

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: P821231

Luminaire Tested: **TT-D3-735-24VDC-WQ-UPL**

Issue Date: 7/23/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P821231  
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-D3-735-24VDC-WQ-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

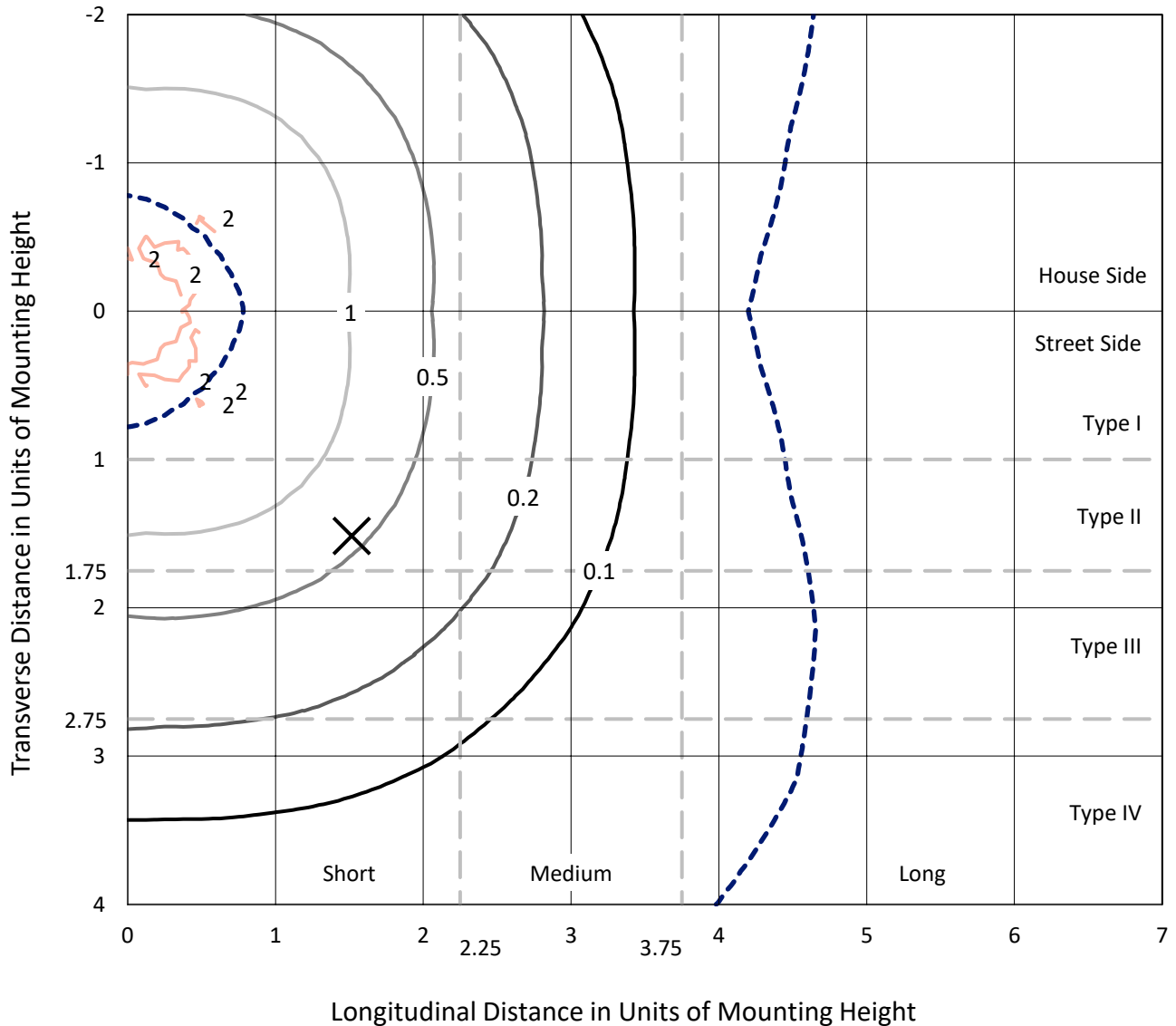
Lumens per Lamp: N/A  
Luminaire Lumens: 6846.8 lumens  
Efficiency: N/A  
Efficacy: 148.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B3 - U4 - G2

Input Watts (W): 46  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

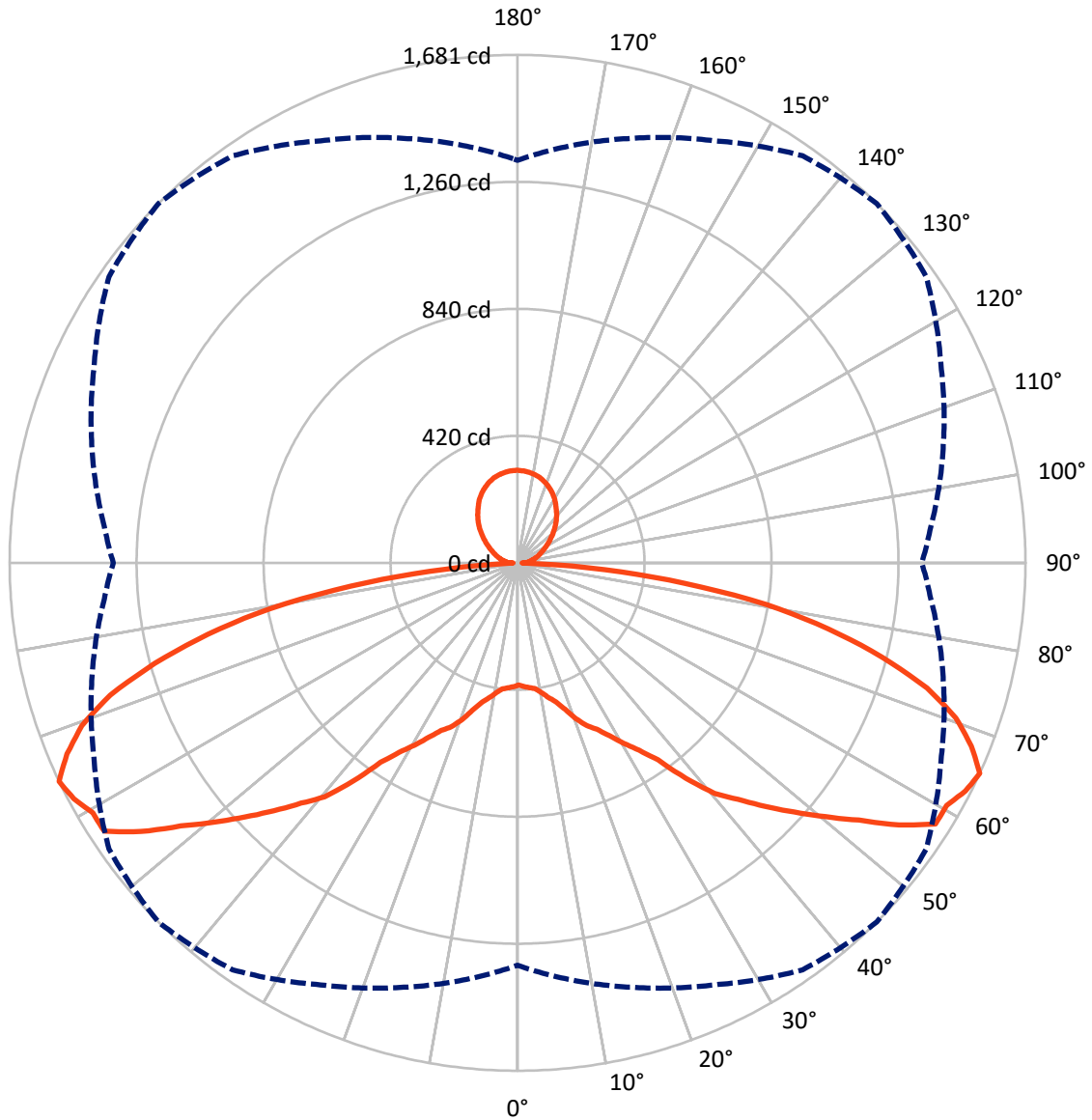
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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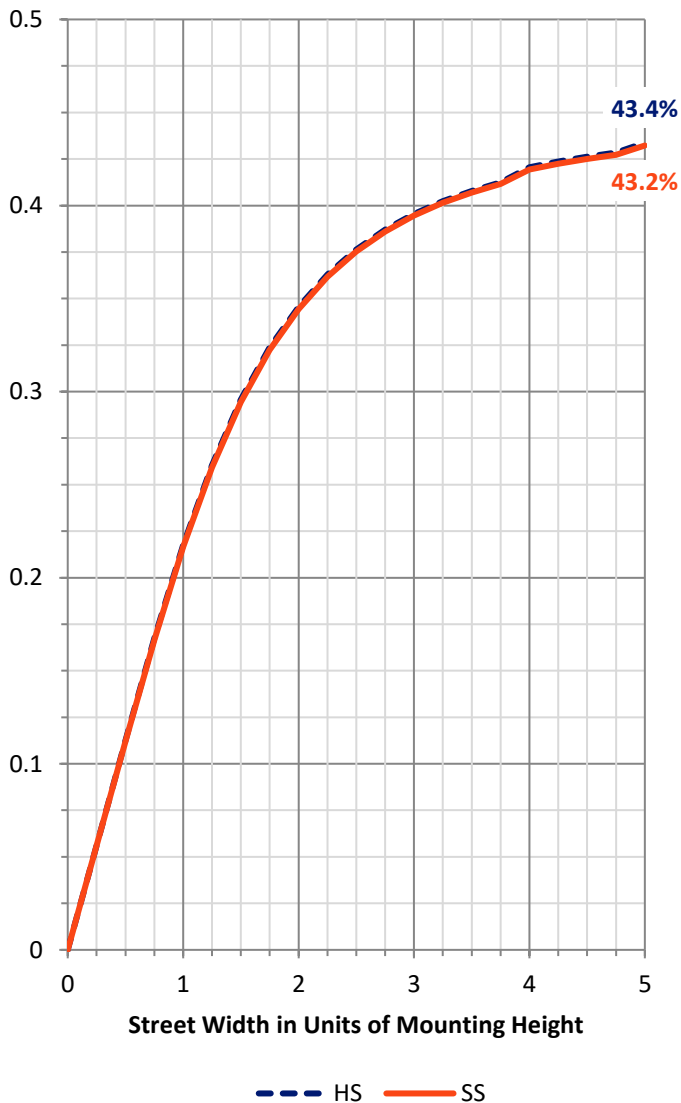
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3007.5	415.9	3423.4
	% Fixture	43.9	6.1	50.0
<b>Street Side</b>	Lumens	3007.5	415.9	3423.4
	% Fixture	43.9	6.1	50.0
<b>Total</b>	Lumens	6015.0	831.7	6846.8
	% Fixture	87.9	12.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	0.6
10°-20°	138.8	2.0
20°-30°	284.9	4.2
30°-40°	506.2	7.4
40°-50°	853.3	12.5
50°-60°	1258.7	18.4
60°-70°	1477.2	21.6
70°-80°	1150.9	16.8
80°-90°	304.9	4.5
90°-100°	42.6	0.6
100°-110°	66.0	1.0
110°-120°	91.9	1.3
120°-130°	119.0	1.7
130°-140°	138.7	2.0
140°-150°	140.5	2.1
150°-160°	121.9	1.8
160°-170°	82.2	1.2
170°-180°	28.9	0.4
0°-90°	6015.0	87.9
0°-180°	6846.8	100.0

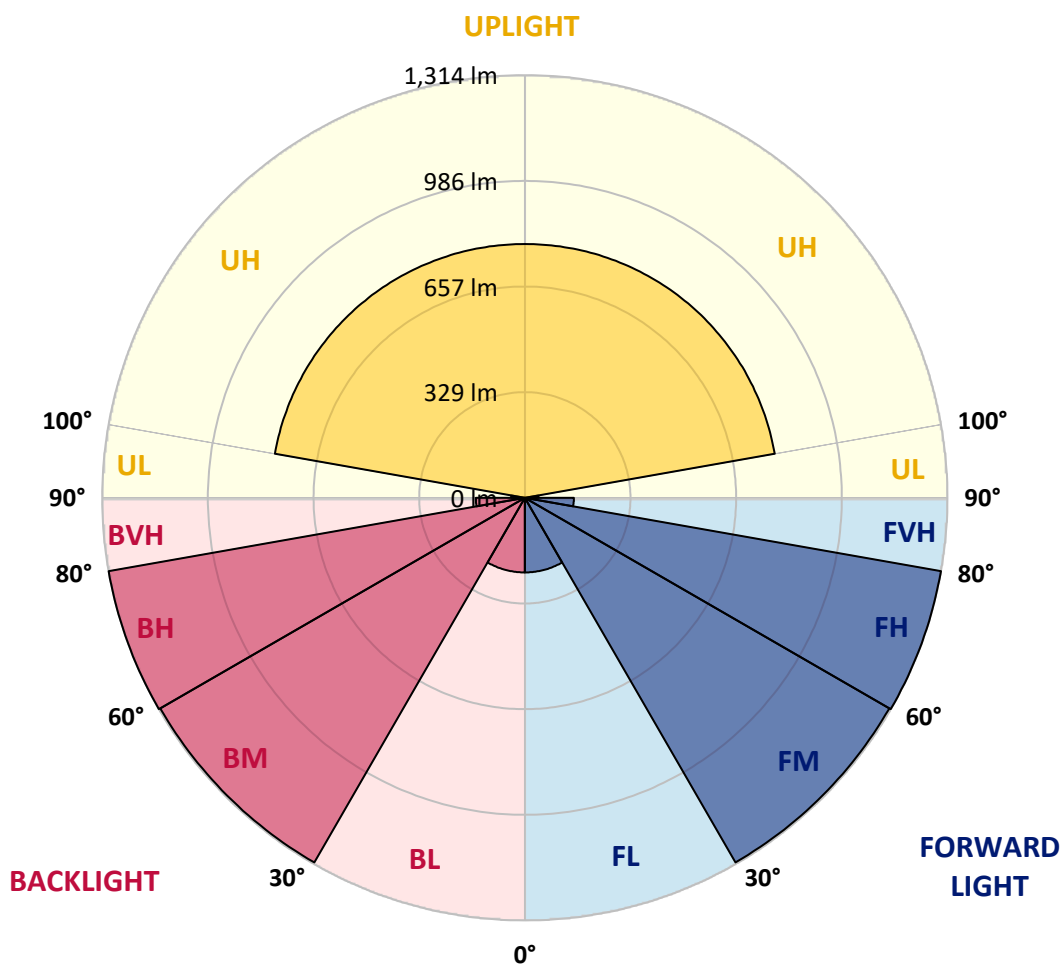


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	232.0	3.4			
FM (30°-60°)	1309.1	19.1			
FH (60°-80°)	1314.0	19.2			G1/1800
FVH (80°-90°)	152.4	2.2			G2/225
BL (0°-30°)	232.0	3.4	B1/500		
BM (30°-60°)	1309.1	19.1	B2/2500		
BH (60°-80°)	1314.0	19.2	B3/2500		G1/1800
BVH (80°-90°)	152.4	2.2			G2/225
UL (90°-100°)	42.6	0.6		U2/50	
UH (100°-180°)	789.1	11.5		U4/1000	

**BUG Rating: B3-U4-G2**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6
2.5°	411.2	411.2	411.2	410.2	410.2	410.2	410.2	411.2	411.2	411.2	411.2
5°	420.6	420.6	418.7	416.8	415.0	415.0	415.9	416.8	417.8	419.7	419.7
7.5°	426.3	426.3	425.4	423.5	420.6	420.6	421.6	423.5	424.4	424.4	423.5
10°	433.9	434.8	437.6	438.6	436.7	436.7	437.6	438.6	436.7	433.9	433.9
12.5°	451.8	452.8	456.5	459.4	459.4	457.5	458.4	460.3	455.6	450.9	451.8
15°	477.3	477.3	478.3	481.1	479.2	477.3	479.2	480.2	477.3	476.4	478.3
17.5°	511.4	511.4	505.7	510.4	511.4	510.4	512.3	507.6	504.8	508.5	510.4
20°	548.2	544.5	541.6	545.4	553.0	550.1	553.9	543.5	540.7	542.6	543.5
22.5°	571.9	574.7	576.6	578.5	588.9	585.1	588.9	577.5	575.6	571.9	569.0
25°	600.2	603.1	614.4	608.7	615.3	609.7	614.4	607.8	611.6	600.2	600.2
27.5°	632.4	638.0	644.6	641.8	650.3	647.5	650.3	640.9	641.8	637.1	635.2
30°	675.8	675.8	673.9	679.6	694.7	692.9	693.8	681.5	673.0	673.9	677.7
32.5°	719.3	713.6	716.5	733.5	743.0	739.2	741.1	735.4	716.5	712.7	715.5
35°	760.0	768.5	775.1	789.3	802.5	800.6	799.7	790.2	777.9	762.8	758.1
37.5°	823.3	832.7	850.7	876.2	899.9	904.6	892.3	880.0	851.7	829.9	818.6
40°	906.5	907.4	928.2	977.4	999.1	1002.9	996.3	975.5	932.0	907.4	906.5
42.5°	979.3	972.6	1006.7	1048.3	1068.1	1070.0	1065.3	1048.3	1006.7	971.7	978.3
45°	1036.0	1036.0	1076.6	1109.7	1141.8	1149.4	1140.9	1105.0	1077.6	1036.9	1034.1
47.5°	1088.0	1102.1	1136.2	1176.8	1222.2	1232.6	1222.2	1179.6	1133.3	1103.1	1087.0
50°	1150.3	1167.4	1191.9	1255.3	1306.3	1320.5	1305.4	1259.0	1191.9	1166.4	1157.0
52.5°	1223.1	1237.3	1276.1	1355.5	1393.3	1414.1	1401.8	1357.4	1278.0	1239.2	1231.6
55°	1310.1	1296.9	1357.4	1433.9	1503.9	1531.3	1506.7	1435.8	1366.8	1296.9	1310.1
57.5°	1354.5	1339.4	1424.5	1497.2	1594.6	1630.5	1600.3	1502.9	1424.5	1344.1	1353.6
60°	1358.3	1364.9	1429.2	1548.3	1615.4	1630.5	1621.1	1556.8	1432.0	1370.6	1352.6
62.5°	1347.0	1387.6	1442.4	1565.3	1625.8	1662.7	1630.5	1567.2	1448.1	1394.2	1347.9
65°	1331.8	1372.5	1453.8	1540.7	1643.8	1680.6	1650.4	1545.5	1457.5	1372.5	1337.5
67.5°	1305.4	1291.2	1391.4	1507.6	1597.4	1619.2	1600.3	1509.5	1390.4	1289.3	1308.2
70°	1221.2	1209.0	1295.0	1422.6	1508.6	1538.8	1516.2	1424.5	1296.9	1211.8	1223.1
72.5°	1096.5	1100.2	1183.4	1305.4	1398.0	1416.9	1404.6	1304.4	1188.2	1105.0	1089.9
75°	950.9	960.4	1039.8	1150.3	1234.5	1245.8	1233.5	1155.1	1038.8	966.0	946.2
77.5°	781.7	795.9	860.2	970.8	1026.5	1052.0	1032.2	973.6	864.9	799.7	779.8
80°	605.9	610.6	656.0	744.8	818.6	835.6	816.7	747.7	661.7	612.5	598.3
82.5°	397.0	404.6	445.2	513.3	561.5	556.7	561.5	507.6	449.9	402.7	379.0
85°	176.8	191.9	219.3	251.4	282.6	291.1	282.6	255.2	219.3	188.1	184.3
87.5°	12.3	14.2	17.0	18.0	19.8	15.1	15.1	15.1	13.2	15.1	12.3
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	167.6	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	179.4	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)