

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: P198338

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198338
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-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH SOFTENING GLASS LENS AND LumaWatt WIRELESS
SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4120.5 lumens
Efficiency: N/A
Efficacy: 80.2 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



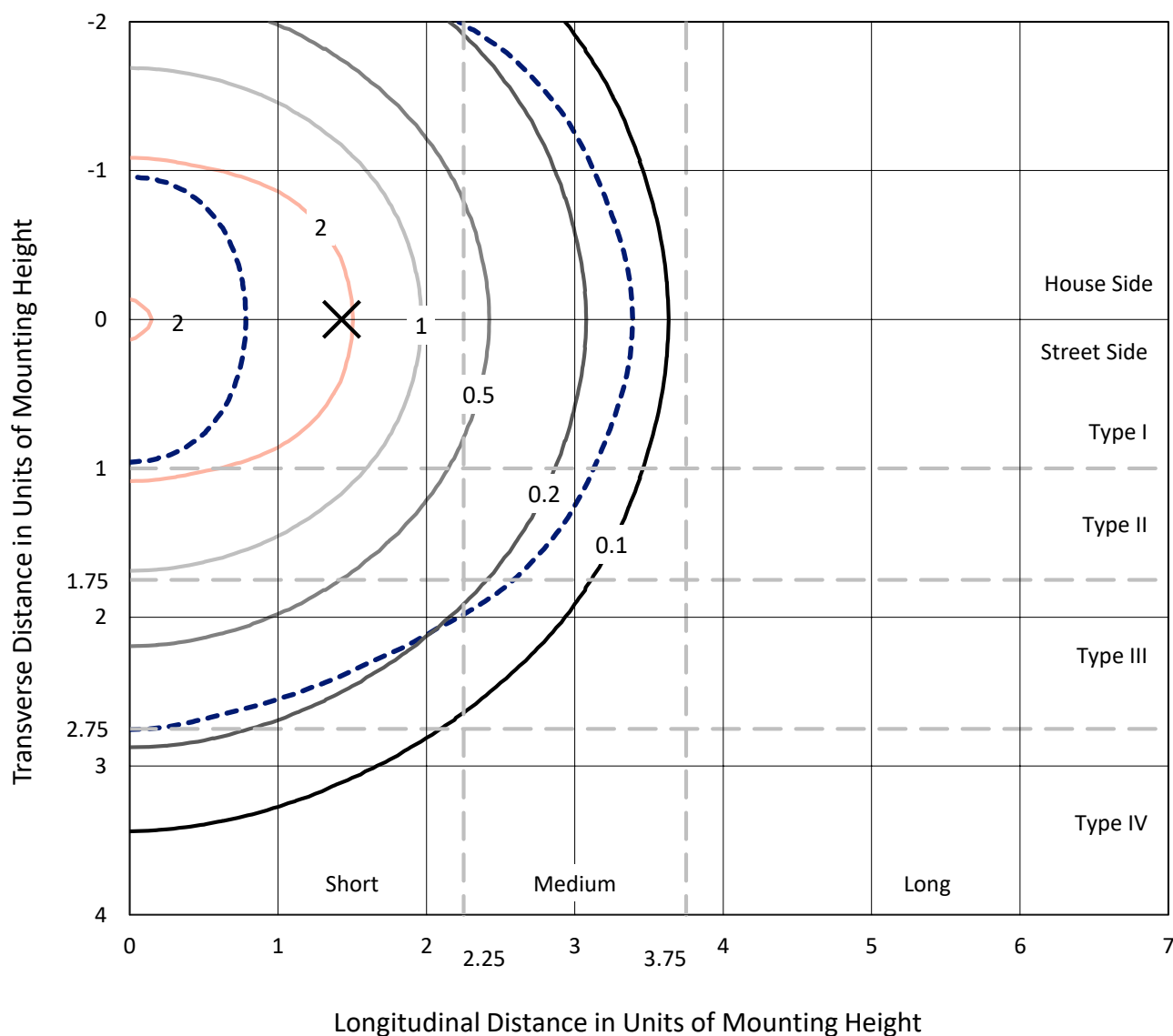
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

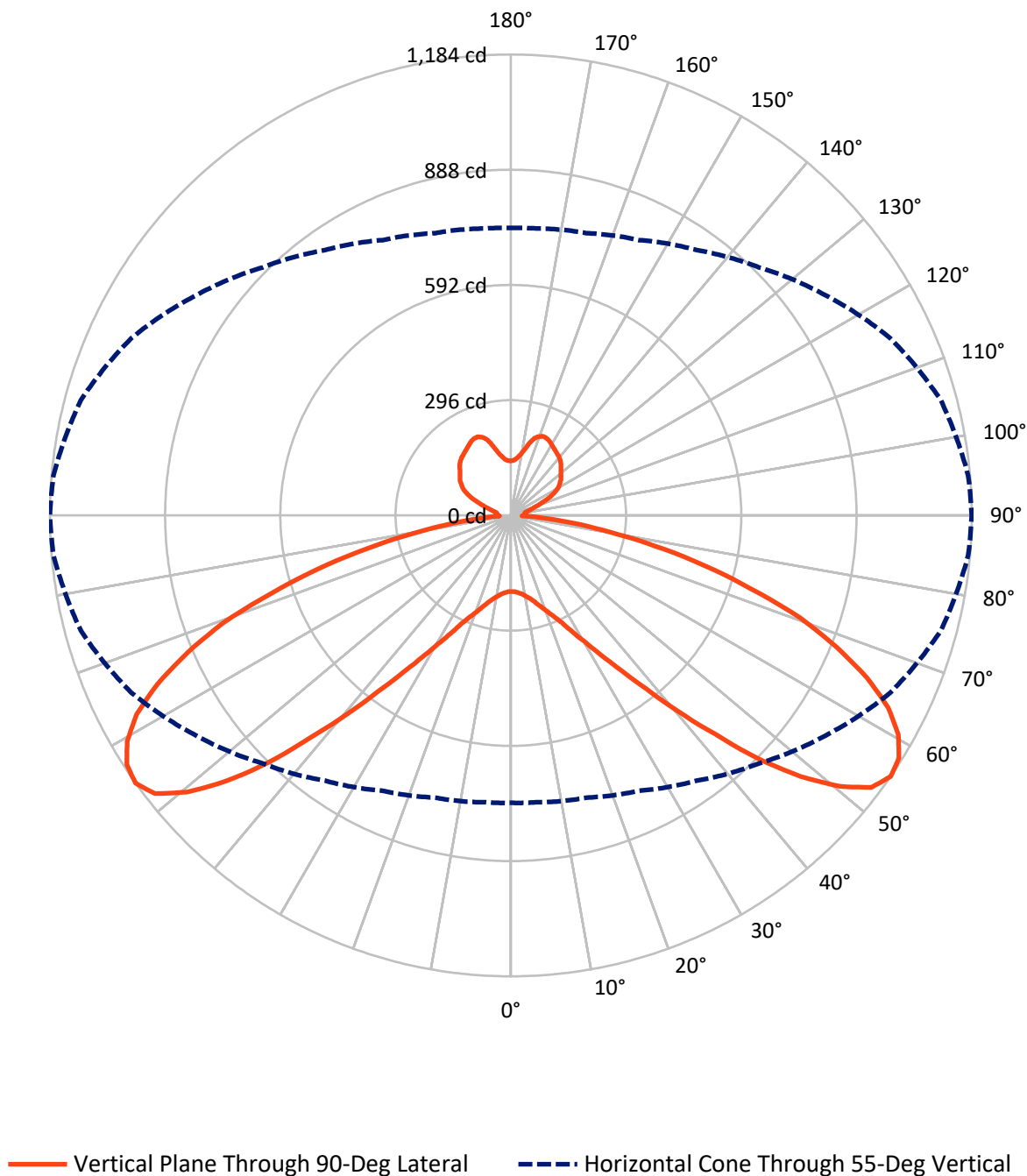


Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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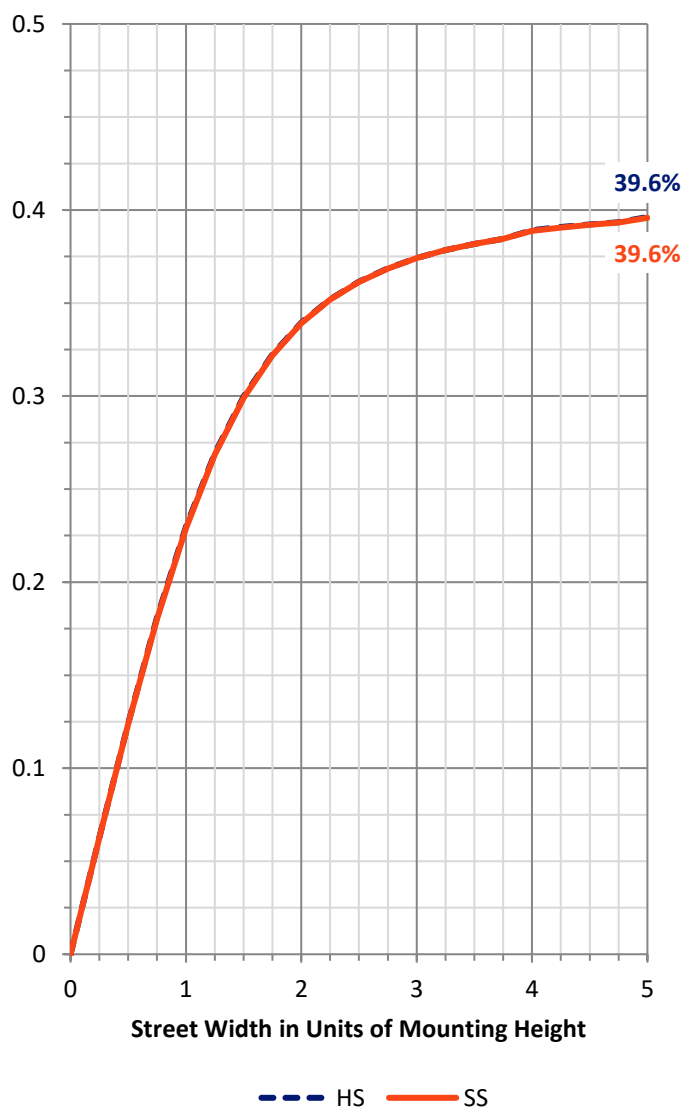
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1647.6	412.7	2060.3
	% Fixture	40.0	10.0	50.0
Street Side	Lumens	1647.6	412.7	2060.3
	% Fixture	40.0	10.0	50.0
Total	Lumens	3295.2	825.3	4120.5
	% Fixture	80.0	20.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.4	0.5
10°-20°	67.2	1.6
20°-30°	146.7	3.6
30°-40°	295.1	7.2
40°-50°	557.7	13.5
50°-60°	822.6	20.0
60°-70°	810.3	19.7
70°-80°	471.8	11.5
80°-90°	104.3	2.5
90°-100°	38.4	0.9
100°-110°	59.5	1.4
110°-120°	119.6	2.9
120°-130°	148.9	3.6
130°-140°	153.3	3.7
140°-150°	136.3	3.3
150°-160°	103.9	2.5
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3295.2	80.0
0°-180°	4120.5	100.0

Coefficient of Utilization



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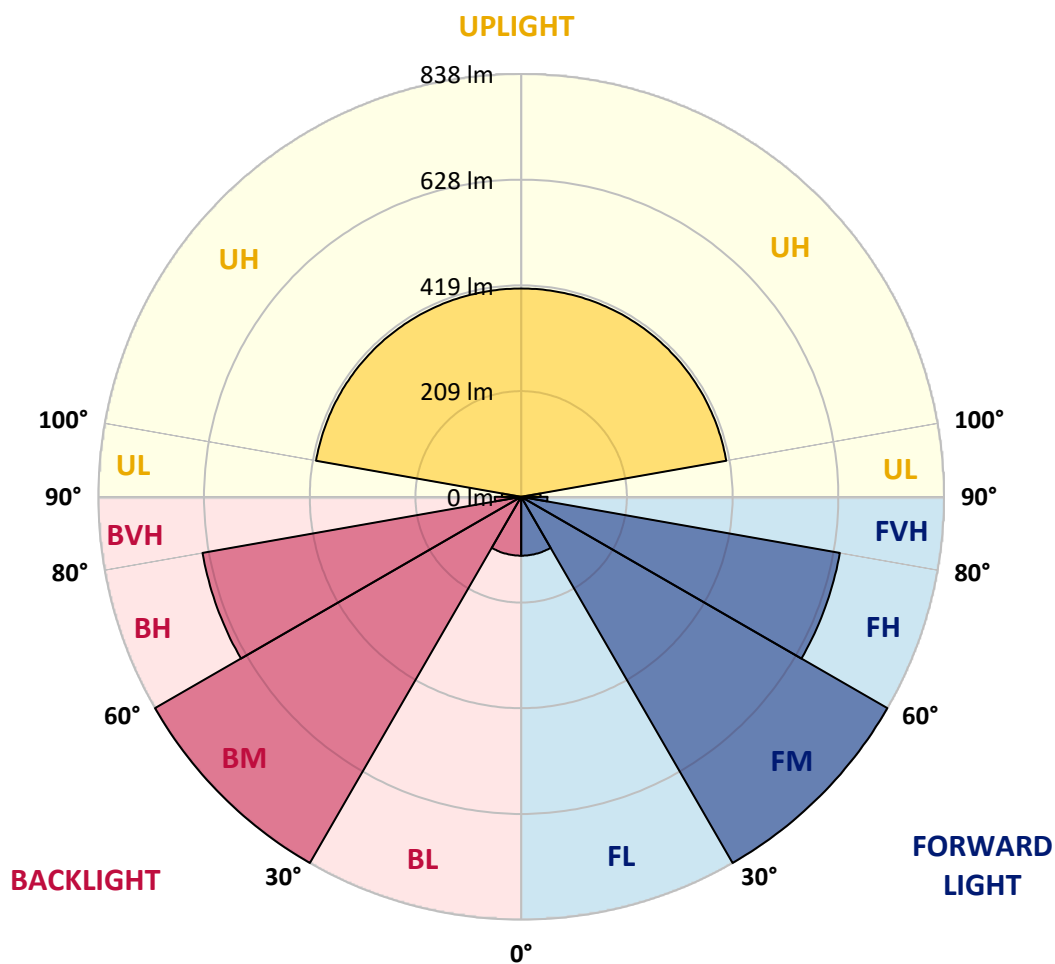
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	116.7	2.8			
FM	(30°-60°)	837.7	20.3			
FH	(60°-80°)	641.1	15.6			G0/660
FVH	(80°-90°)	52.1	1.3			G1/100
BL	(0°-30°)	116.7	2.8	B1/500		
BM	(30°-60°)	837.7	20.3	B1/1000		
BH	(60°-80°)	641.1	15.6	B2/1000		G2/1000
BVH	(80°-90°)	52.1	1.3			G1/100
UL	(90°-100°)	38.4	0.9		U2/50	
UH	(100°-180°)	412.7	10.0		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°	90°
0°	195.5	195.5	195.5	195.5	195.5	195.5	195.5	195.5	195.5	195.5	195.5
2.5°	197.0	197.0	197.0	197.0	196.2	197.0	196.2	196.2	196.2	196.2	196.2
5°	199.3	200.0	199.3	199.3	199.3	199.3	199.3	199.3	198.5	198.5	199.3
7.5°	204.6	204.6	204.6	204.6	203.8	204.6	203.8	203.8	203.8	203.8	203.8
10°	212.2	212.2	212.2	212.2	211.4	211.4	211.4	210.7	210.7	210.7	210.7
12.5°	221.3	222.1	222.1	221.3	220.6	220.6	219.8	219.8	219.8	219.8	219.0
15°	235.0	234.2	234.2	232.7	232.7	231.2	232.0	231.2	230.4	229.7	230.4
17.5°	248.7	249.5	249.5	247.9	247.2	246.4	244.9	244.9	244.1	244.9	244.9
20°	270.0	270.0	268.5	266.9	264.7	263.9	262.4	262.4	260.9	262.4	262.4
22.5°	291.3	291.3	289.8	289.0	286.0	283.7	282.9	282.2	281.4	282.9	281.4
25°	317.9	317.9	316.4	313.3	310.3	309.5	307.3	307.3	308.0	308.8	305.7
27.5°	345.3	346.0	344.5	342.2	339.2	336.2	336.2	336.9	337.7	340.7	340.0
30°	378.7	378.0	375.7	372.7	371.1	368.9	369.6	372.7	375.7	378.7	378.7
32.5°	413.0	412.2	411.4	408.4	407.6	406.9	410.7	416.8	422.9	425.1	428.9
35°	449.5	449.5	448.7	446.4	448.0	451.8	457.8	469.3	478.4	489.0	489.0
37.5°	489.8	488.3	489.0	489.0	492.8	499.7	514.1	536.2	555.2	565.8	565.8
40°	531.6	529.3	530.1	533.9	540.7	557.5	582.6	613.0	643.4	657.1	661.7
42.5°	571.9	569.6	572.7	576.5	593.2	619.1	656.3	702.7	746.1	767.4	766.6
45°	609.2	610.7	614.5	623.6	648.0	686.0	739.2	801.6	857.9	883.0	892.1
47.5°	646.5	647.2	652.5	668.5	702.7	750.6	815.3	898.2	960.6	990.2	1001.6
50°	681.4	683.0	692.1	714.9	755.2	813.0	892.9	981.1	1049.5	1084.5	1094.4
52.5°	712.6	714.1	724.8	752.9	800.8	867.8	951.4	1041.9	1114.2	1154.5	1160.6
55°	738.5	740.0	750.6	780.3	832.0	901.2	986.4	1076.2	1143.8	1179.6	1184.2
57.5°	753.7	754.5	765.9	796.3	847.2	911.9	994.0	1080.7	1140.0	1172.0	1175.8
60°	754.5	756.0	766.6	794.0	841.2	900.5	978.8	1056.4	1110.4	1139.3	1143.8
62.5°	740.8	741.5	750.6	771.9	812.3	864.0	936.2	1006.2	1054.9	1083.0	1088.3
65°	709.6	709.6	714.1	730.1	761.3	805.4	867.0	931.7	976.5	1002.4	1005.4
67.5°	657.9	657.9	658.6	669.3	690.6	725.6	778.0	832.0	872.3	898.2	902.0
70°	591.7	590.9	584.9	591.7	605.4	635.0	681.4	722.5	755.2	775.7	789.4
72.5°	508.0	505.0	500.4	498.9	512.6	538.5	576.5	604.6	622.9	644.9	646.5
75°	410.7	409.2	403.1	403.1	416.8	437.3	467.7	486.7	495.9	510.3	513.4
77.5°	306.5	305.7	308.0	308.8	316.4	338.4	355.9	369.6	367.3	376.5	379.5
80°	214.5	216.0	216.0	215.2	222.8	231.2	250.2	254.0	251.0	254.0	254.0
82.5°	136.1	135.4	133.9	136.1	142.2	149.1	156.7	157.4	159.7	157.4	159.0
85°	68.4	67.7	69.2	70.0	73.0	76.8	83.7	85.2	81.4	81.4	79.9
87.5°	23.6	25.1	23.6	24.3	24.3	28.1	27.4	27.4	27.4	27.4	28.9
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	38.0
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	49.0
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	60.0
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	75.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.0
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	113.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	129.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	142.0
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	150.0
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.0
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	163.0
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	176.0
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.0
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.0
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	202.0
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	206.0
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	211.0
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	216.0
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.0
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	219.0
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	215.0
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	192.0
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	174.0
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	160.0
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	151.0
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	144.0
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

(END OF REPORT)