

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: P198328

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198328
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-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH CLEAR 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: 4078.7 lumens
Efficiency: N/A
Efficacy: 79.4 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

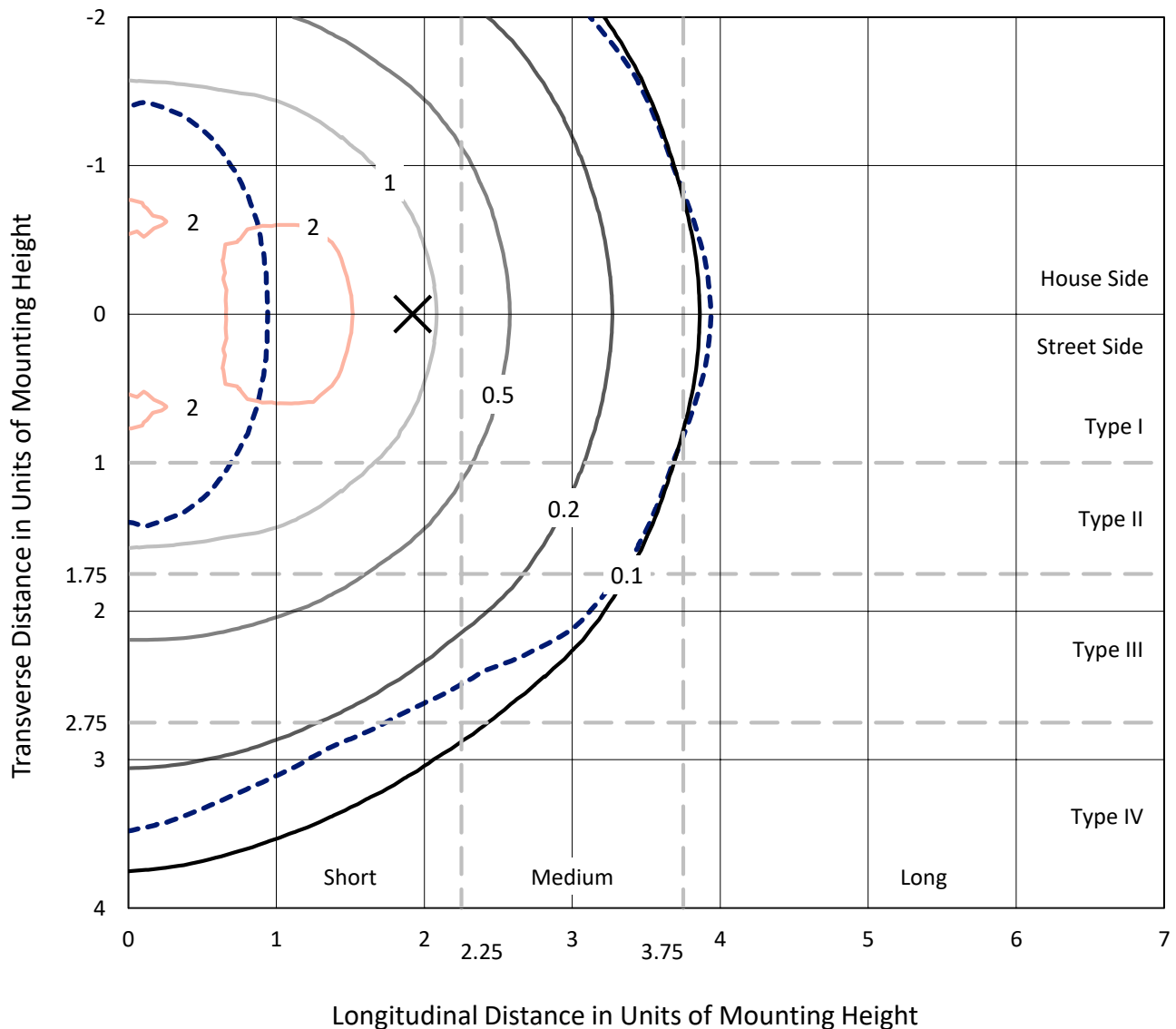


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

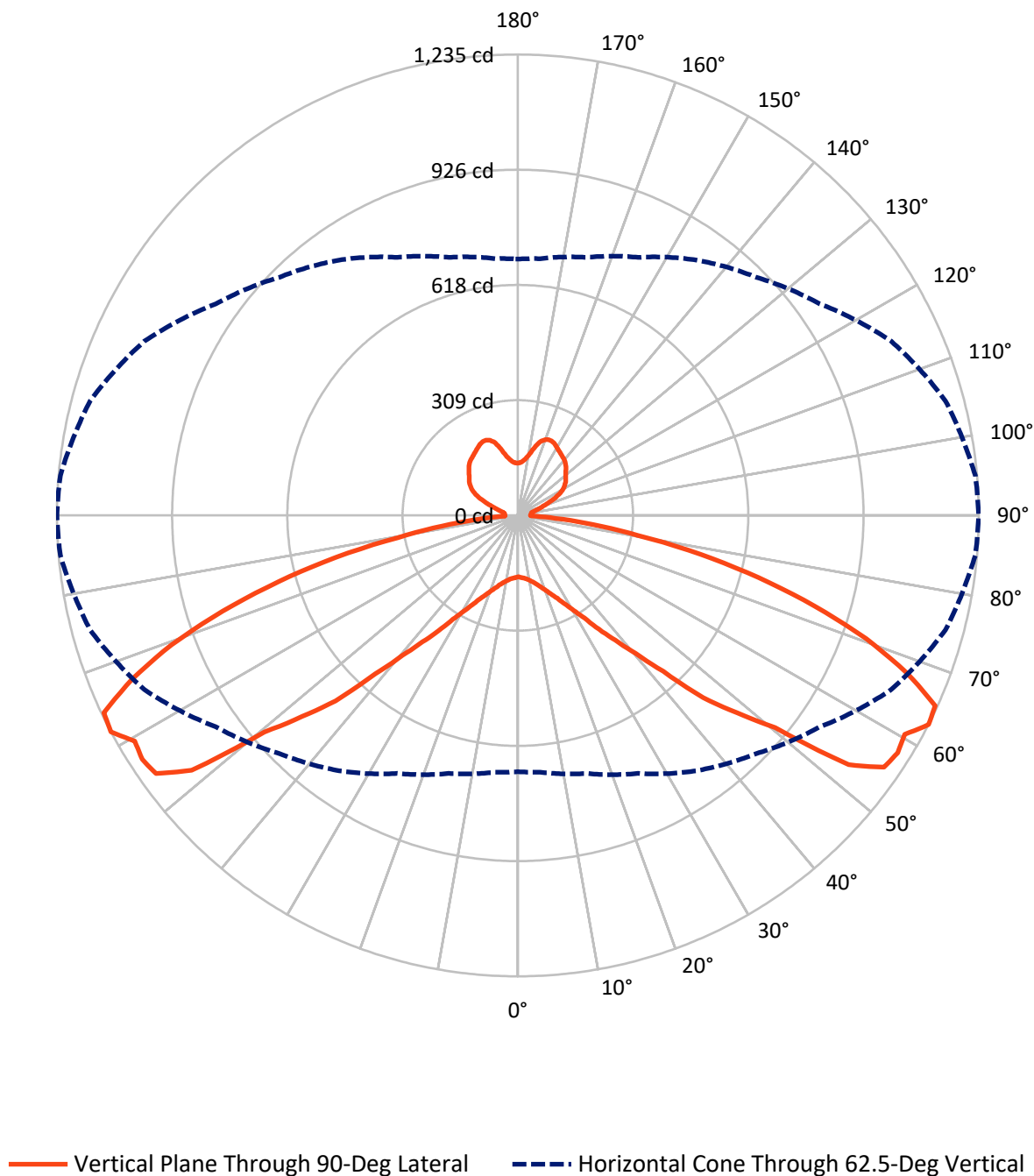


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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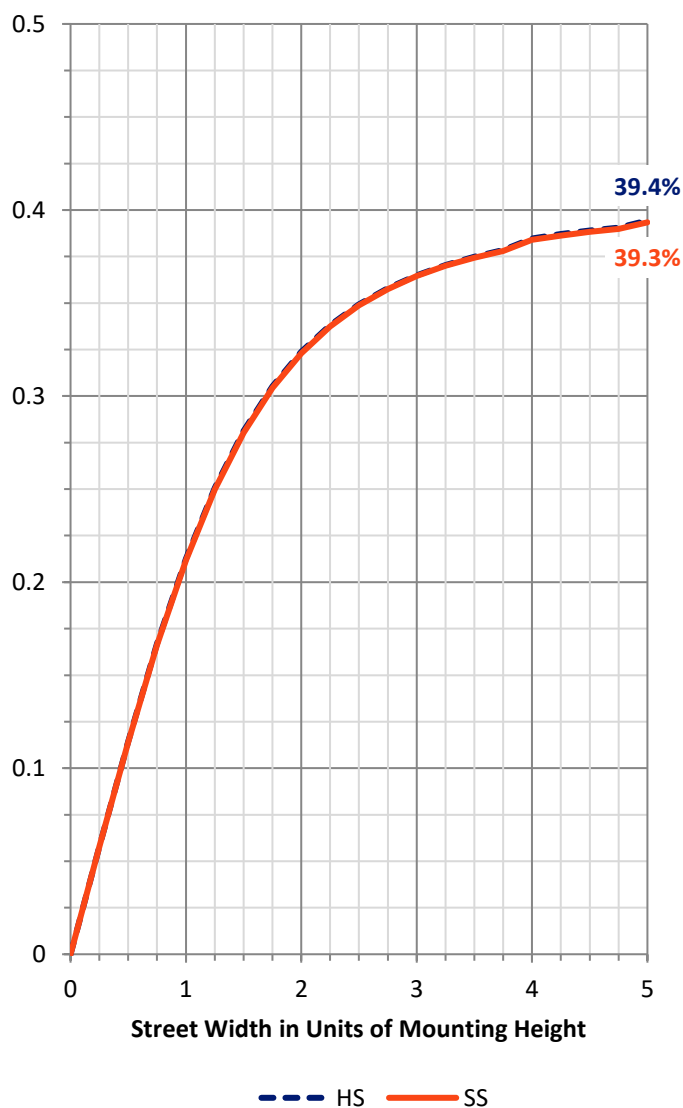
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1626.7	412.7	2039.4
	% Fixture	39.9	10.1	50.0
Street Side	Lumens	1626.7	412.7	2039.4
	% Fixture	39.9	10.1	50.0
Total	Lumens	3253.4	825.3	4078.7
	% Fixture	79.8	20.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.4	0.4
10°-20°	55.9	1.4
20°-30°	119.5	2.9
30°-40°	232.4	5.7
40°-50°	438.1	10.7
50°-60°	748.7	18.4
60°-70°	901.6	22.1
70°-80°	606.7	14.9
80°-90°	134.2	3.3
90°-100°	38.4	0.9
100°-110°	59.5	1.5
110°-120°	119.6	2.9
120°-130°	148.9	3.7
130°-140°	153.3	3.8
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°	3253.4	79.8
0°-180°	4078.7	100.0

Coefficient of Utilization



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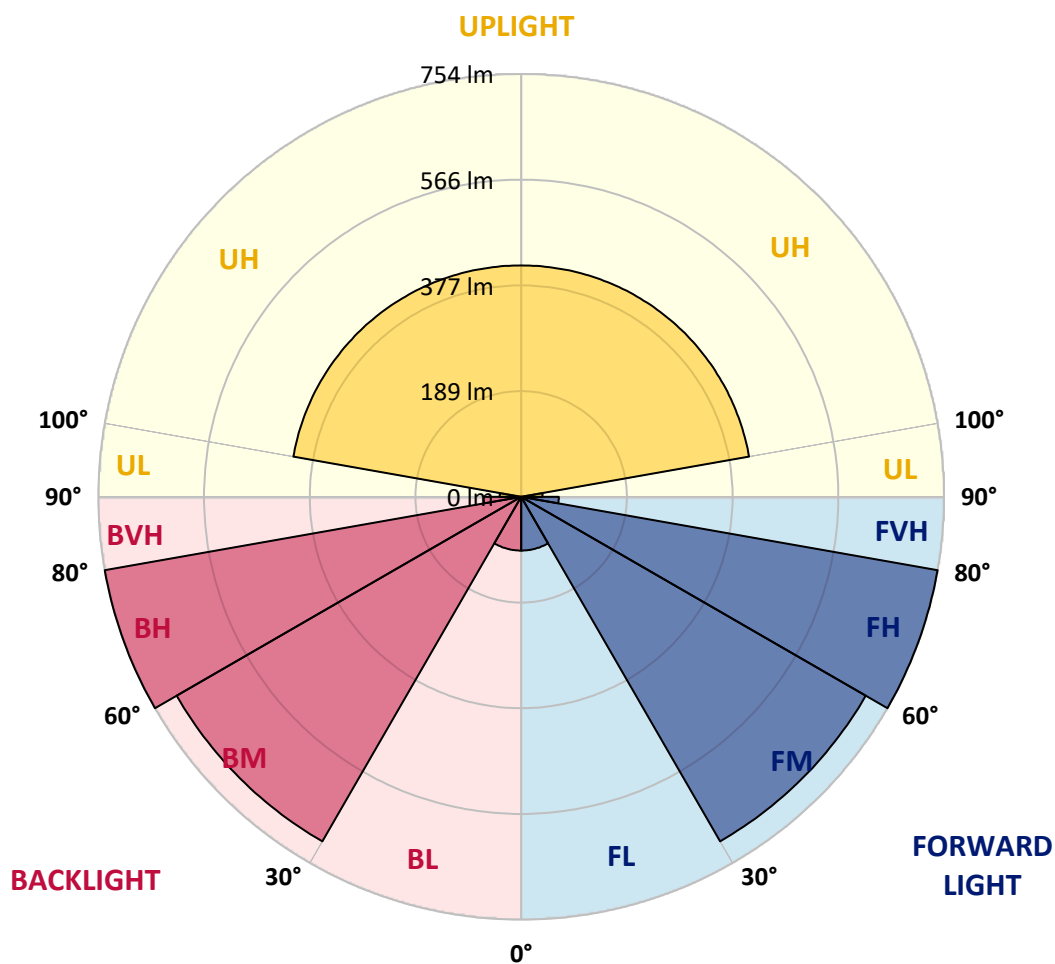
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	95.9	2.4			
FM	(30°-60°)	709.6	17.4			
FH	(60°-80°)	754.1	18.5			G1/1800
FVH	(80°-90°)	67.1	1.6			G1/100
BL	(0°-30°)	95.9	2.4	B0/110		
BM	(30°-60°)	709.6	17.4	B1/1000		
BH	(60°-80°)	754.1	18.5	B2/1000		G2/1000
BVH	(80°-90°)	67.1	1.6			G1/100
UL	(90°-100°)	38.4	0.9		U2/50	
UH	(100°-180°)	412.7	10.1		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°	90°
0°	164.3	164.3	164.3	164.3	164.3	164.3	164.3	164.3	164.3	164.3	164.3
2.5°	165.8	165.8	165.8	165.8	165.8	165.8	166.6	166.6	166.6	166.6	166.6
5°	168.1	168.1	168.8	168.8	169.6	169.6	169.6	169.6	168.8	168.8	168.8
7.5°	171.9	171.9	172.6	173.4	173.4	172.6	172.6	171.9	171.9	171.9	171.9
10°	178.0	178.0	178.7	178.7	178.0	178.0	178.0	177.2	177.2	177.2	177.2
12.5°	184.8	185.6	186.3	185.6	184.8	184.0	184.0	183.3	183.3	183.3	183.3
15°	194.7	196.2	195.5	195.5	194.7	193.2	192.4	191.7	191.7	191.7	191.7
17.5°	209.9	209.9	207.6	206.1	204.6	203.8	203.1	202.3	202.3	202.3	202.3
20°	225.9	225.1	222.8	220.6	218.3	217.5	215.2	214.5	215.2	214.5	214.5
22.5°	244.9	244.1	241.1	238.8	235.8	232.7	232.0	229.7	228.9	228.2	228.9
25°	263.9	264.7	262.4	260.1	255.5	252.5	249.5	247.9	246.4	245.7	245.7
27.5°	286.0	287.5	286.0	281.4	276.8	274.6	270.0	268.5	267.7	268.5	268.5
30°	309.5	310.3	308.0	305.7	301.2	295.8	292.8	293.6	293.6	295.8	295.1
32.5°	338.4	337.7	334.6	333.1	328.6	324.0	322.5	323.2	326.3	327.8	327.8
35°	370.4	368.1	365.1	362.0	358.2	355.2	355.9	362.0	371.1	373.4	374.9
37.5°	402.3	398.5	398.5	394.0	390.9	393.2	397.8	409.2	416.0	426.7	424.4
40°	432.0	432.7	431.2	427.4	426.7	434.3	444.2	458.6	476.1	486.7	486.0
42.5°	459.4	466.2	461.6	462.4	466.2	478.4	494.3	522.5	557.5	571.2	571.2
45°	489.8	498.2	494.3	496.6	507.3	526.3	560.5	616.0	663.9	696.7	696.7
47.5°	521.0	528.6	527.1	531.6	550.6	584.1	636.6	705.8	753.7	785.6	790.2
50°	560.5	557.5	558.2	569.6	602.3	651.0	717.9	786.4	865.5	884.5	893.6
52.5°	594.7	585.6	590.9	609.9	657.1	714.1	797.0	918.0	1027.5	1103.5	1109.6
55°	622.9	616.0	626.7	653.3	714.1	789.4	897.4	1045.7	1136.2	1182.6	1191.0
57.5°	647.2	644.2	661.7	695.9	773.5	865.5	975.0	1095.2	1158.3	1194.0	1200.1
60°	669.3	671.6	690.6	736.2	819.9	904.3	992.5	1093.7	1156.8	1184.9	1191.0
62.5°	686.8	690.6	715.7	762.8	835.1	902.8	987.9	1104.3	1186.4	1230.5	1235.1
65°	698.2	702.0	730.1	762.8	830.5	895.9	1016.1	1114.9	1175.8	1220.7	1229.0
67.5°	699.7	705.0	721.7	749.1	806.2	864.0	967.4	1038.9	1087.6	1114.9	1122.6
70°	690.6	689.0	695.1	706.5	740.8	780.3	867.8	921.0	956.0	984.1	991.0
72.5°	655.6	653.3	638.8	625.9	638.8	670.0	745.3	781.1	804.6	827.5	832.0
75°	588.7	578.0	542.3	524.0	520.2	547.6	605.4	628.2	637.3	663.2	666.2
77.5°	470.8	466.2	435.8	403.8	400.8	417.5	461.6	471.5	463.9	492.1	500.4
80°	343.8	337.7	308.8	285.2	279.1	290.5	316.4	318.7	313.3	327.0	327.0
82.5°	219.8	213.7	201.5	184.0	171.1	178.0	197.7	197.7	197.7	201.5	203.8
85°	113.3	111.0	101.9	93.5	89.0	90.5	97.3	98.1	101.9	104.2	101.2
87.5°	31.9	33.5	31.9	28.1	27.4	26.6	29.7	30.4	32.7	34.2	35.7
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)