

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: P226701

Luminaire Tested: **IST-AF-350-LED-E1-T4W-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226701
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: IST-AF-350-LED-E1-T4W-8030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 3000K CCT, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3777.4 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

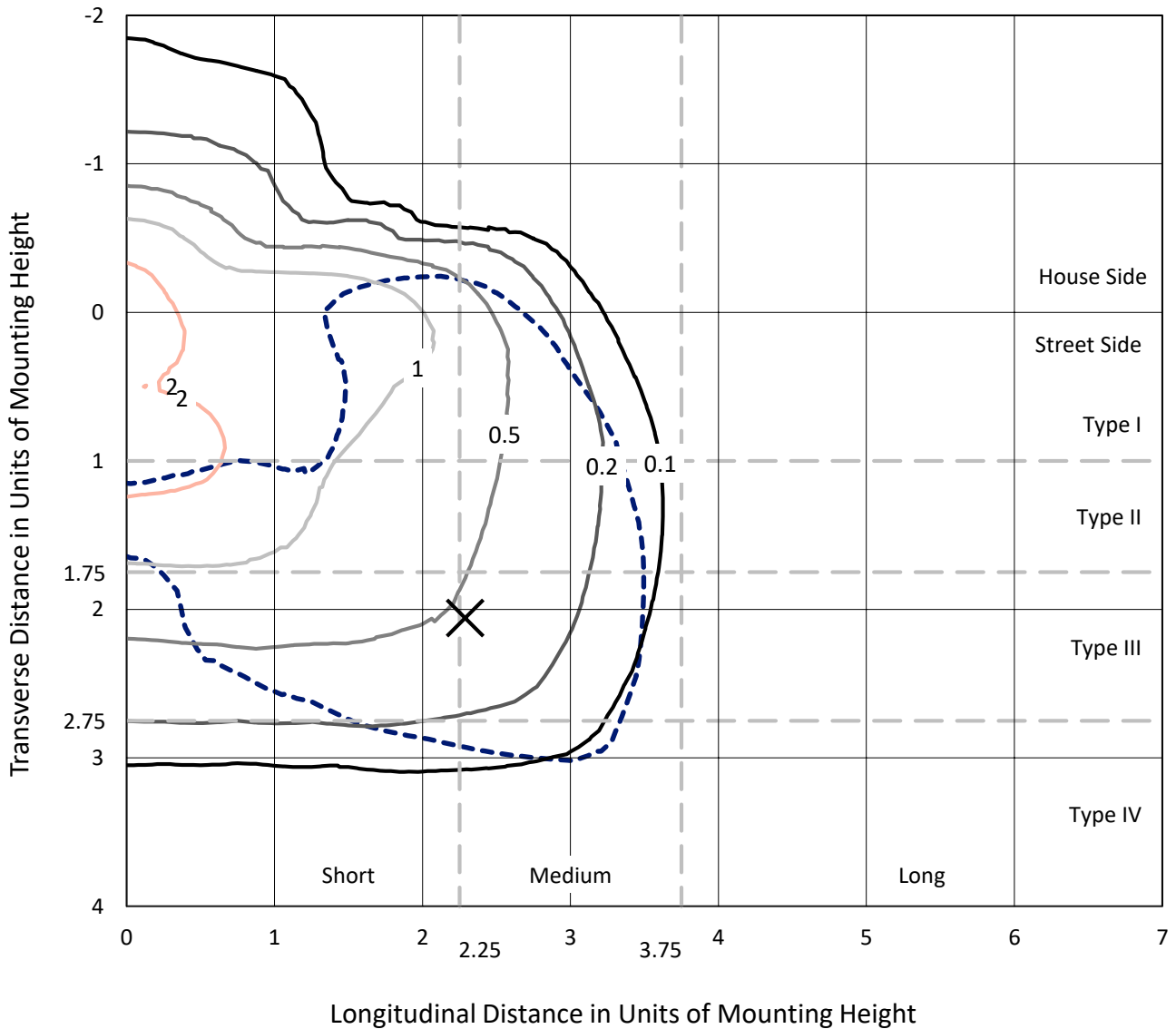
Input Watts (W): 36.79
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

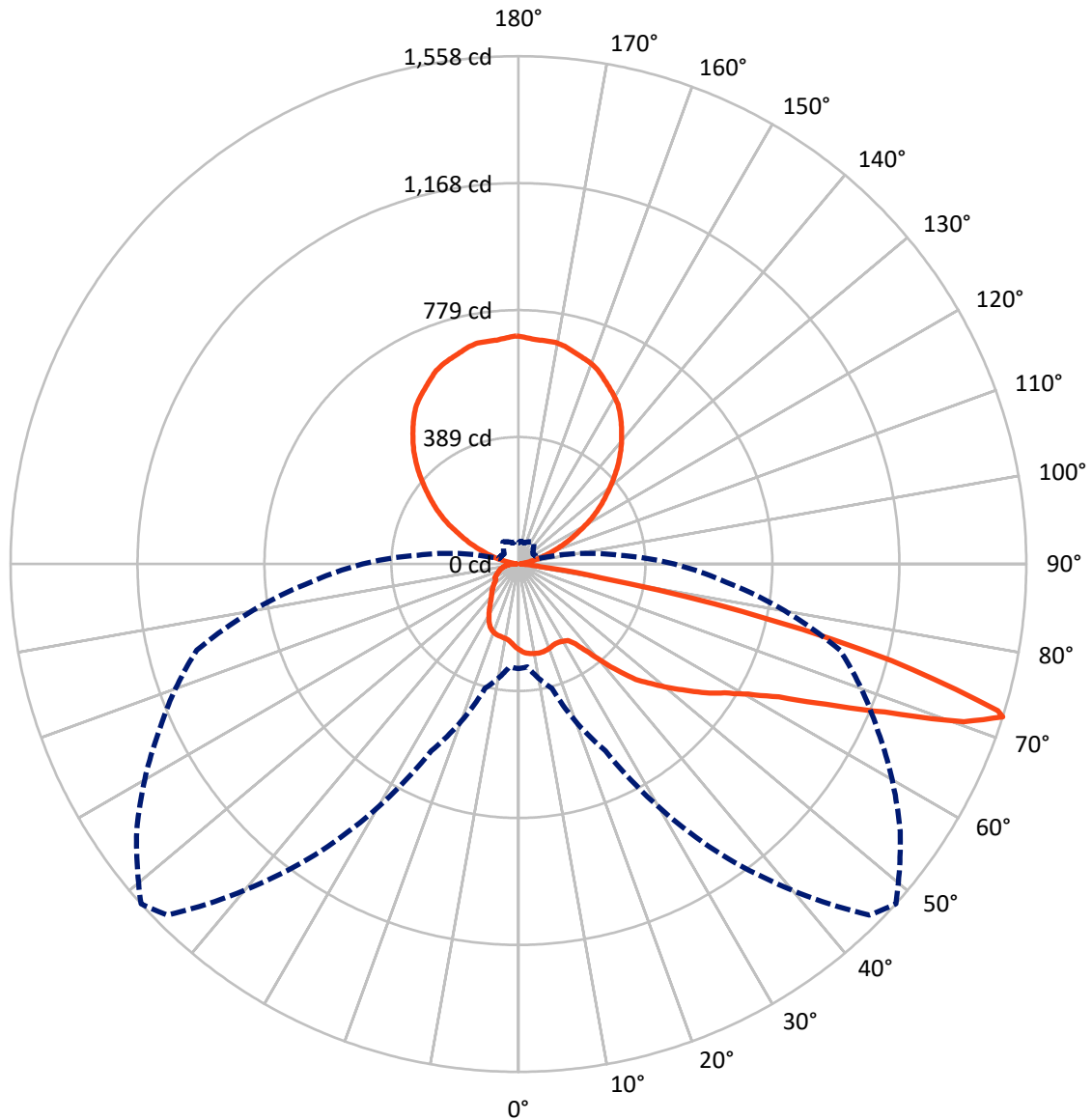
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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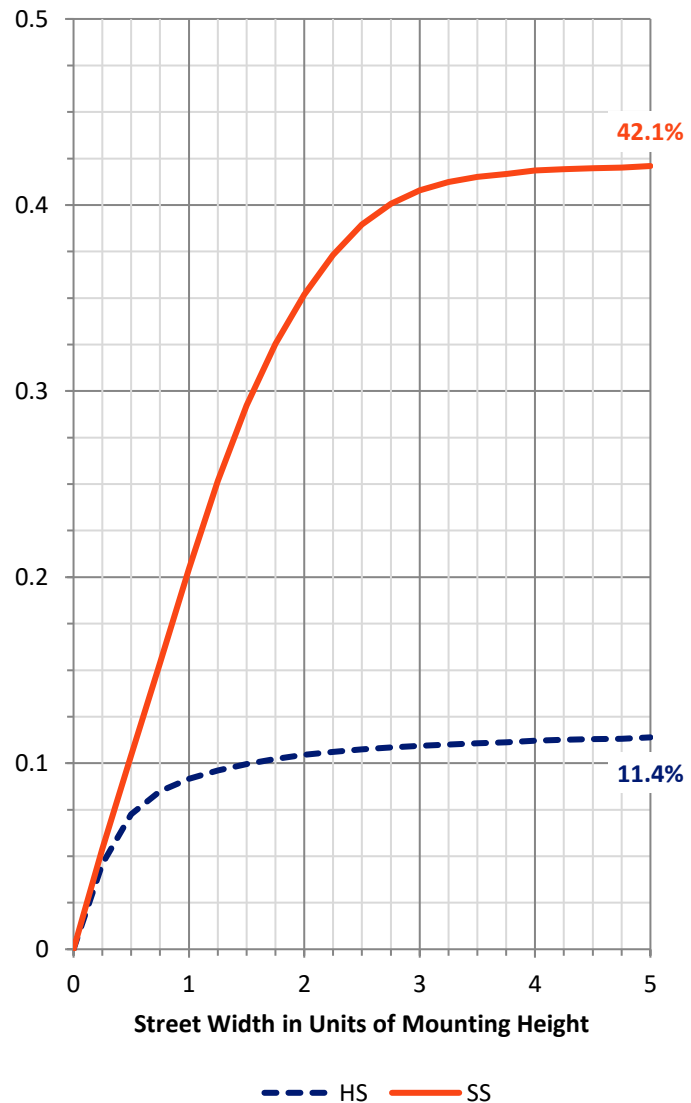
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	443.9	868.5	1312.3
	% Fixture	11.8	23.0	34.7
Street Side	Lumens	1597.2	867.9	2465.1
	% Fixture	42.3	23.0	65.3
Total	Lumens	2041.0	1736.4	3777.4
	% Fixture	54.0	46.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.8	0.7
10°-20°	72.5	1.9
20°-30°	111.8	3.0
30°-40°	167.6	4.4
40°-50°	279.2	7.4
50°-60°	436.2	11.5
60°-70°	576.2	15.3
70°-80°	333.3	8.8
80°-90°	39.2	1.0
90°-100°	10.5	0.3
100°-110°	57.4	1.5
110°-120°	166.1	4.4
120°-130°	273.2	7.2
130°-140°	336.8	8.9
140°-150°	344.6	9.1
150°-160°	290.3	7.7
160°-170°	191.2	5.1
170°-180°	66.3	1.8
0°-90°	2041.0	54.0
0°-180°	3777.4	100.0



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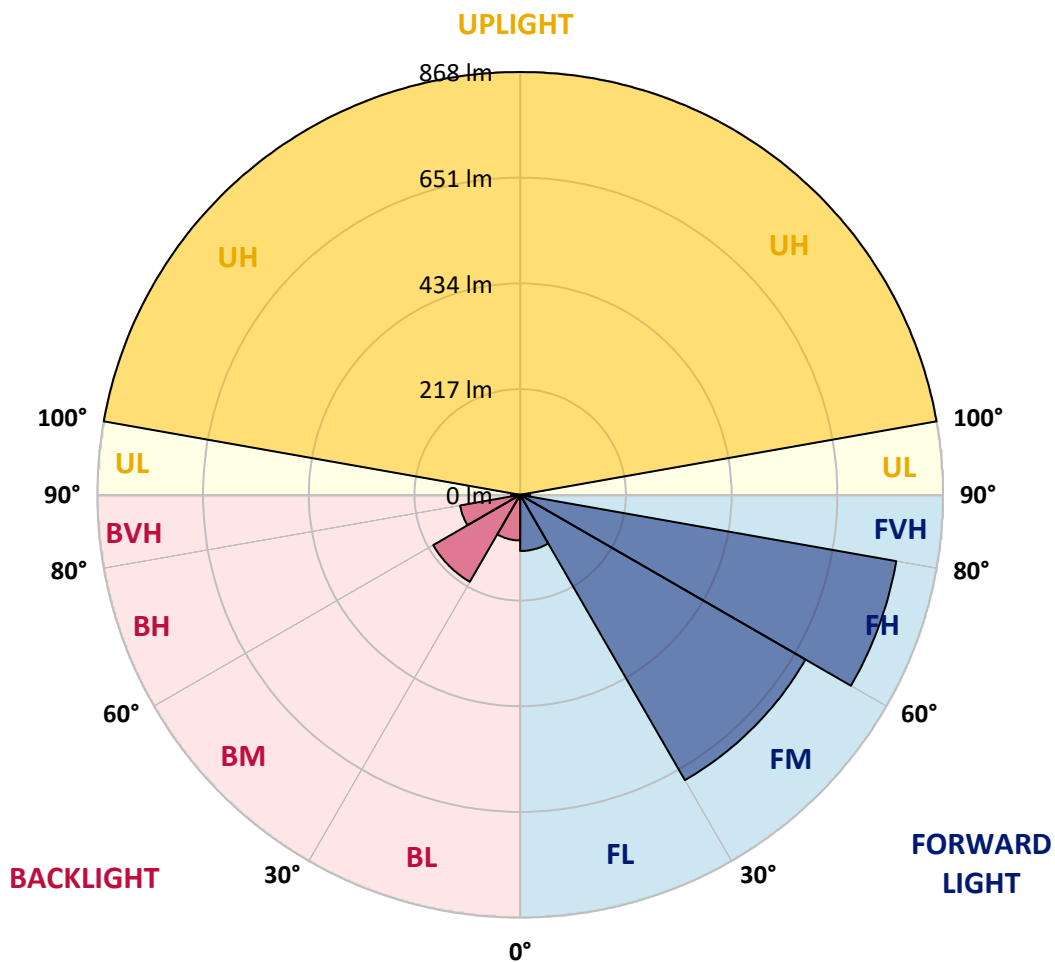
CATALOG NUMBER: IST-AF-350-LED-E1-T4W-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	115.4	3.1			
FM (30°-60°)	676.7	17.9			
FH (60°-80°)	784.5	20.8			G1/1800
FVH (80°-90°)	20.6	0.5			G1/100
BL (0°-30°)	93.8	2.5	B0/110		
BM (30°-60°)	206.3	5.5	B0/220		
BH (60°-80°)	125.1	3.3	B1/500		G1/500
BVH (80°-90°)	18.7	0.5			G1/100
UL (90°-100°)	10.5	0.3		U2/50	
UH (100°-180°)	868.5	23.0		U4/1000	

BUG Rating: B1-U5-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6
2.5°	276.5	276.2	276.2	273.8	273.0	271.5	270.3	268.5	266.7	264.7	262.0
5°	289.8	290.7	289.5	286.0	281.5	276.8	275.0	270.9	265.3	260.2	255.5
7.5°	302.6	302.9	299.6	293.7	286.9	279.5	277.1	271.5	265.3	258.5	251.6
10°	311.7	312.0	307.3	299.0	289.8	281.5	278.9	273.3	265.6	258.2	249.6
12.5°	317.1	317.4	310.3	301.7	290.7	282.4	280.1	274.1	266.1	256.7	247.2
15°	316.2	317.1	311.1	301.7	290.1	282.7	279.8	274.7	264.7	255.2	245.1
17.5°	310.3	311.4	306.7	296.3	287.2	281.2	278.0	273.0	263.2	253.1	242.2
20°	298.7	300.2	298.1	288.1	281.8	277.1	275.0	270.3	261.1	250.8	239.5
22.5°	285.7	287.2	286.6	278.3	275.3	273.0	270.9	267.3	259.3	249.0	238.3
25°	276.2	277.4	276.5	269.4	270.3	270.3	269.1	266.4	259.0	249.6	238.3
27.5°	291.9	291.9	284.2	269.7	268.2	270.9	270.3	268.8	262.9	252.5	240.7
30°	349.3	344.9	331.0	294.6	275.9	274.7	274.4	273.6	268.2	259.0	248.1
32.5°	413.6	409.1	392.6	347.0	308.2	282.7	280.1	280.4	278.9	270.3	259.3
35°	470.7	470.1	457.1	407.7	358.2	310.9	300.2	293.1	292.5	288.9	280.4
37.5°	516.9	516.9	518.1	461.8	412.4	355.6	337.5	315.0	315.0	312.9	307.6
40°	569.6	572.0	574.6	511.0	470.4	408.8	388.4	354.4	344.0	347.3	348.5
42.5°	638.9	641.8	640.1	571.7	523.4	472.5	447.3	406.2	380.7	386.0	398.5
45°	685.7	686.8	699.6	635.0	590.0	526.4	505.1	448.5	423.4	434.3	456.2
47.5°	738.6	741.6	743.7	707.0	668.2	587.4	548.3	489.7	473.4	490.0	524.6
50°	790.5	786.6	792.2	790.7	742.2	641.5	595.1	528.2	529.3	551.8	608.7
52.5°	835.5	822.4	835.5	851.7	837.5	697.2	643.0	573.4	590.6	618.2	707.9
55°	870.1	838.7	860.6	906.8	903.5	746.3	697.8	633.8	662.6	700.2	828.3
57.5°	799.3	803.2	863.6	943.8	942.3	796.1	745.7	709.3	744.6	786.6	971.0
60°	733.3	750.5	843.7	949.7	969.3	850.3	810.3	795.2	827.8	879.0	1107.8
62.5°	698.4	714.7	811.5	938.8	1012.2	930.5	897.0	885.5	929.9	987.3	1229.8
65°	709.3	719.4	809.4	955.4	1061.6	1051.9	1037.4	1018.1	1040.3	1094.2	1284.9
67.5°	678.5	695.1	792.2	984.7	1151.9	1199.9	1212.0	1191.3	1172.7	1165.3	1204.6
70°	505.1	521.0	622.9	863.6	1225.9	1456.9	1449.5	1380.2	1254.7	1149.9	941.1
72°	320.9	316.5	394.3	632.7	1089.8	1522.9	1557.8	1429.6	1217.4	1021.1	639.2
72.5°	233.3	254.3	327.1	562.5	1035.3	1486.8	1537.7	1413.6	1168.5	964.5	562.2
75°	56.8	60.1	78.5	201.6	606.3	1118.8	1182.7	1092.1	852.9	572.6	249.3
77.5°	38.5	40.0	51.8	71.1	178.2	638.0	701.9	603.1	381.6	194.8	111.0
80°	28.7	29.6	37.6	50.3	74.0	217.6	256.7	204.0	95.0	108.1	79.0
82.5°	20.1	20.7	28.4	37.0	49.1	50.9	67.8	74.9	61.6	70.8	46.2
85°	13.9	13.9	20.7	25.5	31.1	25.2	26.9	37.6	41.7	42.0	28.1
87.5°	7.4	8.3	12.1	16.3	16.3	11.5	12.7	19.2	23.4	25.2	16.9
90°	7.7	7.7	12.0	14.2	11.8	10.0	9.7	10.8	14.6	17.0	12.3
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	699.0	701.0	698.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6
2.5°	261.4	259.6	257.3	256.1	255.5	254.3	253.1	252.5	252.5	251.3	251.6
5°	253.1	250.5	247.2	244.8	244.5	244.5	245.1	245.1	245.4	244.5	245.7
7.5°	249.0	246.0	241.3	238.6	236.5	236.2	237.4	239.8	241.0	240.1	241.3
10°	246.0	242.8	237.4	234.2	232.7	232.1	233.0	235.4	239.2	239.2	240.4
12.5°	243.1	238.9	233.6	231.2	230.0	230.3	231.5	233.3	237.4	238.9	239.5
15°	240.1	235.4	230.9	227.7	227.7	228.6	230.0	232.1	236.0	238.6	239.2
17.5°	237.1	232.4	228.6	225.9	225.9	227.1	228.6	231.2	233.9	237.7	237.7
20°	234.5	230.6	225.6	223.2	222.9	223.8	225.6	228.3	230.3	234.2	234.5
22.5°	233.0	228.3	223.5	220.0	218.5	217.9	219.7	222.3	224.4	228.3	228.8
25°	232.4	227.1	221.1	214.6	210.8	209.6	210.5	213.7	215.5	218.5	219.4
27.5°	234.5	229.4	220.3	208.4	200.4	197.2	198.1	200.1	200.7	204.0	205.5
30°	241.6	235.7	222.0	201.9	187.4	181.5	181.5	181.8	182.7	185.3	185.6
32.5°	253.1	247.5	227.4	195.1	174.1	165.8	163.7	162.2	162.2	161.9	162.2
35°	274.4	269.7	236.5	187.4	159.6	150.4	145.4	142.7	140.0	138.8	138.6
37.5°	305.2	301.1	249.6	178.5	146.8	137.7	131.4	126.1	123.2	122.9	124.3
40°	351.1	347.0	264.1	168.5	134.7	127.9	121.4	115.8	112.5	112.8	114.3
42.5°	407.7	394.9	279.8	154.8	124.9	121.4	114.3	109.5	106.3	104.5	104.2
45°	473.7	452.4	294.6	142.1	114.3	115.8	108.9	103.6	99.5	94.7	94.1
47.5°	556.0	509.8	307.6	129.4	102.7	109.8	103.3	98.3	92.1	86.4	85.6
50°	641.8	575.8	318.8	115.8	92.4	103.3	97.7	90.9	82.3	77.3	77.3
52.5°	741.0	655.2	333.4	100.7	84.4	96.2	90.6	81.7	74.6	74.0	74.0
55°	851.4	738.3	343.4	88.8	78.2	88.5	85.9	83.2	80.8	81.4	81.7
57.5°	966.9	825.1	334.5	80.5	73.1	86.7	94.4	90.9	83.5	83.2	82.9
60°	1066.4	892.6	285.4	75.2	69.3	89.7	101.2	90.9	83.5	87.3	87.6
62.5°	1131.5	924.6	190.1	68.4	63.7	84.7	98.9	88.2	83.8	94.7	95.6
65°	1122.6	888.7	109.2	63.7	60.1	77.9	95.6	85.0	78.2	84.4	82.6
67.5°	990.3	744.9	79.0	61.6	57.4	73.1	89.7	80.2	72.8	80.5	77.3
70°	711.7	507.1	68.1	59.8	55.7	67.5	85.6	77.3	69.9	75.2	70.2
72°	477.5	308.5	62.5	58.3	53.9	63.9	82.6	74.9	67.2	70.2	64.5
72.5°	406.5	243.4	61.0	57.7	53.3	63.1	81.7	74.3	66.6	69.6	64.2
75°	151.9	95.3	54.2	53.3	49.1	58.6	78.2	71.6	63.7	62.8	60.4
77.5°	78.2	60.4	46.2	47.1	44.1	53.6	74.3	67.5	58.6	55.4	54.2
80°	56.8	43.8	37.3	40.0	37.6	48.3	69.0	61.3	53.3	49.7	48.3
82.5°	35.8	27.2	28.4	31.7	32.0	42.6	62.8	55.1	47.4	44.4	42.0
85°	17.2	16.3	20.1	23.4	25.8	36.1	57.4	48.8	41.4	35.5	35.8
87.5°	9.2	12.4	12.1	15.7	19.8	29.6	50.9	40.0	33.2	26.6	26.9
90°	9.1	10.3	12.6	15.2	15.0	19.7	40.9	30.8	29.2	14.5	13.3
92.5°	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)