

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: P198294

Luminaire Tested: **TT-C1-LED-E1-WQ-UPL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198294  
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-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
WIDE DISTRIBUTION  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4453 lumens  
Efficiency: N/A  
Efficacy: 98.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B2 - U4 - G2

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

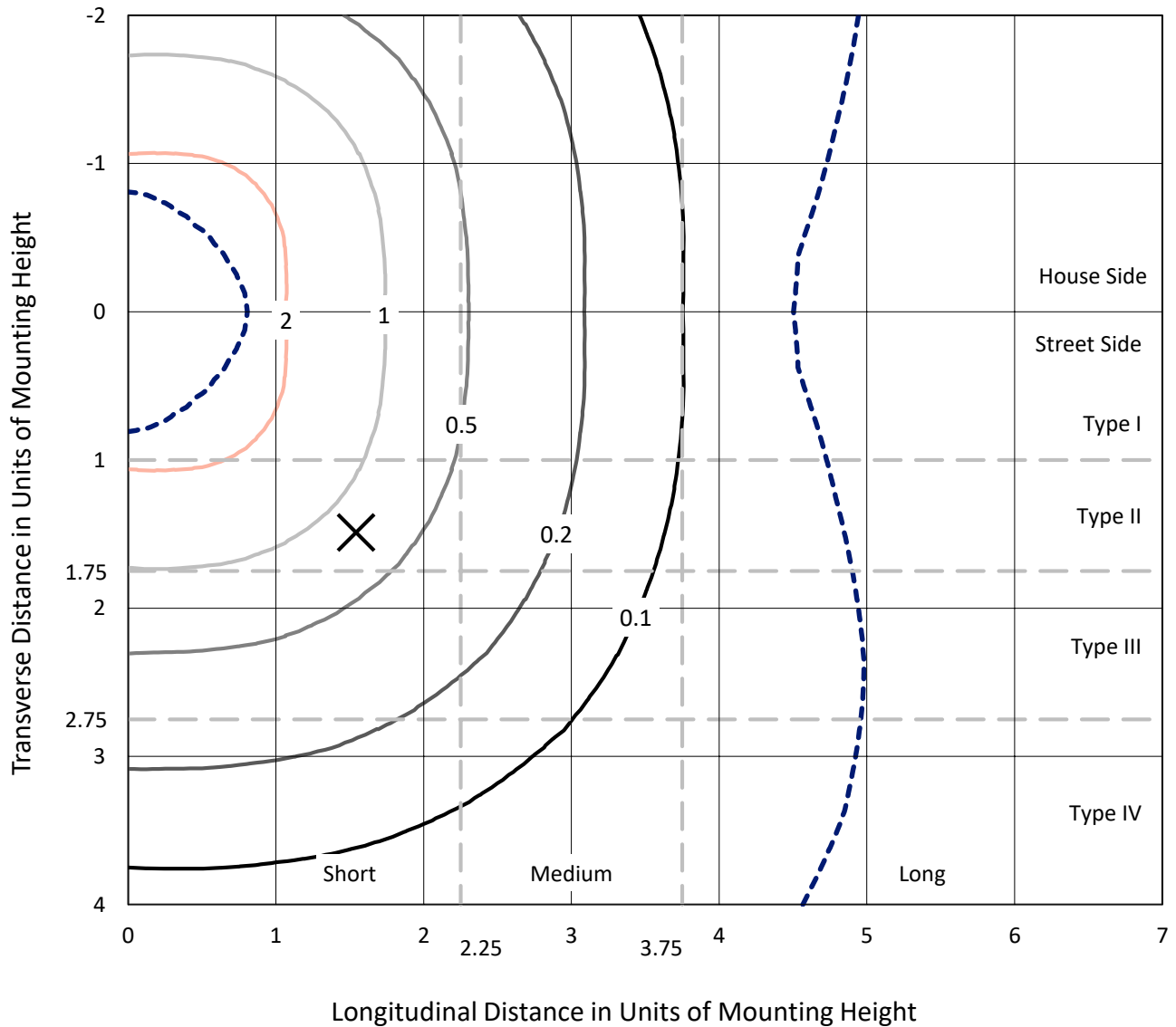


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### Iso-Footcandle Lines of Horizontal Illumination

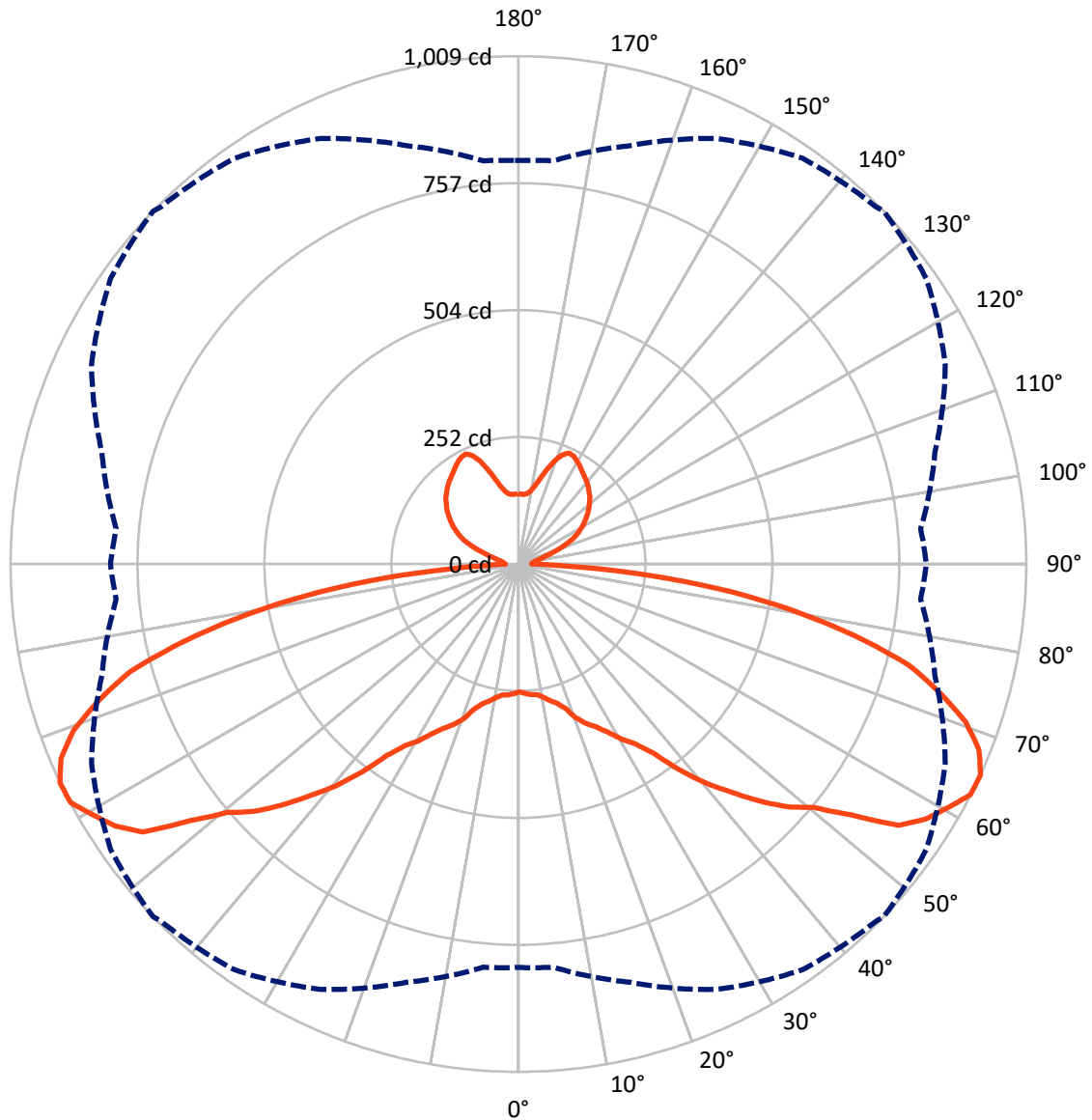
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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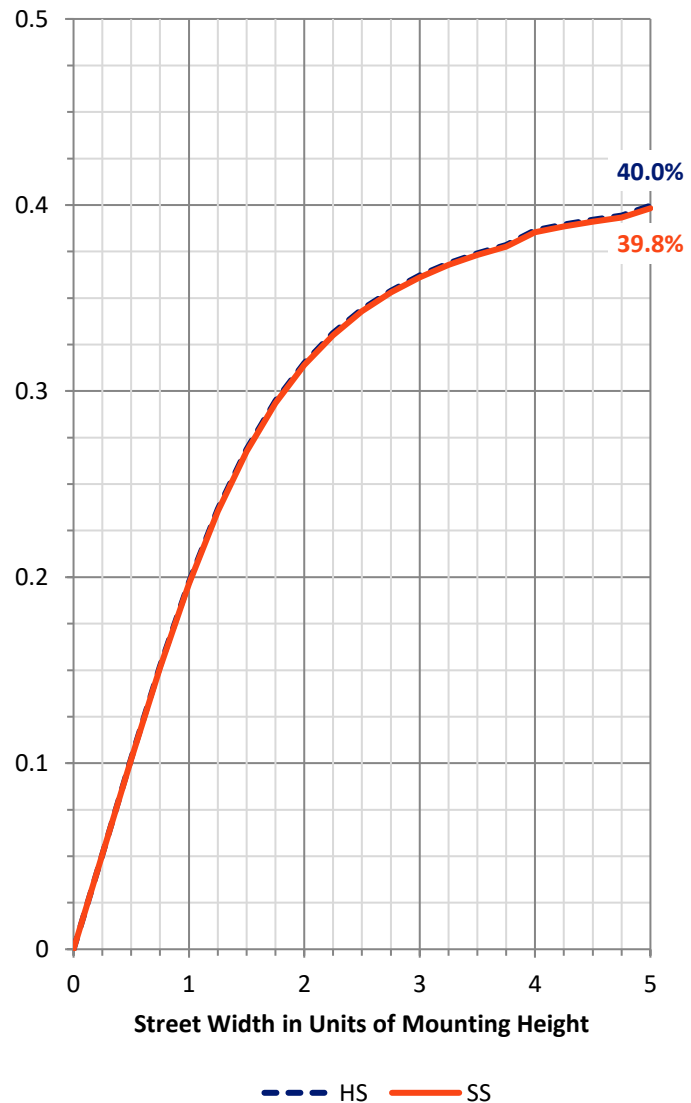
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1813.9	412.6	2226.5
	% Fixture	40.7	9.3	50.0
<b>Street Side</b>	Lumens	1813.9	412.6	2226.5
	% Fixture	40.7	9.3	50.0
<b>Total</b>	Lumens	3627.7	825.3	4453.0
	% Fixture	81.5	18.5	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.1	0.6
10°-20°	83.6	1.9
20°-30°	168.3	3.8
30°-40°	293.1	6.6
40°-50°	495.7	11.1
50°-60°	738.9	16.6
60°-70°	884.3	19.9
70°-80°	716.0	16.1
80°-90°	222.5	5.0
90°-100°	38.4	0.9
100°-110°	59.5	1.3
110°-120°	119.6	2.7
120°-130°	148.9	3.3
130°-140°	153.3	3.4
140°-150°	136.3	3.1
150°-160°	103.9	2.3
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3627.7	81.5
0°-180°	4453.0	100.0



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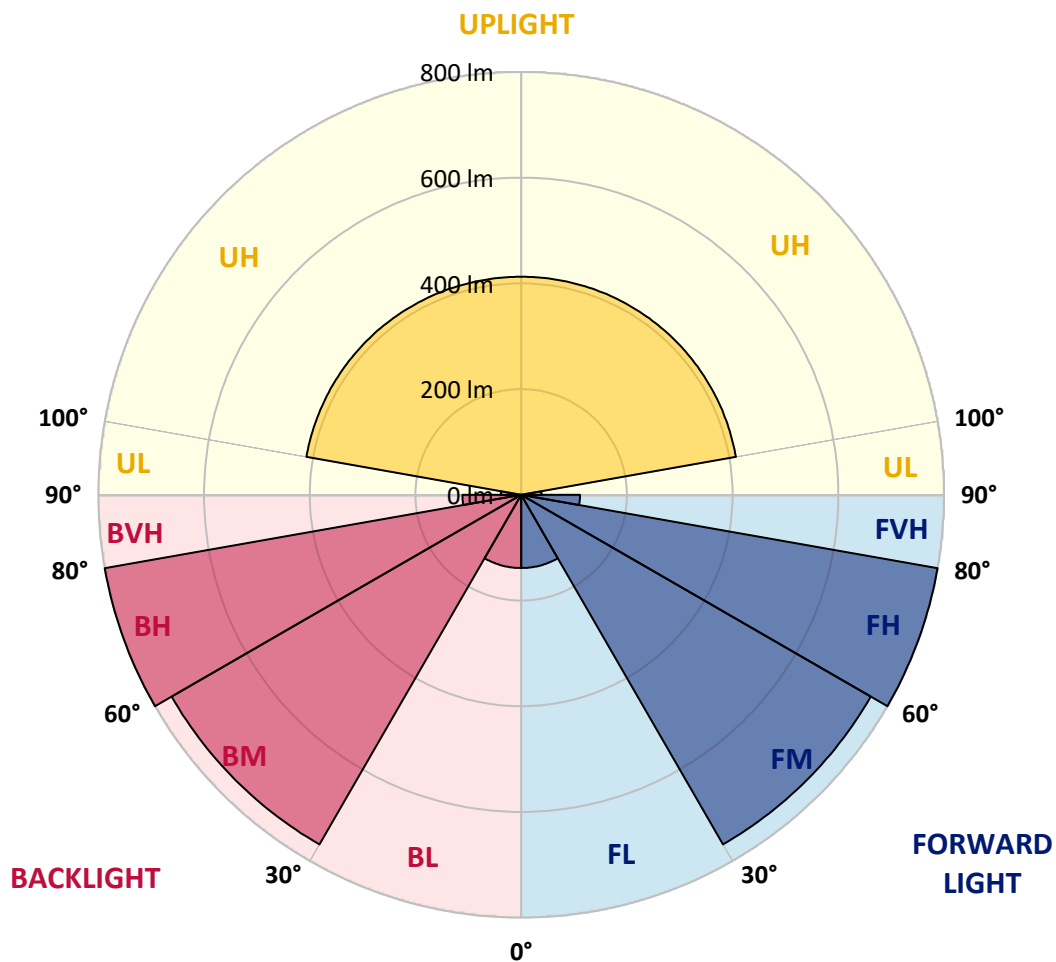
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	138.6	3.1			
FM (30°-60°)	763.9	17.2			
FH (60°-80°)	800.2	18.0			G1/1800
FVH (80°-90°)	111.3	2.5			G2/225
BL (0°-30°)	138.6	3.1	B1/500		
BM (30°-60°)	763.9	17.2	B1/1000		
BH (60°-80°)	800.2	18.0	B2/1000		G1/1800
BVH (80°-90°)	111.3	2.5			G2/225
UL (90°-100°)	38.4	0.9		U2/50	
UH (100°-180°)	412.6	9.3		U3/500	

**BUG Rating: B2-U4-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	253.8	253.8	253.8	253.8	253.8	253.8	253.8	253.8	253.8	253.8	253.8
2.5°	258.2	257.6	257.6	257.6	257.6	257.6	257.6	257.6	257.6	257.6	258.2
5°	262.6	262.6	261.9	261.3	261.3	260.7	260.7	260.7	261.3	261.9	261.9
7.5°	264.5	263.8	263.8	263.2	262.6	262.6	261.9	262.6	263.2	263.8	263.8
10°	268.2	268.8	269.5	270.1	270.7	270.1	268.8	270.1	270.1	269.5	268.2
12.5°	277.0	277.0	278.9	280.7	280.7	280.1	278.2	280.7	280.1	278.2	277.0
15°	288.9	289.5	289.5	291.4	290.1	288.9	287.0	290.1	290.1	288.9	288.3
17.5°	305.8	304.6	302.7	303.9	305.2	305.2	301.4	305.2	302.7	301.4	303.3
20°	324.6	324.0	323.4	324.6	329.6	327.7	325.9	328.4	325.2	320.9	322.1
22.5°	339.0	340.3	342.2	344.0	349.1	347.8	344.0	348.4	343.4	342.2	338.4
25°	357.2	356.6	361.6	361.6	364.7	362.8	358.5	364.7	359.7	361.6	355.9
27.5°	375.4	374.7	378.5	378.5	384.1	383.5	377.9	384.1	378.5	377.3	375.4
30°	396.1	394.8	395.4	400.4	408.6	408.6	403.6	406.7	400.4	394.2	393.5
32.5°	418.0	415.5	419.2	427.4	431.8	430.5	425.5	430.5	428.6	418.0	415.5
35°	439.3	442.4	449.3	456.2	464.4	465.6	461.2	463.7	456.8	448.7	442.4
37.5°	475.0	480.0	488.8	505.1	517.6	521.4	517.6	516.4	506.3	488.2	479.4
40°	525.1	526.4	538.3	562.7	575.9	578.4	571.5	573.4	561.5	541.4	522.6
42.5°	565.9	564.0	585.3	607.2	621.0	626.7	619.1	621.7	605.4	585.9	565.3
45°	599.1	601.0	622.9	644.8	666.8	677.4	671.8	667.4	643.6	621.7	603.5
47.5°	629.8	638.6	653.6	685.6	713.1	725.0	720.7	714.4	689.3	653.0	639.2
50°	668.6	674.3	692.5	733.8	759.5	763.9	760.1	760.1	736.3	694.3	675.5
52.5°	710.6	711.3	738.2	780.8	813.4	831.0	827.8	819.0	781.4	744.5	713.8
55°	760.8	753.9	795.9	840.4	889.2	918.1	916.8	898.0	846.6	797.7	757.0
57.5°	789.0	790.2	828.4	895.5	942.5	950.6	955.0	943.8	904.9	829.7	797.7
60°	795.2	810.3	845.4	919.3	956.3	980.1	981.4	962.6	921.8	850.4	816.5
62.5°	797.7	815.9	859.2	918.1	980.7	1003.9	1008.3	988.9	923.1	861.0	811.5
65°	801.5	804.0	860.4	932.5	983.9	1003.9	1008.9	988.9	935.6	856.6	802.1
67.5°	785.8	779.6	829.1	907.4	957.5	981.4	987.0	963.2	909.3	830.3	787.7
70°	729.4	731.9	787.1	861.7	916.8	939.4	943.1	917.4	861.0	792.7	743.2
72.5°	669.9	676.2	722.5	797.7	847.2	869.2	876.1	849.1	801.5	731.3	679.9
75°	587.2	599.1	643.6	711.3	760.8	794.0	800.9	765.8	708.8	648.0	598.5
77.5°	495.7	503.8	546.5	604.7	658.0	674.9	681.2	664.3	607.9	554.0	507.6
80°	389.8	392.9	436.2	482.5	523.9	537.7	547.1	525.8	487.5	438.7	393.5
82.5°	267.6	272.0	302.7	345.3	381.6	387.3	399.2	381.6	345.9	308.3	274.5
85°	139.1	145.4	169.2	192.4	220.6	227.5	231.2	218.1	199.3	168.6	146.0
87.5°	30.1	33.2	37.0	47.6	57.0	65.2	70.8	58.9	47.0	39.5	30.1
90°	36.0	36.0	36.0	34.0	29.0	26.0	26.0	28.0	32.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	27.0	28.0	32.0	35.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	30.0	34.0	37.0	39.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	32.8	33.0	34.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	35.8	36.0	38.0	38.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	42.0	43.0	44.0	42.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	52.0	54.0	53.0	49.0	48.0
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	68.0	66.0	60.0	59.0
110°	86.0	86.0	89.0	85.0	86.0	87.0	86.8	84.0	84.0	78.0	74.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	106.2	102.0	105.0	100.0	95.0
115°	121.0	122.0	128.0	128.0	129.0	124.0	123.2	121.0	125.0	123.0	116.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	135.8	138.0	141.0	139.0	133.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	147.2	150.0	153.0	148.0	145.0
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	158.0	159.0	162.0	155.0	153.0
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.8	167.0	168.0	163.0	160.0
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	177.4	176.0	175.0	173.0	166.0
130°	187.0	188.0	191.0	179.0	186.0	186.0	185.4	183.0	183.0	184.0	171.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	194.2	190.0	192.0	192.0	179.0
135°	210.0	210.0	209.0	192.0	199.0	201.0	200.2	196.0	201.0	199.0	185.0
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	207.0	203.0	210.0	204.0	191.0
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.8	212.0	217.0	209.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	218.0	220.0	223.0	211.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	223.4	230.0	227.0	211.0	201.0
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	229.8	239.0	229.0	212.0	204.0
150°	224.0	221.0	220.0	214.0	222.0	235.0	235.8	242.0	232.0	214.0	210.0
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	241.0	242.0	235.0	219.0	215.0
155°	208.0	207.0	219.0	224.0	237.0	243.0	242.2	238.0	234.0	224.0	220.0
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	234.0	228.0	229.0	226.0	222.0
160°	199.0	198.0	210.0	213.0	219.0	219.0	218.4	215.0	219.0	221.0	218.0
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	197.6	196.0	200.0	204.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.6	176.0	181.0	185.0	190.0
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	158.8	160.0	165.0	168.0	172.0
170°	142.0	141.0	145.0	144.0	147.0	147.0	147.0	148.0	152.0	155.0	159.0
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	140.8	141.0	145.0	146.0	149.0
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.8	138.0	141.0	141.0	143.0
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.8	138.0	140.0	140.0	141.0
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):**

	90°
0°	253.8
2.5°	257.6
5°	261.9
7.5°	263.8
10°	268.2
12.5°	276.4
15°	288.9
17.5°	304.6
20°	321.5
22.5°	336.5
25°	354.7
27.5°	375.4
30°	396.7
32.5°	414.2
35°	438.7
37.5°	478.8
40°	527.0
42.5°	565.9
45°	597.8
47.5°	633.6
50°	669.3
52.5°	715.0
55°	760.1
57.5°	783.3
60°	797.7
62.5°	809.0
65°	810.3
67.5°	777.7
70°	728.2
72.5°	671.8
75°	589.1
77.5°	502.0
80°	389.8
82.5°	273.9
85°	143.5
87.5°	28.2
90°	34.0
92.5°	36.0
95°	38.0
97.5°	36.0
100°	37.0
102.5°	41.0
105°	49.0
107.5°	60.0
110°	75.0



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**CANDELA DISTRIBUTION (continued):**

	90°
112.5°	94.0
115°	113.0
117.5°	129.0
120°	142.0
122.5°	150.0
125°	158.0
127.5°	163.0
130°	169.0
132.5°	176.0
135°	184.0
137.5°	190.0
140°	195.0
142.5°	198.0
145°	202.0
147.5°	206.0
150°	211.0
152.5°	216.0
155°	219.0
157.5°	219.0
160°	215.0
162.5°	207.0
165°	192.0
167.5°	174.0
170°	160.0
172.5°	151.0
175°	144.0
177.5°	141.0
180°	140.0

(END OF REPORT)