

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: P214475

Luminaire Tested: **NFFLD-L-C100-D-UNV-33-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214475
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-33-7060
Description: NIGHT CONDOR LED FLOODLIGHT SPOT OPTIC
Light Source: (16) 5700K CCT, 70 CRI LEDS
CLU028-1204C4-40ALK3
Ballast/Driver: OSRAM
OT180/UNV/1250C/2DIMLT2

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28724.2 lumens
Efficiency: N/A
Efficacy: 101.1 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

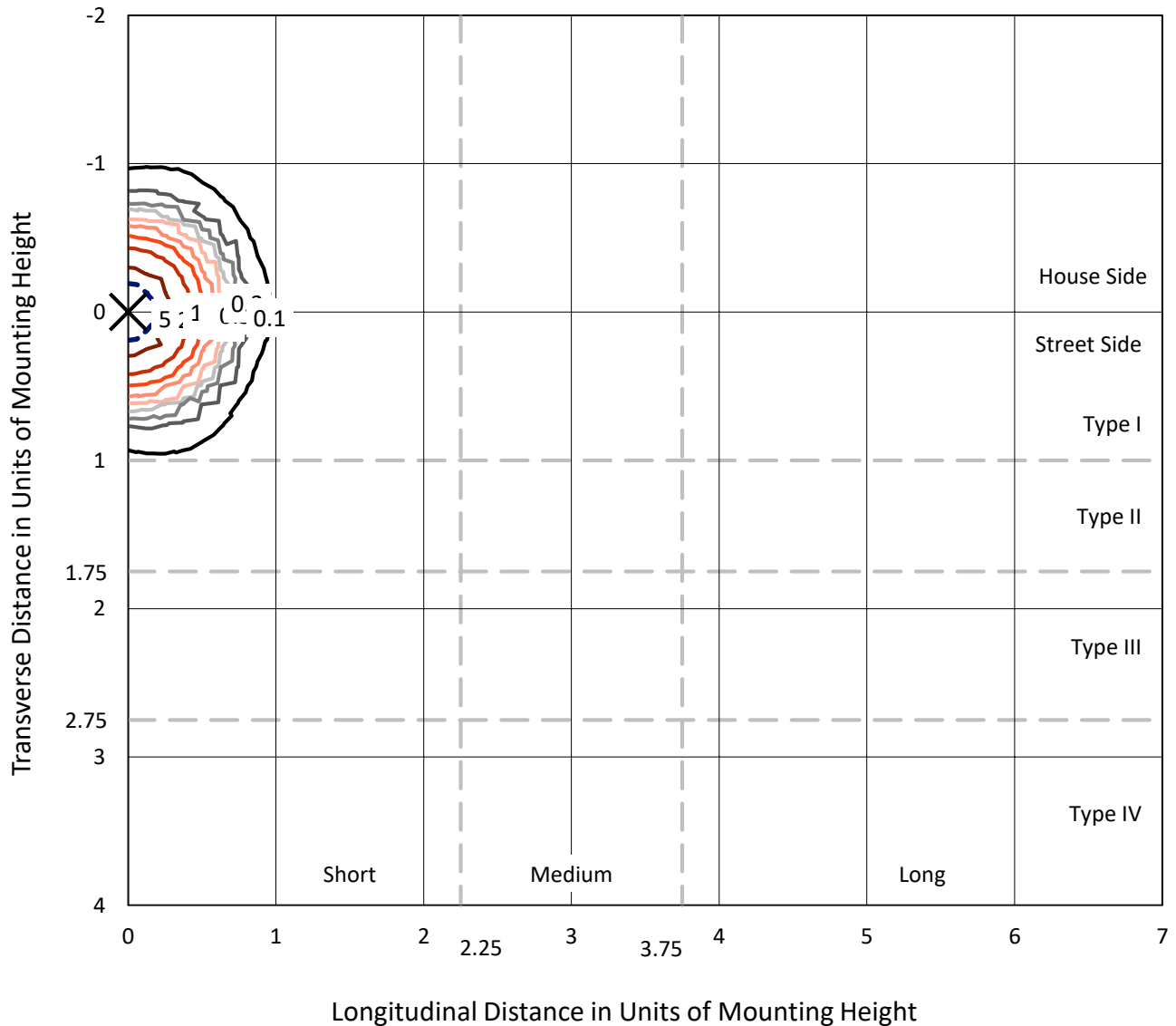


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Iso-Footcandle Lines of Horizontal Illumination

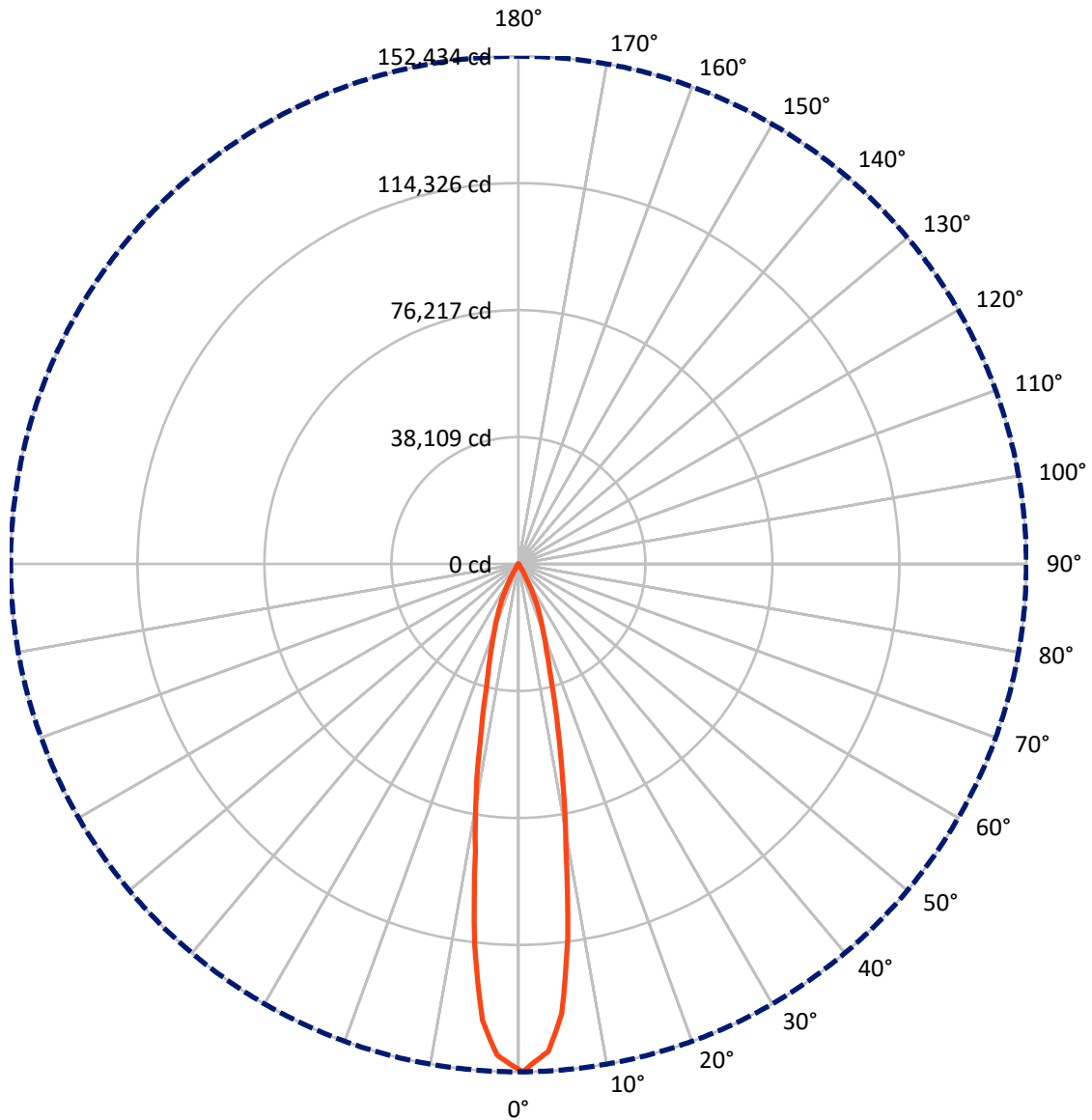
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 243.9 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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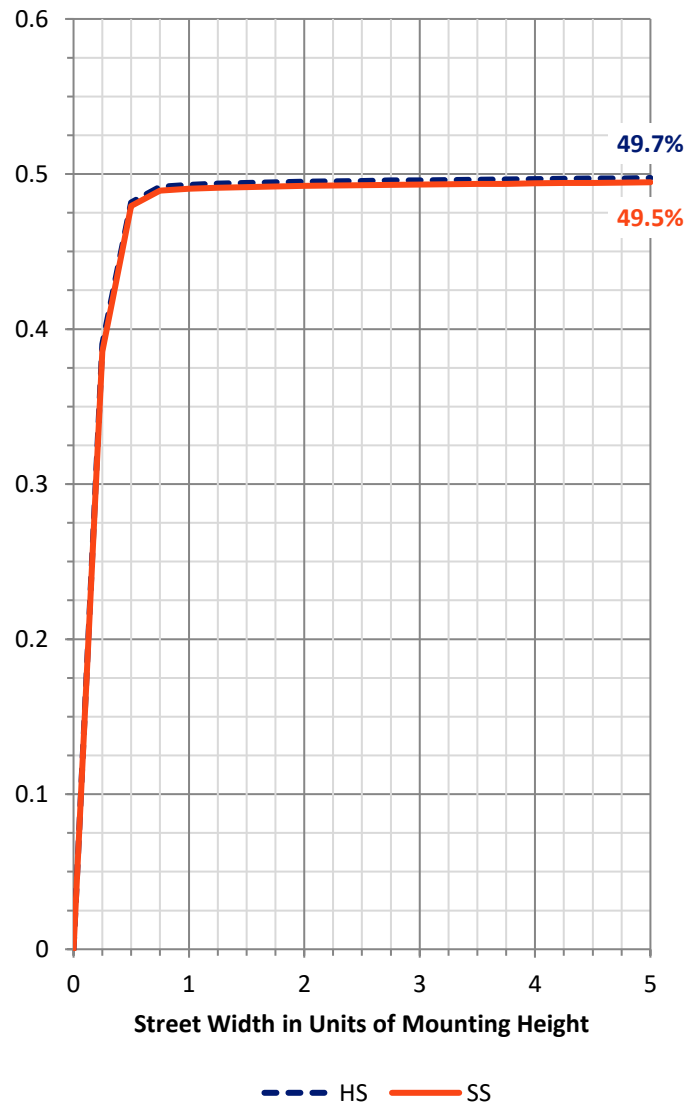
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14532.7	0.0	14532.7
	% Fixture	50.6	0.0	50.6
Street Side	Lumens	14191.6	0.0	14191.6
	% Fixture	49.4	0.0	49.4
Total	Lumens	28724.2	0.0	28724.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10843.1	37.7
10°-20°	11285.3	39.3
20°-30°	5465.7	19.0
30°-40°	1061.0	3.7
40°-50°	126.6	0.4
50°-60°	66.9	0.2
60°-70°	52.0	0.2
70°-80°	116.0	0.4
80°-90°	88.4	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°	28724.2	100.0
0°-180°	28724.2	100.0



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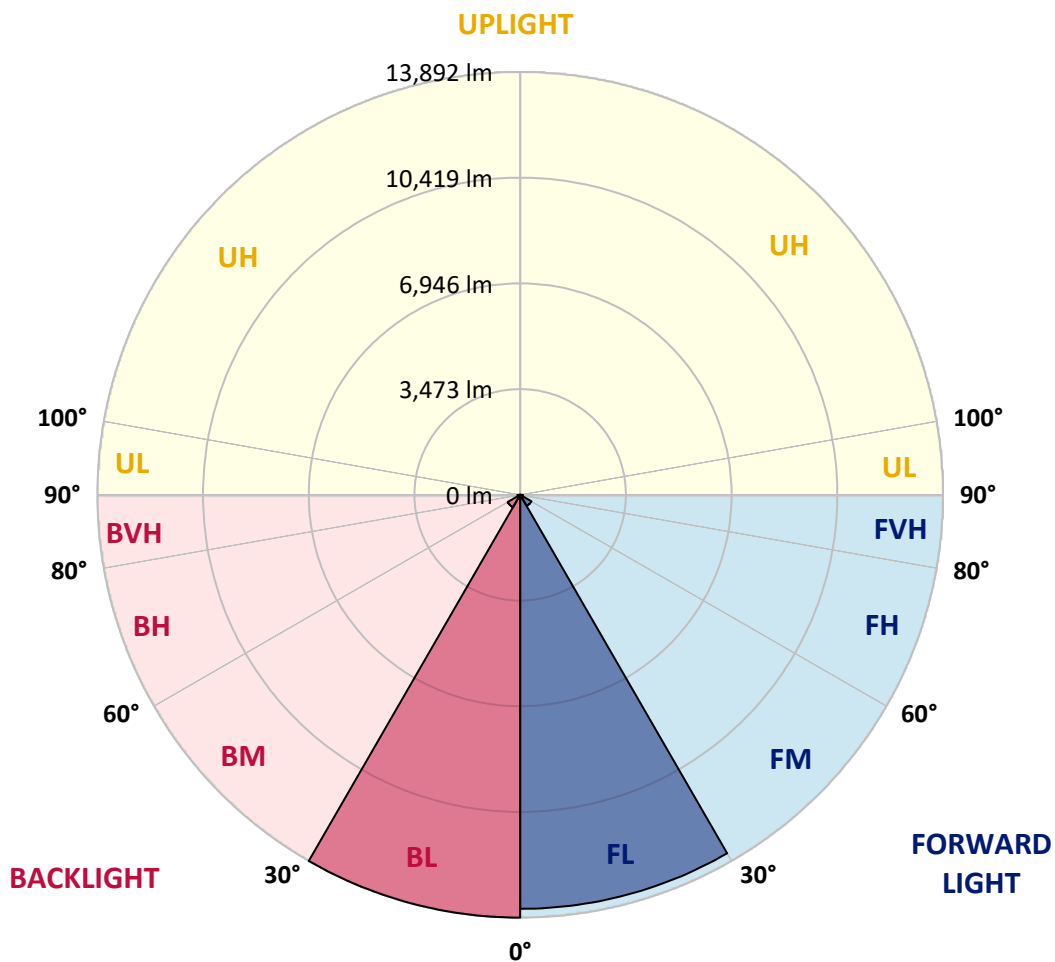
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	13601.5	47.4			
FM	(30°-60°)	427.3	1.5			
FH	(60°-80°)	69.5	0.2			G0/660
FVH	(80°-90°)	91.1	0.3			G1/100
BL	(0°-30°)	13892.2	48.4	B5		
BM	(30°-60°)	472.4	1.6	B1/1000		
BH	(60°-80°)	73.9	0.3	B0/110		G0/660
BVH	(80°-90°)	91.8	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°	#####	150330.1	150501.1	150704.8	150926.0	151153.0	151379.2	151602.3	151824.6	152051.6	151835.0
3°	#####	146537.7	146654.1	146013.9	145713.4	145771.9	146188.1	146939.3	147137.5	147474.7	147411.4
5°	#####	135501.5	134163.5	133781.3	134086.7	134233.8	134080.5	134389.0	135665.3	136218.2	136102.8
7°	#####	112887.7	111535.9	111505.2	112098.0	112300.5	112118.9	112396.4	113629.7	114604.3	114240.5
9°	86253.6	86224.4	86484.2	86497.8	86308.5	86403.8	86941.0	87105.7	86125.1	86289.8	86245.4
11°	66993.5	66912.8	66841.9	67009.0	67460.4	67694.9	67648.1	67909.8	68067.6	68348.7	68095.1
13°	50682.9	50479.4	50685.9	50981.6	51153.1	51363.2	51487.9	51588.3	51517.2	51914.5	51892.4
15°	37261.5	37389.9	37750.5	37527.3	37905.8	37970.0	37427.9	38011.8	37690.2	37637.2	37998.6
17°	28785.7	28945.2	29045.9	29016.3	29129.1	28927.8	29074.3	29123.7	29070.3	28958.5	29267.4
19.5°	21849.0	21993.3	22163.5	22024.0	22139.3	22181.8	22194.4	22350.2	22408.6	22697.8	22500.5
22.5°	15925.9	15987.4	16038.1	16203.2	16242.8	16344.5	16370.7	16377.3	16576.5	16775.8	16723.6
25.5°	10172.5	10293.3	10434.4	10629.2	10808.1	10867.9	10891.0	11008.0	11036.9	11071.7	11150.8
29°	4167.1	4479.8	4808.2	4819.8	5047.1	5030.7	5167.2	5354.5	5130.2	5009.9	5224.0
33°	583.7	857.1	1245.9	995.9	1215.0	1177.0	1303.3	1462.4	1165.2	886.1	1210.0
37.5°	210.0	251.1	287.3	266.7	263.3	264.2	279.1	274.9	274.4	220.0	287.4
42.5°	165.8	188.0	209.9	206.1	205.6	182.0	173.7	166.8	176.3	173.8	181.4
47.5°	101.5	122.2	143.3	156.0	141.1	122.2	98.9	101.4	120.1	127.6	109.4
55°	32.1	70.3	86.1	79.3	58.6	45.0	26.2	16.2	32.0	16.1	26.4
65°	24.1	80.2	73.6	51.7	41.4	31.2	27.3	24.1	32.2	28.1	39.2
75°	8.0	76.5	47.1	35.3	47.0	62.5	81.1	82.3	115.6	101.5	129.2
85°	0.0	44.4	121.3	235.6	300.0	325.7	336.7	360.2	365.3	394.8	369.9
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°	151632.0	151444.4	151275.0	151127.1	151005.4	150915.2	150862.2	150852.2	150862.2	150915.2	151005.4
3°	147440.1	146775.3	146396.0	146320.6	146551.3	147073.6	147196.8	147490.8	147196.8	147073.6	146551.3
5°	135031.6	134922.9	135450.5	136046.3	135971.6	136030.7	136933.3	137341.3	136933.3	136030.7	135971.6
7°	113405.7	113378.9	113919.7	114302.0	114802.2	114988.9	115069.2	115646.1	115069.2	114988.9	114802.2
9°	87603.4	88012.3	87824.6	87537.7	88165.1	89662.6	87795.3	87361.7	87795.3	89662.6	88165.1
11°	68066.1	68023.5	68433.4	68533.4	67833.5	68717.5	68163.8	69502.0	68163.8	68717.5	67833.5
13°	52205.4	51839.6	51880.0	52070.2	52225.3	52081.3	52112.3	51516.7	52112.3	52081.3	52225.3
15°	38783.4	38514.7	38445.8	38591.8	38494.4	38809.0	38916.6	38158.6	38916.6	38809.0	38494.4
17°	29530.1	29707.2	29817.2	29614.5	29821.3	30126.8	30187.8	30274.5	30187.8	30126.8	29821.3
19.5°	22598.1	22551.4	22772.6	22872.4	22780.6	23065.6	23030.8	23106.7	23030.8	23065.6	22780.6
22.5°	16676.4	16768.4	16903.6	16891.5	16923.8	16877.1	16921.4	16682.3	16921.4	16877.1	16923.8
25.5°	11302.1	11343.5	11410.4	11408.5	11406.9	11346.5	11240.1	11368.0	11240.1	11346.5	11406.9
29°	5530.8	5469.1	5430.2	5513.6	5358.1	5558.4	5286.2	5286.2	5286.2	5558.4	5358.1
33°	1532.8	1443.2	1352.6	1410.5	1182.4	1531.6	1167.5	899.1	1167.5	1531.6	1182.4
37.5°	291.2	308.8	306.8	298.9	294.7	327.2	287.1	235.1	287.1	327.2	294.7
42.5°	181.3	179.5	195.6	210.0	206.8	216.2	201.5	193.9	201.5	216.2	206.8
47.5°	110.6	118.3	134.4	137.8	154.9	158.0	137.2	109.5	137.2	158.0	154.9
55°	23.3	31.9	42.4	61.2	81.5	89.9	74.7	36.2	74.7	89.9	81.5
65°	33.8	33.3	29.4	44.6	56.5	78.3	86.1	24.1	86.1	78.3	56.5
75°	86.7	88.2	66.3	55.4	37.6	54.2	74.6	8.0	74.6	54.2	37.6
85°	362.6	332.7	327.2	306.9	242.3	119.7	30.3	12.1	30.3	119.7	242.3
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°	151127.1	151275.0	151444.4	151632.0	151835.0	152051.6	151824.6	151602.3	151379.2	151153.0	150926.0
3°	146320.6	146396.0	146775.3	147440.1	147411.4	147474.7	147137.5	146939.3	146188.1	145771.9	145713.4
5°	136046.3	135450.5	134922.9	135031.6	136102.8	136218.2	135665.3	134389.0	134080.5	134233.8	134086.7
7°	114302.0	113919.7	113378.9	113405.7	114240.5	114604.3	113629.7	112396.4	112118.9	112300.5	112098.0
9°	87537.7	87824.6	88012.3	87603.4	86245.4	86289.8	86125.1	87105.7	86941.0	86403.8	86308.5
11°	68533.4	68433.4	68023.5	68066.1	68095.1	68348.7	68067.6	67909.8	67648.1	67694.9	67460.4
13°	52070.2	51880.0	51839.6	52205.4	51892.4	51914.5	51517.2	51588.3	51487.9	51363.2	51153.1
15°	38591.8	38445.8	38514.7	38783.4	37998.6	37637.2	37690.2	38011.8	37427.9	37970.0	37905.8
17°	29614.5	29817.2	29707.2	29530.1	29267.4	28958.5	29070.3	29123.7	29074.3	28927.8	29129.1
19.5°	22872.4	22772.6	22551.4	22598.1	22500.5	22697.8	22408.6	22350.2	22194.4	22181.8	22139.3
22.5°	16891.5	16903.6	16768.4	16676.4	16723.6	16775.8	16576.5	16377.3	16370.7	16344.5	16242.8
25.5°	11408.5	11410.4	11343.5	11302.1	11150.8	11071.7	11036.9	11008.0	10891.0	10867.9	10808.1
29°	5513.6	5430.2	5469.1	5530.8	5224.0	5009.9	5130.2	5354.5	5167.2	5030.7	5047.1
33°	1410.5	1352.6	1443.2	1532.8	1210.0	886.1	1165.2	1462.4	1303.3	1177.0	1215.0
37.5°	298.9	306.8	308.8	291.2	287.4	220.0	274.4	274.9	279.1	264.2	263.3
42.5°	210.0	195.6	179.5	181.3	181.4	173.8	176.3	166.8	173.7	182.0	205.6
47.5°	137.8	134.4	118.3	110.6	109.4	127.6	120.1	101.4	98.9	122.2	141.1
55°	61.2	42.4	31.9	23.3	26.4	16.1	32.0	16.2	26.2	45.0	58.6
65°	44.6	29.4	33.3	33.8	39.2	28.1	32.2	24.1	27.3	31.2	41.4
75°	55.4	66.3	88.2	86.7	129.2	101.5	115.6	82.3	81.1	62.5	47.0
85°	306.9	327.2	332.7	362.6	369.9	394.8	365.3	360.2	336.7	325.7	300.0
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°	150704.8	150501.1	150330.1	150209.2
3°	146013.9	146654.1	146537.7	146584.6
5°	133781.3	134163.5	135501.5	135621.5
7°	111505.2	111535.9	112887.7	113215.0
9°	86497.8	86484.2	86224.4	86253.6
11°	67009.0	66841.9	66912.8	66993.5
13°	50981.6	50685.9	50479.4	50682.9
15°	37527.3	37750.5	37389.9	37261.5
17°	29016.3	29045.9	28945.2	28785.7
19.5°	22024.0	22163.5	21993.3	21849.0
22.5°	16203.2	16038.1	15987.4	15925.9
25.5°	10629.2	10434.4	10293.3	10172.5
29°	4819.8	4808.2	4479.8	4167.1
33°	995.9	1245.9	857.1	583.7
37.5°	266.7	287.3	251.1	210.0
42.5°	206.1	209.9	188.0	165.8
47.5°	156.0	143.3	122.2	101.5
55°	79.3	86.1	70.3	32.1
65°	51.7	73.6	80.2	24.1
75°	35.3	47.1	76.5	8.0
85°	235.6	121.3	44.4	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)