

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: P201051

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

Test Date: 05/20/16

Test Information

Test Method: LM-79-08
Report Number: P201051
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-16-1017-1)
Test Lab: INNOVATION CENTER(G2)
Test Date: 05/20/16
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NFFLD-S-C70-D-UNV-66
Description: LOW WATTAGE LED FLOODLIGHT
Light Source: (1) CITIZEN 5700 70
CLU038-1208C4-57AL7K3
Ballast/Driver: (1) ERP ELECTRONIC DRIVER
ESS030W-0500-42

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2686.8 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Luminous Opening: (L: 0 ' x W: 0.46 ' x H: 0 '
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B1 - U0 - G0

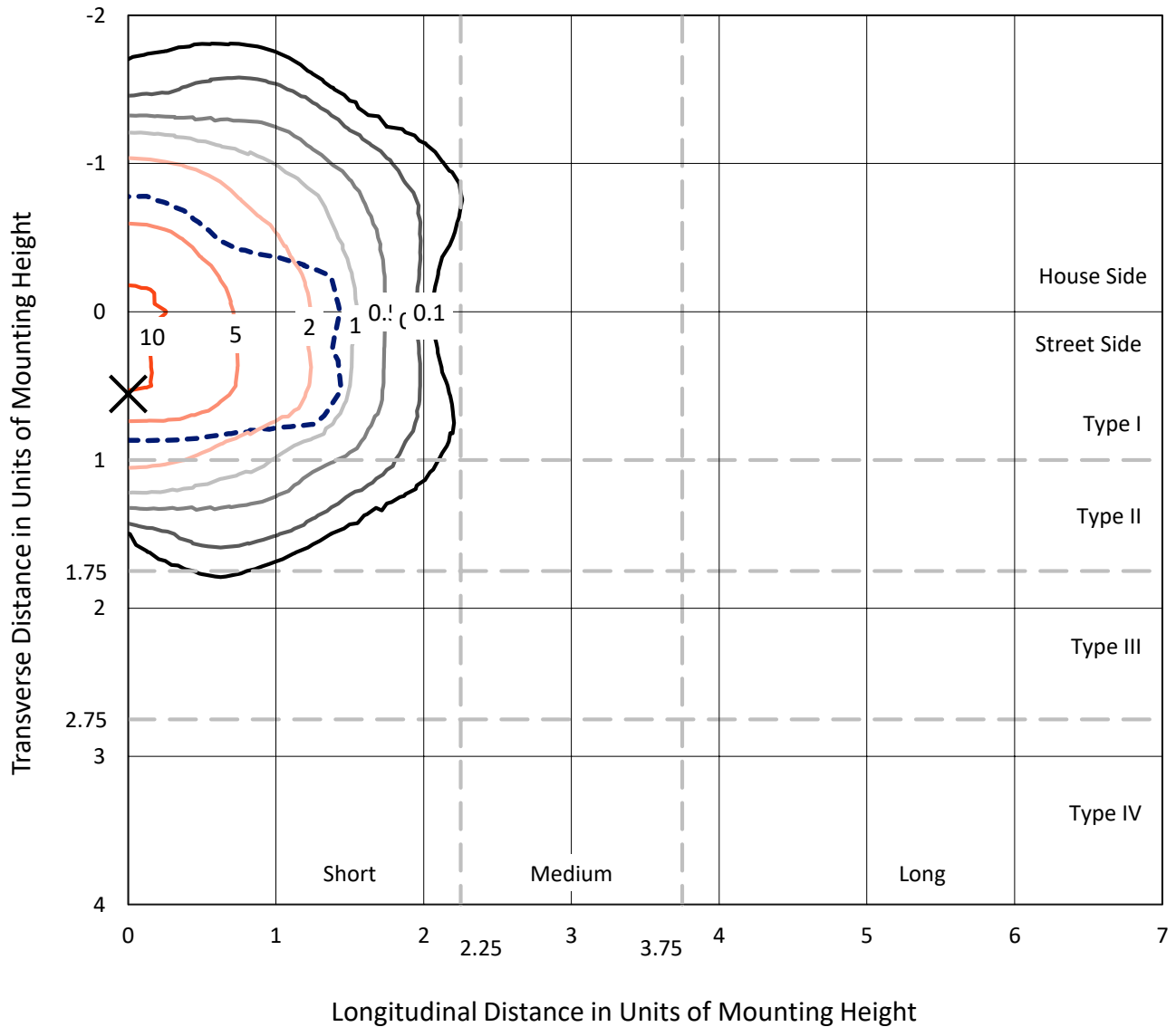
Input Watts (W): 19.7
Input Voltage (V): 120.0
Input Current (Ain): 0.167
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 15.0%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 24 HR
Ambient Temperature (°C): 24.2
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

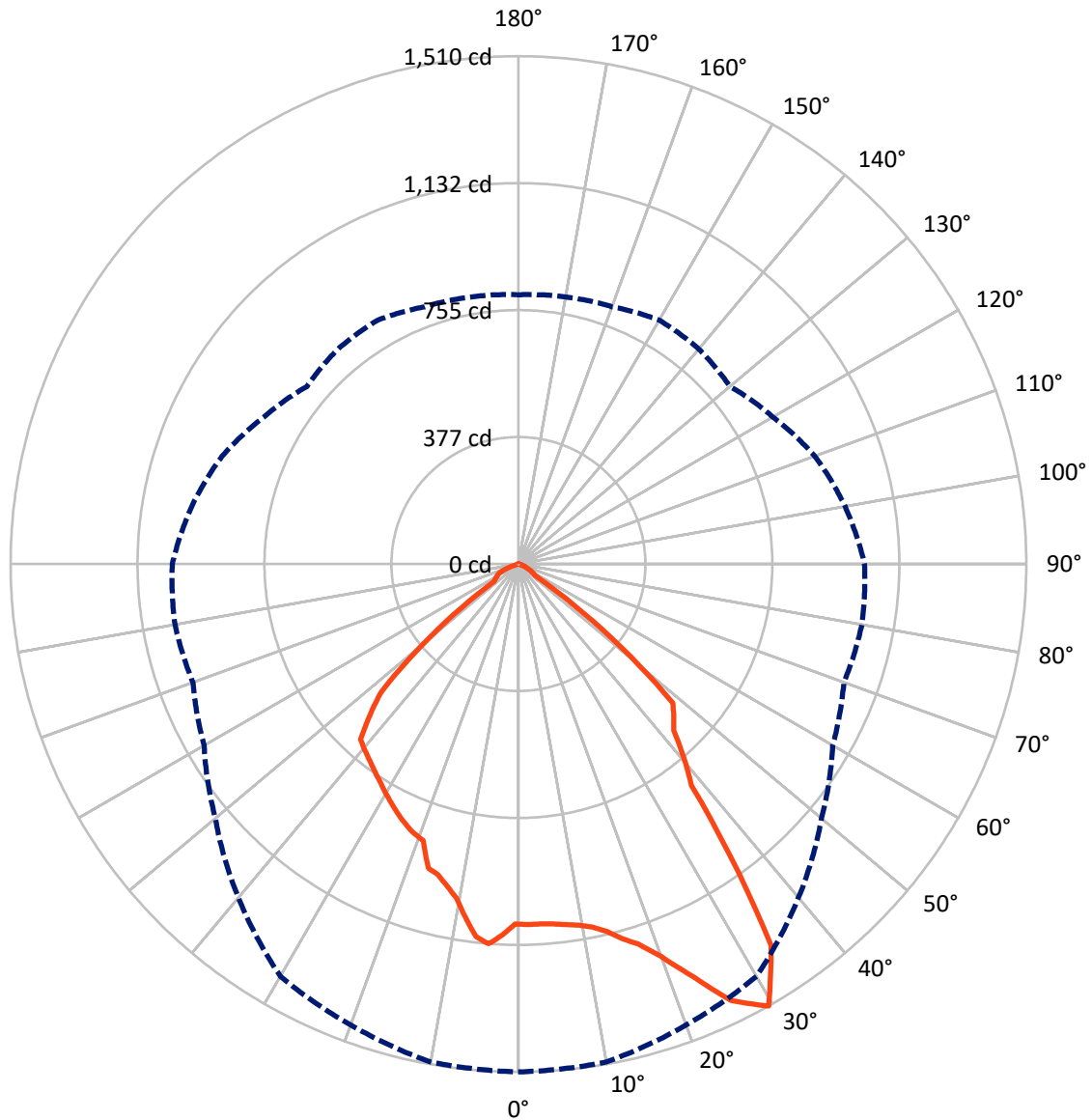
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.9 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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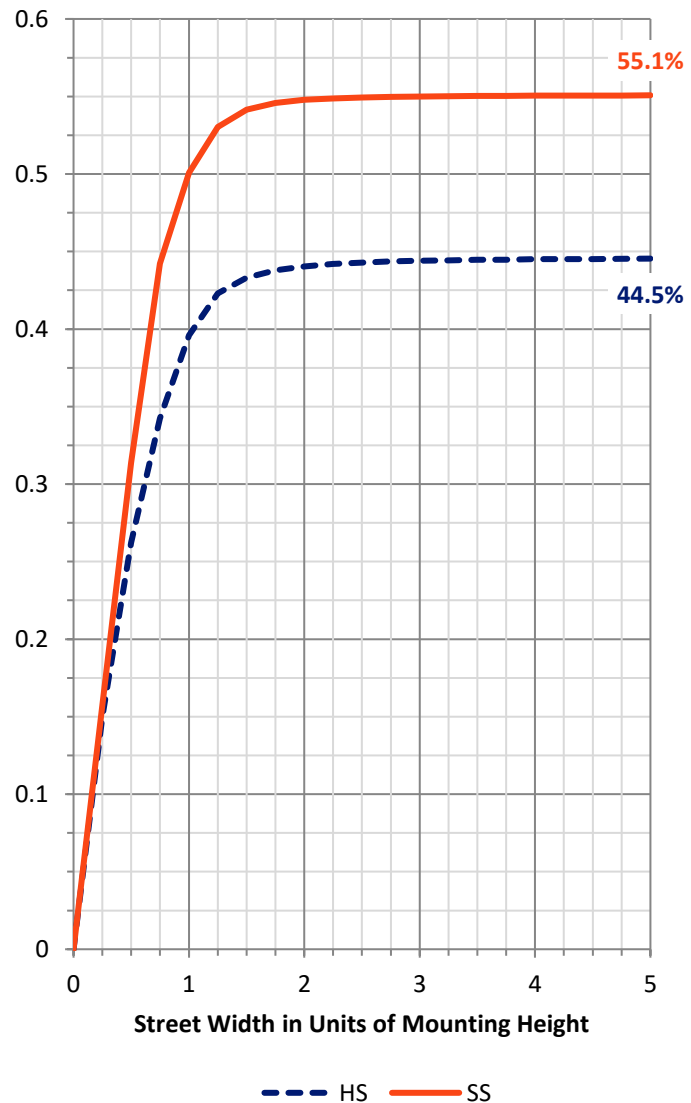
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1207.7	0.0	1207.7
	% Fixture	44.9	0.0	44.9
Street Side	Lumens	1479.1	0.0	1479.1
	% Fixture	55.1	0.0	55.1
Total	Lumens	2686.8	0.0	2686.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.9
10°-20°	300.9	11.2
20°-30°	489.0	18.2
30°-40°	604.6	22.5
40°-50°	597.0	22.2
50°-60°	418.1	15.6
60°-70°	171.1	6.4
70°-80°	35.6	1.3
80°-90°	5.4	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°	2686.8	100.0
0°-180°	2686.8	100.0



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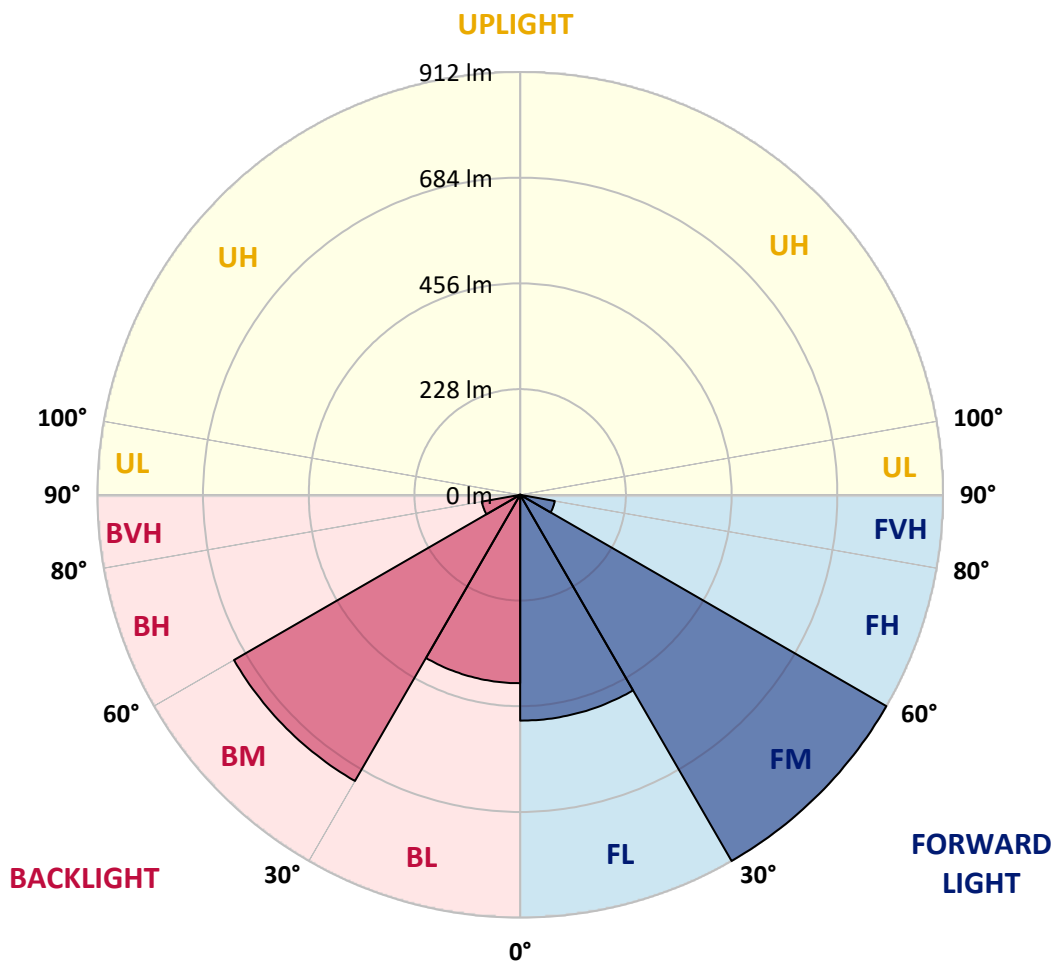
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	487.3	18.1			
FM	(30°-60°)	912.4	34.0			
FH	(60°-80°)	75.8	2.8			G0/660
FVH	(80°-90°)	2.4	0.1			G0/10
BL	(0°-30°)	406.5	15.1	B1/500		
BM	(30°-60°)	713.0	26.5	B1/1000		
BH	(60°-80°)	84.0	3.1	B0/110		G0/110
BVH	(80°-90°)	3.2	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°	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8
1°	1071.8	1071.8	1071.7	1071.6	1071.4	1071.2	1070.9	1070.5	1070.2	1069.8	1069.6
3°	1071.8	1071.8	1072.0	1074.7	1077.2	1079.4	1081.1	1082.4	1082.3	1081.5	1082.2
5°	1074.7	1073.8	1077.3	1081.4	1083.6	1082.4	1081.7	1081.5	1081.6	1081.5	1084.8
7°	1080.6	1080.3	1085.3	1086.2	1083.0	1079.7	1076.2	1074.2	1073.9	1076.7	1087.7
9°	1088.4	1088.9	1095.0	1089.3	1081.5	1074.5	1075.4	1078.2	1082.0	1090.3	1106.3
11°	1101.1	1104.3	1104.1	1093.2	1080.8	1078.8	1074.9	1069.7	1071.1	1081.5	1098.4
13°	1122.6	1126.8	1120.4	1100.6	1089.2	1073.7	1059.7	1064.6	1074.6	1093.3	1101.5
15°	1155.8	1159.8	1146.0	1119.6	1096.2	1068.6	1059.4	1066.5	1082.6	1108.9	1103.4
17°	1184.1	1190.0	1171.6	1146.8	1104.1	1077.2	1066.4	1062.1	1072.7	1093.3	1076.1
19.5°	1240.8	1239.9	1212.8	1167.9	1129.5	1101.6	1063.9	1057.5	1081.1	1100.1	1057.8
22.5°	1333.6	1325.9	1284.3	1213.3	1162.5	1118.3	1073.6	1055.0	1075.8	1066.9	1027.6
25.5°	1443.0	1431.0	1374.8	1294.0	1216.7	1145.8	1076.6	1037.8	1057.7	1040.5	1001.1
29°	1509.5	1502.9	1458.0	1414.9	1294.8	1175.8	1078.6	1029.3	1036.6	1028.8	986.0
33°	1360.0	1384.1	1397.8	1470.5	1383.6	1212.6	1087.7	1033.1	974.7	940.9	905.9
37.5°	835.3	888.8	1027.5	1229.9	1358.8	1278.5	1103.4	1026.5	954.3	894.9	849.6
42.5°	677.1	682.0	720.9	764.9	998.1	1209.0	1152.8	1035.9	922.8	884.2	822.6
47.5°	617.5	615.0	617.9	622.8	654.6	892.3	1179.7	1042.6	847.0	828.5	807.8
55°	60.6	126.3	227.7	334.6	471.5	495.9	808.0	848.9	723.1	771.8	723.0
65°	27.4	25.2	50.8	40.9	51.2	116.5	185.1	201.6	132.2	29.3	137.3
75°	2.9	4.6	8.6	7.8	9.2	7.4	11.9	14.3	15.1	25.4	25.3
85°	0.0	3.4	4.9	5.0	5.5	5.2	5.8	6.4	6.5	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°	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8
1°	1069.5	1069.4	1069.4	1069.4	1069.4	1069.5	1069.6	1069.8	1069.6	1069.5	1069.4
3°	1082.6	1088.4	1093.0	1096.3	1098.1	1098.4	1101.7	1104.0	1101.7	1098.4	1098.1
5°	1096.6	1108.8	1118.6	1125.8	1129.4	1130.0	1129.6	1132.3	1129.6	1130.0	1129.4
7°	1105.2	1119.8	1131.8	1135.4	1132.2	1126.8	1117.7	1114.8	1117.7	1126.8	1132.2
9°	1120.4	1126.7	1119.7	1113.3	1098.3	1086.4	1070.3	1062.0	1070.3	1086.4	1098.3
11°	1110.0	1111.8	1093.6	1065.8	1048.3	1034.7	1018.5	1010.2	1018.5	1034.7	1048.3
13°	1093.8	1063.3	1045.6	1028.5	1005.6	998.9	987.9	979.9	987.9	998.9	1005.6
15°	1074.8	1032.5	1006.8	997.3	980.1	971.6	961.6	953.6	961.6	971.6	980.1
17°	1045.5	1018.1	991.4	968.2	958.6	951.4	951.4	942.8	951.4	951.4	958.6
19.5°	1022.9	996.8	978.5	945.5	935.5	904.0	885.2	869.5	885.2	904.0	935.5
22.5°	1007.7	984.1	938.1	912.2	863.0	866.3	862.9	853.9	862.9	866.3	863.0
25.5°	979.2	940.8	897.2	859.0	859.6	848.2	839.2	830.4	839.2	848.2	859.6
29°	937.2	873.6	820.8	834.0	836.8	813.7	806.0	800.2	806.0	813.7	836.8
33°	866.4	806.1	780.2	790.0	784.4	768.9	770.5	766.0	770.5	768.9	784.4
37.5°	796.4	749.9	734.6	729.3	732.4	732.9	736.2	732.8	736.2	732.9	732.4
42.5°	754.2	712.5	678.1	677.2	686.6	696.6	704.0	701.5	704.0	696.6	686.6
47.5°	729.6	689.7	623.6	627.8	631.9	586.9	556.5	557.9	556.5	586.9	631.9
55°	642.5	659.9	548.1	466.9	307.1	189.9	116.9	87.9	116.9	189.9	307.1
65°	227.2	182.6	94.1	68.6	84.7	70.1	63.4	63.5	63.4	70.1	84.7
75°	30.5	18.7	20.6	15.7	19.2	13.2	7.4	4.9	7.4	13.2	19.2
85°	6.8	6.3	6.0	5.5	5.2	6.0	4.4	0.0	4.4	6.0	5.2
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°	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8	1070.8
1°	1069.4	1069.4	1069.4	1069.5	1069.6	1069.8	1070.2	1070.5	1070.9	1071.2	1071.4
3°	1096.3	1093.0	1088.4	1082.6	1082.2	1081.5	1082.3	1082.4	1081.1	1079.4	1077.2
5°	1125.8	1118.6	1108.8	1096.6	1084.8	1081.5	1081.6	1081.5	1081.7	1082.4	1083.6
7°	1135.4	1131.8	1119.8	1105.2	1087.7	1076.7	1073.9	1074.2	1076.2	1079.7	1083.0
9°	1113.3	1119.7	1126.7	1120.4	1106.3	1090.3	1082.0	1078.2	1075.4	1074.5	1081.5
11°	1065.8	1093.6	1111.8	1110.0	1098.4	1081.5	1071.1	1069.7	1074.9	1078.8	1080.8
13°	1028.5	1045.6	1063.3	1093.8	1101.5	1093.3	1074.6	1064.6	1059.7	1073.7	1089.2
15°	997.3	1006.8	1032.5	1074.8	1103.4	1108.9	1082.6	1066.5	1059.4	1068.6	1096.2
17°	968.2	991.4	1018.1	1045.5	1076.1	1093.3	1072.7	1062.1	1066.4	1077.2	1104.1
19.5°	945.5	978.5	996.8	1022.9	1057.8	1100.1	1081.1	1057.5	1063.9	1101.6	1129.5
22.5°	912.2	938.1	984.1	1007.7	1027.6	1066.9	1075.8	1055.0	1073.6	1118.3	1162.5
25.5°	859.0	897.2	940.8	979.2	1001.1	1040.5	1057.7	1037.8	1076.6	1145.8	1216.7
29°	834.0	820.8	873.6	937.2	986.0	1028.8	1036.6	1029.3	1078.6	1175.8	1294.8
33°	790.0	780.2	806.1	866.4	905.9	940.9	974.7	1033.1	1087.7	1212.6	1383.6
37.5°	729.3	734.6	749.9	796.4	849.6	894.9	954.3	1026.5	1103.4	1278.5	1358.8
42.5°	677.2	678.1	712.5	754.2	822.6	884.2	922.8	1035.9	1152.8	1209.0	998.1
47.5°	627.8	623.6	689.7	729.6	807.8	828.5	847.0	1042.6	1179.7	892.3	654.6
55°	466.9	548.1	659.9	642.5	723.0	771.8	723.1	848.9	808.0	495.9	471.5
65°	68.6	94.1	182.6	227.2	137.3	29.3	132.2	201.6	185.1	116.5	51.2
75°	15.7	20.6	18.7	30.5	25.3	25.4	15.1	14.3	11.9	7.4	9.2
85°	5.5	6.0	6.3	6.8	6.6	6.8	6.5	6.4	5.8	5.2	5.5
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°	1070.8	1070.8	1070.8	1070.8
1°	1071.6	1071.7	1071.8	1071.8
3°	1074.7	1072.0	1071.8	1071.8
5°	1081.4	1077.3	1073.8	1074.7
7°	1086.2	1085.3	1080.3	1080.6
9°	1089.3	1095.0	1088.9	1088.4
11°	1093.2	1104.1	1104.3	1101.1
13°	1100.6	1120.4	1126.8	1122.6
15°	1119.6	1146.0	1159.8	1155.8
17°	1146.8	1171.6	1190.0	1184.1
19.5°	1167.9	1212.8	1239.9	1240.8
22.5°	1213.3	1284.3	1325.9	1333.6
25.5°	1294.0	1374.8	1431.0	1443.0
29°	1414.9	1458.0	1502.9	1509.5
33°	1470.5	1397.8	1384.1	1360.0
37.5°	1229.9	1027.5	888.8	835.3
42.5°	764.9	720.9	682.0	677.1
47.5°	622.8	617.9	615.0	617.5
55°	334.6	227.7	126.3	60.6
65°	40.9	50.8	25.2	27.4
75°	7.8	8.6	4.6	2.9
85°	5.0	4.9	3.4	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)