

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: P198345

Luminaire Tested: **TT-C2-LED-E1-WQ-CG-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198345
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C2-LED-E1-WQ-CG-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH CLEAR GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4117.2 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B2 - U4 - G1

Input Watts (W): 51.4
Input Voltage (V): NR
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



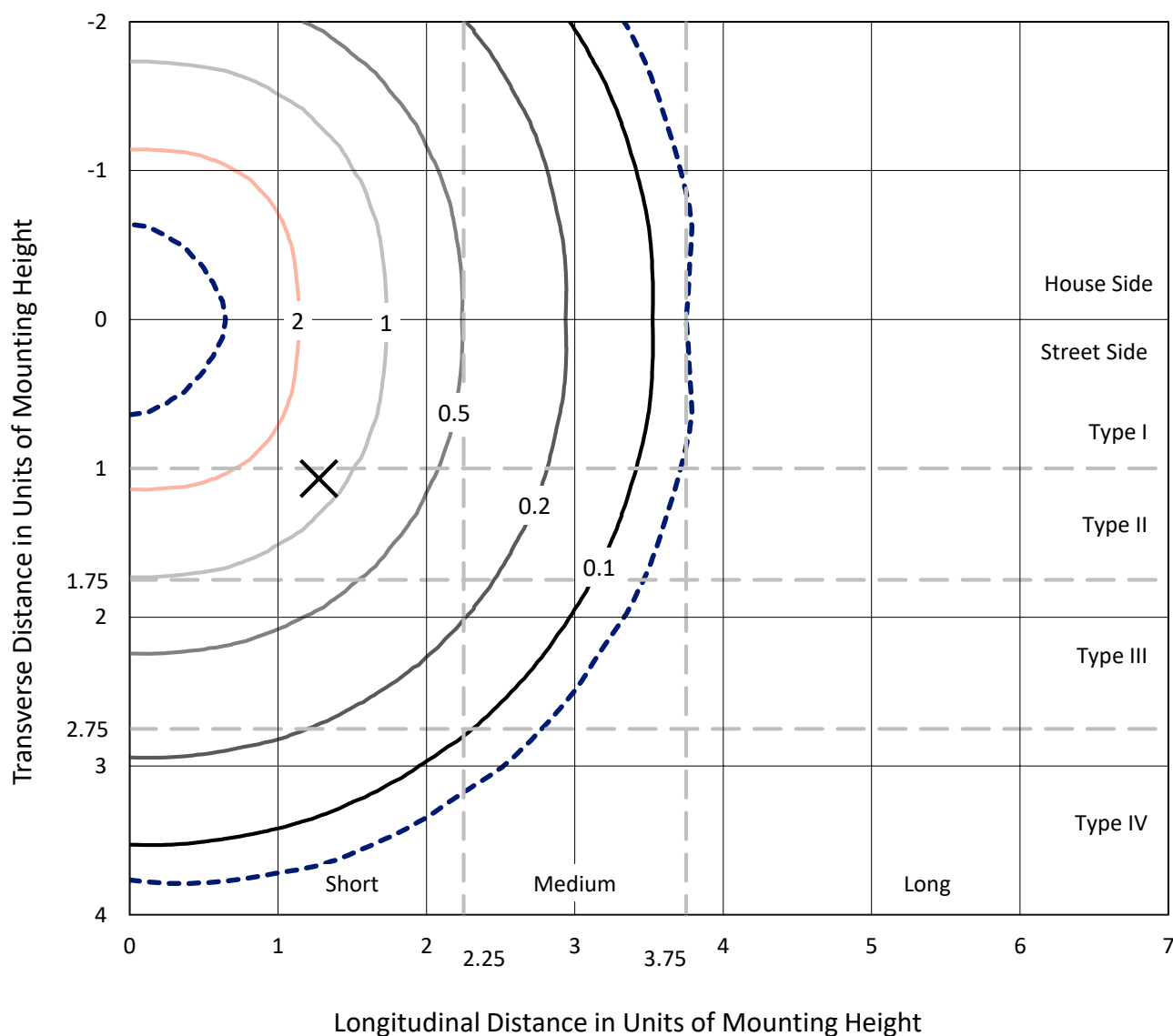
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

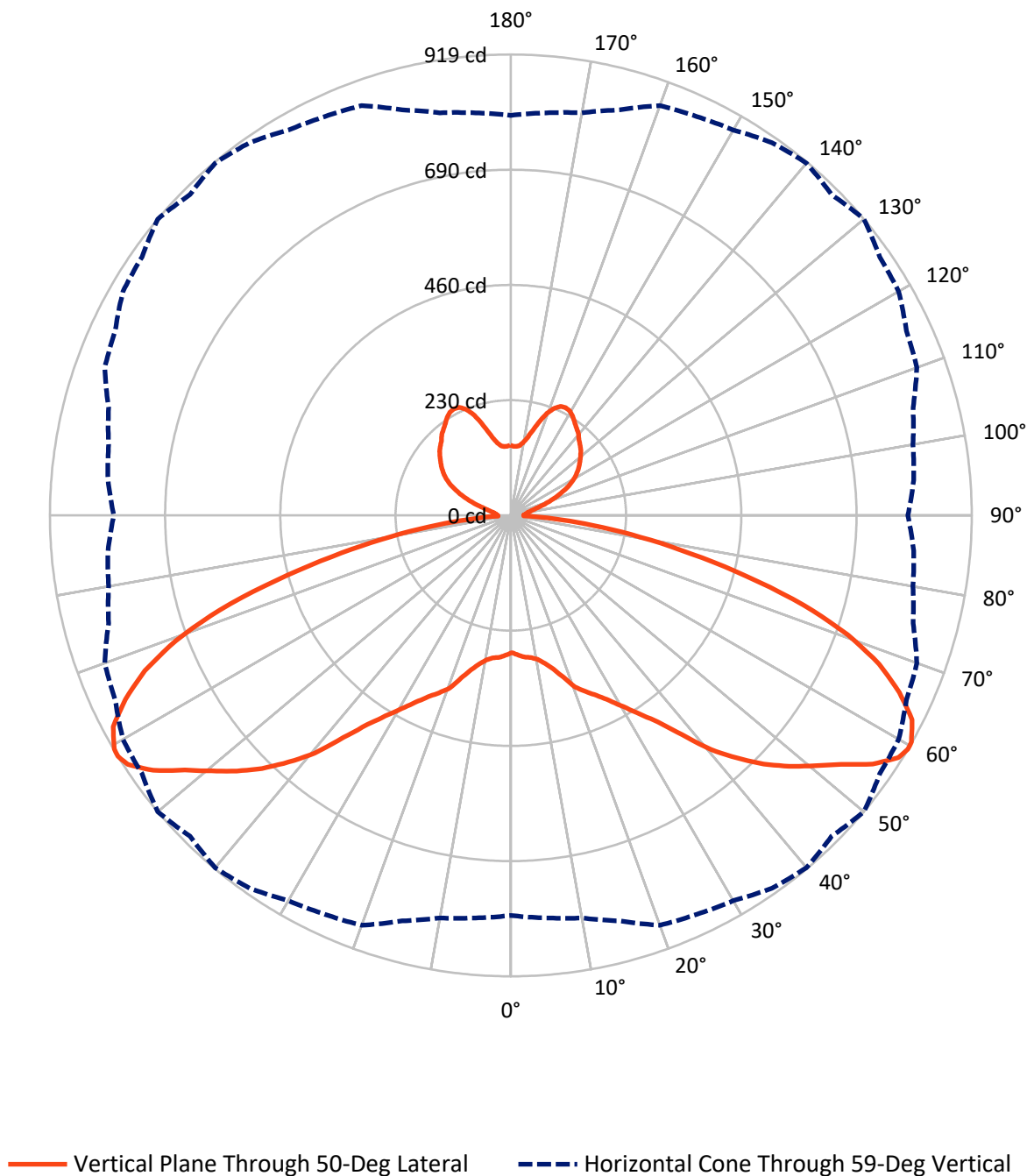


Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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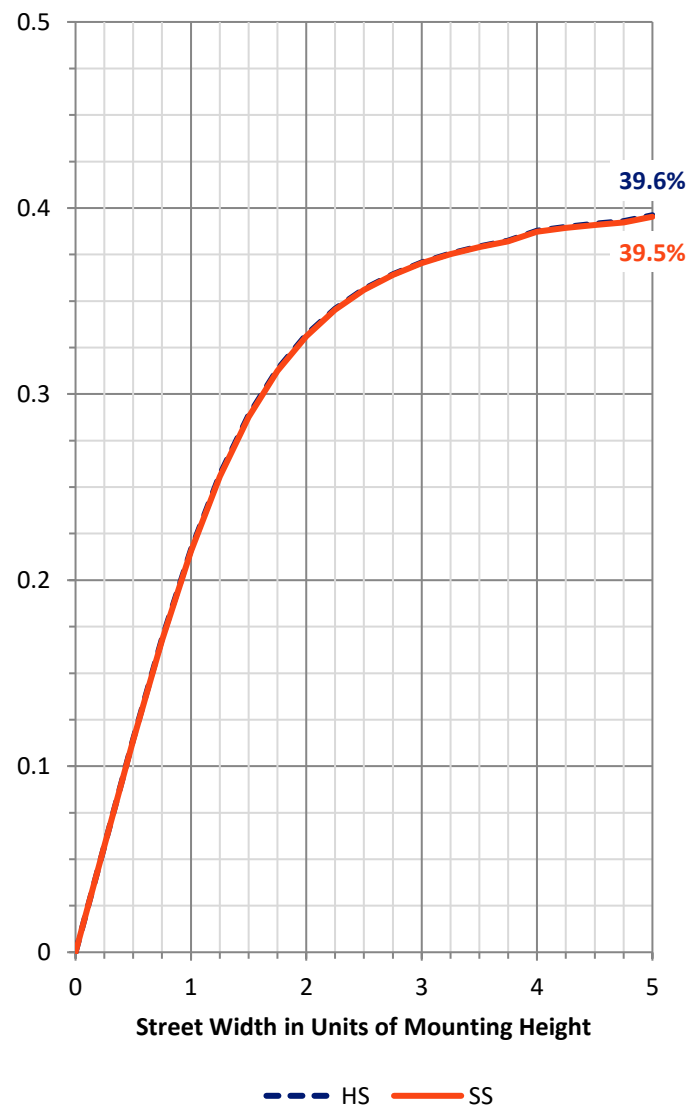
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1646.6	412.0	2058.6
	% Fixture	40.0	10.0	50.0
Street Side	Lumens	1646.6	412.0	2058.6
	% Fixture	40.0	10.0	50.0
Total	Lumens	3293.3	824.0	4117.2
	% Fixture	80.0	20.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.2	0.7
10°-20°	91.9	2.2
20°-30°	184.9	4.5
30°-40°	318.1	7.7
40°-50°	525.2	12.8
50°-60°	739.5	18.0
60°-70°	791.1	19.2
70°-80°	502.5	12.2
80°-90°	113.0	2.7
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.9
120°-130°	148.7	3.6
130°-140°	153.2	3.7
140°-150°	136.0	3.3
150°-160°	103.7	2.5
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3293.3	80.0
0°-180°	4117.2	100.0

Coefficient of Utilization



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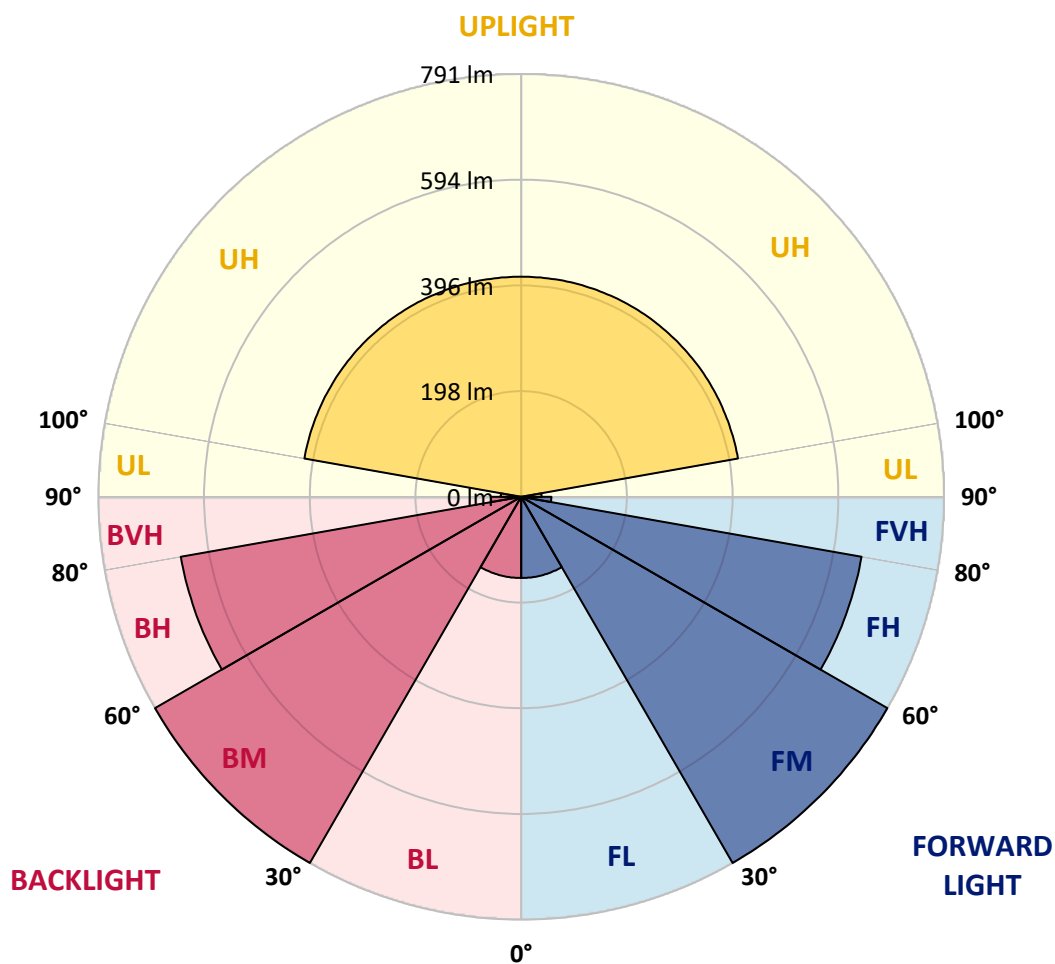
CATALOG NUMBER: TT-C2-LED-E1-WQ-CG-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	152.0	3.7			
FM	(30°-60°)	791.4	19.2			
FH	(60°-80°)	646.8	15.7			G0/660
FVH	(80°-90°)	56.5	1.4			G1/100
BL	(0°-30°)	152.0	3.7	B1/500		
BM	(30°-60°)	791.4	19.2	B1/1000		
BH	(60°-80°)	646.8	15.7	B2/1000		G0/660
BVH	(80°-90°)	56.5	1.4			G1/100
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	10.0		U3/500	

BUG Rating: B2-U4-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7
2.5°	279.5	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8
5°	281.0	281.0	281.7	281.7	282.5	282.5	282.5	283.2	283.2	283.2	283.9
7.5°	283.9	283.2	283.9	283.9	283.9	284.6	284.6	284.6	285.4	286.1	286.1
10°	293.4	292.6	293.4	293.4	293.4	291.9	291.9	292.6	291.9	291.9	291.9
12.5°	304.3	304.3	305.0	305.8	305.8	305.0	304.3	303.6	302.8	302.8	302.8
15°	314.5	315.2	315.9	317.4	318.1	318.1	318.9	319.6	318.9	318.9	318.1
17.5°	330.5	332.0	332.7	333.4	333.4	333.4	334.9	337.1	339.2	340.7	339.2
20°	357.4	358.2	359.6	359.6	358.9	359.6	361.1	361.8	363.3	364.7	365.4
22.5°	375.6	377.1	379.3	379.3	378.5	379.3	380.7	380.7	379.3	380.0	381.5
25°	390.9	391.7	393.1	393.8	394.6	398.2	401.1	400.4	397.5	398.2	397.5
27.5°	409.1	410.6	412.0	412.0	412.0	414.2	417.1	418.6	420.8	420.0	417.9
30°	433.1	435.3	436.1	435.3	436.8	439.0	438.2	439.7	443.3	447.0	442.6
32.5°	452.1	454.3	456.4	459.4	464.5	467.4	465.9	466.6	468.8	471.7	471.7
35°	480.5	484.1	485.6	486.3	491.4	497.2	501.6	505.2	504.5	502.3	505.9
37.5°	523.4	527.1	528.5	531.4	538.0	539.4	546.0	554.7	557.6	554.7	554.7
40°	569.3	572.9	580.2	586.8	596.9	599.1	607.1	610.8	618.1	618.8	614.4
42.5°	607.1	611.5	613.0	623.9	637.7	647.9	656.6	657.4	662.5	666.8	661.7
45°	647.9	651.5	653.7	663.9	671.2	683.6	697.4	703.2	705.4	704.7	707.6
47.5°	685.8	690.9	693.0	701.0	709.8	720.0	728.0	744.7	748.4	741.1	747.6
50°	709.1	714.9	720.0	737.4	752.7	760.7	767.3	781.1	789.1	782.6	784.8
52.5°	745.5	746.9	751.3	758.6	781.1	808.1	815.3	819.7	831.4	835.0	824.8
55°	795.0	800.0	803.7	813.2	822.6	841.5	873.6	879.4	876.5	894.0	875.8
57.5°	802.2	811.7	822.6	843.7	862.7	868.5	887.4	910.0	907.8	910.0	911.4
59°	797.9	805.9	815.3	837.2	869.9	877.9	887.4	907.8	917.3	904.9	919.4
60°	799.3	805.1	810.2	827.7	862.7	880.9	886.7	899.1	917.3	900.5	918.0
62.5°	793.5	800.8	806.6	816.8	833.5	859.0	881.6	875.8	902.0	888.9	898.3
65°	762.2	770.2	781.8	796.4	816.1	823.3	845.9	858.3	852.5	867.0	851.7
67.5°	709.8	717.1	724.3	741.8	763.6	773.1	778.9	801.5	793.5	810.2	792.8
70°	639.9	647.9	658.1	667.6	687.2	695.2	701.8	712.0	714.9	714.9	713.4
72.5°	556.2	562.7	569.3	578.7	590.4	597.7	600.6	602.8	614.4	610.0	610.8
75°	461.5	468.1	471.0	474.6	482.6	481.9	484.8	483.4	490.7	487.7	486.3
77.5°	361.1	363.3	371.3	371.3	369.1	372.7	369.1	366.9	365.4	366.9	366.9
80°	250.4	257.0	262.1	265.7	267.2	265.7	266.4	263.5	263.5	261.3	262.1
82.5°	154.3	160.9	163.1	166.7	167.4	167.4	167.4	165.3	166.0	163.8	165.3
85°	75.7	75.7	78.6	82.3	83.0	84.4	84.4	84.4	84.4	84.4	85.2
87.5°	18.9	18.9	20.4	22.6	22.6	23.3	24.0	24.8	24.8	25.5	25.5
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7
2.5°	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8
5°	283.9	283.2	283.2	282.5	282.5	281.7	281.7	281.7
7.5°	286.8	286.8	286.1	285.4	284.6	284.6	285.4	285.4
10°	292.6	294.1	294.8	294.8	294.1	294.1	293.4	293.4
12.5°	302.1	303.6	305.0	306.5	306.5	305.8	304.3	303.6
15°	316.7	316.7	317.4	318.1	318.1	316.7	313.8	313.8
17.5°	336.3	334.9	332.7	333.4	334.1	333.4	330.5	332.0
20°	363.3	360.3	358.9	357.4	360.3	360.3	356.0	356.0
22.5°	382.9	380.7	377.1	376.4	378.5	380.0	376.4	374.2
25°	399.7	400.4	396.0	393.8	394.6	395.3	390.2	390.9
27.5°	417.9	418.6	416.4	412.8	411.3	413.5	409.9	408.4
30°	439.7	439.0	440.4	436.1	432.4	434.6	434.6	431.0
32.5°	468.1	465.9	466.6	461.5	457.2	456.4	453.5	449.2
35°	506.7	500.8	496.5	493.6	485.6	484.1	484.1	479.0
37.5°	556.9	548.2	540.2	540.2	527.8	524.1	526.3	519.8
40°	613.0	610.0	597.7	595.5	582.4	573.6	573.6	565.6
42.5°	653.7	657.4	642.8	634.1	625.3	611.5	613.0	602.8
45°	698.1	695.9	683.6	668.3	665.4	650.8	652.3	642.1
47.5°	740.4	727.3	721.4	706.1	699.6	682.8	687.9	679.9
50°	781.1	766.6	760.7	742.5	733.8	715.6	716.3	701.8
52.5°	823.3	810.2	801.5	778.2	762.9	749.8	746.9	740.4
55°	877.9	864.1	843.0	821.2	809.5	790.6	792.8	782.6
57.5°	899.1	890.3	867.8	854.6	832.8	813.9	809.5	791.3
59°	898.3	893.2	870.7	861.9	830.6	814.6	806.6	792.0
60°	893.2	891.8	869.2	858.3	825.5	811.0	803.7	794.2
62.5°	877.9	877.2	851.7	838.6	811.7	800.0	795.7	783.3
65°	855.4	843.0	823.3	814.6	786.9	778.2	765.8	753.5
67.5°	801.5	773.8	770.9	760.0	736.0	725.1	717.1	705.4
70°	712.7	694.5	694.5	680.7	663.9	658.8	647.9	634.8
72.5°	602.0	597.7	599.9	583.8	575.8	572.9	563.5	551.8
75°	481.2	481.9	479.7	476.1	473.9	474.6	464.5	459.4
77.5°	364.7	371.3	369.8	364.7	369.8	369.1	360.3	358.2
80°	259.9	262.8	264.3	261.3	264.3	262.1	254.8	254.1
82.5°	163.8	164.5	166.0	163.1	163.8	163.1	158.0	158.0
85°	83.7	86.6	83.0	80.1	80.1	77.2	75.7	76.4
87.5°	24.8	26.2	23.3	23.3	21.8	20.4	19.7	19.7
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)