

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: P821521

Luminaire Tested: **TT-D1-740-12VDC-MQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821521
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-1) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D1-740-12VDC-MQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

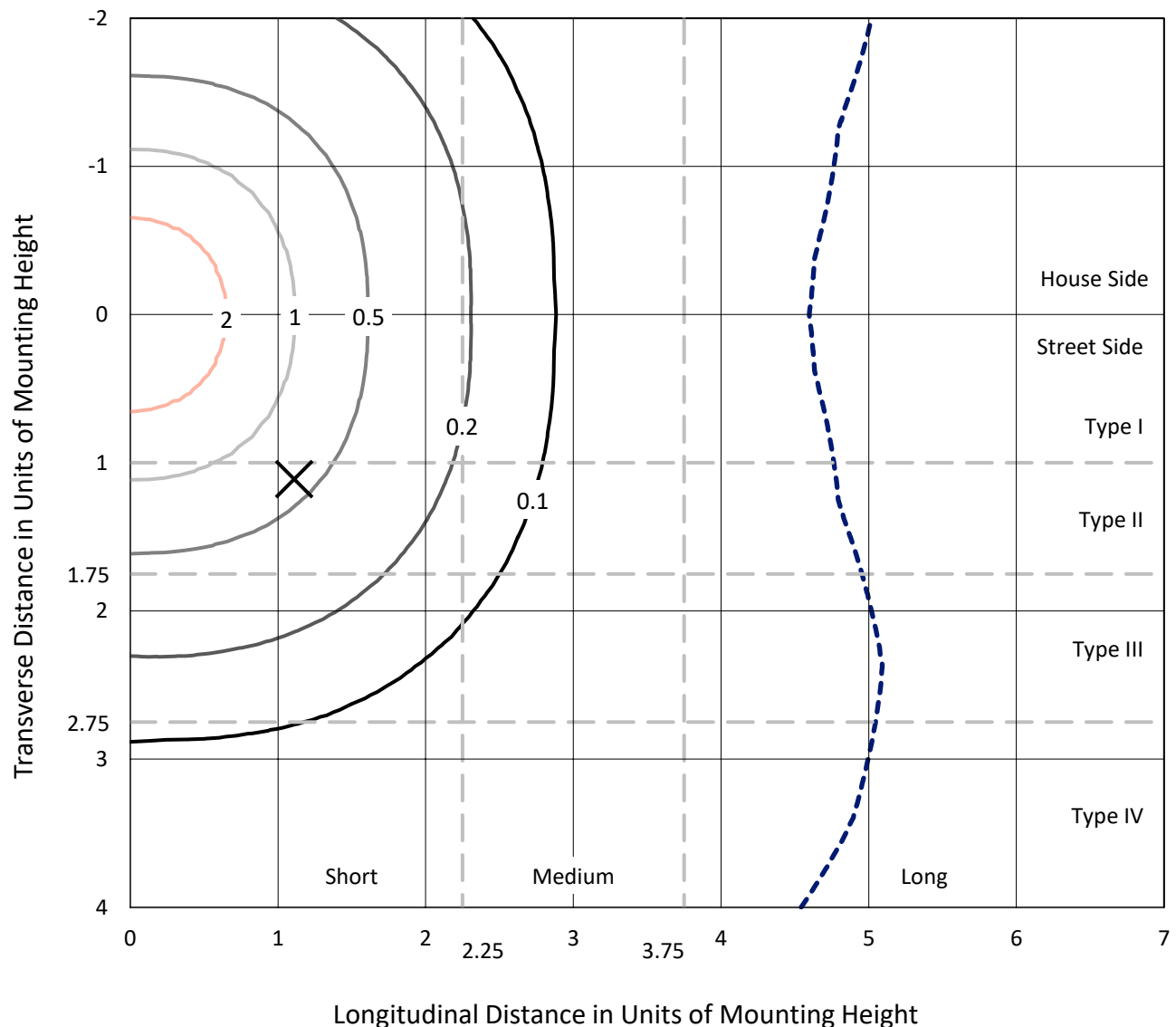
Lumens per Lamp: N/A
Luminaire Lumens: 4985.7 lumens
Efficiency: N/A
Efficacy: 178.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U4 - G2

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

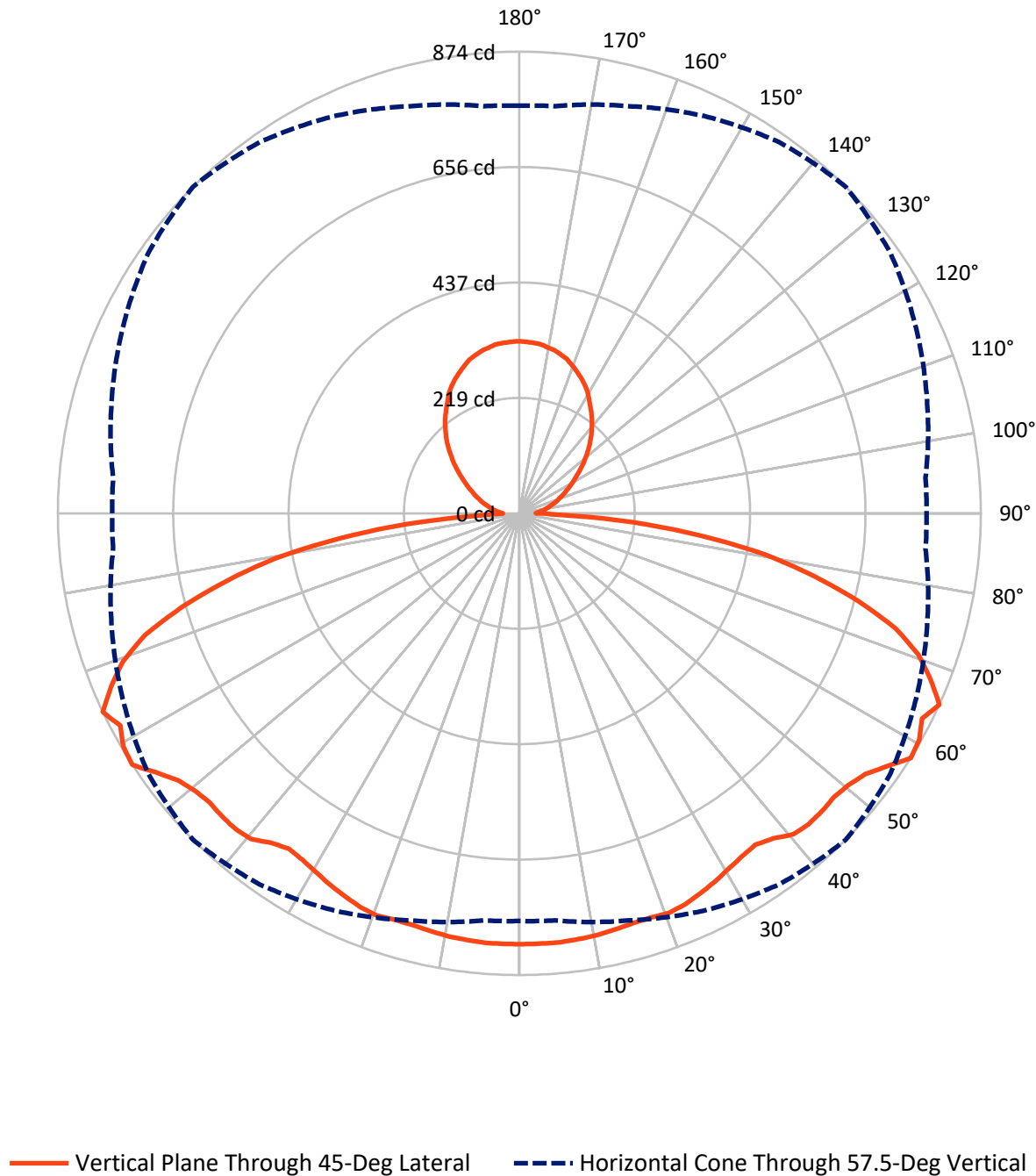
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.6 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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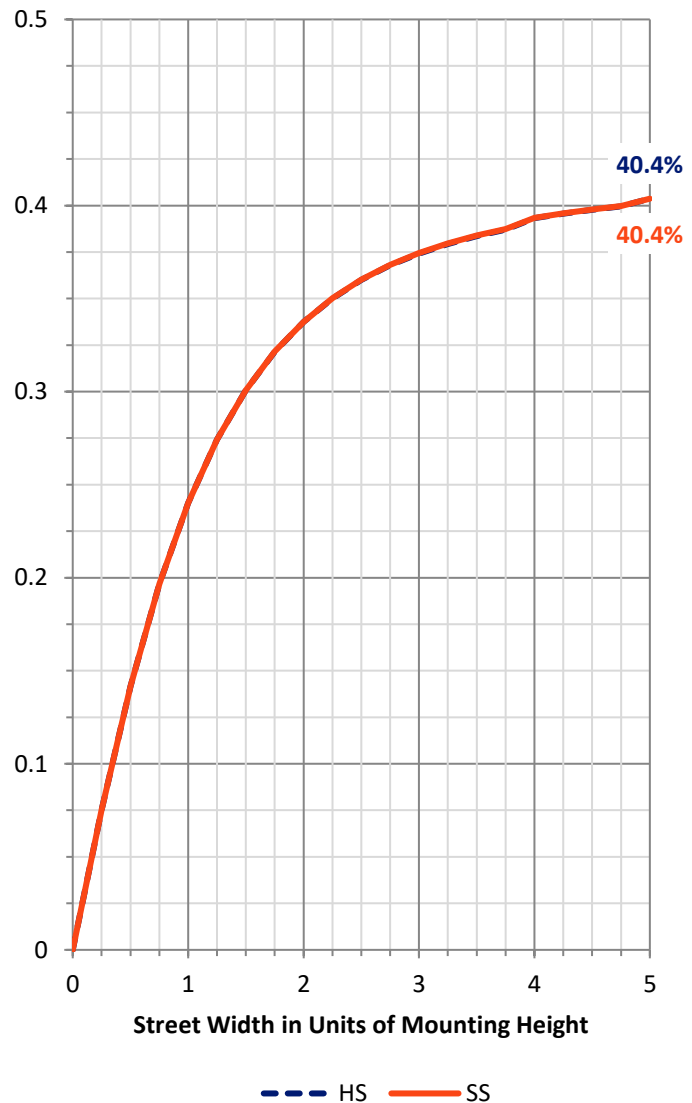
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2050.1	442.7	2492.9
	% Fixture	41.1	8.9	50.0
Street Side	Lumens	2050.1	442.7	2492.9
	% Fixture	41.1	8.9	50.0
Total	Lumens	4100.3	885.5	4985.7
	% Fixture	82.2	17.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	1.6
10°-20°	228.6	4.6
20°-30°	367.4	7.4
30°-40°	485.0	9.7
40°-50°	606.8	12.2
50°-60°	721.8	14.5
60°-70°	782.9	15.7
70°-80°	623.1	12.5
80°-90°	206.8	4.1
90°-100°	45.4	0.9
100°-110°	70.3	1.4
110°-120°	97.7	2.0
120°-130°	126.6	2.5
130°-140°	147.6	3.0
140°-150°	149.5	3.0
150°-160°	129.8	2.6
160°-170°	87.7	1.8
170°-180°	30.8	0.6
0°-90°	4100.3	82.2
0°-180°	4985.7	100.0



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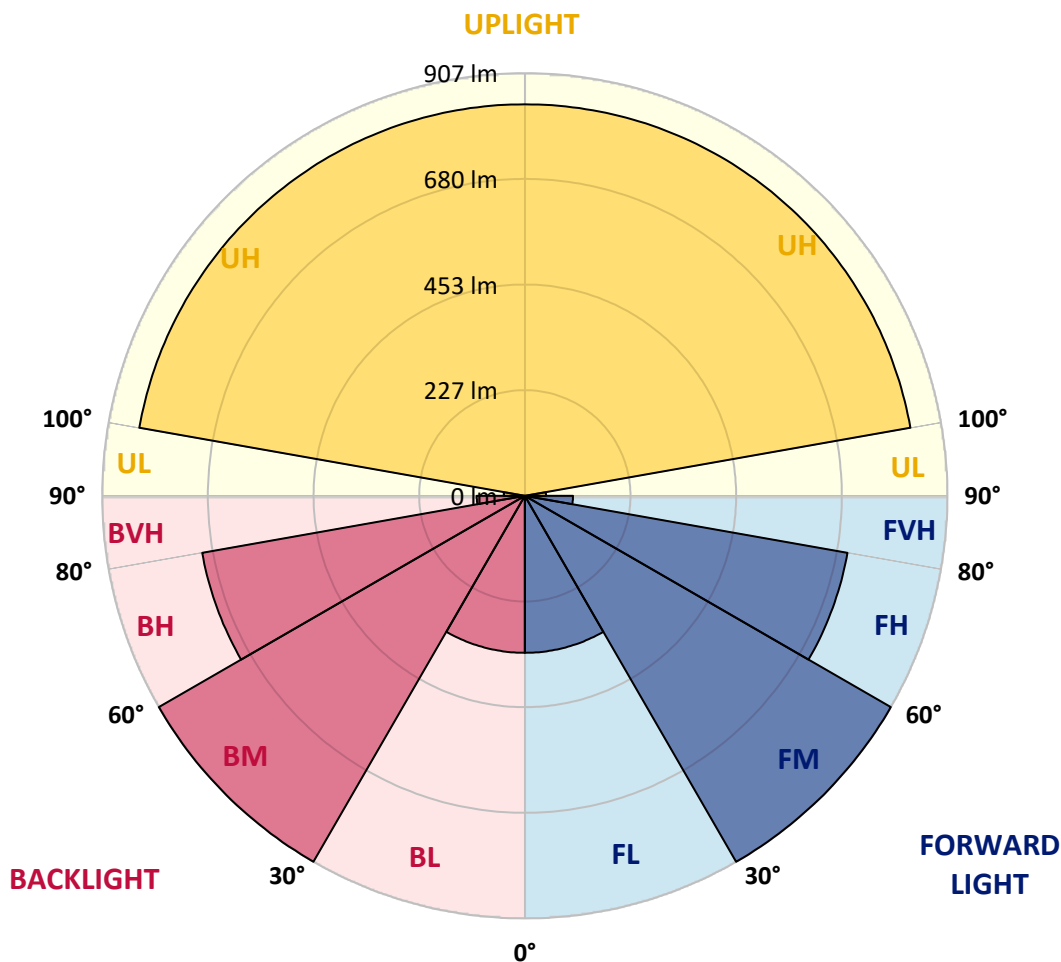
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	336.9	6.8			
FM	(30°-60°)	906.8	18.2			
FH	(60°-80°)	703.0	14.1			G1/1800
FVH	(80°-90°)	103.4	2.1			G2/225
BL	(0°-30°)	336.9	6.8	B1/500		
BM	(30°-60°)	906.8	18.2	B1/1000		
BH	(60°-80°)	703.0	14.1	B2/1000		G1/1800
BVH	(80°-90°)	103.4	2.1			G2/225
UL	(90°-100°)	45.4	0.9		U2/50	
UH	(100°-180°)	840.1	16.8		U4/1000	

BUG Rating: B2-U4-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	815.8	815.8	815.8	815.8	815.8	815.8	815.8	815.8	815.8	815.8	815.8
2.5°	817.0	816.4	817.0	816.4	816.4	815.8	816.4	816.4	816.4	816.4	816.4
5°	816.4	815.8	815.8	816.4	815.8	815.8	815.8	815.8	815.8	815.8	815.8
7.5°	814.0	814.0	814.6	814.0	814.0	814.0	814.0	814.0	814.0	814.6	814.6
10°	812.1	811.5	812.1	812.1	811.5	812.1	811.5	812.1	812.1	812.1	812.1
12.5°	809.7	809.1	809.7	809.7	809.1	808.5	809.1	809.1	809.7	809.7	809.7
15°	805.4	805.4	806.7	806.0	806.0	805.4	806.7	806.0	805.4	806.0	806.0
17.5°	802.4	802.4	803.6	804.8	804.8	804.8	804.8	804.2	803.0	803.6	802.4
20°	803.0	803.6	804.2	806.0	807.3	807.9	807.9	806.0	804.2	804.8	804.2
22.5°	801.2	800.6	801.2	802.4	804.2	804.2	804.2	801.8	801.2	800.6	800.6
25°	793.9	793.9	795.1	796.3	797.5	796.9	797.5	796.3	795.1	793.9	793.9
27.5°	785.3	785.3	787.2	788.4	789.6	789.6	789.0	787.8	787.2	785.9	785.3
30°	776.8	776.8	778.6	779.9	781.7	781.1	781.1	779.2	777.4	776.2	776.2
32.5°	767.7	767.1	768.9	771.9	774.4	774.4	774.4	770.7	768.3	767.1	766.4
35°	759.7	759.7	762.2	767.7	770.7	770.7	769.5	767.1	761.6	759.7	759.7
37.5°	757.3	759.1	765.8	773.8	779.9	781.1	779.2	772.5	765.2	759.7	757.9
40°	765.2	767.1	775.6	788.4	797.5	799.3	797.5	787.8	775.0	766.4	765.8
42.5°	766.4	767.7	778.0	792.6	801.2	804.2	801.2	791.4	777.4	767.1	766.4
45°	762.2	762.8	775.0	790.2	800.6	804.2	800.6	789.0	774.4	762.8	762.2
47.5°	756.7	757.9	771.3	787.2	800.0	802.4	799.3	786.6	770.1	758.5	756.7
50°	752.4	756.1	768.3	785.9	801.2	808.5	801.2	784.1	767.7	754.9	752.4
52.5°	754.9	756.1	771.9	796.9	817.6	820.7	817.0	796.9	770.7	756.1	754.3
55°	762.2	767.7	784.7	820.7	839.6	845.0	837.1	819.5	785.3	767.7	762.2
57.5°	771.9	773.8	798.1	829.8	857.8	874.3	858.4	829.2	800.0	772.5	771.3
60°	764.0	758.5	789.0	826.2	863.9	870.6	861.5	826.8	787.8	757.9	763.4
62.5°	742.7	746.3	771.3	822.5	848.7	856.0	846.3	822.5	770.1	749.4	740.9
65°	725.6	747.6	775.0	811.5	853.6	874.3	854.2	810.3	776.2	743.9	723.8
67.5°	701.9	706.1	747.0	792.0	829.8	840.2	829.2	792.6	743.3	703.1	706.1
70°	661.7	655.6	697.0	749.4	785.3	801.8	786.6	747.0	695.2	654.3	659.8
72.5°	595.2	598.9	637.3	692.7	729.9	745.7	730.5	688.5	636.1	602.6	598.9
75°	525.8	530.1	567.2	617.8	655.6	662.3	658.0	614.7	568.4	529.4	525.8
77.5°	446.6	450.9	481.3	536.8	559.3	569.7	560.5	539.8	480.1	450.2	445.4
80°	358.9	357.6	384.4	432.0	460.0	471.6	460.0	433.2	383.2	360.1	352.2
82.5°	256.5	257.7	282.7	315.6	342.4	346.1	340.6	318.6	280.3	260.8	249.8
85°	142.6	148.0	166.3	190.7	208.4	214.5	205.3	184.6	165.7	150.5	145.6
87.5°	34.1	37.2	43.3	54.8	61.5	67.6	61.5	57.3	40.8	37.2	34.1
90°	32.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
92.5°	37.0	37.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
95°	42.0	42.0	42.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
97.5°	48.0	48.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
100°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
102.5°	60.0	59.0	60.0	60.0	59.0	59.0	59.0	60.0	60.0	60.0	59.0
105°	66.0	66.0	66.0	66.0	66.0	66.0	66.0	67.0	66.0	66.0	66.0
107.5°	73.0	73.0	73.0	74.0	74.0	74.0	74.0	74.0	73.0	74.0	73.0
110°	80.0	80.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.0	89.0	89.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	89.0
115°	97.0	97.0	98.0	98.0	98.0	98.0	99.0	99.0	98.0	98.0	98.0
117.5°	107.0	107.0	107.0	107.0	107.0	108.0	108.0	108.0	108.0	108.0	107.0
120°	117.0	117.0	117.0	118.0	118.0	118.0	119.0	119.0	118.0	118.0	118.0
122.5°	129.0	128.0	129.0	129.0	129.0	129.0	130.0	130.0	130.0	130.0	129.0
125°	140.0	140.0	141.0	141.0	141.0	141.0	142.0	142.0	142.0	142.0	141.0
127.5°	153.0	153.0	153.0	153.0	153.0	154.0	154.0	154.0	154.0	154.0	154.0
130°	165.0	165.0	166.0	166.0	166.0	166.0	167.0	167.0	167.0	167.0	166.0
132.5°	179.0	178.0	179.0	178.0	178.0	179.0	179.0	180.0	179.0	180.0	179.0
135°	191.0	191.0	191.0	191.0	191.0	192.0	192.0	192.0	192.0	192.0	192.0
137.5°	204.0	203.0	204.0	203.0	203.0	204.0	204.0	204.0	204.0	204.0	204.0
140°	216.0	215.0	216.0	215.0	216.0	216.0	216.0	216.0	216.0	216.0	216.0
142.5°	228.0	227.0	228.0	227.0	227.0	228.0	228.0	228.0	228.0	228.0	228.0
145°	239.0	239.0	239.0	238.0	239.0	239.0	239.0	239.0	239.0	239.0	239.0
147.5°	250.0	249.0	250.0	249.0	249.0	250.0	250.0	250.0	250.0	250.0	250.0
150°	263.0	262.0	263.0	262.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0
152.5°	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0
155°	282.0	282.0	283.0	282.0	282.0	282.0	283.0	282.0	282.0	282.0	282.0
157.5°	290.0	290.0	290.0	290.0	290.0	290.0	291.0	291.0	290.0	291.0	290.0
160°	298.0	298.0	299.0	298.0	298.0	298.0	299.0	298.0	298.0	298.0	298.0
162.5°	306.0	305.0	306.0	305.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0
165°	311.0	311.0	312.0	311.0	311.0	311.0	312.0	311.0	311.0	311.0	311.0
167.5°	316.0	315.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0
170°	319.0	319.0	320.0	319.0	319.0	319.0	320.0	319.0	319.0	319.0	319.0
172.5°	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0
175°	324.0	324.0	325.0	324.0	325.0	324.0	325.0	324.0	324.0	324.0	324.0
177.5°	325.0	325.0	326.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0
180°	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0

(END OF REPORT)