

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: P227818

Luminaire Tested: **ISS-AF-1000-LED-E1-T4FT-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227818
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-1000-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: 7146.2 lumens
Efficiency: N/A
Efficacy: 100.2 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): 71.3
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

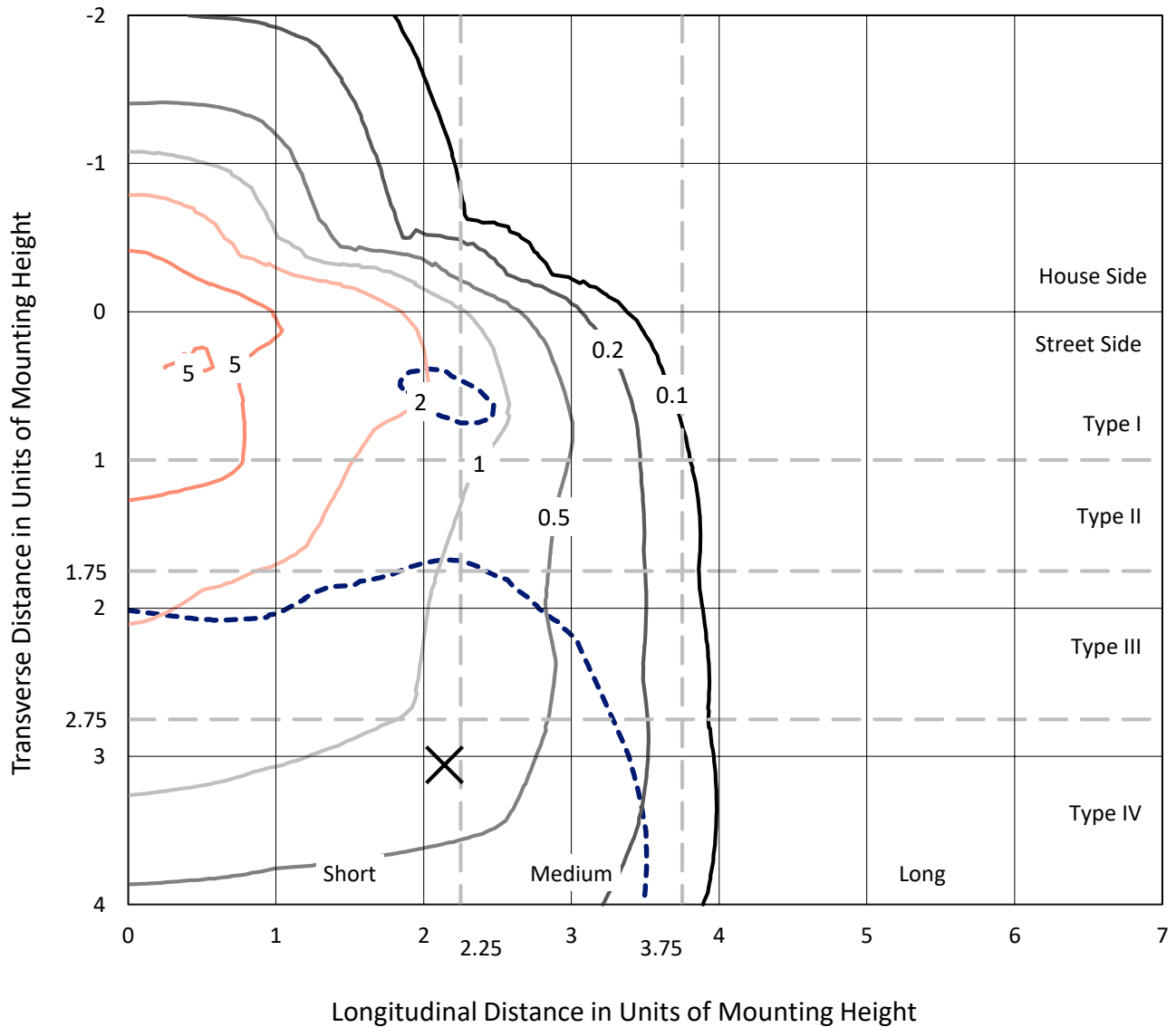


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

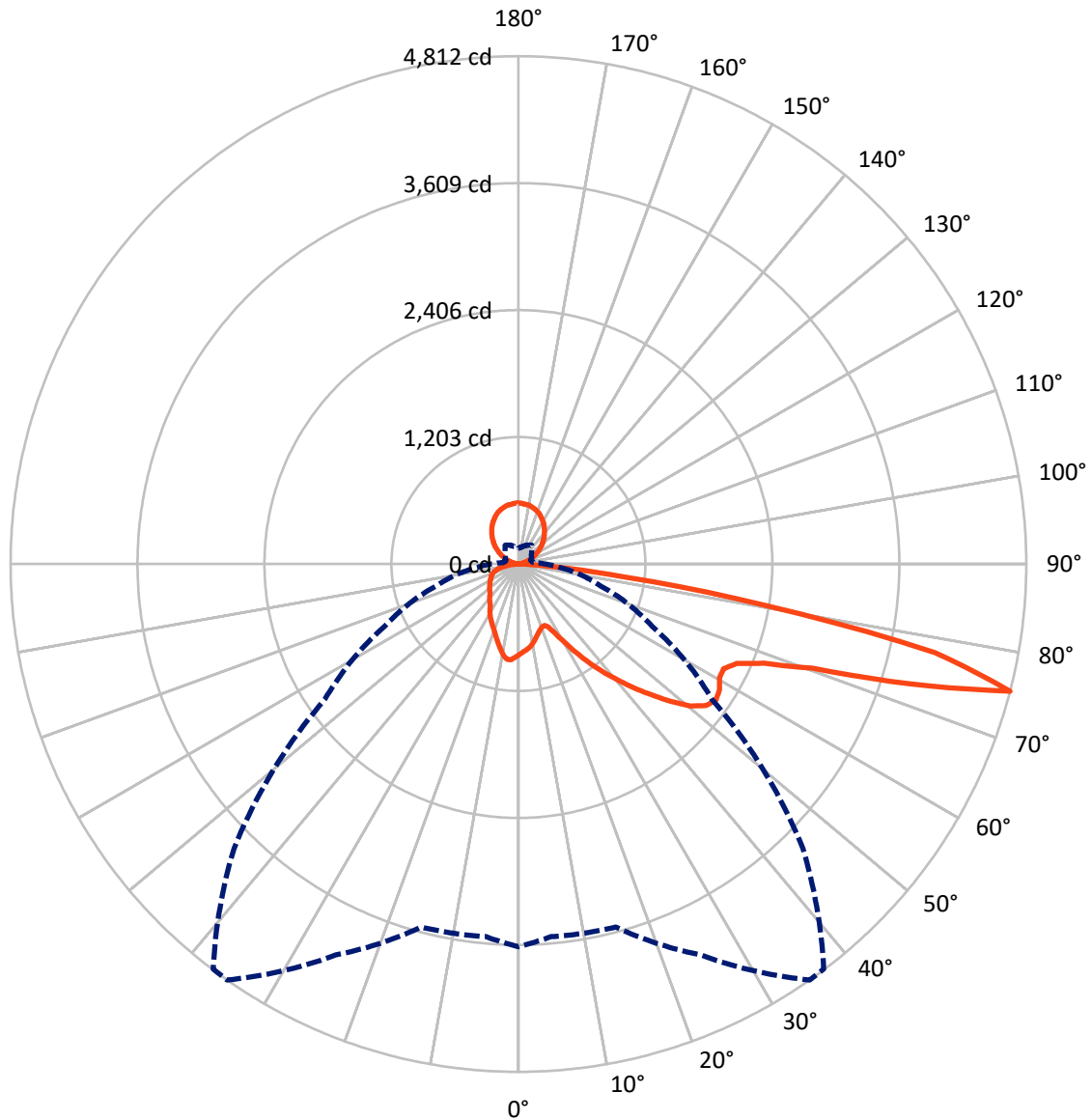


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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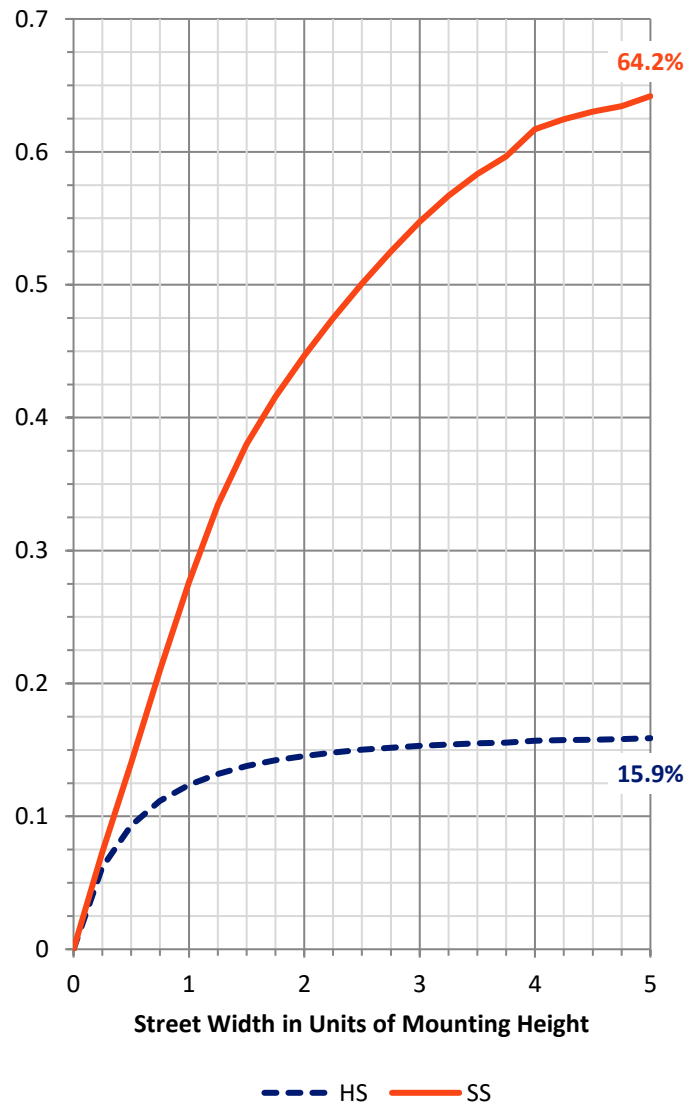
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1148.0	713.1	1861.1
	% Fixture	16.1	10.0	26.0
Street Side	Lumens	4572.0	713.1	5285.1
	% Fixture	64.0	10.0	74.0
Total	Lumens	5720.0	1426.2	7146.2
	% Fixture	80.0	20.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	1.1
10°-20°	212.9	3.0
20°-30°	336.8	4.7
30°-40°	543.5	7.6
40°-50°	804.2	11.3
50°-60°	1034.0	14.5
60°-70°	1280.2	17.9
70°-80°	1290.1	18.1
80°-90°	137.7	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	3.8
150°-160°	231.1	3.2
160°-170°	155.1	2.2
170°-180°	54.3	0.8
0°-90°	5720.0	80.0
0°-180°	7146.2	100.0



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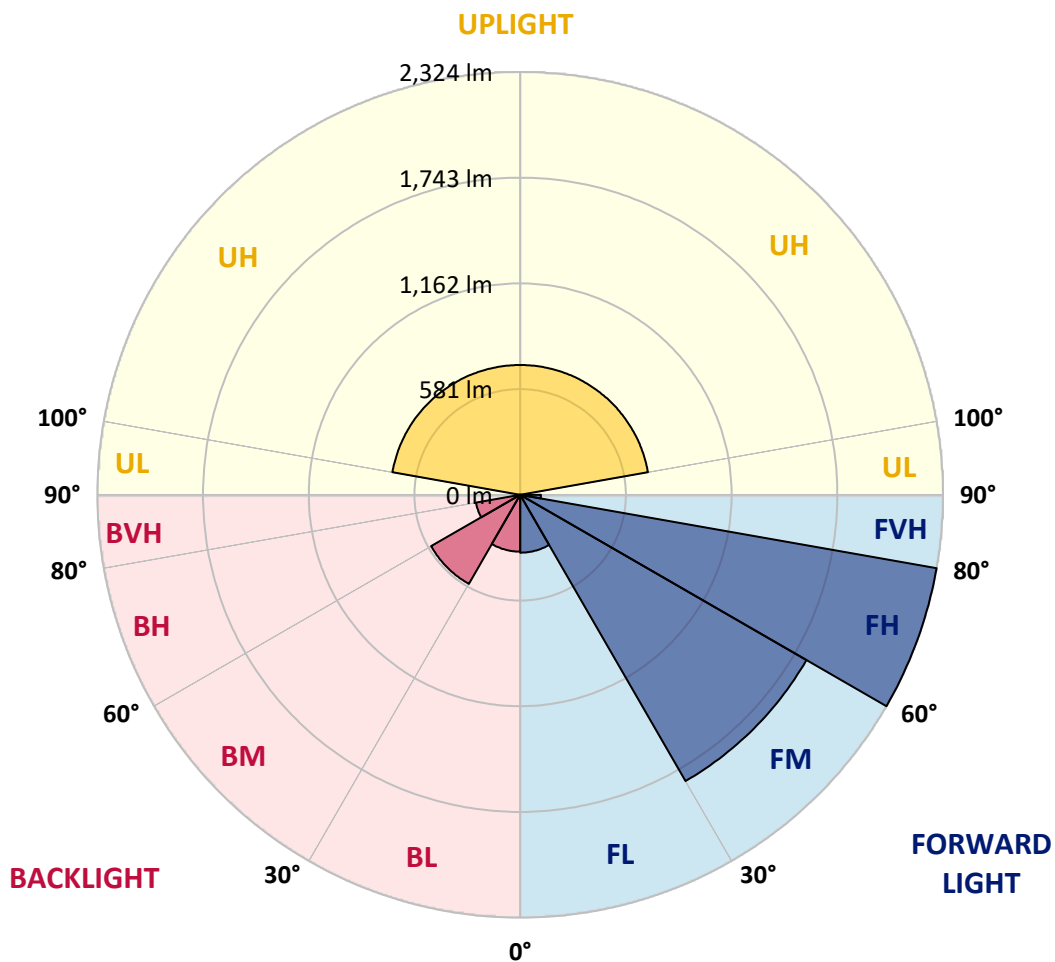
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	318.1	4.5			
FM	(30°-60°)	1816.3	25.4			
FH	(60°-80°)	2323.7	32.5			G2/5000
FVH	(80°-90°)	113.9	1.6			G2/225
BL	(0°-30°)	312.2	4.4	B1/500		
BM	(30°-60°)	565.3	7.9	B1/1000		
BH	(60°-80°)	246.6	3.5	B1/500		G1/500
BVH	(80°-90°)	23.8	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	10.0		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°	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3
2.5°	834.5	832.6	830.6	830.6	834.5	834.5	836.4	838.3	840.2	845.9	853.6
5°	811.6	809.6	807.7	809.6	815.4	815.4	821.1	824.9	828.7	838.3	847.8
7.5°	781.0	781.0	779.1	786.7	792.5	790.5	798.2	802.0	811.6	821.1	836.4
10°	740.9	740.9	740.9	750.4	760.0	760.0	765.7	775.3	782.9	796.3	815.4
12.5°	706.5	704.6	704.6	712.3	723.7	725.6	735.2	748.5	758.1	775.3	796.3
15°	695.1	691.2	681.7	681.7	687.4	687.4	702.7	721.8	737.1	754.3	779.1
17.5°	697.0	691.2	666.4	658.8	658.8	660.7	676.0	697.0	716.1	737.1	769.5
20°	714.2	704.6	658.8	641.6	637.8	639.7	653.1	674.1	697.0	725.6	761.9
22.5°	788.6	773.4	687.4	649.2	632.1	632.1	639.7	662.6	691.2	729.4	775.3
25°	960.5	935.7	782.9	714.2	662.6	656.9	643.5	666.4	700.8	746.6	813.5
27.5°	1136.2	1111.3	901.3	826.8	746.6	729.4	679.8	685.5	723.7	784.8	870.7
30°	1283.2	1262.2	1050.2	964.3	857.4	838.3	761.9	725.6	763.8	838.3	956.7
32.5°	1294.7	1285.1	1210.6	1122.8	993.0	966.2	865.0	807.7	826.8	910.8	1050.2
35°	1401.6	1394.0	1353.9	1269.8	1140.0	1109.4	1002.5	914.7	908.9	991.0	1157.2
37.5°	1506.6	1497.1	1470.3	1413.1	1292.8	1267.9	1183.9	1042.6	1002.5	1084.6	1262.2
40°	1605.9	1592.5	1558.2	1525.7	1437.9	1437.9	1348.1	1164.8	1092.3	1166.7	1350.0
42.5°	1789.2	1747.2	1655.6	1630.7	1605.9	1605.9	1474.2	1248.8	1164.8	1256.5	1434.1
45°	1964.9	1924.8	1800.7	1751.0	1764.4	1756.8	1575.4	1296.6	1229.7	1340.5	1514.3
47.5°	2104.3	2068.0	1942.0	1907.6	1945.8	1915.3	1659.4	1334.8	1311.8	1430.2	1581.1
50°	2228.4	2142.5	2020.3	2066.1	2113.8	2062.3	1733.9	1392.0	1394.0	1525.7	1678.5
52.5°	2058.5	2048.9	2075.7	2182.6	2228.4	2171.1	1800.7	1464.6	1481.8	1647.9	1789.2
55°	1854.2	1852.2	2008.8	2217.0	2272.3	2218.9	1844.6	1552.4	1573.5	1798.8	1928.6
57.5°	1814.1	1795.0	1901.9	2144.4	2245.6	2207.4	1867.5	1634.6	1661.3	1989.7	2066.1
60°	1943.9	1907.6	1890.4	2066.1	2188.3	2169.2	1896.2	1731.9	1768.2	2207.4	2194.0
62.5°	2226.5	2176.9	2054.7	2071.8	2182.6	2167.3	1964.9	1846.5	1888.5	2425.1	2266.6
65°	2600.8	2564.5	2369.7	2230.3	2272.3	2251.3	2089.0	1991.6	2014.6	2581.7	2184.5
67.5°	3011.3	2961.7	2749.7	2558.8	2505.3	2465.2	2285.7	2163.5	2081.4	2558.8	1964.9
70°	3475.3	3421.9	3238.6	3041.9	2950.2	2906.3	2629.4	2312.4	2056.6	2306.7	1550.5
72.5°	4046.3	3973.7	3872.5	3893.5	3878.3	3756.0	3177.5	2362.1	1875.2	1716.7	926.1
75°	3626.2	3544.1	3561.3	4086.4	4812.0	4806.3	3811.4	2239.9	1397.8	809.6	401.0
77.5°	1300.4	1437.9	2121.5	3061.0	4034.8	4029.1	2950.2	1401.6	599.6	345.6	242.5
80°	326.5	332.3	527.0	1256.5	2356.4	2337.3	1672.7	528.9	250.1	210.0	166.1
82.5°	105.0	112.7	192.9	433.5	1008.2	985.3	519.4	173.8	156.6	135.6	101.2
85°	34.4	34.4	68.7	148.9	332.3	318.9	105.0	63.0	85.9	70.7	45.8
87.5°	0.0	0.0	1.9	3.8	7.6	3.8	0.0	3.8	11.5	13.4	9.5
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°	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3
2.5°	859.3	857.4	865.0	870.7	872.7	878.4	884.1	887.9	886.0	884.1	884.1
5°	857.4	859.3	872.7	884.1	893.7	903.2	910.8	914.7	912.8	912.8	912.8
7.5°	845.9	853.6	868.8	887.9	901.3	907.0	908.9	903.2	899.4	893.7	893.7
10°	826.8	838.3	863.1	884.1	889.8	882.2	870.7	859.3	844.0	834.5	834.5
12.5°	811.6	824.9	855.5	872.7	865.0	845.9	821.1	802.0	786.7	775.3	773.4
15°	798.2	815.4	847.8	851.7	834.5	802.0	769.5	748.5	731.3	723.7	723.7
17.5°	788.6	811.6	840.2	828.7	794.4	752.4	721.8	704.6	691.2	683.6	681.7
20°	790.5	819.2	832.6	800.1	750.4	706.5	677.9	668.3	658.8	655.0	655.0
22.5°	811.6	838.3	830.6	775.3	710.3	660.7	641.6	639.7	635.9	632.1	630.1
25°	857.4	876.5	836.4	750.4	668.3	618.7	609.1	614.9	613.0	609.1	609.1
27.5°	920.4	924.2	845.9	725.6	622.5	578.6	578.6	588.1	584.3	578.6	582.4
30°	996.8	975.8	849.7	685.5	569.0	540.4	546.1	551.9	548.0	540.4	540.4
32.5°	1078.9	1029.2	849.7	634.0	517.5	506.0	507.9	509.8	502.2	492.7	492.7
35°	1159.1	1080.8	840.2	572.9	477.4	471.7	469.7	477.4	471.7	458.3	458.3
37.5°	1235.5	1120.9	815.4	509.8	446.8	444.9	450.6	446.8	439.2	420.1	416.3
40°	1288.9	1147.6	765.7	458.3	422.0	433.5	429.6	408.6	397.2	383.8	383.8
42.5°	1336.7	1161.0	704.6	418.2	404.8	420.1	404.8	378.1	362.8	360.9	362.8
45°	1380.6	1172.5	645.4	385.7	383.8	404.8	385.7	357.1	339.9	339.9	341.8
47.5°	1422.6	1183.9	586.2	355.2	359.0	381.9	370.4	341.8	324.6	313.2	313.2
50°	1489.4	1210.6	500.3	322.7	330.3	362.8	359.0	326.5	307.4	290.2	286.4
52.5°	1569.6	1256.5	406.7	288.3	309.3	345.6	345.6	313.2	292.2	269.2	265.4
55°	1676.6	1306.1	326.5	263.5	288.3	326.5	332.3	307.4	276.9	255.9	252.1
57.5°	1783.5	1323.3	263.5	238.7	261.6	307.4	322.7	296.0	259.7	244.4	242.5
60°	1858.0	1267.9	221.5	217.7	242.5	284.5	309.3	282.6	248.2	233.0	233.0
62.5°	1846.5	1099.9	198.6	204.3	227.2	267.3	297.9	271.2	240.6	231.1	229.1
65°	1684.2	830.6	179.5	192.9	213.9	250.1	286.4	265.4	236.8	227.2	223.4
67.5°	1418.8	551.9	166.1	181.4	200.5	236.8	276.9	257.8	225.3	219.6	215.8
70°	1027.3	322.7	152.8	169.9	187.1	221.5	263.5	242.5	212.0	208.1	198.6
72.5°	555.7	202.4	137.5	154.7	169.9	202.4	242.5	223.4	194.8	179.5	173.8
75°	254.0	147.0	122.2	137.5	148.9	177.6	217.7	196.7	173.8	154.7	150.9
77.5°	169.9	110.8	103.1	118.4	124.1	148.9	192.9	156.6	135.6	122.2	118.4
80°	116.5	82.1	84.0	97.4	95.5	118.4	145.1	126.0	106.9	110.8	101.2
82.5°	74.5	57.3	64.9	68.7	66.8	89.7	112.7	95.5	80.2	66.8	57.3
85°	32.5	30.6	38.2	40.1	40.1	49.6	59.2	47.7	36.3	26.7	26.7
87.5°	1.9	3.8	3.8	5.7	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

(END OF REPORT)