

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: P226709

Luminaire Tested: **IST-AF-1200-LED-E1-T4W-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226709
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-1200-LED-E1-T4W-7030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 7843.3 lumens
Efficiency: N/A
Efficacy: 94.8 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): 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

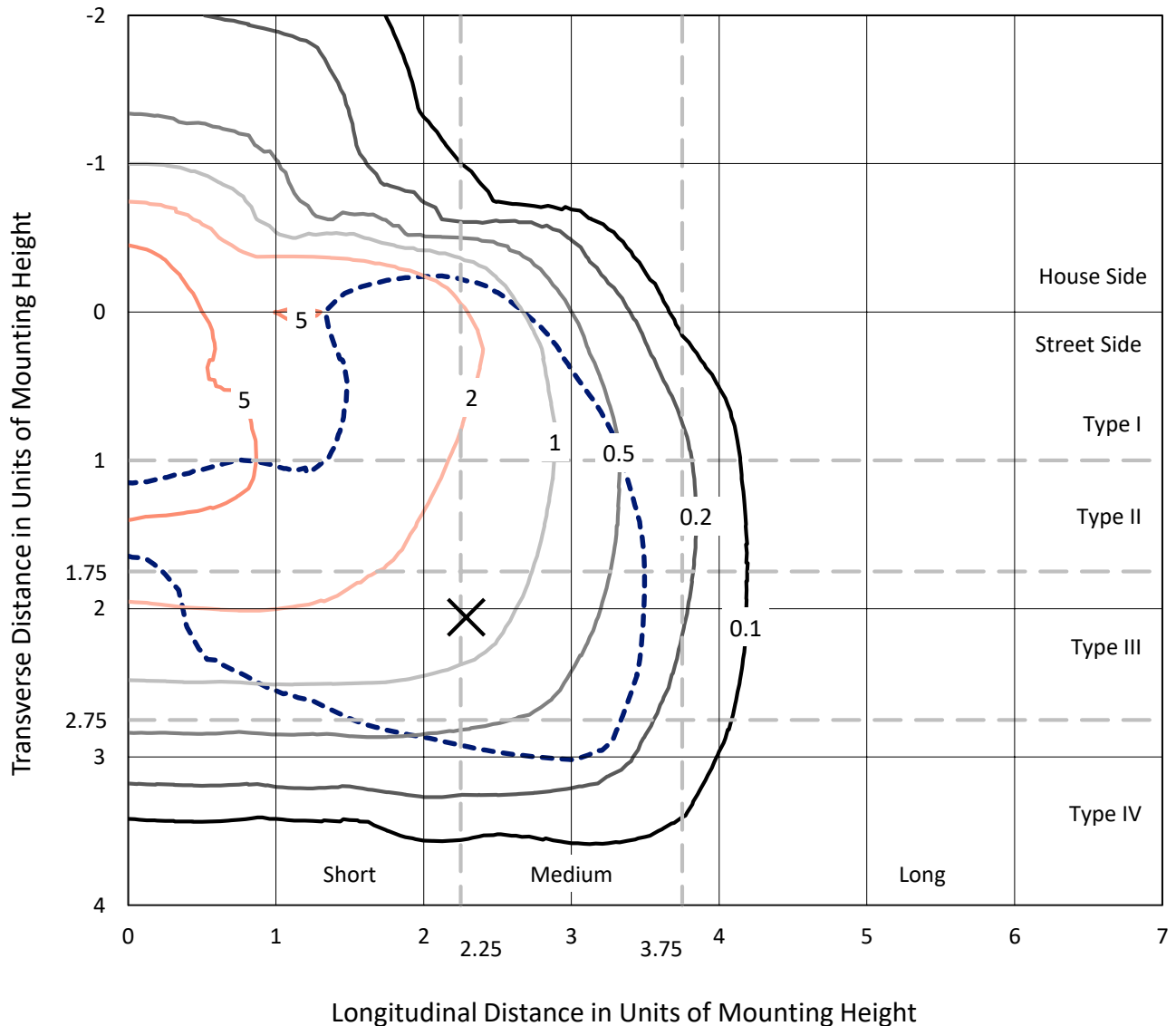


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

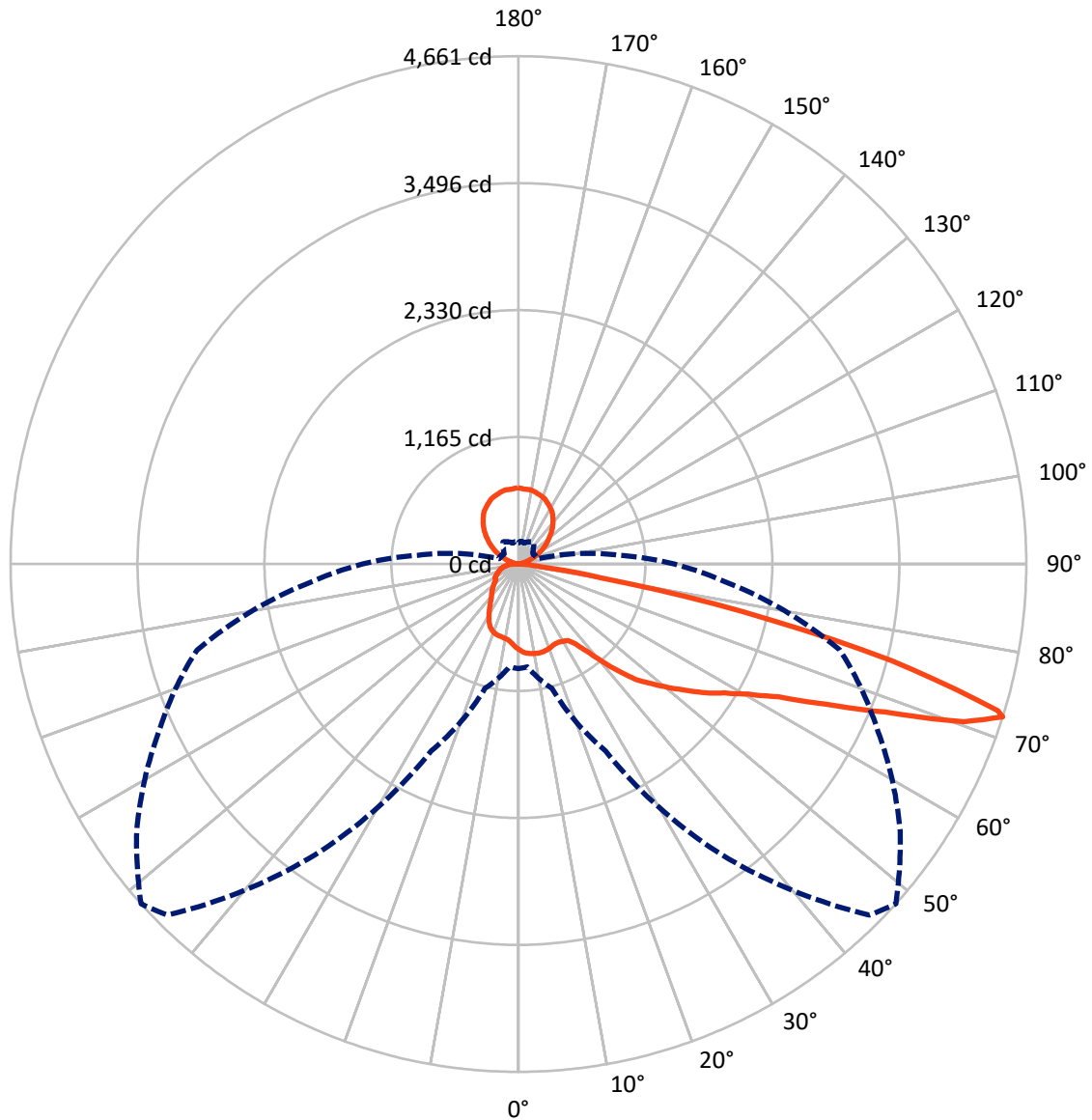


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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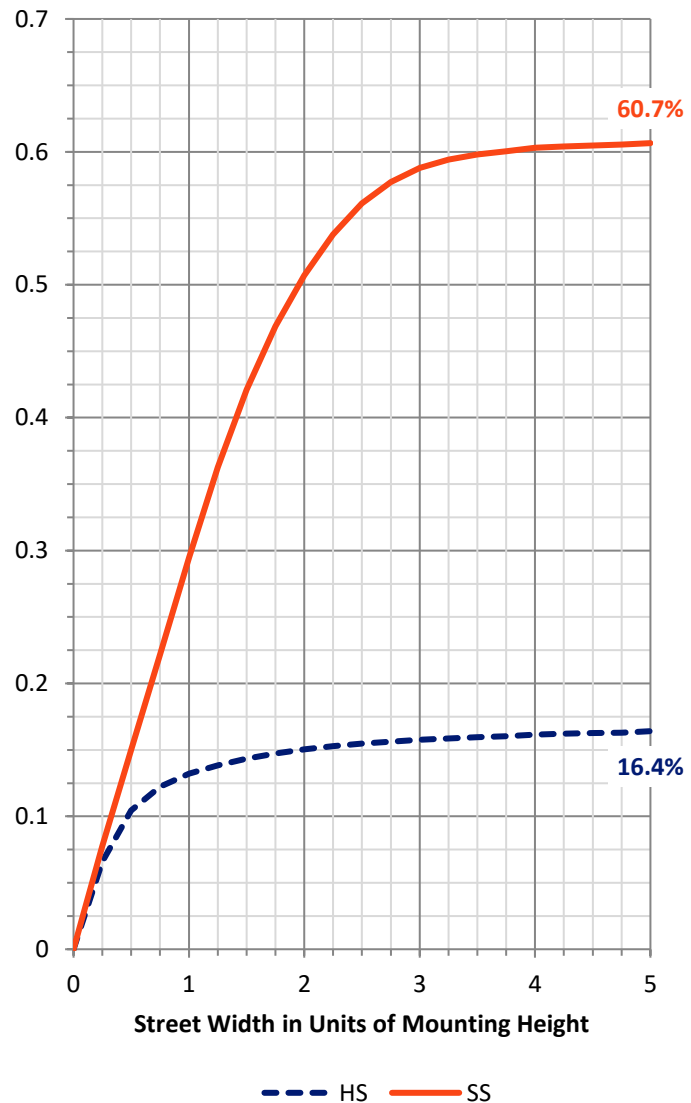
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1326.9	870.3	2197.3
	% Fixture	16.9	11.1	28.0
Street Side	Lumens	4777.5	868.5	5646.1
	% Fixture	60.9	11.1	72.0
Total	Lumens	6104.5	1738.8	7843.3
	% Fixture	77.8	22.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	0.9
10°-20°	217.0	2.8
20°-30°	334.6	4.3
30°-40°	501.6	6.4
40°-50°	835.2	10.6
50°-60°	1305.2	16.6
60°-70°	1724.0	22.0
70°-80°	997.3	12.7
80°-90°	115.3	1.5
90°-100°	13.0	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	2.4
170°-180°	66.3	0.8
0°-90°	6104.5	77.8
0°-180°	7843.3	100.0

Coefficient of Utilization



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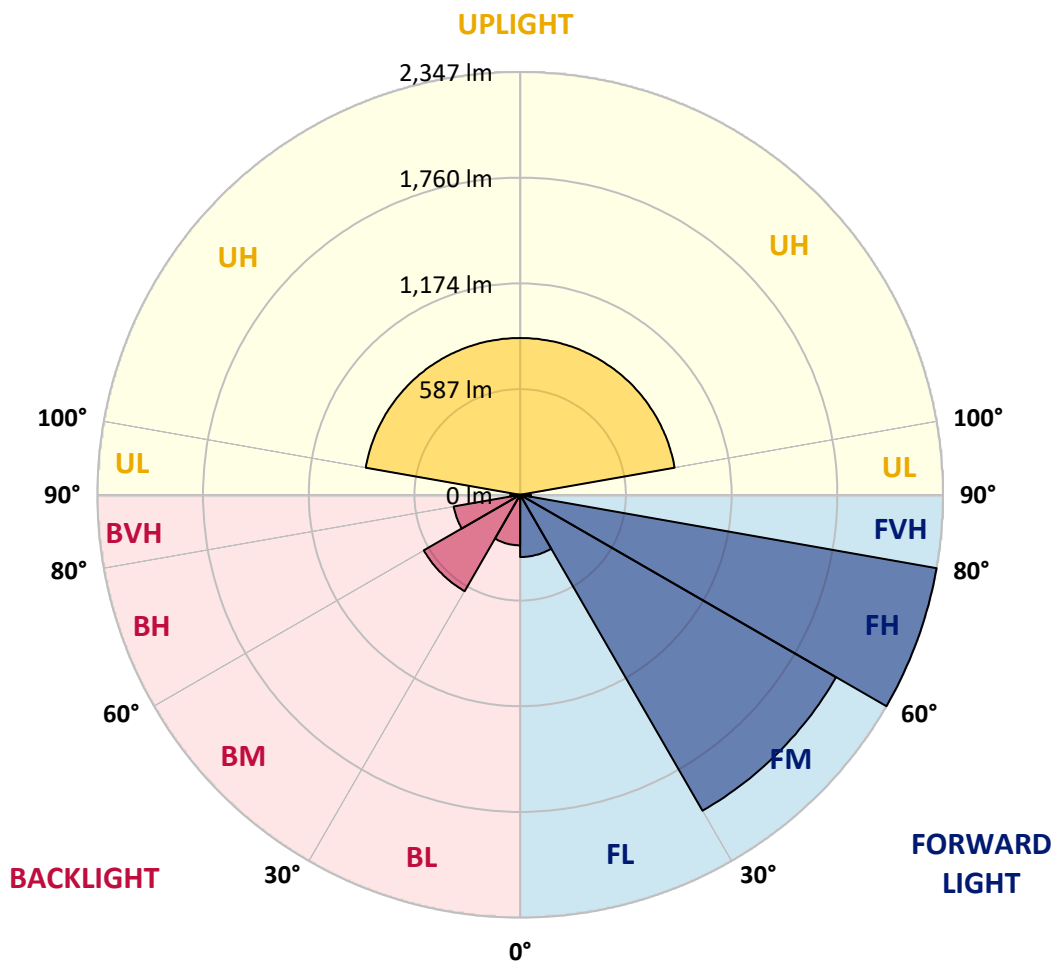
CATALOG NUMBER: IST-AF-1200-LED-E1-T4W-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	345.3	4.4			
FM (30°-60°)	2024.7	25.8			
FH (60°-80°)	2347.0	29.9			G2/5000
FVH (80°-90°)	60.5	0.8			G1/100
BL (0°-30°)	280.6	3.6	B1/500		
BM (30°-60°)	617.2	7.9	B1/1000		
BH (60°-80°)	374.3	4.8	B1/500		G1/500
BVH (80°-90°)	54.8	0.7			G1/100
UL (90°-100°)	13.0	0.2		U2/50	
UH (100°-180°)	870.3	11.1		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°	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7
2.5°	827.3	826.4	826.4	819.3	816.7	812.2	808.7	803.4	798.1	791.9	783.9
5°	867.1	869.8	866.3	855.6	842.3	828.2	822.9	810.5	793.6	778.6	764.4
7.5°	905.2	906.1	896.4	878.7	858.3	836.1	829.1	812.2	793.6	773.3	752.9
10°	932.7	933.6	919.4	894.6	867.1	842.3	834.4	817.5	794.5	772.4	746.7
12.5°	948.6	949.5	928.3	902.6	869.8	845.0	837.9	820.2	796.3	767.9	739.6
15°	946.0	948.6	930.9	902.6	868.0	845.9	837.0	822.0	791.9	763.5	733.4
17.5°	928.3	931.8	917.6	886.6	859.2	841.5	831.7	816.7	787.4	757.3	724.5
20°	893.7	898.1	891.9	861.8	843.2	829.1	822.9	808.7	781.2	750.2	716.6
22.5°	854.7	859.2	857.4	832.6	823.7	816.7	810.5	799.8	775.9	744.9	713.0
25°	826.4	829.9	827.3	806.0	808.7	808.7	805.1	797.2	775.0	746.7	713.0
27.5°	873.3	873.3	850.3	806.9	802.5	810.5	808.7	804.3	786.5	755.5	720.1
30°	1045.2	1031.9	990.3	881.3	825.5	822.0	821.1	818.4	802.5	775.0	742.3
32.5°	1237.4	1224.1	1174.5	1038.1	922.1	845.9	837.9	838.8	834.4	808.7	775.9
35°	1408.3	1406.6	1367.6	1219.7	1071.8	930.0	898.1	876.9	875.1	864.5	838.8
37.5°	1546.5	1546.5	1550.1	1381.8	1233.8	1063.8	1009.8	942.4	942.4	936.2	920.3
40°	1704.2	1711.3	1719.2	1528.8	1407.5	1223.2	1162.1	1060.2	1029.2	1039.0	1042.5
42.5°	1911.4	1920.3	1915.0	1710.4	1566.0	1413.7	1338.4	1215.2	1139.1	1155.0	1192.2
45°	2051.4	2054.9	2093.0	1899.9	1765.3	1574.9	1511.1	1341.9	1266.6	1299.4	1364.9
47.5°	2209.9	2218.8	2225.0	2115.2	1999.1	1757.3	1640.4	1465.0	1416.3	1465.9	1569.5
50°	2364.9	2353.4	2370.3	2365.8	2220.6	1919.4	1780.4	1580.2	1583.7	1651.0	1821.1
52.5°	2499.6	2460.6	2499.6	2548.3	2505.8	2085.9	1923.8	1715.7	1767.1	1849.4	2117.8
55°	2603.2	2509.3	2574.9	2713.0	2703.3	2233.0	2087.7	1896.4	1982.3	2094.8	2478.3
57.5°	2391.5	2403.0	2583.7	2823.8	2819.3	2381.8	2231.2	2122.3	2227.7	2353.4	2905.3
60°	2194.0	2245.4	2524.4	2841.5	2899.9	2543.9	2424.3	2379.1	2476.6	2629.8	3314.5
62.5°	2089.5	2138.2	2427.8	2808.7	3028.4	2783.9	2683.8	2649.3	2782.1	2954.0	3679.4
65°	2122.3	2152.4	2421.6	2858.3	3176.3	3147.1	3103.7	3046.1	3112.5	3273.7	3844.1
67.5°	2030.1	2079.7	2370.3	2946.0	3446.4	3589.9	3626.3	3564.3	3508.5	3486.3	3604.1
70°	1511.1	1558.9	1863.6	2583.7	3667.9	4358.8	4336.6	4129.4	3753.8	3440.2	2815.8
72°	960.2	946.9	1179.8	1892.8	3260.4	4556.3	4660.8	4277.3	3642.2	3054.9	1912.3
72.5°	698.0	760.9	978.8	1682.9	3097.5	4448.2	4600.6	4229.5	3496.1	2885.8	1682.0
75°	170.1	179.8	234.7	603.2	1814.0	3347.2	3538.6	3267.5	2551.8	1713.0	745.8
77.5°	115.1	119.6	155.0	212.6	533.2	1908.8	2100.1	1804.3	1141.7	582.8	332.2
80°	85.9	88.6	112.5	150.6	221.4	651.0	767.9	610.3	284.3	323.3	236.5
82.5°	60.2	62.0	85.0	110.7	147.0	152.3	202.8	224.1	184.2	211.7	138.2
85°	41.6	41.6	62.0	76.2	93.0	75.3	80.6	112.5	124.9	125.8	84.1
87.5°	22.1	24.8	36.3	48.7	48.7	34.5	38.1	57.6	70.0	75.3	50.5
90°	13.0	13.0	22.1	26.6	19.5	15.9	15.0	18.5	25.8	32.9	22.9
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°	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7
2.5°	782.1	776.8	769.7	766.2	764.4	760.9	757.3	755.5	755.5	752.0	752.9
5°	757.3	749.3	739.6	732.5	731.6	731.6	733.4	733.4	734.3	731.6	735.2
7.5°	744.9	736.1	721.9	713.9	707.7	706.8	710.4	717.5	721.0	718.3	721.9
10°	736.1	726.3	710.4	700.6	696.2	694.4	697.1	704.2	715.7	715.7	719.2
12.5°	727.2	714.8	698.9	691.8	688.2	689.1	692.7	698.0	710.4	714.8	716.6
15°	718.3	704.2	690.9	681.1	681.1	683.8	688.2	694.4	705.9	713.9	715.7
17.5°	709.5	695.3	683.8	675.8	675.8	679.4	683.8	691.8	699.7	711.3	711.3
20°	701.5	690.0	674.9	667.9	667.0	669.6	674.9	682.9	689.1	700.6	701.5
22.5°	697.1	682.9	668.7	658.1	653.7	651.9	657.2	665.2	671.4	682.9	684.7
25°	695.3	679.4	661.7	642.2	630.7	627.1	629.8	639.5	644.8	653.7	656.3
27.5°	701.5	686.5	659.0	623.6	599.7	589.9	592.6	598.8	600.5	610.3	614.7
30°	722.8	705.1	664.3	604.1	560.7	543.0	543.0	543.8	546.5	554.5	555.4
32.5°	757.3	740.5	680.3	583.7	520.8	496.0	489.8	485.4	485.4	484.5	485.4
35°	821.1	806.9	707.7	560.7	477.4	450.0	434.9	426.9	419.0	415.4	414.5
37.5°	913.2	900.8	746.7	534.1	439.3	411.9	393.3	377.3	368.5	367.6	372.0
40°	1050.5	1038.1	790.1	504.0	403.0	382.6	363.2	346.3	336.6	337.5	341.9
42.5°	1219.7	1181.6	837.0	463.2	373.8	363.2	341.9	327.7	318.0	312.7	311.8
45°	1417.2	1353.4	881.3	425.2	341.9	346.3	326.0	310.0	297.6	283.4	281.7
47.5°	1663.4	1525.3	920.3	387.1	307.4	328.6	309.1	294.1	275.5	258.6	256.0
50°	1920.3	1722.8	954.0	346.3	276.4	309.1	292.3	271.9	246.2	231.2	231.2
52.5°	2217.0	1960.2	997.4	301.2	252.4	287.9	271.0	244.5	223.2	221.4	221.4
55°	2547.4	2209.1	1027.5	265.7	233.8	264.8	256.9	248.9	241.8	243.6	244.5
57.5°	2892.9	2468.6	1000.9	240.9	218.8	259.5	282.6	271.9	249.8	248.9	248.0
60°	3190.5	2670.5	853.9	225.0	207.3	268.4	302.9	271.9	249.8	261.3	262.2
62.5°	3385.3	2766.2	568.7	204.6	190.4	253.3	295.8	264.0	250.7	283.4	286.1
65°	3358.8	2659.0	326.8	190.4	179.8	233.0	286.1	254.2	233.8	252.4	247.1
67.5°	2962.8	2228.5	236.5	184.2	171.8	218.8	268.4	240.0	217.9	240.9	231.2
70°	2129.3	1517.3	203.7	178.9	166.5	202.0	256.0	231.2	209.0	225.0	209.9
72°	1428.7	923.0	186.9	174.5	161.2	191.3	247.1	224.1	201.1	209.9	193.1
72.5°	1216.1	728.1	182.5	172.7	159.4	188.7	244.5	222.3	199.3	208.2	192.2
75°	454.4	285.2	162.1	159.4	147.0	175.4	233.8	214.4	190.4	187.8	180.7
77.5°	233.8	180.7	138.2	140.8	132.0	160.3	222.3	202.0	175.4	165.6	162.1
80°	170.1	131.1	111.6	119.6	112.5	144.4	206.4	183.3	159.4	148.8	144.4
82.5°	107.2	81.5	85.0	94.8	95.7	127.5	187.8	164.7	141.7	132.9	125.8
85°	51.4	48.7	60.2	70.0	77.1	108.1	171.8	146.1	124.0	106.3	107.2
87.5°	27.5	37.2	36.3	46.9	59.3	88.6	152.3	119.6	99.2	79.7	80.6
90°	13.2	16.7	19.6	27.6	30.9	45.1	106.3	76.2	73.4	33.3	29.8
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)