

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: P198341

Luminaire Tested: **TT-C2-LED-E1-RW-SG-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198341
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C2-LED-E1-RW-SG-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH SOFTENING GLASS LENS
Light Source: (168) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4485.6 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type III - 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

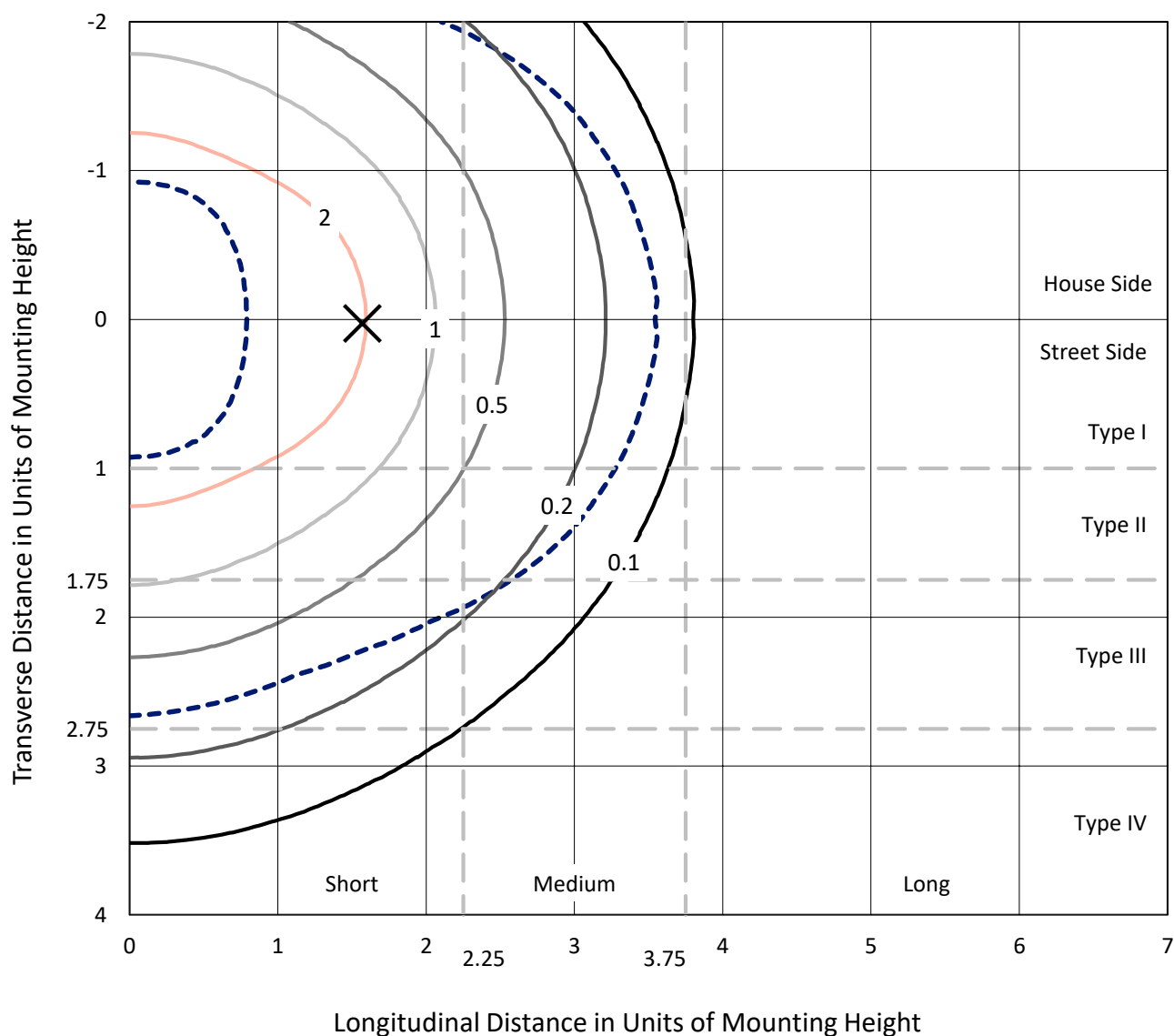


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

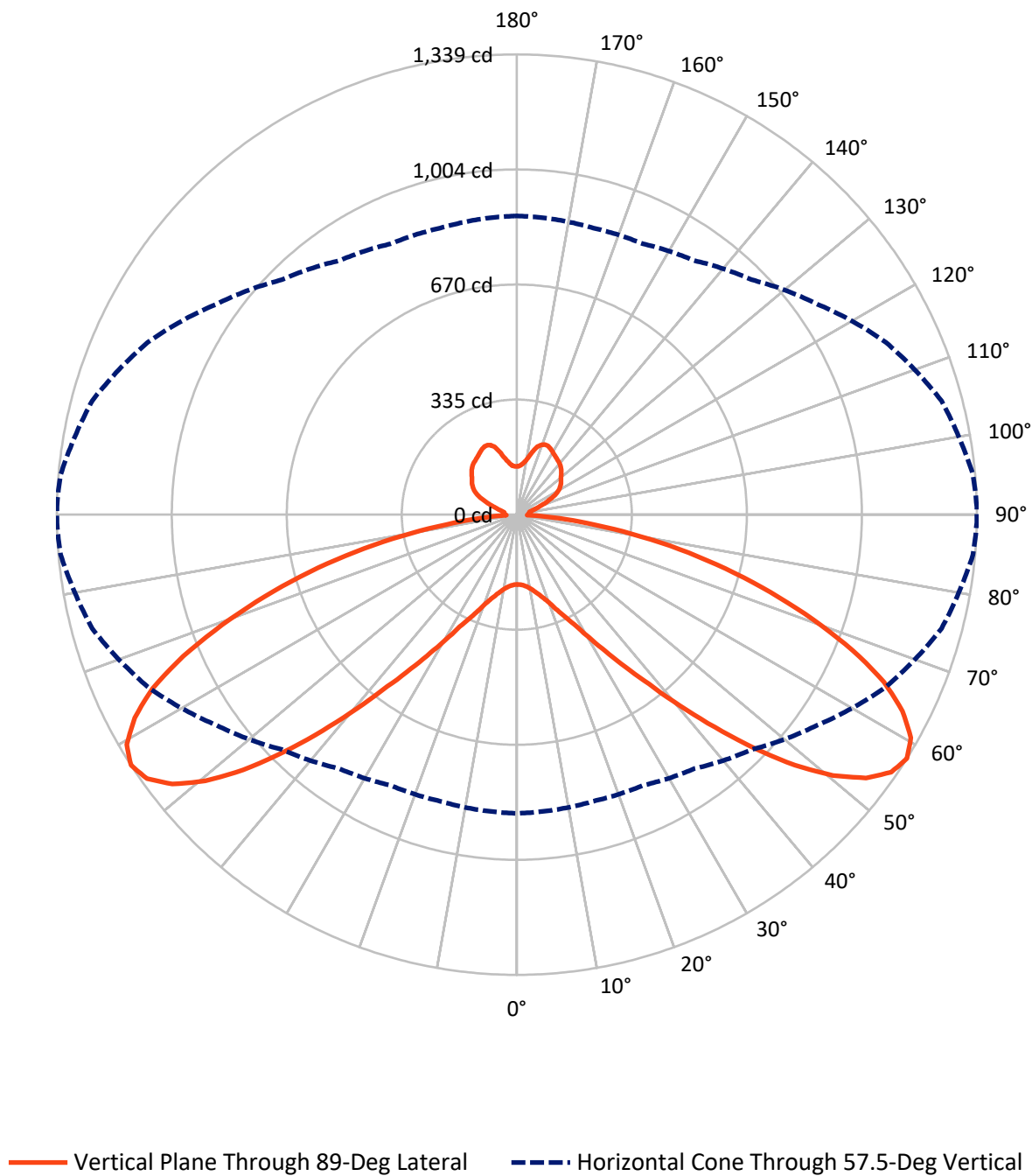


Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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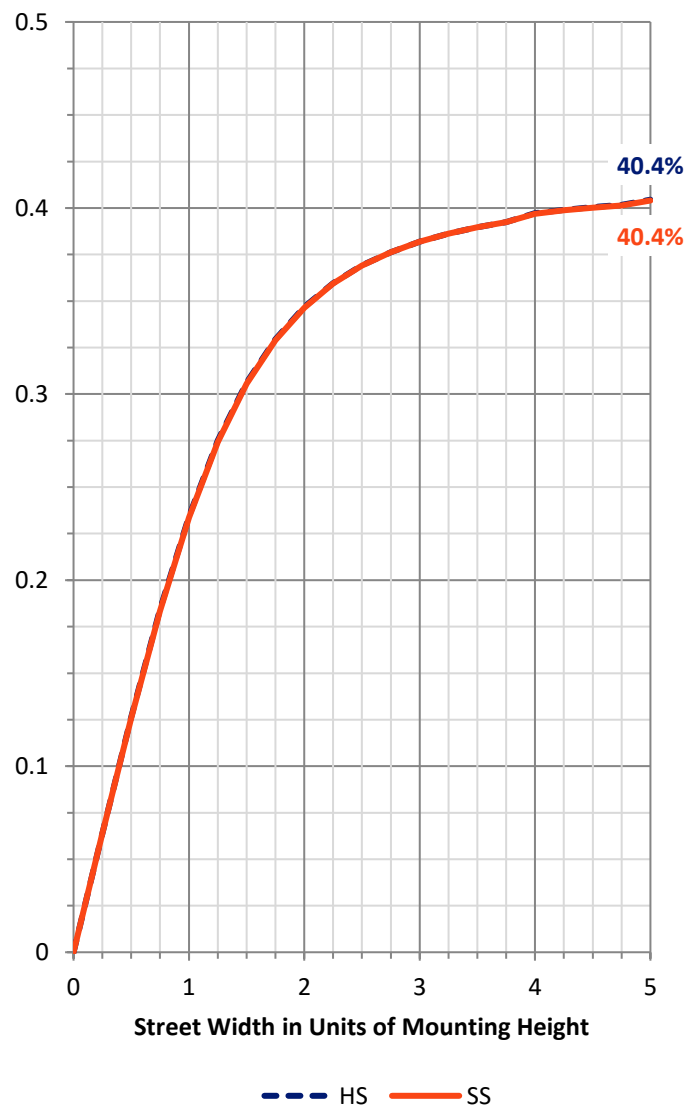
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1830.2	412.7	2242.8
	% Fixture	40.8	9.2	50.0
Street Side	Lumens	1830.2	412.7	2242.8
	% Fixture	40.8	9.2	50.0
Total	Lumens	3660.3	825.3	4485.6
	% Fixture	81.6	18.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.2	0.4
10°-20°	70.4	1.6
20°-30°	157.7	3.5
30°-40°	326.3	7.3
40°-50°	619.5	13.8
50°-60°	906.5	20.2
60°-70°	903.7	20.1
70°-80°	537.9	12.0
80°-90°	118.2	2.6
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	3.0
150°-160°	103.9	2.3
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3660.3	81.6
0°-180°	4485.6	100.0

Coefficient of Utilization



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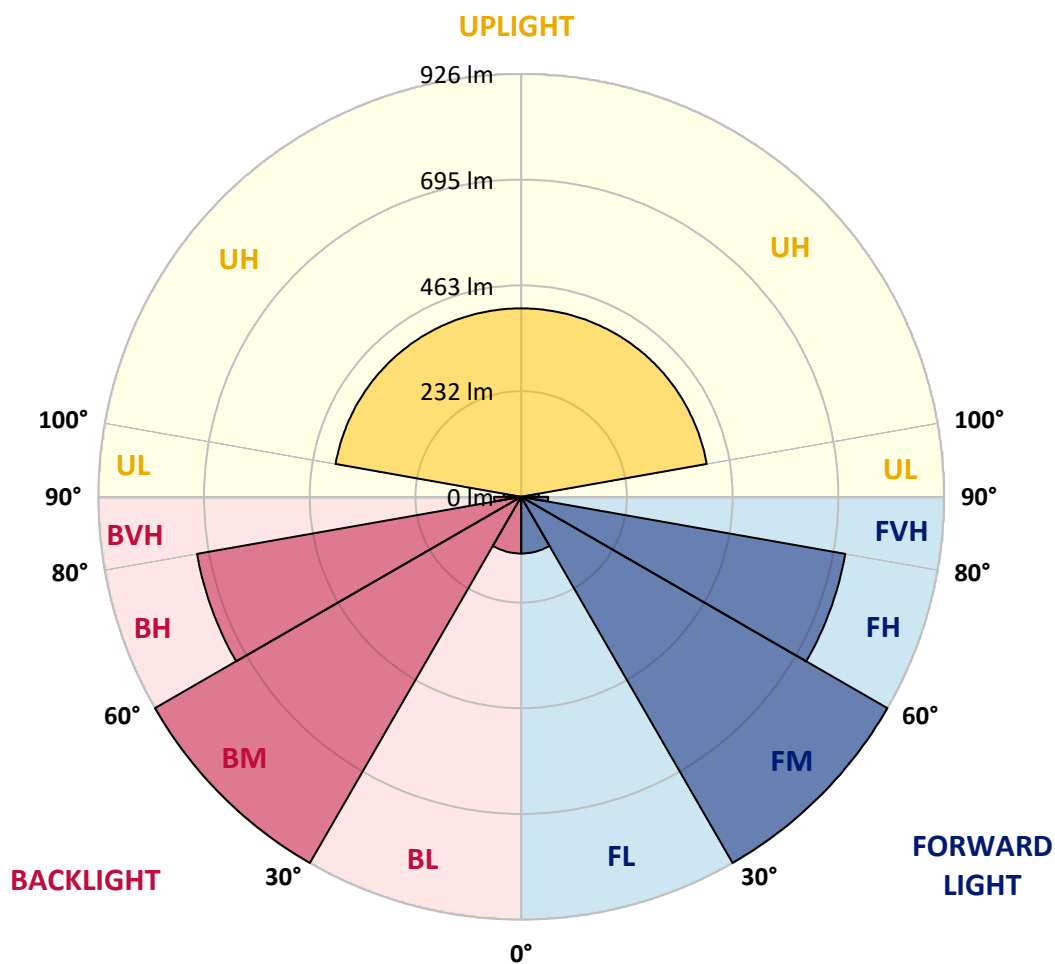
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	124.1	2.8			
FM	(30°-60°)	926.1	20.6			
FH	(60°-80°)	720.8	16.1			G1/1800
FVH	(80°-90°)	59.1	1.3			G1/100
BL	(0°-30°)	124.1	2.8	B1/500		
BM	(30°-60°)	926.1	20.6	B1/1000		
BH	(60°-80°)	720.8	16.1	B2/1000		G2/1000
BVH	(80°-90°)	59.1	1.3			G1/100
UL	(90°-100°)	38.4	0.9		U2/50	
UH	(100°-180°)	412.7	9.2		U3/500	

BUG Rating: B2-U4-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	203.1	203.1	203.1	203.1	203.1	203.1	203.1	203.1	203.1	203.1	203.1
2.5°	204.6	204.6	204.6	204.6	203.8	203.8	203.8	203.8	203.8	203.8	203.8
5°	207.6	207.6	206.9	207.6	206.9	206.9	206.9	206.9	206.9	206.9	206.9
7.5°	212.2	212.2	212.2	212.2	212.2	212.2	211.4	212.2	211.4	211.4	211.4
10°	220.6	219.8	220.6	219.8	219.8	219.0	219.0	219.0	219.0	219.0	219.0
12.5°	231.2	231.2	231.2	230.4	229.7	229.7	228.9	228.9	228.9	228.2	228.9
15°	245.7	246.4	244.1	243.4	243.4	241.9	241.1	241.9	241.1	240.3	241.1
17.5°	263.1	263.9	262.4	260.9	259.3	258.6	257.8	257.1	257.1	257.1	256.3
20°	286.0	286.0	284.4	281.4	279.1	277.6	277.6	276.8	276.8	277.6	275.3
22.5°	311.8	311.1	309.5	308.0	305.0	301.9	300.4	299.7	299.7	301.2	301.9
25°	343.8	344.5	340.0	336.9	333.9	328.6	327.8	328.6	329.3	329.3	330.8
27.5°	376.5	378.0	374.2	369.6	365.1	362.8	361.3	362.8	364.3	366.6	365.8
30°	415.3	414.5	413.7	406.9	401.6	399.3	400.8	405.4	409.2	414.5	415.3
32.5°	457.1	458.6	453.3	448.0	445.7	443.4	445.7	455.6	466.2	469.3	473.1
35°	506.5	503.5	500.4	496.6	492.8	492.8	504.2	515.6	532.4	543.8	543.8
37.5°	556.7	554.4	549.1	543.8	543.8	551.4	562.8	590.9	615.3	632.0	625.2
40°	608.4	605.4	603.9	597.8	598.5	616.8	641.1	676.1	711.1	734.7	730.1
42.5°	660.9	661.7	656.3	654.1	660.9	681.4	724.0	771.2	815.3	845.0	845.7
45°	714.9	714.9	711.1	709.6	722.5	753.7	806.9	871.6	930.9	965.1	968.9
47.5°	764.3	763.6	760.5	759.8	781.8	819.1	886.0	968.9	1041.9	1080.0	1089.8
50°	806.9	807.7	803.1	806.9	826.7	876.1	956.8	1057.1	1140.8	1188.7	1193.3
52.5°	840.4	841.2	835.8	838.9	865.5	922.5	1012.3	1124.8	1216.1	1267.1	1273.1
55°	863.2	860.2	856.4	860.9	891.3	954.5	1052.6	1169.7	1264.8	1318.0	1322.6
57.5°	869.3	867.0	863.2	869.3	902.0	966.6	1067.8	1185.7	1280.0	1333.2	1339.3
60°	860.2	860.2	855.6	862.4	895.2	958.3	1057.1	1171.2	1261.0	1309.6	1318.0
62.5°	836.6	836.6	831.3	836.6	867.8	926.3	1020.6	1126.4	1207.7	1250.3	1260.2
65°	792.5	791.7	788.7	790.2	816.1	871.6	957.5	1053.3	1124.1	1162.1	1175.0
67.5°	728.6	726.3	723.3	726.3	745.3	794.8	873.9	957.5	1016.1	1052.6	1055.6
70°	647.2	644.9	641.1	639.6	659.4	698.9	762.8	836.6	885.3	911.9	914.9
72.5°	550.6	553.7	550.6	546.1	559.0	594.0	647.2	703.5	743.8	768.1	771.9
75°	455.6	456.3	448.7	447.2	457.1	479.1	522.5	565.8	600.8	621.4	627.4
77.5°	352.9	352.9	346.0	342.2	347.6	366.6	396.2	431.2	460.1	473.1	483.7
80°	254.0	254.0	247.9	238.8	244.1	254.0	280.6	299.7	322.5	336.9	338.4
82.5°	159.0	156.7	158.2	151.3	152.9	155.9	172.6	185.6	199.3	206.9	207.6
85°	82.9	79.9	78.3	74.5	72.3	77.6	85.2	94.3	97.3	104.2	101.9
87.5°	25.9	24.3	23.6	23.6	21.3	22.8	23.6	25.1	28.9	28.9	30.4
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.2
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	48.8
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.8
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.2
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	113.6
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	129.8
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	142.6
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	150.6
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.4
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	163.6
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.4
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	176.6
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.2
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.2
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	201.8
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	205.6
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.8
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.8
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.2
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	219.6
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	215.6
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	191.6
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	173.6
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.8
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	150.6
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.8
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	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°	203.1
2.5°	203.8
5°	206.9
7.5°	211.4
10°	219.0
12.5°	228.2
15°	241.1
17.5°	257.1
20°	275.3
22.5°	299.7
25°	329.3
27.5°	364.3
30°	414.5
32.5°	470.8
35°	539.2
37.5°	632.8
40°	729.4
42.5°	851.0
45°	968.9
47.5°	1089.8
50°	1191.0
52.5°	1270.9
55°	1324.9
57.5°	1339.3
60°	1315.7
62.5°	1257.9
65°	1173.5
67.5°	1055.6
70°	919.5
72.5°	769.7
75°	620.6
77.5°	480.7
80°	338.4
82.5°	213.7
85°	101.9
87.5°	32.7
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)