

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: P270691

Luminaire Tested: **NAV-AF-06-D-UNV-SLL-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270691  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-SLL-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22332.7 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

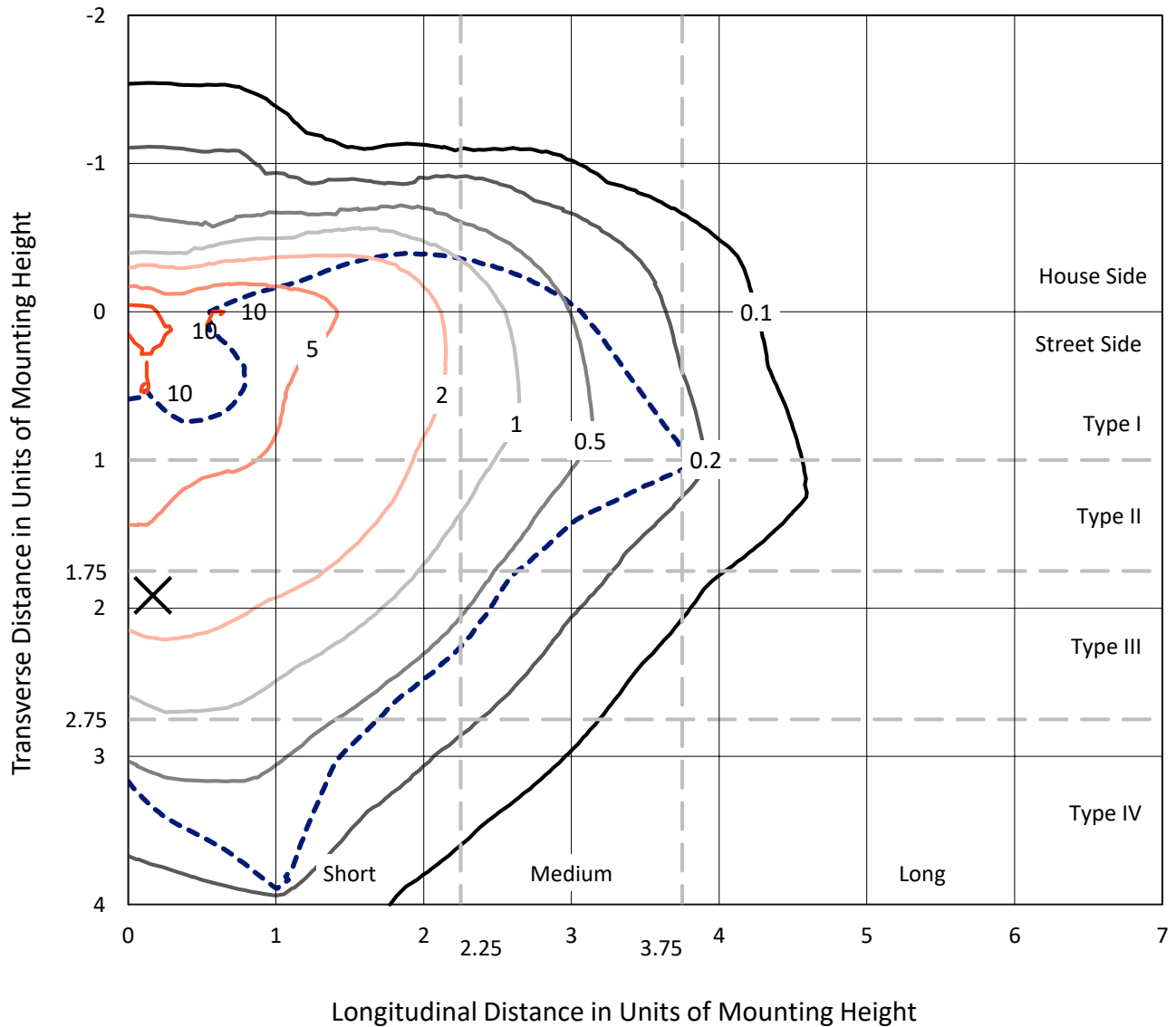
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

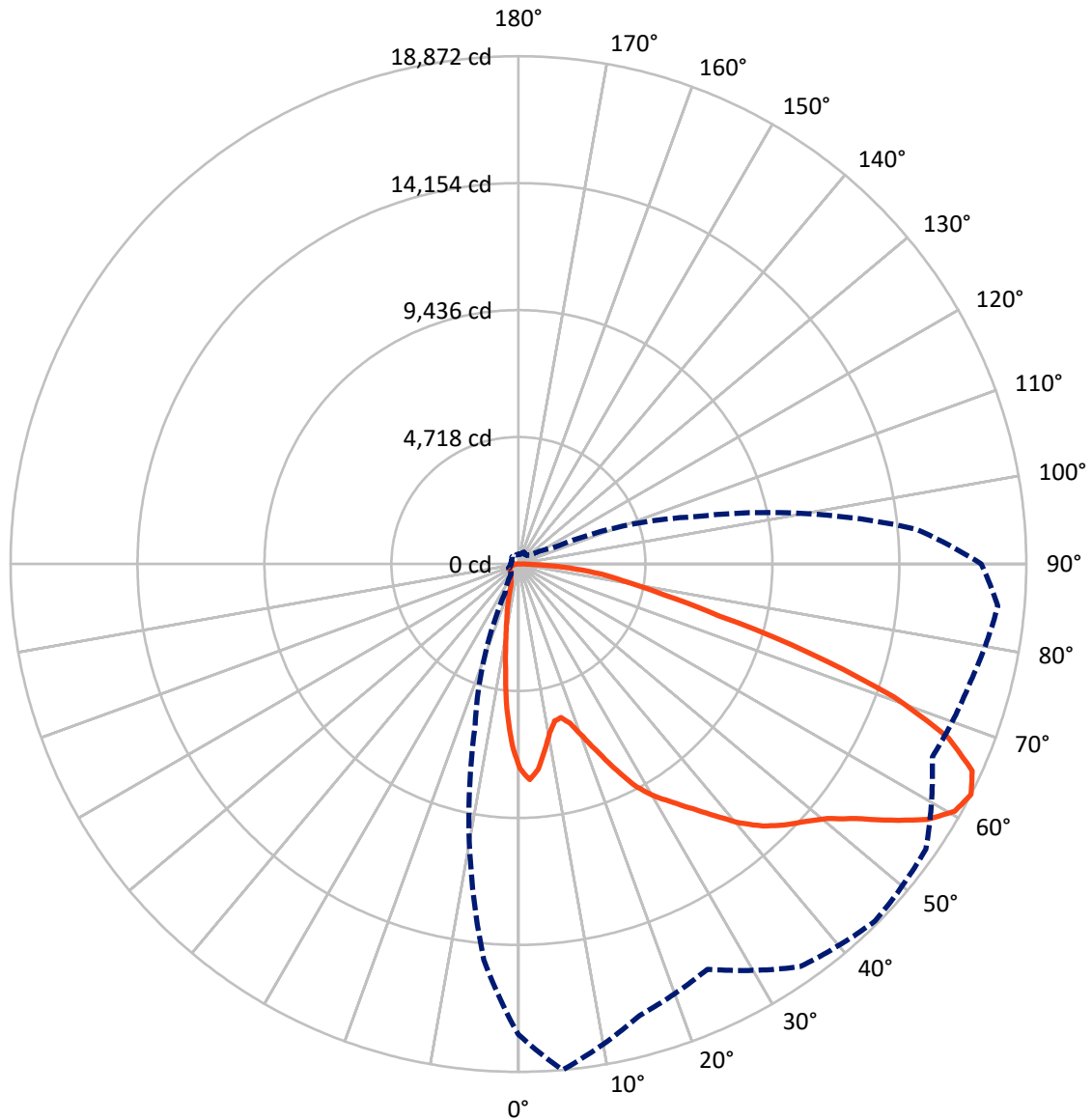
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3956.3	0.0	3956.3
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	18376.4	0.0	18376.4
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	22332.7	0.0	22332.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	553.7	2.5
10°-20°	1011.3	4.5
20°-30°	1454.6	6.5
30°-40°	2227.8	10.0
40°-50°	3257.1	14.6
50°-60°	4739.1	21.2
60°-70°	5490.9	24.6
70°-80°	2862.3	12.8
80°-90°	735.8	3.3
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°	22332.7	100.0
0°-180°	22332.7	100.0



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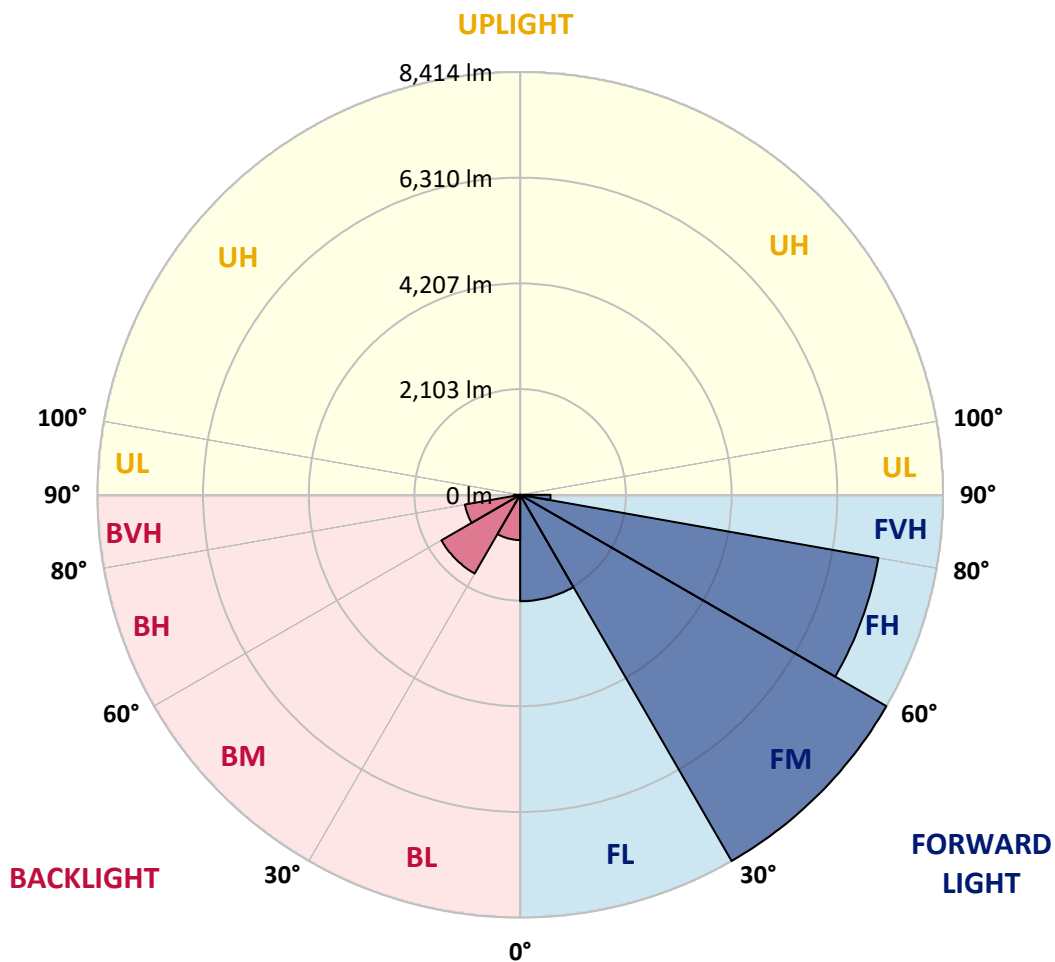
CATALOG NUMBER: NAV-AF-06-D-UNV-SLL-7027-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2119.5	9.5			
FM	(30°-60°)	8413.9	37.7			
FH	(60°-80°)	7237.7	32.4			G3/7500
FVH	(80°-90°)	605.3	2.7			G4/750
BL	(0°-30°)	900.1	4.0	B2/1000		
BM	(30°-60°)	1810.1	8.1	B2/2500		
BH	(60°-80°)	1115.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	130.5	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	7859.8	8026.5	8217.6	8467.0	8637.1	8704.9	8761.7	8666.2	8573.9	8400.6	8339.1
5°	7341.6	7662.3	8188.5	8688.8	9129.3	9381.9	9459.5	9283.1	8968.9	8515.6	8275.9
7.5°	6572.4	6995.1	7735.0	8471.8	9103.3	9524.3	9555.1	9205.3	8586.8	7843.6	7454.9
10°	5900.4	6378.1	7234.7	8059.0	8727.7	9158.4	9074.1	8583.6	7837.2	6991.9	6553.0
12.5°	5510.3	5987.9	6860.6	7697.8	8327.6	8491.3	8319.7	7906.7	7199.0	6352.3	5910.2
15°	5427.6	5919.9	6727.9	7434.0	7824.1	7718.9	7548.8	7340.1	6836.5	6143.4	5715.8
17.5°	5677.0	6227.6	6904.5	7291.5	7275.3	7022.6	6880.1	6920.6	6834.8	6370.2	5923.2
20°	6190.3	6841.2	7352.9	7252.6	6838.0	6483.3	6400.9	6718.2	7114.9	6938.4	6447.8
22.5°	6865.6	7607.1	7965.0	7364.2	6609.6	6227.6	6211.4	6706.8	7625.0	7798.2	7200.8
25°	7628.1	8492.8	8582.0	7561.8	6585.5	6205.0	6190.3	6881.7	8238.6	8650.0	8044.3
27.5°	8560.8	9386.7	9096.9	7825.8	6692.4	6271.2	6280.9	7179.7	8878.3	9491.9	8994.9
30°	9263.6	10021.4	9414.2	8084.8	6863.9	6387.8	6412.2	7501.9	9223.2	10076.5	9754.2
32.5°	9921.1	10563.9	9718.7	8340.7	7114.9	6561.1	6645.3	7903.5	9637.6	10578.4	10471.6
35°	10648.1	11171.1	10057.1	8614.3	7474.3	6865.6	6986.9	8285.6	10049.0	11080.5	11182.5
37.5°	11472.3	11865.7	10424.7	9001.3	7992.5	7429.1	7497.1	8675.9	10335.5	11635.8	11945.1
40°	12330.5	12644.6	10826.3	9517.8	8745.4	8190.0	8222.5	9176.1	10560.7	12210.7	12685.1
42.5°	13067.3	13311.8	11229.4	10159.1	9610.2	8965.8	8993.2	9715.3	10776.0	12706.2	13277.7
45°	13656.7	13836.4	11610.0	10834.3	10533.2	9933.9	9927.4	10264.4	11064.2	13123.9	13732.7
47.5°	14205.5	14301.0	12034.1	11491.7	11490.1	11180.8	10949.4	10912.0	11448.0	13475.2	14129.4
50°	14833.8	14869.5	12594.3	12155.5	12659.2	12610.5	12183.2	11734.6	11945.1	13870.4	14545.5
52.5°	15708.2	15709.7	13289.0	12803.4	13949.7	14103.5	13606.4	12665.7	12680.2	14639.5	15264.4
55°	16736.4	16807.6	14194.2	13578.9	15300.1	15562.4	15094.5	13771.6	13736.0	15879.8	16430.4
57.5°	17531.4	17908.7	15248.3	14548.8	16561.5	16903.1	16525.8	14918.1	15033.0	17159.1	17392.2
60°	17754.9	18637.3	16299.1	15636.9	17628.6	18141.9	17758.1	16156.7	16302.4	17989.6	17669.1
62.5°	17487.8	18872.2	17369.4	16611.7	18261.7	18753.9	18478.8	16967.9	17337.2	17882.7	17201.1
65°	16695.9	18532.2	18299.0	17026.3	17897.4	18072.3	17999.3	17010.0	17899.0	16872.4	15907.4
67.5°	14846.7	17220.6	17884.4	16140.6	16195.6	16007.7	15912.1	15853.9	17267.5	15241.8	13867.1
70°	12074.7	14796.5	15907.4	13507.6	13099.7	12918.3	12604.1	13381.3	15520.3	12986.3	11412.3
72.5°	9301.0	11320.1	13047.8	10240.0	9391.6	9453.0	9096.9	10232.0	12856.7	10039.3	8713.1
75°	6604.9	7718.9	10414.9	7357.7	6234.1	6230.9	6203.2	7364.2	10144.5	7205.6	6374.9
77.5°	4760.6	5557.3	8159.3	4924.1	4423.8	4480.4	4389.7	5005.0	7908.4	5183.2	4723.3
80°	3797.0	4114.4	5273.9	3283.8	3293.5	3426.2	3406.8	3423.0	5202.7	3753.4	3531.5
82.5°	2728.4	3123.4	4032.0	2516.3	2177.9	2318.7	2346.3	2539.0	3670.8	2654.0	2328.4
85°	1399.0	1904.1	3709.7	2179.5	1361.8	1128.6	1298.6	2003.0	3188.3	1590.1	1135.1
87.5°	272.0	527.8	2718.7	1211.2	612.0	309.2	510.1	848.4	1854.0	288.3	140.9
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	8233.9	8026.5	7832.2	7631.5	7476.1	7286.5	7100.4	6938.4	6781.3	6677.7	6710.1
5°	8033.1	7527.8	7074.4	6653.4	6407.3	6111.0	5847.1	5625.2	5453.6	5343.5	5409.9
7.5°	7118.2	6434.7	5837.4	5281.9	4932.1	4548.4	4240.8	4023.8	3891.0	3816.4	3925.1
10°	6182.2	5414.8	4744.4	4166.2	3821.4	3495.9	3217.4	2987.6	2809.4	2725.2	2768.8
12.5°	5511.9	4658.5	3955.7	3567.2	3270.9	2979.4	2691.1	2422.4	2195.6	2092.1	2071.0
15°	5261.0	4252.0	3534.8	3100.8	2806.1	2488.8	2177.9	1889.7	1674.4	1585.1	1565.7
17.5°	5371.0	4164.6	3285.5	2772.1	2344.7	1959.3	1609.6	1337.4	1178.8	1128.6	1133.4
20°	5758.0	4197.1	3084.6	2433.7	1905.8	1449.2	1099.4	911.6	843.6	832.3	845.2
22.5°	6289.2	4329.8	2939.0	2142.3	1518.9	1054.2	817.6	728.6	710.9	709.2	722.1
25°	6990.3	4588.9	2841.8	1883.1	1199.9	835.6	712.4	662.3	647.7	650.9	663.8
27.5°	7816.1	4917.6	2778.5	1659.7	986.1	744.9	665.6	621.7	607.3	610.5	620.2
30°	8570.5	5205.9	2684.7	1491.4	885.6	712.4	639.7	595.8	576.4	576.4	582.9
32.5°	9245.9	5455.1	2574.6	1365.1	793.5	639.7	579.6	545.7	531.1	536.0	539.3
35°	9845.0	5586.4	2488.8	1290.5	719.0	589.4	529.6	493.9	474.5	477.7	482.5
37.5°	10434.4	5636.5	2432.2	1250.0	665.6	558.7	503.6	474.5	453.4	450.1	448.6
40°	10994.5	5625.2	2378.6	1238.8	629.9	536.0	487.4	461.5	440.3	435.6	433.9
42.5°	11478.7	5587.9	2328.4	1208.0	605.5	519.8	474.5	451.8	430.6	424.2	420.9
45°	11920.8	5565.3	2273.4	1151.3	618.6	513.3	467.9	443.7	424.2	416.2	413.0
47.5°	12411.4	5646.2	2211.8	1089.7	615.2	514.9	467.9	440.3	420.9	413.0	409.6
50°	12996.0	5919.9	2135.8	1005.6	586.1	550.5	466.3	435.6	417.7	413.0	406.5
52.5°	13821.9	6363.7	2030.4	897.0	563.4	587.9	464.8	427.5	413.0	404.7	396.7
55°	14953.6	6807.3	1894.4	782.1	527.8	561.9	467.9	417.7	401.5	393.5	383.8
57.5°	15881.5	7144.1	1722.9	686.6	495.4	531.1	463.0	406.5	388.5	380.5	372.4
60°	15821.6	7176.4	1559.3	625.0	476.0	477.7	474.5	398.3	377.3	370.8	364.4
62.5°	14841.8	6776.5	1407.1	594.3	461.5	435.6	484.1	388.5	366.0	359.5	354.7
65°	13211.4	5845.5	1326.2	594.3	448.6	413.0	422.7	375.8	354.7	348.2	344.9
67.5°	11143.6	4697.3	1250.0	607.3	430.6	396.7	383.8	362.7	343.3	336.9	333.6
70°	8931.7	3696.7	1196.6	600.7	414.5	378.8	362.7	344.9	325.5	323.8	320.6
72.5°	7006.4	2969.6	1172.3	600.7	390.3	357.9	341.6	328.7	309.2	307.7	302.8
75°	5613.9	2229.8	1071.9	589.4	366.0	330.3	315.8	304.4	285.0	286.6	283.3
77.5°	4347.6	1577.2	895.4	531.1	335.2	299.6	288.3	280.1	257.5	259.2	259.2
80°	3400.4	1026.7	694.7	440.3	299.6	263.9	255.8	249.4	225.0	228.3	228.3
82.5°	2330.1	610.5	503.6	354.7	257.5	225.0	223.5	213.7	187.8	189.5	192.6
85°	1272.7	401.5	335.2	262.3	202.4	183.0	179.8	174.9	150.6	150.6	152.3
87.5°	234.7	215.4	197.5	173.3	136.1	131.2	126.3	131.2	113.4	110.1	110.1
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	6634.1	6522.2	6444.5	6376.6	6212.9	6224.4	6247.1	6279.4	6177.4	6230.9	6297.2
5°	5343.5	5251.2	5181.6	5073.1	4844.7	4763.8	4712.0	4689.3	4537.1	4569.5	4640.7
7.5°	3939.5	3938.0	3913.6	3792.3	3517.0	3350.1	3240.0	3206.1	3112.2	3147.8	3256.3
10°	2773.7	2802.9	2791.6	2683.1	2436.9	2317.1	2292.8	2360.8	2362.5	2432.2	2618.3
12.5°	2004.6	1988.4	1973.8	1884.9	1700.2	1680.8	1735.9	1829.8	1852.5	1926.9	2121.2
15°	1496.1	1457.3	1449.2	1379.5	1258.2	1276.0	1316.5	1365.1	1366.6	1418.5	1578.7
17.5°	1122.2	1122.2	1135.1	1089.7	1002.2	994.2	973.1	960.2	940.7	961.8	1049.3
20°	871.1	911.6	943.9	918.1	838.7	799.9	759.3	733.6	719.0	720.6	746.5
22.5°	746.5	778.8	821.0	807.9	741.6	691.4	665.6	647.7	636.4	636.4	650.9
25°	683.3	704.5	743.3	736.8	680.0	639.7	618.6	600.7	587.9	586.1	600.7
27.5°	633.1	646.2	672.0	668.8	610.5	584.5	571.6	560.3	552.2	550.5	565.2
30°	587.9	594.3	607.3	602.4	558.7	532.8	527.8	523.1	518.1	519.8	540.8
32.5°	547.2	552.2	560.3	553.7	511.7	488.9	481.0	474.5	469.5	474.5	498.6
35°	502.0	516.5	526.2	523.1	477.7	450.1	432.4	416.2	409.6	414.5	442.1
37.5°	463.0	487.4	500.4	497.1	450.1	417.7	395.1	391.8	391.8	398.3	425.8
40°	448.6	466.3	477.7	472.8	425.8	393.5	380.5	375.8	377.3	383.8	413.0
42.5°	435.6	451.8	455.0	445.3	398.3	377.3	369.3	362.7	366.0	374.1	403.2
45°	424.2	437.1	435.6	420.9	375.8	361.1	361.1	356.3	357.9	364.4	395.1
47.5°	416.2	422.7	419.4	404.7	359.5	348.2	353.0	353.0	356.3	361.1	391.8
50°	403.2	408.0	404.7	391.8	346.6	336.9	341.6	348.2	351.3	356.3	383.8
52.5°	390.3	393.5	391.8	378.8	333.6	327.2	327.2	333.6	340.1	346.6	370.8
55°	377.3	380.5	382.0	372.4	323.8	317.5	315.8	315.8	322.2	332.0	357.9
57.5°	367.5	367.5	370.8	364.4	314.1	306.1	298.0	299.6	307.7	315.8	341.6
60°	356.3	357.9	362.7	356.3	301.2	288.3	281.8	289.9	293.0	301.2	328.7
62.5°	346.6	346.6	349.8	344.9	289.9	276.9	272.0	280.1	280.1	288.3	315.8
65°	338.4	336.9	336.9	335.2	278.6	265.5	262.3	265.5	267.2	275.3	302.8
67.5°	332.0	323.8	323.8	327.2	267.2	254.2	252.7	252.7	254.2	263.9	288.3
70°	317.5	311.0	309.2	320.6	255.8	239.7	239.7	236.4	239.7	244.5	270.4
72.5°	301.2	296.4	294.7	311.0	244.5	223.5	220.3	218.6	220.3	225.0	249.4
75°	280.1	276.9	280.1	304.4	233.2	205.6	200.9	199.2	199.2	200.9	226.7
77.5°	255.8	252.7	276.9	283.3	226.7	184.6	179.8	176.4	173.3	173.3	202.4
80°	226.7	225.0	267.2	239.7	217.0	162.0	153.8	148.9	145.7	144.1	173.3
82.5°	197.5	194.4	228.3	187.8	179.8	132.8	121.5	111.7	106.9	106.9	132.8
85°	162.0	160.3	179.8	137.6	124.7	97.1	80.9	72.9	66.4	66.4	85.8
87.5°	118.1	115.0	111.7	82.6	63.2	43.7	30.7	29.1	26.0	24.3	35.7
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7	7613.7
2.5°	6396.0	6530.4	6784.5	6993.5	7272.0	7495.5	7749.7	7859.8
5°	4771.8	4983.9	5372.7	5704.5	6164.3	6590.2	7076.0	7341.6
7.5°	3423.0	3737.2	4032.0	4446.4	5021.3	5592.8	6221.1	6572.4
10°	2832.0	3120.3	3372.9	3667.6	4111.3	4754.1	5503.7	5900.4
12.5°	2346.3	2657.1	2924.3	3240.0	3612.5	4193.7	5048.7	5510.3
15°	1798.9	2137.3	2458.0	2838.6	3295.2	3959.0	4912.7	5427.6
17.5°	1232.3	1594.9	1990.0	2454.8	3005.3	3860.2	5042.2	5677.0
20°	837.1	1102.7	1531.8	2082.4	2744.6	3813.2	5327.3	6190.3
22.5°	688.2	807.9	1130.2	1732.7	2530.9	3865.0	5790.4	6865.6
25°	631.5	696.2	879.3	1424.9	2367.4	4002.8	6417.0	7628.1
27.5°	595.8	650.9	770.7	1204.6	2216.7	4190.6	7179.7	8560.8
30°	574.8	626.7	727.1	1091.4	2079.0	4352.5	7835.5	9263.6
32.5°	527.8	566.7	649.4	1026.7	1980.4	4483.7	8413.5	9921.1
35°	471.3	518.1	586.1	984.5	1977.1	4545.2	8957.5	10648.1
37.5°	450.1	495.4	545.7	961.8	1996.6	4596.9	9623.2	11472.3
40°	437.1	477.7	518.1	958.6	2012.7	4637.5	10274.0	12330.5
42.5°	425.8	466.3	513.3	935.9	2006.3	4692.6	10850.4	13067.3
45°	422.7	463.0	524.6	901.9	2004.6	4778.4	11308.8	13656.7
47.5°	419.4	481.0	521.3	864.7	1998.1	4959.7	11825.3	14205.5
50°	416.2	513.3	498.6	812.8	1949.5	5269.0	12519.9	14833.8
52.5°	414.5	518.1	474.5	741.6	1862.1	5727.2	13536.7	15708.2
55°	408.0	492.2	432.4	647.7	1735.9	6221.1	14626.6	16736.4
57.5°	393.5	438.8	408.0	555.4	1554.4	6566.0	15431.4	17531.4
60°	429.1	377.3	391.8	508.4	1337.4	6627.5	15466.9	17754.9
62.5°	409.6	343.3	375.8	492.2	1185.3	6226.0	14759.3	17487.8
65°	327.2	325.5	361.1	508.4	1162.5	5327.3	13564.3	16695.9
67.5°	298.0	312.5	346.6	527.8	1177.1	4197.1	11805.9	14846.7
70°	278.6	296.4	327.2	545.7	1203.1	3306.5	9504.8	12074.7
72.5°	259.2	273.7	307.7	563.4	1185.3	2608.6	7607.1	9301.0
75°	234.7	247.8	280.1	516.5	1016.9	1917.2	6044.5	6604.9
77.5°	207.2	218.6	246.1	408.0	764.3	1334.3	4527.4	4760.6
80°	178.1	183.0	204.1	298.0	498.6	798.2	3445.7	3797.0
82.5°	140.9	142.6	155.4	218.6	311.0	510.1	2390.0	2728.4
85°	90.6	94.0	100.4	153.8	208.9	327.2	1220.8	1399.0
87.5°	30.7	35.7	35.7	74.5	102.0	181.4	374.1	272.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)