

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: P227813

Luminaire Tested: **ISS-AF-1200-LED-E1-T4FT-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227813
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-1200-LED-E1-T4FT-7050-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, WITH UPLIGHT GLOW
Light Source: (16) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7935.2 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Short - 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

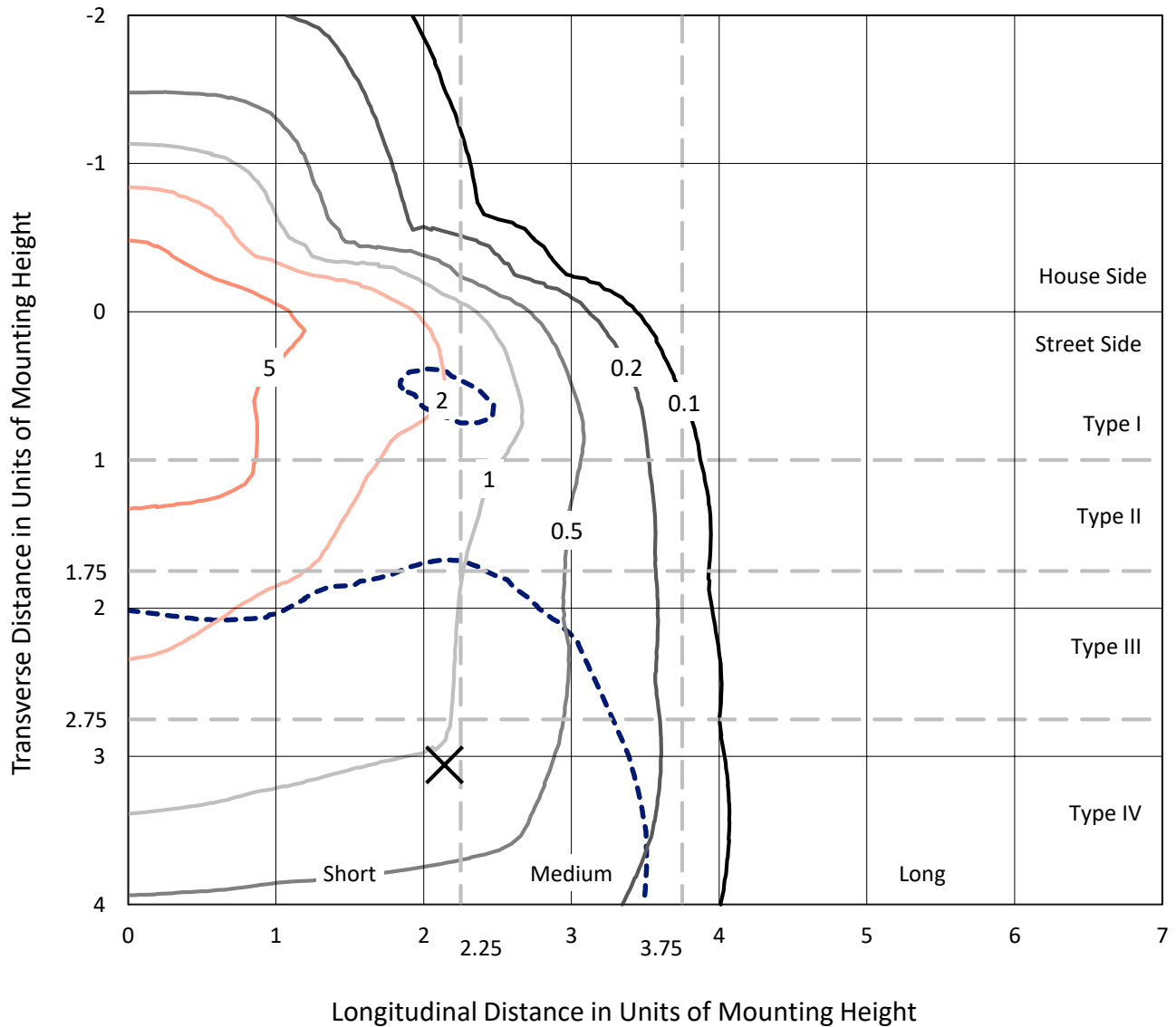


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

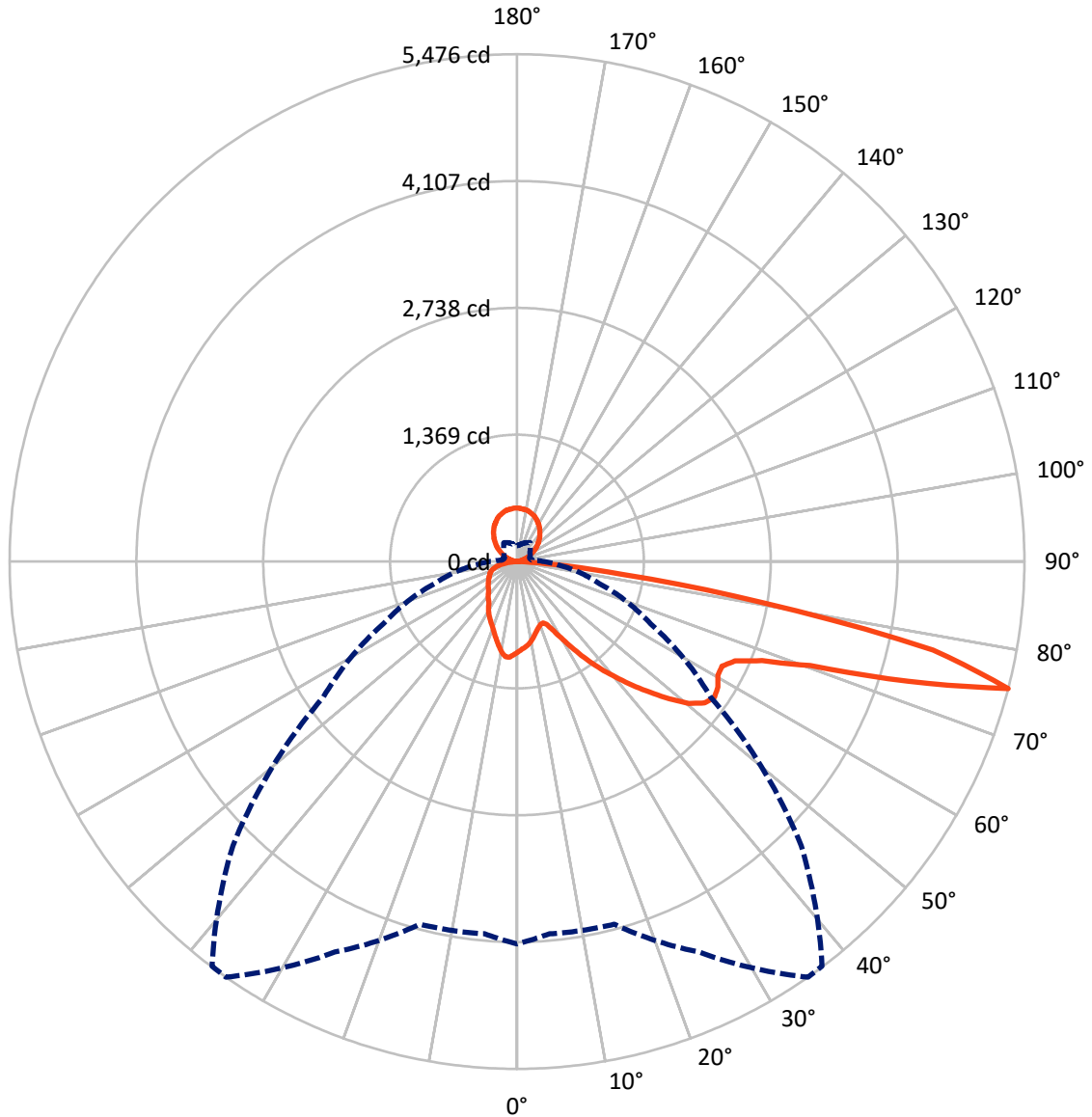


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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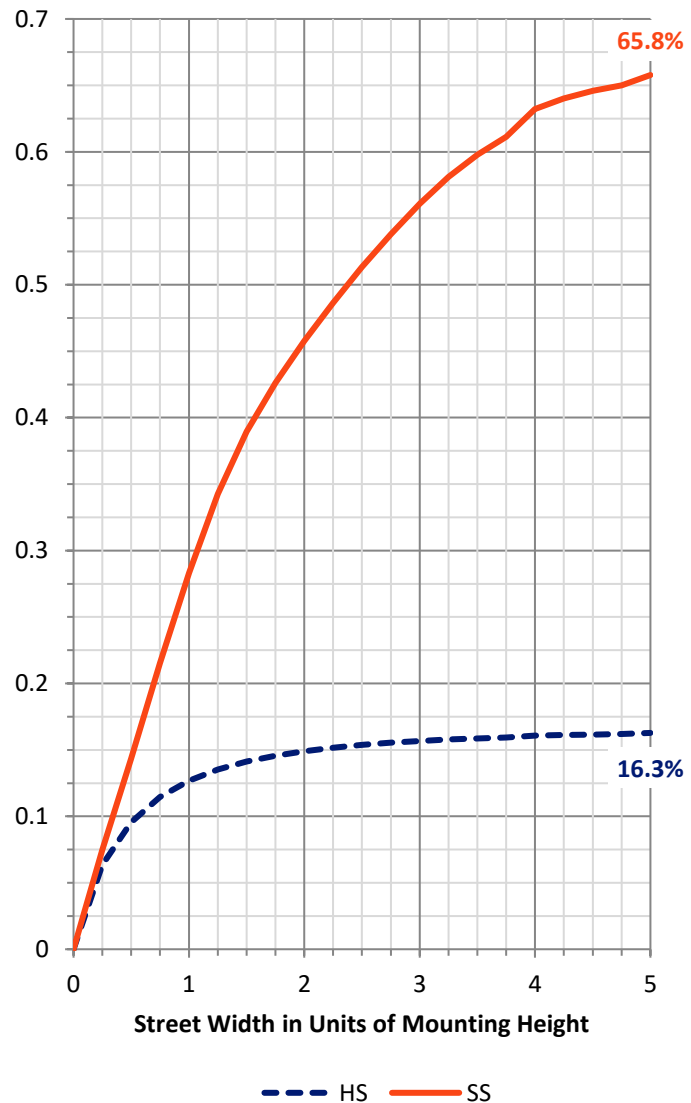
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1306.4	713.1	2019.5
	% Fixture	16.5	9.0	25.4
Street Side	Lumens	5202.6	713.1	5915.7
	% Fixture	65.6	9.0	74.6
Total	Lumens	6509.0	1426.2	7935.2
	% Fixture	82.0	18.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	1.2
10°-20°	242.2	3.1
20°-30°	383.2	4.8
30°-40°	618.5	7.8
40°-50°	915.1	11.5
50°-60°	1176.6	14.8
60°-70°	1456.8	18.4
70°-80°	1468.1	18.5
80°-90°	156.7	2.0
90°-100°	4.7	0.1
100°-110°	69.0	0.9
110°-120°	153.0	1.9
120°-130°	223.9	2.8
130°-140°	265.6	3.3
140°-150°	269.3	3.4
150°-160°	231.1	2.9
160°-170°	155.1	2.0
170°-180°	54.3	0.7
0°-90°	6509.0	82.0
0°-180°	7935.2	100.0



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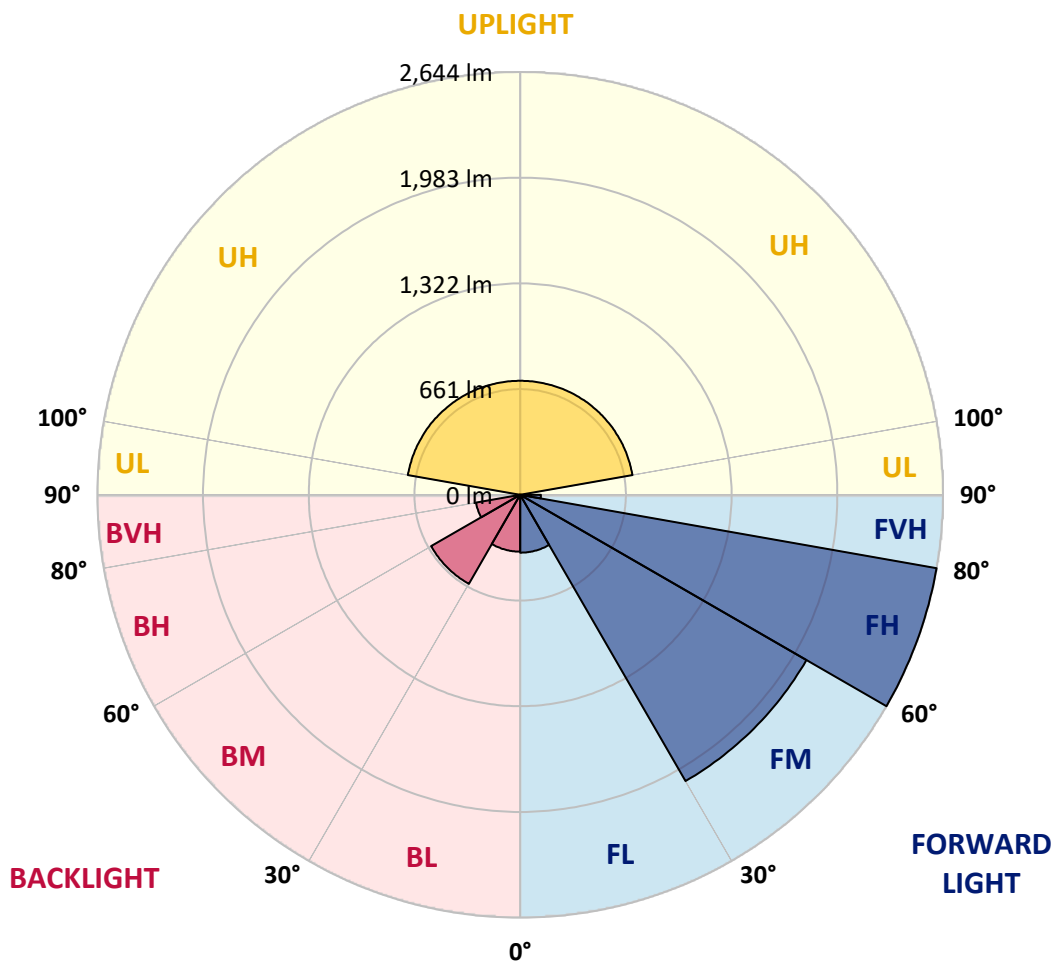
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	361.9	4.6			
FM	(30°-60°)	2066.9	26.0			
FH	(60°-80°)	2644.2	33.3			G2/5000
FVH	(80°-90°)	129.6	1.6			G2/225
BL	(0°-30°)	355.3	4.5	B1/500		
BM	(30°-60°)	643.3	8.1	B1/1000		
BH	(60°-80°)	280.7	3.5	B1/500		G1/500
BVH	(80°-90°)	27.1	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	9.0		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8
2.5°	949.6	947.4	945.2	945.2	949.6	949.6	951.7	953.9	956.1	962.6	971.3
5°	923.5	921.3	919.1	921.3	927.8	927.8	934.4	938.7	943.0	953.9	964.8
7.5°	888.7	888.7	886.6	895.2	901.8	899.6	908.3	912.6	923.5	934.4	951.7
10°	843.1	843.1	843.1	854.0	864.8	864.8	871.3	882.2	890.9	906.1	927.8
12.5°	804.0	801.8	801.8	810.5	823.5	825.7	836.6	851.8	862.7	882.2	906.1
15°	790.9	786.6	775.7	775.7	782.3	782.3	799.6	821.4	838.7	858.3	886.6
17.5°	793.1	786.6	758.4	749.7	749.7	751.8	769.2	793.1	814.8	838.7	875.7
20°	812.7	801.8	749.7	730.1	725.8	727.9	743.1	767.0	793.1	825.7	867.0
22.5°	897.4	880.0	782.3	738.8	719.2	719.2	727.9	754.0	786.6	830.1	882.2
25°	1093.0	1064.7	890.9	812.7	754.0	747.5	732.3	758.4	797.5	849.6	925.7
27.5°	1292.9	1264.6	1025.6	940.9	849.6	830.1	773.6	780.1	823.5	893.1	990.9
30°	1460.2	1436.3	1195.1	1097.3	975.6	953.9	867.0	825.7	869.2	953.9	1088.6
32.5°	1473.2	1462.4	1377.6	1277.7	1129.9	1099.5	984.3	919.1	940.9	1036.5	1195.1
35°	1594.9	1586.2	1540.6	1445.0	1297.2	1262.5	1140.8	1040.8	1034.3	1127.7	1316.8
37.5°	1714.4	1703.6	1673.2	1608.0	1471.1	1442.8	1347.2	1186.4	1140.8	1234.2	1436.3
40°	1827.4	1812.2	1773.1	1736.2	1636.2	1636.2	1534.1	1325.5	1242.9	1327.7	1536.3
42.5°	2036.0	1988.2	1883.9	1855.7	1827.4	1827.4	1677.5	1421.1	1325.5	1429.8	1631.9
45°	2235.9	2190.3	2049.1	1992.6	2007.8	1999.1	1792.7	1475.4	1399.4	1525.4	1723.1
47.5°	2394.6	2353.3	2209.9	2170.8	2214.2	2179.4	1888.3	1518.9	1492.8	1627.5	1799.2
50°	2535.8	2438.0	2299.0	2351.1	2405.4	2346.8	1973.0	1584.1	1586.2	1736.2	1910.0
52.5°	2342.4	2331.5	2362.0	2483.7	2535.8	2470.6	2049.1	1666.6	1686.2	1875.2	2036.0
55°	2109.9	2107.7	2285.9	2522.8	2585.8	2524.9	2099.0	1766.6	1790.5	2046.9	2194.7
57.5°	2064.3	2042.5	2164.2	2440.2	2555.4	2511.9	2125.1	1860.0	1890.4	2264.2	2351.1
60°	2212.0	2170.8	2151.2	2351.1	2490.2	2468.4	2157.7	1970.8	2012.1	2511.9	2496.7
62.5°	2533.6	2477.1	2338.1	2357.6	2483.7	2466.3	2235.9	2101.2	2149.0	2759.6	2579.3
65°	2959.5	2918.2	2696.6	2538.0	2585.8	2561.9	2377.2	2266.4	2292.4	2937.8	2485.8
67.5°	3426.7	3370.2	3129.0	2911.7	2850.9	2805.2	2601.0	2461.9	2368.5	2911.7	2235.9
70°	3954.7	3893.9	3685.3	3461.5	3357.2	3307.2	2992.1	2631.4	2340.2	2624.9	1764.4
72.5°	4604.4	4521.9	4406.7	4430.6	4413.2	4274.1	3615.7	2687.9	2133.8	1953.5	1053.9
75°	4126.4	4032.9	4052.5	4650.1	5475.8	5469.3	4337.2	2548.8	1590.6	921.3	456.3
77.5°	1479.8	1636.2	2414.1	3483.2	4591.4	4584.9	3357.2	1594.9	682.3	393.3	276.0
80°	371.6	378.1	599.7	1429.8	2681.4	2659.7	1903.5	601.9	284.7	239.0	189.0
82.5°	119.5	128.2	219.5	493.3	1147.3	1121.2	591.0	197.7	178.2	154.3	115.2
85°	39.1	39.1	78.2	169.5	378.1	362.9	119.5	71.7	97.8	80.4	52.2
87.5°	0.0	0.0	2.2	4.3	8.7	4.3	0.0	4.3	13.0	15.2	10.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.0	4.0	5.0	9.0	13.0	7.0	5.0	4.0
100°	8.0	8.0	10.0	14.0	22.0	23.6	30.0	32.0	30.0	27.0	26.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.0	50.0	51.0	50.0	48.0	49.0
105°	54.0	54.0	56.0	61.0	66.0	66.8	70.0	71.0	71.0	69.0	71.0
107.5°	78.0	77.0	80.0	84.0	88.0	88.6	91.0	93.0	92.0	91.0	92.0
110°	101.0	102.0	103.0	106.0	110.0	110.4	112.0	114.0	114.0	113.0	114.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	124.0	124.0	126.0	129.0	132.0	132.4	134.0	136.0	136.0	135.0	137.0
115°	146.0	147.0	149.0	151.0	154.0	154.4	156.0	158.0	158.0	158.0	160.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.4	179.0	180.0	181.0	180.0	182.0
120°	193.0	195.0	196.0	198.0	201.0	201.2	202.0	204.0	204.0	204.0	206.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	227.0	228.0	228.0	229.0	233.0
125°	244.0	246.0	247.0	248.0	251.0	251.2	252.0	253.0	254.0	254.0	257.0
127.5°	267.0	269.0	270.0	272.0	274.0	274.4	276.0	278.0	277.0	278.0	281.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	299.0	301.0	301.0	302.0	305.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	322.0	325.0	325.0	326.0	329.0
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	348.0	348.0	349.0	351.0
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	369.0	369.0	370.0	374.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	389.0	390.0	390.0	392.0	396.0
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	412.0	412.0	413.0	416.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	432.0	434.0	433.0	434.0	437.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	453.0	454.0	452.0	453.0	456.0
150°	461.0	462.0	464.0	465.0	469.0	469.2	470.0	471.0	469.0	469.0	473.0
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	486.0	487.0	486.0	486.0	489.0
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	504.0	503.0	504.0	507.0
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	517.0	518.0	523.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	530.0	530.0	533.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	542.0	540.0	538.0	540.0
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	553.0	550.0	548.0	550.0
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.0	560.0	558.0	559.0	563.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.0	565.0	564.0	566.0	571.0
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.0	569.0	567.0	568.0	571.0
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	573.0	570.0	568.0	571.0
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.0	577.0	574.0	574.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8	977.8
2.5°	977.8	975.6	984.3	990.9	993.0	999.5	1006.1	1010.4	1008.2	1006.1	1006.1
5°	975.6	977.8	993.0	1006.1	1016.9	1027.8	1036.5	1040.8	1038.7	1038.7	1038.7
7.5°	962.6	971.3	988.7	1010.4	1025.6	1032.1	1034.3	1027.8	1023.4	1016.9	1016.9
10°	940.9	953.9	982.2	1006.1	1012.6	1003.9	990.9	977.8	960.4	949.6	949.6
12.5°	923.5	938.7	973.5	993.0	984.3	962.6	934.4	912.6	895.2	882.2	880.0
15°	908.3	927.8	964.8	969.1	949.6	912.6	875.7	851.8	832.2	823.5	823.5
17.5°	897.4	923.5	956.1	943.0	903.9	856.1	821.4	801.8	786.6	777.9	775.7
20°	899.6	932.2	947.4	910.5	854.0	804.0	771.4	760.5	749.7	745.3	745.3
22.5°	923.5	953.9	945.2	882.2	808.3	751.8	730.1	727.9	723.6	719.2	717.1
25°	975.6	997.4	951.7	854.0	760.5	704.0	693.2	699.7	697.5	693.2	693.2
27.5°	1047.3	1051.7	962.6	825.7	708.4	658.4	658.4	669.3	664.9	658.4	662.7
30°	1134.3	1110.4	967.0	780.1	647.5	614.9	621.5	628.0	623.6	614.9	614.9
32.5°	1227.7	1171.2	967.0	721.4	588.9	575.8	578.0	580.2	571.5	560.6	560.6
35°	1319.0	1229.9	956.1	651.9	543.2	536.7	534.5	543.2	536.7	521.5	521.5
37.5°	1405.9	1275.5	927.8	580.2	508.5	506.3	512.8	508.5	499.8	478.0	473.7
40°	1466.7	1305.9	871.3	521.5	480.2	493.3	488.9	465.0	452.0	436.8	436.8
42.5°	1521.0	1321.1	801.8	475.9	460.7	478.0	460.7	430.2	412.9	410.7	412.9
45°	1571.0	1334.2	734.4	438.9	436.8	460.7	438.9	406.3	386.8	386.8	389.0
47.5°	1618.8	1347.2	667.1	404.2	408.5	434.6	421.5	389.0	369.4	356.4	356.4
50°	1694.9	1377.6	569.3	367.2	375.9	412.9	408.5	371.6	349.8	330.3	325.9
52.5°	1786.1	1429.8	462.8	328.1	352.0	393.3	393.3	356.4	332.5	306.4	302.0
55°	1907.8	1486.3	371.6	299.9	328.1	371.6	378.1	349.8	315.1	291.2	286.8
57.5°	2029.5	1505.8	299.9	271.6	297.7	349.8	367.2	336.8	295.5	278.1	276.0
60°	2114.3	1442.8	252.1	247.7	276.0	323.8	352.0	321.6	282.5	265.1	265.1
62.5°	2101.2	1251.6	226.0	232.5	258.6	304.2	339.0	308.6	273.8	262.9	260.8
65°	1916.5	945.2	204.3	219.5	243.4	284.7	325.9	302.0	269.4	258.6	254.2
67.5°	1614.5	628.0	189.0	206.4	228.2	269.4	315.1	293.3	256.4	249.9	245.5
70°	1169.0	367.2	173.8	193.4	212.9	252.1	299.9	276.0	241.2	236.8	226.0
72.5°	632.3	230.3	156.5	176.0	193.4	230.3	276.0	254.2	221.6	204.3	197.7
75°	289.0	167.3	139.1	156.5	169.5	202.1	247.7	223.8	197.7	176.0	171.7
77.5°	193.4	126.0	117.3	134.7	141.2	169.5	219.5	178.2	154.3	139.1	134.7
80°	132.5	93.4	95.6	110.8	108.6	134.7	165.1	143.4	121.7	126.0	115.2
82.5°	84.7	65.2	73.9	78.2	76.1	102.1	128.2	108.6	91.3	76.1	65.2
85°	36.9	34.8	43.5	45.6	45.6	56.5	67.4	54.3	41.3	30.4	30.4
87.5°	2.2	4.3	4.3	6.5	4.3	2.2	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.0	4.0	5.0	7.0	13.0	9.0	4.0	3.0	2.0	2.0	2.0
100°	25.0	26.0	27.0	30.0	32.0	30.0	22.0	14.0	10.0	8.0	8.0
102.5°	48.0	49.0	48.0	50.0	51.0	50.0	45.0	38.0	32.0	28.0	28.0
105°	69.0	71.0	69.0	71.0	71.0	70.0	66.0	61.0	56.0	54.0	54.0
107.5°	91.0	92.0	91.0	92.0	93.0	91.0	88.0	84.0	80.0	77.0	78.0
110°	113.0	114.0	113.0	114.0	114.0	112.0	110.0	106.0	103.0	102.0	101.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	135.0	137.0	135.0	136.0	136.0	134.0	132.0	129.0	126.0	124.0	124.0
115°	159.0	160.0	158.0	158.0	158.0	156.0	154.0	151.0	149.0	147.0	146.0
117.5°	180.0	182.0	180.0	181.0	180.0	179.0	177.0	174.0	172.0	170.0	169.0
120°	204.0	206.0	204.0	204.0	204.0	202.0	201.0	198.0	196.0	195.0	193.0
122.5°	232.0	233.0	229.0	228.0	228.0	227.0	226.0	223.0	221.0	220.0	219.0
125°	256.0	257.0	254.0	254.0	253.0	252.0	251.0	248.0	247.0	246.0	244.0
127.5°	278.0	281.0	278.0	277.0	278.0	276.0	274.0	272.0	270.0	269.0	267.0
130°	303.0	305.0	302.0	301.0	301.0	299.0	298.0	294.0	293.0	292.0	290.0
132.5°	327.0	329.0	326.0	325.0	325.0	322.0	321.0	318.0	317.0	314.0	313.0
135°	350.0	351.0	349.0	348.0	348.0	345.0	345.0	341.0	339.0	337.0	336.0
137.5°	372.0	374.0	370.0	369.0	369.0	367.0	367.0	364.0	363.0	360.0	359.0
140°	394.0	396.0	392.0	390.0	390.0	389.0	388.0	386.0	385.0	383.0	382.0
142.5°	415.0	416.0	413.0	412.0	412.0	410.0	410.0	407.0	408.0	406.0	404.0
145°	435.0	437.0	434.0	433.0	434.0	432.0	431.0	428.0	428.0	426.0	425.0
147.5°	453.0	456.0	453.0	452.0	454.0	453.0	452.0	448.0	447.0	444.0	444.0
150°	470.0	473.0	469.0	469.0	471.0	470.0	469.0	465.0	464.0	462.0	461.0
152.5°	486.0	489.0	486.0	486.0	487.0	486.0	485.0	482.0	483.0	480.0	479.0
155°	505.0	507.0	504.0	503.0	504.0	503.0	503.0	501.0	502.0	500.0	499.0
157.5°	520.0	523.0	518.0	517.0	519.0	519.0	519.0	516.0	517.0	515.0	513.0
160°	531.0	533.0	530.0	530.0	532.0	532.0	532.0	529.0	529.0	527.0	525.0
162.5°	537.0	540.0	538.0	540.0	542.0	541.0	541.0	538.0	539.0	536.0	535.0
165°	548.0	550.0	548.0	550.0	553.0	552.0	552.0	548.0	549.0	547.0	546.0
167.5°	561.0	563.0	559.0	558.0	560.0	560.0	561.0	558.0	559.0	556.0	555.0
170°	569.0	571.0	566.0	564.0	565.0	566.0	567.0	565.0	566.0	563.0	562.0
172.5°	568.0	571.0	568.0	567.0	569.0	568.0	569.0	567.0	569.0	566.0	565.0
175°	568.0	571.0	568.0	570.0	573.0	572.0	572.0	569.0	570.0	569.0	567.0
177.5°	574.0	577.0	574.0	574.0	577.0	577.0	578.0	574.0	575.0	573.0	572.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0

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