

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: P227793

Luminaire Tested: **ISS-AF-800-LED-E1-T4FT-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227793
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-800-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: 6265.2 lumens
Efficiency: N/A
Efficacy: 104.1 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

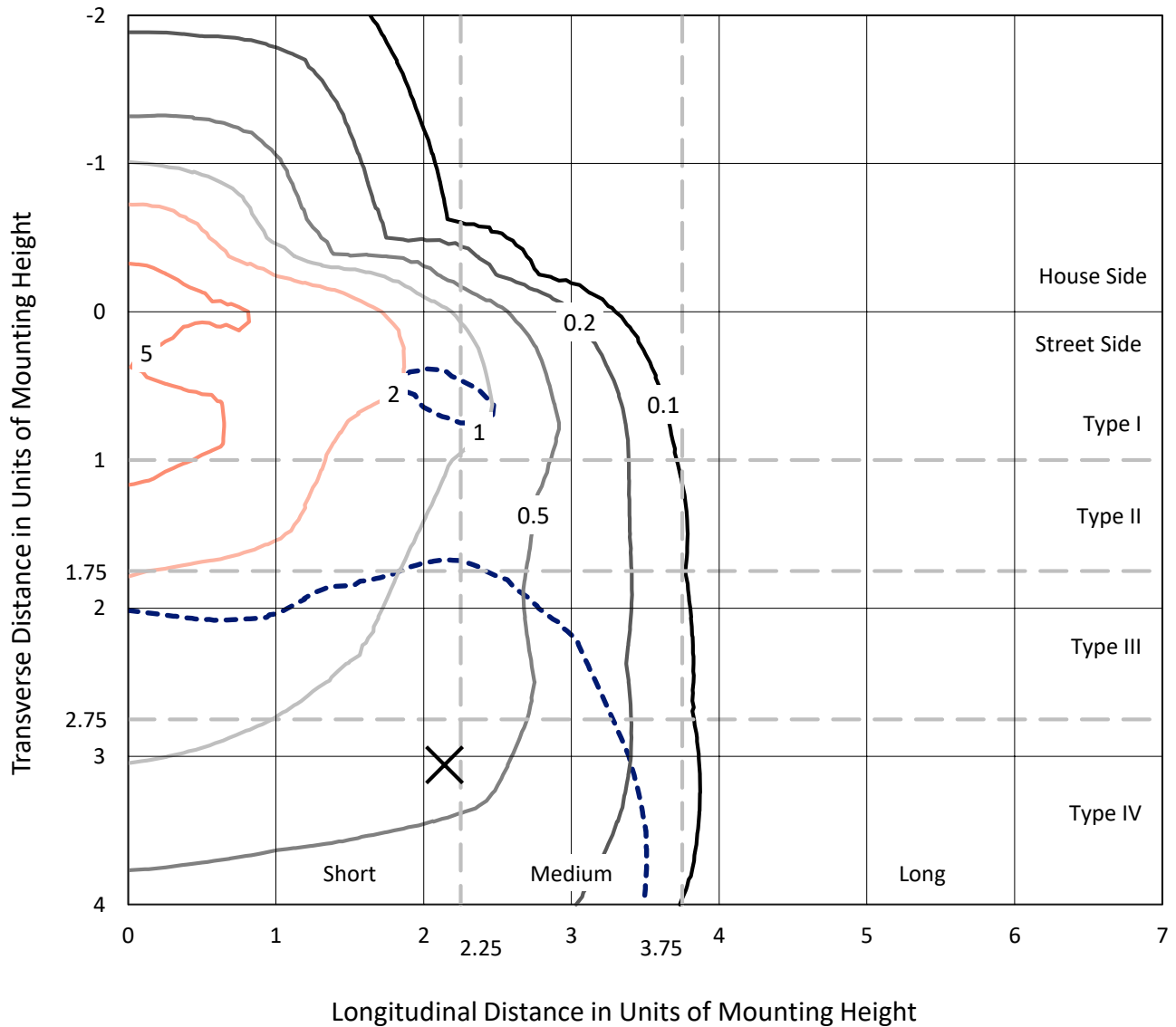
Input Watts (W): 60.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

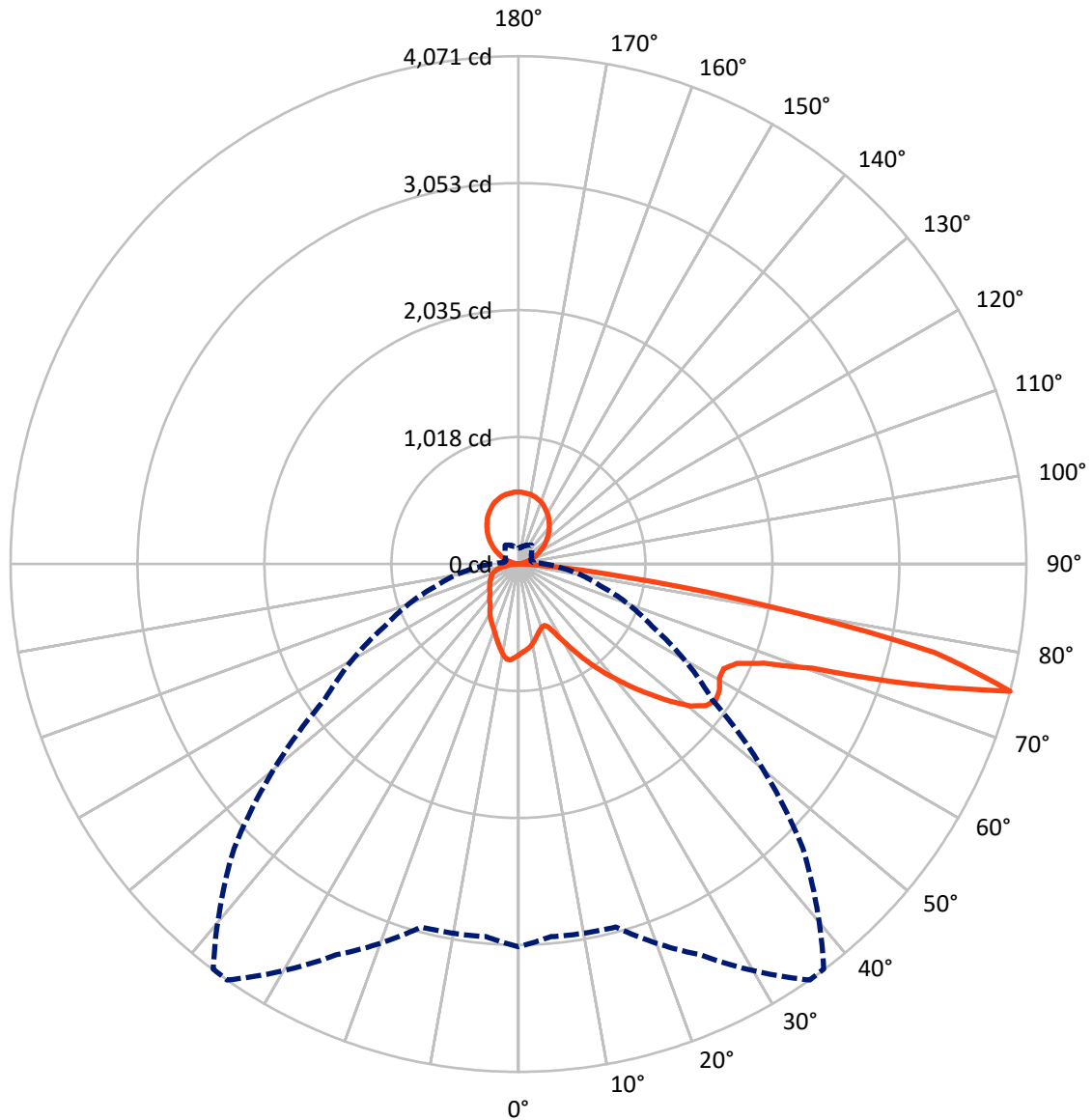
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 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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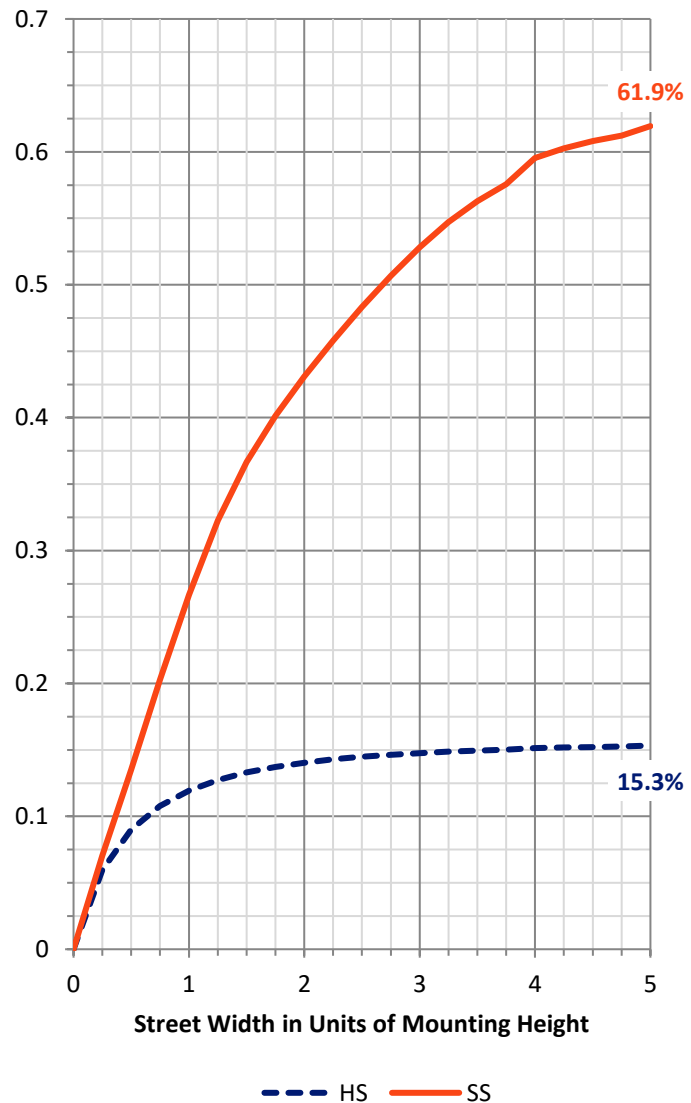
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	971.2	713.1	1684.3
	% Fixture	15.5	11.4	26.9
Street Side	Lumens	3867.8	713.1	4580.9
	% Fixture	61.7	11.4	73.1
Total	Lumens	4839.0	1426.2	6265.2
	% Fixture	77.2	22.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.2	1.1
10°-20°	180.1	2.9
20°-30°	284.9	4.5
30°-40°	459.8	7.3
40°-50°	680.3	10.9
50°-60°	874.7	14.0
60°-70°	1083.0	17.3
70°-80°	1091.4	17.4
80°-90°	116.5	1.9
90°-100°	4.7	0.1
100°-110°	69.0	1.1
110°-120°	153.0	2.4
120°-130°	223.9	3.6
130°-140°	265.6	4.2
140°-150°	269.3	4.3
150°-160°	231.1	3.7
160°-170°	155.1	2.5
170°-180°	54.3	0.9
0°-90°	4839.0	77.2
0°-180°	6265.2	100.0



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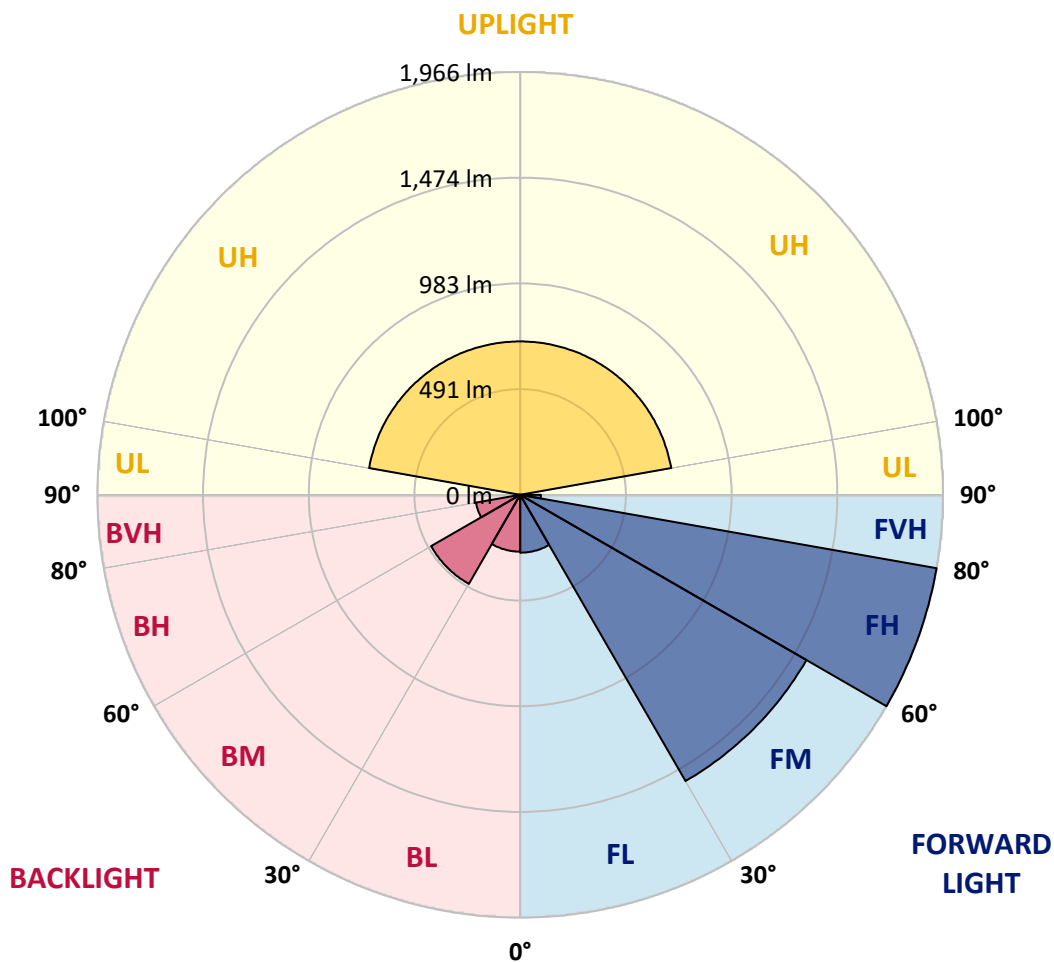
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	269.1	4.3			
FM	(30°-60°)	1536.6	24.5			
FH	(60°-80°)	1965.8	31.4			G2/5000
FVH	(80°-90°)	96.4	1.5			G1/100
BL	(0°-30°)	264.1	4.2	B1/500		
BM	(30°-60°)	478.3	7.6	B1/1000		
BH	(60°-80°)	208.6	3.3	B1/500		G1/500
BVH	(80°-90°)	20.2	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	11.4		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°	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9
2.5°	705.9	704.3	702.7	702.7	705.9	705.9	707.6	709.2	710.8	715.6	722.1
5°	686.6	684.9	683.3	684.9	689.8	689.8	694.6	697.9	701.1	709.2	717.2
7.5°	660.7	660.7	659.1	665.6	670.4	668.8	675.2	678.5	686.6	694.6	707.6
10°	626.8	626.8	626.8	634.9	642.9	642.9	647.8	655.9	662.3	673.6	689.8
12.5°	597.7	596.1	596.1	602.6	612.2	613.9	621.9	633.2	641.3	655.9	673.6
15°	588.0	584.8	576.7	576.7	581.6	581.6	594.5	610.6	623.6	638.1	659.1
17.5°	589.6	584.8	563.8	557.3	557.3	558.9	571.9	589.6	605.8	623.6	651.0
20°	604.2	596.1	557.3	542.8	539.6	541.2	552.5	570.2	589.6	613.9	644.6
22.5°	667.2	654.2	581.6	549.2	534.7	534.7	541.2	560.6	584.8	617.1	655.9
25°	812.6	791.6	662.3	604.2	560.6	555.7	544.4	563.8	592.9	631.6	688.2
27.5°	961.2	940.2	762.5	699.5	631.6	617.1	575.1	579.9	612.2	663.9	736.6
30°	1085.6	1067.8	888.5	815.8	725.3	709.2	644.6	613.9	646.2	709.2	809.3
32.5°	1095.3	1087.2	1024.2	949.9	840.0	817.4	731.8	683.3	699.5	770.6	888.5
35°	1185.7	1179.3	1145.3	1074.3	964.4	938.6	848.1	773.8	768.9	838.4	978.9
37.5°	1274.6	1266.5	1243.9	1195.4	1093.6	1072.6	1001.6	882.0	848.1	917.6	1067.8
40°	1358.6	1347.3	1318.2	1290.7	1216.4	1216.4	1140.5	985.4	924.0	987.0	1142.1
42.5°	1513.7	1478.1	1400.6	1379.6	1358.6	1358.6	1247.1	1056.5	985.4	1062.9	1213.2
45°	1662.3	1628.3	1523.3	1481.3	1492.7	1486.2	1332.7	1096.9	1040.3	1134.0	1281.0
47.5°	1780.2	1749.5	1642.9	1613.8	1646.1	1620.3	1403.8	1129.2	1109.8	1210.0	1337.6
50°	1885.2	1812.5	1709.1	1747.9	1788.3	1744.7	1466.8	1177.6	1179.3	1290.7	1420.0
52.5°	1741.4	1733.3	1756.0	1846.4	1885.2	1836.7	1523.3	1239.0	1253.6	1394.1	1513.7
55°	1568.6	1567.0	1699.4	1875.5	1922.4	1877.1	1560.5	1313.3	1331.1	1521.7	1631.6
57.5°	1534.7	1518.5	1609.0	1814.1	1899.7	1867.4	1579.9	1382.8	1405.4	1683.3	1747.9
60°	1644.5	1613.8	1599.3	1747.9	1851.3	1835.1	1604.1	1465.2	1495.9	1867.4	1856.1
62.5°	1883.6	1841.6	1738.2	1752.7	1846.4	1833.5	1662.3	1562.1	1597.7	2051.6	1917.5
65°	2200.2	2169.5	2004.7	1886.8	1922.4	1904.6	1767.3	1684.9	1704.3	2184.1	1848.0
67.5°	2547.5	2505.5	2326.2	2164.7	2119.4	2085.5	1933.7	1830.3	1760.8	2164.7	1662.3
70°	2940.1	2894.8	2739.8	2573.4	2495.8	2458.7	2224.4	1956.3	1739.8	1951.4	1311.7
72.5°	3423.1	3361.7	3276.1	3293.8	3280.9	3177.5	2688.1	1998.3	1586.3	1452.3	783.5
75°	3067.7	2998.2	3012.8	3457.0	4070.9	4066.0	3224.4	1894.9	1182.5	684.9	339.2
77.5°	1100.1	1216.4	1794.7	2589.5	3413.4	3408.5	2495.8	1185.7	507.2	292.4	205.2
80°	276.2	281.1	445.9	1062.9	1993.4	1977.3	1415.1	447.5	211.6	177.7	140.5
82.5°	88.8	95.3	163.2	366.7	852.9	833.6	439.4	147.0	132.5	114.7	85.6
85°	29.1	29.1	58.2	126.0	281.1	269.8	88.8	53.3	72.7	59.8	38.8
87.5°	0.0	0.0	1.6	3.2	6.5	3.2	0.0	3.2	9.7	11.3	8.1
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°	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9	726.9
2.5°	726.9	725.3	731.8	736.6	738.2	743.1	747.9	751.2	749.6	747.9	747.9
5°	725.3	726.9	738.2	747.9	756.0	764.1	770.6	773.8	772.2	772.2	772.2
7.5°	715.6	722.1	735.0	751.2	762.5	767.3	768.9	764.1	760.9	756.0	756.0
10°	699.5	709.2	730.2	747.9	752.8	746.3	736.6	726.9	714.0	705.9	705.9
12.5°	686.6	697.9	723.7	738.2	731.8	715.6	694.6	678.5	665.6	655.9	654.2
15°	675.2	689.8	717.2	720.5	705.9	678.5	651.0	633.2	618.7	612.2	612.2
17.5°	667.2	686.6	710.8	701.1	672.0	636.5	610.6	596.1	584.8	578.3	576.7
20°	668.8	693.0	704.3	676.9	634.9	597.7	573.5	565.4	557.3	554.1	554.1
22.5°	686.6	709.2	702.7	655.9	600.9	558.9	542.8	541.2	537.9	534.7	533.1
25°	725.3	741.5	707.6	634.9	565.4	523.4	515.3	520.2	518.6	515.3	515.3
27.5°	778.6	781.9	715.6	613.9	526.6	489.5	489.5	497.6	494.3	489.5	492.7
30°	843.3	825.5	718.9	579.9	481.4	457.2	462.0	466.9	463.6	457.2	457.2
32.5°	912.7	870.7	718.9	536.3	437.8	428.1	429.7	431.3	424.9	416.8	416.8
35°	980.6	914.3	710.8	484.6	403.9	399.0	397.4	403.9	399.0	387.7	387.7
37.5°	1045.2	948.3	689.8	431.3	378.0	376.4	381.2	378.0	371.5	355.4	352.2
40°	1090.4	970.9	647.8	387.7	357.0	366.7	363.5	345.7	336.0	324.7	324.7
42.5°	1130.8	982.2	596.1	353.8	342.5	355.4	342.5	319.9	306.9	305.3	306.9
45°	1168.0	991.9	546.0	326.3	324.7	342.5	326.3	302.1	287.5	287.5	289.2
47.5°	1203.5	1001.6	495.9	300.5	303.7	323.1	313.4	289.2	274.6	264.9	264.9
50°	1260.0	1024.2	423.2	273.0	279.5	306.9	303.7	276.2	260.1	245.5	242.3
52.5°	1327.9	1062.9	344.1	243.9	261.7	292.4	292.4	264.9	247.2	227.8	224.5
55°	1418.3	1104.9	276.2	222.9	243.9	276.2	281.1	260.1	234.2	216.5	213.2
57.5°	1508.8	1119.5	222.9	201.9	221.3	260.1	273.0	250.4	219.7	206.8	205.2
60°	1571.8	1072.6	187.4	184.2	205.2	240.7	261.7	239.1	210.0	197.1	197.1
62.5°	1562.1	930.5	168.0	172.9	192.2	226.2	252.0	229.4	203.5	195.5	193.9
65°	1424.8	702.7	151.8	163.2	180.9	211.6	242.3	224.5	200.3	192.2	189.0
67.5°	1200.3	466.9	140.5	153.5	169.6	200.3	234.2	218.1	190.6	185.8	182.5
70°	869.1	273.0	129.2	143.8	158.3	187.4	222.9	205.2	179.3	176.1	168.0
72.5°	470.1	171.2	116.3	130.8	143.8	171.2	205.2	189.0	164.8	151.8	147.0
75°	214.9	124.4	103.4	116.3	126.0	150.2	184.2	166.4	147.0	130.8	127.6
77.5°	143.8	93.7	87.2	100.2	105.0	126.0	163.2	132.5	114.7	103.4	100.2
80°	98.5	69.5	71.1	82.4	80.8	100.2	122.8	106.6	90.5	93.7	85.6
82.5°	63.0	48.5	54.9	58.2	56.5	75.9	95.3	80.8	67.8	56.5	48.5
85°	27.5	25.8	32.3	33.9	33.9	42.0	50.1	40.4	30.7	22.6	22.6
87.5°	1.6	3.2	3.2	4.8	3.2	1.6	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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