

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: P198314

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198314
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-MQ-CG-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
MEDIUM 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: 4444.5 lumens
Efficiency: N/A
Efficacy: 86.5 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

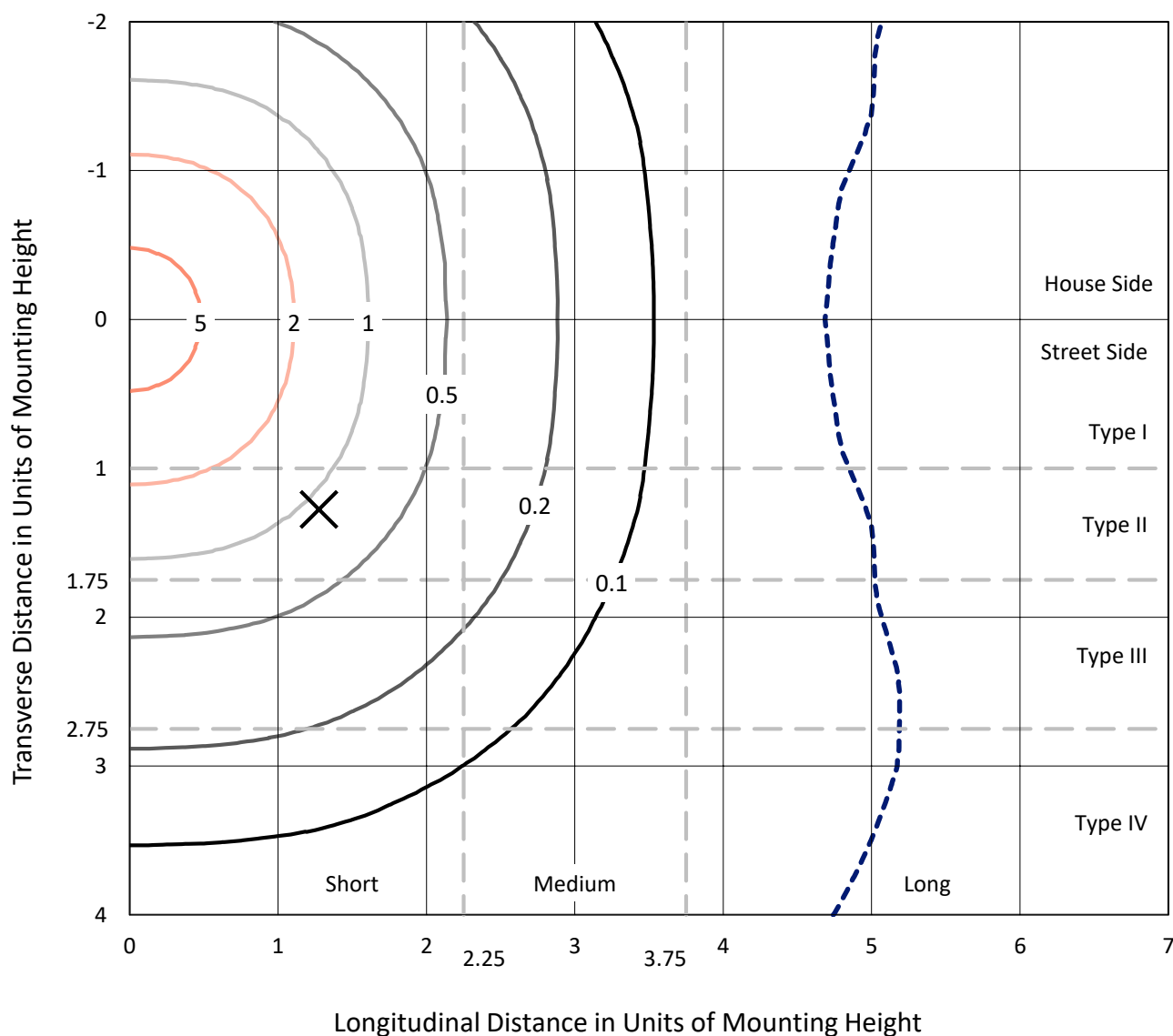


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

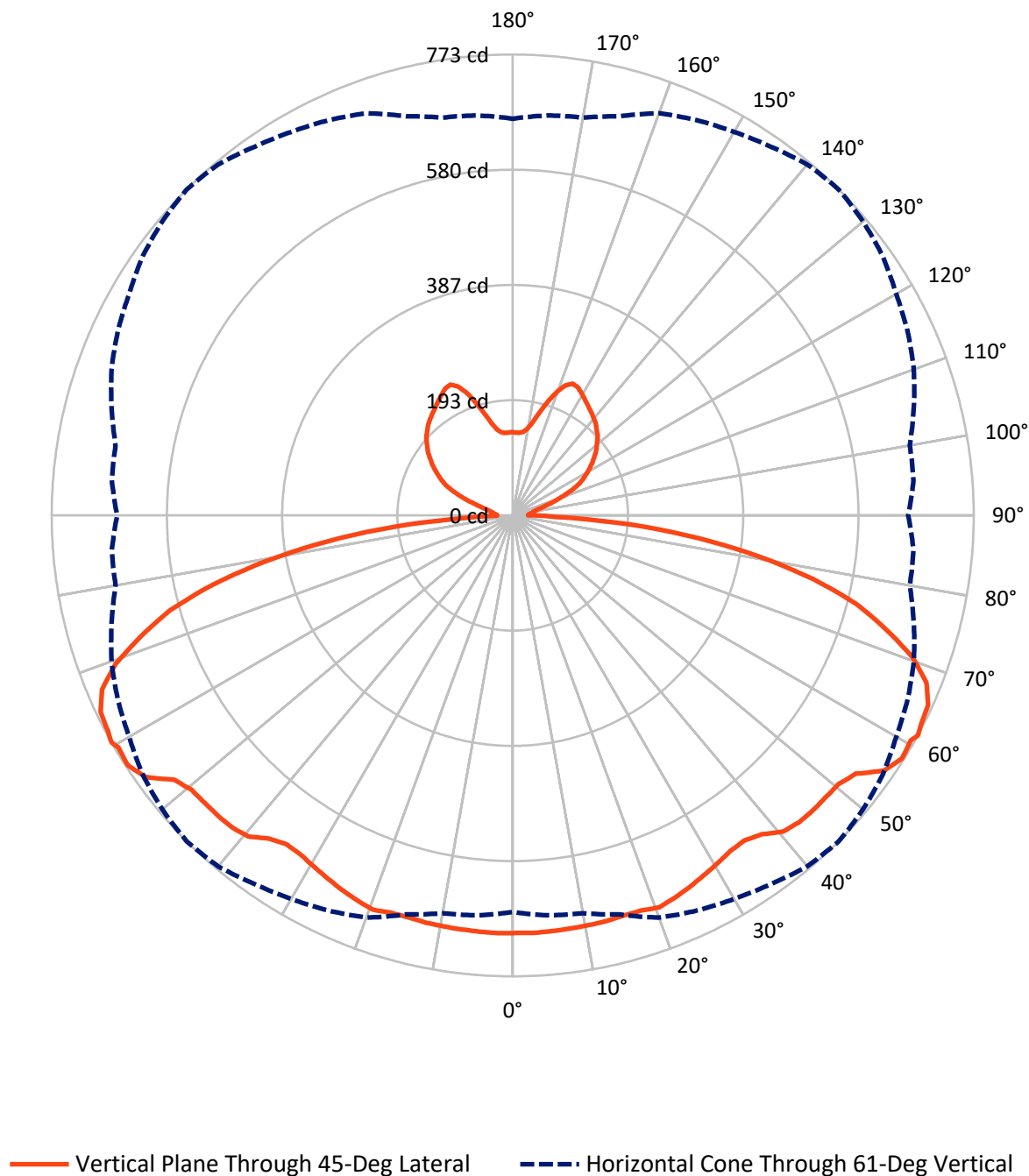


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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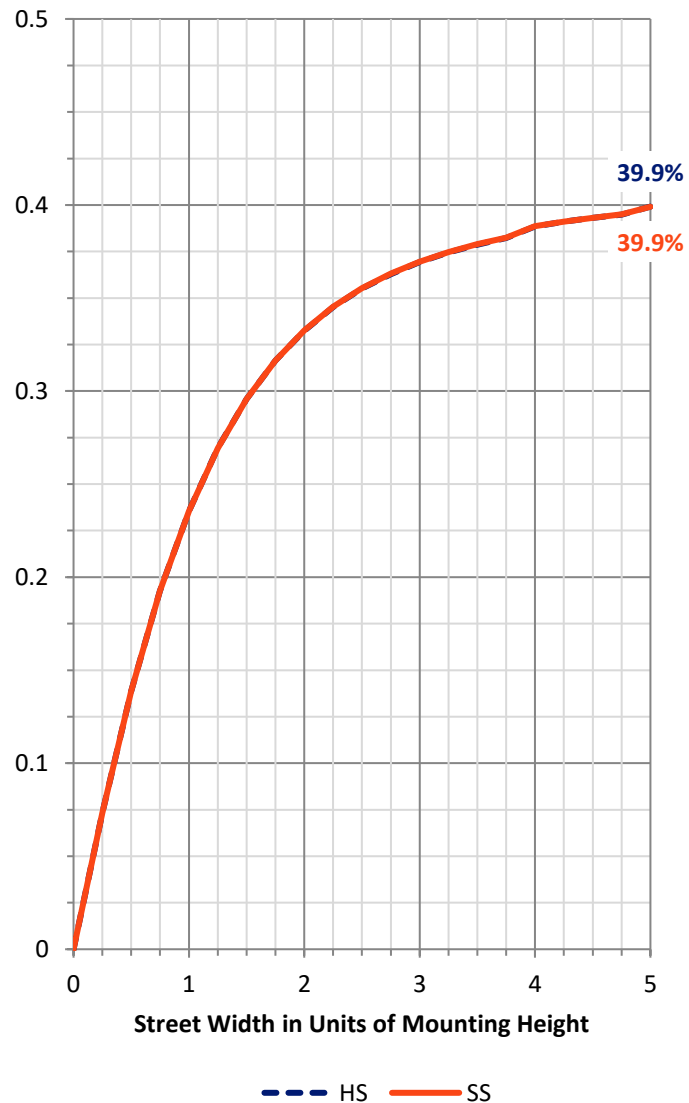
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1810.2	412.0	2222.2
	% Fixture	40.7	9.3	50.0
Street Side	Lumens	1810.2	412.0	2222.2
	% Fixture	40.7	9.3	50.0
Total	Lumens	3620.5	824.0	4444.5
	% Fixture	81.5	18.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	1.5
10°-20°	197.6	4.4
20°-30°	317.9	7.2
30°-40°	421.2	9.5
40°-50°	531.9	12.0
50°-60°	637.3	14.3
60°-70°	696.8	15.7
70°-80°	557.8	12.6
80°-90°	193.1	4.3
90°-100°	38.3	0.9
100°-110°	59.4	1.3
110°-120°	119.3	2.7
120°-130°	148.7	3.3
130°-140°	153.2	3.4
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°	3620.5	81.5
0°-180°	4444.5	100.0

Coefficient of Utilization



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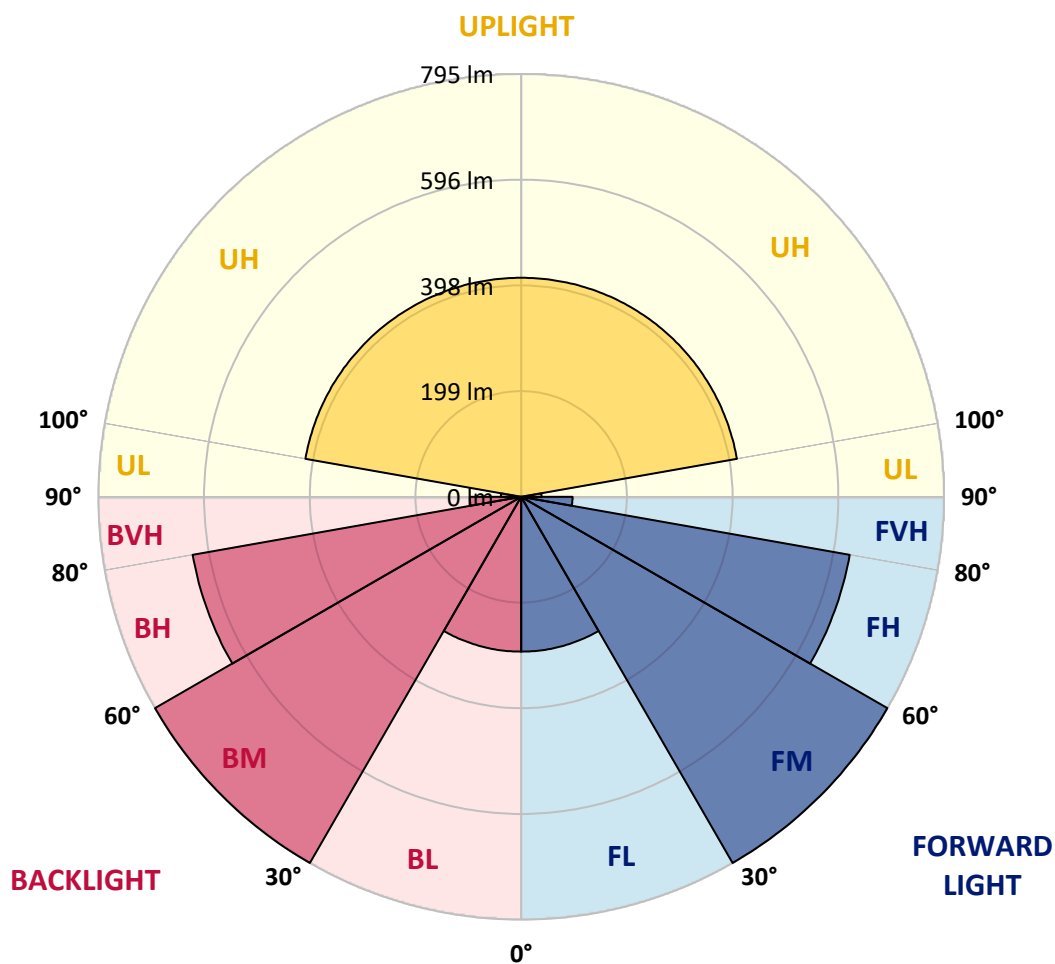
CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	291.2	6.6			
FM	(30°-60°)	795.2	17.9			
FH	(60°-80°)	627.3	14.1			G0/660
FVH	(80°-90°)	96.6	2.2			G1/100
BL	(0°-30°)	291.2	6.6	B1/500		
BM	(30°-60°)	795.2	17.9	B1/1000		
BH	(60°-80°)	627.3	14.1	B2/1000		G0/660
BVH	(80°-90°)	96.6	2.2			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°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
2.5°	701.3	700.6	701.3	701.3	701.3	701.3	701.3	701.3	701.3	701.3	701.3
5°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
7.5°	699.9	699.9	699.9	699.9	699.9	699.9	699.9	699.9	700.6	699.9	700.6
10°	698.6	698.6	698.6	698.6	699.2	699.2	699.2	699.2	699.2	699.2	699.2
12.5°	697.2	697.2	697.2	697.2	697.9	697.9	697.9	697.9	698.6	698.6	697.9
15°	695.9	695.2	695.2	695.9	695.9	696.6	696.6	696.6	697.2	696.6	696.6
17.5°	694.5	693.8	694.5	695.2	695.2	695.9	696.6	696.6	697.2	697.2	697.2
20°	696.6	695.9	696.6	697.2	697.9	699.2	699.9	700.6	701.3	701.9	701.9
22.5°	692.5	691.9	692.5	692.5	693.2	693.8	695.2	695.9	696.6	696.6	696.6
25°	686.5	686.5	687.1	687.1	687.8	688.4	689.1	689.8	689.8	690.5	689.8
27.5°	679.7	679.7	680.4	680.4	681.8	681.8	682.4	683.0	683.7	683.7	683.7
30°	671.7	671.7	672.3	673.0	674.3	675.0	675.7	676.4	677.1	677.1	677.1
32.5°	664.2	663.5	664.2	665.6	667.6	668.9	670.3	671.0	671.0	671.0	671.7
35°	658.2	658.8	660.2	661.5	664.2	665.6	666.9	668.9	669.6	669.6	669.6
37.5°	659.5	660.2	662.2	664.9	668.2	672.3	675.0	677.7	679.7	679.0	678.3
40°	668.2	669.6	673.0	677.1	682.4	687.8	691.9	695.2	697.2	697.9	697.2
42.5°	669.6	671.0	673.6	679.7	685.8	691.9	697.2	700.6	703.3	704.0	703.3
45°	668.9	668.9	673.0	679.7	685.8	691.9	698.6	703.3	706.0	706.0	706.0
47.5°	664.2	666.3	668.9	675.7	683.7	689.8	696.6	701.3	704.6	706.7	704.6
50°	664.2	664.2	668.9	673.6	681.1	691.9	701.3	706.0	709.4	708.7	709.4
52.5°	662.9	666.9	669.6	676.4	689.8	700.6	708.0	714.8	719.5	720.2	718.8
55°	675.0	675.7	681.8	694.5	707.3	719.5	732.9	743.0	751.1	755.8	749.1
57.5°	684.4	681.1	693.2	704.0	718.8	737.0	757.2	765.2	771.3	769.9	772.0
60°	671.7	676.4	685.1	696.6	720.2	738.3	749.1	757.9	765.2	767.3	764.6
61°	665.6	673.6	677.7	693.2	718.1	731.6	743.0	755.1	768.7	773.4	767.3
62.5°	655.5	668.2	666.9	691.9	707.3	722.8	744.4	758.6	768.0	769.3	768.0
65°	656.1	654.1	669.6	687.8	703.3	730.9	749.1	757.9	763.3	765.9	764.6
67.5°	634.6	627.9	646.7	659.5	685.8	707.3	724.9	737.6	745.7	748.4	745.1
70°	584.8	589.5	602.9	622.5	644.0	670.3	686.5	703.3	710.0	710.7	710.7
72.5°	536.9	539.6	553.0	571.3	596.1	619.1	635.2	648.7	654.8	655.5	656.8
75°	473.6	476.2	491.8	508.6	533.5	553.0	564.5	580.7	589.5	596.8	590.8
77.5°	400.1	404.9	417.0	435.2	458.1	468.9	489.1	508.0	514.0	516.0	514.0
80°	317.3	323.4	334.2	358.4	368.5	386.0	405.5	413.6	419.0	420.4	421.1
82.5°	228.4	233.1	244.5	261.4	272.8	287.0	300.5	310.6	316.6	315.3	314.6
85°	134.7	136.1	148.2	159.7	168.4	177.1	187.9	195.4	196.7	199.4	198.7
87.5°	40.5	41.1	46.4	52.5	56.6	60.6	67.4	76.1	78.2	72.8	73.5
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°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
2.5°	701.3	701.3	701.3	701.3	701.3	701.3	700.6	701.3
5°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
7.5°	700.6	699.9	699.9	699.9	699.9	699.9	699.9	699.9
10°	699.2	699.2	699.2	699.2	698.6	698.6	698.6	698.6
12.5°	697.9	697.9	697.9	697.9	697.2	697.2	697.2	697.2
15°	696.6	696.6	696.6	696.6	695.9	695.9	695.9	695.9
17.5°	697.2	696.6	695.9	695.9	695.2	694.5	694.5	694.5
20°	701.3	700.6	699.2	697.9	697.2	696.6	696.6	696.6
22.5°	695.9	695.2	693.8	693.2	693.2	692.5	691.9	691.9
25°	689.8	688.4	688.4	687.8	687.8	686.5	686.5	685.8
27.5°	683.0	682.4	681.8	681.1	681.1	680.4	679.7	679.0
30°	677.1	675.7	674.3	673.6	673.0	672.3	672.3	672.3
32.5°	671.0	669.6	668.9	666.9	665.6	664.9	664.2	664.2
35°	668.9	666.9	665.6	663.5	661.5	660.2	659.5	658.2
37.5°	677.1	674.3	672.3	668.9	664.2	662.2	660.2	659.5
40°	694.5	691.9	687.8	682.4	677.1	673.0	669.6	668.2
42.5°	700.6	697.2	691.9	686.5	679.7	673.6	671.0	669.6
45°	702.6	699.2	691.9	685.1	679.0	673.6	669.6	668.2
47.5°	700.6	695.9	689.1	683.7	675.0	668.2	665.6	663.5
50°	705.3	701.3	692.5	680.4	673.0	668.9	664.2	663.5
52.5°	714.8	707.3	699.2	690.5	676.4	668.2	665.6	662.2
55°	743.0	732.9	718.8	704.6	695.9	683.0	675.0	675.0
57.5°	764.6	756.5	738.3	719.5	703.3	693.8	681.8	682.4
60°	758.6	747.8	739.0	720.2	697.2	684.4	679.7	671.0
61°	757.9	743.0	730.9	716.1	696.6	676.4	675.0	663.5
62.5°	759.2	745.7	722.8	707.3	692.5	666.3	665.6	654.8
65°	757.9	745.1	733.6	704.6	684.4	673.6	650.7	659.5
67.5°	737.0	725.5	704.6	688.4	657.5	644.0	631.2	631.2
70°	704.0	687.1	666.9	646.7	625.8	602.9	591.4	584.8
72.5°	648.7	634.6	618.4	596.8	571.3	550.4	539.6	534.9
75°	579.4	563.8	549.7	533.5	506.6	489.1	477.6	474.3
77.5°	506.6	493.1	468.2	452.7	434.5	414.3	404.2	400.1
80°	413.6	406.2	388.7	363.8	355.0	330.1	323.4	317.3
82.5°	310.6	302.4	286.3	268.8	258.0	243.8	231.7	230.4
85°	195.4	190.0	179.9	167.0	153.6	145.5	134.7	137.4
87.5°	72.8	69.4	63.3	55.3	49.2	43.8	38.4	40.5
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)