

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: LUMARK

Report Number: P145503

Luminaire Tested: **LDRC-SL4-F03-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P145503  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33703)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRC-SL4-F03-E-8030  
Description: RC LED ROADWAY SMALL CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6024 lumens  
Efficiency: N/A  
Efficacy: 76.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

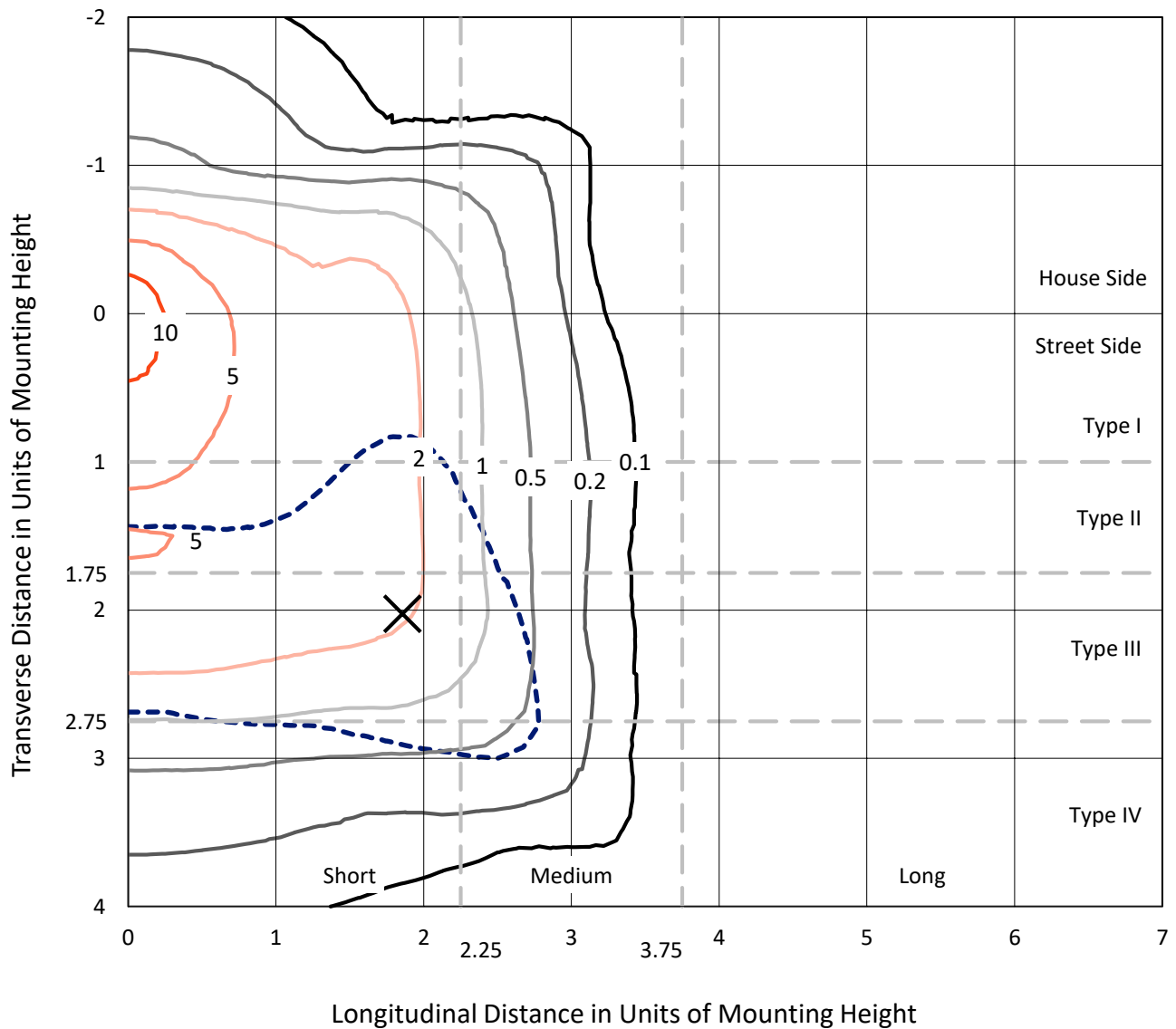
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

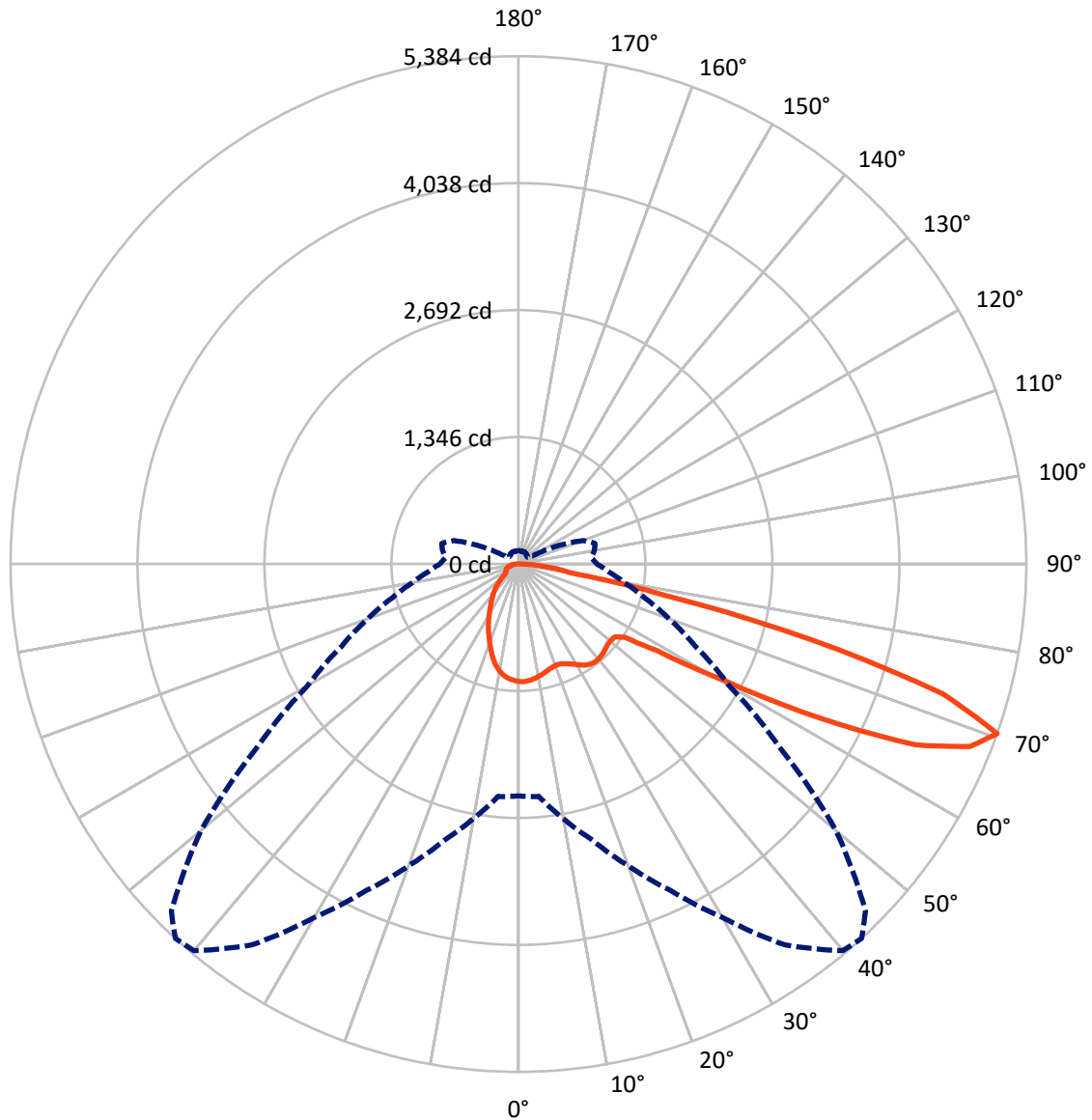
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1301.3	0.0	1301.3
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	4722.7	0.0	4722.7
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	6024.0	0.0	6024.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.9	1.9
10°-20°	312.2	5.2
20°-30°	455.5	7.6
30°-40°	580.9	9.6
40°-50°	678.0	11.3
50°-60°	1036.9	17.2
60°-70°	1879.6	31.2
70°-80°	835.7	13.9
80°-90°	129.3	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6024.0	100.0
0°-180°	6024.0	100.0



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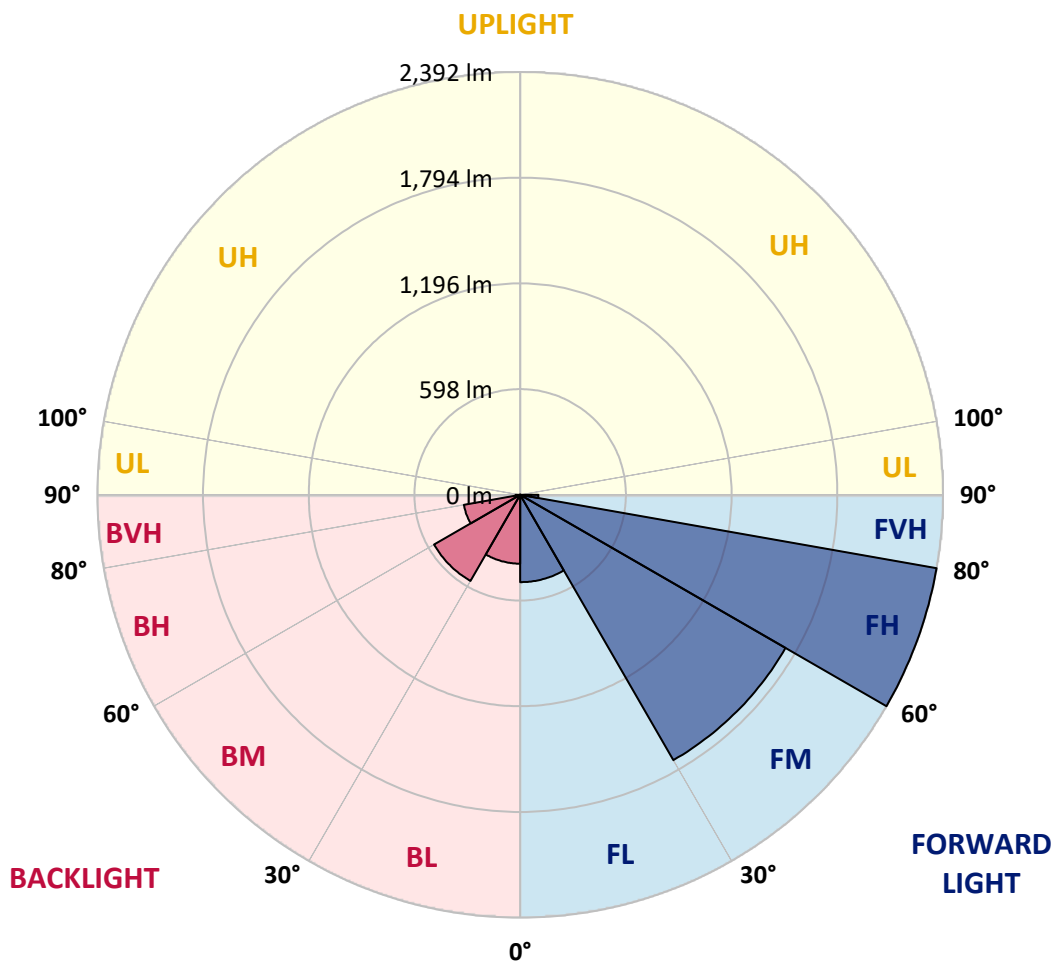
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	494.1	8.2			
FM (30°-60°)	1733.3	28.8			
FH (60°-80°)	2392.0	39.7			G2/5000
FVH (80°-90°)	103.3	1.7			G2/225
BL (0°-30°)	389.5	6.5	B1/500		
BM (30°-60°)	562.5	9.3	B1/1000		
BH (60°-80°)	323.3	5.4	B1/500		G1/500
BVH (80°-90°)	26.0	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1251.6	1250.4	1251.2	1252.0	1252.0	1252.5	1248.7	1249.1	1247.4	1247.9	1248.3
5°	1247.0	1245.8	1246.6	1246.6	1246.6	1246.2	1241.2	1240.7	1238.7	1238.7	1237.8
7.5°	1238.2	1233.6	1236.1	1236.6	1235.7	1233.6	1230.7	1227.8	1226.5	1226.5	1223.6
10°	1224.9	1219.8	1221.1	1221.9	1221.5	1217.3	1216.1	1213.2	1209.8	1208.6	1205.2
12.5°	1207.7	1204.4	1206.0	1205.6	1205.6	1201.9	1199.8	1195.6	1191.4	1189.3	1185.1
15°	1196.9	1192.7	1194.3	1194.3	1192.7	1188.9	1186.0	1178.5	1171.4	1168.8	1163.4
17.5°	1203.5	1199.4	1201.0	1199.8	1196.9	1188.9	1181.4	1169.3	1158.0	1151.3	1144.2
20°	1230.3	1226.1	1227.4	1226.5	1222.4	1209.4	1195.6	1174.7	1153.8	1143.8	1132.9
22.5°	1272.9	1269.6	1271.7	1270.4	1263.7	1247.0	1226.5	1196.4	1165.1	1150.0	1134.6
25°	1336.1	1335.2	1338.6	1334.8	1325.2	1300.1	1270.4	1229.9	1188.9	1170.1	1148.4
27.5°	1412.1	1405.0	1410.1	1406.7	1400.0	1368.2	1328.1	1276.7	1224.4	1199.8	1173.9
30°	1480.7	1474.4	1483.6	1482.0	1471.9	1439.3	1388.7	1328.5	1269.6	1238.2	1208.6
32.5°	1560.1	1552.2	1559.3	1559.3	1544.2	1500.4	1442.7	1373.7	1311.8	1278.4	1242.8
35°	1643.3	1635.0	1641.6	1639.6	1612.8	1554.7	1482.4	1407.5	1339.4	1305.1	1268.8
37.5°	1720.7	1719.4	1721.1	1707.3	1670.1	1595.7	1509.1	1425.5	1353.2	1317.2	1279.2
40°	1798.0	1795.1	1788.0	1763.7	1709.4	1619.9	1522.9	1431.8	1354.0	1316.4	1278.0
42.5°	1846.5	1841.1	1828.9	1795.9	1727.8	1625.8	1518.7	1422.2	1344.0	1305.5	1267.9
45°	1863.2	1857.8	1843.1	1805.9	1728.2	1616.6	1502.4	1402.9	1325.2	1290.1	1252.0
47.5°	1849.4	1846.1	1832.7	1795.5	1714.8	1599.4	1482.0	1383.7	1307.2	1272.9	1237.4
50°	1826.0	1823.9	1812.2	1777.9	1702.3	1589.0	1472.3	1374.5	1302.2	1270.4	1237.0
52.5°	1884.5	1878.3	1857.4	1816.8	1728.6	1607.8	1487.4	1388.3	1313.9	1281.7	1247.4
55°	2604.0	2557.6	2453.9	2259.5	1987.4	1776.3	1598.6	1479.0	1398.8	1367.4	1334.8
57.5°	3424.6	3376.1	3333.0	3184.6	2861.5	2462.7	2104.0	1894.1	1750.3	1736.5	1723.6
60°	3740.6	3756.1	3752.3	3697.2	3531.6	3342.2	3042.1	2794.2	2519.5	2508.2	2524.6
62.5°	3958.4	3971.4	3973.1	3956.3	3902.4	3839.3	3776.6	3697.2	3644.9	3622.3	3476.4
65°	4048.3	4067.1	4108.5	4139.4	4148.2	4170.0	4226.8	4442.9	4623.1	4621.9	4450.9
67.5°	3705.1	3727.7	3884.4	4038.3	4167.5	4317.1	4547.5	4899.0	5170.3	5162.0	5021.9
70°	2458.9	2473.1	2739.4	3029.1	3404.9	3820.5	4323.8	4930.0	5350.5	5383.5	5202.9
72.5°	1508.3	1540.9	1627.9	1745.3	1946.0	2331.0	3079.3	4115.2	4732.2	4701.3	4557.5
75°	1018.3	1020.0	1017.5	1030.1	1041.3	1119.1	1420.5	2262.9	3205.5	3222.3	3160.4
77.5°	696.0	705.2	710.3	706.9	718.2	714.9	732.4	775.5	1228.6	1568.1	1441.0
80°	608.3	612.0	617.4	609.5	588.6	576.9	593.2	577.7	544.3	562.3	538.4
82.5°	385.0	396.3	397.6	425.1	466.1	467.8	488.7	473.2	430.6	402.6	368.3
85°	276.7	280.9	288.4	290.1	275.9	263.8	271.3	258.3	232.8	217.8	192.7
87.5°	161.4	165.5	173.1	168.5	154.3	136.7	123.3	106.2	84.0	78.6	69.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1248.7	1246.6	1244.9	1244.1	1245.8	1244.1	1242.4	1241.6	1239.9	1240.3	1238.2
5°	1237.0	1234.1	1231.5	1229.5	1231.1	1228.2	1225.7	1224.0	1221.9	1221.5	1219.4
7.5°	1220.7	1216.1	1212.7	1209.0	1204.8	1202.3	1199.4	1196.4	1191.8	1191.4	1190.6
10°	1199.4	1195.6	1188.9	1183.1	1177.2	1170.9	1164.7	1160.1	1154.6	1152.5	1149.6
12.5°	1178.0	1170.5	1162.6	1153.4	1146.3	1136.2	1127.9	1119.1	1111.2	1106.1	1100.7
15°	1153.0	1145.0	1133.7	1124.9	1114.9	1103.6	1092.8	1079.8	1066.8	1058.9	1051.4
17.5°	1131.2	1121.2	1112.0	1099.4	1089.4	1076.5	1060.2	1046.4	1030.9	1017.9	1004.1
20°	1114.5	1103.2	1092.3	1081.1	1068.9	1054.3	1036.3	1016.7	997.0	978.6	958.2
22.5°	1107.8	1089.8	1077.7	1067.3	1054.7	1038.0	1017.9	993.7	969.4	946.0	922.2
25°	1113.7	1086.9	1068.1	1056.4	1045.1	1028.0	1005.4	977.8	949.4	919.7	891.3
27.5°	1129.5	1095.7	1068.9	1050.5	1037.6	1020.9	995.8	966.9	934.7	901.3	870.8
30°	1152.5	1110.3	1076.9	1050.5	1031.3	1012.1	984.9	952.3	918.4	883.3	849.0
32.5°	1177.6	1126.6	1086.5	1051.8	1022.1	997.9	969.4	937.7	901.7	864.5	827.7
35°	1196.4	1138.3	1090.7	1047.2	1009.2	978.6	948.1	917.2	882.1	844.4	807.7
37.5°	1204.4	1142.9	1089.8	1037.6	991.2	957.7	926.0	895.0	861.2	825.6	791.8
40°	1204.8	1142.9	1084.8	1024.6	972.4	936.0	902.6	873.7	841.9	811.4	781.3
42.5°	1196.9	1137.1	1075.6	1012.5	958.6	917.6	883.3	853.6	828.1	801.0	775.5
45°	1182.6	1125.4	1067.3	1005.8	953.6	913.0	876.2	848.2	825.2	801.0	778.8
47.5°	1171.8	1118.7	1067.7	1015.4	965.7	923.9	884.2	854.5	834.8	815.6	799.7
50°	1173.9	1121.2	1072.7	1022.9	974.0	931.8	893.4	867.9	856.1	849.9	846.1
52.5°	1184.7	1131.2	1094.4	1061.4	1045.5	1019.6	998.3	979.1	982.0	966.9	947.7
55°	1296.8	1278.8	1321.0	1351.5	1366.6	1392.9	1431.0	1394.6	1389.6	1343.2	1205.2
57.5°	1741.1	1783.8	1848.6	1894.6	1899.2	1891.2	1859.9	1829.8	1780.9	1711.0	1517.9
60°	2486.5	2476.5	2416.3	2335.6	2272.9	2190.5	2107.8	2038.0	1959.4	1852.3	1646.7
62.5°	3270.3	3028.7	2814.3	2631.6	2476.5	2338.9	2213.9	2109.0	2001.2	1847.3	1628.3
65°	3903.3	3438.4	3060.5	2766.6	2535.8	2341.4	2180.1	2035.4	1891.2	1713.1	1500.8
67.5°	4355.6	3618.1	3047.9	2634.5	2310.9	2043.4	1808.4	1643.7	1495.8	1355.7	1260.0
70°	4391.5	3369.4	2578.5	2072.6	1699.3	1385.0	1141.3	961.5	832.7	774.6	816.0
72.5°	3752.8	2492.8	1714.4	1268.8	1007.1	782.6	629.2	502.9	399.2	348.2	355.3
75°	2210.2	1196.9	772.1	575.2	469.9	375.4	324.8	274.2	242.0	194.0	155.1
77.5°	841.5	520.5	389.6	323.6	230.8	166.0	130.8	112.9	103.7	102.4	97.0
80°	484.9	381.7	267.1	174.7	127.9	108.3	92.8	79.4	74.0	72.7	74.8
82.5°	306.4	237.9	146.7	112.5	93.2	80.3	66.9	58.1	53.5	51.8	54.8
85°	158.4	119.1	89.5	76.9	71.5	65.2	53.5	44.7	44.3	46.4	53.5
87.5°	58.5	51.0	40.1	34.7	37.2	34.7	25.1	21.7	19.6	25.9	37.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1238.2	1237.4	1237.8	1237.0	1237.0	1238.2	1236.6	1235.3	1237.4	1237.4	1238.7
5°	1219.0	1219.8	1219.8	1219.4	1220.3	1222.4	1221.9	1221.9	1225.3	1226.5	1228.2
7.5°	1188.5	1189.7	1190.2	1191.4	1191.8	1194.8	1196.9	1199.4	1204.4	1205.6	1209.4
10°	1147.1	1146.3	1149.2	1148.8	1152.5	1155.0	1156.7	1162.2	1169.7	1173.9	1177.6
12.5°	1098.2	1098.2	1099.9	1100.3	1103.6	1107.0	1109.1	1115.8	1122.0	1127.5	1135.8
15°	1046.4	1044.7	1040.9	1040.5	1041.8	1045.1	1049.7	1054.7	1064.3	1072.3	1079.4
17.5°	992.0	987.0	982.4	976.5	976.1	975.7	978.2	982.0	997.0	1005.0	1015.0
20°	943.9	933.1	922.2	910.1	903.0	899.6	900.9	905.9	920.1	930.6	941.0
22.5°	900.9	884.6	867.4	848.2	836.5	829.4	830.2	832.3	842.8	849.0	854.5
25°	864.1	841.5	817.7	793.0	776.7	765.9	765.4	765.4	760.8	761.7	758.7
27.5°	839.0	807.7	777.1	748.3	727.0	716.1	701.5	691.0	681.8	669.3	663.8
30°	814.8	782.6	747.9	716.1	690.6	669.3	642.1	619.5	601.6	584.4	569.8
32.5°	793.0	759.6	726.6	691.9	656.7	620.0	584.4	558.5	533.0	506.7	489.1
35°	773.8	742.4	709.4	670.1	620.8	572.7	532.6	497.5	467.4	435.6	410.1
37.5°	762.9	734.5	700.2	646.7	584.8	530.1	485.3	446.1	405.9	367.9	336.5
40°	757.5	732.4	690.6	622.9	552.7	494.1	444.4	397.1	349.9	305.2	272.6
42.5°	756.7	732.4	676.4	598.6	525.1	462.4	406.8	349.9	292.6	249.2	220.3
45°	764.2	731.6	661.3	576.9	500.4	433.9	367.0	300.2	241.2	203.2	187.3
47.5°	785.9	734.5	649.6	558.5	477.0	402.6	321.9	245.0	194.8	177.7	177.2
50°	821.0	747.9	647.1	545.1	454.0	363.3	268.8	196.1	171.8	171.0	175.6
52.5°	876.6	773.0	653.4	535.9	426.4	312.3	212.8	169.3	164.7	169.3	175.2
55°	999.1	817.7	661.8	519.6	381.7	247.5	175.2	160.5	162.6	168.1	173.5
57.5°	1221.9	910.5	670.5	482.8	309.4	190.2	157.6	157.2	160.9	165.5	170.6
60°	1363.2	1025.0	691.9	428.5	233.7	157.2	150.9	155.1	159.7	163.0	167.2
62.5°	1367.8	1055.1	703.1	370.4	173.9	143.8	145.1	153.0	158.4	159.7	161.8
65°	1279.6	998.3	652.1	301.4	144.2	136.3	140.9	148.0	153.4	154.3	155.9
67.5°	1117.8	880.4	552.7	227.4	131.3	130.4	135.4	140.9	144.6	148.0	150.5
70°	841.9	726.6	444.4	176.4	123.3	122.5	127.5	132.1	135.4	139.6	143.8
72.5°	426.8	502.9	336.9	144.2	112.5	113.3	118.7	122.9	125.4	129.2	133.4
75°	145.5	219.5	213.2	116.6	100.3	103.7	106.2	110.8	114.5	117.1	119.1
77.5°	91.1	95.3	109.9	94.1	88.6	89.5	93.6	97.8	102.0	103.7	104.5
80°	76.1	76.5	76.9	75.2	75.7	78.2	80.7	85.3	89.5	90.3	90.7
82.5°	60.2	64.4	64.0	63.5	65.6	68.1	69.8	71.5	73.2	74.0	75.2
85°	53.1	52.3	52.7	53.9	52.3	50.6	50.2	50.2	52.7	55.6	56.9
87.5°	48.5	41.4	30.9	29.3	29.3	28.4	26.8	26.8	29.3	31.8	33.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1238.2	1238.7	1238.2	1238.2	1240.3
5°	1229.0	1230.7	1229.9	1231.1	1232.4
7.5°	1210.2	1214.4	1215.2	1218.6	1217.3
10°	1183.1	1186.0	1190.2	1193.5	1192.3
12.5°	1140.0	1147.1	1153.4	1157.1	1156.3
15°	1085.2	1095.3	1103.6	1106.6	1103.2
17.5°	1026.7	1033.0	1043.0	1045.1	1048.4
20°	952.7	952.3	961.1	961.1	959.4
22.5°	856.1	862.4	862.4	856.6	853.6
25°	757.5	759.6	753.3	754.6	746.6
27.5°	658.4	653.0	648.0	650.1	644.2
30°	563.9	552.2	547.2	548.1	541.8
32.5°	473.2	459.4	454.4	447.7	442.3
35°	390.9	369.1	356.2	352.8	356.6
37.5°	310.2	294.7	279.3	268.0	269.2
40°	245.4	229.5	219.5	214.9	214.0
42.5°	202.8	193.6	191.5	191.9	191.9
45°	183.9	184.4	186.0	187.7	188.1
47.5°	180.2	182.7	185.6	187.7	188.1
50°	179.8	182.3	184.4	186.9	187.7
52.5°	179.3	181.0	182.3	183.5	184.8
55°	177.7	178.5	178.1	178.9	180.2
57.5°	173.5	173.9	173.1	173.5	176.0
60°	169.7	170.1	168.5	170.6	171.0
62.5°	165.1	164.7	163.9	165.1	165.1
65°	158.4	155.9	156.8	158.0	158.4
67.5°	150.5	148.0	148.0	148.8	150.1
70°	140.5	139.2	139.2	140.9	142.6
72.5°	129.2	130.0	132.5	135.0	137.5
75°	120.0	122.1	124.6	130.8	134.6
77.5°	108.3	108.7	110.8	117.1	123.7
80°	92.0	91.6	92.0	92.8	94.1
82.5°	72.7	71.9	69.4	70.2	68.6
85°	53.5	52.3	49.3	47.2	46.8
87.5°	30.9	30.9	29.7	28.0	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)