

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: P226713

Luminaire Tested: **IST-AF-1000-LED-E1-T4W-7050-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226713  
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-1000-LED-E1-T4W-7050-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 7798.8 lumens  
Efficiency: N/A  
Efficacy: 109.4 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): 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

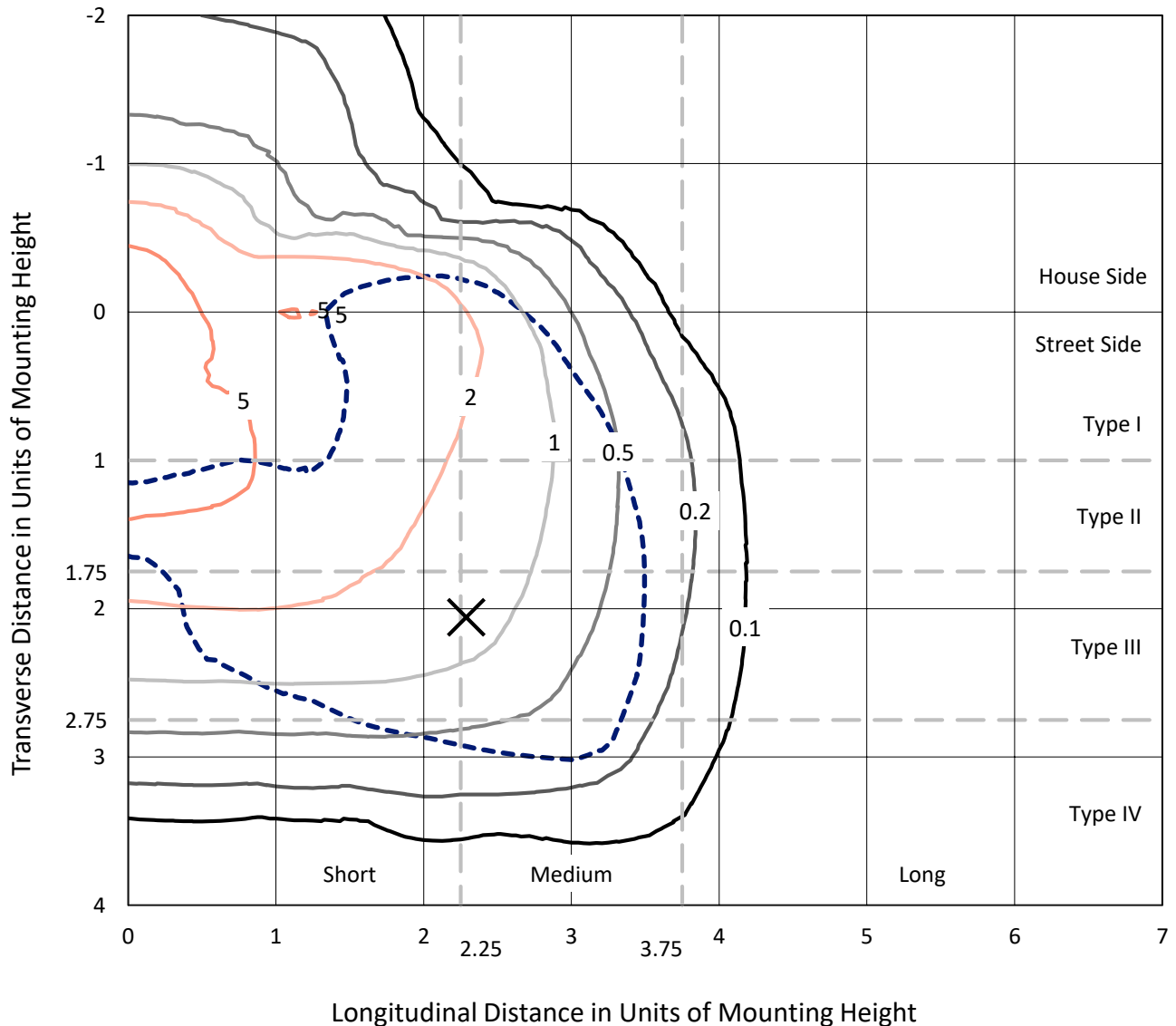


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### Iso-Footcandle Lines of Horizontal Illumination

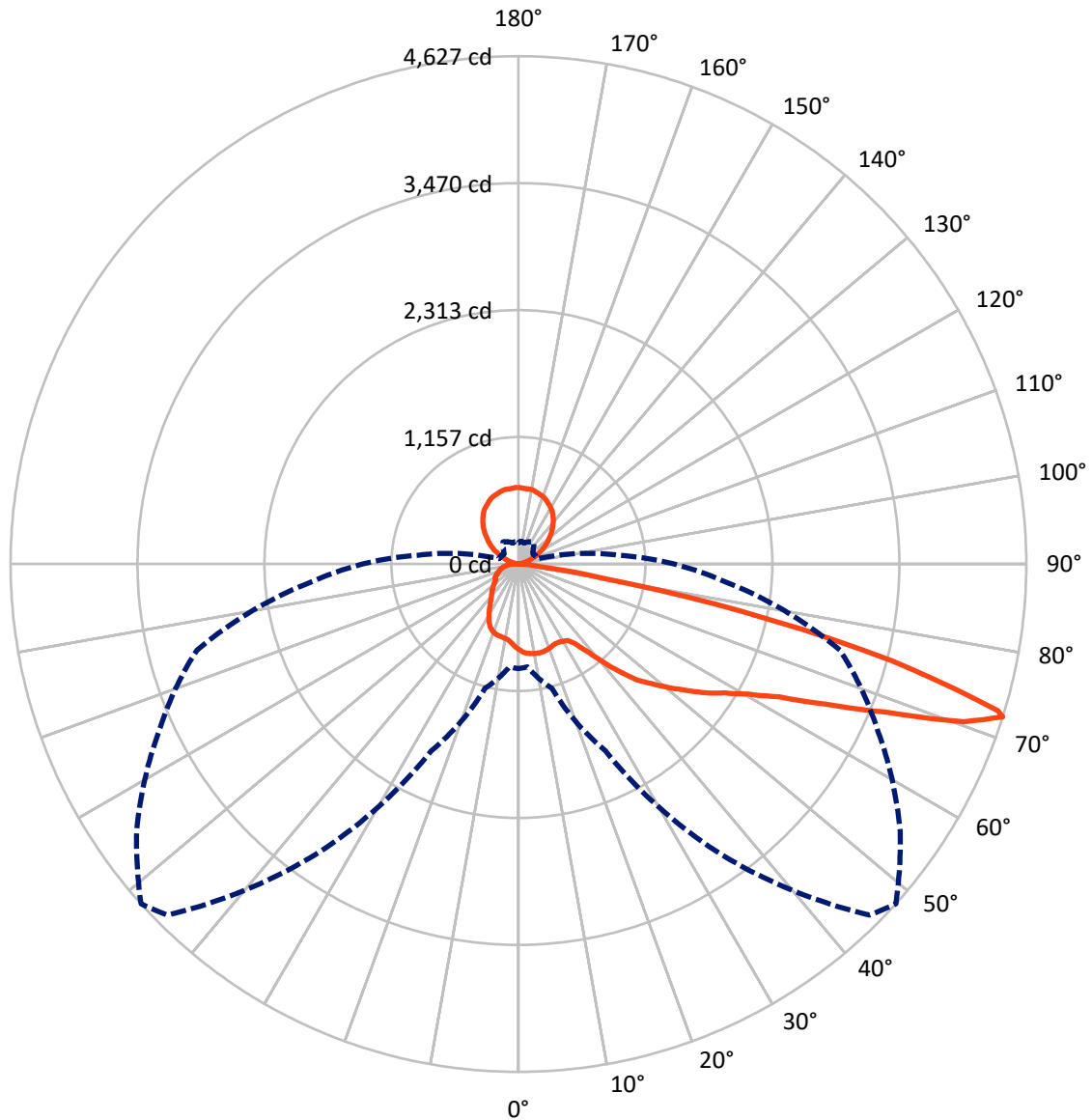
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.7 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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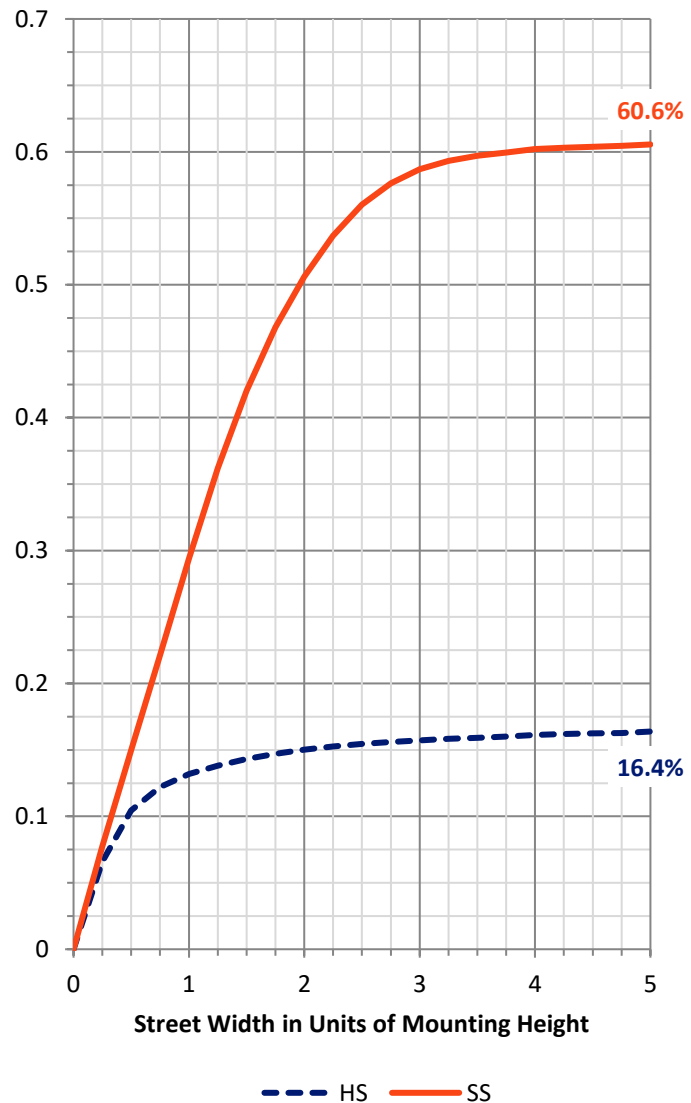
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1317.3	870.3	2187.6
	% Fixture	16.9	11.2	28.0
<b>Street Side</b>	Lumens	4742.7	868.5	5611.3
	% Fixture	60.8	11.1	72.0
<b>Total</b>	Lumens	6060.0	1738.8	7798.8
	% Fixture	77.7	22.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.7	0.9
10°-20°	215.4	2.8
20°-30°	332.2	4.3
30°-40°	497.9	6.4
40°-50°	829.1	10.6
50°-60°	1295.7	16.6
60°-70°	1711.5	21.9
70°-80°	990.0	12.7
80°-90°	114.5	1.5
90°-100°	12.9	0.2
100°-110°	57.4	0.7
110°-120°	166.1	2.1
120°-130°	273.2	3.5
130°-140°	336.8	4.3
140°-150°	344.6	4.4
150°-160°	290.3	3.7
160°-170°	191.2	2.5
170°-180°	66.3	0.8
0°-90°	6060.0	77.7
0°-180°	7798.8	100.0



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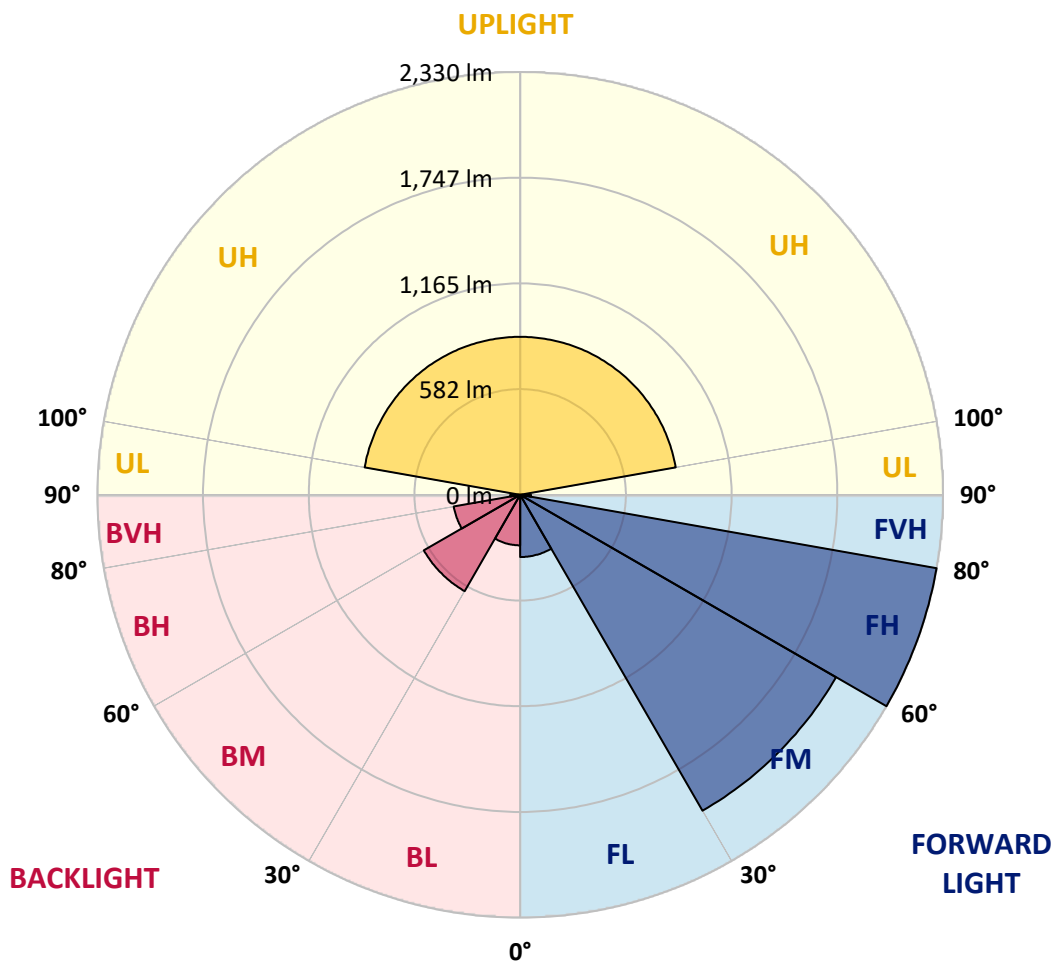
CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-7050-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	342.8	4.4			
FM (30°-60°)	2010.0	25.8			
FH (60°-80°)	2329.9	29.9			G2/5000
FVH (80°-90°)	60.1	0.8			G1/100
BL (0°-30°)	278.6	3.6	B1/500		
BM (30°-60°)	612.7	7.9	B1/1000		
BH (60°-80°)	371.5	4.8	B1/500		G1/500
BVH (80°-90°)	54.4	0.7			G1/100
UL (90°-100°)	12.9	0.2		U2/50	
UH (100°-180°)	870.3	11.2		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°	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9
2.5°	821.3	820.4	820.4	813.4	810.7	806.3	802.8	797.5	792.2	786.1	778.2
5°	860.8	863.5	860.0	849.4	836.2	822.1	816.9	804.6	787.9	772.9	758.8
7.5°	898.6	899.5	889.8	872.3	852.0	830.1	823.0	806.3	787.9	767.6	747.4
10°	925.9	926.8	912.7	888.1	860.8	836.2	828.3	811.6	788.7	766.7	741.2
12.5°	941.7	942.6	921.5	896.0	863.5	838.8	831.8	814.2	790.5	762.4	734.2
15°	939.1	941.7	924.1	896.0	861.7	839.7	830.9	816.0	786.1	758.0	728.1
17.5°	921.5	925.0	911.0	880.2	852.9	835.3	825.7	810.7	781.7	751.8	719.3
20°	887.2	891.6	885.5	855.6	837.1	823.0	816.9	802.8	775.5	744.8	711.4
22.5°	848.5	852.9	851.2	826.5	817.7	810.7	804.6	794.0	770.3	739.5	707.8
25°	820.4	823.9	821.3	800.2	802.8	802.8	799.3	791.4	769.4	741.2	707.8
27.5°	867.0	867.0	844.1	801.0	796.6	804.6	802.8	798.4	780.8	750.0	714.9
30°	1037.6	1024.4	983.1	874.9	819.5	816.0	815.1	812.5	796.6	769.4	736.9
32.5°	1228.4	1215.2	1165.9	1030.5	915.3	839.7	831.8	832.7	828.3	802.8	770.3
35°	1398.1	1396.3	1357.6	1210.8	1063.9	923.3	891.6	870.5	868.7	858.2	832.7
37.5°	1535.3	1535.3	1538.8	1371.7	1224.9	1056.0	1002.4	935.6	935.6	929.4	913.6
40°	1691.8	1698.8	1706.7	1517.7	1397.2	1214.3	1153.6	1052.5	1021.7	1031.4	1034.9
42.5°	1897.5	1906.3	1901.0	1697.9	1554.6	1403.4	1328.6	1206.4	1130.8	1146.6	1183.5
45°	2036.5	2040.0	2077.8	1886.1	1752.4	1563.4	1500.1	1332.1	1257.4	1289.9	1355.0
47.5°	2193.8	2202.6	2208.8	2099.8	1984.6	1744.5	1628.5	1454.4	1406.0	1455.2	1558.1
50°	2347.7	2336.3	2353.0	2348.6	2204.4	1905.4	1767.4	1568.7	1572.2	1639.0	1807.8
52.5°	2481.4	2442.7	2481.4	2529.7	2487.5	2070.7	1909.8	1703.2	1754.2	1836.0	2102.4
55°	2584.3	2491.0	2556.1	2693.3	2683.6	2216.7	2072.5	1882.6	1967.9	2079.5	2460.3
57.5°	2374.1	2385.5	2564.9	2803.2	2798.8	2364.4	2215.0	2106.8	2211.4	2336.3	2884.1
60°	2178.0	2229.0	2506.0	2820.8	2878.8	2525.3	2406.6	2361.8	2458.5	2610.6	3290.3
62.5°	2074.3	2122.6	2410.2	2788.3	3006.3	2763.6	2664.3	2630.0	2761.9	2932.5	3652.6
65°	2106.8	2136.7	2404.0	2837.5	3153.2	3124.1	3081.1	3023.9	3089.9	3249.9	3816.2
67.5°	2015.3	2064.6	2353.0	2924.5	3421.3	3563.8	3599.8	3538.3	3482.9	3460.9	3577.9
70°	1500.1	1547.6	1850.0	2564.9	3641.2	4327.0	4305.0	4099.3	3726.5	3415.2	2795.3
72°	953.2	940.0	1171.2	1879.1	3236.7	4523.1	4626.9	4246.1	3615.7	3032.7	1898.4
72.5°	692.9	755.3	971.6	1670.7	3074.9	4415.8	4567.1	4198.6	3470.6	2864.8	1669.8
75°	168.8	178.5	233.0	598.8	1800.8	3322.9	3512.8	3243.7	2533.3	1700.6	740.4
77.5°	114.3	118.7	153.9	211.0	529.3	1894.9	2084.8	1791.1	1133.4	578.6	329.7
80°	85.3	87.9	111.7	149.5	219.8	646.3	762.4	605.8	282.3	320.9	234.8
82.5°	59.8	61.6	84.4	109.9	146.0	151.2	201.4	222.5	182.9	210.2	137.2
85°	41.3	41.3	61.6	75.6	92.3	74.7	80.0	111.7	124.0	124.9	83.5
87.5°	22.0	24.6	36.1	48.4	48.4	34.3	37.8	57.2	69.5	74.7	50.1
90°	12.9	12.9	21.9	26.5	19.4	15.8	14.9	18.4	25.7	32.7	22.8
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	699.0	701.0	698.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9
2.5°	776.4	771.1	764.1	760.6	758.8	755.3	751.8	750.0	750.0	746.5	747.4
5°	751.8	743.9	734.2	727.2	726.3	726.3	728.1	728.1	728.9	726.3	729.8
7.5°	739.5	730.7	716.6	708.7	702.6	701.7	705.2	712.2	715.7	713.1	716.6
10°	730.7	721.0	705.2	695.5	691.1	689.4	692.0	699.0	710.5	710.5	714.0
12.5°	721.9	709.6	693.8	686.7	683.2	684.1	687.6	692.9	705.2	709.6	711.4
15°	713.1	699.0	685.9	676.2	676.2	678.8	683.2	689.4	700.8	708.7	710.5
17.5°	704.3	690.2	678.8	670.9	670.9	674.4	678.8	686.7	694.6	706.1	706.1
20°	696.4	685.0	670.0	663.0	662.1	664.7	670.0	677.9	684.1	695.5	696.4
22.5°	692.0	677.9	663.9	653.3	648.9	647.2	652.4	660.4	666.5	677.9	679.7
25°	690.2	674.4	656.8	637.5	626.1	622.5	625.2	634.9	640.1	648.9	651.6
27.5°	696.4	681.5	654.2	619.0	595.3	585.6	588.2	594.4	596.2	605.8	610.2
30°	717.5	699.9	659.5	599.7	556.6	539.0	539.0	539.9	542.5	550.4	551.3
32.5°	751.8	735.1	675.3	579.5	517.0	492.4	486.3	481.9	481.9	481.0	481.9
35°	815.1	801.0	702.6	556.6	473.9	446.7	431.7	423.8	415.9	412.4	411.5
37.5°	906.6	894.2	741.2	530.2	436.1	408.9	390.4	374.6	365.8	364.9	369.3
40°	1042.8	1030.5	784.3	500.3	400.1	379.9	360.5	343.8	334.1	335.0	339.4
42.5°	1210.8	1173.0	830.9	459.9	371.1	360.5	339.4	325.3	315.7	310.4	309.5
45°	1406.9	1343.6	874.9	422.1	339.4	343.8	323.6	307.8	295.4	281.4	279.6
47.5°	1651.3	1514.2	913.6	384.3	305.1	326.2	306.9	291.9	273.5	256.8	254.1
50°	1906.3	1710.2	947.0	343.8	274.3	306.9	290.2	269.9	244.4	229.5	229.5
52.5°	2200.9	1945.9	990.1	299.0	250.6	285.8	269.1	242.7	221.6	219.8	219.8
55°	2528.9	2193.0	1020.0	263.8	232.1	262.9	255.0	247.1	240.0	241.8	242.7
57.5°	2871.8	2450.6	993.6	239.2	217.2	257.6	280.5	269.9	248.0	247.1	246.2
60°	3167.2	2651.1	847.6	223.3	205.8	266.4	300.7	269.9	248.0	259.4	260.3
62.5°	3360.7	2746.0	564.5	203.1	189.0	251.5	293.7	262.0	248.8	281.4	284.0
65°	3334.3	2639.7	324.5	189.0	178.5	231.3	284.0	252.4	232.1	250.6	245.3
67.5°	2941.2	2212.3	234.8	182.9	170.6	217.2	266.4	238.3	216.3	239.2	229.5
70°	2113.8	1506.2	202.2	177.6	165.3	200.5	254.1	229.5	207.5	223.3	208.4
72°	1418.3	916.2	185.5	173.2	160.0	189.9	245.3	222.5	199.6	208.4	191.7
72.5°	1207.3	722.8	181.1	171.5	158.3	187.3	242.7	220.7	197.8	206.6	190.8
75°	451.1	283.1	160.9	158.3	146.0	174.1	232.1	212.8	189.0	186.4	179.4
77.5°	232.1	179.4	137.2	139.8	131.0	159.2	220.7	200.5	174.1	164.4	160.9
80°	168.8	130.1	110.8	118.7	111.7	143.3	204.9	182.0	158.3	147.7	143.3
82.5°	106.4	80.9	84.4	94.1	95.0	126.6	186.4	163.5	140.7	131.9	124.9
85°	51.0	48.4	59.8	69.5	76.5	107.3	170.6	145.1	123.1	105.5	106.4
87.5°	27.3	36.9	36.1	46.6	58.9	87.9	151.2	118.7	98.5	79.1	80.0
90°	13.2	16.7	19.6	27.5	30.7	44.8	105.6	75.7	72.9	33.1	29.6
92.5°	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)