

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: P198350

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198350
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-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4266 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B2 - U4 - G2

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



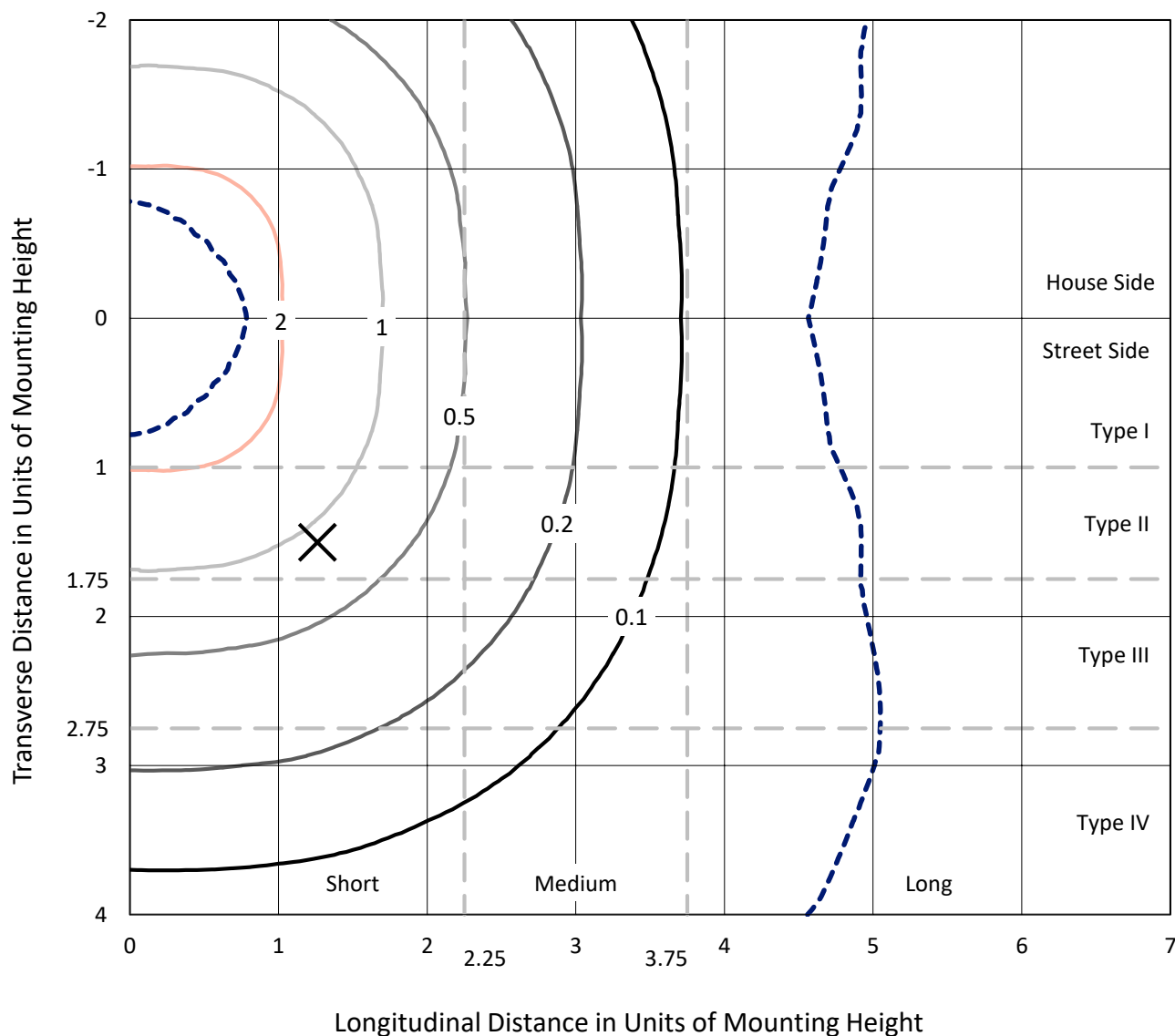
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

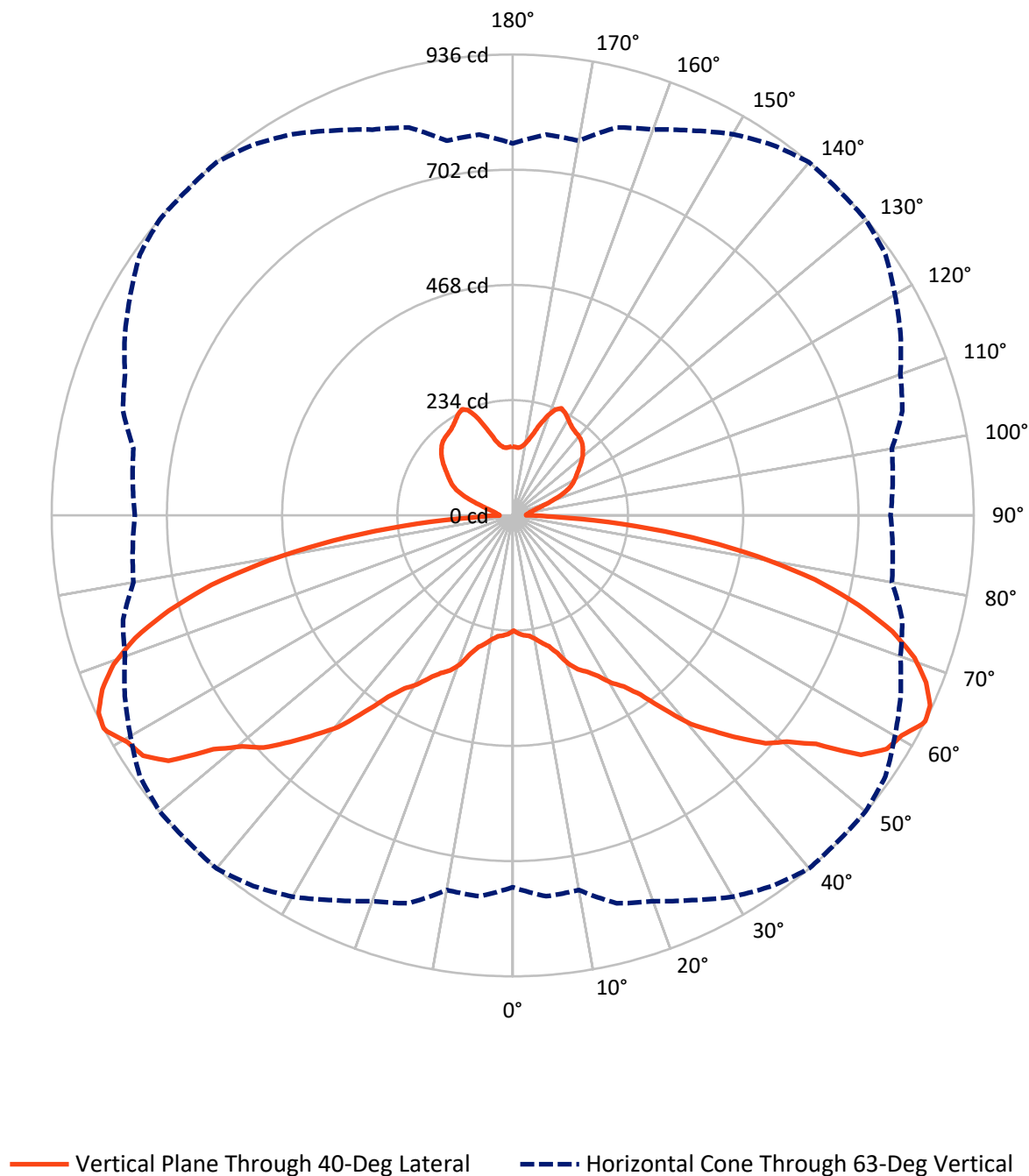


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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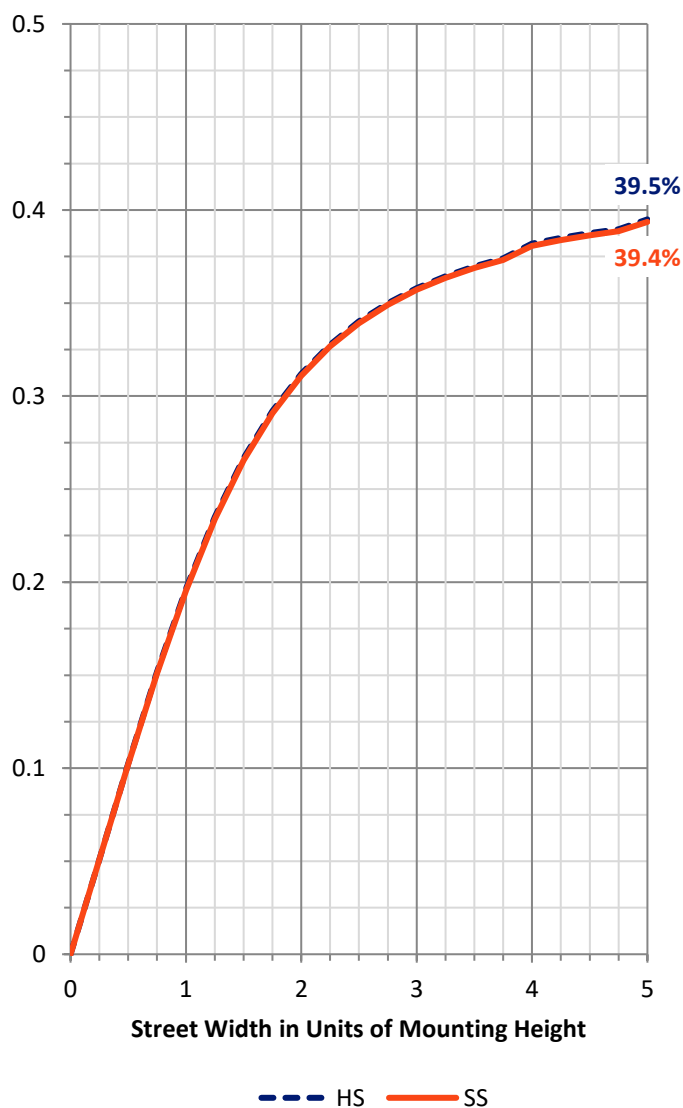
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1721.0	412.0	2133.0
	% Fixture	40.3	9.7	50.0
Street Side	Lumens	1721.0	412.0	2133.0
	% Fixture	40.3	9.7	50.0
Total	Lumens	3442.1	824.0	4266.0
	% Fixture	80.7	19.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	0.6
10°-20°	80.3	1.9
20°-30°	163.3	3.8
30°-40°	281.4	6.6
40°-50°	474.0	11.1
50°-60°	698.0	16.4
60°-70°	830.1	19.5
70°-80°	672.0	15.8
80°-90°	219.4	5.1
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.8
120°-130°	148.7	3.5
130°-140°	153.2	3.6
140°-150°	136.0	3.2
150°-160°	103.7	2.4
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3442.1	80.7
0°-180°	4266.0	100.0

Coefficient of Utilization



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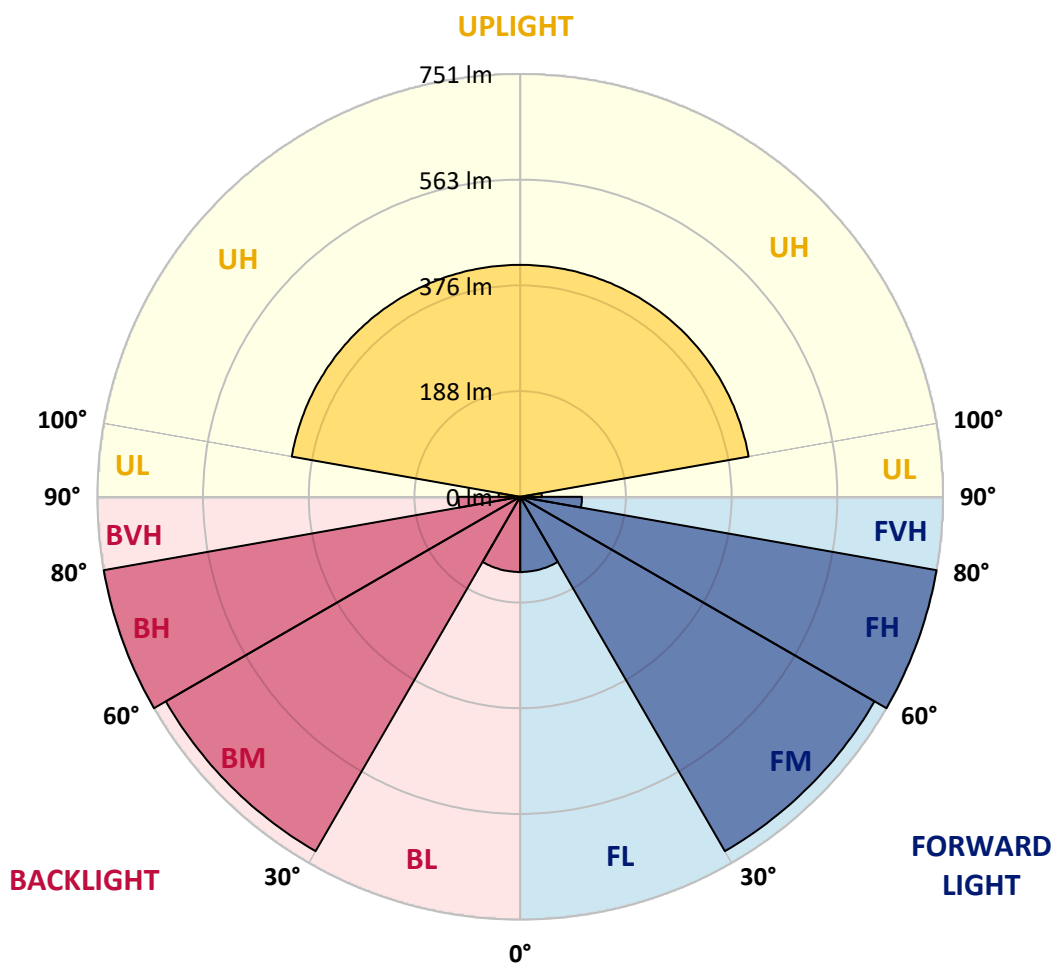
CATALOG NUMBER: TT-C2-LED-E1-WQ-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	133.6	3.1			
FM	(30°-60°)	726.7	17.0			
FH	(60°-80°)	751.0	17.6			G1/1800
FVH	(80°-90°)	109.7	2.6			G2/225
BL	(0°-30°)	133.6	3.1	B1/500		
BM	(30°-60°)	726.7	17.0	B1/1000		
BH	(60°-80°)	751.0	17.6	B2/1000		G1/1800
BVH	(80°-90°)	109.7	2.6			G2/225
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	9.7		U3/500	

BUG Rating: B2-U4-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0
2.5°	241.4	241.4	241.4	241.4	241.4	241.4	240.7	241.4	240.7	240.7	240.7
5°	246.1	246.1	246.1	246.1	245.3	245.3	244.7	244.7	244.7	244.0	244.7
7.5°	248.0	248.0	248.0	248.0	247.4	247.4	247.4	247.4	247.4	247.4	247.4
10°	252.7	252.7	253.3	254.0	255.3	255.3	255.3	256.0	255.3	255.3	255.3
12.5°	262.7	262.0	263.3	264.6	266.0	266.7	266.7	266.7	266.0	266.0	266.7
15°	276.6	275.2	276.0	276.6	277.3	277.9	277.9	277.3	276.0	276.0	276.0
17.5°	294.5	292.6	291.9	291.3	291.3	292.6	293.9	293.2	293.9	293.2	293.9
20°	315.9	314.5	314.5	314.5	315.1	317.8	320.5	321.8	321.2	319.8	321.8
22.5°	329.8	330.5	333.8	333.1	332.5	335.2	338.4	341.1	339.7	337.8	339.1
25°	345.1	345.1	349.7	351.8	349.7	349.7	351.1	353.1	351.8	350.4	351.8
27.5°	362.4	362.4	364.4	366.4	365.1	365.1	367.0	370.4	369.7	369.0	369.7
30°	383.0	380.4	378.3	381.7	385.0	385.7	387.6	393.0	394.3	393.6	395.0
32.5°	402.3	398.3	399.7	401.6	408.9	411.6	410.9	414.9	414.2	412.3	414.9
35°	420.9	425.6	428.2	432.2	434.9	438.2	438.2	445.5	446.8	444.9	446.8
37.5°	456.8	458.8	466.1	466.8	470.1	482.7	484.1	494.1	499.4	496.7	497.4
40°	506.0	505.4	510.7	518.6	525.3	541.3	545.9	552.5	557.2	555.2	557.9
42.5°	545.9	540.6	544.6	561.9	569.2	581.1	587.1	590.5	599.1	596.4	599.8
45°	574.5	576.5	581.8	599.1	603.8	613.8	627.7	633.7	645.0	641.6	643.7
47.5°	602.4	611.7	616.4	624.4	639.0	652.3	669.6	675.6	691.5	690.2	688.2
50°	639.0	646.3	651.6	657.6	677.6	699.5	714.1	716.8	722.1	718.2	724.8
52.5°	678.3	677.6	682.2	698.9	726.7	735.4	748.1	760.0	771.3	775.3	771.3
55°	730.1	713.5	732.8	756.7	768.7	789.3	819.9	836.5	858.4	861.8	855.1
57.5°	751.3	751.3	771.3	785.3	807.3	843.8	876.4	884.3	895.6	889.7	896.4
60°	748.7	774.0	774.0	798.6	834.5	867.1	879.0	892.4	907.6	907.0	907.0
62.5°	752.1	776.6	770.0	812.6	834.5	861.1	887.7	912.3	933.6	932.9	932.3
63°	755.4	776.6	772.7	815.8	833.8	862.4	894.3	918.9	936.3	934.9	935.5
65°	765.3	759.4	783.3	810.5	831.1	873.7	900.3	919.6	931.6	930.9	930.9
67.5°	746.7	732.8	766.6	777.3	816.6	854.4	875.0	897.0	905.6	905.6	904.3
70°	689.5	695.5	718.8	736.1	776.0	809.9	827.2	855.1	865.7	865.7	865.1
72.5°	631.7	641.6	657.6	682.2	720.1	746.7	767.4	792.6	806.5	805.9	805.9
75°	557.9	567.2	585.8	609.1	642.3	668.3	684.9	708.8	724.8	730.7	724.1
77.5°	474.8	477.4	494.7	518.6	547.9	565.9	591.1	614.4	627.7	627.0	625.0
80°	373.7	377.0	391.7	418.9	434.9	456.2	479.4	492.0	503.3	503.3	502.0
82.5°	258.0	265.3	279.9	297.9	314.5	333.1	345.8	358.4	367.7	367.0	365.1
85°	145.6	148.9	162.9	174.2	186.9	198.8	207.5	215.4	223.4	223.4	222.1
87.5°	43.9	39.2	47.2	51.8	58.5	64.5	68.5	76.4	81.8	75.8	75.8
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°	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0
2.5°	241.4	241.4	241.4	241.4	241.4	241.4	241.4	241.4
5°	244.7	245.3	245.3	246.1	246.1	246.1	246.1	246.1
7.5°	247.4	247.4	247.4	247.4	248.0	248.0	248.0	248.0
10°	255.3	256.0	255.3	255.3	254.0	253.3	253.3	253.3
12.5°	266.7	267.3	267.3	266.0	264.6	263.3	262.7	262.0
15°	277.3	279.3	277.9	277.3	276.0	276.6	276.6	277.3
17.5°	293.9	294.5	292.6	291.3	290.6	291.9	293.2	293.9
20°	322.5	321.2	317.2	315.9	314.5	314.5	315.9	315.9
22.5°	340.5	337.1	334.4	333.1	333.1	333.1	331.2	328.5
25°	353.1	351.1	349.1	350.4	351.8	349.7	345.1	344.4
27.5°	370.4	366.4	365.7	365.1	365.7	364.4	363.7	361.1
30°	393.0	387.6	386.3	385.0	381.0	379.6	381.0	383.0
32.5°	414.2	410.9	412.3	409.6	402.3	399.7	401.0	400.3
35°	444.9	438.8	438.8	433.5	431.5	430.9	425.6	420.9
37.5°	493.4	485.4	483.4	471.4	466.1	467.4	460.2	454.8
40°	552.5	546.6	541.3	527.9	520.7	511.3	506.7	506.7
42.5°	591.8	587.8	580.5	571.2	563.2	547.2	541.3	544.6
45°	635.0	629.7	614.4	605.1	597.7	586.5	579.8	573.1
47.5°	678.9	671.6	653.7	641.6	624.4	621.0	613.8	604.4
50°	717.5	714.8	702.1	682.2	660.3	655.0	648.3	639.7
52.5°	764.7	748.7	738.1	729.4	704.8	687.6	678.3	682.2
55°	841.8	821.9	794.6	767.4	762.0	741.4	718.2	730.7
57.5°	886.4	875.0	854.4	811.2	789.9	776.0	760.7	749.4
60°	897.0	876.4	871.8	839.1	805.2	776.0	782.0	755.4
62.5°	917.6	889.7	863.7	837.8	817.2	777.3	776.0	762.0
63°	924.2	896.4	869.1	837.8	819.2	782.0	774.6	767.4
65°	922.9	899.0	878.4	837.8	809.9	795.2	759.4	776.0
67.5°	897.7	877.7	853.8	825.8	779.3	768.0	742.8	746.0
70°	857.1	831.1	808.6	782.7	745.4	719.5	704.2	691.5
72.5°	793.9	770.6	746.7	722.8	689.5	658.3	647.6	633.7
75°	710.1	687.6	665.6	643.0	611.7	583.8	572.5	562.5
77.5°	614.4	595.1	563.9	542.6	524.7	494.7	484.1	473.4
80°	490.1	480.8	458.1	430.2	420.9	391.7	383.6	369.7
82.5°	356.4	347.1	329.1	309.8	298.5	283.3	269.9	260.7
85°	217.4	207.5	198.2	180.8	174.2	162.9	152.3	147.0
87.5°	78.5	70.5	63.2	55.2	51.2	43.2	41.9	37.9
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)