.0	1003.1	1085.5	1213.7	1256.1	1157.6	1145.4	1111.9	1149.4	1262.0
57.5°	917.6	926.2	979.3	1080.7	1262.0	1349.7	1299.9	1282.4	1234.5	1257.2	1401.0
60°	859.3	863.4	933.6	1063.6	1275.0	1414.7	1449.2	1439.2	1357.1	1370.5	1503.9
62.5°	794.7	785.0	857.8	1049.5	1260.5	1504.2	1594.1	1586.3	1489.4	1485.3	1577.0
65°	614.1	627.5	689.5	867.5	1161.3	1574.1	1766.9	1756.9	1636.9	1580.0	1569.2
67.5°	394.5	391.9	435.8	579.9	867.8	1430.7	1857.2	1868.3	1721.2	1622.7	1461.5
70°	141.5	145.6	162.0	263.4	475.9	953.3	1637.2	1692.6	1659.2	1542.9	1189.6
72.5°	86.2	86.2	98.1	118.5	192.8	452.1	1166.9	1276.5	1354.1	1271.3	878.6
75°	67.6	67.2	71.3	81.7	104.0	148.2	620.4	705.1	868.6	878.2	500.0
77.5°	53.5	53.1	57.2	62.0	77.6	78.4	198.0	257.8	398.6	375.2	178.7
80°	43.1	42.7	45.7	47.2	56.8	54.2	79.5	92.1	139.7	122.6	77.3
82.5°	39.0	39.0	42.0	36.0	39.4	38.3	49.4	52.8	70.2	72.8	46.4
85°	25.3	26.0	39.4	34.9	25.6	23.4	31.6	33.4	43.8	47.9	22.7
87.5°	11.9	13.0	30.1	29.0	17.1	12.6	17.8	18.9	23.8	29.3	13.4
90°	2.2	2.2	3.7	4.1	2.2	2.2	3.0	2.6	2.6	3.7	3.7
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):

	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°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	339.2	338.4	338.8	339.2	339.6	340.7	341.0	341.0	341.0	340.7	341.4
5°	335.1	334.4	334.4	335.5	336.6	338.1	340.3	342.2	342.9	343.3	343.3
7.5°	330.6	329.9	330.3	332.1	334.0	335.1	337.3	338.4	341.4	341.4	342.2
10°	327.7	328.4	328.8	330.6	332.1	332.1	331.8	331.0	330.3	332.1	331.4
12.5°	325.8	326.9	326.6	328.8	329.5	326.6	322.1	316.2	315.4	316.2	316.9
15°	325.1	325.1	326.2	326.2	322.5	316.5	311.0	311.3	312.1	314.3	314.3
17.5°	325.1	325.4	326.2	323.6	316.9	311.7	310.6	309.5	305.4	304.3	303.1
20°	327.7	326.9	327.7	322.8	316.9	312.8	304.3	296.1	288.3	284.9	283.5
22.5°	334.0	332.9	332.5	327.7	320.2	306.5	289.8	277.1	263.8	259.3	257.8
25°	345.1	344.8	342.2	338.8	318.0	291.3	270.1	250.0	235.5	227.7	228.1
27.5°	364.8	364.8	363.3	348.5	306.5	272.3	243.7	223.3	208.4	201.0	199.9
30°	394.5	395.3	396.0	351.1	288.3	244.5	214.7	201.0	192.1	186.5	186.1
32.5°	431.3	435.4	430.6	348.1	263.4	210.6	192.1	187.2	182.8	179.1	178.7
35°	480.0	491.1	460.7	336.2	235.5	187.6	178.3	175.0	171.6	169.0	169.4
37.5°	545.4	556.1	480.0	316.2	199.9	174.6	170.5	165.3	160.1	154.5	153.8
40°	622.6	619.3	486.7	278.3	177.6	168.3	162.7	156.0	147.1	138.9	137.5
42.5°	699.9	677.6	481.1	231.4	163.1	162.7	154.9	146.4	137.5	130.4	130.4
45°	786.5	728.9	464.0	187.6	151.6	156.8	147.1	138.2	130.0	124.8	124.5
47.5°	868.2	776.8	435.8	156.4	140.1	149.0	141.2	133.0	125.2	120.7	119.6
50°	964.1	831.4	414.2	135.2	128.9	141.2	137.8	130.4	123.0	117.8	117.0
52.5°	1061.0	884.6	397.9	120.7	118.9	135.2	136.3	131.9	124.1	114.1	113.3
55°	1162.4	951.1	365.2	109.2	110.0	130.8	138.2	134.9	129.3	112.9	112.2
57.5°	1247.5	1012.4	308.0	101.4	102.9	127.4	138.9	132.6	126.3	113.7	112.6
60°	1314.0	1054.3	225.9	95.1	96.6	123.7	135.6	124.8	116.7	113.7	111.8
62.5°	1334.5	1055.8	150.1	87.7	91.8	117.4	129.7	120.7	111.1	112.6	111.8
65°	1283.2	1000.1	107.4	80.6	87.7	110.0	127.1	116.7	108.5	114.4	113.7
67.5°	1125.3	842.6	86.2	75.0	82.1	102.2	122.2	112.9	106.3	118.5	116.3
70°	876.8	604.4	73.2	69.5	76.2	94.7	115.5	108.9	103.3	115.2	112.2
72.5°	578.1	355.9	64.6	64.3	69.1	88.4	108.1	105.1	98.4	104.4	99.9
75°	301.7	164.9	56.1	58.3	61.3	82.8	101.4	98.4	91.0	93.2	91.8
77.5°	118.5	77.3	48.7	51.3	54.6	74.7	92.9	89.9	83.6	81.7	81.4
80°	65.0	52.0	40.5	43.8	46.1	67.2	84.0	80.6	73.9	72.8	71.7
82.5°	41.2	33.8	33.4	35.7	38.6	59.8	75.4	70.2	64.6	76.2	61.7
85°	19.3	20.1	23.8	26.7	30.1	50.9	65.8	60.2	54.6	53.1	47.2
87.5°	10.8	13.4	15.6	18.2	20.8	35.7	52.0	46.8	40.9	34.9	36.0
90°	2.6	2.6	4.5	4.1	4.5	5.2	25.6	23.0	20.4	9.7	6.3
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)