

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: P189787

Luminaire Tested: **NFFLD-S-C70-D-UNV-66-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189787
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-66-7050
Description: LOW WATTAGE LED FLOODLIGHT
Light Source: (1) CITIZEN 5000 70
CLU038-1208C4-50AL7K3
Ballast/Driver: ERP ELECTRONIC DRIVER
ESS030W-0500-42

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2791.5 lumens
Efficiency: N/A
Efficacy: 141.7 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

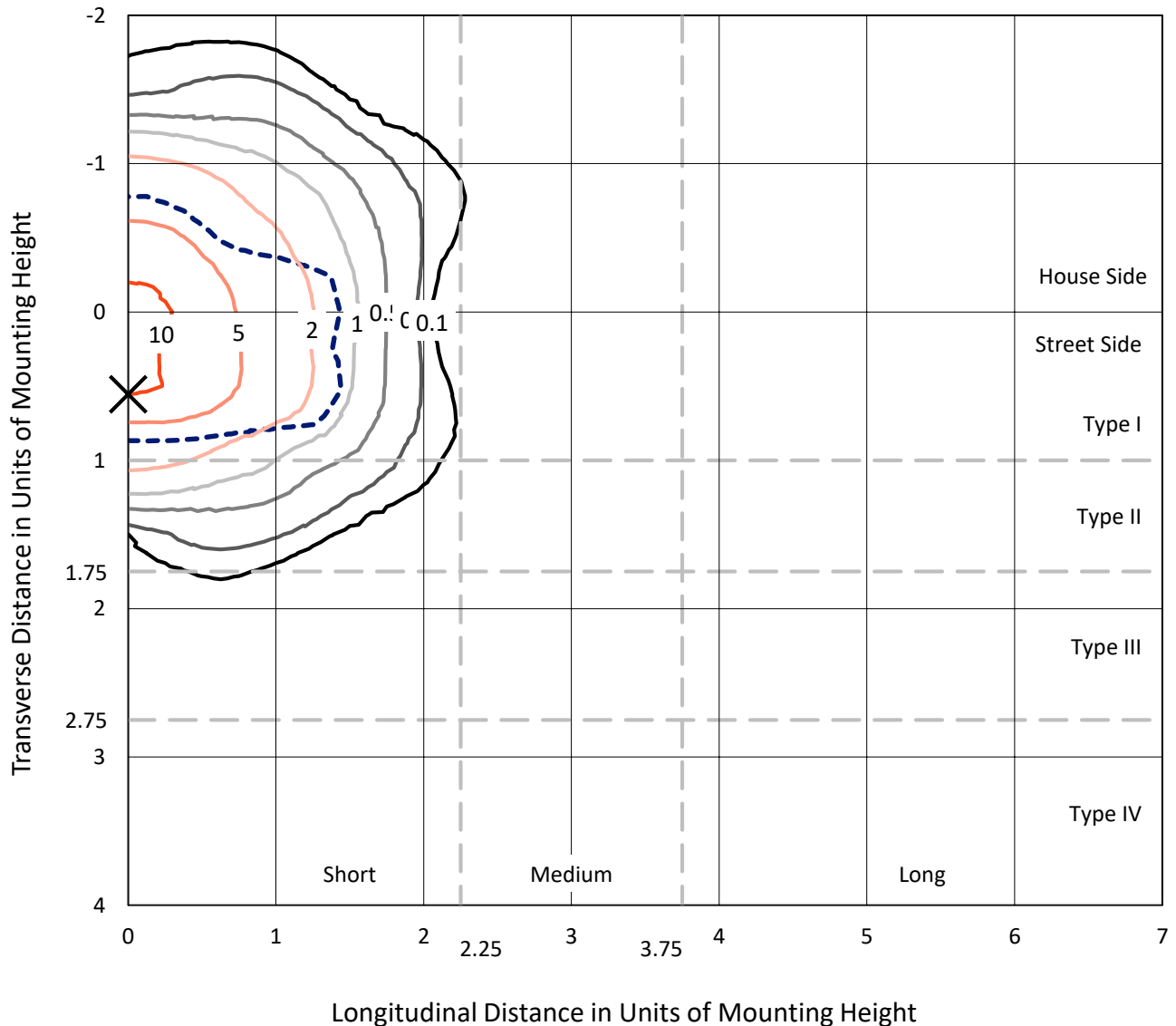
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

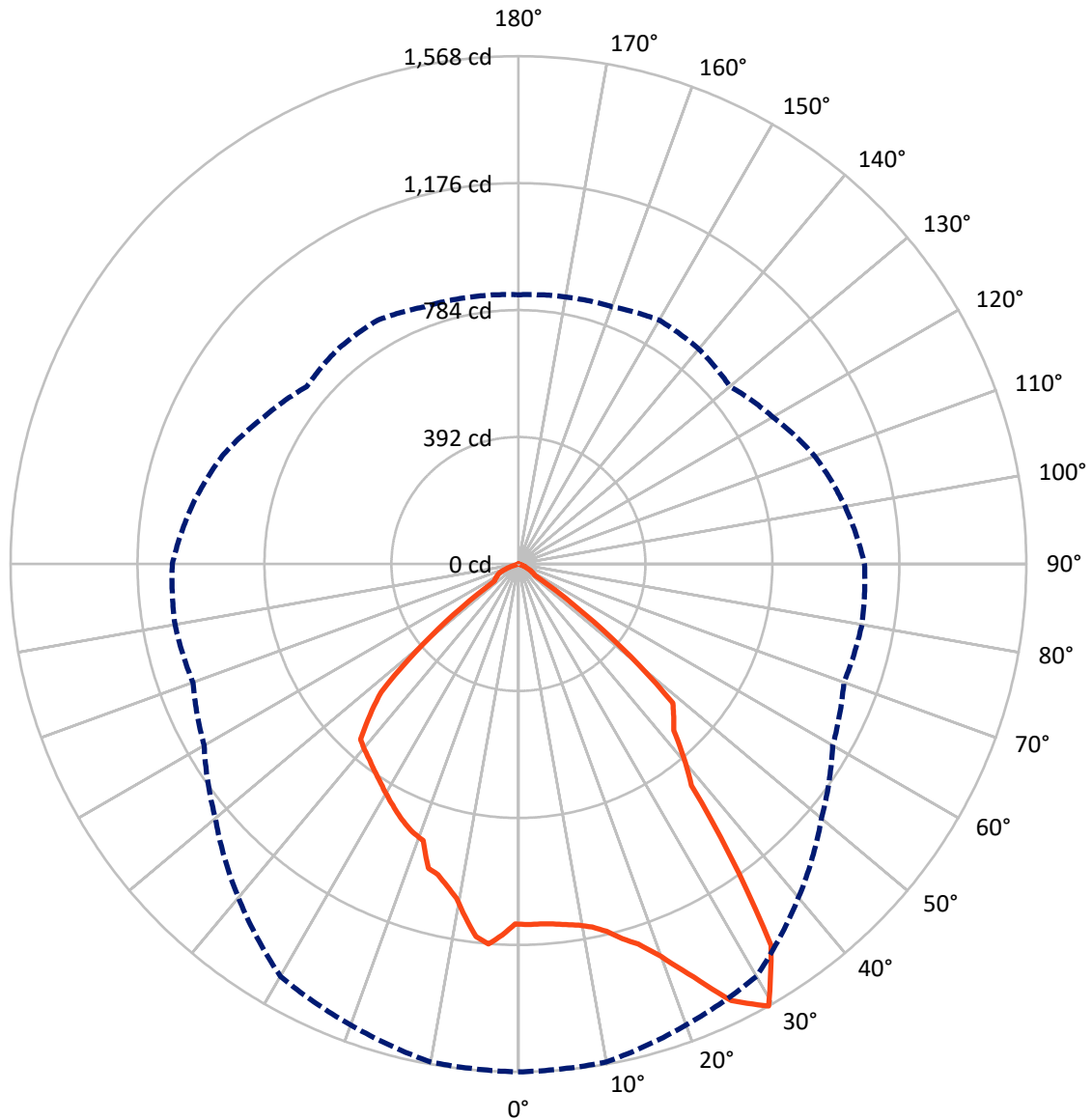
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.3 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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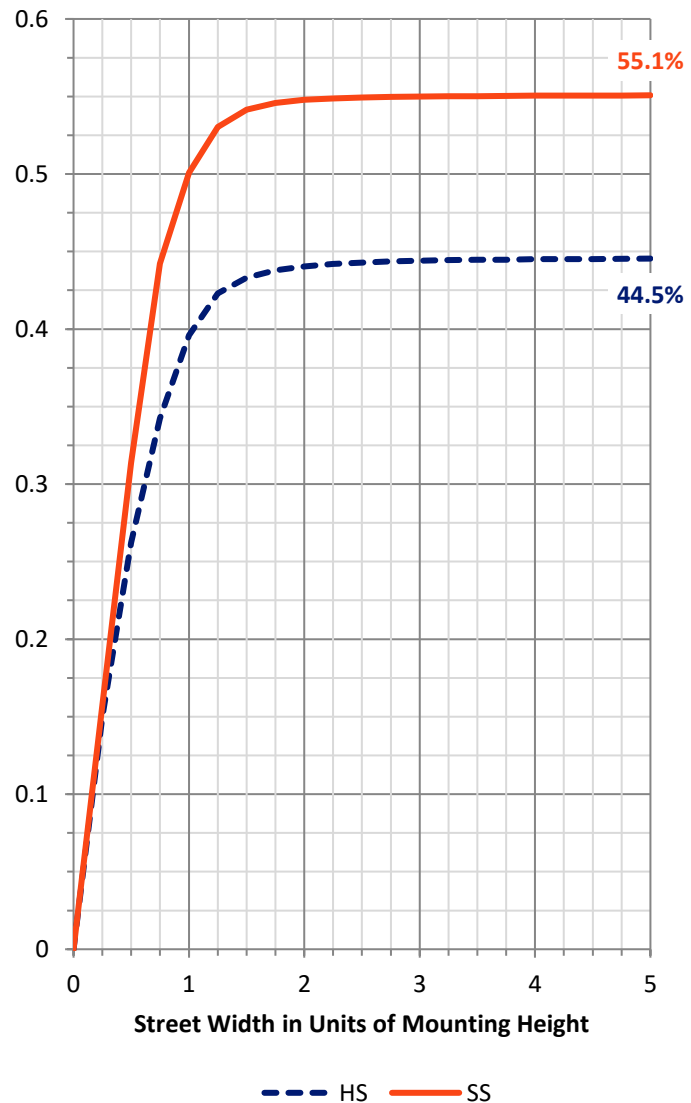
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1254.8	0.0	1254.8
	% Fixture	45.0	0.0	45.0
Street Side	Lumens	1536.7	0.0	1536.7
	% Fixture	55.0	0.0	55.0
Total	Lumens	2791.5	0.0	2791.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	3.9
10°-20°	312.6	11.2
20°-30°	508.0	18.2
30°-40°	628.1	22.5
40°-50°	620.3	22.2
50°-60°	434.4	15.6
60°-70°	177.7	6.4
70°-80°	36.9	1.3
80°-90°	5.6	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°	2791.5	100.0
0°-180°	2791.5	100.0



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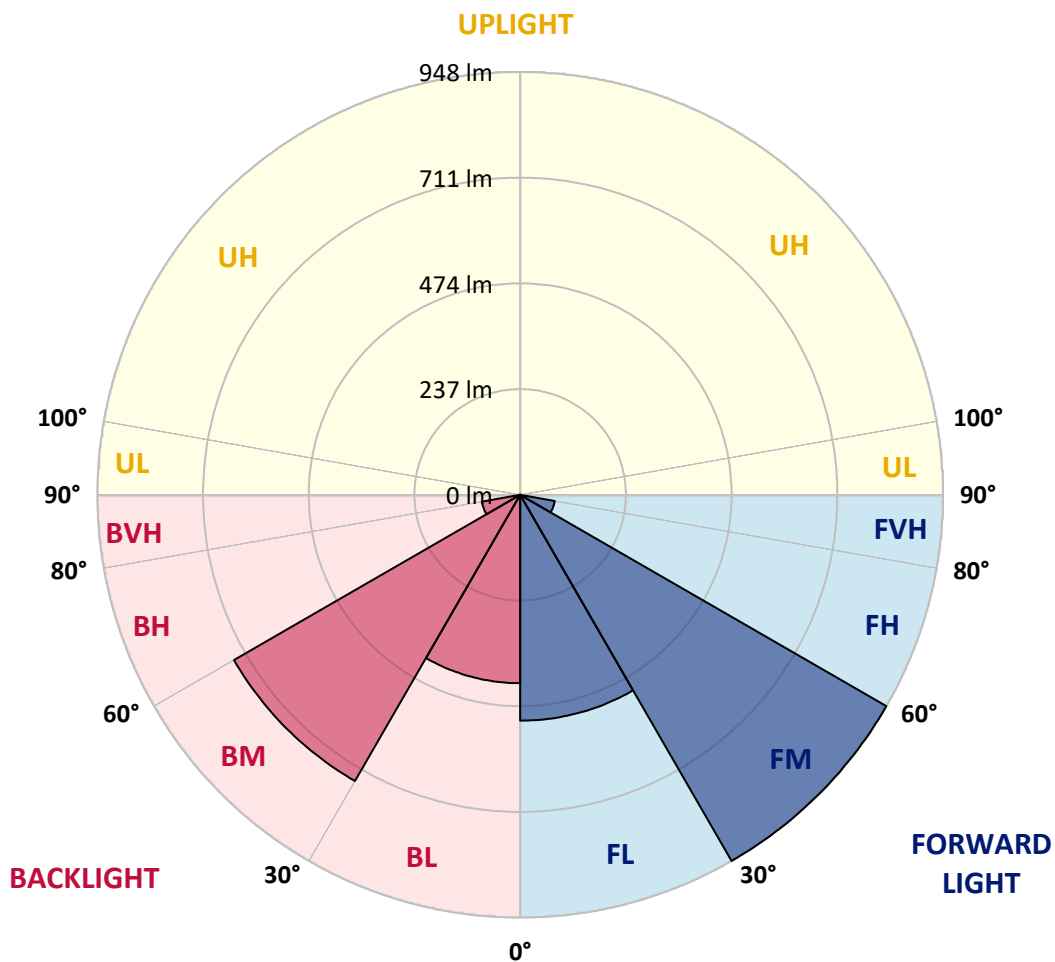
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	506.3	18.1			
FM	(30°-60°)	947.9	34.0			
FH	(60°-80°)	78.7	2.8			G0/660
FVH	(80°-90°)	2.5	0.1			G0/10
BL	(0°-30°)	422.3	15.1	B1/500		
BM	(30°-60°)	740.8	26.5	B1/1000		
BH	(60°-80°)	87.3	3.1	B0/110		G0/110
BVH	(80°-90°)	3.3	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°	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5
1°	1113.5	1113.5	1113.4	1113.3	1113.1	1112.9	1112.6	1112.2	1111.9	1111.5	1111.3
3°	1113.5	1113.5	1113.7	1116.5	1119.2	1121.4	1123.2	1124.6	1124.5	1123.7	1124.4
5°	1116.6	1115.6	1119.3	1123.5	1125.8	1124.6	1123.9	1123.7	1123.8	1123.7	1127.1
7°	1122.7	1122.4	1127.6	1128.5	1125.3	1121.8	1118.1	1116.0	1115.8	1118.6	1130.0
9°	1130.8	1131.3	1137.6	1131.7	1123.7	1116.3	1117.2	1120.2	1124.2	1132.8	1149.4
11°	1144.0	1147.3	1147.1	1135.8	1122.9	1120.8	1116.7	1111.3	1112.8	1123.7	1141.2
13°	1166.3	1170.7	1164.0	1143.5	1131.6	1115.4	1100.9	1106.0	1116.5	1135.9	1144.4
15°	1200.8	1205.0	1190.6	1163.1	1138.9	1110.1	1100.6	1108.0	1124.8	1152.1	1146.3
17°	1230.3	1236.4	1217.2	1191.4	1147.1	1119.1	1108.0	1103.5	1114.5	1135.9	1118.0
19.5°	1289.1	1288.2	1260.1	1213.4	1173.5	1144.5	1105.3	1098.8	1123.2	1143.0	1099.0
22.5°	1385.6	1377.6	1334.3	1260.6	1207.8	1161.9	1115.4	1096.1	1117.7	1108.4	1067.6
25.5°	1499.2	1486.8	1428.4	1344.4	1264.1	1190.5	1118.5	1078.2	1098.9	1081.0	1040.1
29°	1568.3	1561.5	1514.8	1470.0	1345.3	1221.6	1120.5	1069.4	1076.9	1068.9	1024.4
33°	1413.0	1438.0	1452.3	1527.8	1437.5	1259.9	1130.1	1073.3	1012.7	977.5	941.2
37.5°	867.9	923.4	1067.6	1277.8	1411.7	1328.2	1146.3	1066.5	991.5	929.8	882.7
42.5°	703.4	708.6	749.0	794.7	1037.0	1256.1	1197.7	1076.2	958.8	918.6	854.7
47.5°	641.5	639.0	642.0	647.1	680.1	927.1	1225.7	1083.2	880.0	860.8	839.3
55°	62.9	131.2	236.5	347.6	489.8	515.2	839.5	881.9	751.3	801.9	751.2
65°	28.4	26.2	52.8	42.5	53.2	121.1	192.2	209.4	137.3	30.5	142.6
75°	3.0	4.8	8.9	8.1	9.5	7.6	12.3	14.9	15.6	26.4	26.2
85°	0.0	3.5	5.1	5.2	5.7	5.4	6.1	6.6	6.7	7.1	6.9
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°	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5
1°	1111.2	1111.1	1111.1	1111.1	1111.1	1111.2	1111.3	1111.5	1111.3	1111.2	1111.1
3°	1124.8	1130.8	1135.6	1139.0	1140.9	1141.2	1144.7	1147.0	1144.7	1141.2	1140.9
5°	1139.3	1152.0	1162.2	1169.7	1173.4	1174.0	1173.5	1176.5	1173.5	1174.0	1173.4
7°	1148.2	1163.5	1175.9	1179.6	1176.3	1170.7	1161.3	1158.2	1161.3	1170.7	1176.3
9°	1164.1	1170.6	1163.3	1156.7	1141.0	1128.7	1112.0	1103.4	1112.0	1128.7	1141.0
11°	1153.2	1155.0	1136.2	1107.3	1089.1	1075.0	1058.2	1049.6	1058.2	1075.0	1089.1
13°	1136.4	1104.8	1086.4	1068.6	1044.8	1037.8	1026.4	1018.1	1026.4	1037.8	1044.8
15°	1116.7	1072.8	1046.1	1036.2	1018.3	1009.4	999.0	990.7	999.0	1009.4	1018.3
17°	1086.2	1057.8	1030.1	1005.9	996.0	988.4	988.5	979.5	988.5	988.4	996.0
19.5°	1062.8	1035.6	1016.7	982.3	971.9	939.2	919.7	903.4	919.7	939.2	971.9
22.5°	1046.9	1022.5	974.7	947.7	896.6	900.1	896.6	887.2	896.6	900.1	896.6
25.5°	1017.3	977.4	932.1	892.5	893.2	881.3	871.9	862.8	871.9	881.3	893.2
29°	973.8	907.6	852.8	866.5	869.4	845.4	837.5	831.3	837.5	845.4	869.4
33°	900.1	837.5	810.5	820.7	814.9	798.8	800.4	795.8	800.4	798.8	814.9
37.5°	827.4	779.1	763.2	757.7	760.9	761.4	764.9	761.3	764.9	761.4	760.9
42.5°	783.6	740.2	704.6	703.7	713.4	723.8	731.4	728.8	731.4	723.8	713.4
47.5°	758.1	716.6	647.9	652.2	656.5	609.8	578.2	579.6	578.2	609.8	656.5
55°	667.5	685.6	569.5	485.1	319.1	197.3	121.4	91.4	121.4	197.3	319.1
65°	236.1	189.7	97.8	71.2	88.0	72.8	66.0	66.0	66.0	72.8	88.0
75°	31.7	19.4	21.4	16.2	19.9	13.8	7.7	5.1	7.7	13.8	19.9
85°	7.1	6.6	6.3	5.7	5.4	6.2	4.6	0.0	4.6	6.2	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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5
1°	1111.1	1111.1	1111.1	1111.2	1111.3	1111.5	1111.9	1112.2	1112.6	1112.9	1113.1
3°	1139.0	1135.6	1130.8	1124.8	1124.4	1123.7	1124.5	1124.6	1123.2	1121.4	1119.2
5°	1169.7	1162.2	1152.0	1139.3	1127.1	1123.7	1123.8	1123.7	1123.9	1124.6	1125.8
7°	1179.6	1175.9	1163.5	1148.2	1130.0	1118.6	1115.8	1116.0	1118.1	1121.8	1125.3
9°	1156.7	1163.3	1170.6	1164.1	1149.4	1132.8	1124.2	1120.2	1117.2	1116.3	1123.7
11°	1107.3	1136.2	1155.0	1153.2	1141.2	1123.7	1112.8	1111.3	1116.7	1120.8	1122.9
13°	1068.6	1086.4	1104.8	1136.4	1144.4	1135.9	1116.5	1106.0	1100.9	1115.4	1131.6
15°	1036.2	1046.1	1072.8	1116.7	1146.3	1152.1	1124.8	1108.0	1100.6	1110.1	1138.9
17°	1005.9	1030.1	1057.8	1086.2	1118.0	1135.9	1114.5	1103.5	1108.0	1119.1	1147.1
19.5°	982.3	1016.7	1035.6	1062.8	1099.0	1143.0	1123.2	1098.8	1105.3	1144.5	1173.5
22.5°	947.7	974.7	1022.5	1046.9	1067.6	1108.4	1117.7	1096.1	1115.4	1161.9	1207.8
25.5°	892.5	932.1	977.4	1017.3	1040.1	1081.0	1098.9	1078.2	1118.5	1190.5	1264.1
29°	866.5	852.8	907.6	973.8	1024.4	1068.9	1076.9	1069.4	1120.5	1221.6	1345.3
33°	820.7	810.5	837.5	900.1	941.2	977.5	1012.7	1073.3	1130.1	1259.9	1437.5
37.5°	757.7	763.2	779.1	827.4	882.7	929.8	991.5	1066.5	1146.3	1328.2	1411.7
42.5°	703.7	704.6	740.2	783.6	854.7	918.6	958.8	1076.2	1197.7	1256.1	1037.0
47.5°	652.2	647.9	716.6	758.1	839.3	860.8	880.0	1083.2	1225.7	927.1	680.1
55°	485.1	569.5	685.6	667.5	751.2	801.9	751.3	881.9	839.5	515.2	489.8
65°	71.2	97.8	189.7	236.1	142.6	30.5	137.3	209.4	192.2	121.1	53.2
75°	16.2	21.4	19.4	31.7	26.2	26.4	15.6	14.9	12.3	7.6	9.5
85°	5.7	6.3	6.6	7.1	6.9	7.1	6.7	6.6	6.1	5.4	5.7
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°	1112.5	1112.5	1112.5	1112.5
1°	1113.3	1113.4	1113.5	1113.5
3°	1116.5	1113.7	1113.5	1113.5
5°	1123.5	1119.3	1115.6	1116.6
7°	1128.5	1127.6	1122.4	1122.7
9°	1131.7	1137.6	1131.3	1130.8
11°	1135.8	1147.1	1147.3	1144.0
13°	1143.5	1164.0	1170.7	1166.3
15°	1163.1	1190.6	1205.0	1200.8
17°	1191.4	1217.2	1236.4	1230.3
19.5°	1213.4	1260.1	1288.2	1289.1
22.5°	1260.6	1334.3	1377.6	1385.6
25.5°	1344.4	1428.4	1486.8	1499.2
29°	1470.0	1514.8	1561.5	1568.3
33°	1527.8	1452.3	1438.0	1413.0
37.5°	1277.8	1067.6	923.4	867.9
42.5°	794.7	749.0	708.6	703.4
47.5°	647.1	642.0	639.0	641.5
55°	347.6	236.5	131.2	62.9
65°	42.5	52.8	26.2	28.4
75°	8.1	8.9	4.8	3.0
85°	5.2	5.1	3.5	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)