

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: P227814

Luminaire Tested: **ISS-AF-1200-LED-E1-T4FT-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227814
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-7030-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) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7188.2 lumens
Efficiency: N/A
Efficacy: 86.9 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

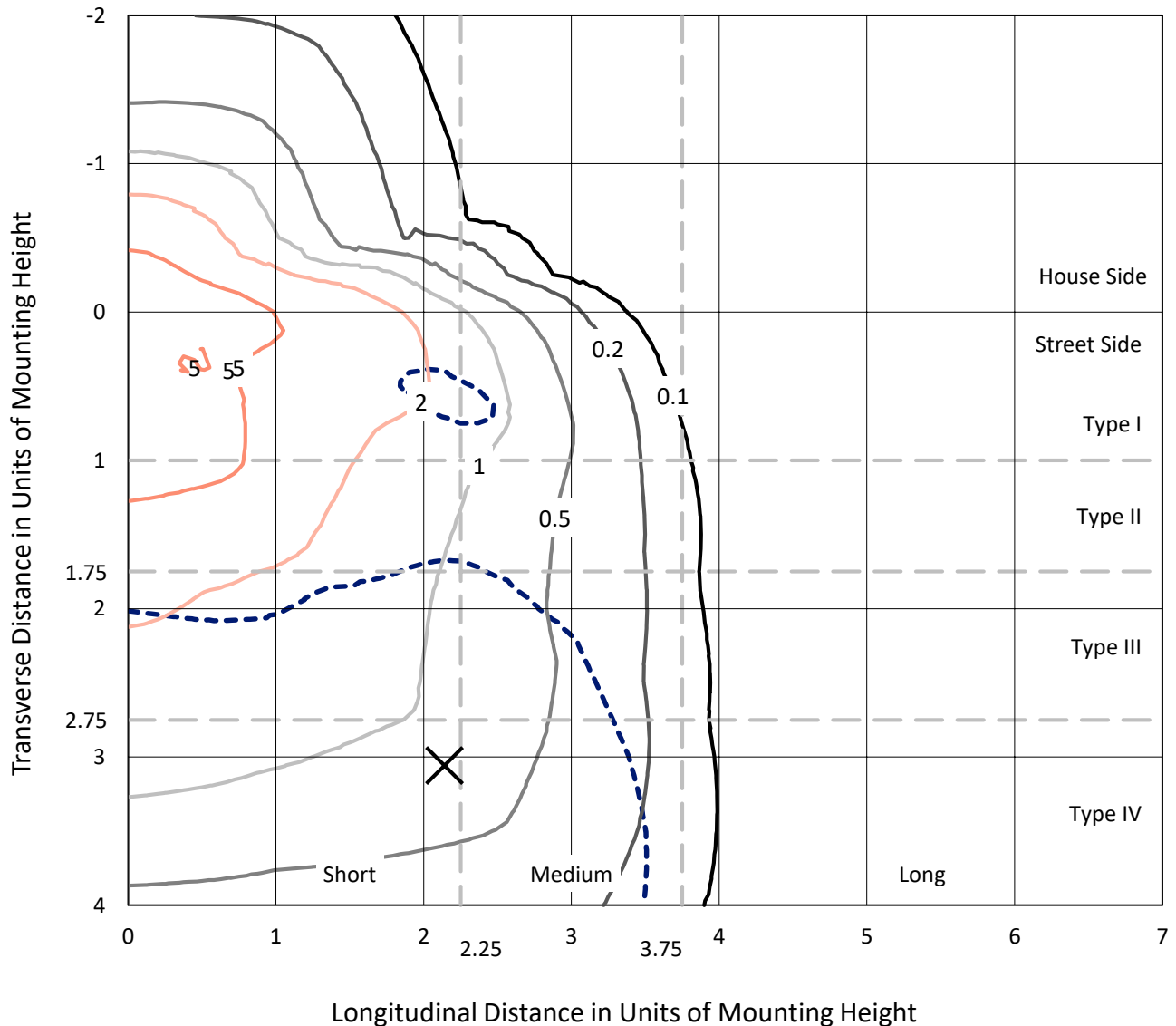


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

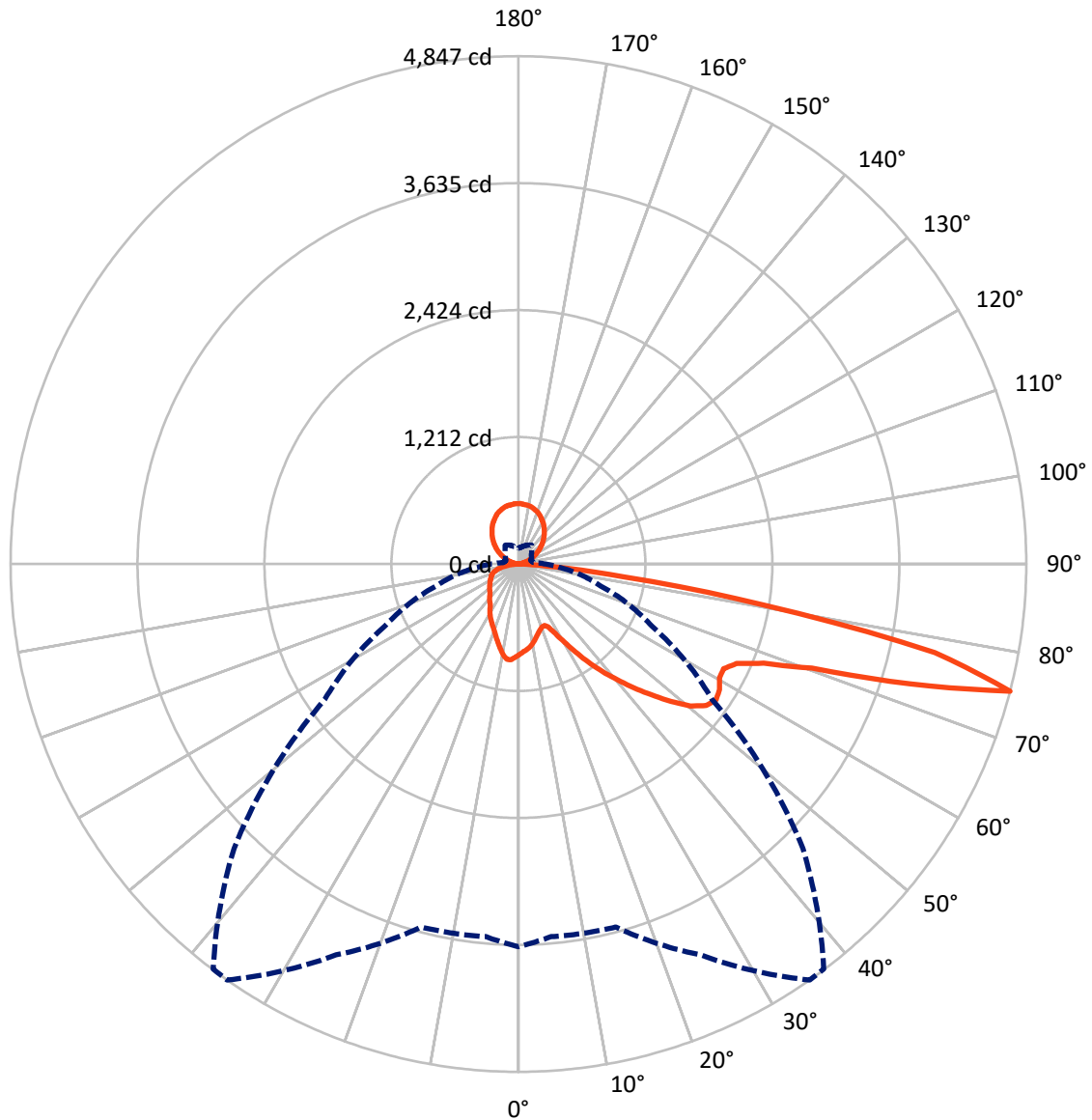


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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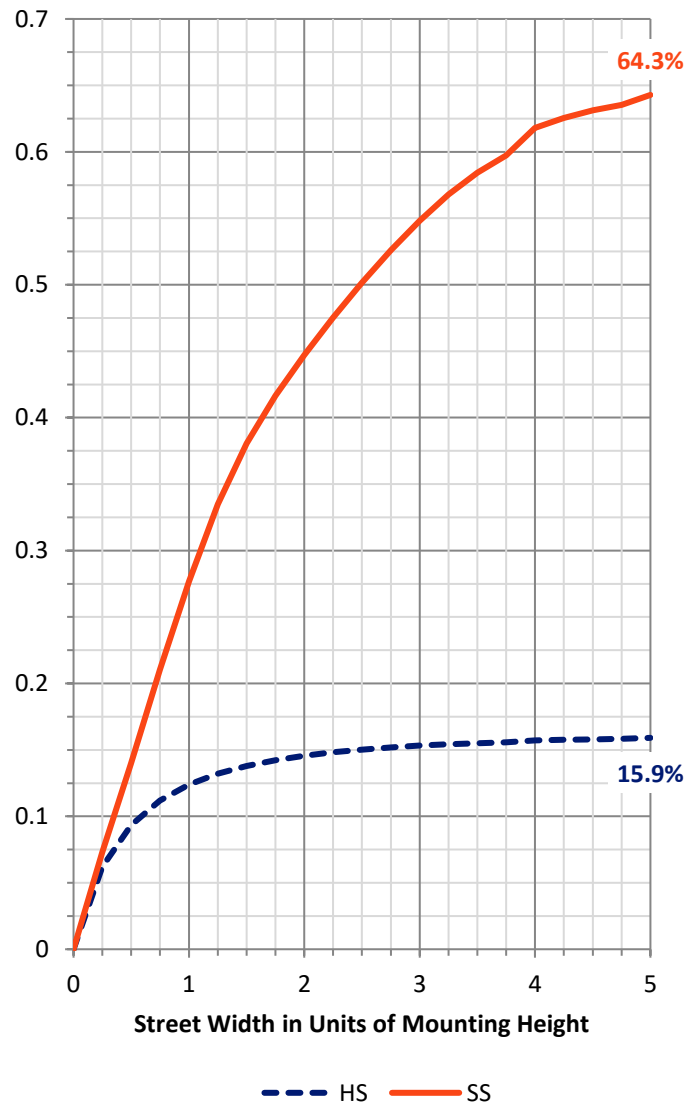
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1156.5	713.1	1869.5
	% Fixture	16.1	9.9	26.0
Street Side	Lumens	4605.5	713.1	5318.6
	% Fixture	64.1	9.9	74.0
Total	Lumens	5762.0	1426.2	7188.2
	% Fixture	80.2	19.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	1.1
10°-20°	214.4	3.0
20°-30°	339.2	4.7
30°-40°	547.5	7.6
40°-50°	810.1	11.3
50°-60°	1041.6	14.5
60°-70°	1289.6	17.9
70°-80°	1299.6	18.1
80°-90°	138.7	1.9
90°-100°	4.7	0.1
100°-110°	69.0	1.0
110°-120°	153.0	2.1
120°-130°	223.9	3.1
130°-140°	265.6	3.7
140°-150°	269.3	3.7
150°-160°	231.1	3.2
160°-170°	155.1	2.2
170°-180°	54.3	0.8
0°-90°	5762.0	80.2
0°-180°	7188.2	100.0



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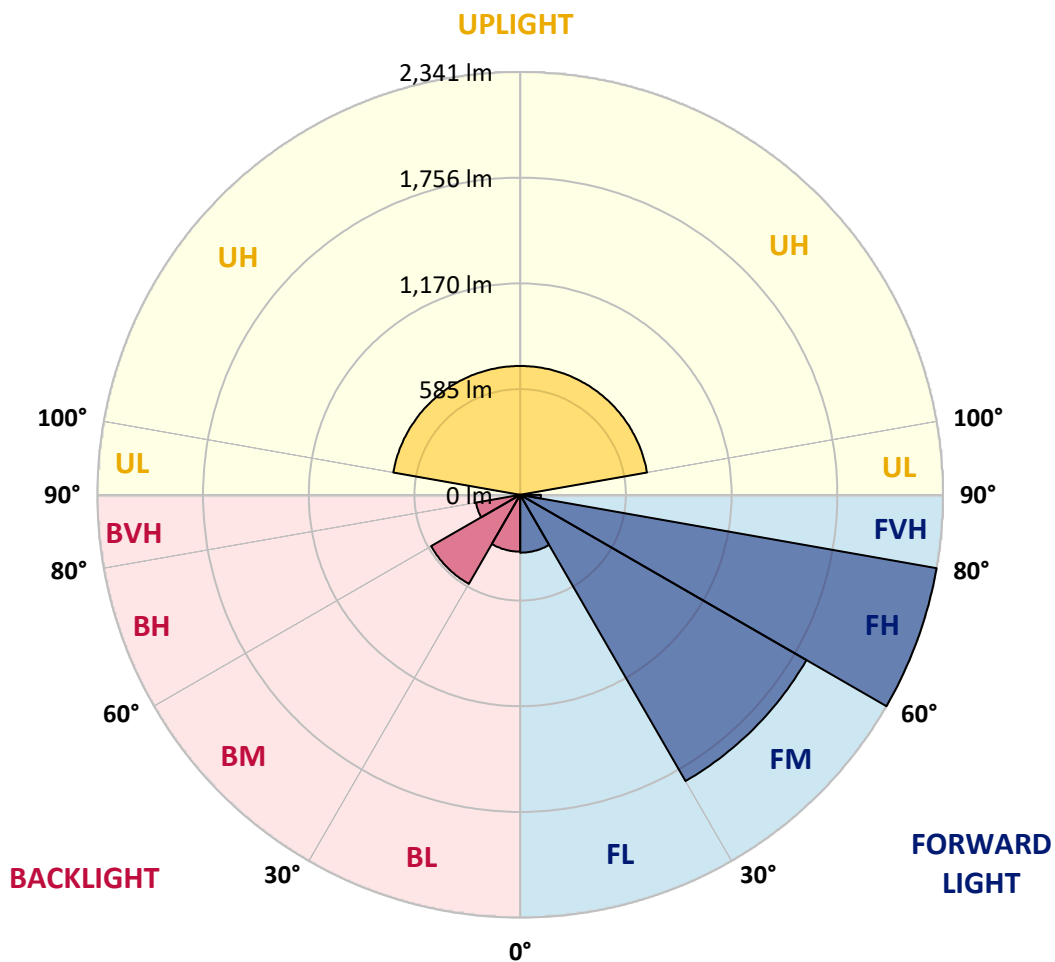
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	320.4	4.5			
FM	(30°-60°)	1829.7	25.5			
FH	(60°-80°)	2340.7	32.6			G2/5000
FVH	(80°-90°)	114.7	1.6			G2/225
BL	(0°-30°)	314.5	4.4	B1/500		
BM	(30°-60°)	569.5	7.9	B1/1000		
BH	(60°-80°)	248.4	3.5	B1/500		G1/500
BVH	(80°-90°)	24.0	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	9.9		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°	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6
2.5°	840.6	838.7	836.7	836.7	840.6	840.6	842.5	844.4	846.4	852.1	859.8
5°	817.5	815.6	813.7	815.6	821.4	821.4	827.1	831.0	834.8	844.4	854.1
7.5°	786.7	786.7	784.8	792.5	798.3	796.4	804.0	807.9	817.5	827.1	842.5
10°	746.3	746.3	746.3	756.0	765.6	765.6	771.3	781.0	788.7	802.1	821.4
12.5°	711.7	709.8	709.8	717.5	729.0	730.9	740.6	754.0	763.6	781.0	802.1
15°	700.2	696.3	686.7	686.7	692.5	692.5	707.9	727.1	742.5	759.8	784.8
17.5°	702.1	696.3	671.3	663.6	663.6	665.5	680.9	702.1	721.3	742.5	775.2
20°	719.4	709.8	663.6	646.3	642.5	644.4	657.9	679.0	702.1	730.9	767.5
22.5°	794.4	779.0	692.5	654.0	636.7	636.7	644.4	667.5	696.3	734.8	781.0
25°	967.5	942.5	788.7	719.4	667.5	661.7	648.2	671.3	705.9	752.1	819.4
27.5°	1144.5	1119.5	907.9	832.9	752.1	734.8	684.8	690.6	729.0	790.6	877.1
30°	1292.6	1271.5	1058.0	971.4	863.7	844.4	767.5	730.9	769.4	844.4	963.7
32.5°	1304.2	1294.5	1219.5	1131.0	1000.2	973.3	871.4	813.7	832.9	917.5	1058.0
35°	1411.9	1404.2	1363.8	1279.2	1148.4	1117.6	1009.9	921.4	915.6	998.3	1165.7
37.5°	1517.7	1508.1	1481.1	1423.4	1302.2	1277.2	1192.6	1050.3	1009.9	1092.6	1271.5
40°	1617.7	1604.2	1569.6	1536.9	1448.4	1448.4	1358.0	1173.4	1100.3	1175.3	1360.0
42.5°	1802.4	1760.0	1667.7	1642.7	1617.7	1617.7	1485.0	1258.0	1173.4	1265.7	1444.6
45°	1979.3	1938.9	1813.9	1763.9	1777.4	1769.7	1586.9	1306.1	1238.8	1350.3	1525.4
47.5°	2119.8	2083.2	1956.3	1921.6	1960.1	1929.3	1671.6	1344.6	1321.5	1440.7	1592.7
50°	2244.8	2158.2	2035.1	2081.3	2129.4	2077.4	1746.6	1402.3	1404.2	1536.9	1690.8
52.5°	2073.6	2064.0	2090.9	2198.6	2244.8	2187.1	1813.9	1475.4	1492.7	1660.0	1802.4
55°	1867.8	1865.8	2023.6	2233.2	2289.0	2235.2	1858.2	1563.8	1585.0	1812.0	1942.8
57.5°	1827.4	1808.1	1915.9	2160.1	2262.1	2223.6	1881.2	1646.6	1673.5	2004.3	2081.3
60°	1958.2	1921.6	1904.3	2081.3	2204.4	2185.2	1910.1	1744.7	1781.2	2223.6	2210.2
62.5°	2242.9	2192.8	2069.7	2087.1	2198.6	2183.2	1979.3	1860.1	1902.4	2442.9	2283.3
65°	2619.9	2583.3	2387.1	2246.7	2289.0	2267.9	2104.4	2006.3	2029.3	2600.6	2200.5
67.5°	3033.4	2983.4	2769.9	2577.6	2523.7	2483.3	2302.5	2179.4	2096.7	2577.6	1979.3
70°	3500.9	3447.0	3262.3	3064.2	2971.9	2927.6	2648.7	2329.4	2071.7	2323.6	1561.9
72.5°	4076.0	4002.9	3901.0	3922.1	3906.7	3783.6	3200.8	2379.4	1888.9	1729.3	932.9
75°	3652.8	3570.1	3587.4	4116.4	4847.3	4841.6	3839.4	2256.3	1408.0	815.6	403.9
77.5°	1309.9	1448.4	2137.1	3083.5	4064.5	4058.7	2971.9	1411.9	604.0	348.2	244.3
80°	328.9	334.7	530.9	1265.7	2373.7	2354.4	1685.0	532.8	252.0	211.6	167.3
82.5°	105.8	113.5	194.3	436.6	1015.6	992.6	523.2	175.0	157.7	136.6	101.9
85°	34.6	34.6	69.2	150.0	334.7	321.2	105.8	63.5	86.6	71.2	46.2
87.5°	0.0	0.0	1.9	3.8	7.7	3.8	0.0	3.8	11.5	13.5	9.6
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°	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6
2.5°	865.6	863.7	871.4	877.1	879.1	884.8	890.6	894.5	892.5	890.6	890.6
5°	863.7	865.6	879.1	890.6	900.2	909.8	917.5	921.4	919.5	919.5	919.5
7.5°	852.1	859.8	875.2	894.5	907.9	913.7	915.6	909.8	906.0	900.2	900.2
10°	832.9	844.4	869.4	890.6	896.4	888.7	877.1	865.6	850.2	840.6	840.6
12.5°	817.5	831.0	861.8	879.1	871.4	852.1	827.1	807.9	792.5	781.0	779.0
15°	804.0	821.4	854.1	857.9	840.6	807.9	775.2	754.0	736.7	729.0	729.0
17.5°	794.4	817.5	846.4	834.8	800.2	757.9	727.1	709.8	696.3	688.6	686.7
20°	796.4	825.2	838.7	806.0	756.0	711.7	682.9	673.2	663.6	659.8	659.8
22.5°	817.5	844.4	836.7	781.0	715.6	665.5	646.3	644.4	640.5	636.7	634.8
25°	863.7	882.9	842.5	756.0	673.2	623.2	613.6	619.4	617.5	613.6	613.6
27.5°	927.2	931.0	852.1	730.9	627.1	582.8	582.8	592.5	588.6	582.8	586.7
30°	1004.1	982.9	856.0	690.6	573.2	544.4	550.1	555.9	552.1	544.4	544.4
32.5°	1086.8	1036.8	856.0	638.6	521.3	509.7	511.7	513.6	505.9	496.3	496.3
35°	1167.6	1088.7	846.4	577.1	480.9	475.1	473.2	480.9	475.1	461.7	461.7
37.5°	1244.5	1129.1	821.4	513.6	450.1	448.2	454.0	450.1	442.4	423.2	419.3
40°	1298.4	1156.1	771.3	461.7	425.1	436.6	432.8	411.6	400.1	386.6	386.6
42.5°	1346.5	1169.5	709.8	421.3	407.8	423.2	407.8	380.9	365.5	363.6	365.5
45°	1390.7	1181.1	650.2	388.6	386.6	407.8	388.6	359.7	342.4	342.4	344.3
47.5°	1433.0	1192.6	590.5	357.8	361.6	384.7	373.2	344.3	327.0	315.5	315.5
50°	1500.4	1219.5	504.0	325.1	332.8	365.5	361.6	328.9	309.7	292.4	288.5
52.5°	1581.2	1265.7	409.7	290.5	311.6	348.2	348.2	315.5	294.3	271.2	267.4
55°	1688.9	1315.7	328.9	265.5	290.5	328.9	334.7	309.7	278.9	257.8	253.9
57.5°	1796.6	1333.0	265.5	240.4	263.5	309.7	325.1	298.2	261.6	246.2	244.3
60°	1871.6	1277.2	223.1	219.3	244.3	286.6	311.6	284.7	250.1	234.7	234.7
62.5°	1860.1	1108.0	200.0	205.8	228.9	269.3	300.1	273.1	242.4	232.7	230.8
65°	1696.6	836.7	180.8	194.3	215.4	252.0	288.5	267.4	238.5	228.9	225.1
67.5°	1429.2	555.9	167.3	182.7	202.0	238.5	278.9	259.7	227.0	221.2	217.4
70°	1034.9	325.1	153.9	171.2	188.5	223.1	265.5	244.3	213.5	209.7	200.0
72.5°	559.8	203.9	138.5	155.8	171.2	203.9	244.3	225.1	196.2	180.8	175.0
75°	255.8	148.1	123.1	138.5	150.0	178.9	219.3	198.1	175.0	155.8	152.0
77.5°	171.2	111.6	103.9	119.3	125.0	150.0	194.3	157.7	136.6	123.1	119.3
80°	117.3	82.7	84.6	98.1	96.2	119.3	146.2	127.0	107.7	111.6	101.9
82.5°	75.0	57.7	65.4	69.2	67.3	90.4	113.5	96.2	80.8	67.3	57.7
85°	32.7	30.8	38.5	40.4	40.4	50.0	59.6	48.1	36.5	26.9	26.9
87.5°	1.9	3.8	3.8	5.8	3.8	1.9	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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