

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: P189786

Luminaire Tested: **NFFLD-S-C70-D-UNV-66-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P189786  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-16-1017-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C70-D-UNV-66-7030  
Description: LOW WATTAGE LED FLOODLIGHT  
Light Source: (1) CITIZEN 3000 70  
CLU038-1208C4-30AL7K3  
Ballast/Driver: ERP ELECTRONIC DRIVER  
ESS030W-0500-42

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2662.1 lumens  
Efficiency: N/A  
Efficacy: 135.1 lumens/watt  
Luminous Opening: (L: 0 ' x W: 0.46 ' x H: 0.33 '  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B1 - U0 - G0

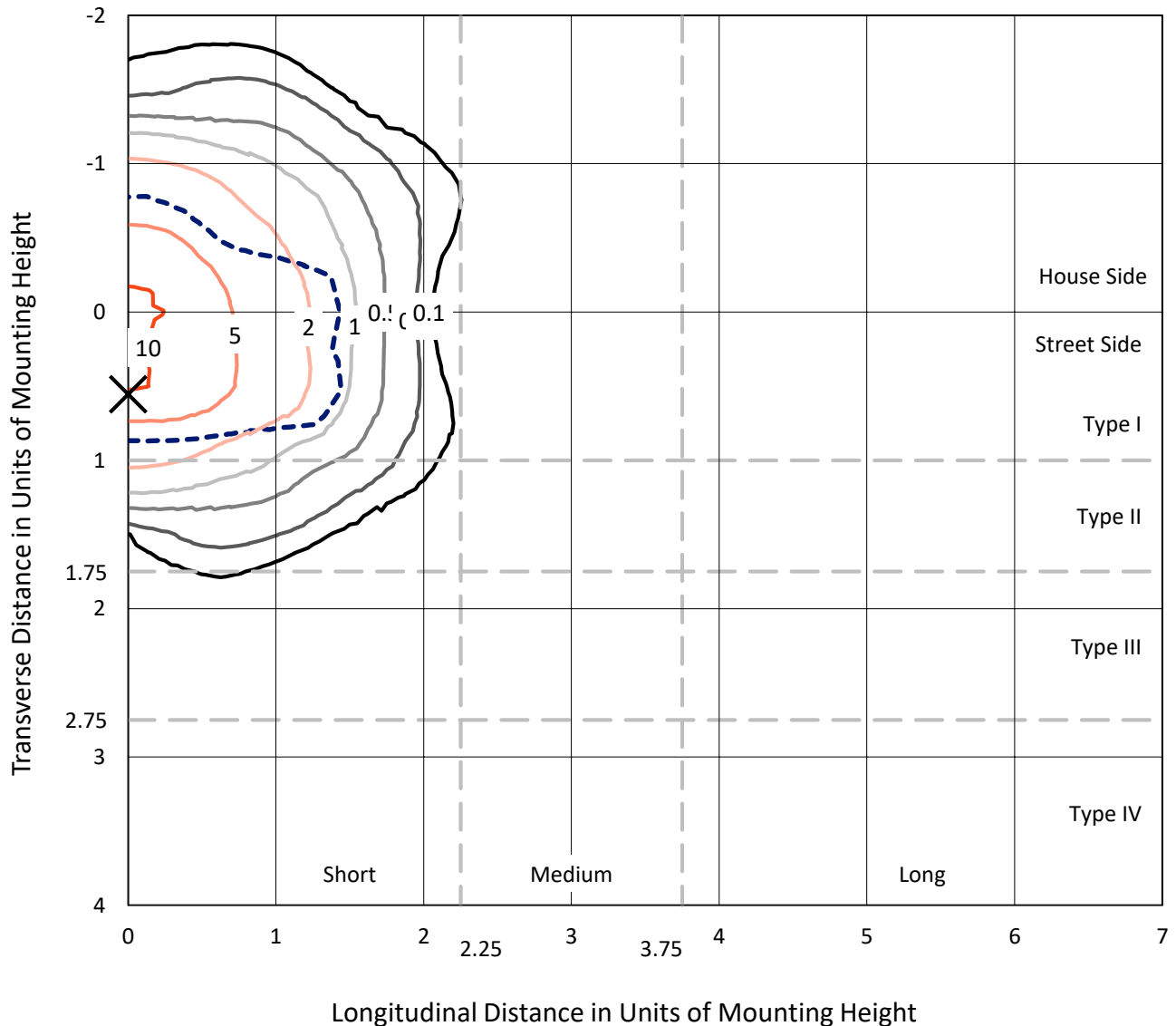
Input Watts (W): 19.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

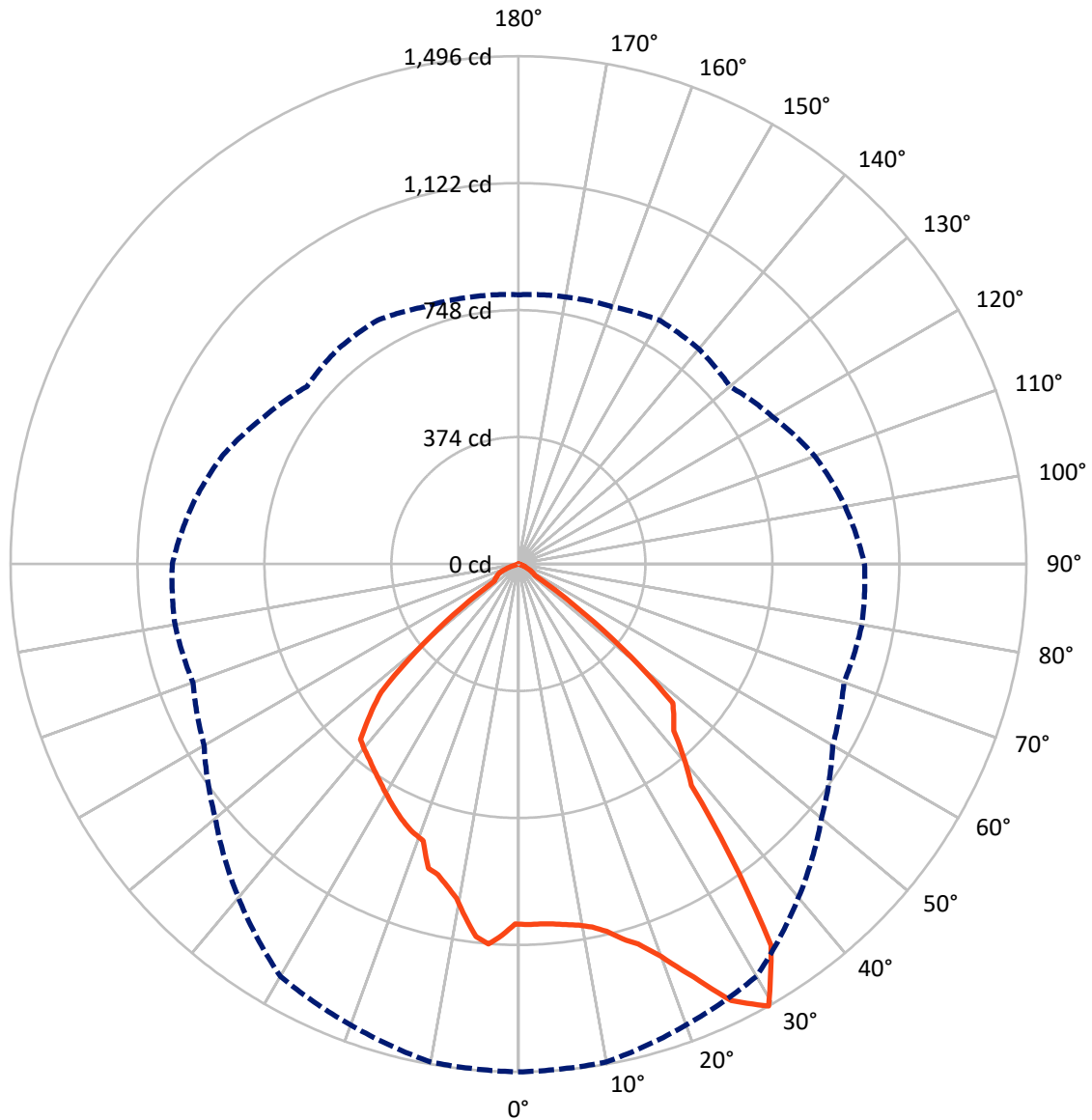
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 29-Deg Vertical

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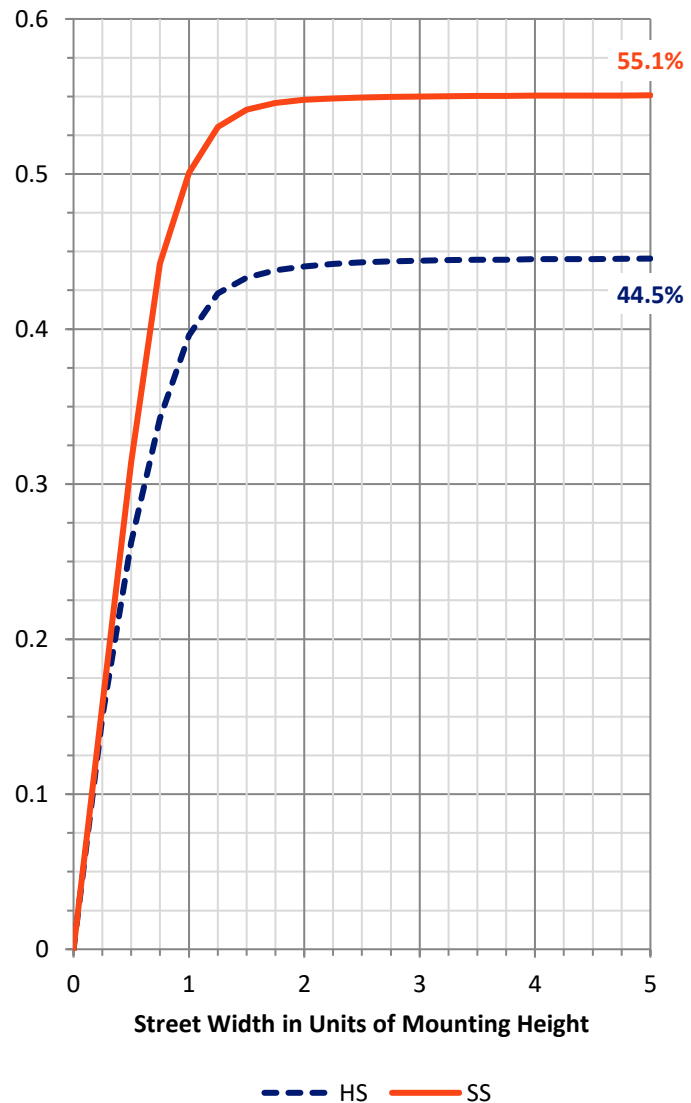
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1196.6	0.0	1196.6
	% Fixture	45.0	0.0	45.0
<b>Street Side</b>	Lumens	1465.5	0.0	1465.5
	% Fixture	55.0	0.0	55.0
<b>Total</b>	Lumens	2662.1	0.0	2662.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.3	3.9
10°-20°	298.1	11.2
20°-30°	484.5	18.2
30°-40°	599.0	22.5
40°-50°	591.6	22.2
50°-60°	414.3	15.6
60°-70°	169.5	6.4
70°-80°	35.2	1.3
80°-90°	5.3	0.2
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°	2662.1	100.0
0°-180°	2662.1	100.0



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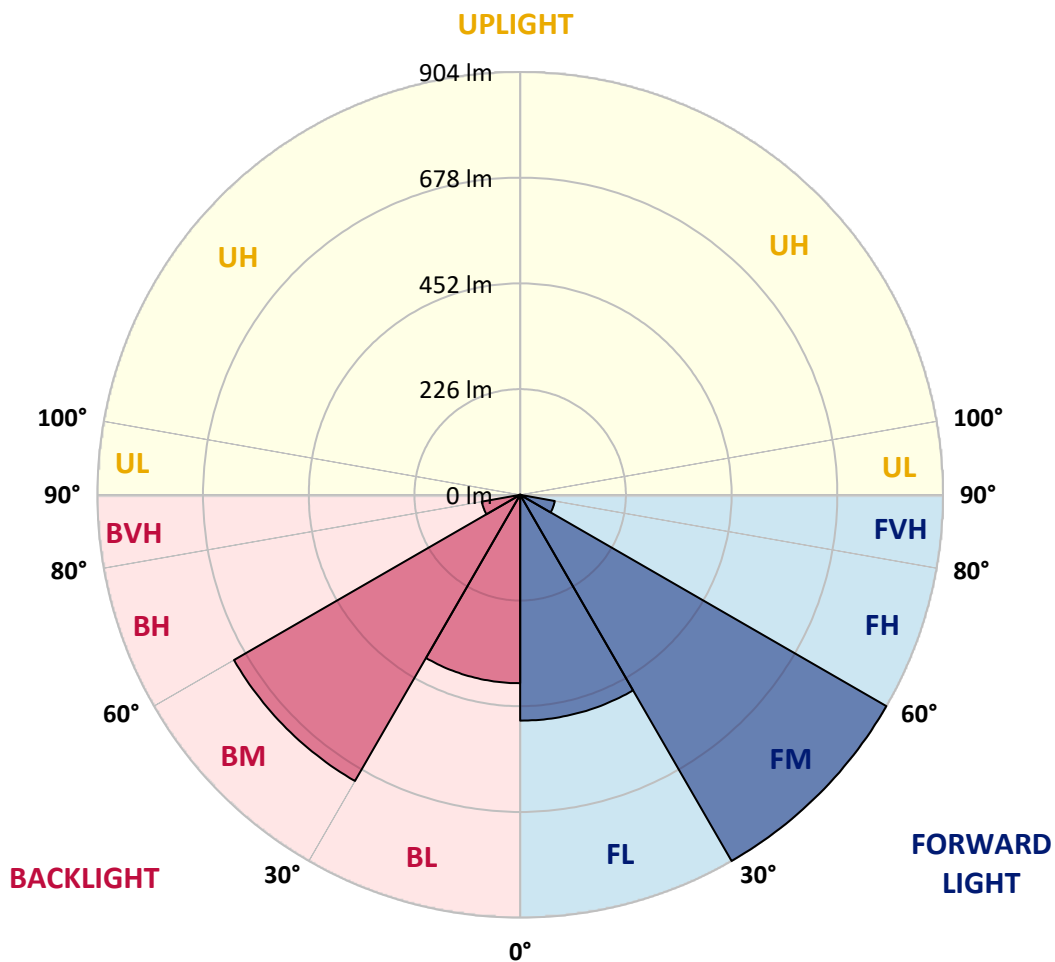
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	482.8	18.1			
FM	(30°-60°)	904.0	34.0			
FH	(60°-80°)	75.1	2.8			G0/660
FVH	(80°-90°)	2.4	0.1			G0/10
BL	(0°-30°)	402.8	15.1	B1/500		
BM	(30°-60°)	706.5	26.5	B1/1000		
BH	(60°-80°)	83.2	3.1	B0/110		G0/110
BVH	(80°-90°)	3.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G0**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0
1°	1061.9	1061.9	1061.8	1061.7	1061.5	1061.3	1061.0	1060.7	1060.3	1060.0	1059.8
3°	1061.9	1061.9	1062.1	1064.8	1067.3	1069.5	1071.2	1072.5	1072.4	1071.6	1072.3
5°	1064.8	1063.9	1067.4	1071.4	1073.7	1072.5	1071.8	1071.6	1071.7	1071.6	1074.9
7°	1070.7	1070.4	1075.4	1076.3	1073.1	1069.8	1066.3	1064.3	1064.1	1066.8	1077.7
9°	1078.4	1079.0	1084.9	1079.4	1071.6	1064.6	1065.5	1068.3	1072.1	1080.3	1096.1
11°	1091.0	1094.2	1094.0	1083.2	1070.9	1068.9	1065.0	1059.8	1061.3	1071.6	1088.3
13°	1112.3	1116.4	1110.1	1090.5	1079.2	1063.8	1050.0	1054.8	1064.8	1083.2	1091.4
15°	1145.2	1149.1	1135.4	1109.2	1086.1	1058.7	1049.7	1056.7	1072.7	1098.7	1093.2
17°	1173.3	1179.1	1160.8	1136.2	1093.9	1067.3	1056.7	1052.4	1062.8	1083.2	1066.2
19.5°	1229.4	1228.5	1201.7	1157.2	1119.1	1091.5	1054.1	1047.8	1071.1	1090.0	1048.0
22.5°	1321.4	1313.8	1272.5	1202.2	1151.8	1108.1	1063.7	1045.3	1065.9	1057.1	1018.2
25.5°	1429.8	1417.9	1362.2	1282.1	1205.6	1135.3	1066.7	1028.3	1048.0	1031.0	991.9
29°	1495.6	1489.1	1444.6	1402.0	1282.9	1165.0	1068.7	1019.8	1027.1	1019.3	977.0
33°	1347.5	1371.4	1385.0	1457.1	1371.0	1201.5	1077.8	1023.5	965.8	932.2	897.6
37.5°	827.7	880.7	1018.1	1218.7	1346.3	1266.7	1093.3	1017.0	945.6	886.7	841.8
42.5°	670.9	675.8	714.3	757.9	988.9	1197.9	1142.2	1026.3	914.4	876.1	815.0
47.5°	611.8	609.4	612.2	617.1	648.6	884.2	1168.9	1033.1	839.3	820.9	800.4
55°	60.0	125.1	225.6	331.5	467.1	491.3	800.6	841.1	716.5	764.8	716.4
65°	27.1	25.0	50.3	40.5	50.8	115.5	183.3	199.7	131.0	29.0	136.0
75°	2.9	4.6	8.4	7.7	9.1	7.3	11.7	14.2	15.0	25.2	25.0
85°	0.0	3.4	4.8	4.9	5.4	5.1	5.8	6.3	6.4	6.8	6.6
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0
1°	1059.7	1059.6	1059.6	1059.6	1059.6	1059.7	1059.8	1060.0	1059.8	1059.7	1059.6
3°	1072.7	1078.5	1083.0	1086.2	1088.0	1088.3	1091.6	1093.9	1091.6	1088.3	1088.0
5°	1086.5	1098.6	1108.3	1115.5	1119.0	1119.6	1119.2	1122.0	1119.2	1119.6	1119.0
7°	1095.0	1109.6	1121.4	1125.0	1121.8	1116.5	1107.5	1104.5	1107.5	1116.5	1121.8
9°	1110.2	1116.4	1109.5	1103.1	1088.1	1076.4	1060.5	1052.3	1060.5	1076.4	1088.1
11°	1099.8	1101.5	1083.5	1056.1	1038.7	1025.2	1009.3	1001.0	1009.3	1025.2	1038.7
13°	1083.7	1053.6	1036.0	1019.1	996.4	989.7	978.9	970.9	978.9	989.7	996.4
15°	1065.0	1023.0	997.6	988.2	971.1	962.7	952.8	944.8	952.8	962.7	971.1
17°	1035.9	1008.8	982.4	959.3	949.8	942.6	942.7	934.2	942.7	942.6	949.8
19.5°	1013.5	987.6	969.5	936.8	926.9	895.7	877.1	861.6	877.1	895.7	926.9
22.5°	998.5	975.2	929.5	903.9	855.1	858.3	855.0	846.1	855.0	858.3	855.1
25.5°	970.2	932.2	889.0	851.1	851.8	840.4	831.5	822.8	831.5	840.4	851.8
29°	928.7	865.5	813.2	826.4	829.1	806.3	798.7	792.8	798.7	806.3	829.1
33°	858.4	798.7	773.0	782.7	777.2	761.9	763.3	758.9	763.3	761.9	777.2
37.5°	789.0	743.0	727.9	722.6	725.7	726.1	729.5	726.0	729.5	726.1	725.7
42.5°	747.3	706.0	671.9	671.1	680.3	690.2	697.6	695.1	697.6	690.2	680.3
47.5°	722.9	683.5	617.9	622.0	626.1	581.5	551.4	552.7	551.4	581.5	626.1
55°	636.5	653.8	543.1	462.6	304.3	188.2	115.8	87.1	115.8	188.2	304.3
65°	225.2	181.0	93.2	68.0	84.0	69.5	62.9	62.9	62.9	69.5	84.0
75°	30.2	18.5	20.4	15.5	19.0	13.1	7.4	4.8	7.4	13.1	19.0
85°	6.8	6.3	5.9	5.4	5.1	5.9	4.3	0.0	4.3	5.9	5.1
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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0
1°	1059.6	1059.6	1059.6	1059.7	1059.8	1060.0	1060.3	1060.7	1061.0	1061.3	1061.5
3°	1086.2	1083.0	1078.5	1072.7	1072.3	1071.6	1072.4	1072.5	1071.2	1069.5	1067.3
5°	1115.5	1108.3	1098.6	1086.5	1074.9	1071.6	1071.7	1071.6	1071.8	1072.5	1073.7
7°	1125.0	1121.4	1109.6	1095.0	1077.7	1066.8	1064.1	1064.3	1066.3	1069.8	1073.1
9°	1103.1	1109.5	1116.4	1110.2	1096.1	1080.3	1072.1	1068.3	1065.5	1064.6	1071.6
11°	1056.1	1083.5	1101.5	1099.8	1088.3	1071.6	1061.3	1059.8	1065.0	1068.9	1070.9
13°	1019.1	1036.0	1053.6	1083.7	1091.4	1083.2	1064.8	1054.8	1050.0	1063.8	1079.2
15°	988.2	997.6	1023.0	1065.0	1093.2	1098.7	1072.7	1056.7	1049.7	1058.7	1086.1
17°	959.3	982.4	1008.8	1035.9	1066.2	1083.2	1062.8	1052.4	1056.7	1067.3	1093.9
19.5°	936.8	969.5	987.6	1013.5	1048.0	1090.0	1071.1	1047.8	1054.1	1091.5	1119.1
22.5°	903.9	929.5	975.2	998.5	1018.2	1057.1	1065.9	1045.3	1063.7	1108.1	1151.8
25.5°	851.1	889.0	932.2	970.2	991.9	1031.0	1048.0	1028.3	1066.7	1135.3	1205.6
29°	826.4	813.2	865.5	928.7	977.0	1019.3	1027.1	1019.8	1068.7	1165.0	1282.9
33°	782.7	773.0	798.7	858.4	897.6	932.2	965.8	1023.5	1077.8	1201.5	1371.0
37.5°	722.6	727.9	743.0	789.0	841.8	886.7	945.6	1017.0	1093.3	1266.7	1346.3
42.5°	671.1	671.9	706.0	747.3	815.0	876.1	914.4	1026.3	1142.2	1197.9	988.9
47.5°	622.0	617.9	683.5	722.9	800.4	820.9	839.3	1033.1	1168.9	884.2	648.6
55°	462.6	543.1	653.8	636.5	716.4	764.8	716.5	841.1	800.6	491.3	467.1
65°	68.0	93.2	181.0	225.2	136.0	29.0	131.0	199.7	183.3	115.5	50.8
75°	15.5	20.4	18.5	30.2	25.0	25.2	15.0	14.2	11.7	7.3	9.1
85°	5.4	5.9	6.3	6.8	6.6	6.8	6.4	6.3	5.8	5.1	5.4
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):**

	330°	340°	350°	360°
0°	1061.0	1061.0	1061.0	1061.0
1°	1061.7	1061.8	1061.9	1061.9
3°	1064.8	1062.1	1061.9	1061.9
5°	1071.4	1067.4	1063.9	1064.8
7°	1076.3	1075.4	1070.4	1070.7
9°	1079.4	1084.9	1079.0	1078.4
11°	1083.2	1094.0	1094.2	1091.0
13°	1090.5	1110.1	1116.4	1112.3
15°	1109.2	1135.4	1149.1	1145.2
17°	1136.2	1160.8	1179.1	1173.3
19.5°	1157.2	1201.7	1228.5	1229.4
22.5°	1202.2	1272.5	1313.8	1321.4
25.5°	1282.1	1362.2	1417.9	1429.8
29°	1402.0	1444.6	1489.1	1495.6
33°	1457.1	1385.0	1371.4	1347.5
37.5°	1218.7	1018.1	880.7	827.7
42.5°	757.9	714.3	675.8	670.9
47.5°	617.1	612.2	609.4	611.8
55°	331.5	225.6	125.1	60.0
65°	40.5	50.3	25.0	27.1
75°	7.7	8.4	4.6	2.9
85°	4.9	4.8	3.4	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)