

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: P198326

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198326
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-CG-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR 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: 4012.6 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - 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



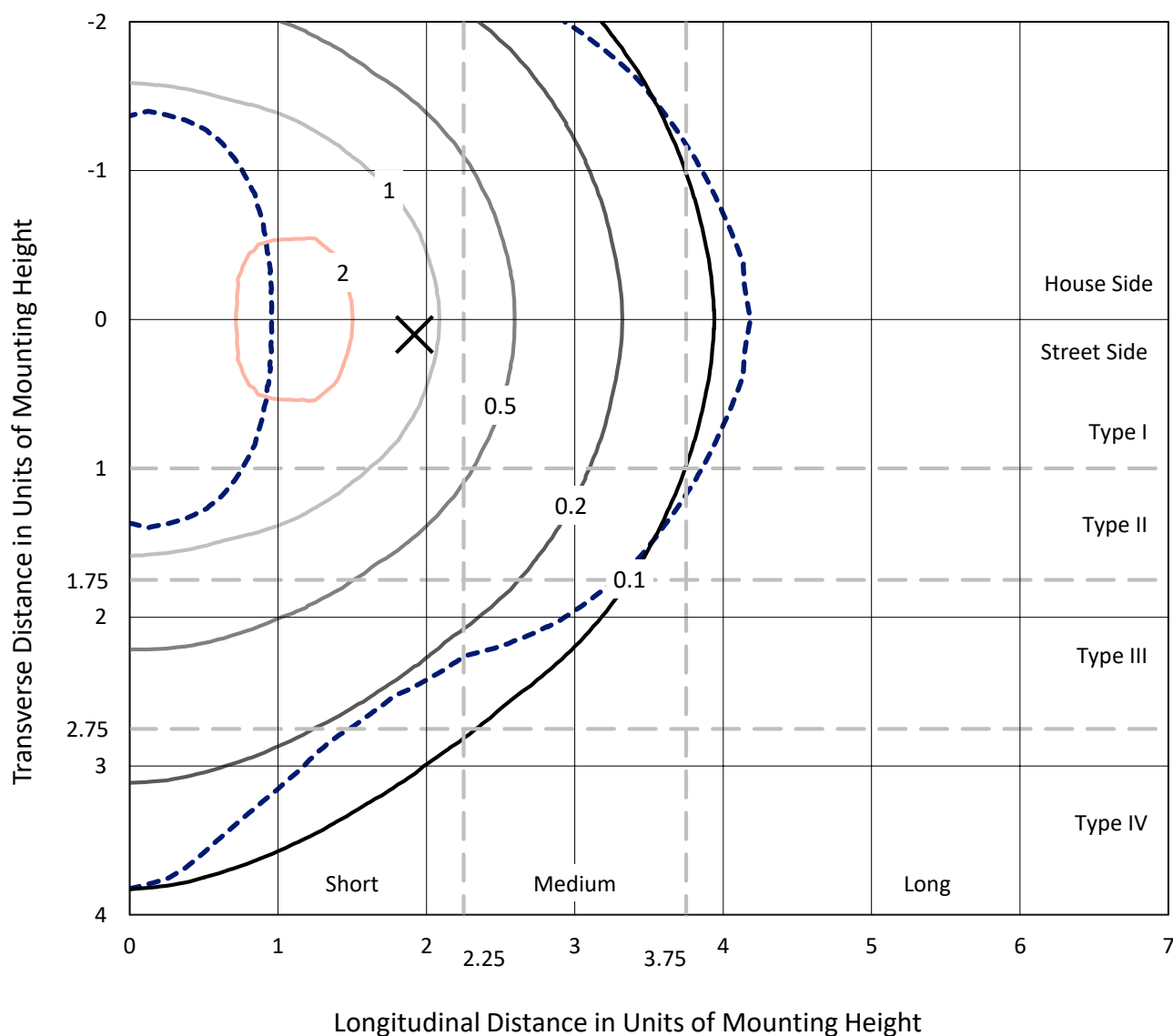
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

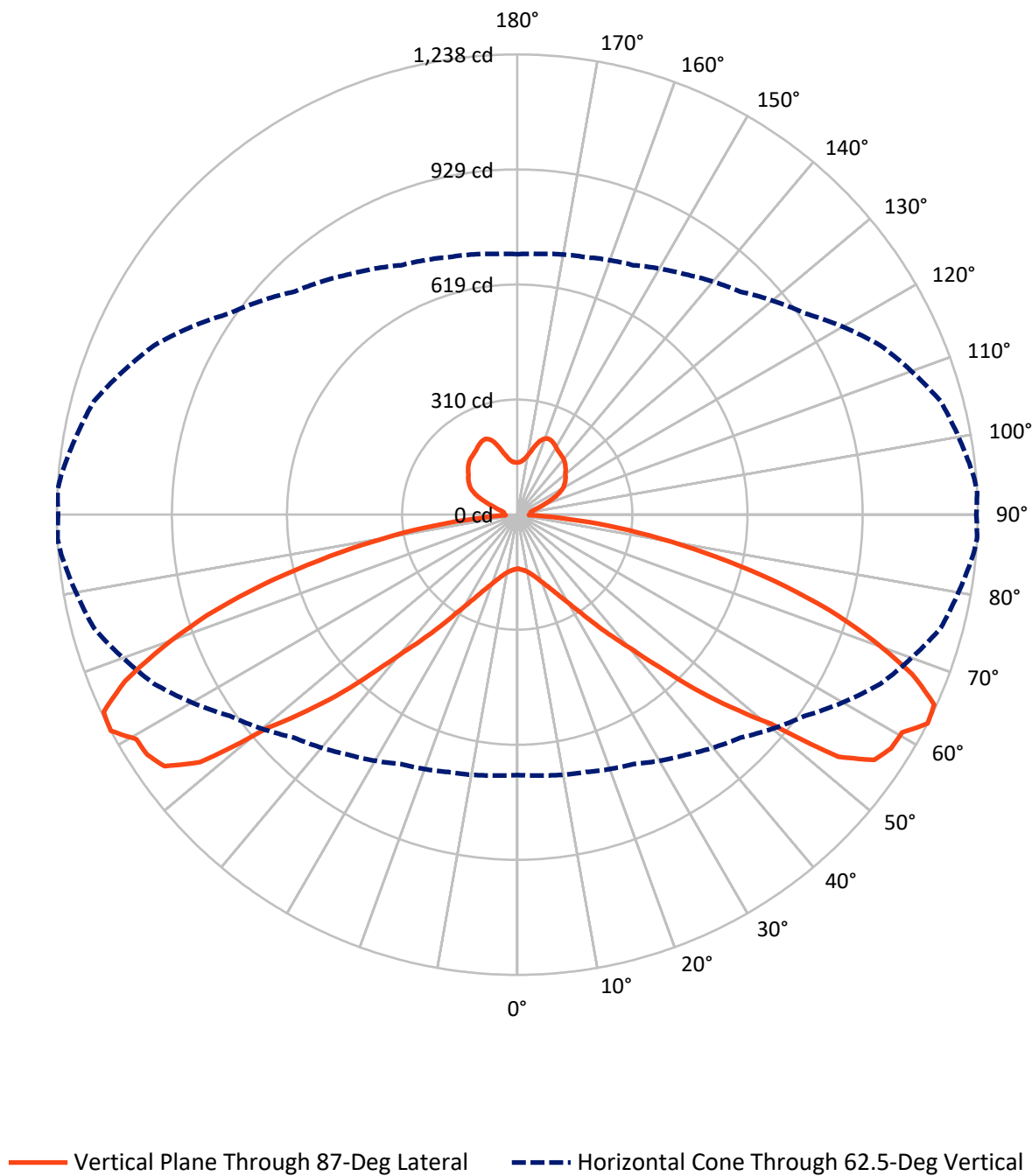


Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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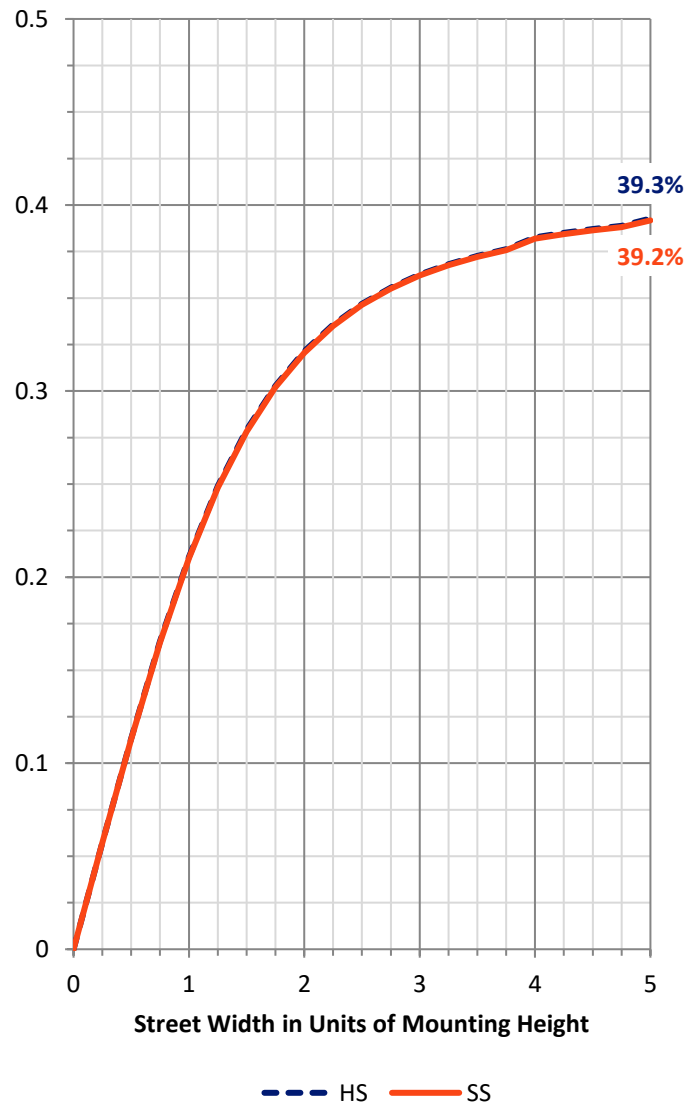
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1593.6	412.7	2006.3
	% Fixture	39.7	10.3	50.0
Street Side	Lumens	1593.6	412.7	2006.3
	% Fixture	39.7	10.3	50.0
Total	Lumens	3187.2	825.3	4012.6
	% Fixture	79.4	20.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.5	0.4
10°-20°	50.3	1.3
20°-30°	110.9	2.8
30°-40°	223.4	5.6
40°-50°	426.1	10.6
50°-60°	729.6	18.2
60°-70°	883.9	22.0
70°-80°	612.4	15.3
80°-90°	136.0	3.4
90°-100°	38.4	1.0
100°-110°	59.5	1.5
110°-120°	119.6	3.0
120°-130°	148.9	3.7
130°-140°	153.3	3.8
140°-150°	136.3	3.4
150°-160°	103.9	2.6
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3187.2	79.4
0°-180°	4012.6	100.0

Coefficient of Utilization



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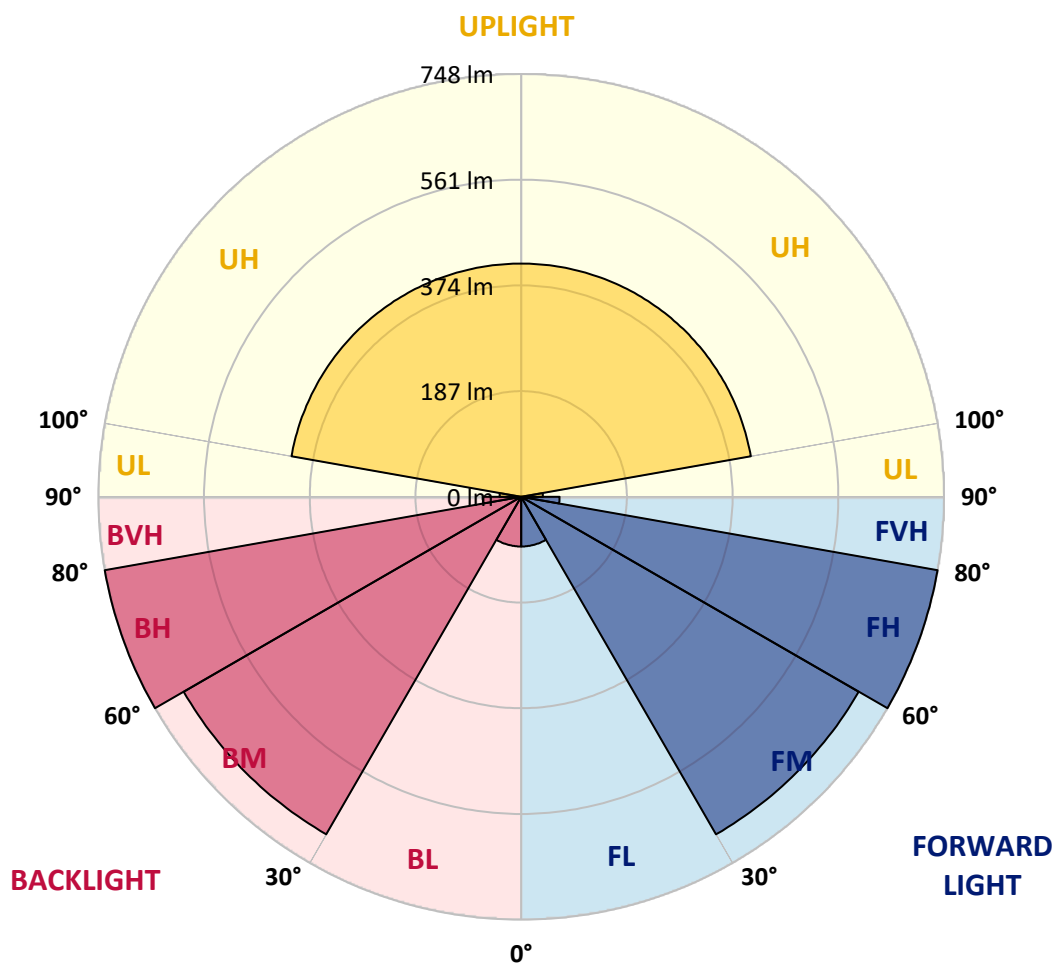
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	87.9	2.2			
FM	(30°-60°)	689.6	17.2			
FH	(60°-80°)	748.2	18.6			G1/1800
FVH	(80°-90°)	68.0	1.7			G1/100
BL	(0°-30°)	87.9	2.2	B0/110		
BM	(30°-60°)	689.6	17.2	B1/1000		
BH	(60°-80°)	748.2	18.6	B2/1000		G2/1000
BVH	(80°-90°)	68.0	1.7			G1/100
UL	(90°-100°)	38.4	1.0		U2/50	
UH	(100°-180°)	412.7	10.3		U3/500	

BUG Rating: B2-U4-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2
2.5°	146.5	146.5	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
5°	149.1	149.1	149.1	149.7	149.7	149.7	149.7	149.7	149.1	149.1	149.1
7.5°	153.0	153.0	153.0	153.6	153.6	153.6	153.0	153.0	152.3	152.3	152.3
10°	158.2	158.2	158.8	158.8	158.2	158.2	157.5	156.9	157.5	156.9	156.9
12.5°	165.3	166.6	166.0	166.0	164.7	164.7	164.0	164.0	164.0	163.4	163.4
15°	175.8	175.8	176.4	175.1	175.1	173.1	172.5	171.8	172.5	172.5	171.8
17.5°	188.1	188.1	188.1	186.2	184.9	183.6	182.9	182.3	181.6	182.3	182.3
20°	207.0	205.7	203.1	201.8	198.5	197.2	195.9	195.3	194.6	194.6	194.6
22.5°	226.5	225.2	222.0	219.4	216.8	213.5	212.2	209.6	208.9	210.3	209.6
25°	245.4	247.4	243.4	240.2	238.2	233.0	229.8	229.1	227.8	227.2	227.8
27.5°	268.8	270.1	266.9	262.3	258.4	254.5	251.3	250.0	250.6	250.6	251.3
30°	294.9	297.5	292.3	289.7	283.8	278.6	276.0	277.3	278.6	280.6	279.9
32.5°	324.8	324.8	322.2	317.7	311.1	306.6	305.3	307.2	313.1	315.7	315.1
35°	360.0	357.4	354.8	348.9	340.4	337.8	340.4	346.9	355.4	360.0	362.6
37.5°	396.4	391.2	387.3	380.8	376.9	375.6	381.4	393.8	402.9	411.4	415.3
40°	427.7	427.7	422.5	415.3	411.4	417.2	426.4	443.9	461.5	470.6	477.1
42.5°	458.9	462.8	457.0	451.1	451.1	458.9	476.5	503.8	537.0	556.5	559.8
45°	491.5	498.6	490.8	486.9	490.8	506.4	539.6	592.3	641.8	673.7	668.5
47.5°	525.3	531.8	524.7	522.7	531.8	559.8	610.6	678.3	727.7	760.9	774.0
50°	567.0	562.4	559.8	559.1	578.0	619.7	685.4	758.3	837.7	867.7	884.0
52.5°	602.1	594.3	593.0	597.6	628.8	678.9	760.9	895.0	1005.0	1079.2	1081.8
55°	632.7	624.2	628.8	639.9	682.2	751.8	855.3	1012.2	1105.3	1160.6	1165.2
57.5°	658.7	654.2	662.0	677.0	731.6	815.0	930.8	1060.4	1137.2	1181.4	1186.0
60°	682.2	681.5	690.0	715.4	776.6	852.1	947.8	1063.6	1143.7	1183.4	1189.3
62.5°	700.4	704.3	716.7	740.1	788.9	848.2	943.9	1077.3	1178.8	1230.9	1238.1
65°	716.0	719.9	732.3	740.1	783.7	840.4	965.3	1086.4	1173.6	1227.7	1232.2
67.5°	724.5	729.0	727.1	728.4	762.2	806.5	914.6	1018.7	1090.3	1139.8	1145.6
70°	723.2	719.3	703.7	687.4	694.5	725.8	823.4	910.7	975.7	1014.8	1016.8
72.5°	695.8	689.3	652.2	614.5	603.4	624.2	709.5	775.3	830.6	866.4	877.5
75°	634.0	621.0	567.0	518.1	493.4	509.0	574.8	632.1	673.1	708.2	715.4
77.5°	521.4	513.6	459.6	406.2	378.8	389.3	441.3	475.2	519.4	555.9	546.8
80°	379.5	378.2	334.6	287.1	267.5	272.1	300.1	333.3	361.3	388.6	389.9
82.5°	248.0	244.1	214.8	180.3	160.1	162.7	180.3	197.9	224.6	242.1	247.4
85°	123.0	121.1	108.1	86.6	75.5	75.5	84.0	94.4	107.4	115.2	114.6
87.5°	33.8	30.6	29.9	22.1	18.2	19.5	19.5	21.5	27.3	29.3	31.2
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	38.6
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	48.4
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.4
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.6
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	114.8
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	131.4
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	143.8
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	151.8
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	159.2
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	164.8
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	170.2
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	177.8
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.6
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.6
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	201.4
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	204.8
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.4
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.4
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.6
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	220.8
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	216.8
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	190.8
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	172.8
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.4
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	149.8
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.4
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°	145.2
2.5°	147.1
5°	149.1
7.5°	152.3
10°	157.5
12.5°	163.4
15°	171.8
17.5°	181.6
20°	194.6
22.5°	210.9
25°	227.8
27.5°	250.6
30°	280.6
32.5°	315.7
35°	361.3
37.5°	412.0
40°	474.5
42.5°	556.5
45°	674.4
47.5°	767.4
50°	875.5
52.5°	1085.8
55°	1166.5
57.5°	1187.3
60°	1189.9
62.5°	1234.8
65°	1237.4
67.5°	1141.1
70°	1020.0
72.5°	876.2
75°	720.6
77.5°	556.5
80°	389.3
82.5°	243.4
85°	113.9
87.5°	28.6
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)