

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: P226431

Luminaire Tested: **IST-AF-600-LED-E1-T3-8030-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226431  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35938)-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-T3-8030-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, WITH UPLIGHT GLOW  
Light Source: (16) 3000K CCT, 80 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5083.8 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G1

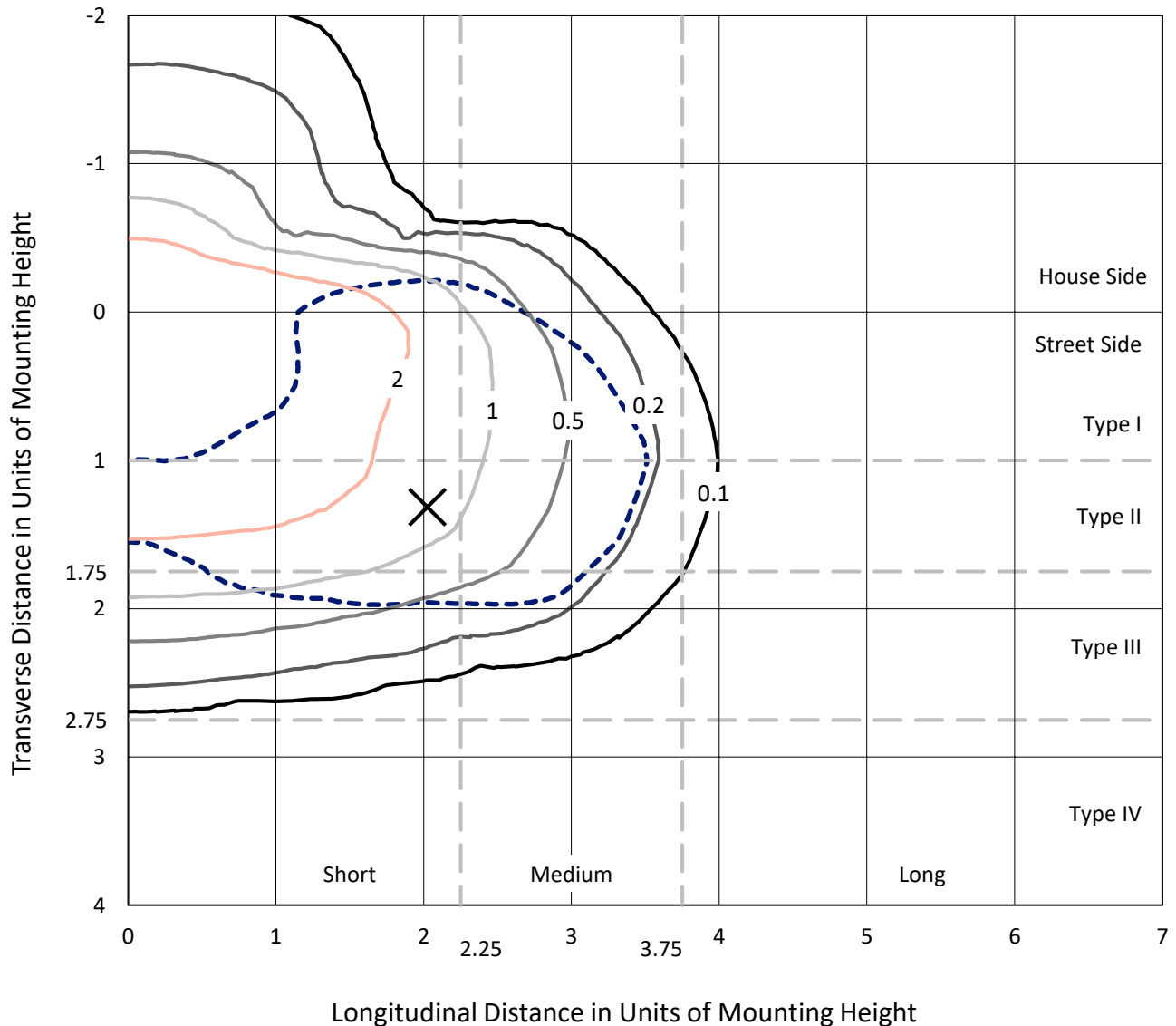
Input Watts (W): 50.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

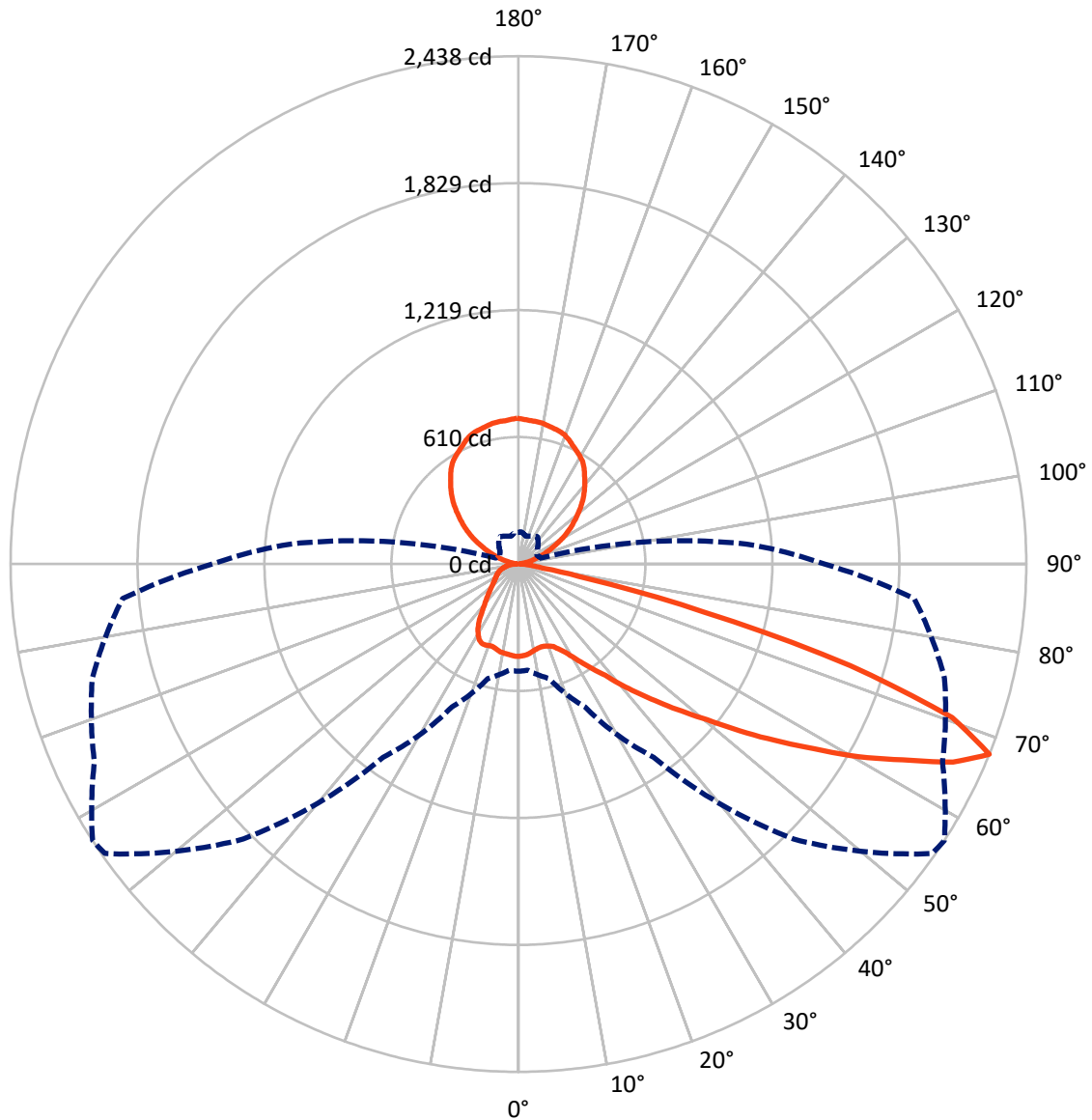
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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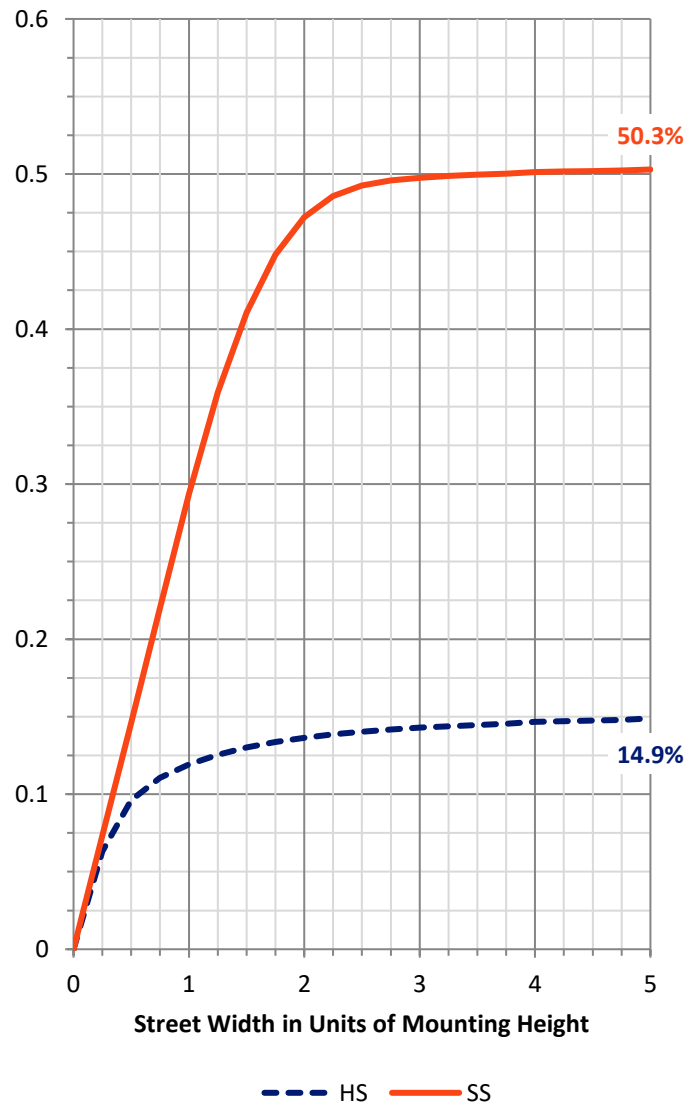
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	779.6	868.5	1648.1
	% Fixture	15.3	17.1	32.4
<b>Street Side</b>	Lumens	2567.8	867.8	3435.7
	% Fixture	50.5	17.1	67.6
<b>Total</b>	Lumens	3347.4	1736.4	5083.8
	% Fixture	65.8	34.2	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	0.8
10°-20°	119.3	2.3
20°-30°	205.2	4.0
30°-40°	333.7	6.6
40°-50°	538.2	10.6
50°-60°	802.4	15.8
60°-70°	903.7	17.8
70°-80°	348.4	6.9
80°-90°	55.0	1.1
90°-100°	10.5	0.2
100°-110°	57.4	1.1
110°-120°	166.1	3.3
120°-130°	273.2	5.4
130°-140°	336.8	6.6
140°-150°	344.6	6.8
150°-160°	290.3	5.7
160°-170°	191.2	3.8
170°-180°	66.3	1.3
0°-90°	3347.4	65.8
0°-180°	5083.8	100.0



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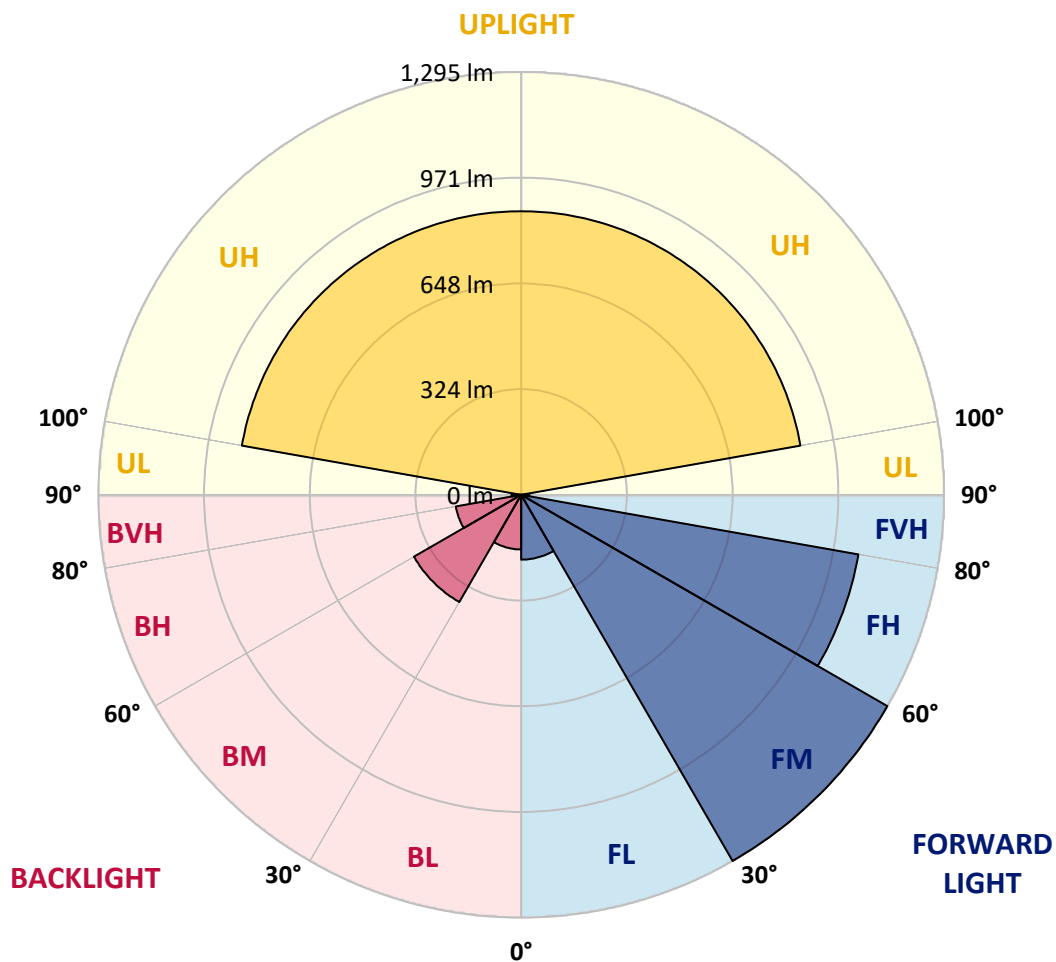
CATALOG NUMBER: IST-AF-600-LED-E1-T3-8030-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	198.6	3.9			
FM	(30°-60°)	1295.1	25.5			
FH	(60°-80°)	1048.8	20.6			G1/1800
FVH	(80°-90°)	25.3	0.5			G1/100
BL	(0°-30°)	167.4	3.3	B1/500		
BM	(30°-60°)	379.2	7.5	B1/1000		
BH	(60°-80°)	203.3	4.0	B1/500		G1/500
BVH	(80°-90°)	29.7	0.6			G1/100
UL	(90°-100°)	10.5	0.2		U2/50	
UH	(100°-180°)	868.5	17.1		U4/1000	

**BUG Rating: B1-U5-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6
2.5°	440.2	441.2	442.2	441.7	441.7	441.7	441.7	440.7	442.2	442.2	441.2
5°	433.0	433.4	433.9	434.9	435.9	436.8	437.3	437.3	437.8	437.3	436.3
7.5°	422.3	422.8	424.7	424.7	425.7	427.6	428.6	429.6	431.0	431.0	430.5
10°	418.9	418.9	418.9	417.4	418.4	418.9	420.4	420.4	424.2	426.2	427.1
12.5°	422.8	422.3	422.3	418.4	415.0	413.6	415.0	415.5	419.9	422.8	424.7
15°	431.5	431.5	430.5	424.7	417.9	412.6	412.1	412.1	415.5	419.9	423.3
17.5°	451.9	453.8	447.0	437.8	426.7	417.9	414.5	414.0	416.5	419.9	423.3
20°	490.7	490.2	480.0	463.5	444.1	429.6	421.3	420.4	419.9	421.8	425.7
22.5°	536.7	534.8	522.6	501.8	475.1	448.5	432.5	430.5	426.7	428.1	433.4
25°	586.2	586.6	571.6	544.5	511.0	479.0	454.8	452.8	444.6	443.6	449.4
27.5°	635.6	641.9	621.6	595.9	556.1	517.8	482.4	479.5	472.2	469.8	475.6
30°	707.9	705.4	680.2	646.8	607.0	559.0	525.1	519.7	505.2	508.6	514.9
32.5°	768.9	774.3	751.5	711.7	659.4	609.0	569.7	566.8	552.7	556.6	565.3
35°	843.6	856.2	826.2	777.2	726.8	674.9	627.9	620.1	609.0	616.7	623.5
37.5°	928.9	935.2	912.0	848.9	797.6	743.2	689.9	677.8	665.7	681.7	693.8
40°	1010.4	1020.6	990.5	937.2	877.5	825.7	767.5	765.1	736.9	754.4	785.9
42.5°	1131.1	1143.7	1095.7	1033.7	979.8	917.3	862.0	848.9	818.4	843.1	896.0
45°	1215.5	1215.0	1182.5	1131.1	1098.1	1037.5	962.9	947.4	914.4	947.4	1018.1
47.5°	1246.0	1253.3	1242.1	1235.8	1224.2	1180.1	1070.0	1055.5	1024.5	1073.4	1138.9
50°	1291.1	1289.2	1289.2	1328.0	1361.4	1352.2	1195.6	1174.8	1142.3	1200.9	1295.0
52.5°	1302.7	1285.3	1312.4	1386.6	1492.8	1500.6	1341.5	1329.9	1291.1	1348.3	1464.2
55°	1270.3	1265.9	1309.0	1416.7	1583.9	1639.2	1510.7	1494.7	1451.1	1500.1	1647.0
57.5°	1197.5	1208.7	1278.0	1410.4	1647.0	1761.4	1696.4	1673.6	1611.1	1640.7	1828.3
60°	1121.4	1126.8	1218.4	1388.1	1663.9	1846.2	1891.3	1878.2	1771.1	1788.5	1962.6
62.5°	1037.1	1024.5	1119.5	1369.7	1645.0	1963.1	2080.4	2070.2	1943.7	1938.4	2058.1
65°	801.4	818.9	899.8	1132.1	1515.6	2054.2	2305.9	2292.8	2136.2	2062.0	2047.9
67.5°	514.9	511.5	568.7	756.8	1132.6	1867.1	2423.7	2438.2	2246.2	2117.8	1907.3
70°	184.7	190.1	211.4	343.7	621.1	1244.1	2136.7	2208.9	2165.3	2013.5	1552.4
72.5°	112.5	112.5	128.0	154.7	251.6	590.0	1522.9	1665.9	1767.2	1659.1	1146.6
75°	88.2	87.8	93.1	106.7	135.8	193.4	809.7	920.2	1133.5	1146.1	652.6
77.5°	69.8	69.3	74.7	81.0	101.3	102.3	258.4	336.5	520.2	489.7	233.2
80°	56.2	55.8	59.6	61.6	74.2	70.8	103.8	120.2	182.3	160.0	100.8
82.5°	50.9	50.9	54.8	47.0	51.4	49.9	64.5	68.8	91.6	95.0	60.6
85°	33.0	33.9	51.4	45.6	33.5	30.5	41.2	43.6	57.2	62.5	29.6
87.5°	15.5	17.0	39.3	37.8	22.3	16.5	23.3	24.7	31.0	38.3	17.5
90°	7.9	7.9	11.8	13.3	10.9	9.9	10.9	10.8	12.4	13.8	11.8
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.2	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	12.0	11.6	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	29.0	28.4	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	50.0	49.4	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	72.0	71.6	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	95.0	94.8	94.0	90.0	87.0
110°	66.0	68.0	74.0	87.0	102.0	114.0	120.0	120.2	121.0	119.0	116.0

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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	148.0	148.4	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	179.0	179.6	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	211.0	211.8	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	246.0	246.8	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	279.0	279.8	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	313.0	313.4	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	345.0	345.2	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	377.0	377.8	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	411.0	412.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	443.0	444.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	473.0	473.4	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	500.0	500.4	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	527.0	528.2	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	556.0	557.2	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	580.0	581.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	597.0	597.6	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	611.0	611.6	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	626.0	627.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.0	644.8	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	658.0	659.2	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	667.0	667.8	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.0	673.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	678.0	679.2	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	686.0	686.6	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.0	689.6	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	691.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.0	695.0	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°	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6	443.6
2.5°	442.7	441.7	442.2	442.7	443.1	444.6	445.1	445.1	445.1	444.6	445.6
5°	437.3	436.3	436.3	437.8	439.3	441.2	444.1	446.5	447.5	448.0	448.0
7.5°	431.5	430.5	431.0	433.4	435.9	437.3	440.2	441.7	445.6	445.6	446.5
10°	427.6	428.6	429.1	431.5	433.4	433.4	433.0	432.0	431.0	433.4	432.5
12.5°	425.2	426.7	426.2	429.1	430.0	426.2	420.4	412.6	411.6	412.6	413.6
15°	424.2	424.2	425.7	425.7	420.8	413.1	405.8	406.3	407.3	410.2	410.2
17.5°	424.2	424.7	425.7	422.3	413.6	406.8	405.3	403.9	398.5	397.1	395.6
20°	427.6	426.7	427.6	421.3	413.6	408.2	397.1	386.4	376.2	371.9	369.9
22.5°	435.9	434.4	433.9	427.6	417.9	400.0	378.2	361.7	344.2	338.4	336.5
25°	450.4	449.9	446.5	442.2	415.0	380.1	352.5	326.3	307.4	297.2	297.7
27.5°	476.1	476.1	474.2	454.8	400.0	355.4	318.1	291.4	272.0	262.3	260.8
30°	514.9	515.9	516.8	458.2	376.2	319.0	280.2	262.3	250.7	243.4	242.9
32.5°	562.9	568.2	561.9	454.3	343.7	274.9	250.7	244.4	238.5	233.7	233.2
35°	626.4	640.9	601.2	438.8	307.4	244.8	232.7	228.4	224.0	220.6	221.1
37.5°	711.7	725.8	626.4	412.6	260.8	227.9	222.5	215.8	209.0	201.7	200.7
40°	812.6	808.2	635.1	363.1	231.8	219.6	212.4	203.6	192.0	181.3	179.4
42.5°	913.4	884.3	627.9	302.1	212.8	212.4	202.2	191.0	179.4	170.2	170.2
45°	1026.4	951.2	605.6	244.8	197.8	204.6	192.0	180.4	169.7	162.9	162.4
47.5°	1133.1	1013.8	568.7	204.1	182.8	194.4	184.2	173.6	163.4	157.6	156.1
50°	1258.1	1085.1	540.6	176.5	168.2	184.2	179.9	170.2	160.5	153.7	152.7
52.5°	1384.7	1154.4	519.3	157.6	155.1	176.5	177.9	172.1	161.9	148.8	147.9
55°	1517.0	1241.2	476.6	142.5	143.5	170.7	180.4	176.0	168.7	147.4	146.4
57.5°	1628.1	1321.2	401.9	132.4	134.3	166.3	181.3	173.1	164.8	148.4	146.9
60°	1714.9	1376.0	294.8	124.1	126.1	161.4	177.0	162.9	152.2	148.4	145.9
62.5°	1741.5	1377.9	195.9	114.4	119.8	153.2	169.2	157.6	145.0	146.9	145.9
65°	1674.6	1305.2	140.1	105.2	114.4	143.5	165.8	152.2	141.6	149.3	148.4
67.5°	1468.6	1099.6	112.5	97.9	107.1	133.3	159.5	147.4	138.7	154.7	151.8
70°	1144.2	788.8	95.5	90.7	99.4	123.6	150.8	142.1	134.8	150.3	146.4
72.5°	754.4	464.5	84.4	83.9	90.2	115.4	141.1	137.2	128.5	136.2	130.4
75°	393.7	215.3	73.2	76.1	80.0	108.1	132.4	128.5	118.8	121.7	119.8
77.5°	154.7	100.8	63.5	66.9	71.3	97.5	121.2	117.3	109.1	106.7	106.2
80°	84.8	67.9	52.8	57.2	60.1	87.8	109.6	105.2	96.5	95.0	93.6
82.5°	53.8	44.1	43.6	46.5	50.4	78.1	98.4	91.6	84.4	99.4	80.5
85°	25.2	26.2	31.0	34.9	39.3	66.4	85.8	78.5	71.3	69.3	61.6
87.5°	14.1	17.5	20.4	23.8	27.2	46.5	67.9	61.1	53.3	45.6	47.0
90°	10.4	10.4	14.8	14.3	12.8	13.8	41.5	38.1	33.7	17.6	13.2
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
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)