

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: P821427

Luminaire Tested: **TT-D1-830-12VDC-CQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821427
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D1-830-12VDC-CQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

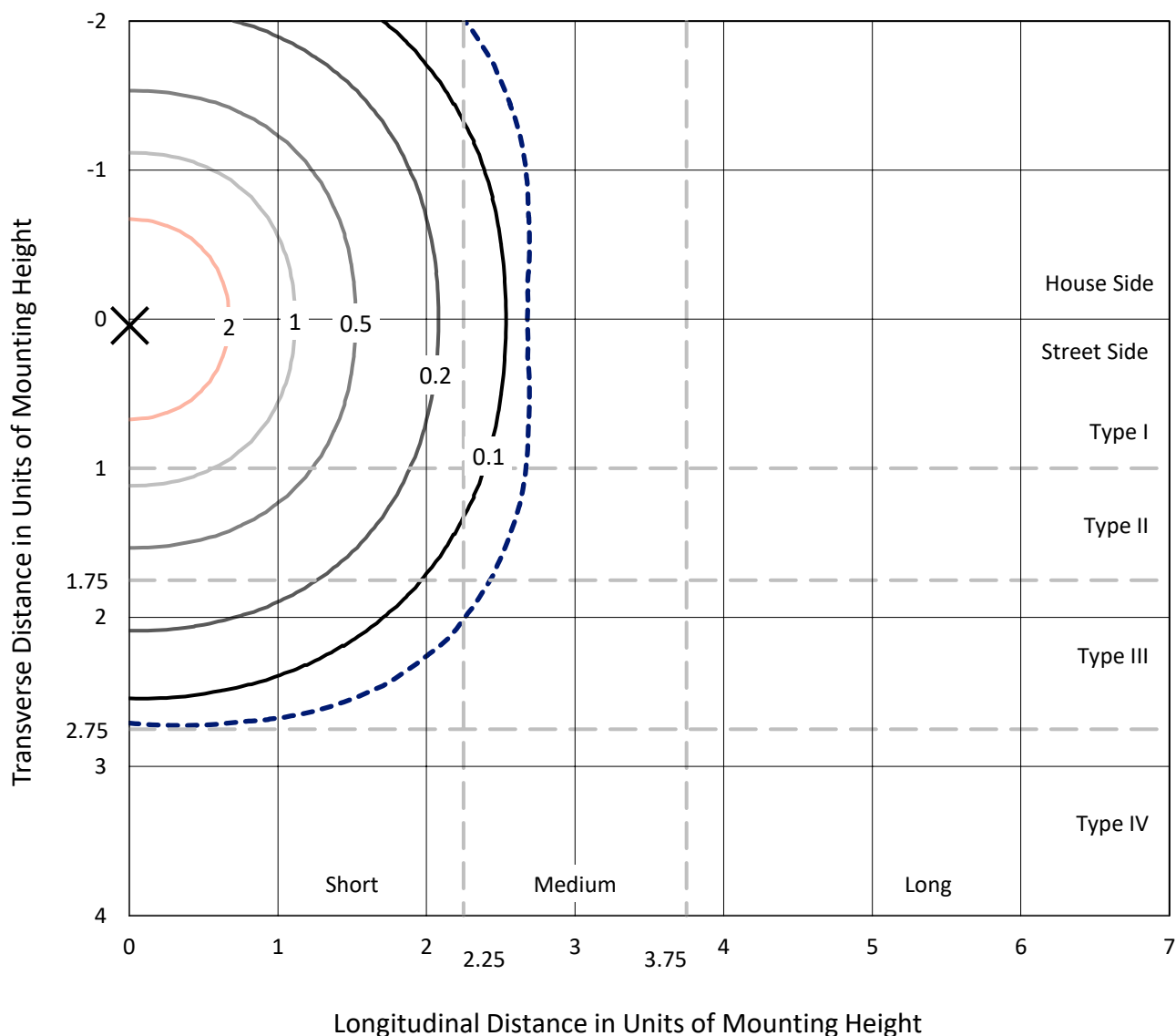
Lumens per Lamp: N/A
Luminaire Lumens: 4244.7 lumens
Efficiency: N/A
Efficacy: 151.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B1 - U4 - G1

Input Watts (W): 28
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

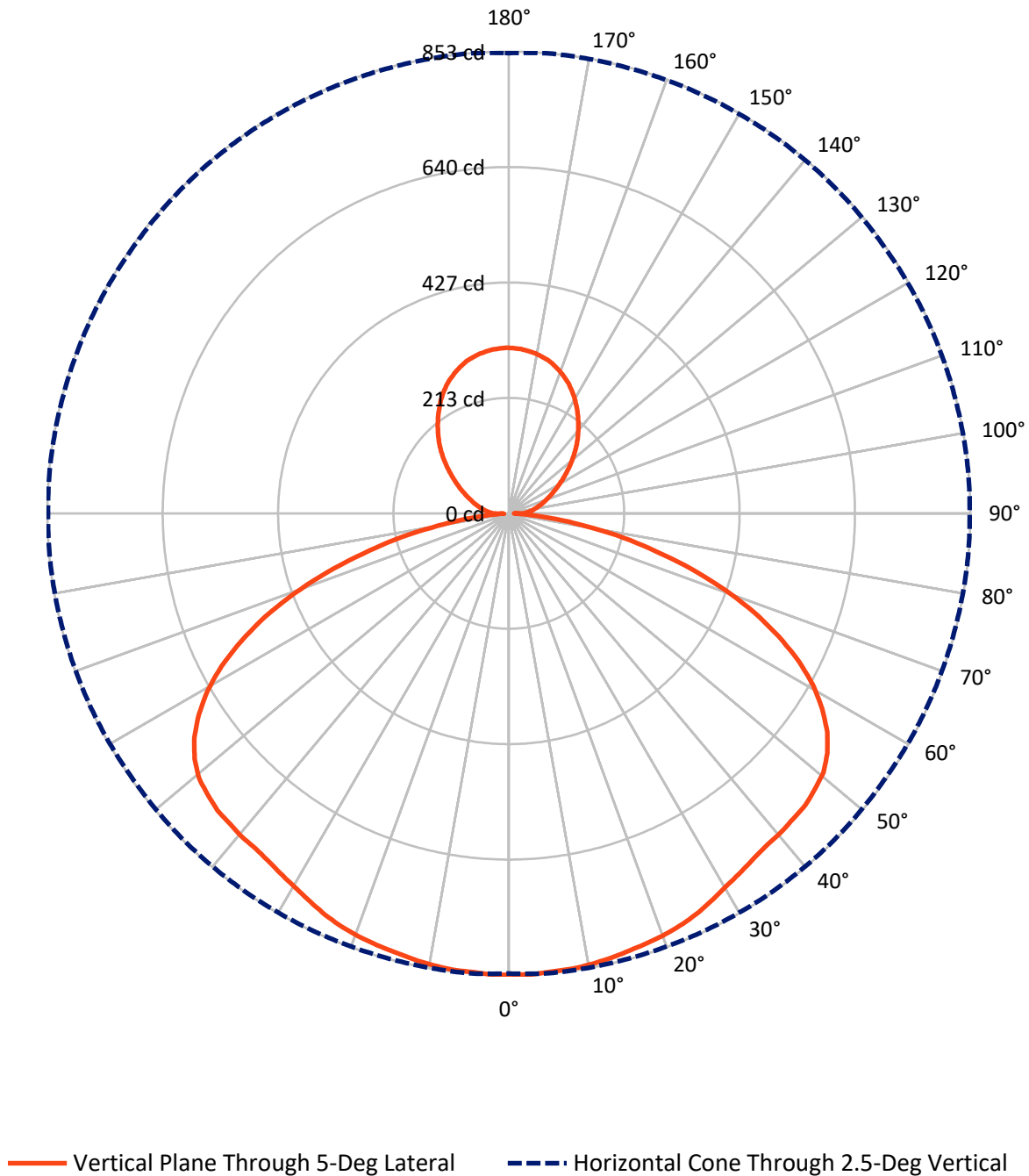
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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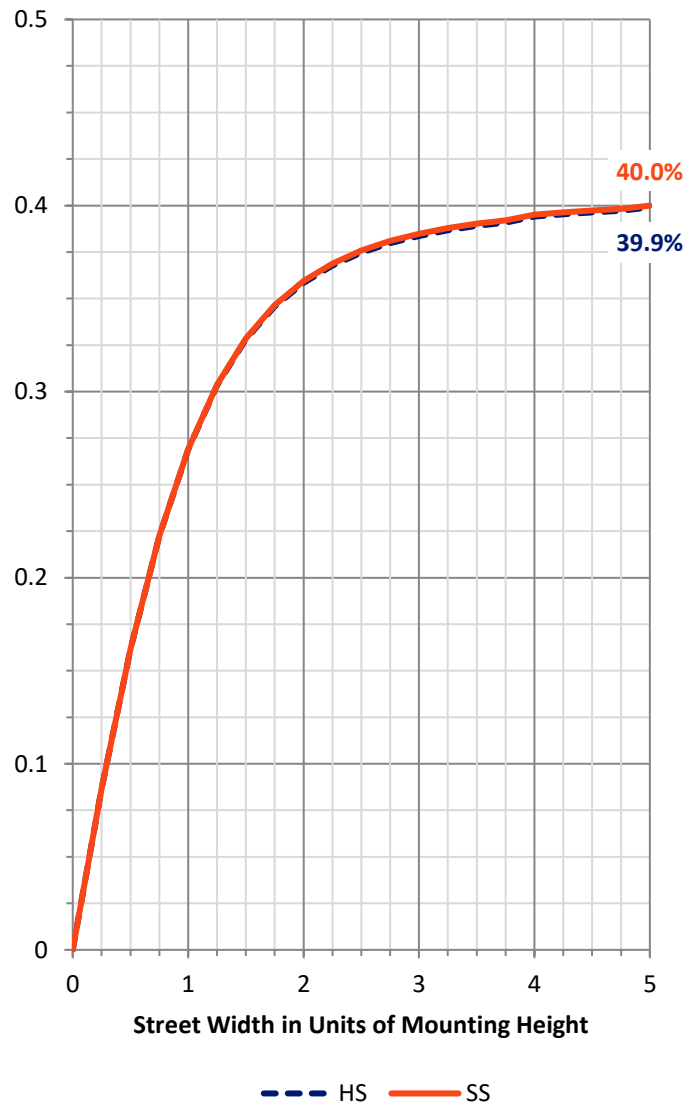
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1706.5	415.9	2122.4
	% Fixture	40.2	9.8	50.0
Street Side	Lumens	1706.5	415.9	2122.4
	% Fixture	40.2	9.8	50.0
Total	Lumens	3413.0	831.7	4244.7
	% Fixture	80.4	19.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	1.9
10°-20°	237.5	5.6
20°-30°	377.8	8.9
30°-40°	497.0	11.7
40°-50°	608.2	14.3
50°-60°	658.8	15.5
60°-70°	566.8	13.4
70°-80°	318.6	7.5
80°-90°	67.2	1.6
90°-100°	42.6	1.0
100°-110°	66.0	1.6
110°-120°	91.9	2.2
120°-130°	119.0	2.8
130°-140°	138.7	3.3
140°-150°	140.5	3.3
150°-160°	121.9	2.9
160°-170°	82.2	1.9
170°-180°	28.9	0.7
0°-90°	3413.0	80.4
0°-180°	4244.7	100.0



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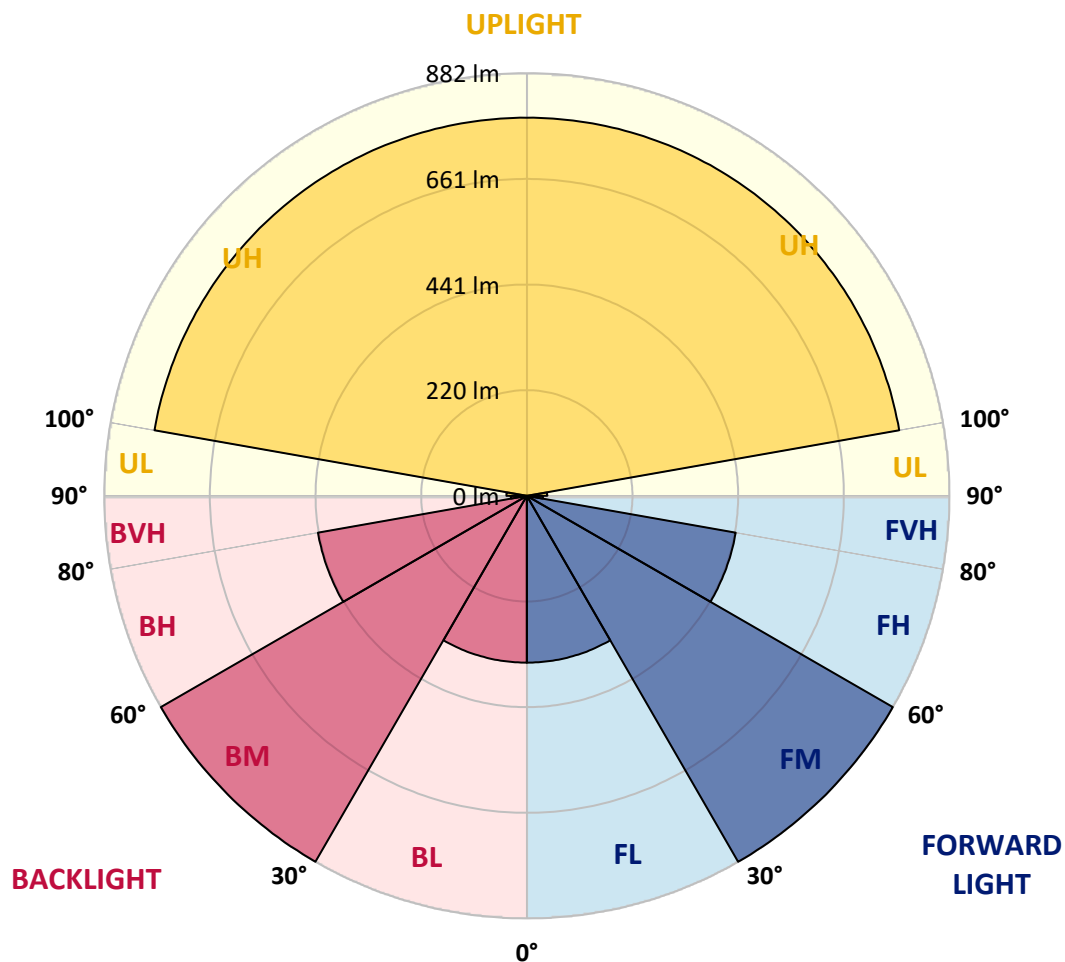
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	348.2	8.2			
FM	(30°-60°)	882.0	20.8			
FH	(60°-80°)	442.7	10.4			G0/660
FVH	(80°-90°)	33.6	0.8			G1/100
BL	(0°-30°)	348.2	8.2	B1/500		
BM	(30°-60°)	882.0	20.8	B1/1000		
BH	(60°-80°)	442.7	10.4	B1/500		G0/660
BVH	(80°-90°)	33.6	0.8			G1/100
UL	(90°-100°)	42.6	1.0		U2/50	
UH	(100°-180°)	789.1	18.6		U4/1000	

BUG Rating: B1-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8
2.5°	850.7	853.4	852.3	852.3	852.3	852.3	851.2	852.3	852.3	852.8	852.3
5°	851.2	850.7	850.7	851.2	851.2	851.7	850.7	851.2	851.7	851.7	852.3
7.5°	849.6	850.1	849.0	850.1	849.0	849.6	849.6	850.1	849.6	850.1	851.2
10°	846.3	846.9	846.3	846.3	846.3	847.4	845.2	846.9	846.3	846.9	846.3
12.5°	840.4	843.1	842.0	843.1	843.1	843.1	841.4	842.5	843.1	843.1	843.1
15°	837.6	838.2	836.6	838.7	839.3	839.8	837.6	838.7	838.7	839.3	839.8
17.5°	831.7	834.4	833.8	835.5	834.9	836.6	836.0	835.5	834.9	836.0	834.9
20°	827.3	830.0	829.5	831.1	831.7	833.3	831.7	831.7	830.0	830.6	832.2
22.5°	823.0	824.1	824.1	825.7	825.7	827.3	825.7	825.2	825.2	824.6	826.2
25°	815.9	816.5	815.9	817.6	818.7	819.7	819.2	818.1	817.6	817.6	817.0
27.5°	804.5	806.7	807.8	810.0	810.5	812.1	810.0	810.0	808.9	807.8	808.3
30°	795.9	797.0	797.0	801.8	801.8	804.5	801.8	801.3	800.8	800.2	799.1
32.5°	787.7	789.4	791.0	794.8	797.5	798.6	797.0	795.9	793.2	791.5	791.0
35°	781.2	781.8	785.0	790.4	793.7	796.4	794.2	791.5	787.7	785.0	787.2
37.5°	776.3	776.9	781.8	788.8	794.8	797.0	793.7	789.4	783.4	780.1	779.1
40°	772.0	775.3	780.7	790.4	797.0	800.2	797.5	791.5	782.8	776.3	775.8
42.5°	769.8	771.5	779.6	791.0	800.2	804.5	800.8	792.6	781.8	774.2	773.6
45°	764.4	769.3	776.9	791.5	801.8	807.3	801.8	791.5	778.5	769.8	768.2
47.5°	760.1	761.7	773.6	790.4	802.9	807.3	801.8	788.8	772.5	761.1	760.1
50°	749.8	753.6	765.5	783.4	798.0	802.4	795.9	778.5	760.1	747.6	745.4
52.5°	734.0	737.3	751.4	773.6	787.7	792.6	782.8	764.4	742.7	727.5	727.5
55°	709.6	714.5	729.1	751.9	769.8	774.2	762.8	743.2	718.8	703.6	703.1
57.5°	680.3	683.6	699.3	724.3	741.6	748.1	736.7	715.0	690.6	672.7	671.1
60°	642.3	646.7	663.5	687.4	705.3	710.7	700.9	679.2	654.3	635.3	635.3
62.5°	596.8	601.6	618.5	642.9	661.3	669.5	655.9	635.3	609.2	590.8	589.2
65°	543.6	547.9	563.1	588.6	607.6	613.6	603.3	581.6	556.6	539.3	537.6
67.5°	483.9	489.9	505.1	526.8	543.1	550.7	544.1	524.6	498.6	480.7	479.0
70°	419.4	423.7	435.6	455.7	474.2	479.6	469.8	456.8	432.4	416.1	413.9
72.5°	350.5	354.3	364.0	383.0	396.0	403.1	397.7	380.8	361.3	347.8	349.9
75°	281.0	280.5	291.3	304.9	316.8	321.7	317.9	307.1	289.2	277.8	277.2
77.5°	211.6	217.0	220.8	232.2	242.0	245.8	240.3	231.7	218.1	208.9	210.5
80°	148.6	145.4	152.4	159.5	166.0	169.8	166.6	161.7	152.4	145.4	144.3
82.5°	91.1	88.4	91.7	98.2	102.5	103.6	104.2	98.2	94.4	89.0	90.1
85°	40.1	40.7	43.4	47.7	48.3	48.8	48.8	47.7	43.4	42.9	41.8
87.5°	9.8	9.8	10.3	11.9	11.9	12.5	12.5	10.9	10.3	9.2	9.8
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)