

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: P821293

Luminaire Tested: **TT-D3-740-24VDC-CQ-UPL**

Issue Date: 7/23/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P821293  
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-D3-740-24VDC-CQ-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

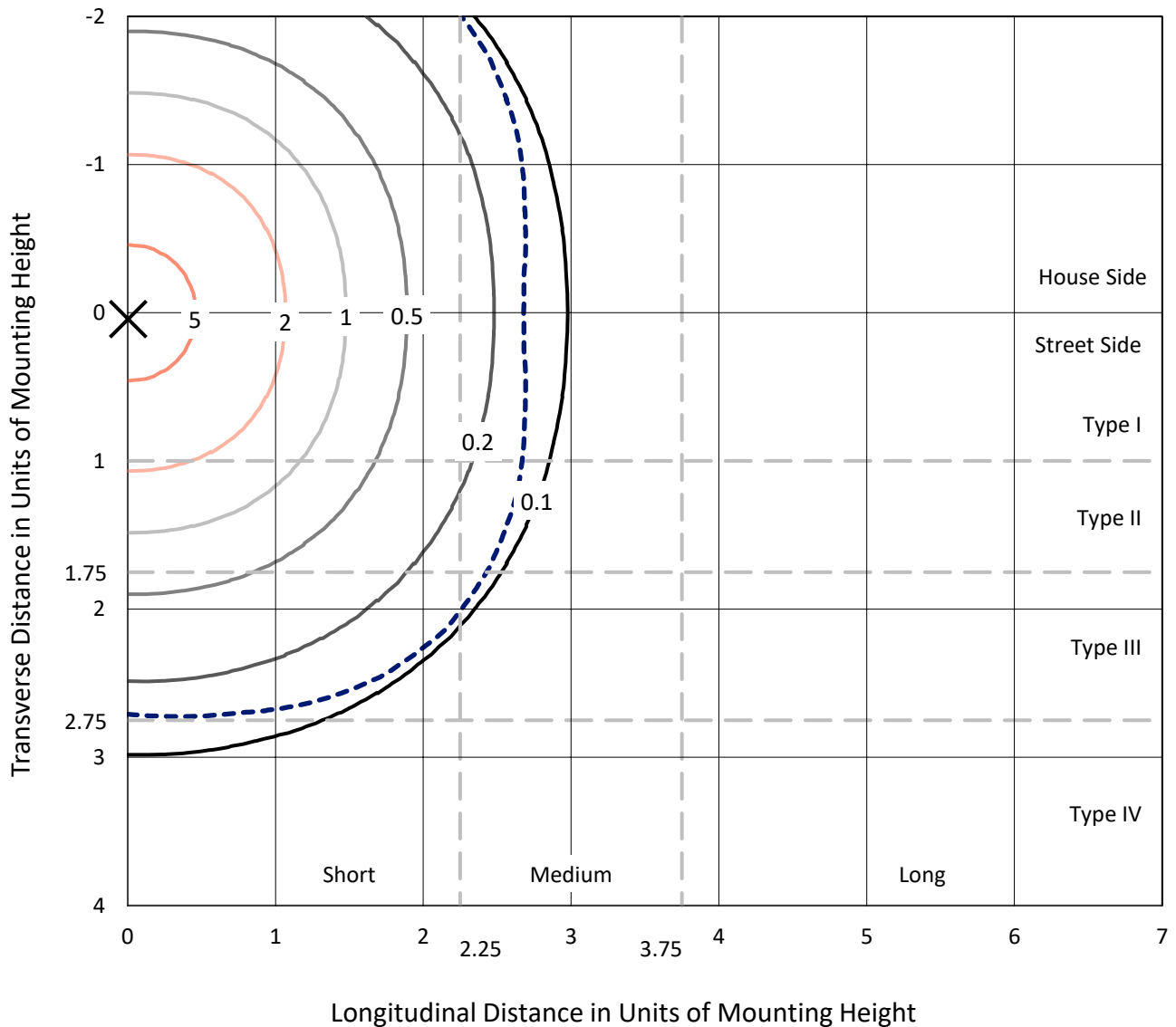
Lumens per Lamp: N/A  
Luminaire Lumens: 7173.8 lumens  
Efficiency: N/A  
Efficacy: 156.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1

Input Watts (W): 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

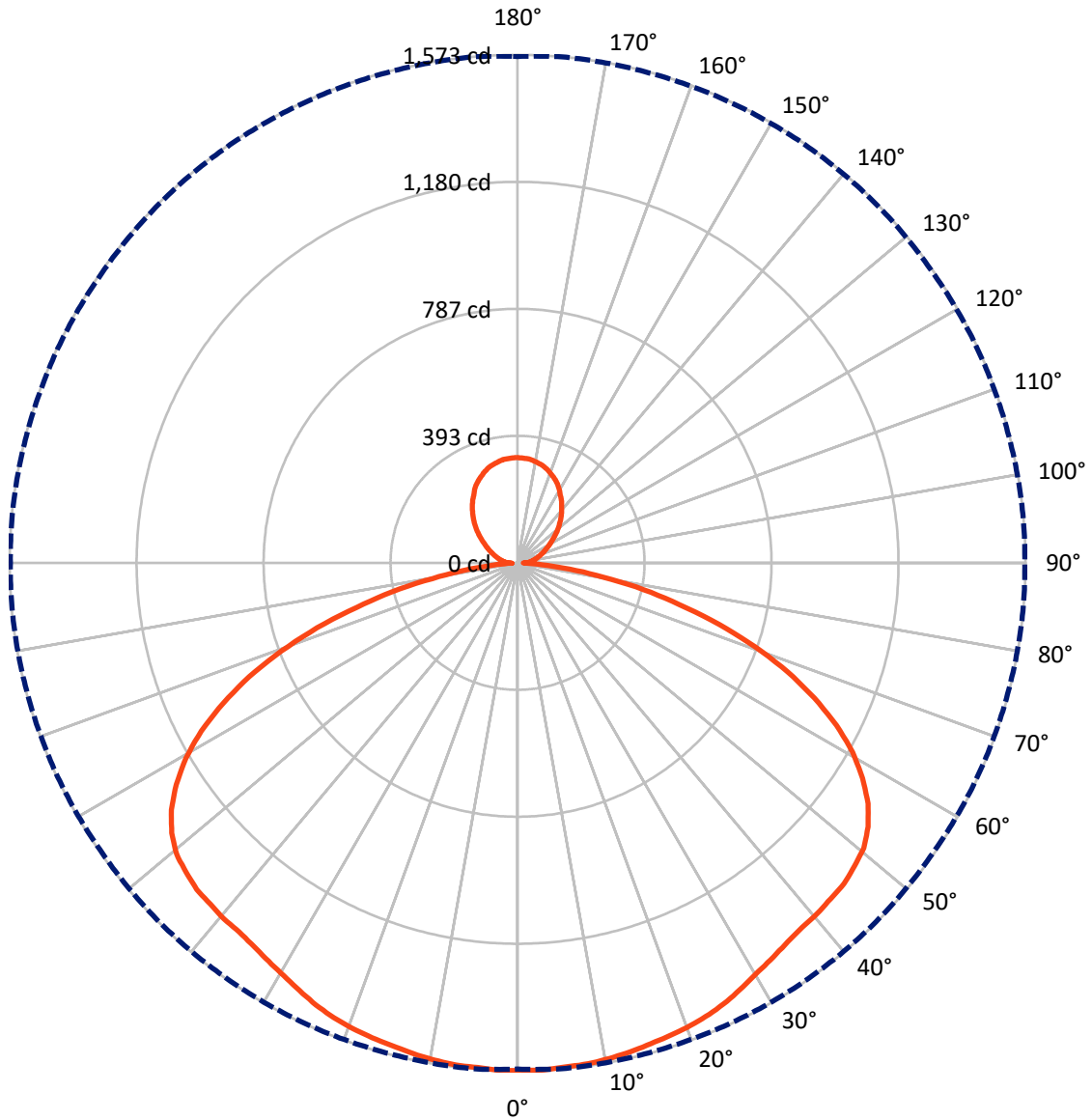
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral      - - - Horizontal Cone Through 2.5-Deg Vertical

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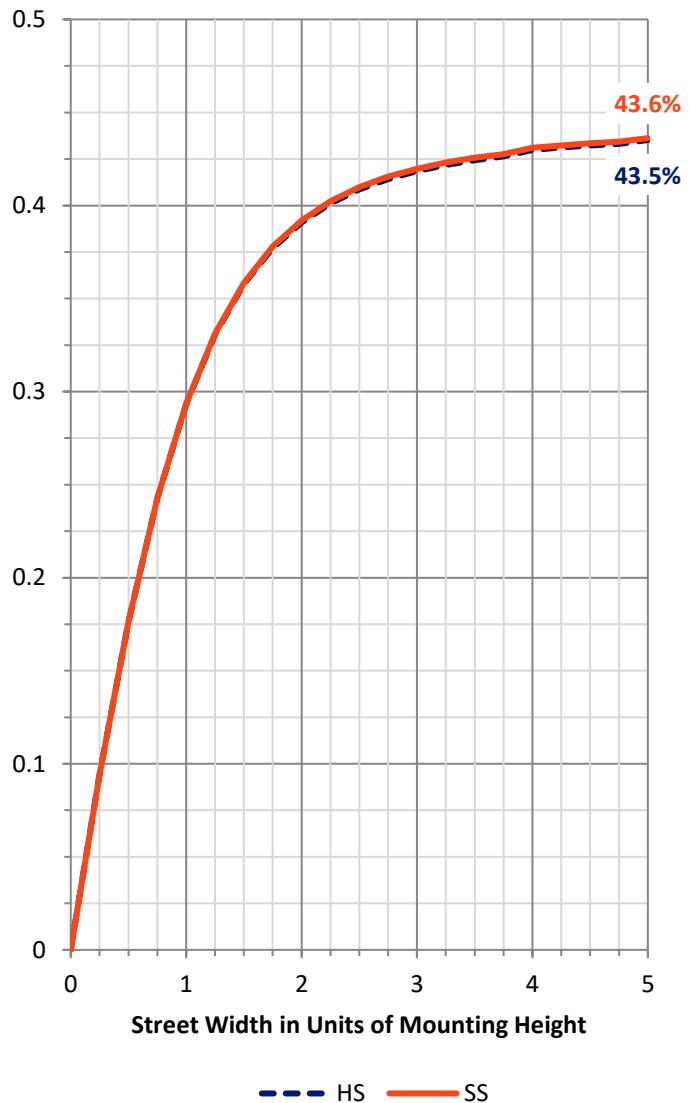
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3144.2	442.7	3586.9
	% Fixture	43.8	6.2	50.0
<b>Street Side</b>	Lumens	3144.2	442.7	3586.9
	% Fixture	43.8	6.2	50.0
<b>Total</b>	Lumens	6288.3	885.5	7173.8
	% Fixture	87.7	12.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.5	2.1
10°-20°	437.9	6.1
20°-30°	696.4	9.7
30°-40°	916.1	12.8
40°-50°	1121.2	15.6
50°-60°	1214.4	16.9
60°-70°	1044.8	14.6
70°-80°	587.3	8.2
80°-90°	120.7	1.7
90°-100°	45.4	0.6
100°-110°	70.3	1.0
110°-120°	97.7	1.4
120°-130°	126.6	1.8
130°-140°	147.6	2.1
140°-150°	149.5	2.1
150°-160°	129.8	1.8
160°-170°	87.7	1.2
170°-180°	30.8	0.4
0°-90°	6288.3	87.7
0°-180°	7173.8	100.0

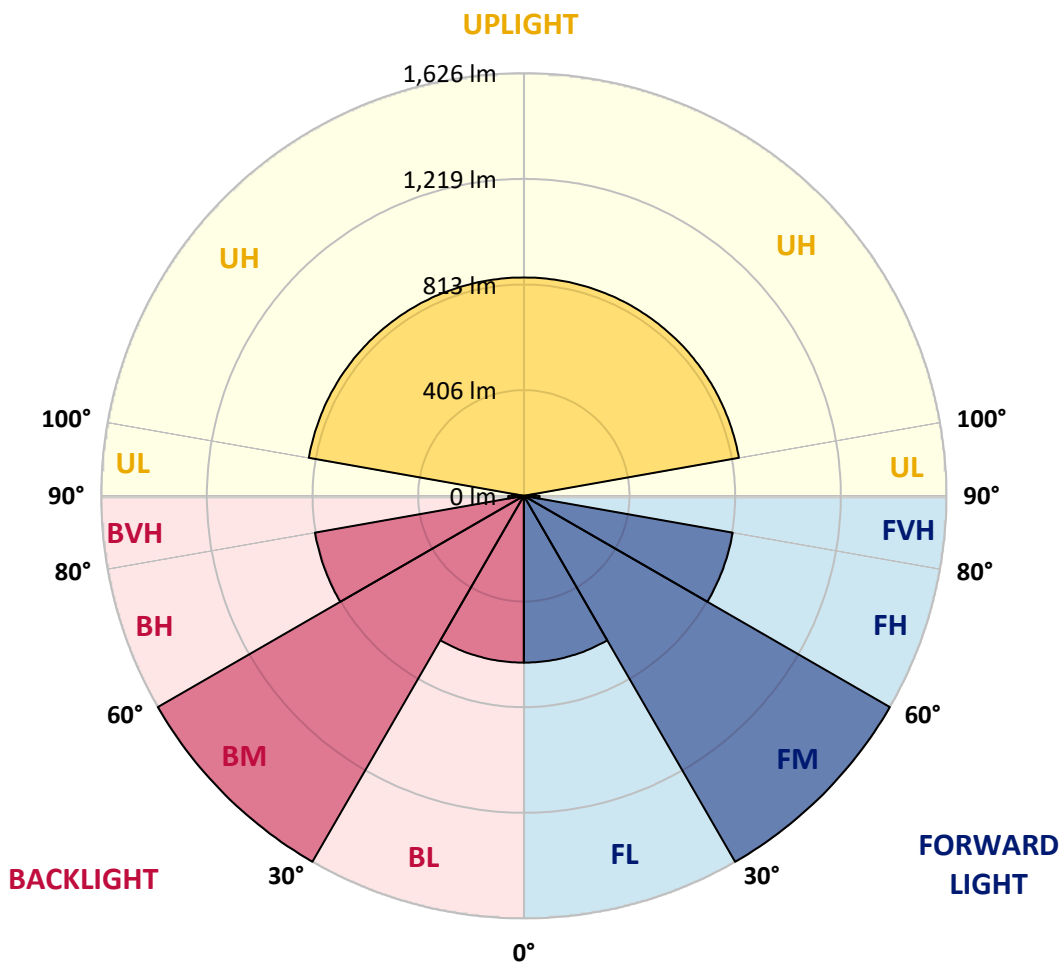


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	641.9	8.9			
FM (30°-60°)	1625.9	22.7			
FH (60°-80°)	816.0	11.4			G1/1800
FVH (80°-90°)	60.4	0.8			G1/100
BL (0°-30°)	641.9	8.9	B2/1000		
BM (30°-60°)	1625.9	22.7	B2/2500		
BH (60°-80°)	816.0	11.4	B2/1000		G1/1800
BVH (80°-90°)	60.4	0.8			G1/100
UL (90°-100°)	45.4	0.6		U2/50	
UH (100°-180°)	840.1	11.7		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°	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1	1572.1
2.5°	1568.1	1573.1	1571.1	1571.1	1571.1	1571.1	1569.1	1571.1	1571.1	1572.1	1571.1
5°	1569.1	1568.1	1568.1	1569.1	1569.1	1570.1	1568.1	1569.1	1570.1	1570.1	1571.1
7.5°	1566.1	1567.1	1565.1	1567.1	1565.1	1566.1	1566.1	1567.1	1566.1	1567.1	1569.1
10°	1560.1	1561.1	1560.1	1560.1	1560.1	1562.1	1558.1	1561.1	1560.1	1561.1	1560.1
12.5°	1549.1	1554.1	1552.1	1554.1	1554.1	1554.1	1551.1	1553.1	1554.1	1554.1	1554.1
15°	1544.1	1545.1	1542.1	1546.1	1547.1	1548.1	1544.1	1546.1	1546.1	1547.1	1548.1
17.5°	1533.1	1538.1	1537.1	1540.1	1539.1	1542.1	1541.1	1540.1	1539.1	1541.1	1539.1
20°	1525.1	1530.1	1529.1	1532.1	1533.1	1536.1	1533.1	1533.1	1530.1	1531.1	1534.1
22.5°	1517.1	1519.1	1519.1	1522.1	1522.1	1525.1	1522.1	1521.1	1521.1	1520.1	1523.1
25°	1504.1	1505.1	1504.1	1507.1	1509.1	1511.1	1510.1	1508.1	1507.1	1507.1	1506.1
27.5°	1483.1	1487.1	1489.1	1493.1	1494.1	1497.1	1493.1	1493.1	1491.1	1489.1	1490.1
30°	1467.1	1469.1	1469.1	1478.1	1478.1	1483.1	1478.1	1477.1	1476.1	1475.1	1473.1
32.5°	1452.1	1455.1	1458.1	1465.1	1470.1	1472.1	1469.1	1467.1	1462.1	1459.1	1458.1
35°	1440.1	1441.1	1447.1	1457.1	1463.1	1468.1	1464.1	1459.1	1452.1	1447.1	1451.1
37.5°	1431.1	1432.1	1441.1	1454.1	1465.1	1469.1	1463.1	1455.1	1444.1	1438.1	1436.1
40°	1423.1	1429.1	1439.1	1457.1	1469.1	1475.1	1470.1	1459.1	1443.1	1431.1	1430.1
42.5°	1419.1	1422.1	1437.1	1458.1	1475.1	1483.1	1476.1	1461.1	1441.1	1427.1	1426.1
45°	1409.1	1418.1	1432.1	1459.1	1478.1	1488.1	1478.1	1459.1	1435.1	1419.1	1416.1
47.5°	1401.1	1404.1	1426.1	1457.1	1480.1	1488.1	1478.1	1454.1	1424.1	1403.1	1401.1
50°	1382.1	1389.1	1411.1	1444.1	1471.1	1479.1	1467.1	1435.1	1401.1	1378.1	1374.1
52.5°	1353.1	1359.1	1385.1	1426.1	1452.1	1461.1	1443.1	1409.1	1369.1	1341.1	1341.1
55°	1308.1	1317.1	1344.1	1386.1	1419.1	1427.1	1406.1	1370.1	1325.1	1297.1	1296.1
57.5°	1254.1	1260.1	1289.1	1335.1	1367.1	1379.1	1358.1	1318.1	1273.1	1240.1	1237.1
60°	1184.1	1192.1	1223.1	1267.1	1300.1	1310.1	1292.1	1252.1	1206.1	1171.1	1171.1
62.5°	1100.1	1109.1	1140.1	1185.1	1219.1	1234.1	1209.1	1171.1	1123.1	1089.1	1086.1
65°	1002.0	1010.0	1038.0	1085.1	1120.1	1131.1	1112.1	1072.0	1026.0	994.0	991.0
67.5°	892.0	903.0	931.0	971.0	1001.0	1015.0	1003.0	967.0	919.0	886.0	883.0
70°	773.0	781.0	803.0	840.0	874.0	884.0	866.0	842.0	797.0	767.0	763.0
72.5°	646.0	653.0	671.0	706.0	730.0	743.0	733.0	702.0	666.0	641.0	645.0
75°	518.0	517.0	537.0	562.0	584.0	593.0	586.0	566.0	533.0	512.0	511.0
77.5°	390.0	400.0	407.0	428.0	446.0	453.0	443.0	427.0	402.0	385.0	388.0
80°	274.0	268.0	281.0	294.0	306.0	313.0	307.0	298.0	281.0	268.0	266.0
82.5°	168.0	163.0	169.0	181.0	189.0	191.0	192.0	181.0	174.0	164.0	166.0
85°	74.0	75.0	80.0	88.0	89.0	90.0	90.0	88.0	80.0	79.0	77.0
87.5°	18.0	18.0	19.0	22.0	22.0	23.0	23.0	20.0	19.0	17.0	18.0
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)