

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: P198344

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198344
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-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4429.1 lumens
Efficiency: N/A
Efficacy: 86.2 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): 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

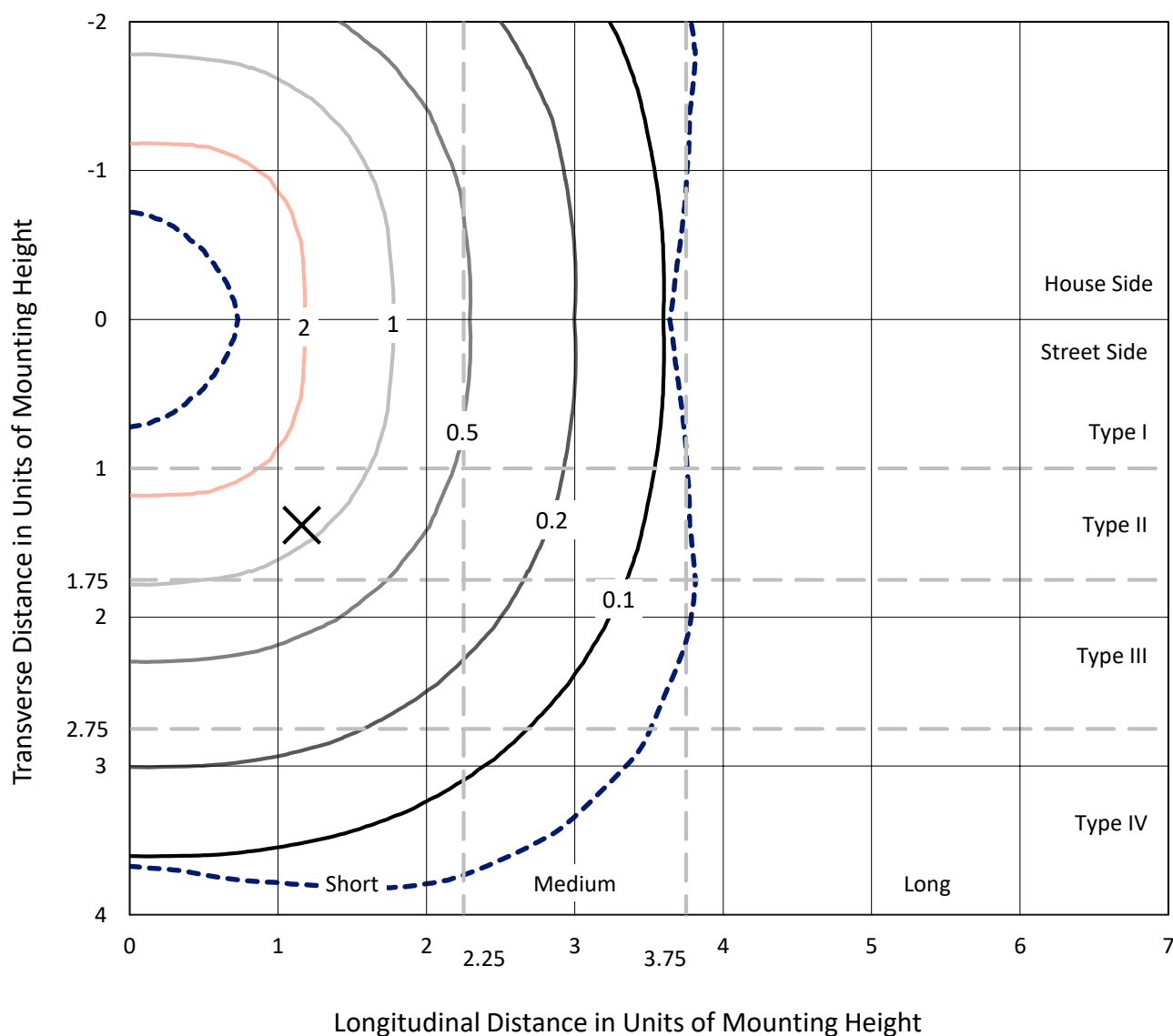


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

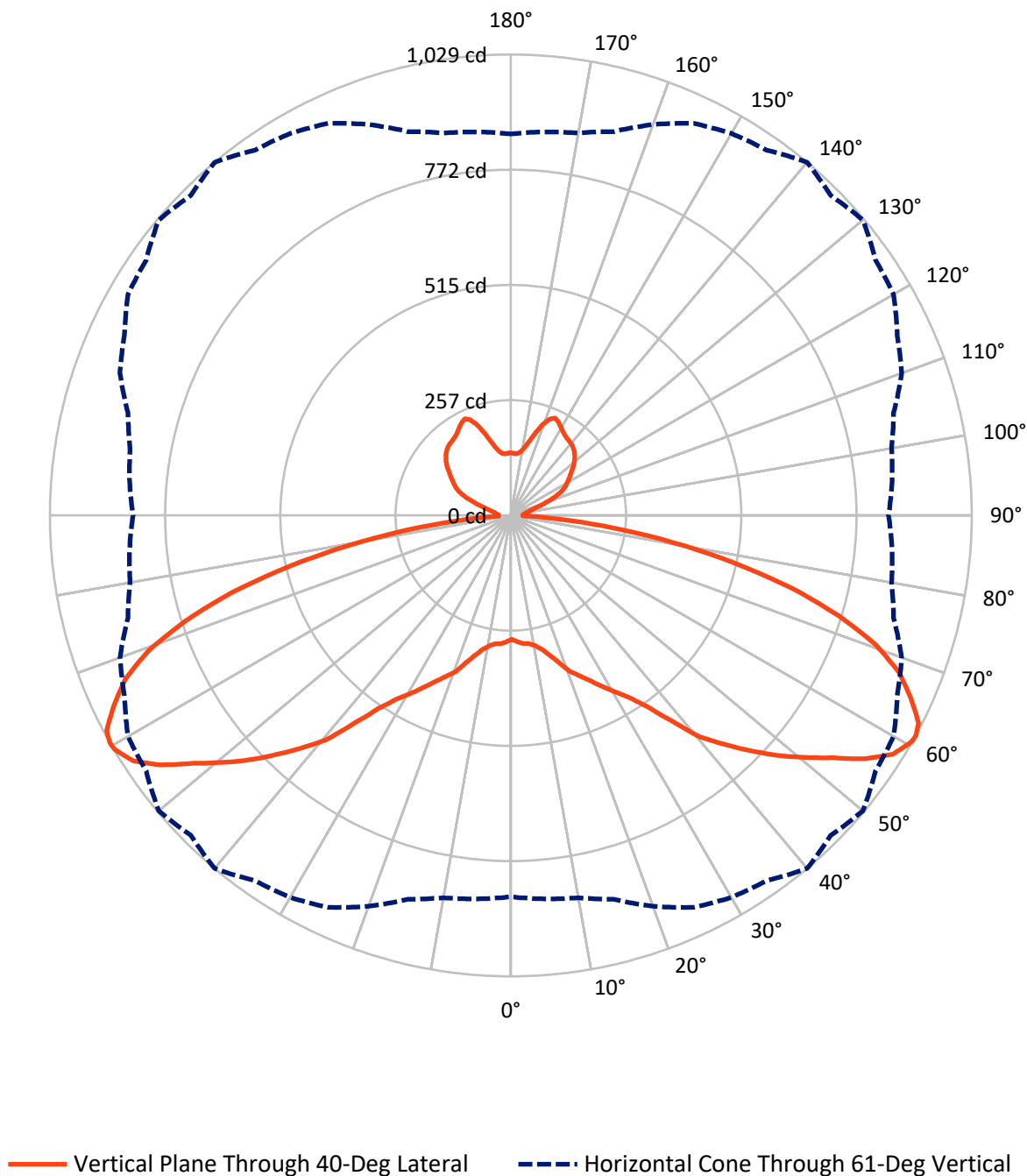


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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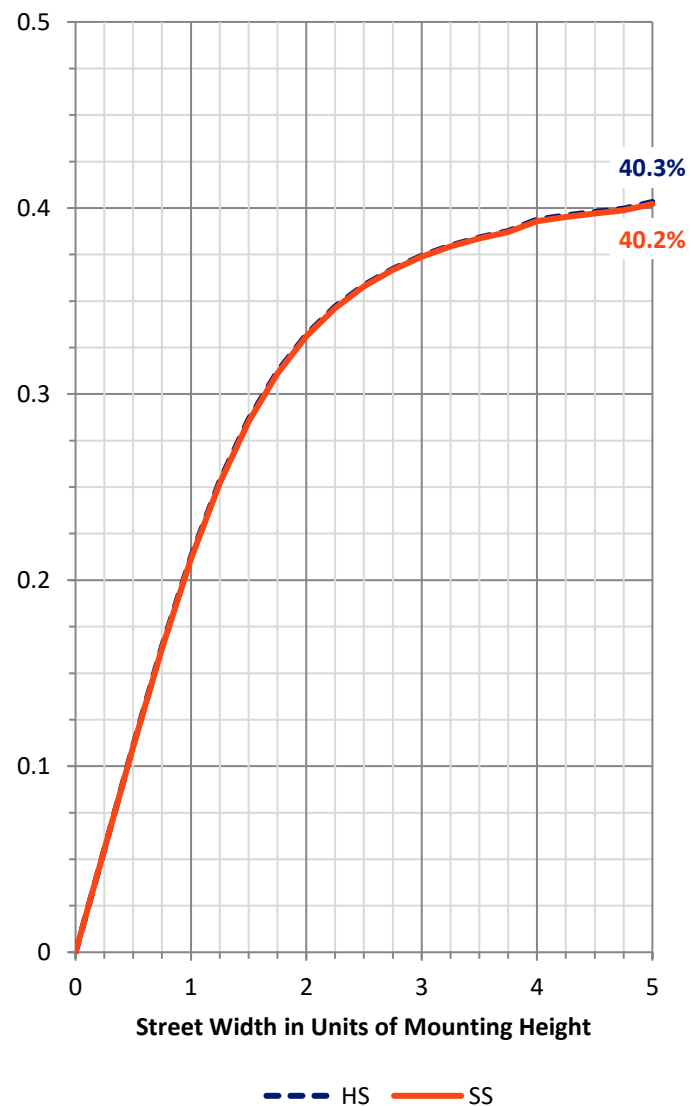
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1802.6	412.0	2214.5
	% Fixture	40.7	9.3	50.0
Street Side	Lumens	1802.6	412.0	2214.5
	% Fixture	40.7	9.3	50.0
Total	Lumens	3605.1	824.0	4429.1
	% Fixture	81.4	18.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	0.6
10°-20°	93.1	2.1
20°-30°	188.8	4.3
30°-40°	328.4	7.4
40°-50°	552.8	12.5
50°-60°	796.3	18.0
60°-70°	883.7	20.0
70°-80°	600.1	13.5
80°-90°	134.4	3.0
90°-100°	38.3	0.9
100°-110°	59.4	1.3
110°-120°	119.3	2.7
120°-130°	148.7	3.4
130°-140°	153.2	3.5
140°-150°	136.0	3.1
150°-160°	103.7	2.3
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3605.1	81.4
0°-180°	4429.1	100.0

Coefficient of Utilization



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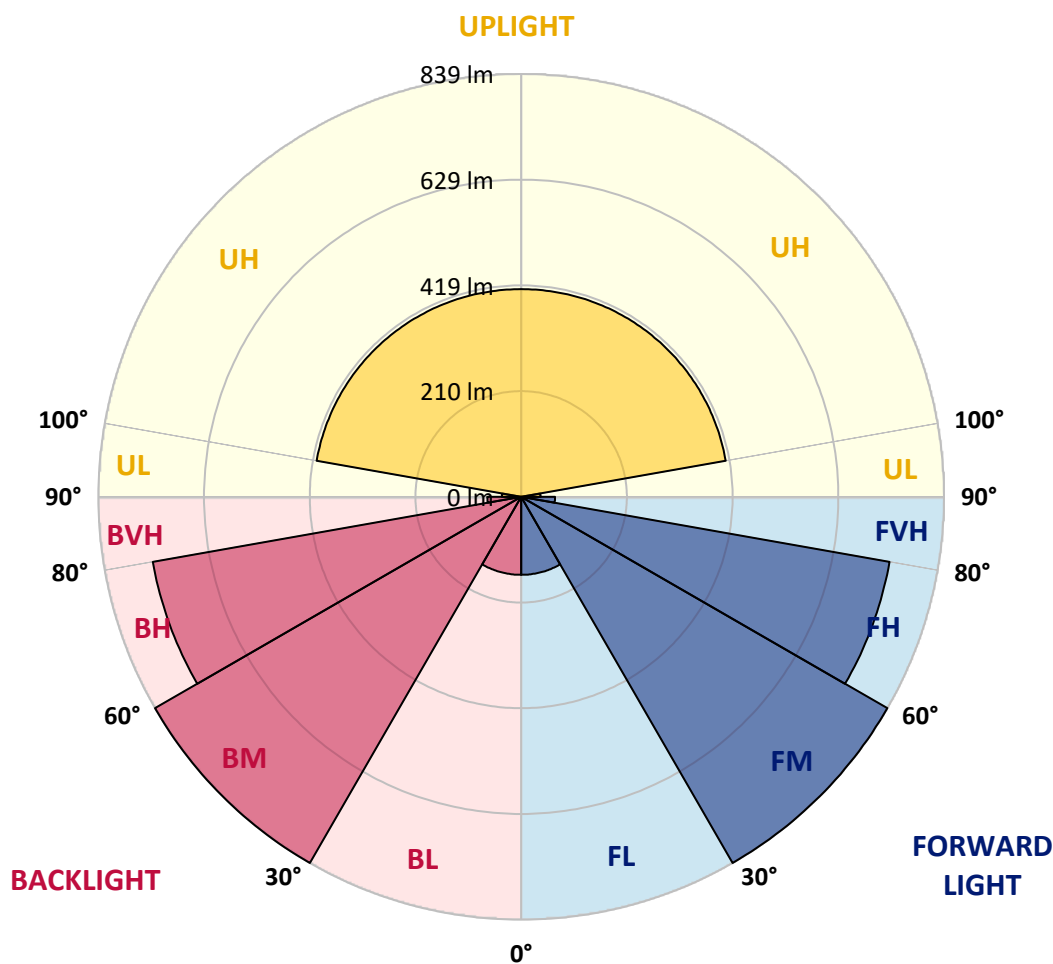
CATALOG NUMBER: TT-C2-LED-E1-WQ-CG-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	154.7	3.5			
FM	(30°-60°)	838.7	18.9			
FH	(60°-80°)	741.9	16.8			G1/1800
FVH	(80°-90°)	67.2	1.5			G1/100
BL	(0°-30°)	154.7	3.5	B1/500		
BM	(30°-60°)	838.7	18.9	B1/1000		
BH	(60°-80°)	741.9	16.8	B2/1000		G1/1800
BVH	(80°-90°)	67.2	1.5			G1/100
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	9.3		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°	50°
0°	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6
2.5°	283.2	283.2	283.2	283.2	283.2	282.5	283.2	282.5	282.5	282.5	282.5
5°	285.4	286.1	286.1	286.1	286.1	286.8	286.8	287.6	287.6	287.6	287.6
7.5°	287.6	287.6	287.6	287.6	287.6	287.6	288.3	288.3	289.0	289.0	289.7
10°	296.3	296.3	297.0	297.0	296.3	296.3	296.3	295.6	295.6	294.8	294.8
12.5°	308.7	308.7	309.4	310.1	310.1	309.4	308.7	307.2	306.5	306.5	306.5
15°	318.1	318.9	320.3	321.8	322.5	322.5	323.2	323.2	323.2	322.5	321.8
17.5°	336.3	336.3	337.1	337.8	337.8	338.5	340.0	341.4	344.3	345.1	342.9
20°	362.5	363.3	365.4	364.7	364.7	366.2	367.6	368.4	370.5	372.0	372.0
22.5°	382.2	383.6	386.6	386.6	385.8	386.6	388.0	388.0	388.0	387.3	388.7
25°	397.5	398.9	401.1	401.1	402.6	406.2	410.6	409.9	407.7	407.7	406.9
27.5°	417.9	418.6	420.0	420.0	422.2	424.4	427.3	430.2	431.7	431.0	429.5
30°	443.3	444.8	446.3	444.1	447.7	449.9	451.3	451.3	457.2	460.1	455.0
32.5°	462.3	465.2	468.1	470.3	477.6	481.2	479.0	481.2	484.1	487.0	487.0
35°	493.6	496.5	498.7	500.1	507.4	512.5	518.3	524.1	523.4	521.2	525.6
37.5°	538.7	541.6	543.8	546.7	556.2	559.8	564.2	576.6	580.9	575.1	578.0
40°	586.8	591.8	599.1	607.9	621.7	626.1	633.3	642.1	650.1	653.0	645.7
42.5°	628.2	634.1	635.5	649.4	666.1	679.2	689.4	691.6	698.9	705.4	700.3
45°	672.7	677.7	681.4	693.0	702.5	720.7	737.4	745.5	749.1	748.4	754.2
47.5°	714.1	720.0	725.1	737.4	749.1	764.4	775.3	794.2	800.8	792.0	801.5
50°	739.6	746.9	753.5	776.8	797.1	813.2	821.9	837.9	849.6	843.7	845.9
52.5°	781.8	784.8	789.9	803.0	829.9	867.0	875.8	884.5	899.1	906.3	893.2
55°	835.7	843.7	851.0	867.8	881.6	909.2	949.3	960.2	959.5	982.0	961.7
57.5°	847.4	859.0	873.6	904.1	931.1	947.1	972.6	1003.2	1006.1	1007.5	1010.4
60°	848.8	856.1	865.6	891.0	938.4	967.5	982.0	1001.7	1027.9	1009.0	1028.6
61°	851.7	859.7	867.0	887.4	928.9	966.0	985.0	995.9	1029.4	1010.4	1026.4
62.5°	846.6	856.1	867.0	886.7	914.3	952.2	988.6	988.6	1022.1	1009.7	1018.4
65°	816.1	824.8	845.9	871.4	904.9	924.5	962.4	986.4	981.3	1003.2	981.3
67.5°	764.4	771.7	789.9	819.7	856.1	883.8	901.2	939.8	934.7	957.3	932.5
70°	691.6	701.0	723.6	744.0	778.2	807.3	830.6	853.9	864.1	861.9	863.4
72.5°	604.2	610.8	631.2	653.7	680.7	713.4	734.5	749.1	765.1	764.4	767.3
75°	503.0	508.9	526.3	543.1	569.3	594.8	618.8	634.1	647.2	646.4	643.5
77.5°	388.0	394.6	414.2	428.8	441.2	469.5	487.7	497.9	508.9	508.9	510.3
80°	270.8	275.2	290.5	305.8	317.4	331.2	354.5	356.7	369.1	366.2	369.1
82.5°	163.1	166.0	177.6	186.4	194.4	207.5	218.4	222.8	230.0	227.1	231.5
85°	73.5	75.0	82.3	87.4	91.0	98.3	104.1	106.3	109.9	109.2	112.1
87.5°	15.3	16.7	18.9	20.4	21.1	24.0	26.2	26.2	27.7	27.7	28.4
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	32.0
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°	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6
2.5°	282.5	283.2	282.5	282.5	282.5	283.2	282.5	283.2
5°	287.6	287.6	287.6	286.8	286.1	286.1	286.1	285.4
7.5°	290.5	290.5	289.7	289.0	288.3	289.0	289.0	289.0
10°	296.3	297.7	298.5	298.5	297.7	297.7	297.7	297.0
12.5°	306.5	307.2	309.4	310.1	310.8	310.1	307.9	307.2
15°	320.3	320.3	321.0	322.5	322.5	319.6	317.4	316.7
17.5°	340.0	339.2	337.8	337.8	338.5	337.1	334.9	334.9
20°	369.8	366.9	365.4	363.3	365.4	365.4	361.1	358.9
22.5°	390.9	388.0	384.4	382.2	385.1	387.3	382.2	379.3
25°	409.1	409.9	404.0	401.1	401.8	403.3	396.7	396.0
27.5°	428.1	429.5	426.6	421.5	420.0	423.0	417.9	416.4
30°	451.3	450.6	452.1	445.5	442.6	444.8	444.1	440.4
32.5°	481.9	478.3	479.7	473.9	468.1	468.1	463.7	459.4
35°	524.1	516.1	512.5	508.9	497.9	498.7	495.0	491.4
37.5°	579.5	567.1	556.9	559.1	543.1	541.6	539.4	534.3
40°	642.8	637.0	625.3	618.8	602.0	594.0	591.1	581.7
42.5°	690.1	691.6	674.1	662.5	649.4	635.5	634.1	624.6
45°	741.1	736.0	720.0	701.0	695.2	678.5	676.3	666.8
47.5°	792.0	774.6	765.1	745.5	736.0	714.9	716.3	707.6
50°	840.1	819.7	811.0	787.7	773.1	752.0	746.9	732.3
52.5°	891.0	872.1	858.3	828.4	807.3	791.3	782.6	776.8
55°	959.5	940.5	909.2	881.6	864.1	837.9	835.0	824.8
57.5°	991.5	977.7	943.5	923.8	892.5	865.6	856.8	836.4
60°	995.1	989.3	952.9	934.0	888.1	866.3	855.4	843.0
61°	994.4	987.1	952.2	928.9	885.2	863.4	854.6	843.7
62.5°	991.5	982.8	944.2	920.2	879.4	858.3	851.0	835.0
65°	982.0	958.0	924.5	902.7	858.3	839.4	821.9	805.9
67.5°	940.5	895.4	881.6	853.9	808.8	787.7	771.7	757.8
70°	851.7	821.9	807.3	773.1	736.7	719.2	701.0	683.6
72.5°	747.6	728.0	715.6	674.1	647.2	629.7	613.0	596.2
75°	631.2	616.6	594.0	562.7	538.7	521.2	505.9	497.9
77.5°	495.8	486.3	468.8	437.5	424.4	409.1	393.8	381.5
80°	356.7	349.4	335.6	313.0	302.1	286.8	275.9	265.7
82.5°	222.0	216.2	208.2	191.5	187.1	177.6	167.4	160.2
85°	106.3	102.6	99.7	88.8	88.1	80.1	76.4	72.1
87.5°	27.7	26.9	25.5	21.8	21.1	18.9	17.5	15.3
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)