

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: P271750

Luminaire Tested: **IST-AF-1200-LED-E1-T4W-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271750
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-1200-LED-E1-T4W-7027-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7698 lumens
Efficiency: N/A
Efficacy: 93.1 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 - G2

Input Watts (W): 82.7
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

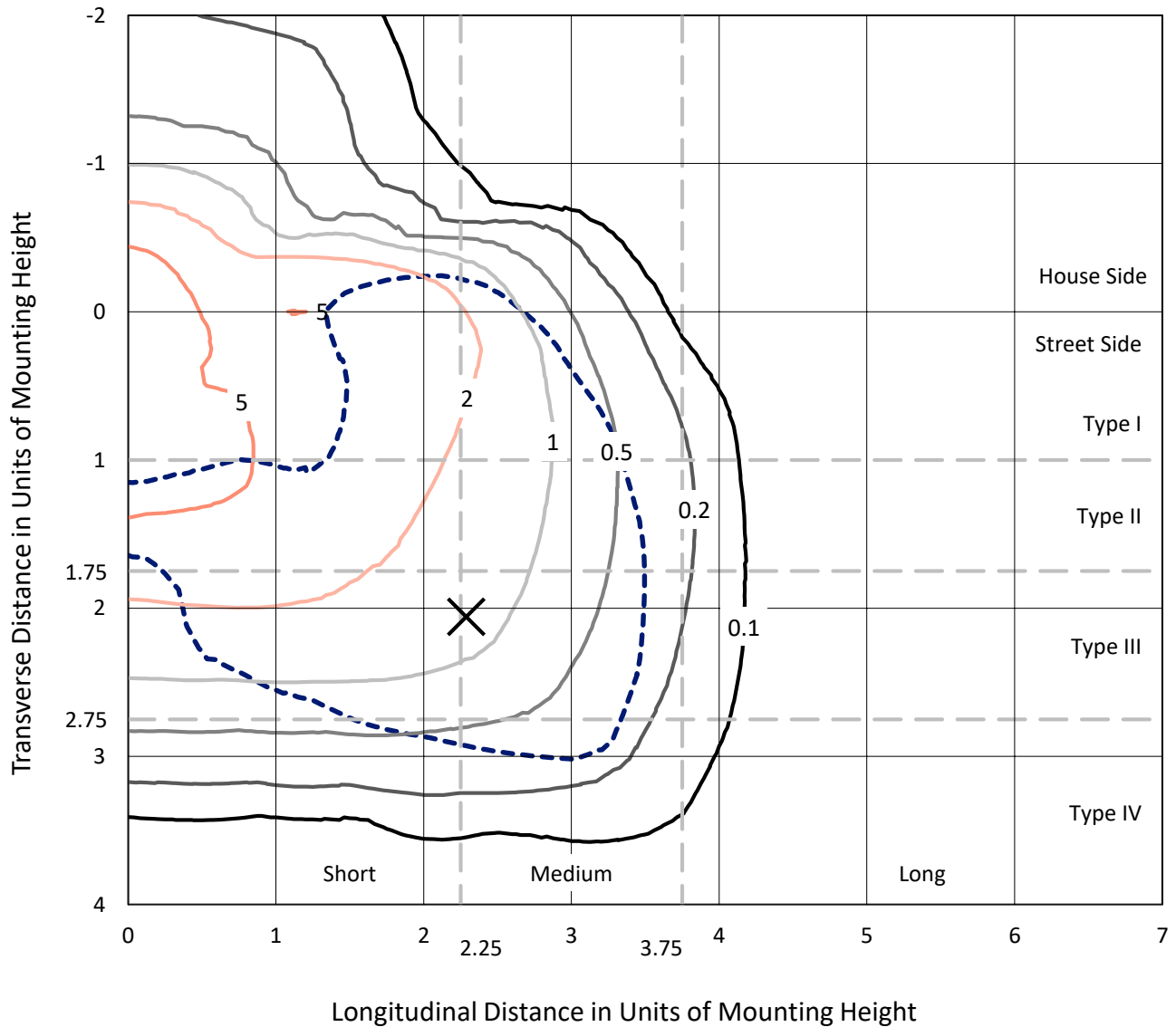


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Iso-Footcandle Lines of Horizontal Illumination

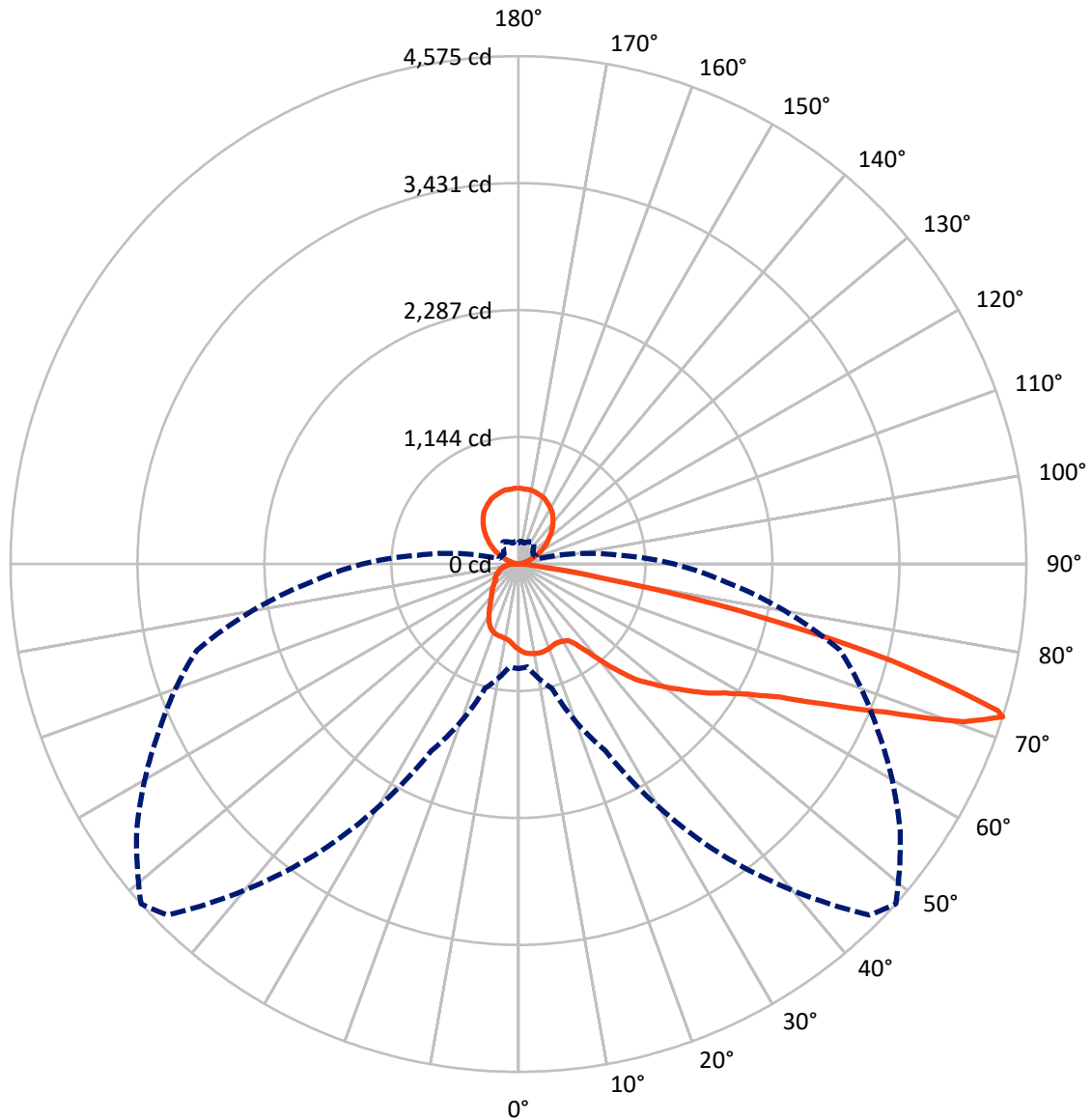
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.6 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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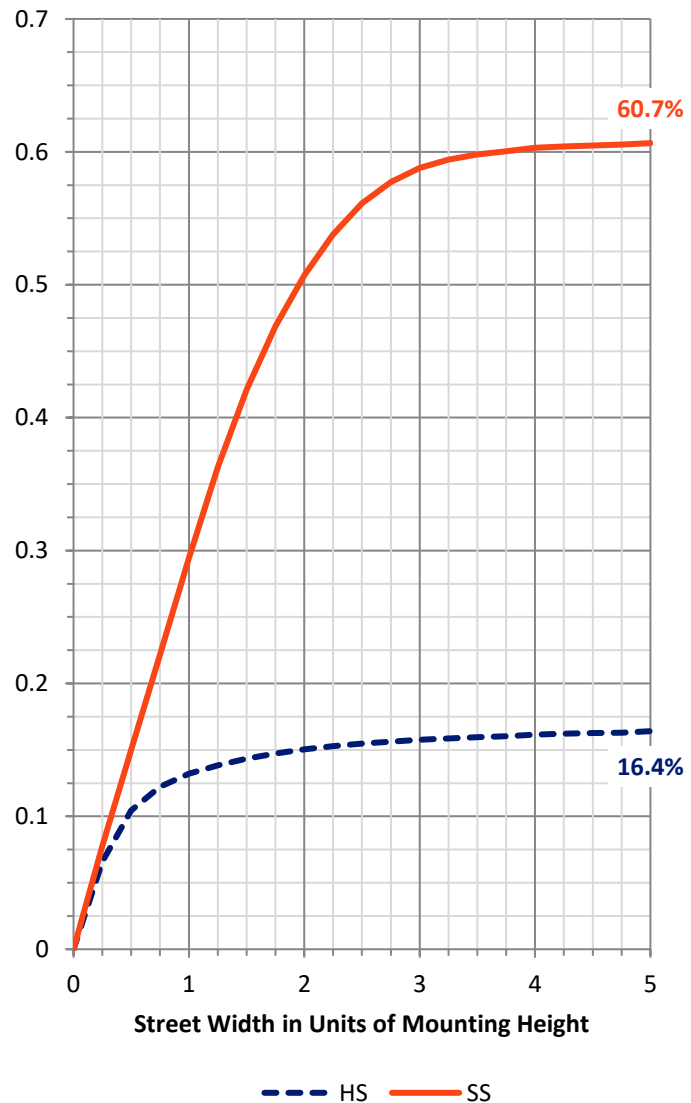
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1302.4	854.2	2156.5
	% Fixture	16.9	11.1	28.0
Street Side	Lumens	4689.0	852.4	5541.5
	% Fixture	60.9	11.1	72.0
Total	Lumens	5991.4	1706.6	7698.0
	% Fixture	77.8	22.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	0.9
10°-20°	213.0	2.8
20°-30°	328.4	4.3
30°-40°	492.3	6.4
40°-50°	819.7	10.6
50°-60°	1281.0	16.6
60°-70°	1692.1	22.0
70°-80°	978.8	12.7
80°-90°	113.2	1.5
90°-100°	12.7	0.2
100°-110°	56.3	0.7
110°-120°	163.1	2.1
120°-130°	268.1	3.5
130°-140°	330.6	4.3
140°-150°	338.2	4.4
150°-160°	284.9	3.7
160°-170°	187.6	2.4
170°-180°	65.0	0.8
0°-90°	5991.4	77.8
0°-180°	7698.0	100.0



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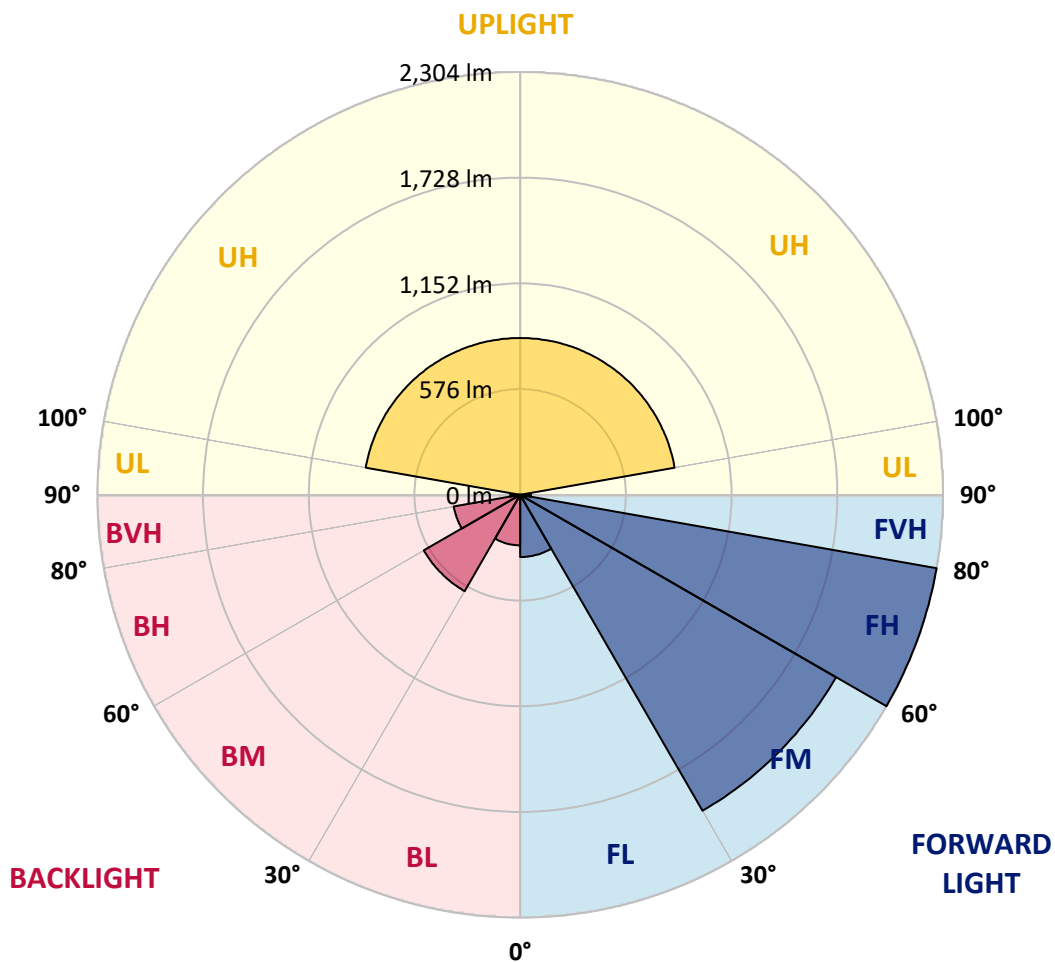
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	338.9	4.4			
FM	(30°-60°)	1987.2	25.8			
FH	(60°-80°)	2303.6	29.9			G2/5000
FVH	(80°-90°)	59.4	0.8			G1/100
BL	(0°-30°)	275.4	3.6	B1/500		
BM	(30°-60°)	605.8	7.9	B1/1000		
BH	(60°-80°)	367.3	4.8	B1/500		G1/500
BVH	(80°-90°)	53.8	0.7			G1/100
UL	(90°-100°)	12.7	0.2		U2/50	
UH	(100°-180°)	854.2	11.1		U4/1000	

BUG Rating: B1-U5-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1
2.5°	812.0	811.1	811.1	804.2	801.6	797.2	793.7	788.5	783.3	777.2	769.4
5°	851.1	853.7	850.2	839.7	826.7	812.9	807.7	795.4	778.9	764.2	750.3
7.5°	888.4	889.3	879.8	862.5	842.4	820.6	813.8	797.2	778.9	759.0	738.9
10°	915.5	916.3	902.3	878.0	851.1	826.7	819.0	802.4	779.8	758.1	732.8
12.5°	931.0	931.9	911.2	885.9	853.7	829.3	822.4	805.0	781.5	753.7	725.9
15°	928.5	931.0	913.7	885.9	852.0	830.2	821.5	806.8	777.2	749.4	719.8
17.5°	911.2	914.6	900.6	870.2	843.3	825.9	816.3	801.6	772.8	743.3	711.1
20°	877.1	881.5	875.4	845.8	827.6	813.8	807.7	793.7	766.7	736.3	703.4
22.5°	838.8	843.3	841.5	817.2	808.5	801.6	795.4	785.0	761.5	731.1	699.8
25°	811.1	814.5	812.0	791.0	793.7	793.7	790.1	782.4	760.7	732.8	699.8
27.5°	857.2	857.2	834.5	791.9	787.6	795.4	793.7	789.4	771.9	741.6	706.8
30°	1025.9	1012.7	972.0	865.0	810.2	806.8	805.9	803.3	787.6	760.7	728.5
32.5°	1214.5	1201.4	1152.7	1018.9	905.0	830.2	822.4	823.3	819.0	793.7	761.5
35°	1382.2	1380.5	1342.2	1197.1	1051.9	912.8	881.5	860.7	858.9	848.4	823.3
37.5°	1517.9	1517.9	1521.4	1356.2	1210.9	1044.1	991.1	925.0	925.0	918.9	903.2
40°	1672.6	1679.7	1687.4	1500.5	1381.4	1200.6	1140.6	1040.6	1010.1	1019.8	1023.2
42.5°	1876.0	1884.7	1879.5	1678.8	1537.0	1387.5	1313.6	1192.7	1118.0	1133.6	1170.1
45°	2013.4	2016.9	2054.2	1864.7	1732.7	1545.7	1483.1	1317.1	1243.2	1275.3	1339.6
47.5°	2169.0	2177.7	2183.8	2076.1	1962.1	1724.7	1610.0	1437.8	1390.0	1438.7	1540.4
50°	2321.1	2309.8	2326.4	2322.0	2179.5	1883.8	1747.5	1550.9	1554.3	1620.5	1787.4
52.5°	2453.3	2415.0	2453.3	2501.2	2459.4	2047.2	1888.1	1684.0	1734.4	1815.1	2078.6
55°	2555.0	2462.8	2527.2	2662.8	2653.2	2191.7	2049.0	1861.3	1945.5	2056.0	2432.4
57.5°	2347.2	2358.5	2535.8	2771.5	2767.0	2337.7	2189.9	2083.0	2186.5	2309.8	2851.5
60°	2153.3	2203.8	2477.6	2788.9	2846.2	2496.7	2379.4	2335.1	2430.7	2581.1	3253.1
62.5°	2050.8	2098.6	2382.8	2756.7	2972.3	2732.4	2634.1	2600.2	2730.6	2899.3	3611.3
65°	2083.0	2112.5	2376.7	2805.4	3117.5	3088.8	3046.2	2989.6	3054.9	3213.1	3772.9
67.5°	1992.5	2041.2	2326.4	2891.5	3382.6	3523.4	3559.2	3498.3	3443.6	3421.7	3537.3
70°	1483.1	1530.0	1829.1	2535.8	3600.0	4278.1	4256.3	4053.0	3684.3	3376.5	2763.6
72°	942.4	929.4	1157.9	1857.8	3200.0	4471.9	4574.5	4198.0	3574.7	2998.4	1876.9
72.5°	685.0	746.9	960.6	1651.7	3040.1	4365.9	4515.4	4151.2	3431.3	2832.4	1650.8
75°	166.9	176.4	230.3	592.1	1780.4	3285.2	3473.0	3206.9	2504.6	1681.3	732.0
77.5°	113.0	117.4	152.2	208.7	523.4	1873.4	2061.3	1770.9	1120.5	572.0	326.1
80°	84.4	87.0	110.4	147.8	217.3	639.0	753.7	599.0	279.0	317.3	232.1
82.5°	59.1	60.8	83.5	108.7	144.3	149.5	199.1	219.9	180.8	207.8	135.6
85°	40.9	40.9	60.8	74.8	91.3	73.9	79.1	110.4	122.6	123.4	82.6
87.5°	21.6	24.3	35.7	47.8	47.8	33.9	37.4	56.5	68.7	73.9	49.6
90°	12.8	12.8	21.6	26.1	19.1	15.6	14.7	18.1	25.3	32.2	22.5
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	6.2	6.8	6.8	5.9	5.9
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	6.8	7.8	6.8	6.8
97.5°	6.8	6.8	7.8	7.8	8.8	8.8	9.7	11.8	9.8	8.8	7.8
100°	7.8	7.8	8.8	9.8	11.8	20.6	23.0	28.5	25.5	22.5	18.7
102.5°	10.8	10.8	12.8	17.7	26.5	39.3	42.2	49.0	46.2	41.2	38.3
105°	20.6	21.6	26.5	35.3	47.1	61.8	64.5	70.7	68.7	63.8	59.8
107.5°	40.2	41.2	48.1	57.0	71.7	86.3	88.4	93.2	92.3	88.3	85.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	64.8	66.7	72.7	85.4	100.1	111.9	113.6	117.8	118.8	116.8	113.8
112.5°	97.2	97.2	104.0	118.8	131.5	140.3	141.8	145.3	147.2	146.2	144.3
115°	137.4	136.5	144.3	156.0	164.9	170.8	172.3	175.7	178.7	175.7	173.7
117.5°	180.6	180.6	185.5	193.3	198.3	201.2	202.9	207.1	211.0	206.1	204.2
120°	220.8	218.8	221.8	228.7	232.6	238.5	239.4	241.5	245.3	240.5	238.5
122.5°	258.2	255.2	256.2	262.0	266.0	271.8	272.5	273.8	277.8	272.8	270.9
125°	292.5	288.5	290.5	293.5	299.3	304.3	305.2	307.2	309.2	304.3	304.3
127.5°	323.9	322.9	322.9	326.8	332.7	333.7	335.2	338.6	339.6	339.6	338.6
130°	356.3	354.3	355.3	359.2	363.2	365.1	366.6	370.0	374.0	374.0	372.0
132.5°	388.7	386.7	385.7	393.5	396.5	397.5	399.3	403.4	408.3	406.3	406.3
135°	421.0	418.1	418.1	424.0	427.0	428.9	430.6	434.8	439.7	438.7	441.7
137.5°	451.5	448.5	450.5	451.5	455.4	459.3	460.8	464.2	466.2	467.2	472.1
140°	479.0	476.0	478.0	480.0	481.9	487.8	488.7	490.7	492.7	494.7	499.5
142.5°	508.4	505.5	507.5	508.4	511.3	515.3	515.9	517.2	523.2	523.2	524.1
145°	539.8	535.9	534.0	536.8	539.8	540.8	542.3	545.7	551.6	550.6	547.7
147.5°	564.3	561.4	560.5	563.3	563.3	564.3	565.8	569.3	574.2	575.2	572.2
150°	584.0	581.0	582.0	582.0	582.0	582.0	583.2	586.0	588.9	591.8	594.8
152.5°	599.7	596.7	596.7	597.7	598.7	598.7	599.0	599.7	602.7	606.5	611.5
155°	617.3	613.5	613.5	615.4	618.3	616.3	615.8	614.4	619.3	624.2	626.2
157.5°	634.0	631.1	631.1	632.0	634.0	633.0	632.8	632.0	636.0	638.0	638.0
160°	650.7	647.8	646.8	643.8	642.8	642.8	643.7	645.8	651.7	648.8	647.8
162.5°	660.5	656.6	656.6	652.7	648.8	650.7	651.9	654.7	658.5	657.6	655.7
165°	668.4	665.5	663.5	663.5	660.5	660.5	660.3	659.5	664.5	667.4	665.5
167.5°	677.2	674.3	671.3	673.3	675.3	672.3	670.2	665.5	671.3	675.3	675.3
170°	685.0	682.2	679.2	679.2	680.2	678.2	676.7	673.3	676.2	681.2	683.1
172.5°	686.0	684.1	682.2	680.2	677.2	677.2	677.0	676.2	679.2	681.2	683.1
175°	687.0	685.0	684.1	682.2	678.2	677.2	677.2	677.2	682.2	683.1	681.2
177.5°	693.9	692.0	687.0	686.0	684.1	682.2	681.8	681.2	686.0	688.0	685.0
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1
2.5°	767.6	762.4	755.5	752.0	750.3	746.9	743.3	741.6	741.6	738.0	738.9
5°	743.3	735.4	725.9	718.9	718.0	718.0	719.8	719.8	720.7	718.0	721.6
7.5°	731.1	722.5	708.5	700.7	694.6	693.7	697.3	704.2	707.7	705.0	708.5
10°	722.5	712.9	697.3	687.7	683.3	681.5	684.1	691.2	702.5	702.5	705.9
12.5°	713.7	701.6	685.9	679.0	675.4	676.3	679.8	685.0	697.3	701.6	703.4
15°	705.0	691.2	678.1	668.5	668.5	671.1	675.4	681.5	692.9	700.7	702.5
17.5°	696.4	682.4	671.1	663.3	663.3	666.8	671.1	679.0	686.8	698.2	698.2
20°	688.6	677.2	662.4	655.5	654.7	657.2	662.4	670.2	676.3	687.7	688.6
22.5°	684.1	670.2	656.3	645.9	641.6	639.9	645.1	652.9	659.0	670.2	672.0
25°	682.4	666.8	649.5	630.3	619.0	615.5	618.1	627.6	632.9	641.6	644.2
27.5°	688.6	673.8	646.8	612.0	588.6	579.0	581.7	587.7	589.4	599.0	603.3
30°	709.4	692.1	652.0	592.9	550.3	533.0	533.0	533.8	536.4	544.2	545.1
32.5°	743.3	726.8	667.7	572.8	511.1	486.8	480.8	476.4	476.4	475.6	476.4
35°	805.9	791.9	694.6	550.3	468.6	441.7	426.9	419.0	411.2	407.7	406.8
37.5°	896.3	884.1	732.8	524.3	431.2	404.2	386.0	370.3	361.7	360.8	365.1
40°	1031.1	1018.9	775.5	494.7	395.5	375.5	356.4	339.9	330.4	331.3	335.6
42.5°	1197.1	1159.7	821.5	454.6	366.9	356.4	335.6	321.6	312.1	307.0	306.1
45°	1390.9	1328.3	865.0	417.4	335.6	339.9	320.0	304.3	292.1	278.1	276.5
47.5°	1632.6	1497.0	903.2	379.9	301.7	322.5	303.4	288.6	270.4	253.8	251.3
50°	1884.7	1690.9	936.3	339.9	271.3	303.4	286.9	266.9	241.6	226.9	226.9
52.5°	2176.0	1923.9	979.0	295.6	247.8	282.6	266.0	239.9	219.1	217.3	217.3
55°	2500.3	2168.1	1008.4	260.8	229.4	259.9	252.2	244.2	237.3	239.1	239.9
57.5°	2839.4	2422.9	982.4	236.4	214.8	254.7	277.4	266.9	245.1	244.2	243.4
60°	3131.4	2621.1	838.1	220.8	203.5	263.5	297.2	266.9	245.1	256.5	257.4
62.5°	3322.7	2714.9	558.2	200.8	186.8	248.7	290.3	259.1	246.0	278.1	280.8
65°	3296.6	2609.8	320.8	186.8	176.4	228.7	280.8	249.5	229.4	247.8	242.5
67.5°	2907.9	2187.2	232.1	180.8	168.6	214.8	263.5	235.5	213.9	236.4	226.9
70°	2089.9	1489.2	200.0	175.6	163.4	198.3	251.3	226.9	205.2	220.8	206.0
72°	1402.3	905.9	183.4	171.3	158.2	187.7	242.5	219.9	197.4	206.0	189.5
72.5°	1193.6	714.6	179.1	169.5	156.5	185.2	239.9	218.2	195.7	204.4	188.6
75°	446.0	279.9	159.1	156.5	144.3	172.1	229.4	210.5	186.8	184.3	177.3
77.5°	229.4	177.3	135.6	138.2	129.5	157.3	218.2	198.3	172.1	162.5	159.1
80°	166.9	128.6	109.5	117.4	110.4	141.8	202.6	179.9	156.5	146.1	141.8
82.5°	105.2	79.9	83.5	93.1	94.0	125.1	184.3	161.7	139.1	130.4	123.4
85°	50.5	47.8	59.1	68.7	75.6	106.1	168.6	143.4	121.7	104.3	105.2
87.5°	26.9	36.5	35.7	46.0	58.2	87.0	149.5	117.4	97.4	78.2	79.1
90°	12.9	16.3	19.2	27.1	30.4	44.3	104.3	74.8	72.0	32.7	29.3
92.5°	5.9	5.9	5.9	6.8	6.8	5.9	5.9	5.9	4.9	4.0	4.0
95°	6.8	6.8	6.8	7.8	6.8	6.8	6.8	6.8	5.9	4.9	4.9
97.5°	7.8	7.8	8.8	9.8	11.8	8.8	8.8	7.8	7.8	6.8	6.8
100°	18.7	18.7	22.5	25.5	28.5	20.6	11.8	9.8	8.8	7.8	7.8
102.5°	37.3	38.3	41.2	46.2	49.0	39.3	26.5	17.7	12.8	10.8	10.8
105°	59.8	59.8	63.8	68.7	70.7	61.8	47.1	35.3	26.5	21.6	20.6
107.5°	84.4	85.4	88.3	92.3	93.2	86.3	71.7	57.0	48.1	41.2	40.2



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	114.8	113.8	116.8	118.8	117.8	111.9	100.1	85.4	72.7	66.7	64.8
112.5°	144.3	144.3	146.2	147.2	145.3	140.3	131.5	118.8	104.0	97.2	97.2
115°	174.7	173.7	175.7	178.7	175.7	170.8	164.9	156.0	144.3	136.5	137.4
117.5°	205.2	204.2	206.1	211.0	207.1	201.2	198.3	193.3	185.5	180.6	180.6
120°	238.5	238.5	240.5	245.3	241.5	238.5	232.6	228.7	221.8	218.8	220.8
122.5°	271.8	270.9	272.8	277.8	273.8	271.8	266.0	262.0	256.2	255.2	258.2
125°	304.3	304.3	304.3	309.2	307.2	304.3	299.3	293.5	290.5	288.5	292.5
127.5°	340.5	338.6	339.6	339.6	338.6	333.7	332.7	326.8	322.9	322.9	323.9
130°	373.0	372.0	374.0	374.0	370.0	365.1	363.2	359.2	355.3	354.3	356.3
132.5°	407.3	406.3	406.3	408.3	403.4	397.5	396.5	393.5	385.7	386.7	388.7
135°	442.7	441.7	438.7	439.7	434.8	428.9	427.0	424.0	418.1	418.1	421.0
137.5°	473.0	472.1	467.2	466.2	464.2	459.3	455.4	451.5	450.5	448.5	451.5
140°	501.5	499.5	494.7	492.7	490.7	487.8	481.9	480.0	478.0	476.0	479.0
142.5°	526.0	524.1	523.2	523.2	517.2	515.3	511.3	508.4	507.5	505.5	508.4
145°	549.7	547.7	550.6	551.6	545.7	540.8	539.8	536.8	534.0	535.9	539.8
147.5°	574.2	572.2	575.2	574.2	569.3	564.3	563.3	563.3	560.5	561.4	564.3
150°	598.7	594.8	591.8	588.9	586.0	582.0	582.0	582.0	582.0	581.0	584.0
152.5°	616.3	611.5	606.5	602.7	599.7	598.7	598.7	597.7	596.7	596.7	599.7
155°	629.2	626.2	624.2	619.3	614.4	616.3	618.3	615.4	613.5	613.5	617.3
157.5°	642.8	638.0	638.0	636.0	632.0	633.0	634.0	632.0	631.1	631.1	634.0
160°	653.7	647.8	648.8	651.7	645.8	642.8	642.8	643.8	646.8	647.8	650.7
162.5°	661.5	655.7	657.6	658.5	654.7	650.7	648.8	652.7	656.6	656.6	660.5
165°	669.3	665.5	667.4	664.5	659.5	660.5	660.5	663.5	663.5	665.5	668.4
167.5°	681.2	675.3	675.3	671.3	665.5	672.3	675.3	673.3	671.3	674.3	677.2
170°	688.0	683.1	681.2	676.2	673.3	678.2	680.2	679.2	679.2	682.2	685.0
172.5°	688.0	683.1	681.2	679.2	676.2	677.2	677.2	680.2	682.2	684.1	686.0
175°	686.0	681.2	683.1	682.2	677.2	677.2	678.2	682.2	684.1	685.0	687.0
177.5°	689.0	685.0	688.0	686.0	681.2	682.2	684.1	686.0	687.0	692.0	693.9
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0

(END OF REPORT)