

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: P821527

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

Issue Date: 7/23/2020



Test Information

Test Method: LM-79-08
Report Number: P821527
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-WQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND WIDE DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

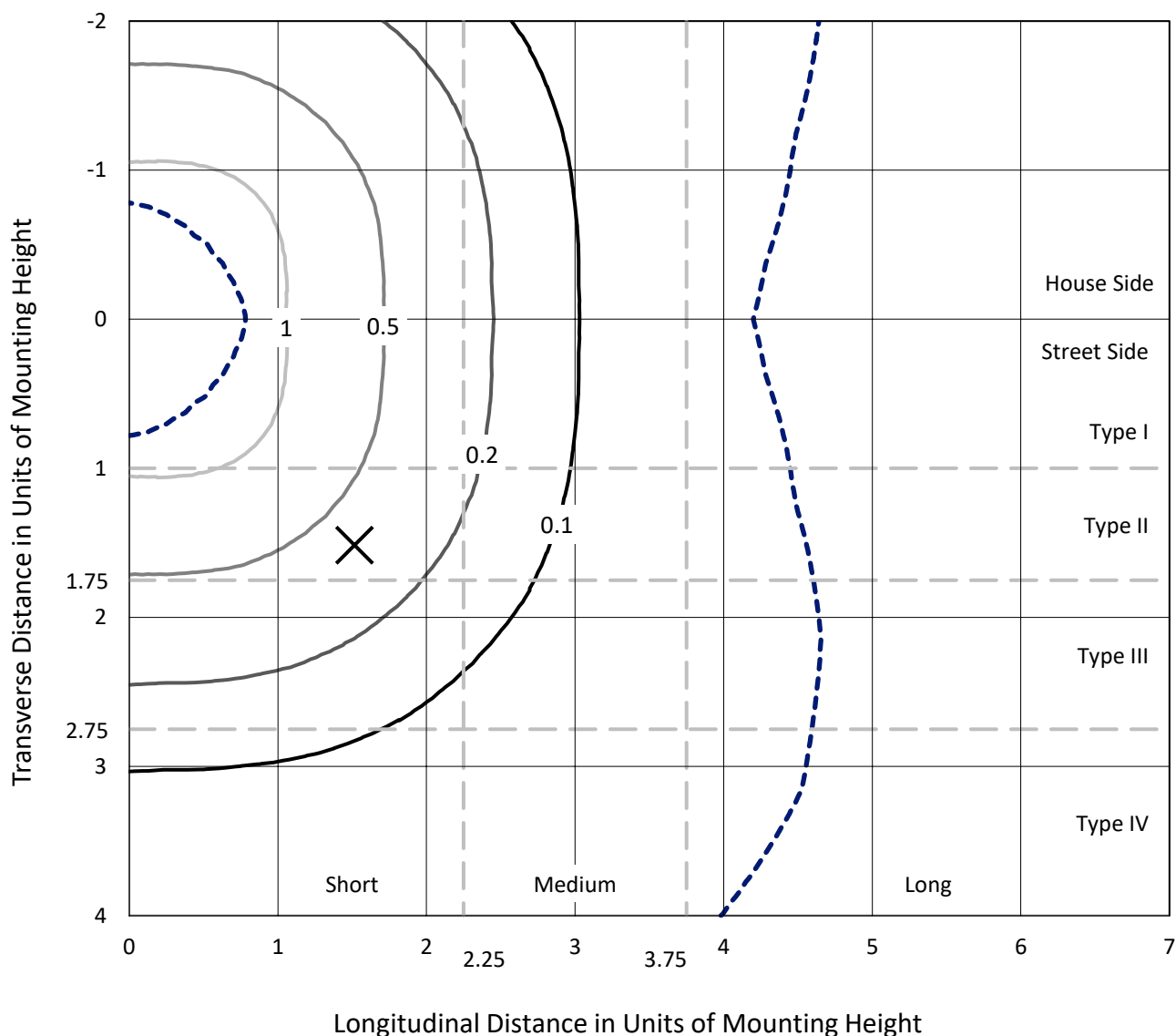
Lumens per Lamp: N/A
Luminaire Lumens: 4763.7 lumens
Efficiency: N/A
Efficacy: 170.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U4 - G1

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

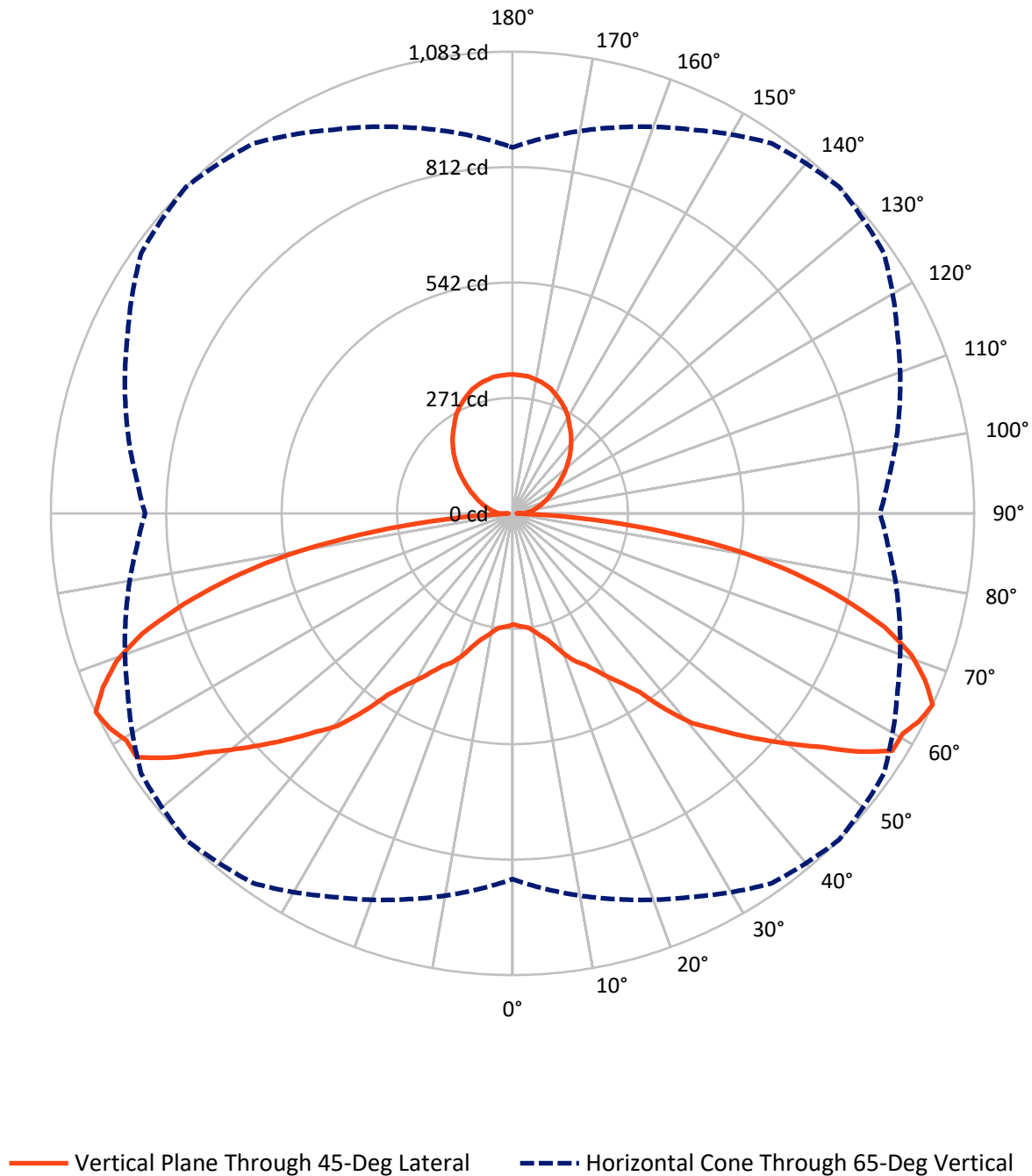
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.3 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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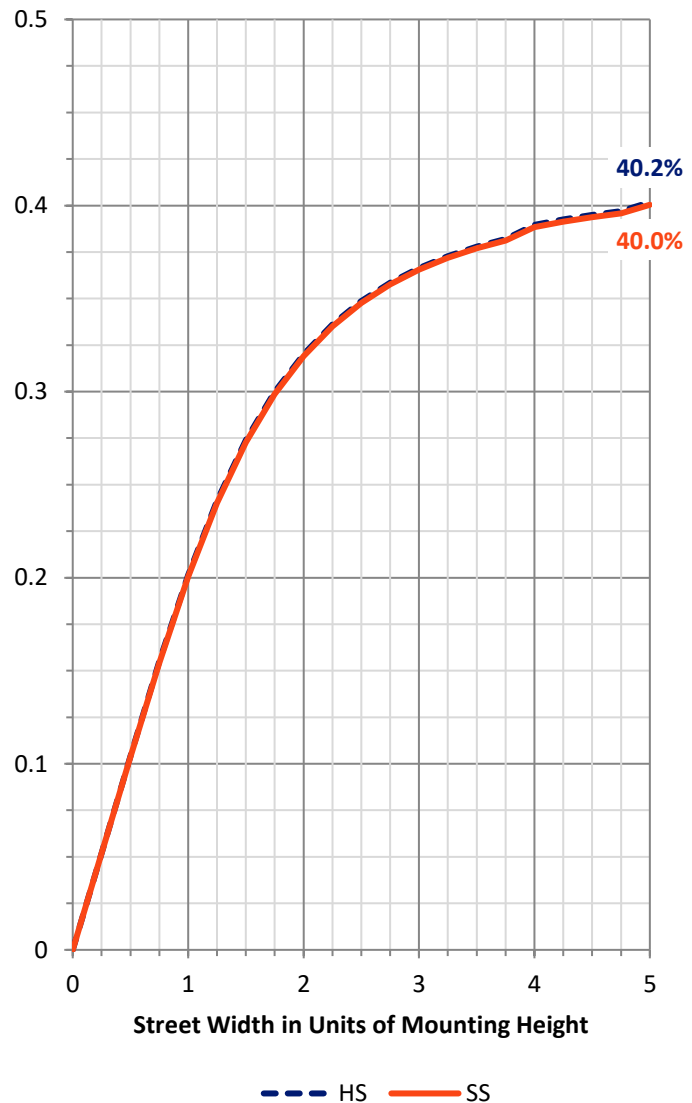
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1939.1	442.7	2381.9
	% Fixture	40.7	9.3	50.0
Street Side	Lumens	1939.1	442.7	2381.9
	% Fixture	40.7	9.3	50.0
Total	Lumens	3878.2	885.5	4763.7
	% Fixture	81.4	18.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.0	0.5
10°-20°	89.4	1.9
20°-30°	183.6	3.9
30°-40°	326.2	6.8
40°-50°	549.9	11.5
50°-60°	811.2	17.0
60°-70°	952.0	20.0
70°-80°	741.7	15.6
80°-90°	198.1	4.2
90°-100°	45.4	1.0
100°-110°	70.3	1.5
110°-120°	97.7	2.1
120°-130°	126.6	2.7
130°-140°	147.6	3.1
140°-150°	149.5	3.1
150°-160°	129.8	2.7
160°-170°	87.7	1.8
170°-180°	30.8	0.6
0°-90°	3878.2	81.4
0°-180°	4763.7	100.0



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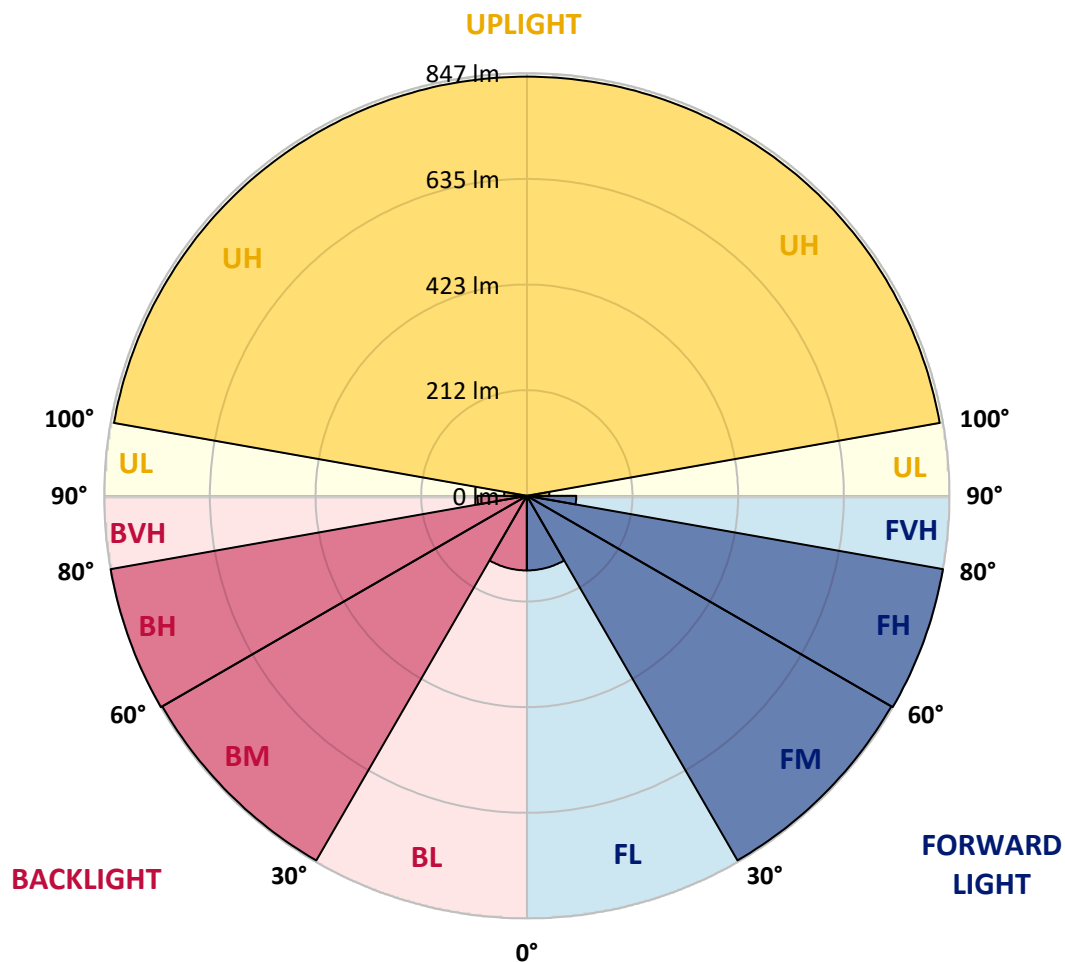
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	149.5	3.1			
FM	(30°-60°)	843.7	17.7			
FH	(60°-80°)	846.9	17.8			G1/1800
FVH	(80°-90°)	99.1	2.1			G1/100
BL	(0°-30°)	149.5	3.1	B1/500		
BM	(30°-60°)	843.7	17.7	B1/1000		
BH	(60°-80°)	846.9	17.8	B2/1000		G1/1800
BVH	(80°-90°)	99.1	2.1			G1/100
UL	(90°-100°)	45.4	1.0		U2/50	
UH	(100°-180°)	840.1	17.6		U4/1000	

BUG Rating: B2-U4-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7
2.5°	265.0	265.0	265.0	264.4	264.4	264.4	264.4	265.0	265.0	265.0	265.0
5°	271.1	271.1	269.9	268.7	267.4	267.4	268.0	268.7	269.3	270.5	270.5
7.5°	274.7	274.7	274.1	272.9	271.1	271.1	271.7	272.9	273.5	273.5	272.9
10°	279.6	280.2	282.1	282.7	281.4	281.4	282.1	282.7	281.4	279.6	279.6
12.5°	291.2	291.8	294.2	296.1	296.1	294.8	295.5	296.7	293.6	290.6	291.2
15°	307.6	307.6	308.2	310.1	308.9	307.6	308.9	309.5	307.6	307.0	308.2
17.5°	329.6	329.6	325.9	329.0	329.6	329.0	330.2	327.1	325.3	327.7	329.0
20°	353.3	350.9	349.1	351.5	356.4	354.5	357.0	350.3	348.5	349.7	350.3
22.5°	368.6	370.4	371.6	372.8	379.5	377.1	379.5	372.2	371.0	368.6	366.7
25°	386.8	388.7	396.0	392.3	396.6	392.9	396.0	391.7	394.1	386.8	386.8
27.5°	407.5	411.2	415.5	413.6	419.1	417.3	419.1	413.0	413.6	410.6	409.4
30°	435.6	435.6	434.4	438.0	447.8	446.5	447.1	439.2	433.7	434.4	436.8
32.5°	463.6	459.9	461.8	472.7	478.8	476.4	477.6	473.9	461.8	459.3	461.2
35°	489.8	495.3	499.5	508.7	517.2	516.0	515.4	509.3	501.4	491.6	488.6
37.5°	530.6	536.7	548.3	564.7	579.9	583.0	575.1	567.2	548.9	534.9	527.6
40°	584.2	584.8	598.2	629.9	643.9	646.3	642.1	628.7	600.7	584.8	584.2
42.5°	631.1	626.9	648.8	675.6	688.4	689.6	686.6	675.6	648.8	626.2	630.5
45°	667.7	667.7	693.9	715.2	735.9	740.8	735.3	712.1	694.5	668.3	666.5
47.5°	701.2	710.3	732.2	758.4	787.7	794.4	787.7	760.3	730.4	710.9	700.6
50°	741.4	752.3	768.2	809.0	841.9	851.0	841.3	811.4	768.2	751.7	745.6
52.5°	788.3	797.4	822.4	873.6	897.9	911.3	903.4	874.8	823.6	798.6	793.8
55°	844.3	835.8	874.8	924.1	969.2	986.9	971.0	925.4	880.9	835.8	844.3
57.5°	873.0	863.2	918.0	965.0	1027.7	1050.8	1031.4	968.6	918.0	866.3	872.4
60°	875.4	879.7	921.1	997.8	1041.1	1050.8	1044.8	1003.3	922.9	883.3	871.7
62.5°	868.1	894.3	929.6	1008.8	1047.8	1071.6	1050.8	1010.0	933.3	898.6	868.7
65°	858.3	884.5	936.9	993.0	1059.4	1083.1	1063.6	996.0	939.4	884.5	862.0
67.5°	841.3	832.2	896.7	971.7	1029.5	1043.5	1031.4	972.9	896.1	830.9	843.1
70°	787.1	779.2	834.6	916.8	972.3	991.8	977.1	918.0	835.8	781.0	788.3
72.5°	706.7	709.1	762.7	841.3	901.0	913.2	905.3	840.7	765.7	712.1	702.4
75°	612.8	618.9	670.1	741.4	795.6	802.9	795.0	744.4	669.5	622.6	609.8
77.5°	503.8	512.9	554.4	625.6	661.6	678.0	665.2	627.5	557.4	515.4	502.6
80°	390.5	393.5	422.8	480.0	527.6	538.5	526.3	481.9	426.4	394.8	385.6
82.5°	255.9	260.7	286.9	330.8	361.9	358.8	361.9	327.1	290.0	259.5	244.3
85°	113.9	123.7	141.3	162.0	182.1	187.6	182.1	164.5	141.3	121.2	118.8
87.5°	7.9	9.1	11.0	11.6	12.8	9.7	9.7	9.7	8.5	9.7	7.9
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)