

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: P214474

Luminaire Tested: **NFFLD-L-C100-D-UNV-33-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214474  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29595)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-L-C100-D-UNV-33-7050  
Description: NIGHT CONDOR LED FLOODLIGHT SPOT OPTIC  
Light Source: (16) 5000K CCT, 70 CRI LEDS  
CLU028-1204C4-40ALK3  
Ballast/Driver: OSRAM  
OT180/UNV/1250C/2DIMLT2

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29188.9 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: (L: 0 ' x W: 0.66 ' x H: 0.5 '  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G1

Input Watts (W): 284  
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

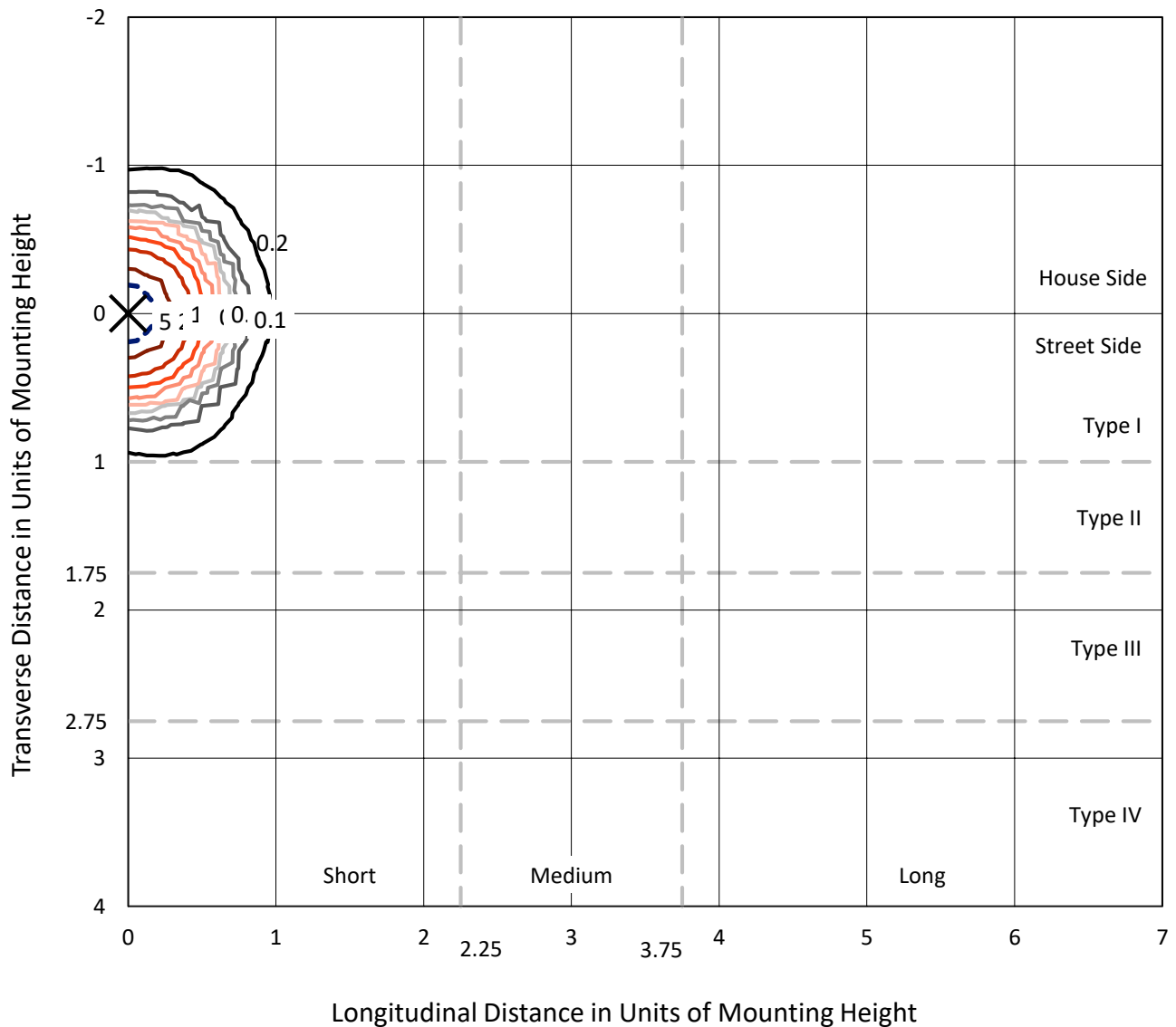


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### Iso-Footcandle Lines of Horizontal Illumination

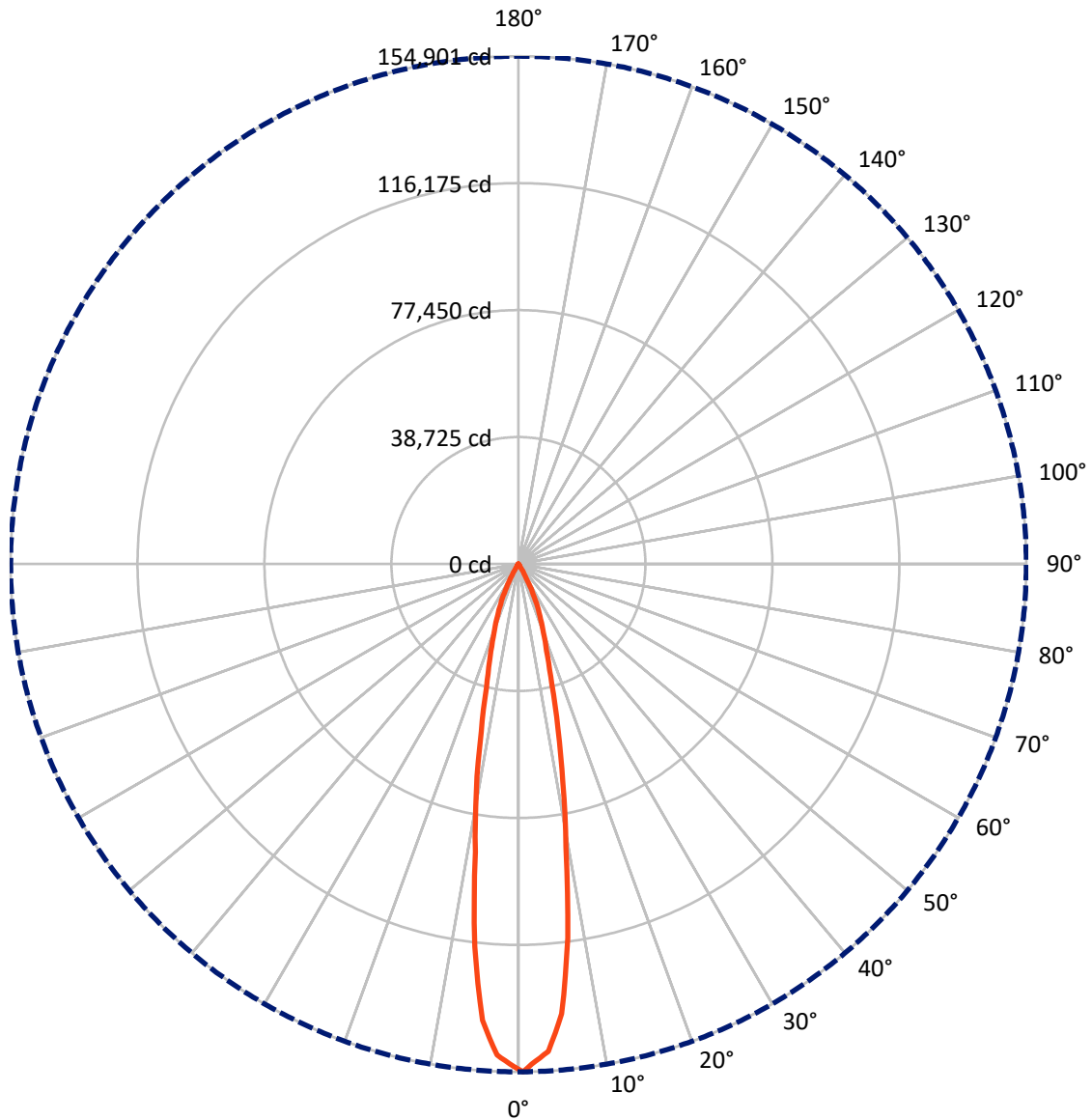
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 247.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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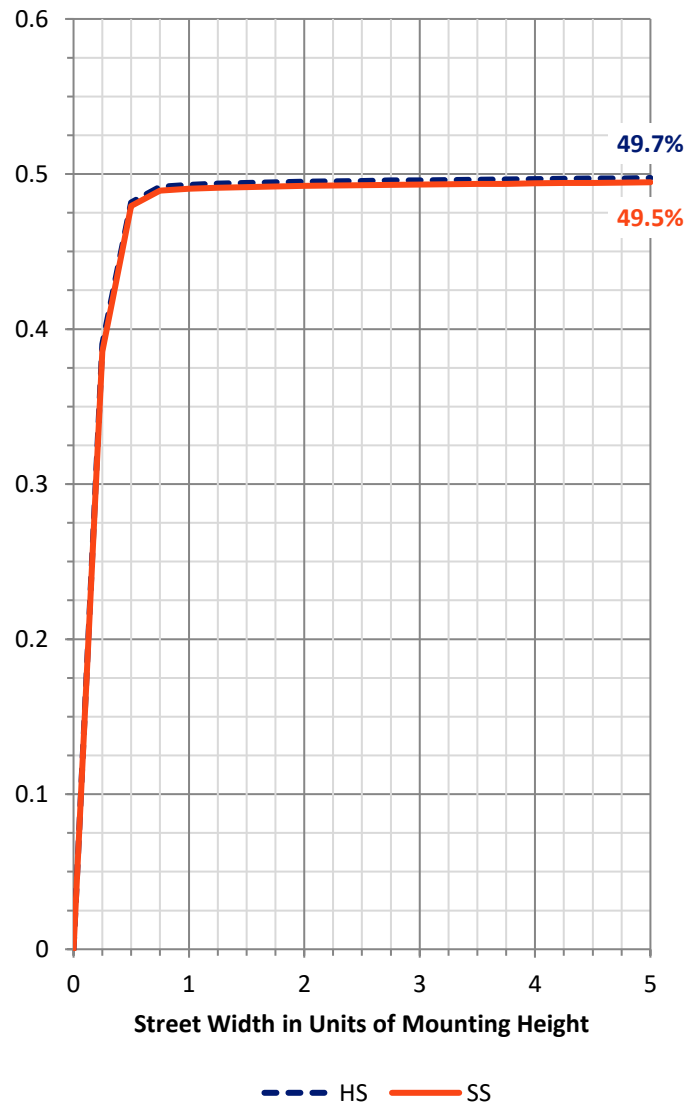
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14767.8	0.0	14767.8
	% Fixture	50.6	0.0	50.6
<b>Street Side</b>	Lumens	14421.1	0.0	14421.1
	% Fixture	49.4	0.0	49.4
<b>Total</b>	Lumens	29188.9	0.0	29188.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	11018.5	37.7
10°-20°	11467.9	39.3
20°-30°	5554.1	19.0
30°-40°	1078.2	3.7
40°-50°	128.6	0.4
50°-60°	68.0	0.2
60°-70°	52.9	0.2
70°-80°	117.9	0.4
80°-90°	89.8	0.3
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°	29188.9	100.0
0°-180°	29188.9	100.0

**Coefficient of Utilization**



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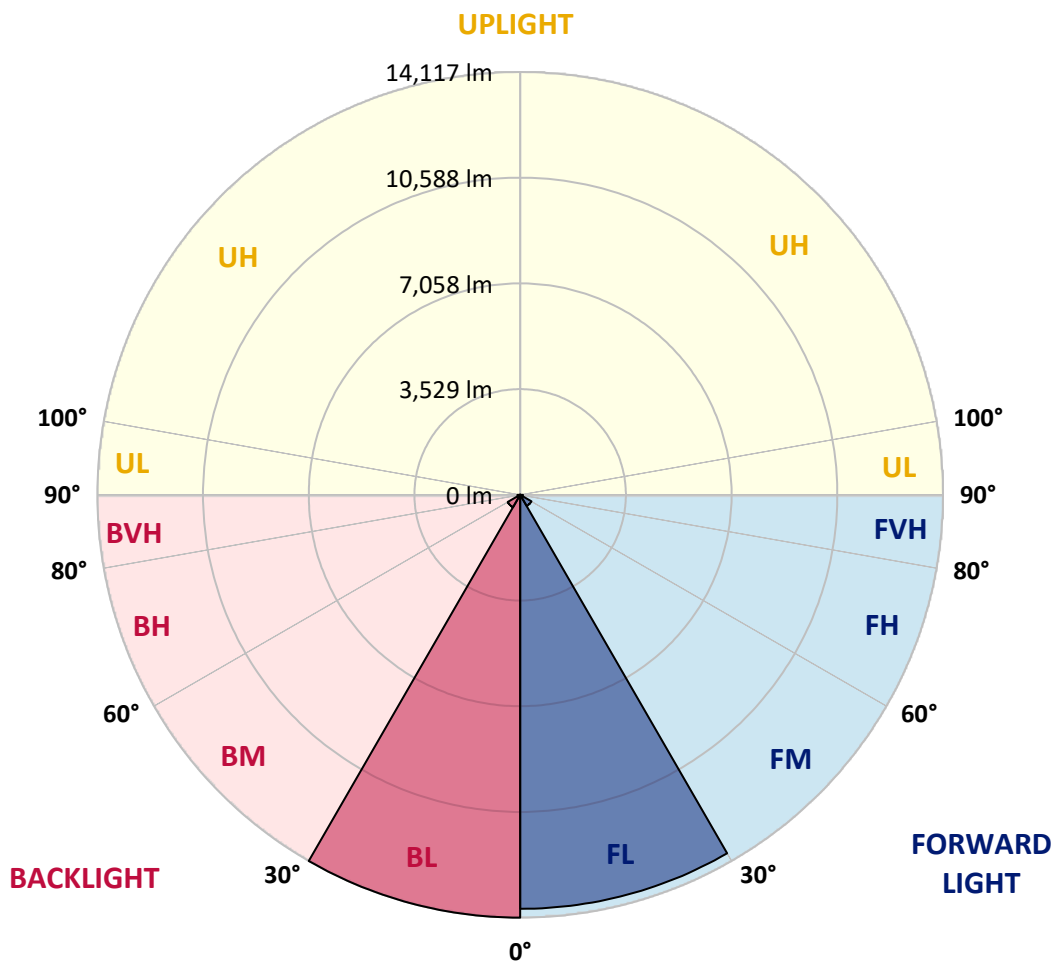
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	13821.5	47.4			
FM	(30°-60°)	434.2	1.5			
FH	(60°-80°)	70.7	0.2			G0/660
FVH	(80°-90°)	92.6	0.3			G1/100
BL	(0°-30°)	14116.9	48.4	B5		
BM	(30°-60°)	480.1	1.6	B1/1000		
BH	(60°-80°)	75.1	0.3	B0/110		G0/660
BVH	(80°-90°)	93.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
1°	#####	152762.3	152936.0	153143.0	153367.7	153598.5	153828.3	154055.0	154281.0	154511.7	154291.6
3°	#####	148908.5	149026.8	148376.3	148070.8	148130.3	148553.2	149316.5	149518.0	149860.7	149796.4
5°	#####	137693.8	136334.2	135945.8	136256.1	136405.5	136249.8	136563.2	137860.2	138422.1	138304.8
7°	#####	114714.1	113340.4	113309.3	113911.7	114117.5	113932.9	114214.8	115468.0	116458.5	116088.8
9°	87649.1	87619.4	87883.5	87897.2	87704.8	87801.8	88347.7	88515.0	87518.5	87685.9	87640.7
11°	68077.4	67995.4	67923.3	68093.1	68551.8	68790.1	68742.6	69008.5	69168.9	69454.5	69196.8
13°	51502.9	51296.2	51505.9	51806.5	51980.7	52194.2	52320.9	52422.9	52350.7	52754.4	52731.9
15°	37864.3	37994.9	38361.2	38134.5	38519.1	38584.3	38033.4	38626.8	38300.0	38246.1	38613.3
17°	29251.4	29413.5	29515.8	29485.8	29600.4	29395.9	29544.7	29594.9	29540.6	29427.0	29740.9
19.5°	22202.5	22349.2	22522.0	22380.3	22497.5	22540.7	22553.5	22711.7	22771.2	23065.1	22864.5
22.5°	16183.5	16246.0	16297.6	16465.4	16505.6	16608.9	16635.5	16642.3	16844.7	17047.2	16994.2
25.5°	10337.1	10459.8	10603.2	10801.2	10982.9	11043.7	11067.2	11186.1	11215.5	11250.8	11331.2
29°	4234.5	4552.3	4886.0	4897.8	5128.7	5112.1	5250.8	5441.2	5213.3	5091.0	5308.5
33°	593.1	870.9	1266.0	1012.1	1234.7	1196.0	1324.4	1486.1	1184.0	900.4	1229.5
37.5°	213.4	255.2	292.0	271.0	267.5	268.5	283.7	279.3	278.8	223.6	292.0
42.5°	168.4	191.0	213.2	209.4	208.9	184.9	176.5	169.5	179.2	176.6	184.4
47.5°	103.1	124.2	145.7	158.6	143.4	124.2	100.4	103.1	122.0	129.6	111.1
55°	32.7	71.4	87.4	80.6	59.5	45.7	26.6	16.4	32.6	16.3	26.8
65°	24.5	81.5	74.8	52.6	42.1	31.7	27.7	24.4	32.7	28.6	39.9
75°	8.2	77.7	47.9	35.9	47.7	63.5	82.4	83.6	117.5	103.1	131.2
85°	0.0	45.1	123.3	239.4	304.8	330.9	342.2	366.0	371.2	401.2	375.9
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°	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
1°	154085.3	153894.7	153722.4	153572.2	153448.5	153356.8	153302.9	153292.8	153302.9	153356.8	153448.5
3°	149825.5	149150.0	148764.5	148687.9	148922.4	149453.1	149578.2	149877.0	149578.2	149453.1	148922.4
5°	137216.2	137105.9	137642.0	138247.4	138171.5	138231.6	139148.7	139563.4	139148.7	138231.6	138171.5
7°	115240.4	115213.2	115762.8	116151.3	116659.6	116849.3	116930.9	117517.1	116930.9	116849.3	116659.6
9°	89020.7	89436.2	89245.5	88953.9	89591.5	91113.2	89215.8	88775.1	89215.8	91113.2	89591.5
11°	69167.3	69124.0	69540.6	69642.2	68930.9	69829.3	69266.5	70626.4	69266.5	69829.3	68930.9
13°	53050.0	52678.4	52719.3	52912.7	53070.3	52923.9	52955.4	52350.2	52955.4	52923.9	53070.3
15°	39410.9	39137.9	39067.8	39216.2	39117.2	39436.9	39546.3	38775.9	39546.3	39436.9	39117.2
17°	30007.9	30187.8	30299.6	30093.7	30303.8	30614.3	30676.2	30764.3	30676.2	30614.3	30303.8
19.5°	22963.7	22916.3	23141.0	23242.5	23149.2	23438.8	23403.4	23480.6	23403.4	23438.8	23149.2
22.5°	16946.2	17039.6	17177.1	17164.8	17197.6	17150.2	17195.1	16952.2	17195.1	17150.2	17197.6
25.5°	11485.0	11527.1	11595.0	11593.1	11591.4	11530.1	11422.0	11551.9	11422.0	11530.1	11591.4
29°	5620.3	5557.5	5518.1	5602.8	5444.9	5648.3	5371.7	5371.7	5371.7	5648.3	5444.9
33°	1557.6	1466.6	1374.5	1433.3	1201.6	1556.3	1186.4	913.7	1186.4	1556.3	1201.6
37.5°	295.9	313.8	311.8	303.8	299.5	332.5	291.7	238.9	291.7	332.5	299.5
42.5°	184.2	182.4	198.8	213.5	210.1	219.7	204.7	197.0	204.7	219.7	210.1
47.5°	112.4	120.2	136.5	140.0	157.4	160.5	139.4	111.3	139.4	160.5	157.4
55°	23.7	32.4	43.1	62.2	82.9	91.4	75.9	36.8	75.9	91.4	82.9
65°	34.3	33.8	29.9	45.3	57.4	79.5	87.5	24.5	87.5	79.5	57.4
75°	88.1	89.7	67.4	56.3	38.2	55.1	75.8	8.2	75.8	55.1	38.2
85°	368.5	338.0	332.4	311.8	246.3	121.7	30.8	12.3	30.8	121.7	246.3
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°	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
1°	153572.2	153722.4	153894.7	154085.3	154291.6	154511.7	154281.0	154055.0	153828.3	153598.5	153367.7
3°	148687.9	148764.5	149150.0	149825.5	149796.4	149860.7	149518.0	149316.5	148553.2	148130.3	148070.8
5°	138247.4	137642.0	137105.9	137216.2	138304.8	138422.1	137860.2	136563.2	136249.8	136405.5	136256.1
7°	116151.3	115762.8	115213.2	115240.4	116088.8	116458.5	115468.0	114214.8	113932.9	114117.5	113911.7
9°	88953.9	89245.5	89436.2	89020.7	87640.7	87685.9	87518.5	88515.0	88347.7	87801.8	87704.8
11°	69642.2	69540.6	69124.0	69167.3	69196.8	69454.5	69168.9	69008.5	68742.6	68790.1	68551.8
13°	52912.7	52719.3	52678.4	53050.0	52731.9	52754.4	52350.7	52422.9	52320.9	52194.2	51980.7
15°	39216.2	39067.8	39137.9	39410.9	38613.3	38246.1	38300.0	38626.8	38033.4	38584.3	38519.1
17°	30093.7	30299.6	30187.8	30007.9	29740.9	29427.0	29540.6	29594.9	29544.7	29395.9	29600.4
19.5°	23242.5	23141.0	22916.3	22963.7	22864.5	23065.1	22771.2	22711.7	22553.5	22540.7	22497.5
22.5°	17164.8	17177.1	17039.6	16946.2	16994.2	17047.2	16844.7	16642.3	16635.5	16608.9	16505.6
25.5°	11593.1	11595.0	11527.1	11485.0	11331.2	11250.8	11215.5	11186.1	11067.2	11043.7	10982.9
29°	5602.8	5518.1	5557.5	5620.3	5308.5	5091.0	5213.3	5441.2	5250.8	5112.1	5128.7
33°	1433.3	1374.5	1466.6	1557.6	1229.5	900.4	1184.0	1486.1	1324.4	1196.0	1234.7
37.5°	303.8	311.8	313.8	295.9	292.0	223.6	278.8	279.3	283.7	268.5	267.5
42.5°	213.5	198.8	182.4	184.2	184.4	176.6	179.2	169.5	176.5	184.9	208.9
47.5°	140.0	136.5	120.2	112.4	111.1	129.6	122.0	103.1	100.4	124.2	143.4
55°	62.2	43.1	32.4	23.7	26.8	16.3	32.6	16.4	26.6	45.7	59.5
65°	45.3	29.9	33.8	34.3	39.9	28.6	32.7	24.4	27.7	31.7	42.1
75°	56.3	67.4	89.7	88.1	131.2	103.1	117.5	83.6	82.4	63.5	47.7
85°	311.8	332.4	338.0	368.5	375.9	401.2	371.2	366.0	342.2	330.9	304.8
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°	#####	#####	#####	#####
1°	153143.0	152936.0	152762.3	152639.4
3°	148376.3	149026.8	148908.5	148956.2
5°	135945.8	136334.2	137693.8	137815.7
7°	113309.3	113340.4	114714.1	115046.7
9°	87897.2	87883.5	87619.4	87649.1
11°	68093.1	67923.3	67995.4	68077.4
13°	51806.5	51505.9	51296.2	51502.9
15°	38134.5	38361.2	37994.9	37864.3
17°	29485.8	29515.8	29413.5	29251.4
19.5°	22380.3	22522.0	22349.2	22202.5
22.5°	16465.4	16297.6	16246.0	16183.5
25.5°	10801.2	10603.2	10459.8	10337.1
29°	4897.8	4886.0	4552.3	4234.5
33°	1012.1	1266.0	870.9	593.1
37.5°	271.0	292.0	255.2	213.4
42.5°	209.4	213.2	191.0	168.4
47.5°	158.6	145.7	124.2	103.1
55°	80.6	87.4	71.4	32.7
65°	52.6	74.8	81.5	24.5
75°	35.9	47.9	77.7	8.2
85°	239.4	123.3	45.1	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)