

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: P214472

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214472
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
Description: NIGHT CONDOR LED FLOODLIGHT SPOT OPTIC
Light Source: (16) 4000K CCT, 70 CRI LEDS
CLU028-1204C4-40ALK3
Ballast/Driver: OSRAM
OT180/UNV/1250C/2DIMLT2

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29603.2 lumens
Efficiency: N/A
Efficacy: 104.2 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

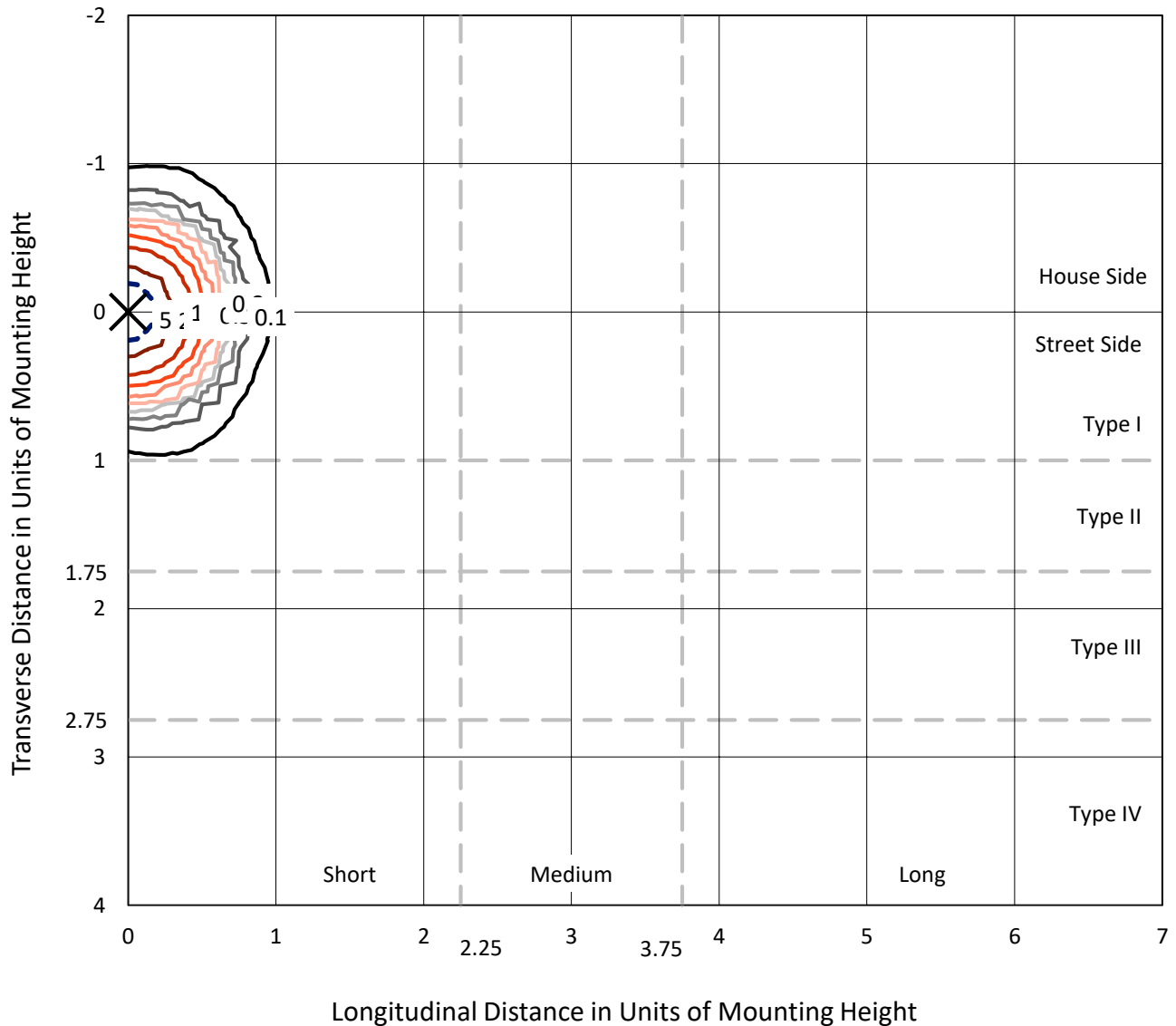


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

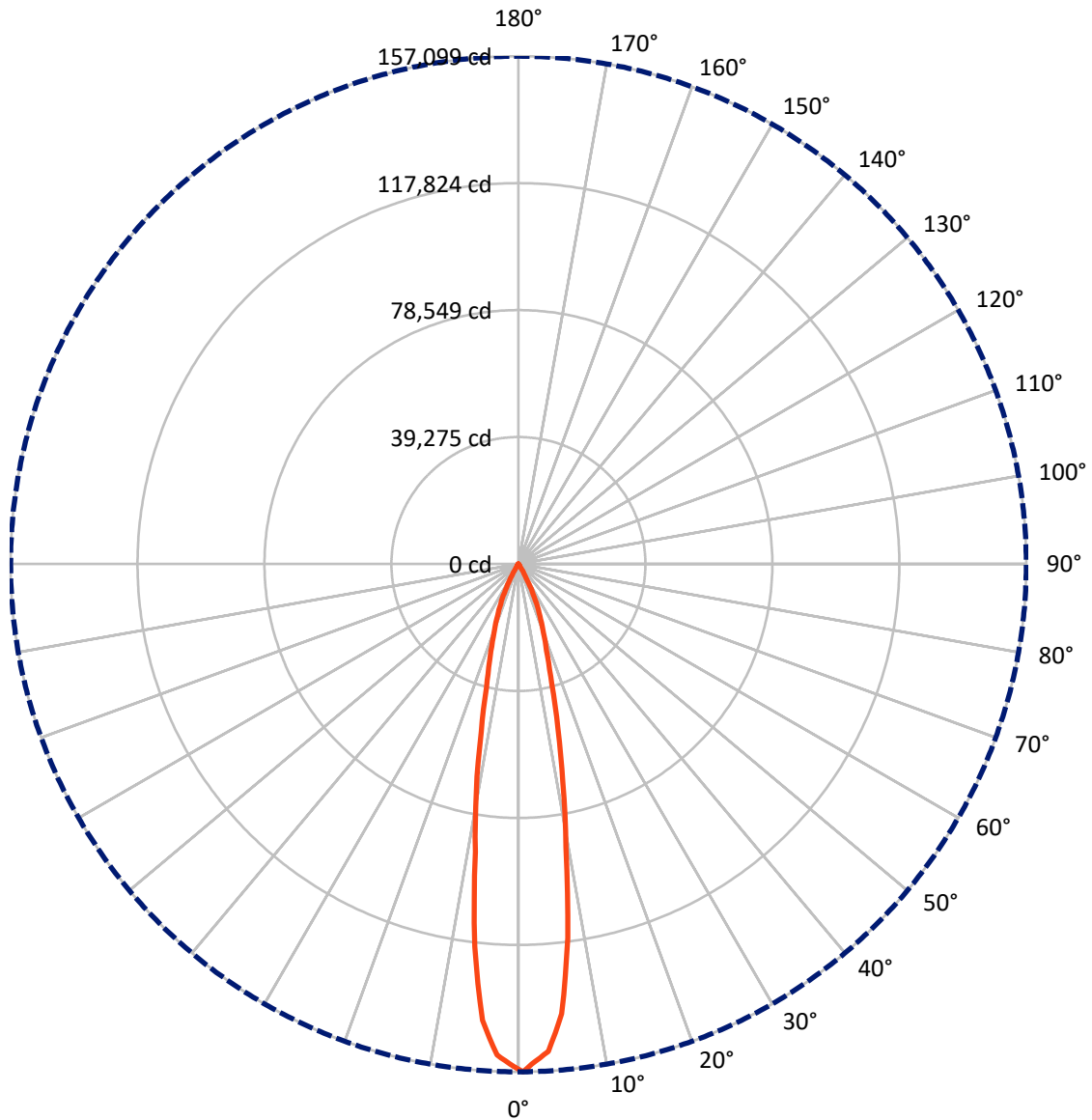


Based on 25 foot mounting height. Maximum calculated value = 251.4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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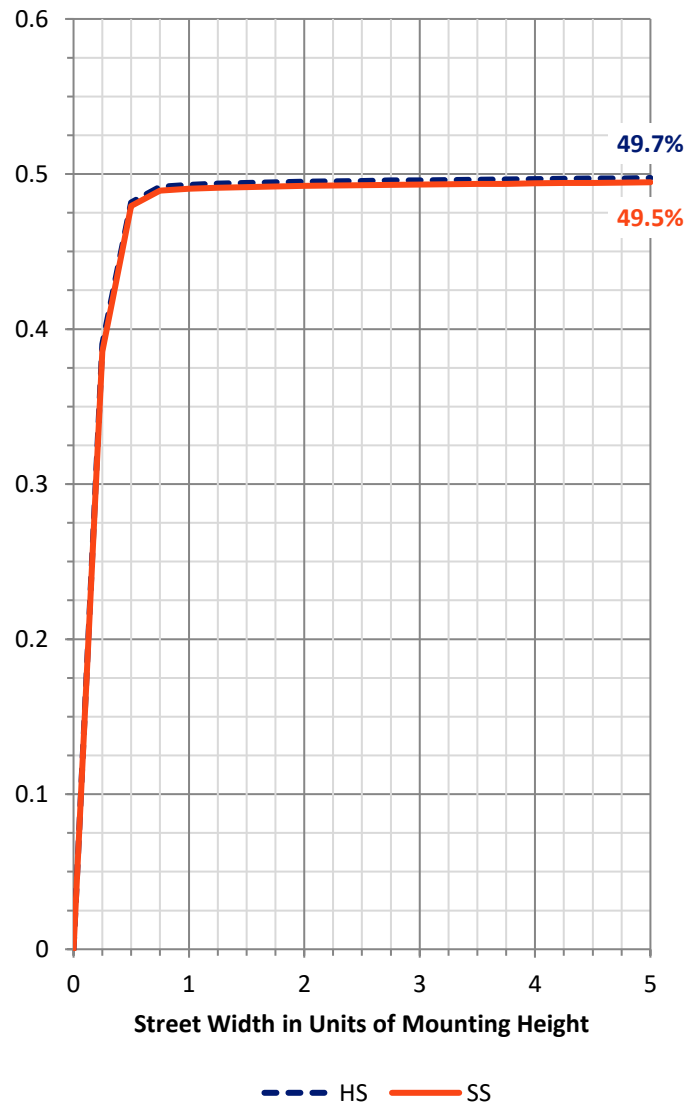
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14977.4	0.0	14977.4
	% Fixture	50.6	0.0	50.6
Street Side	Lumens	14625.8	0.0	14625.8
	% Fixture	49.4	0.0	49.4
Total	Lumens	29603.2	0.0	29603.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11174.8	37.7
10°-20°	11630.6	39.3
20°-30°	5632.9	19.0
30°-40°	1093.5	3.7
40°-50°	130.4	0.4
50°-60°	69.0	0.2
60°-70°	53.6	0.2
70°-80°	119.6	0.4
80°-90°	91.1	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°	29603.2	100.0
0°-180°	29603.2	100.0



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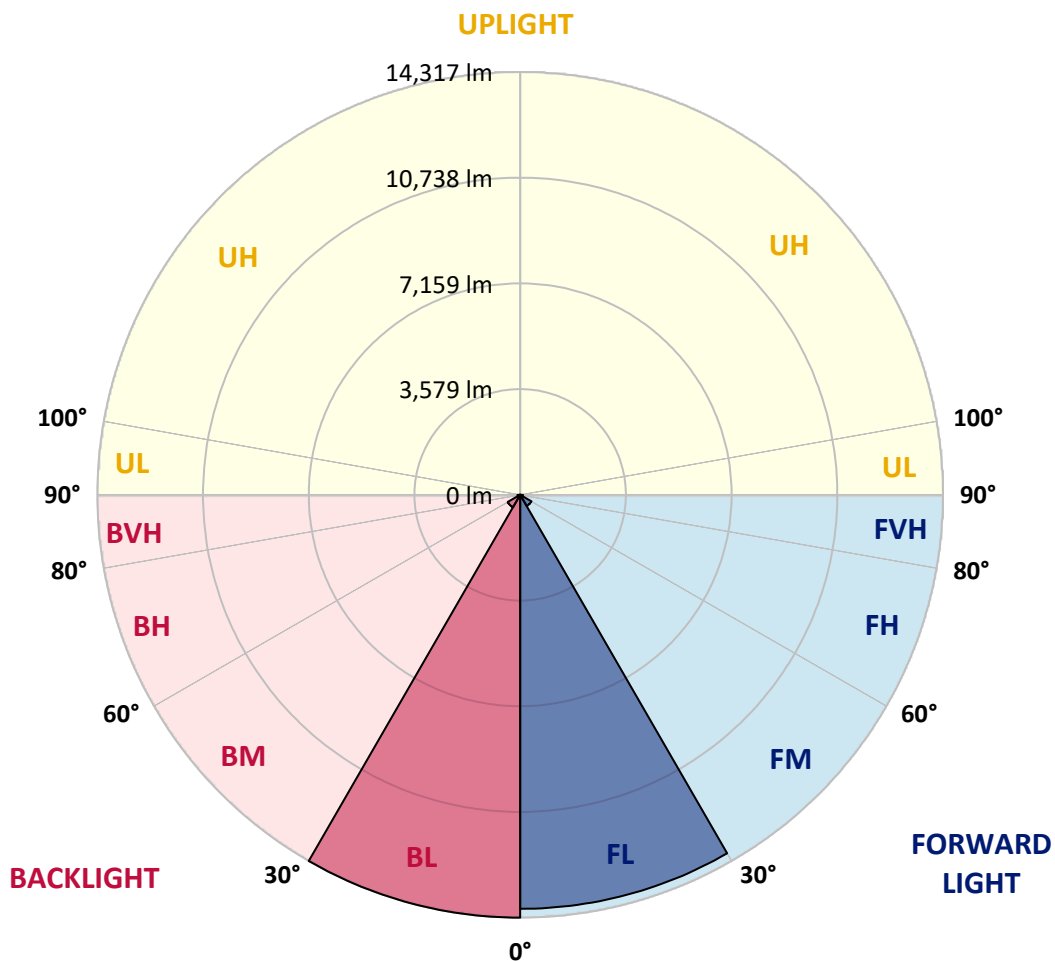
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	14017.7	47.4			
FM	(30°-60°)	440.3	1.5			
FH	(60°-80°)	71.7	0.2			G0/660
FVH	(80°-90°)	93.9	0.3			G1/100
BL	(0°-30°)	14317.3	48.4	B5		
BM	(30°-60°)	486.9	1.6	B1/1000		
BH	(60°-80°)	76.2	0.3	B0/110		G0/660
BVH	(80°-90°)	94.6	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°	#####	154930.1	155106.3	155316.2	155544.2	155778.2	156011.2	156241.2	156470.3	156704.3	156481.1
3°	#####	151021.7	151141.7	150481.9	150172.1	150232.4	150661.3	151435.4	151639.7	151987.3	151922.1
5°	#####	139647.7	138268.8	137874.9	138189.7	138341.2	138183.3	138501.2	139816.5	140386.4	140267.5
7°	#####	116341.9	114948.8	114917.3	115528.2	115736.9	115549.6	115835.6	117106.6	118111.1	117736.2
9°	88892.9	88862.8	89130.6	89144.6	88949.5	89047.7	89601.3	89771.1	88760.5	88930.2	88884.4
11°	69043.5	68960.3	68887.2	69059.4	69524.6	69766.3	69718.1	69987.8	70150.4	70440.1	70178.8
13°	52233.7	52024.1	52236.8	52541.6	52718.3	52934.9	53063.4	53166.8	53093.6	53503.1	53480.3
15°	38401.6	38534.0	38905.6	38675.7	39065.7	39131.9	38573.1	39174.9	38843.5	38788.9	39161.3
17°	29666.5	29830.9	29934.7	29904.2	30020.5	29813.1	29964.0	30014.9	29959.8	29844.6	30162.9
19.5°	22517.5	22666.3	22841.7	22697.9	22816.7	22860.6	22873.5	23034.0	23094.3	23392.4	23189.0
22.5°	16413.2	16476.6	16528.9	16699.0	16739.8	16844.6	16871.6	16878.4	17083.7	17289.1	17235.3
25.5°	10483.8	10608.3	10753.6	10954.4	11138.8	11200.5	11224.2	11344.8	11374.7	11410.4	11492.0
29°	4294.6	4616.9	4955.4	4967.3	5201.5	5184.7	5325.3	5518.4	5287.2	5163.2	5383.9
33°	601.5	883.3	1284.0	1026.4	1252.2	1213.1	1343.2	1507.2	1200.9	913.2	1246.9
37.5°	216.4	258.8	296.1	274.8	271.3	272.3	287.7	283.2	282.8	226.7	296.2
42.5°	170.8	193.8	216.3	212.3	211.9	187.6	179.0	171.9	181.7	179.1	187.0
47.5°	104.6	126.0	147.7	160.8	145.4	126.0	101.9	104.5	123.7	131.5	112.7
55°	33.1	72.4	88.7	81.7	60.3	46.4	27.0	16.6	33.0	16.6	27.2
65°	24.8	82.6	75.9	53.3	42.7	32.2	28.1	24.8	33.1	29.0	40.5
75°	8.3	78.9	48.6	36.4	48.4	64.3	83.6	84.8	119.1	104.6	133.1
85°	0.0	45.8	125.1	242.8	309.1	335.6	347.0	371.2	376.5	406.9	381.2
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
1°	156271.8	156078.5	155903.9	155751.5	155626.0	155533.0	155478.4	155468.1	155478.4	155533.0	155626.0
3°	151951.7	151266.5	150875.6	150797.9	151035.7	151574.0	151700.9	152003.9	151700.9	151574.0	151035.7
5°	139163.5	139051.5	139595.2	140209.2	140132.3	140193.1	141123.3	141543.9	141123.3	140193.1	140132.3
7°	116875.8	116848.2	117405.6	117799.5	118315.0	118507.5	118590.3	119184.8	118590.3	118507.5	118315.0
9°	90284.0	90705.4	90511.9	90216.2	90862.9	92406.2	90481.8	90034.9	90481.8	92406.2	90862.9
11°	70148.8	70105.0	70527.5	70630.5	69909.1	70820.2	70249.5	71628.7	70249.5	70820.2	69909.1
13°	53802.8	53425.9	53467.5	53663.5	53823.4	53674.9	53706.9	53093.1	53706.9	53674.9	53823.4
15°	39970.1	39693.2	39622.3	39772.7	39672.3	39996.6	40107.5	39326.2	40107.5	39996.6	39672.3
17°	30433.7	30616.2	30729.6	30520.7	30733.9	31048.7	31111.6	31200.9	31111.6	31048.7	30733.9
19.5°	23289.6	23241.4	23469.4	23572.3	23477.7	23771.4	23735.5	23813.8	23735.5	23771.4	23477.7
22.5°	17186.6	17281.5	17420.8	17408.4	17441.6	17393.6	17439.1	17192.8	17439.1	17393.6	17441.6
25.5°	11647.9	11690.6	11759.5	11757.6	11755.9	11693.7	11584.1	11715.9	11584.1	11693.7	11755.9
29°	5700.0	5636.4	5596.4	5682.3	5522.1	5728.5	5447.9	5447.9	5447.9	5728.5	5522.1
33°	1579.7	1487.4	1394.0	1453.7	1218.7	1578.4	1203.2	926.6	1203.2	1578.4	1218.7
37.5°	300.1	318.3	316.2	308.1	303.7	337.2	295.9	242.3	295.9	337.2	303.7
42.5°	186.8	185.0	201.6	216.5	213.1	222.8	207.7	199.8	207.7	222.8	213.1
47.5°	114.0	121.9	138.5	142.0	159.7	162.8	141.4	112.9	141.4	162.8	159.7
55°	24.1	32.9	43.7	63.1	84.0	92.7	76.9	37.3	76.9	92.7	84.0
65°	34.8	34.3	30.4	46.0	58.2	80.7	88.7	24.8	88.7	80.7	58.2
75°	89.4	91.0	68.4	57.1	38.7	55.9	76.9	8.3	76.9	55.9	38.7
85°	373.7	342.9	337.2	316.2	249.8	123.3	31.2	12.4	31.2	123.3	249.8
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
1°	155751.5	155903.9	156078.5	156271.8	156481.1	156704.3	156470.3	156241.2	156011.2	155778.2	155544.2
3°	150797.9	150875.6	151266.5	151951.7	151922.1	151987.3	151639.7	151435.4	150661.3	150232.4	150172.1
5°	140209.2	139595.2	139051.5	139163.5	140267.5	140386.4	139816.5	138501.2	138183.3	138341.2	138189.7
7°	117799.5	117405.6	116848.2	116875.8	117736.2	118111.1	117106.6	115835.6	115549.6	115736.9	115528.2
9°	90216.2	90511.9	90705.4	90284.0	88884.4	88930.2	88760.5	89771.1	89601.3	89047.7	88949.5
11°	70630.5	70527.5	70105.0	70148.8	70178.8	70440.1	70150.4	69987.8	69718.1	69766.3	69524.6
13°	53663.5	53467.5	53425.9	53802.8	53480.3	53503.1	53093.6	53166.8	53063.4	52934.9	52718.3
15°	39772.7	39622.3	39693.2	39970.1	39161.3	38788.9	38843.5	39174.9	38573.1	39131.9	39065.7
17°	30520.7	30729.6	30616.2	30433.7	30162.9	29844.6	29959.8	30014.9	29964.0	29813.1	30020.5
19.5°	23572.3	23469.4	23241.4	23289.6	23189.0	23392.4	23094.3	23034.0	22873.5	22860.6	22816.7
22.5°	17408.4	17420.8	17281.5	17186.6	17235.3	17289.1	17083.7	16878.4	16871.6	16844.6	16739.8
25.5°	11757.6	11759.5	11690.6	11647.9	11492.0	11410.4	11374.7	11344.8	11224.2	11200.5	11138.8
29°	5682.3	5596.4	5636.4	5700.0	5383.9	5163.2	5287.2	5518.4	5325.3	5184.7	5201.5
33°	1453.7	1394.0	1487.4	1579.7	1246.9	913.2	1200.9	1507.2	1343.2	1213.1	1252.2
37.5°	308.1	316.2	318.3	300.1	296.2	226.7	282.8	283.2	287.7	272.3	271.3
42.5°	216.5	201.6	185.0	186.8	187.0	179.1	181.7	171.9	179.0	187.6	211.9
47.5°	142.0	138.5	121.9	114.0	112.7	131.5	123.7	104.5	101.9	126.0	145.4
55°	63.1	43.7	32.9	24.1	27.2	16.6	33.0	16.6	27.0	46.4	60.3
65°	46.0	30.4	34.3	34.8	40.5	29.0	33.1	24.8	28.1	32.2	42.7
75°	57.1	68.4	91.0	89.4	133.1	104.6	119.1	84.8	83.6	64.3	48.4
85°	316.2	337.2	342.9	373.7	381.2	406.9	376.5	371.2	347.0	335.6	309.1
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):

	330°	340°	350°	360°
0°	#####	#####	#####	#####
1°	155316.2	155106.3	154930.1	154805.5
3°	150481.9	151141.7	151021.7	151070.0
5°	137874.9	138268.8	139647.7	139771.4
7°	114917.3	114948.8	116341.9	116679.3
9°	89144.6	89130.6	88862.8	88892.9
11°	69059.4	68887.2	68960.3	69043.5
13°	52541.6	52236.8	52024.1	52233.7
15°	38675.7	38905.6	38534.0	38401.6
17°	29904.2	29934.7	29830.9	29666.5
19.5°	22697.9	22841.7	22666.3	22517.5
22.5°	16699.0	16528.9	16476.6	16413.2
25.5°	10954.4	10753.6	10608.3	10483.8
29°	4967.3	4955.4	4616.9	4294.6
33°	1026.4	1284.0	883.3	601.5
37.5°	274.8	296.1	258.8	216.4
42.5°	212.3	216.3	193.8	170.8
47.5°	160.8	147.7	126.0	104.6
55°	81.7	88.7	72.4	33.1
65°	53.3	75.9	82.6	24.8
75°	36.4	48.6	78.9	8.3
85°	242.8	125.1	45.8	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)