

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: P197207

Luminaire Tested: **NAV-AF-05-D-UNV-SLR-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197207  
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-05-D-UNV-SLR-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23773 lumens  
Efficiency: N/A  
Efficacy: 74.3 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): 320  
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

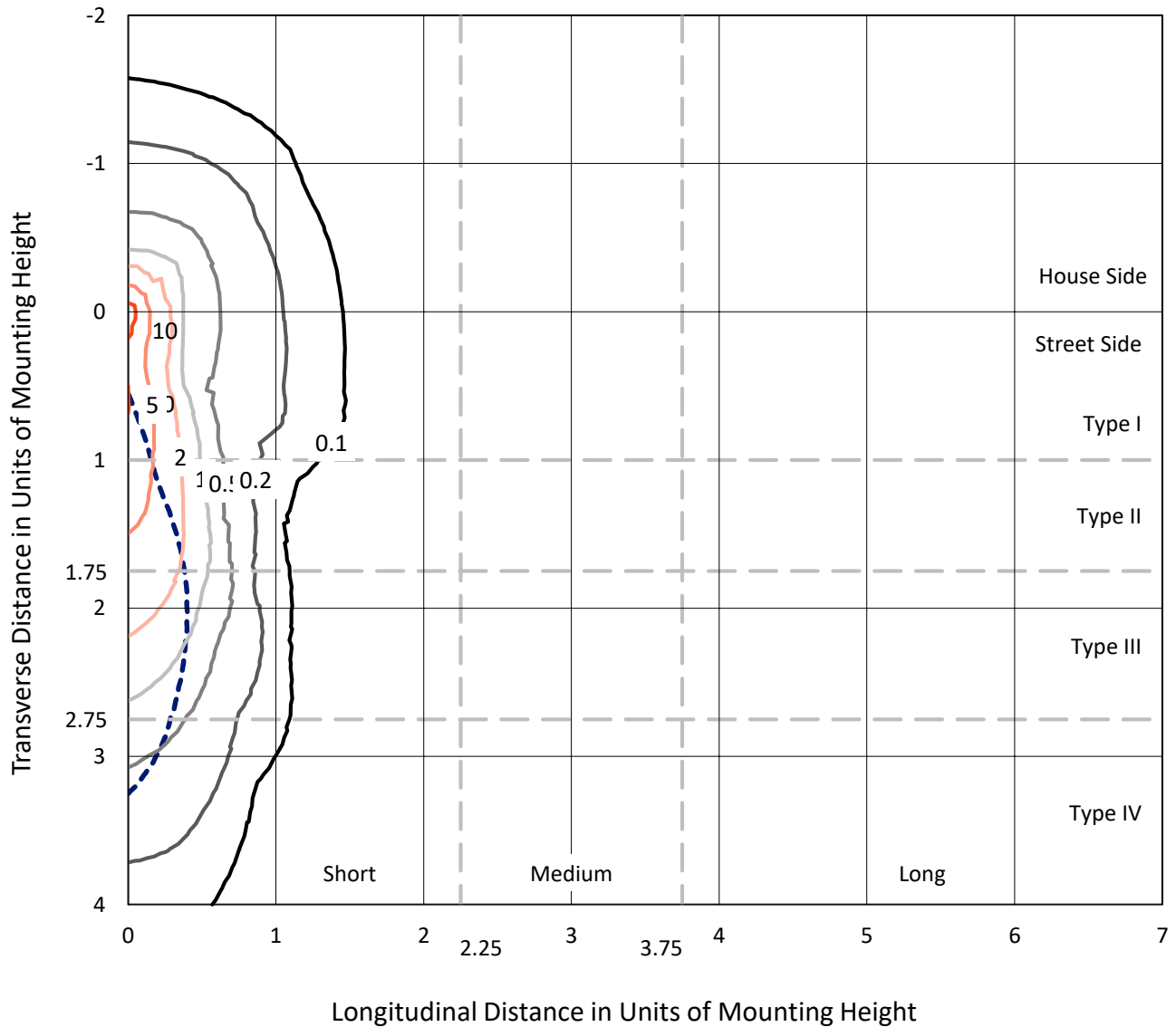


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### Iso-Footcandle Lines of Horizontal Illumination

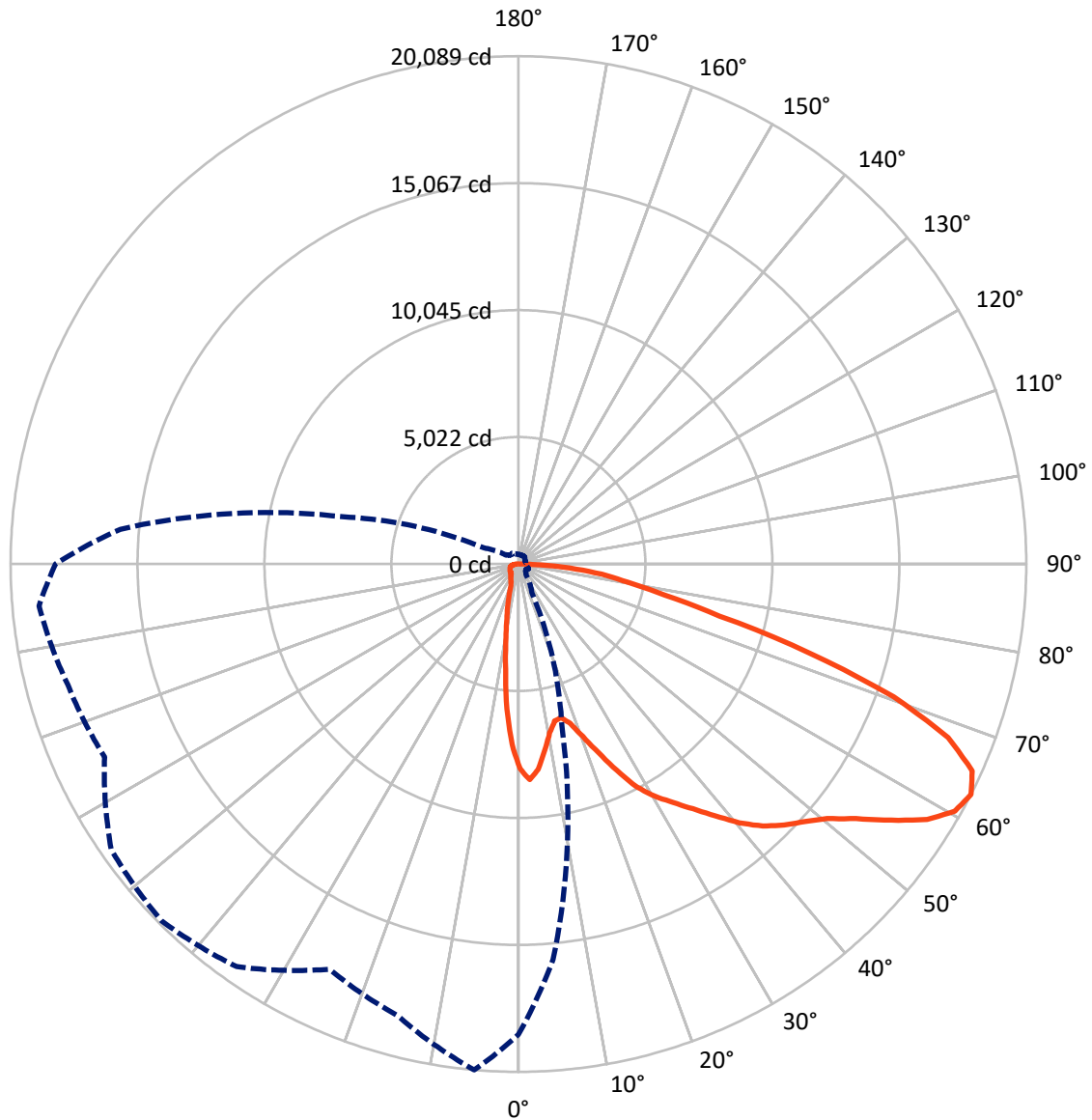
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4211.4	0.0	4211.4
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	19561.6	0.0	19561.6
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	23773.0	0.0	23773.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	589.4	2.5
10°-20°	1076.6	4.5
20°-30°	1548.4	6.5
30°-40°	2371.5	10.0
40°-50°	3467.2	14.6
50°-60°	5044.8	21.2
60°-70°	5845.1	24.6
70°-80°	3046.9	12.8
80°-90°	783.2	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°	23773.0	100.0
0°-180°	23773.0	100.0

**Coefficient of Utilization**



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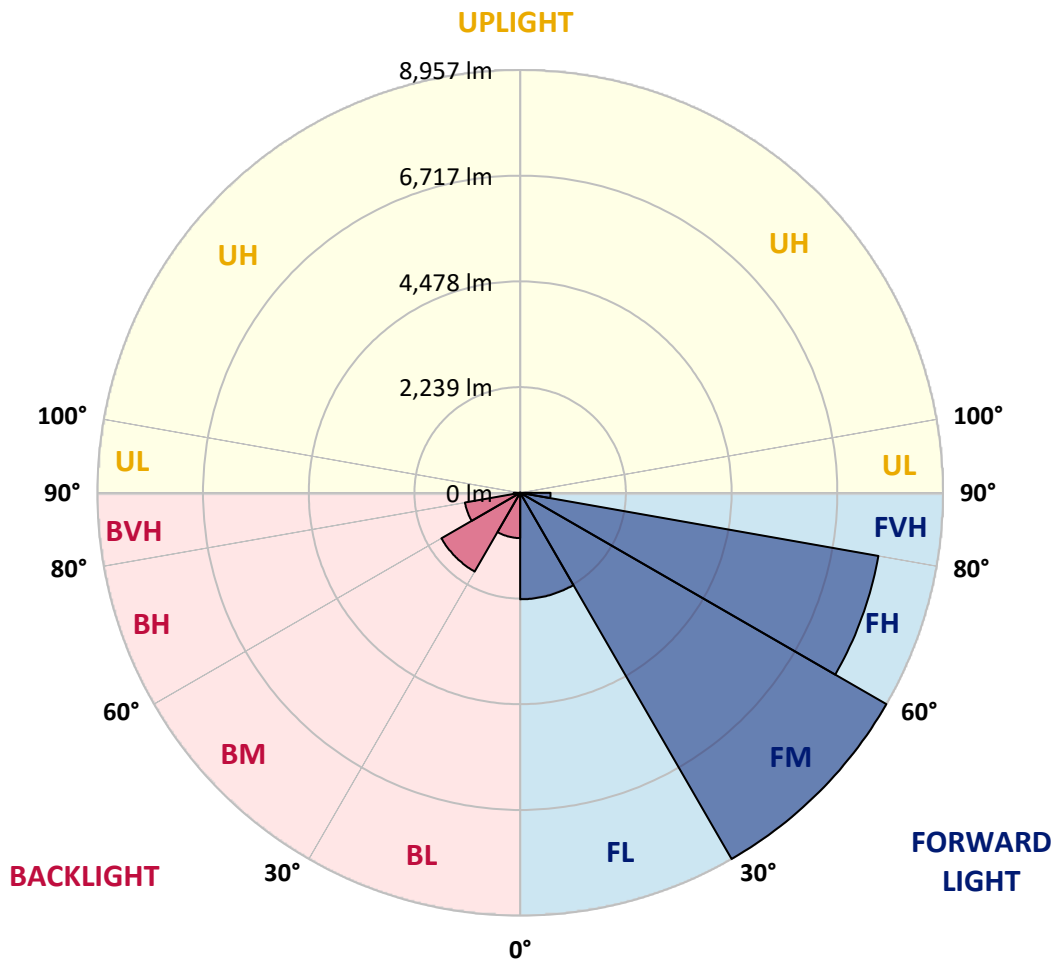
CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-8030-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2256.2	9.5			
FM	(30°-60°)	8956.6	37.7			
FH	(60°-80°)	7704.5	32.4			G4/12000
FVH	(80°-90°)	644.3	2.7			G4/750
BL	(0°-30°)	958.2	4.0	B2/1000		
BM	(30°-60°)	1926.9	8.1	B2/2500		
BH	(60°-80°)	1187.5	5.0	B3/2500		G3/2500
BVH	(80°-90°)	138.9	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°	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7
2.5°	8366.7	8249.5	7978.9	7741.0	7444.5	7222.2	6951.6	6808.5	6703.3	6632.7	6575.8
5°	7815.1	7532.4	7015.3	6562.0	6072.5	5719.1	5305.5	5079.7	4940.0	4864.2	4829.7
7.5°	6996.4	6622.3	5953.6	5345.1	4733.2	4291.9	3978.2	3643.8	3466.3	3350.8	3312.9
10°	6281.0	5858.7	5060.7	4376.4	3904.1	3590.4	3321.5	3014.7	2787.2	2589.0	2514.8
12.5°	5865.6	5374.4	4464.3	3845.5	3449.1	3112.9	2828.5	2497.6	2258.0	2051.2	1971.9
15°	5777.7	5229.6	4214.4	3507.7	3021.6	2616.5	2275.2	1915.0	1680.6	1509.9	1454.8
17.5°	6043.2	5367.5	4109.2	3199.1	2613.1	2118.4	1697.8	1311.7	1116.9	1023.9	1001.5
20°	6589.6	5670.9	4059.2	2921.6	2216.6	1630.6	1173.8	891.1	794.6	767.0	765.3
22.5°	7308.4	6163.8	4114.4	2694.1	1844.3	1203.1	860.1	732.6	692.9	677.4	677.4
25°	8120.2	6830.9	4260.9	2520.0	1516.8	936.0	741.2	672.2	639.5	624.0	625.7
27.5°	9113.0	7642.7	4460.9	2359.7	1282.4	820.5	692.9	634.3	601.6	586.0	587.8
30°	9861.1	8340.8	4633.2	2213.2	1161.8	773.9	667.1	611.9	575.7	553.3	551.6
32.5°	10560.9	8956.2	4772.8	2108.0	1092.8	691.2	603.3	561.9	530.9	505.0	499.9
35°	11334.8	9535.3	4838.3	2104.6	1048.0	624.0	551.6	501.6	470.6	441.3	436.1
37.5°	12212.2	10243.8	4893.5	2125.3	1023.9	580.9	527.4	479.2	453.3	424.0	417.1
40°	13125.7	10936.7	4936.6	2142.5	1020.4	551.6	508.5	465.4	439.5	408.5	401.6
42.5°	13910.0	11550.3	4995.2	2135.6	996.3	546.4	496.4	453.3	429.2	398.2	389.5
45°	14537.4	12038.1	5086.5	2133.9	960.1	558.5	493.0	449.9	420.6	387.8	380.9
47.5°	15121.7	12588.0	5279.6	2127.0	920.4	555.0	511.9	446.4	417.1	384.4	379.2
50°	15790.5	13327.4	5608.8	2075.3	865.3	530.9	546.4	443.0	408.5	379.2	374.0
52.5°	16721.3	14409.9	6096.6	1982.2	789.4	505.0	551.6	441.3	394.7	368.9	362.0
55°	17815.8	15569.9	6622.3	1847.8	689.5	460.2	524.0	434.4	380.9	353.4	343.0
57.5°	18662.2	16426.6	6989.5	1654.7	591.2	434.4	467.1	418.9	363.7	336.1	327.5
60°	18900.0	16464.5	7055.0	1423.8	541.2	417.1	401.6	456.8	349.9	320.6	312.0
62.5°	18615.6	15711.2	6627.5	1261.7	524.0	399.9	365.4	436.1	336.1	306.8	298.2
65°	17772.7	14439.2	5670.9	1237.6	541.2	384.4	346.5	348.2	322.3	293.0	284.4
67.5°	15804.3	12567.3	4467.7	1253.1	561.9	368.9	332.7	317.2	306.8	281.0	270.6
70°	12853.4	10117.9	3519.7	1280.7	580.9	348.2	315.4	296.5	287.9	260.3	255.1
72.5°	9900.8	8097.8	2776.8	1261.7	599.8	327.5	291.3	275.8	265.4	239.6	234.4
75°	7030.8	6434.5	2040.8	1082.5	549.9	298.2	263.7	249.9	241.3	213.7	212.0
77.5°	5067.6	4819.4	1420.3	813.6	434.4	262.0	232.7	220.6	215.5	184.4	184.4
80°	4042.0	3668.0	849.8	530.9	317.2	217.2	194.8	189.6	184.4	153.4	155.1
82.5°	2904.4	2544.1	543.0	330.9	232.7	165.5	151.7	150.0	141.3	113.8	113.8
85°	1489.2	1299.6	348.2	222.4	163.7	106.9	100.0	96.5	91.4	70.7	70.7
87.5°	289.6	398.2	193.1	108.6	79.3	37.9	37.9	32.7	37.9	25.9	27.6
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°	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7
2.5°	6684.4	6649.9	6625.8	6613.7	6787.8	6860.2	6942.9	7061.9	7142.9	7108.4	7218.7
5°	4991.7	5015.9	5071.0	5157.2	5400.3	5515.7	5589.9	5688.1	5758.8	5688.1	5805.3
7.5°	3412.9	3449.1	3566.3	3743.8	4036.8	4166.1	4192.0	4193.7	4178.2	4062.7	4142.0
10°	2513.1	2440.7	2466.6	2594.1	2856.1	2971.6	2983.7	2952.6	2947.5	2900.9	2990.6
12.5°	1947.7	1847.8	1789.2	1809.9	2006.4	2101.2	2116.7	2133.9	2204.6	2227.0	2337.3
15°	1453.1	1401.3	1358.3	1339.3	1468.6	1542.7	1551.3	1592.7	1666.8	1687.5	1782.3
17.5°	1022.1	1035.9	1058.3	1067.0	1160.0	1208.3	1194.5	1194.5	1206.6	1201.4	1254.8
20°	780.8	808.4	851.5	892.9	977.3	1004.9	970.4	927.3	899.8	886.0	898.0
22.5°	689.5	708.4	736.0	789.4	860.1	873.9	829.1	794.6	768.8	755.0	756.7
25°	639.5	658.4	680.8	723.9	784.3	791.2	749.8	727.4	706.7	692.9	689.5
27.5°	596.4	608.5	622.2	649.8	711.9	715.3	687.7	674.0	660.2	649.8	646.4
30°	556.7	561.9	567.1	594.7	641.2	646.4	632.6	625.7	620.5	613.6	613.6
32.5°	505.0	511.9	520.5	544.7	589.5	596.4	587.8	582.6	574.0	570.5	565.4
35°	443.0	460.2	479.2	508.5	556.7	560.2	549.9	534.3	513.7	508.5	505.0
37.5°	417.1	420.6	444.7	479.2	529.2	532.6	518.8	493.0	477.5	479.2	482.6
40°	399.9	405.1	418.9	453.3	503.3	508.5	496.4	477.5	461.9	463.7	468.8
42.5°	386.1	393.0	401.6	424.0	474.0	484.4	480.9	463.7	448.2	451.6	458.5
45°	379.2	384.4	384.4	399.9	448.2	463.7	465.4	451.6	439.5	443.0	451.6
47.5°	375.8	375.8	370.6	382.7	430.9	446.4	449.9	443.0	436.1	439.5	448.2
50°	370.6	363.7	358.5	368.9	417.1	430.9	434.4	429.2	432.6	439.5	444.7
52.5°	355.1	348.2	348.2	355.1	403.3	417.1	418.9	415.4	422.3	430.9	439.5
55°	336.1	336.1	337.8	344.7	396.4	406.8	405.1	401.6	408.5	418.9	427.5
57.5°	318.9	317.2	325.8	334.4	387.8	394.7	391.3	391.3	396.4	405.1	413.7
60°	308.5	299.9	306.8	320.6	379.2	386.1	380.9	379.2	387.8	394.7	401.6
62.5°	298.2	289.6	294.7	308.5	367.1	372.3	368.9	368.9	377.5	382.7	389.5
65°	282.7	279.2	282.7	296.5	356.8	358.5	358.5	360.2	367.1	370.6	377.5
67.5°	268.9	268.9	270.6	284.4	348.2	344.7	344.7	353.4	355.1	358.5	365.4
70°	251.7	255.1	255.1	272.3	341.3	329.2	330.9	337.8	341.3	344.7	346.5
72.5°	232.7	234.4	237.9	260.3	330.9	313.7	315.4	320.6	322.3	327.5	329.2
75°	212.0	213.7	218.9	248.2	324.0	298.2	294.7	298.2	301.6	305.1	303.4
77.5°	187.9	191.3	196.5	241.3	301.6	294.7	268.9	272.3	275.8	275.8	274.1
80°	158.6	163.7	172.4	231.0	255.1	284.4	239.6	241.3	243.0	243.0	239.6
82.5°	118.9	129.3	141.3	191.3	199.9	243.0	206.8	210.3	205.1	201.7	199.9
85°	77.6	86.2	103.4	132.7	146.5	191.3	170.6	172.4	162.0	160.3	160.3
87.5°	31.0	32.7	46.5	67.2	87.9	118.9	122.4	125.8	117.2	117.2	120.7
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7
2.5°	7385.9	7558.3	7756.5	7958.2	8123.6	8337.4	8544.2	8764.9	8876.9	8942.4	9126.8
5°	5988.0	6224.2	6505.1	6820.6	7082.6	7530.7	8013.3	8551.1	8809.7	9064.8	9547.4
7.5°	4283.3	4514.3	4841.8	5250.3	5622.6	6213.8	6849.9	7577.2	7935.8	8349.5	9140.6
10°	3180.2	3424.9	3721.4	4067.9	4435.0	5050.3	5763.9	6581.0	6975.7	7442.8	8342.6
12.5°	2578.6	2864.7	3171.6	3481.8	3797.2	4210.9	4959.0	5867.4	6291.4	6762.0	7663.4
15°	2011.5	2318.3	2649.3	2987.1	3300.8	3762.8	4526.4	5600.2	6084.5	6539.6	7277.3
17.5°	1423.8	1713.3	2085.6	2495.9	2950.9	3497.3	4433.3	5717.4	6305.2	6780.9	7275.6
20°	970.4	1170.4	1542.7	2028.8	2590.7	3283.6	4467.7	6129.4	6863.6	7385.9	7573.8
22.5°	775.7	870.5	1122.1	1616.8	2280.4	3128.5	4609.1	6694.7	7665.2	8301.2	8116.8
25°	705.0	758.4	889.4	1277.2	2004.6	3025.0	4884.9	7441.1	8563.2	9207.8	8770.0
27.5°	661.9	708.4	792.9	1049.7	1766.8	2957.8	5234.8	8320.1	9575.0	10104.1	9450.9
30°	634.3	680.8	758.4	942.8	1587.5	2857.8	5541.6	9123.4	10383.4	10726.4	9818.0
32.5°	580.9	617.1	680.8	844.6	1453.1	2740.6	5807.0	9842.1	11147.0	11260.7	10259.3
35°	525.7	563.6	627.4	765.3	1373.8	2649.3	5946.7	10479.9	11903.7	11795.1	10697.1
37.5°	505.0	536.1	594.7	708.4	1330.7	2589.0	6000.1	11107.3	12715.5	12386.3	11002.2
40°	491.2	518.8	570.5	670.5	1318.6	2532.1	5988.0	11703.7	13503.2	12998.2	11241.8
42.5°	480.9	505.0	553.3	644.7	1285.9	2478.6	5948.4	12219.1	14134.1	13525.6	11471.0
45°	472.3	498.1	546.4	658.4	1225.5	2420.0	5924.2	12689.6	14618.4	13970.3	11777.8
47.5°	468.8	498.1	548.1	655.0	1160.0	2354.5	6010.4	13211.9	15040.7	14344.4	12186.3
50°	463.7	496.4	586.0	624.0	1070.4	2273.5	6301.7	13834.2	15483.7	14764.9	12715.5
52.5°	455.0	494.7	625.7	599.8	954.9	2161.5	6774.0	14713.2	16249.0	15583.7	13498.0
55°	444.7	498.1	598.1	561.9	832.5	2016.7	7246.3	15918.1	17490.1	16904.0	14621.9
57.5°	432.6	493.0	565.4	527.4	730.8	1834.0	7604.8	16905.7	18513.9	18265.7	16002.5
60°	424.0	505.0	508.5	506.8	665.3	1659.9	7639.3	16842.0	18808.7	19150.0	17353.9
62.5°	413.7	515.4	463.7	491.2	632.6	1497.9	7213.6	15799.1	18310.5	19036.2	18455.3
65°	399.9	449.9	439.5	477.5	632.6	1411.7	6222.4	14063.4	16933.3	17960.6	19053.4
67.5°	386.1	408.5	422.3	458.5	646.4	1330.7	5000.4	11862.3	14761.5	16224.9	18381.2
70°	367.1	386.1	403.3	441.3	639.5	1273.8	3935.1	9507.8	12148.4	13823.8	16521.4
72.5°	349.9	363.7	380.9	415.4	639.5	1247.9	3161.2	7458.3	9275.1	10686.7	13685.9
75°	324.0	336.1	351.6	389.5	627.4	1141.1	2373.5	5976.0	6786.1	7670.3	10798.8
77.5°	298.2	306.8	318.9	356.8	565.4	953.2	1678.9	4628.0	5027.9	5517.5	8418.4
80°	265.4	272.3	281.0	318.9	468.8	739.5	1092.8	3619.7	3759.3	3995.5	5538.1
82.5°	227.5	237.9	239.6	274.1	377.5	536.1	649.8	2480.4	2478.6	2825.1	3907.6
85°	186.2	191.3	194.8	215.5	279.2	356.8	427.5	1354.8	1208.3	1692.6	3393.9
87.5°	139.6	134.4	139.6	144.8	184.4	210.3	229.2	249.9	150.0	306.8	1973.6
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°	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7	8104.7
2.5°	9225.1	9326.8	9266.4	9194.0	9013.1	8747.6	8544.2	8366.7
5°	9881.8	10069.7	9986.9	9718.0	9249.2	8716.6	8156.4	7815.1
7.5°	9799.1	10171.4	10138.6	9690.5	9018.2	8234.0	7446.2	6996.4
10°	9137.2	9659.4	9749.1	9290.6	8578.7	7701.4	6789.5	6281.0
12.5°	8416.7	8856.2	9038.9	8864.8	8194.3	7303.2	6374.1	5865.6
15°	7813.4	8035.7	8216.7	8328.8	7913.4	7161.8	6301.7	5777.7
17.5°	7367.0	7323.9	7475.6	7744.4	7761.7	7349.7	6629.2	6043.2
20°	7151.5	6813.7	6901.6	7279.1	7720.3	7827.2	7282.5	6589.6
22.5°	7139.4	6612.0	6629.2	7036.0	7839.2	8478.7	8097.8	7308.4
25°	7325.6	6589.6	6605.1	7010.2	8049.5	9135.4	9040.6	8120.2
27.5°	7642.7	6686.1	6675.8	7123.9	8330.5	9683.6	9992.1	9113.0
30°	7985.8	6825.7	6799.9	7306.6	8606.3	10021.4	10667.8	9861.1
32.5°	8413.2	7073.9	6984.3	7573.8	8878.6	10345.5	11245.2	10560.9
35°	8820.0	7437.6	7308.4	7956.5	9169.9	10705.7	11891.6	11334.8
37.5°	9235.4	7980.6	7908.2	8508.0	9581.9	11097.0	12631.0	12212.2
40°	9768.0	8752.8	8718.3	9309.5	10131.7	11524.4	13460.1	13125.7
42.5°	10342.0	9573.3	9544.0	10230.0	10814.3	11953.6	14170.3	13910.0
45°	10926.3	10567.8	10574.7	11212.5	11533.1	12358.7	14728.7	14537.4
47.5°	11615.8	11655.4	11901.9	12231.2	12232.9	12810.3	15223.4	15121.7
50°	12491.4	12968.9	13423.9	13475.6	12939.6	13406.7	15828.4	15790.5
52.5°	13482.5	14484.0	15013.2	14849.4	13629.0	14146.1	16723.0	16721.3
55°	14659.8	16068.0	16566.2	16286.9	14454.7	15109.7	17891.7	17815.8
57.5°	15880.2	17591.8	17993.4	17629.7	15487.2	16231.8	19063.8	18662.2
60°	17198.8	18903.5	19312.0	18765.6	16645.5	17350.4	19839.4	18900.0
62.5°	18062.3	19670.5	19963.5	19439.5	17683.1	18489.8	20089.4	18615.6
65°	18107.1	19160.3	19237.9	19051.7	18124.4	19479.2	19727.4	17772.7
67.5°	16876.4	16938.5	17040.2	17240.1	17181.5	19037.9	18331.2	15804.3
70°	14244.4	13417.0	13751.4	13944.5	14378.8	16933.3	15750.9	12853.4
72.5°	10891.9	9683.6	10062.8	9997.3	10900.5	13889.3	12050.2	9900.8
75°	7839.2	6603.4	6632.7	6636.1	7832.3	11086.6	8216.7	7030.8
77.5°	5327.9	4672.9	4769.4	4709.1	5241.7	8685.6	5915.6	5067.6
80°	3643.8	3626.6	3647.3	3505.9	3495.6	5614.0	4379.8	4042.0
82.5°	2702.7	2497.6	2468.3	2318.3	2678.6	4291.9	3325.0	2904.4
85°	2132.2	1382.4	1201.4	1449.6	2320.1	3948.9	2027.0	1489.2
87.5°	903.2	543.0	329.2	651.5	1289.3	2894.0	561.9	289.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)