

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: P198335

Luminaire Tested: **TT-C2-LED-E1-RW-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198335
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-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4443.1 lumens
Efficiency: N/A
Efficacy: 86.4 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

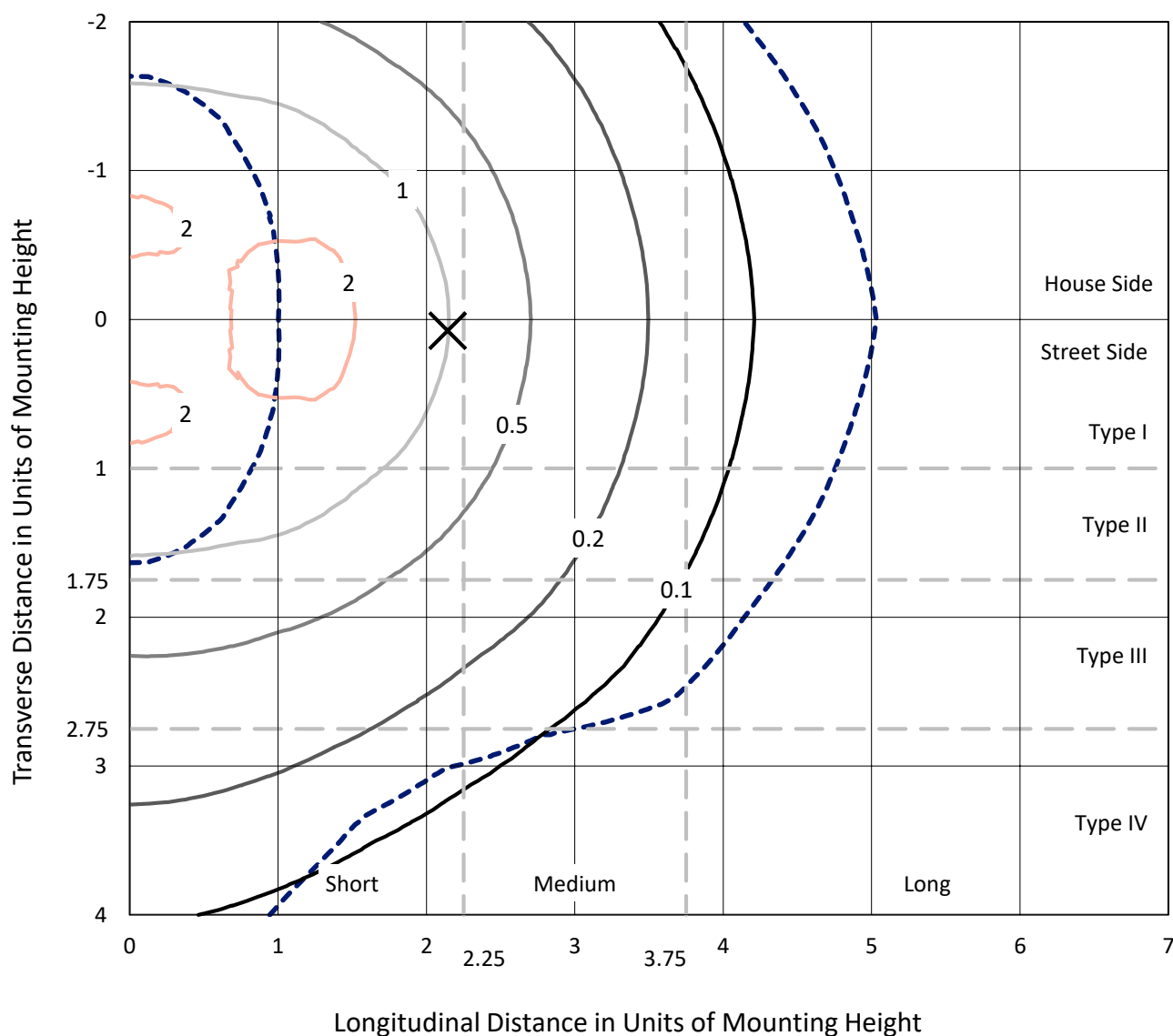


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

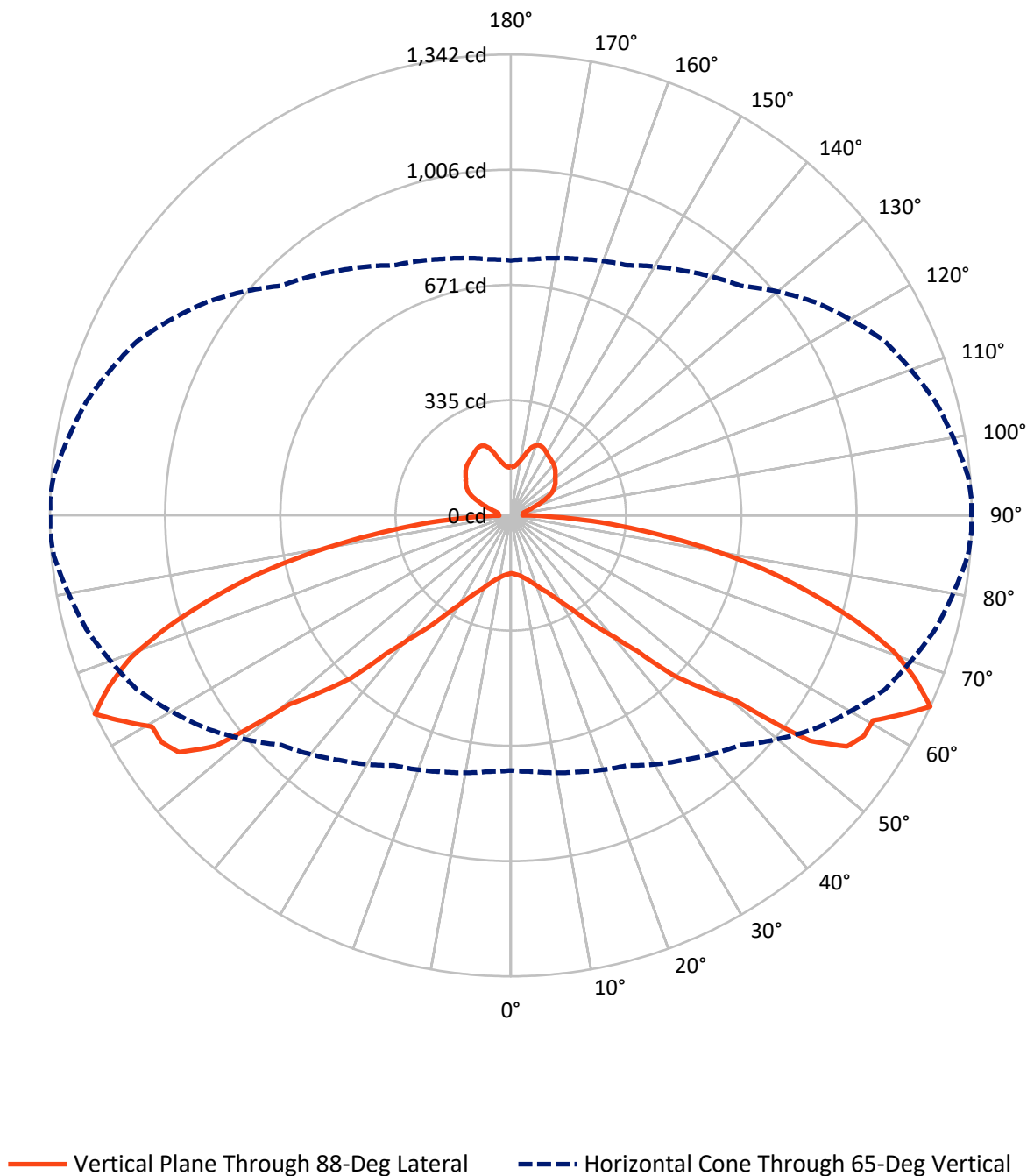


Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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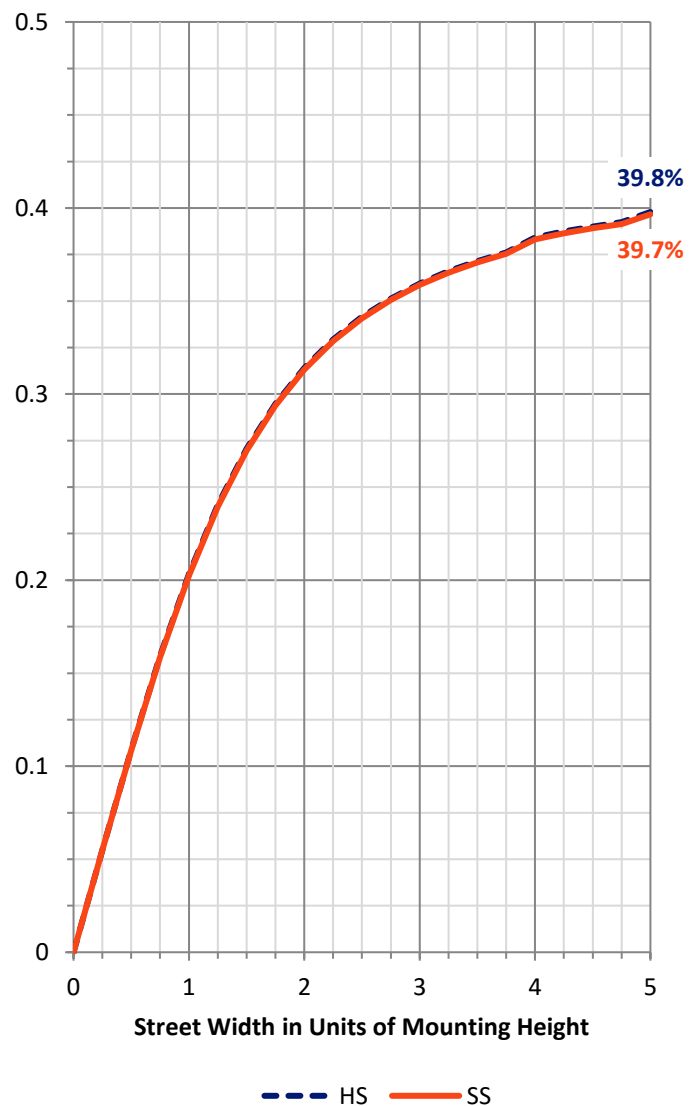
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1808.9	412.7	2221.5
	% Fixture	40.7	9.3	50.0
Street Side	Lumens	1808.9	412.7	2221.5
	% Fixture	40.7	9.3	50.0
Total	Lumens	3617.8	825.3	4443.1
	% Fixture	81.4	18.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.9	0.4
10°-20°	57.6	1.3
20°-30°	122.3	2.8
30°-40°	233.7	5.3
40°-50°	429.6	9.7
50°-60°	744.0	16.7
60°-70°	968.0	21.8
70°-80°	793.3	17.9
80°-90°	252.4	5.7
90°-100°	38.4	0.9
100°-110°	59.5	1.3
110°-120°	119.6	2.7
120°-130°	148.9	3.4
130°-140°	153.3	3.5
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°	3617.8	81.4
0°-180°	4443.1	100.0

Coefficient of Utilization



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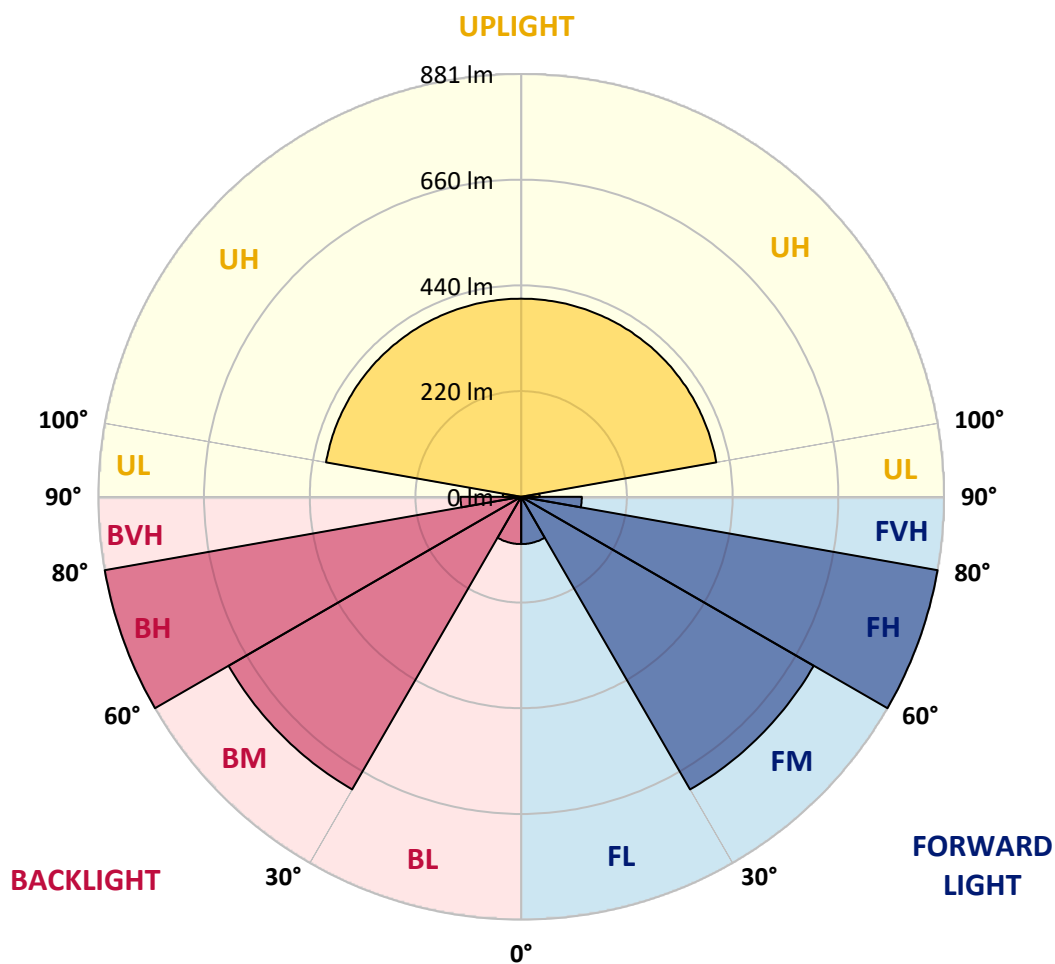
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	98.4	2.2			
FM	(30°-60°)	703.7	15.8			
FH	(60°-80°)	880.6	19.8			G1/1800
FVH	(80°-90°)	126.2	2.8			G2/225
BL	(0°-30°)	98.4	2.2	B0/110		
BM	(30°-60°)	703.7	15.8	B1/1000		
BH	(60°-80°)	880.6	19.8	B2/1000		G2/1000
BVH	(80°-90°)	126.2	2.8			G2/225
UL	(90°-100°)	38.4	0.9		U2/50	
UH	(100°-180°)	412.7	9.3		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°	88°
0°	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8
2.5°	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4	170.4
5°	173.4	173.4	173.4	174.2	174.2	174.2	174.2	174.2	173.4	173.4	173.4
7.5°	177.2	177.2	178.0	178.0	178.0	178.0	177.2	177.2	176.4	176.4	176.4
10°	183.3	183.3	184.0	184.0	183.3	182.5	182.5	182.5	181.8	181.8	181.8
12.5°	191.7	191.7	192.4	191.7	190.9	190.1	190.1	189.4	188.6	188.6	188.6
15°	203.1	203.1	202.3	200.8	199.3	199.3	197.0	197.0	197.0	197.0	196.2
17.5°	218.3	217.5	214.5	213.7	211.4	209.9	208.4	207.6	206.9	206.9	207.6
20°	235.0	233.5	229.7	229.7	225.9	223.6	222.1	220.6	220.6	219.8	219.0
22.5°	254.8	253.3	248.7	247.2	243.4	239.6	238.0	234.2	233.5	233.5	234.2
25°	274.6	275.3	271.5	268.5	263.1	259.3	254.0	251.7	249.5	249.5	247.9
27.5°	297.4	298.1	293.6	289.8	285.2	277.6	274.6	271.5	269.2	270.8	269.2
30°	321.7	323.2	319.4	314.9	308.0	300.4	296.6	295.8	293.6	295.1	294.3
32.5°	349.8	349.1	346.8	342.2	333.1	327.0	324.0	323.2	324.7	325.5	324.7
35°	382.5	379.5	377.2	370.4	362.0	357.5	354.4	357.5	364.3	368.9	367.3
37.5°	416.8	412.2	409.9	402.3	394.7	392.4	396.2	402.3	409.2	415.3	415.3
40°	444.9	446.4	441.1	434.3	428.2	430.5	437.3	448.0	461.6	467.7	467.0
42.5°	473.1	477.6	472.3	465.4	466.2	473.1	482.9	502.7	533.1	542.3	541.5
45°	498.2	508.0	503.5	498.9	505.8	517.2	543.8	587.9	629.7	660.9	663.2
47.5°	530.9	536.2	533.9	533.9	544.5	571.2	611.5	673.1	717.2	746.8	751.4
50°	568.1	562.8	563.6	570.4	597.0	636.6	691.3	749.1	828.2	841.9	845.7
52.5°	599.3	590.2	595.5	608.4	647.2	697.4	765.9	884.5	985.7	1076.9	1089.8
55°	631.2	620.6	631.2	651.8	708.8	778.8	879.2	1016.8	1123.3	1180.4	1187.2
57.5°	655.6	654.1	669.3	698.9	768.9	862.4	975.8	1093.7	1165.1	1205.4	1211.5
60°	686.0	687.5	705.0	744.6	828.2	918.0	1002.4	1110.4	1181.1	1204.7	1211.5
62.5°	714.9	721.0	741.5	786.4	859.4	927.9	1009.2	1140.0	1229.8	1280.7	1276.2
65°	742.3	748.4	772.7	803.1	870.1	945.3	1081.5	1200.1	1279.2	1335.5	1341.6
67.5°	769.7	777.3	787.2	811.5	876.1	946.9	1064.7	1164.4	1228.3	1267.1	1269.3
70°	793.2	792.5	790.2	797.0	837.3	892.1	1001.6	1080.7	1140.8	1172.7	1180.4
72.5°	796.3	794.0	767.4	747.6	760.5	803.9	908.8	972.0	1017.6	1044.2	1049.5
75°	771.2	758.3	705.8	663.2	660.9	704.3	792.5	838.1	865.5	899.7	902.0
77.5°	689.8	675.4	616.8	559.0	559.0	587.1	660.9	685.2	719.5	745.3	752.2
80°	556.0	554.4	493.6	448.0	431.2	454.8	514.9	524.0	549.9	571.9	578.8
82.5°	402.3	390.9	357.5	318.7	305.0	320.2	361.3	370.4	380.3	400.0	408.4
85°	243.4	244.1	221.3	199.3	181.8	187.1	219.0	232.0	244.9	257.8	262.4
87.5°	87.5	101.2	79.1	70.0	60.8	57.8	67.7	83.7	98.1	116.4	126.2
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	38.4
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	48.6
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.6
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.4
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	114.2
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	130.6
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	143.2
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	151.2
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.8
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	164.2
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.8
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	177.2
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.4
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.4
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	201.6
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	205.2
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.6
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.6
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.4
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	220.2
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	216.2
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	191.2
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	173.2
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.6
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	150.2
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.6
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°	168.8
2.5°	170.4
5°	172.6
7.5°	176.4
10°	181.8
12.5°	188.6
15°	196.2
17.5°	206.1
20°	219.0
22.5°	232.7
25°	248.7
27.5°	270.8
30°	293.6
32.5°	324.7
35°	371.1
37.5°	415.3
40°	469.3
42.5°	544.5
45°	666.2
47.5°	750.6
50°	852.6
52.5°	1079.2
55°	1189.5
57.5°	1213.1
60°	1211.5
62.5°	1288.3
65°	1340.8
67.5°	1270.9
70°	1183.4
72.5°	1047.3
75°	907.3
77.5°	756.0
80°	581.8
82.5°	405.4
85°	273.0
87.5°	112.6
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)