

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: P271720

Luminaire Tested: **IST-AF-600-LED-E1-T4W-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271720
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-600-LED-E1-T4W-7027-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5263.9 lumens
Efficiency: N/A
Efficacy: 104.4 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 - G1

Input Watts (W): 50.4
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

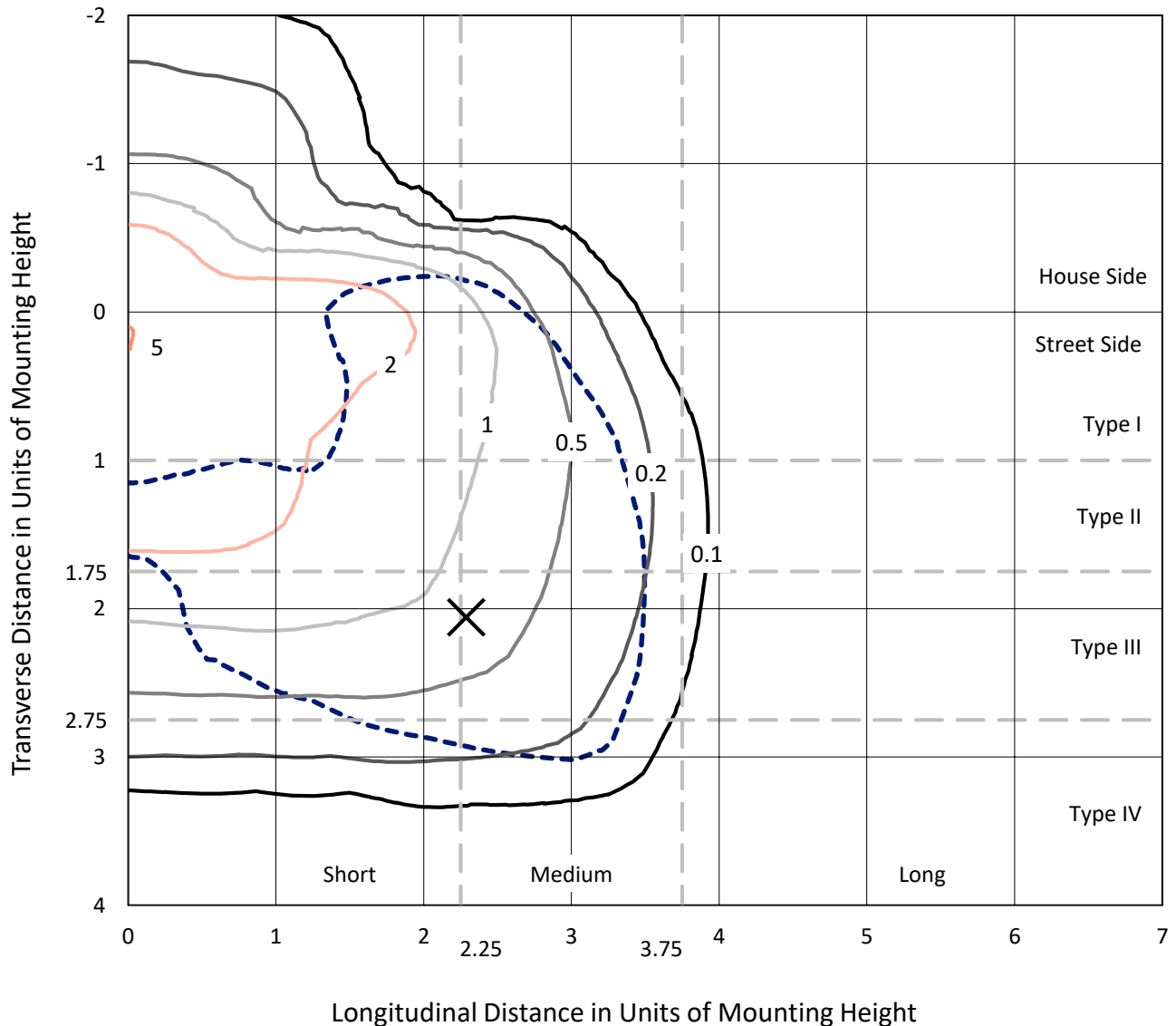


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Iso-Footcandle Lines of Horizontal Illumination

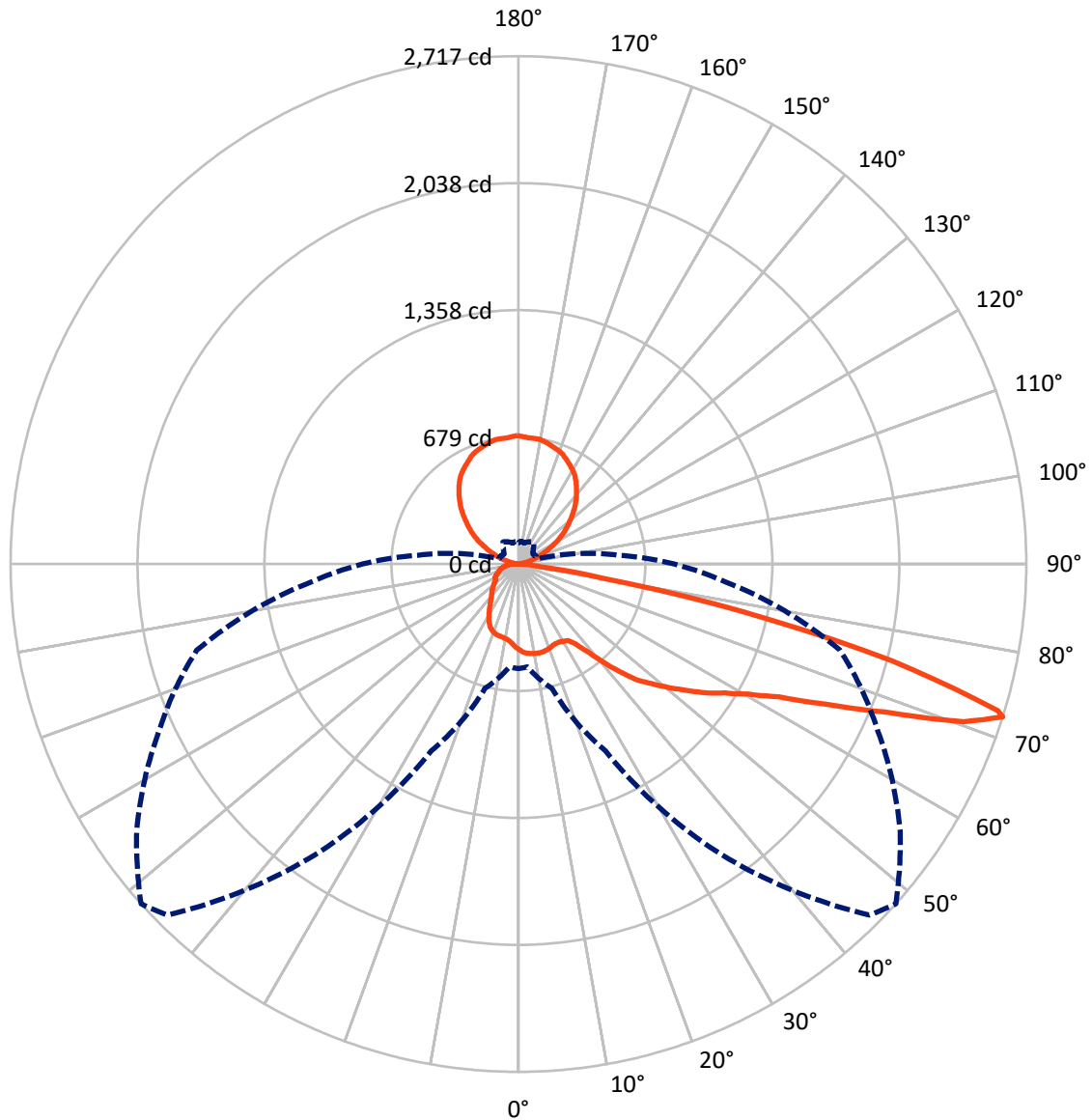
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 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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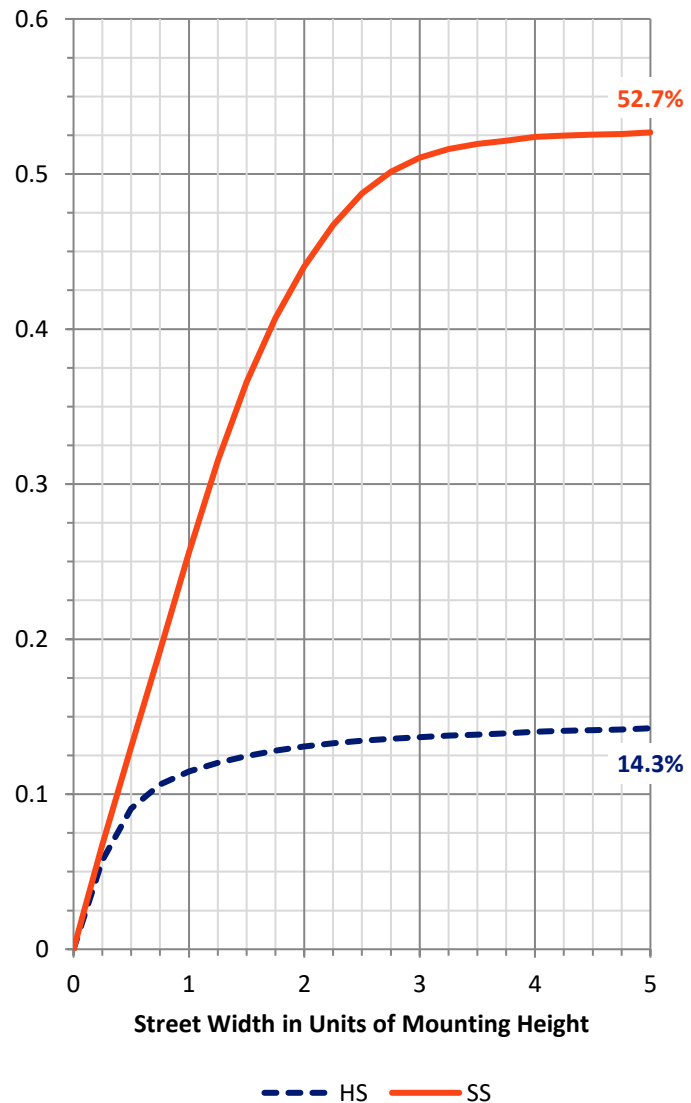
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	773.7	853.1	1626.8
	% Fixture	14.7	16.2	30.9
Street Side	Lumens	2785.1	852.1	3637.1
	% Fixture	52.9	16.2	69.1
Total	Lumens	3558.8	1705.1	5263.9
	% Fixture	67.6	32.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	0.8
10°-20°	126.5	2.4
20°-30°	195.1	3.7
30°-40°	292.4	5.6
40°-50°	486.8	9.2
50°-60°	760.8	14.5
60°-70°	1005.0	19.1
70°-80°	581.3	11.0
80°-90°	67.6	1.3
90°-100°	11.2	0.2
100°-110°	56.3	1.1
110°-120°	163.1	3.1
120°-130°	268.1	5.1
130°-140°	330.6	6.3
140°-150°	338.2	6.4
150°-160°	284.9	5.4
160°-170°	187.6	3.6
170°-180°	65.0	1.2
0°-90°	3558.8	67.6
0°-180°	5263.9	100.0



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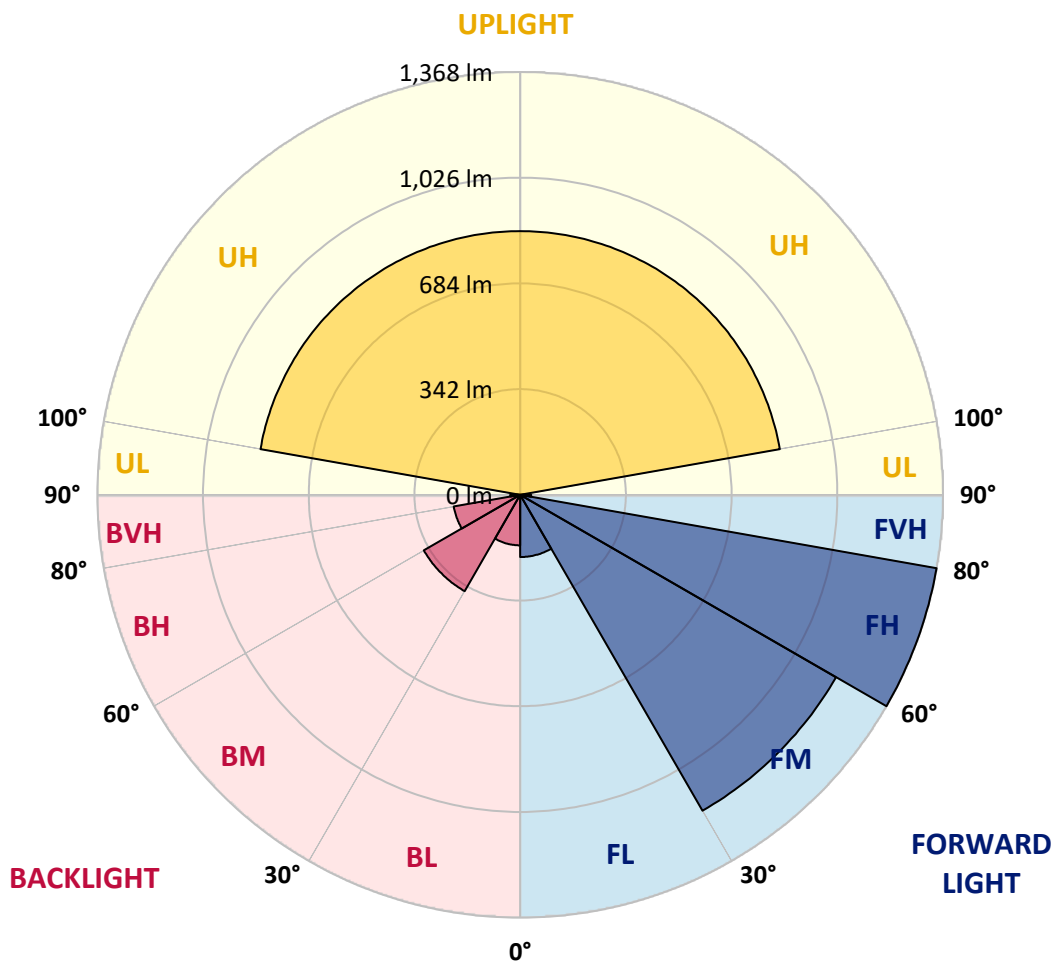
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	201.3	3.8			
FM	(30°-60°)	1180.2	22.4			
FH	(60°-80°)	1368.1	26.0			G1/1800
FVH	(80°-90°)	35.5	0.7			G1/100
BL	(0°-30°)	163.6	3.1	B1/500		
BM	(30°-60°)	359.8	6.8	B1/1000		
BH	(60°-80°)	218.2	4.1	B1/500		G1/500
BVH	(80°-90°)	32.2	0.6			G1/100
UL	(90°-100°)	11.2	0.2		U2/50	
UH	(100°-180°)	853.1	16.2		U4/1000	

BUG Rating: B1-U5-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	482.2	481.7	481.7	477.6	476.0	473.5	471.4	468.3	465.2	461.5	457.0
5°	505.5	507.0	504.9	498.8	491.0	482.7	479.6	472.4	462.5	453.8	445.6
7.5°	527.7	528.2	522.5	512.1	500.3	487.4	483.3	473.5	462.5	450.7	438.8
10°	543.7	544.2	535.9	521.5	505.5	491.0	486.3	476.6	463.2	450.2	435.3
12.5°	553.0	553.4	541.0	526.0	507.0	492.6	488.4	478.1	464.2	447.6	431.2
15°	551.4	553.0	542.7	526.0	505.9	493.1	487.9	479.2	461.5	445.1	427.5
17.5°	541.0	543.1	534.9	516.9	500.9	490.6	484.8	476.0	459.0	441.4	422.3
20°	520.9	523.5	519.8	502.4	491.6	483.3	479.6	471.4	455.4	437.4	417.7
22.5°	498.2	500.9	499.7	485.4	480.1	476.0	472.4	466.2	452.3	434.2	415.6
25°	481.7	483.7	482.2	469.8	471.4	471.4	469.4	464.6	451.8	435.3	415.6
27.5°	509.1	509.1	495.7	470.4	467.7	472.4	471.4	468.8	458.5	440.3	419.8
30°	609.2	601.5	577.3	513.7	481.2	479.2	478.7	477.1	467.7	451.8	432.6
32.5°	721.2	713.5	684.6	605.1	537.5	493.1	488.4	488.9	486.3	471.4	452.3
35°	820.9	820.0	797.2	711.0	624.7	542.1	523.5	511.1	510.1	503.9	488.9
37.5°	901.4	901.4	903.5	805.4	719.3	620.1	588.6	549.3	549.3	545.7	536.5
40°	993.3	997.5	1002.1	891.2	820.4	713.1	677.4	618.0	600.0	605.6	607.7
42.5°	1114.2	1119.4	1116.2	997.0	912.9	824.0	780.2	708.3	663.9	673.3	695.0
45°	1195.7	1197.8	1220.1	1107.5	1029.0	918.0	880.8	782.2	738.4	757.5	795.6
47.5°	1288.2	1293.4	1297.0	1232.9	1165.3	1024.3	956.2	854.0	825.6	854.5	914.9
50°	1378.6	1371.8	1381.6	1379.1	1294.4	1118.9	1037.8	921.1	923.2	962.4	1061.5
52.5°	1457.1	1434.3	1457.1	1485.4	1460.6	1215.9	1121.4	1000.2	1030.1	1078.1	1234.5
55°	1517.5	1462.7	1500.9	1581.5	1575.8	1301.6	1216.9	1105.5	1155.5	1221.1	1444.7
57.5°	1394.0	1400.7	1506.1	1646.1	1643.4	1388.4	1300.6	1237.1	1298.5	1371.8	1693.6
60°	1278.8	1308.8	1471.5	1656.4	1690.4	1482.8	1413.1	1386.8	1443.6	1533.0	1932.1
62.5°	1218.0	1246.4	1415.2	1637.3	1765.3	1622.8	1564.4	1544.3	1621.7	1721.9	2144.7
65°	1237.1	1254.7	1411.6	1666.2	1851.5	1834.5	1809.2	1775.6	1814.4	1908.3	2240.8
67.5°	1183.3	1212.4	1381.6	1717.3	2009.0	2092.6	2113.8	2077.6	2045.1	2032.1	2100.9
70°	880.8	908.7	1086.3	1506.1	2138.1	2540.8	2527.9	2407.1	2188.1	2005.4	1641.3
72°	559.6	552.0	687.7	1103.4	1900.5	2655.9	2716.8	2493.2	2123.1	1780.8	1114.8
72.5°	406.8	443.5	570.5	980.9	1805.5	2592.9	2681.7	2465.4	2037.9	1682.2	980.5
75°	99.2	104.8	136.8	351.6	1057.5	1951.2	2062.7	1904.7	1487.5	998.6	434.7
77.5°	67.1	69.7	90.4	124.0	310.8	1112.6	1224.2	1051.7	665.6	339.6	193.7
80°	50.0	51.7	65.6	87.8	129.1	379.4	447.6	355.8	165.7	188.5	137.9
82.5°	35.1	36.1	49.6	64.6	85.7	88.8	118.3	130.6	107.3	123.3	80.6
85°	24.3	24.3	36.1	44.4	54.2	43.8	47.0	65.6	72.9	73.3	49.0
87.5°	12.9	14.5	21.2	28.4	28.4	20.1	22.2	33.6	40.9	43.8	29.5
90°	9.5	9.5	15.6	18.7	14.6	12.0	11.5	13.6	18.7	22.7	16.2
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	6.2	6.8	6.8	5.9	5.9
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	6.8	7.8	6.8	6.8
97.5°	6.8	6.8	7.8	7.8	8.8	8.8	9.7	11.8	9.8	8.8	7.8
100°	7.8	7.8	8.8	9.8	11.8	20.6	23.0	28.5	25.5	22.5	18.7
102.5°	10.8	10.8	12.8	17.7	26.5	39.3	42.2	49.0	46.2	41.2	38.3
105°	20.6	21.6	26.5	35.3	47.1	61.8	64.5	70.7	68.7	63.8	59.8
107.5°	40.2	41.2	48.1	57.0	71.7	86.3	88.4	93.2	92.3	88.3	85.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	64.8	66.7	72.7	85.4	100.1	111.9	113.6	117.8	118.8	116.8	113.8
112.5°	97.2	97.2	104.0	118.8	131.5	140.3	141.8	145.3	147.2	146.2	144.3
115°	137.4	136.5	144.3	156.0	164.9	170.8	172.3	175.7	178.7	175.7	173.7
117.5°	180.6	180.6	185.5	193.3	198.3	201.2	202.9	207.1	211.0	206.1	204.2
120°	220.8	218.8	221.8	228.7	232.6	238.5	239.4	241.5	245.3	240.5	238.5
122.5°	258.2	255.2	256.2	262.0	266.0	271.8	272.5	273.8	277.8	272.8	270.9
125°	292.5	288.5	290.5	293.5	299.3	304.3	305.2	307.2	309.2	304.3	304.3
127.5°	323.9	322.9	322.9	326.8	332.7	333.7	335.2	338.6	339.6	339.6	338.6
130°	356.3	354.3	355.3	359.2	363.2	365.1	366.6	370.0	374.0	374.0	372.0
132.5°	388.7	386.7	385.7	393.5	396.5	397.5	399.3	403.4	408.3	406.3	406.3
135°	421.0	418.1	418.1	424.0	427.0	428.9	430.6	434.8	439.7	438.7	441.7
137.5°	451.5	448.5	450.5	451.5	455.4	459.3	460.8	464.2	466.2	467.2	472.1
140°	479.0	476.0	478.0	480.0	481.9	487.8	488.7	490.7	492.7	494.7	499.5
142.5°	508.4	505.5	507.5	508.4	511.3	515.3	515.9	517.2	523.2	523.2	524.1
145°	539.8	535.9	534.0	536.8	539.8	540.8	542.3	545.7	551.6	550.6	547.7
147.5°	564.3	561.4	560.5	563.3	563.3	564.3	565.8	569.3	574.2	575.2	572.2
150°	584.0	581.0	582.0	582.0	582.0	582.0	583.2	586.0	588.9	591.8	594.8
152.5°	599.7	596.7	596.7	597.7	598.7	598.7	599.0	599.7	602.7	606.5	611.5
155°	617.3	613.5	613.5	615.4	618.3	616.3	615.8	614.4	619.3	624.2	626.2
157.5°	634.0	631.1	631.1	632.0	634.0	633.0	632.8	632.0	636.0	638.0	638.0
160°	650.7	647.8	646.8	643.8	642.8	642.8	643.7	645.8	651.7	648.8	647.8
162.5°	660.5	656.6	656.6	652.7	648.8	650.7	651.9	654.7	658.5	657.6	655.7
165°	668.4	665.5	663.5	663.5	660.5	660.5	660.3	659.5	664.5	667.4	665.5
167.5°	677.2	674.3	671.3	673.3	675.3	672.3	670.2	665.5	671.3	675.3	675.3
170°	685.0	682.2	679.2	679.2	680.2	678.2	676.7	673.3	676.2	681.2	683.1
172.5°	686.0	684.1	682.2	680.2	677.2	677.2	677.0	676.2	679.2	681.2	683.1
175°	687.0	685.0	684.1	682.2	678.2	677.2	677.2	677.2	682.2	683.1	681.2
177.5°	693.9	692.0	687.0	686.0	684.1	682.2	681.8	681.2	686.0	688.0	685.0
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	455.9	452.7	448.6	446.5	445.6	443.5	441.4	440.3	440.3	438.4	438.8
5°	441.4	436.8	431.2	427.0	426.4	426.4	427.5	427.5	428.0	426.4	428.5
7.5°	434.2	429.1	420.8	416.2	412.5	412.1	414.1	418.3	420.2	418.7	420.8
10°	429.1	423.4	414.1	408.4	405.9	404.8	406.3	410.4	417.3	417.3	419.3
12.5°	423.9	416.6	407.4	403.2	401.1	401.7	403.8	406.8	414.1	416.6	417.7
15°	418.7	410.4	402.7	397.1	397.1	398.6	401.1	404.8	411.5	416.2	417.3
17.5°	413.6	405.3	398.6	394.0	394.0	396.1	398.6	403.2	407.9	414.6	414.6
20°	408.9	402.2	393.5	389.2	388.8	390.3	393.5	398.1	401.7	408.4	408.9
22.5°	406.3	398.1	389.9	383.7	381.0	380.1	383.0	387.8	391.3	398.1	399.0
25°	405.3	396.1	385.7	374.3	367.7	365.5	367.0	372.8	375.9	381.0	382.6
27.5°	408.9	400.1	384.1	363.5	349.5	343.9	345.4	349.0	350.1	355.8	358.3
30°	421.3	411.0	387.2	352.1	326.8	316.6	316.6	317.0	318.6	323.2	323.7
32.5°	441.4	431.6	396.5	340.3	303.5	289.2	285.5	283.0	283.0	282.4	283.0
35°	478.7	470.4	412.5	326.8	278.3	262.2	253.5	248.9	244.2	242.1	241.6
37.5°	532.3	525.1	435.3	311.4	256.1	240.0	229.2	219.9	214.8	214.2	216.9
40°	612.4	605.1	460.5	293.7	235.0	223.0	211.7	201.8	196.2	196.7	199.3
42.5°	711.0	688.8	487.9	270.0	217.9	211.7	199.3	191.0	185.4	182.3	181.7
45°	826.1	788.9	513.7	247.8	199.3	201.8	190.0	180.6	173.6	165.2	164.2
47.5°	969.6	889.1	536.5	225.7	179.1	191.6	180.2	171.4	160.5	150.7	149.2
50°	1119.4	1004.2	556.1	201.8	161.1	180.2	170.4	158.6	143.5	134.7	134.7
52.5°	1292.3	1142.6	581.3	175.6	147.1	167.8	158.0	142.5	130.2	129.1	129.1
55°	1484.9	1287.7	598.9	154.9	136.4	154.4	149.7	145.1	140.9	142.0	142.5
57.5°	1686.3	1438.9	583.4	140.5	127.5	151.3	164.7	158.6	145.5	145.1	144.5
60°	1859.7	1556.8	497.8	131.2	120.8	156.5	176.6	158.6	145.5	152.4	152.8
62.5°	1973.4	1612.5	331.5	119.3	111.0	147.7	172.5	153.9	146.2	165.2	166.7
65°	1957.9	1549.9	190.5	111.0	104.8	135.8	166.7	148.2	136.4	147.1	144.1
67.5°	1727.0	1299.1	137.9	107.3	100.3	127.5	156.5	140.0	127.0	140.5	134.7
70°	1241.2	884.4	118.8	104.3	97.1	117.7	149.2	134.7	121.8	131.2	122.3
72°	832.8	537.9	109.0	101.7	94.0	111.5	144.1	130.6	117.2	122.3	112.6
72.5°	708.9	424.4	106.4	100.7	93.0	110.0	142.5	129.5	116.2	121.3	112.1
75°	264.9	166.3	94.5	93.0	85.7	102.2	136.4	125.0	111.0	109.4	105.3
77.5°	136.4	105.3	80.6	82.0	77.0	93.4	129.5	117.7	102.2	96.6	94.5
80°	99.2	76.4	65.0	69.7	65.6	84.1	120.4	106.9	93.0	86.8	84.1
82.5°	62.5	47.5	49.6	55.2	55.8	74.4	109.4	96.0	82.6	77.4	73.3
85°	29.9	28.4	35.1	40.9	44.9	63.0	100.3	85.2	72.2	61.9	62.5
87.5°	16.0	21.6	21.2	27.4	34.6	51.7	88.8	69.7	57.9	46.4	47.0
90°	10.5	12.6	15.0	19.7	20.8	29.0	65.1	47.6	45.6	21.4	19.3
92.5°	5.9	5.9	5.9	6.8	6.8	5.9	5.9	5.9	4.9	4.0	4.0
95°	6.8	6.8	6.8	7.8	6.8	6.8	6.8	6.8	5.9	4.9	4.9
97.5°	7.8	7.8	8.8	9.8	11.8	8.8	8.8	7.8	7.8	6.8	6.8
100°	18.7	18.7	22.5	25.5	28.5	20.6	11.8	9.8	8.8	7.8	7.8
102.5°	37.3	38.3	41.2	46.2	49.0	39.3	26.5	17.7	12.8	10.8	10.8
105°	59.8	59.8	63.8	68.7	70.7	61.8	47.1	35.3	26.5	21.6	20.6
107.5°	84.4	85.4	88.3	92.3	93.2	86.3	71.7	57.0	48.1	41.2	40.2



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	114.8	113.8	116.8	118.8	117.8	111.9	100.1	85.4	72.7	66.7	64.8
112.5°	144.3	144.3	146.2	147.2	145.3	140.3	131.5	118.8	104.0	97.2	97.2
115°	174.7	173.7	175.7	178.7	175.7	170.8	164.9	156.0	144.3	136.5	137.4
117.5°	205.2	204.2	206.1	211.0	207.1	201.2	198.3	193.3	185.5	180.6	180.6
120°	238.5	238.5	240.5	245.3	241.5	238.5	232.6	228.7	221.8	218.8	220.8
122.5°	271.8	270.9	272.8	277.8	273.8	271.8	266.0	262.0	256.2	255.2	258.2
125°	304.3	304.3	304.3	309.2	307.2	304.3	299.3	293.5	290.5	288.5	292.5
127.5°	340.5	338.6	339.6	339.6	338.6	333.7	332.7	326.8	322.9	322.9	323.9
130°	373.0	372.0	374.0	374.0	370.0	365.1	363.2	359.2	355.3	354.3	356.3
132.5°	407.3	406.3	406.3	408.3	403.4	397.5	396.5	393.5	385.7	386.7	388.7
135°	442.7	441.7	438.7	439.7	434.8	428.9	427.0	424.0	418.1	418.1	421.0
137.5°	473.0	472.1	467.2	466.2	464.2	459.3	455.4	451.5	450.5	448.5	451.5
140°	501.5	499.5	494.7	492.7	490.7	487.8	481.9	480.0	478.0	476.0	479.0
142.5°	526.0	524.1	523.2	523.2	517.2	515.3	511.3	508.4	507.5	505.5	508.4
145°	549.7	547.7	550.6	551.6	545.7	540.8	539.8	536.8	534.0	535.9	539.8
147.5°	574.2	572.2	575.2	574.2	569.3	564.3	563.3	563.3	560.5	561.4	564.3
150°	598.7	594.8	591.8	588.9	586.0	582.0	582.0	582.0	582.0	581.0	584.0
152.5°	616.3	611.5	606.5	602.7	599.7	598.7	598.7	597.7	596.7	596.7	599.7
155°	629.2	626.2	624.2	619.3	614.4	616.3	618.3	615.4	613.5	613.5	617.3
157.5°	642.8	638.0	638.0	636.0	632.0	633.0	634.0	632.0	631.1	631.1	634.0
160°	653.7	647.8	648.8	651.7	645.8	642.8	642.8	643.8	646.8	647.8	650.7
162.5°	661.5	655.7	657.6	658.5	654.7	650.7	648.8	652.7	656.6	656.6	660.5
165°	669.3	665.5	667.4	664.5	659.5	660.5	660.5	663.5	663.5	665.5	668.4
167.5°	681.2	675.3	675.3	671.3	665.5	672.3	675.3	673.3	671.3	674.3	677.2
170°	688.0	683.1	681.2	676.2	673.3	678.2	680.2	679.2	679.2	682.2	685.0
172.5°	688.0	683.1	681.2	679.2	676.2	677.2	677.2	680.2	682.2	684.1	686.0
175°	686.0	681.2	683.1	682.2	677.2	677.2	678.2	682.2	684.1	685.0	687.0
177.5°	689.0	685.0	688.0	686.0	681.2	682.2	684.1	686.0	687.0	692.0	693.9
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0

(END OF REPORT)