

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: P198290

Luminaire Tested: **TT-C1-LED-E1-WQ-SG-LWR-LW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198290
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-WQ-SG-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4002.9 lumens
Efficiency: N/A
Efficacy: 88.2 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): 45.4
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

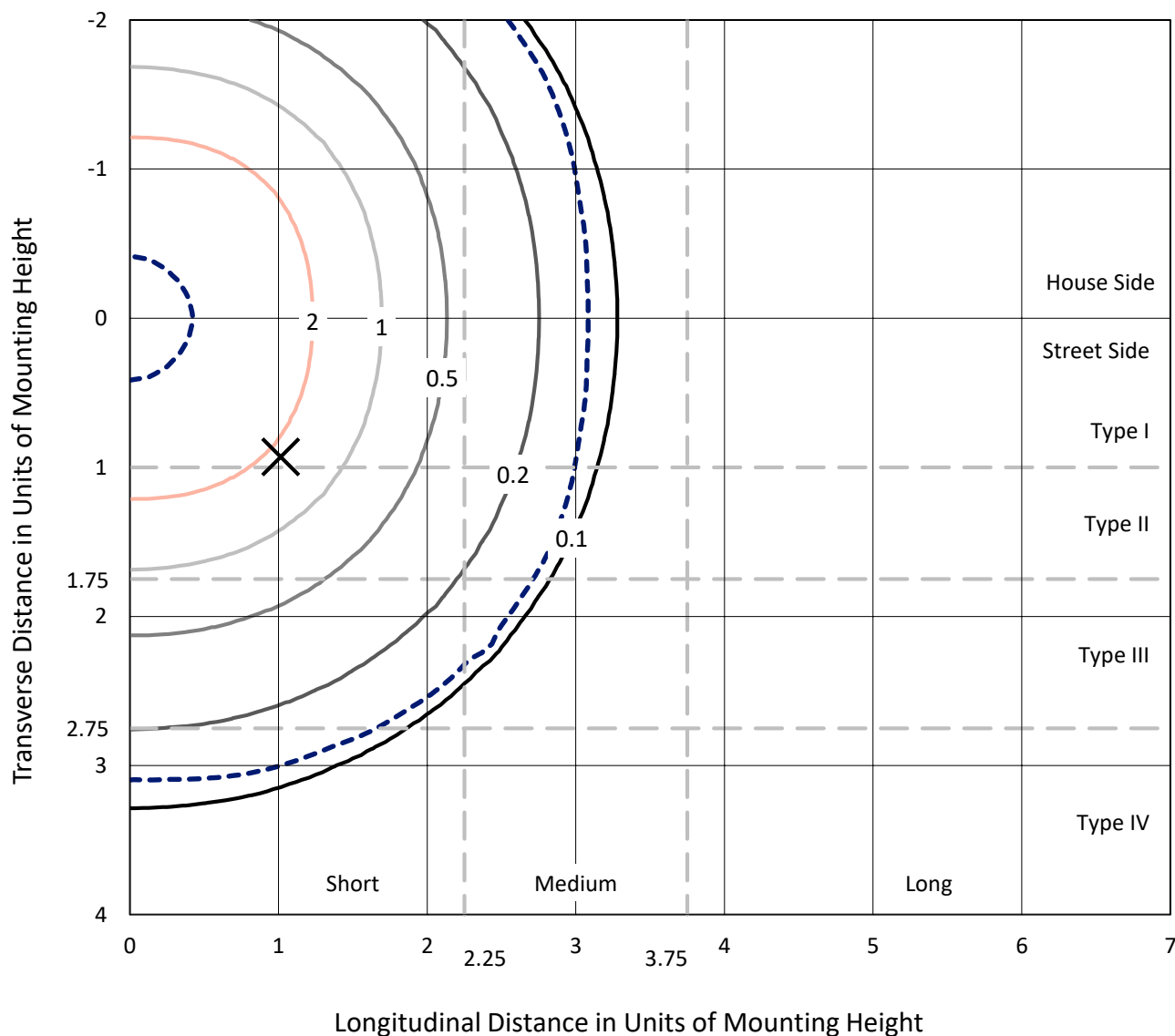


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

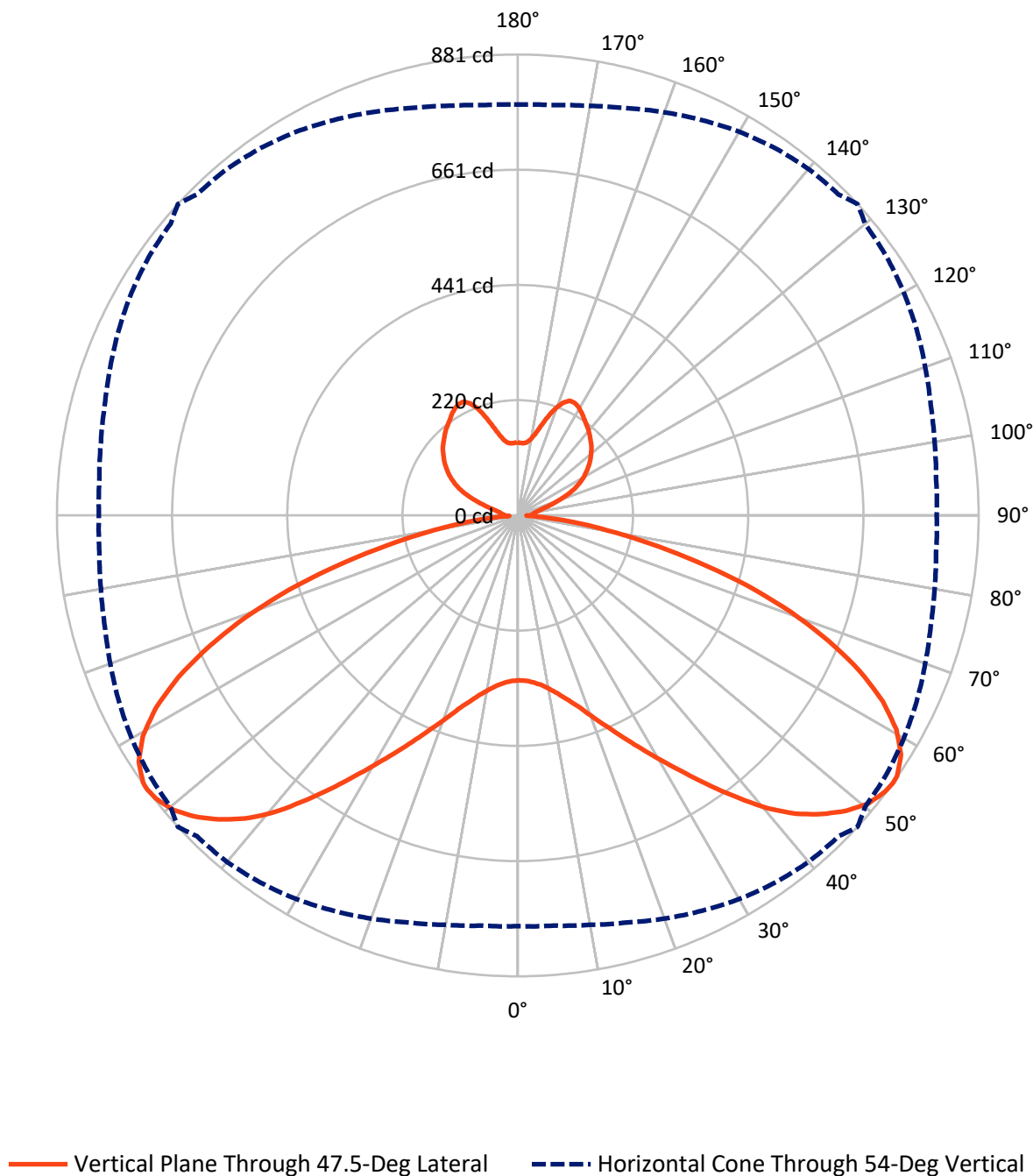


Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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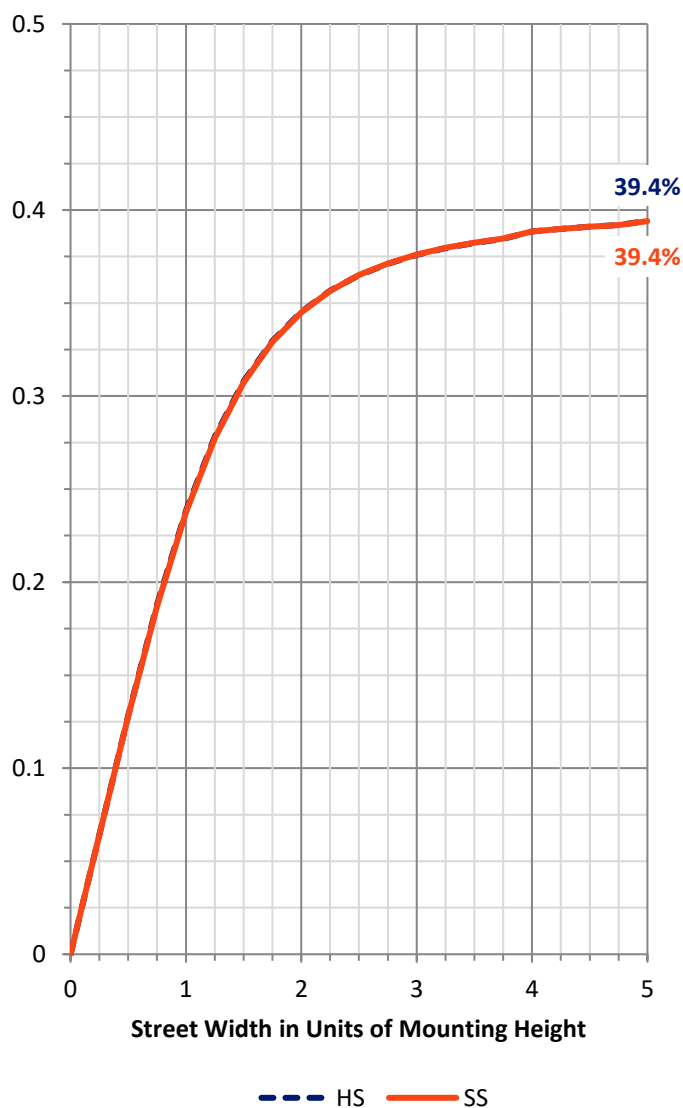
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1589.5	412.0	2001.4
	% Fixture	39.7	10.3	50.0
Street Side	Lumens	1589.5	412.0	2001.4
	% Fixture	39.7	10.3	50.0
Total	Lumens	3178.9	824.0	4002.9
	% Fixture	79.4	20.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	0.8
10°-20°	105.5	2.6
20°-30°	217.2	5.4
30°-40°	388.4	9.7
40°-50°	596.0	14.9
50°-60°	734.8	18.4
60°-70°	664.7	16.6
70°-80°	366.0	9.1
80°-90°	75.2	1.9
90°-100°	38.3	1.0
100°-110°	59.4	1.5
110°-120°	119.3	3.0
120°-130°	148.7	3.7
130°-140°	153.2	3.8
140°-150°	136.0	3.4
150°-160°	103.7	2.6
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3178.9	79.4
0°-180°	4002.9	100.0

Coefficient of Utilization



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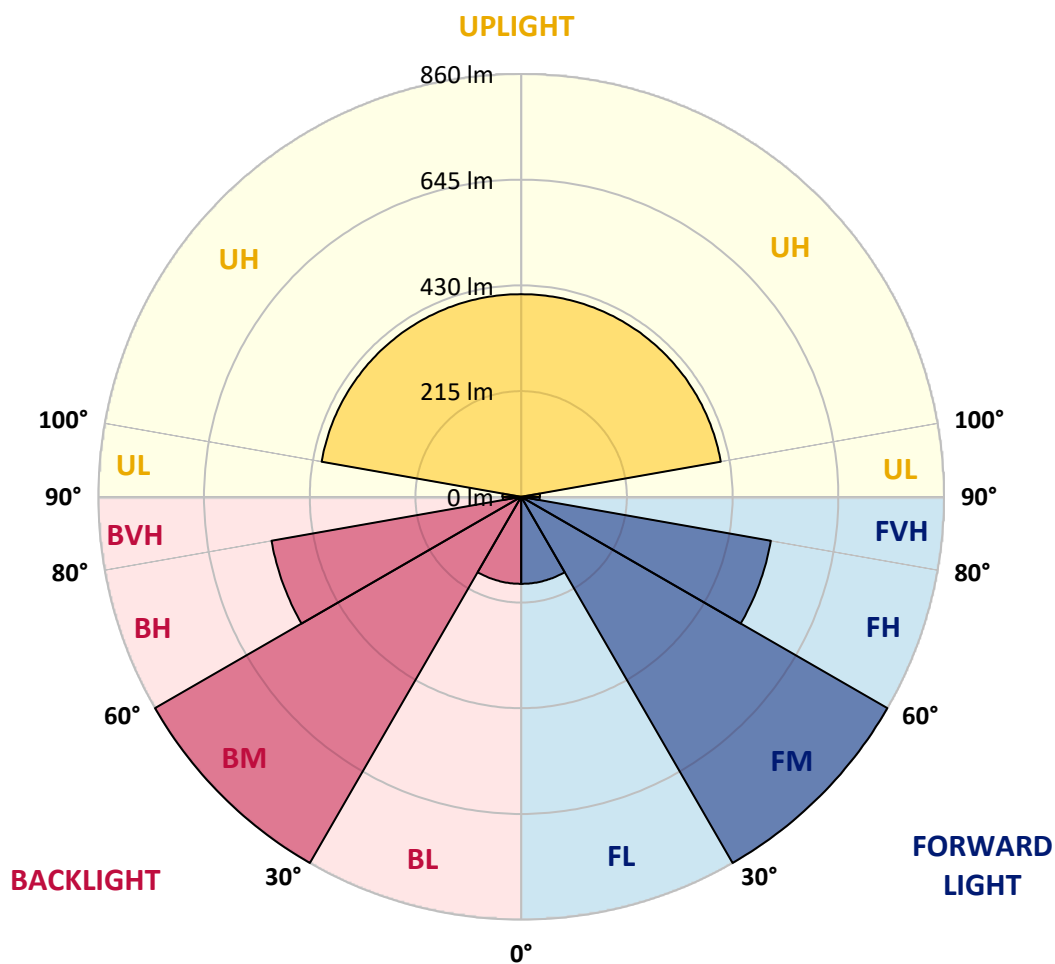
CATALOG NUMBER: TT-C1-LED-E1-WQ-SG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	176.9	4.4			
FM	(30°-60°)	859.6	21.5			
FH	(60°-80°)	515.4	12.9			G0/660
FVH	(80°-90°)	37.6	0.9			G1/100
BL	(0°-30°)	176.9	4.4	B1/500		
BM	(30°-60°)	859.6	21.5	B1/1000		
BH	(60°-80°)	515.4	12.9	B2/1000		G0/660
BVH	(80°-90°)	37.6	0.9			G1/100
UL	(90°-100°)	38.3	1.0		U2/50	
UH	(100°-180°)	412.0	10.3		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°	47.5°
0°	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2
2.5°	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6
5°	320.7	320.7	320.7	321.4	320.7	320.7	320.7	320.7	320.7	320.7	320.7
7.5°	327.5	327.5	327.5	327.5	327.5	327.5	326.9	326.9	327.5	326.9	327.5
10°	337.1	336.5	336.5	337.1	337.1	336.5	337.1	337.1	337.1	337.1	337.8
12.5°	349.5	349.5	350.2	350.2	350.2	350.8	350.8	350.2	350.8	350.8	350.8
15°	365.9	365.9	365.9	365.9	366.6	367.3	366.6	366.6	365.9	365.9	367.3
17.5°	385.1	385.1	385.1	385.1	386.5	386.5	385.8	386.5	387.2	387.2	386.5
20°	408.4	407.7	407.0	407.7	409.1	409.1	409.8	410.5	410.5	410.5	411.8
22.5°	433.1	432.4	433.8	434.4	435.1	435.8	435.8	436.5	437.9	437.2	439.2
25°	460.5	459.8	460.5	461.8	464.6	464.6	465.3	466.6	466.6	466.0	470.8
27.5°	491.3	491.3	492.0	494.7	495.4	496.1	498.2	499.5	501.6	501.6	505.7
30°	524.9	524.2	525.6	528.3	530.4	532.4	535.2	538.6	539.3	540.0	544.1
32.5°	559.2	559.2	560.5	565.3	568.7	572.2	576.3	579.7	581.1	581.1	587.2
35°	595.5	596.2	599.6	603.0	609.9	614.0	618.1	622.9	625.6	627.0	635.2
37.5°	633.8	635.9	638.6	643.4	650.3	657.1	663.3	670.8	675.0	676.3	685.2
40°	670.2	672.9	677.0	683.9	690.7	700.3	707.8	715.4	720.2	722.9	736.6
42.5°	705.8	707.2	712.0	719.5	728.4	737.3	747.6	755.8	760.6	764.7	779.8
45°	733.9	735.3	741.4	750.3	760.6	771.6	781.9	791.4	796.2	799.7	814.7
47.5°	757.2	759.9	766.8	775.7	786.0	799.0	810.6	820.2	826.4	828.4	844.2
50°	774.3	778.4	784.6	794.9	807.2	820.2	832.6	842.8	849.7	852.4	866.8
52.5°	783.9	787.3	794.2	804.5	818.9	831.9	844.9	855.2	862.7	865.5	878.5
54°	785.3	787.3	794.9	805.8	820.2	833.9	847.0	857.2	864.8	867.5	881.2
55°	783.9	785.3	793.5	803.8	818.9	832.6	845.6	855.9	864.1	866.8	879.8
57.5°	770.2	772.3	779.1	790.1	803.8	819.5	831.9	842.2	850.4	851.7	864.1
60°	742.1	744.9	751.0	762.7	776.4	790.1	802.4	811.3	818.9	823.0	831.9
62.5°	701.7	703.1	709.2	719.5	731.8	746.2	755.8	764.7	771.6	775.7	783.2
65°	644.1	650.3	655.1	663.3	672.9	684.6	696.9	703.7	707.2	714.0	719.5
67.5°	579.7	583.8	588.6	596.2	602.3	609.9	621.5	627.7	631.8	636.6	641.4
70°	507.8	506.4	511.9	516.0	522.8	527.6	535.2	538.6	543.4	546.1	554.4
72.5°	422.1	424.2	429.0	433.8	435.8	437.2	443.3	445.4	449.5	448.1	458.4
75°	344.7	341.2	342.6	343.3	344.7	343.3	347.4	349.5	351.5	349.5	355.0
77.5°	260.4	256.3	257.6	257.0	257.0	255.6	254.9	254.9	255.6	254.2	257.6
80°	179.5	177.5	178.2	179.5	176.1	176.8	172.7	172.7	172.7	172.7	174.0
82.5°	111.0	108.3	107.6	108.3	108.3	106.2	106.9	104.2	103.5	102.8	109.0
85°	54.1	52.8	54.1	52.8	52.1	52.1	50.7	51.4	50.0	49.3	53.4
87.5°	14.4	13.7	13.7	13.7	13.0	13.7	13.7	13.7	13.7	14.4	16.4
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	32.5
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.5
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°	47.5°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.5
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	105.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	122.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.5
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	147.5
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	167.5
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	176.5
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	184.5
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	193.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	199.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	205.5
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.5
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	224.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	231.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	237.0
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	241.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	232.5
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	217.5
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	197.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	176.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.5
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	140.5
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.5
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.5
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2	315.2
2.5°	316.6	316.6	316.6	316.6	316.6	316.6	316.6	316.6	315.9
5°	320.7	320.7	320.7	320.7	320.7	320.7	320.7	320.7	320.7
7.5°	327.5	327.5	326.9	326.9	326.9	326.9	326.9	326.9	326.9
10°	337.1	337.8	336.5	336.5	337.1	336.5	336.5	335.8	335.8
12.5°	350.8	350.2	350.8	350.8	350.2	349.5	348.8	348.1	348.8
15°	366.6	365.9	365.9	365.9	365.2	365.2	364.5	365.2	364.5
17.5°	385.8	385.8	386.5	384.4	385.1	383.7	383.7	383.7	383.0
20°	410.5	409.8	409.1	407.0	407.7	406.3	405.7	405.0	404.3
22.5°	437.2	435.8	435.1	433.1	433.8	432.4	430.3	429.0	429.0
25°	466.6	465.3	463.9	463.2	462.5	459.8	458.4	456.4	457.7
27.5°	501.6	498.9	496.8	494.1	494.7	491.3	489.9	488.6	488.6
30°	539.3	537.2	533.8	531.7	531.1	527.6	524.9	523.5	522.8
32.5°	580.4	579.0	577.0	573.5	572.2	566.7	564.6	562.6	561.9
35°	629.0	625.6	623.6	618.8	614.0	610.5	605.7	604.4	603.0
37.5°	674.3	674.3	670.8	665.4	658.5	653.7	649.6	646.9	644.8
40°	722.2	720.9	715.4	710.6	703.7	696.9	689.3	686.6	685.2
42.5°	764.7	762.0	756.5	750.3	743.5	735.3	727.0	722.9	722.2
45°	800.4	796.9	791.4	783.2	774.3	766.1	758.6	754.4	752.4
47.5°	829.1	825.0	818.2	810.6	800.4	790.8	783.2	779.1	776.4
50°	850.4	847.0	839.4	829.8	819.5	808.6	801.0	796.2	794.2
52.5°	864.1	859.3	851.1	840.8	829.1	818.2	809.3	803.8	801.7
54°	866.8	861.3	852.4	841.5	829.1	817.5	809.3	803.1	801.0
55°	865.5	860.0	850.4	840.1	827.1	815.4	806.5	800.4	798.3
57.5°	851.1	844.9	836.0	825.0	811.3	799.7	791.4	784.6	782.5
60°	820.2	814.7	804.5	794.9	781.2	769.5	760.6	753.8	751.7
62.5°	772.9	768.1	759.2	749.6	735.3	725.0	716.1	712.0	706.5
65°	709.9	706.5	697.6	685.9	675.6	665.4	656.5	653.7	650.3
67.5°	634.5	629.7	626.3	614.7	606.4	596.8	587.9	582.5	581.1
70°	545.4	543.4	540.0	529.0	524.2	516.0	509.8	505.0	503.6
72.5°	449.5	447.5	446.8	441.3	435.1	427.6	424.8	420.7	420.0
75°	349.5	348.1	349.5	345.4	343.3	341.2	339.9	339.9	337.8
77.5°	252.9	254.9	255.6	255.6	257.0	257.0	258.3	256.3	254.2
80°	172.0	174.0	173.4	174.7	174.0	178.8	175.4	178.2	175.4
82.5°	103.5	106.2	106.2	106.2	109.0	108.3	108.3	109.6	109.0
85°	50.7	51.4	50.7	50.0	53.4	52.8	52.8	52.1	52.8
87.5°	15.1	13.7	14.4	13.0	14.4	12.3	13.7	13.7	14.4
90°	26.0	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	27.0	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	32.0	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	35.0	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	42.0	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	52.0	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
110°	86.0	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	103.0	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	120.0	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	135.0	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	148.0	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	158.0	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	175.0	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	191.0	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	197.0	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	218.0	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	225.0	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	233.0	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	239.0	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	241.0	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	239.0	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	230.0	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	216.0	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	175.0	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	158.0	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	147.0	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	140.0	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	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	140.0

(END OF REPORT)