

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: P196722

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196722
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-SLR-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1050mA 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: 30770.7 lumens
Efficiency: N/A
Efficacy: 92.4 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 - G5

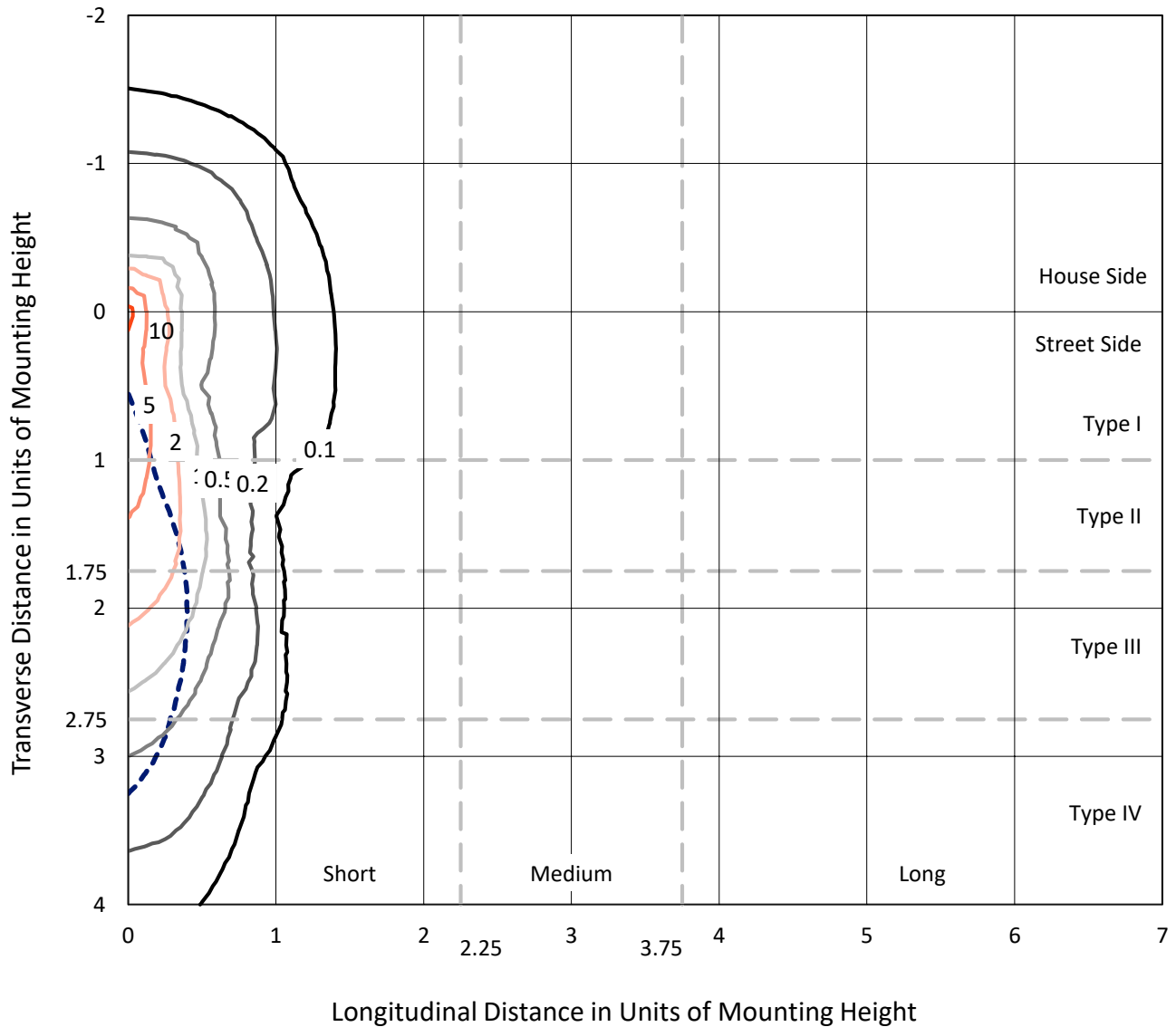
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

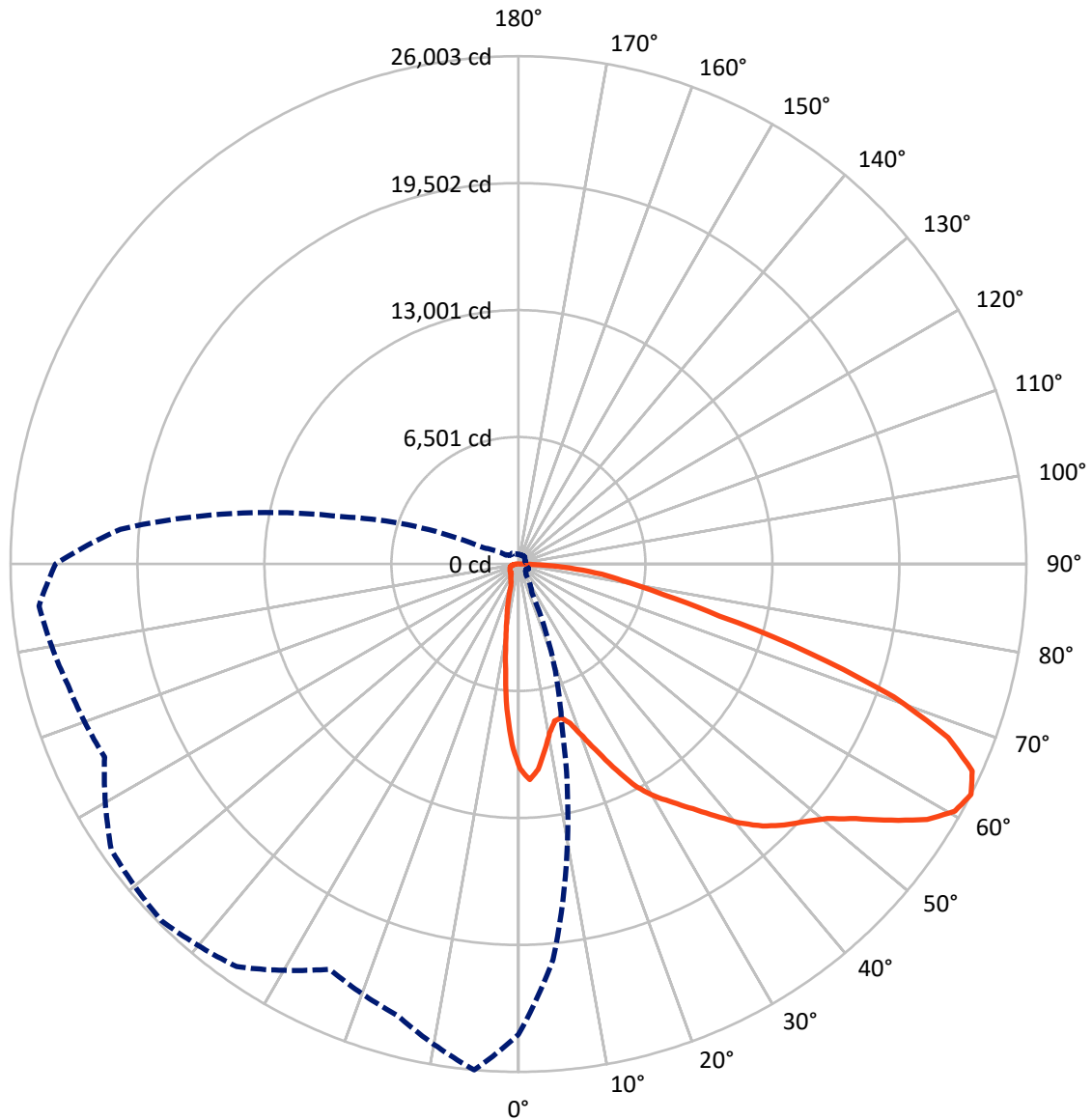
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.7 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
House Side	Lumens	5451.1	0.0	5451.1
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	25319.6	0.0	25319.6
	% Fixture	82.3	0.0	82.3
Total	Lumens	30770.7	0.0	30770.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	762.9	2.5
10°-20°	1393.4	4.5
20°-30°	2004.1	6.5
30°-40°	3069.5	10.0
40°-50°	4487.8	14.6
50°-60°	6529.7	21.2
60°-70°	7565.6	24.6
70°-80°	3943.8	12.8
80°-90°	1013.8	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°	30770.7	100.0
0°-180°	30770.7	100.0



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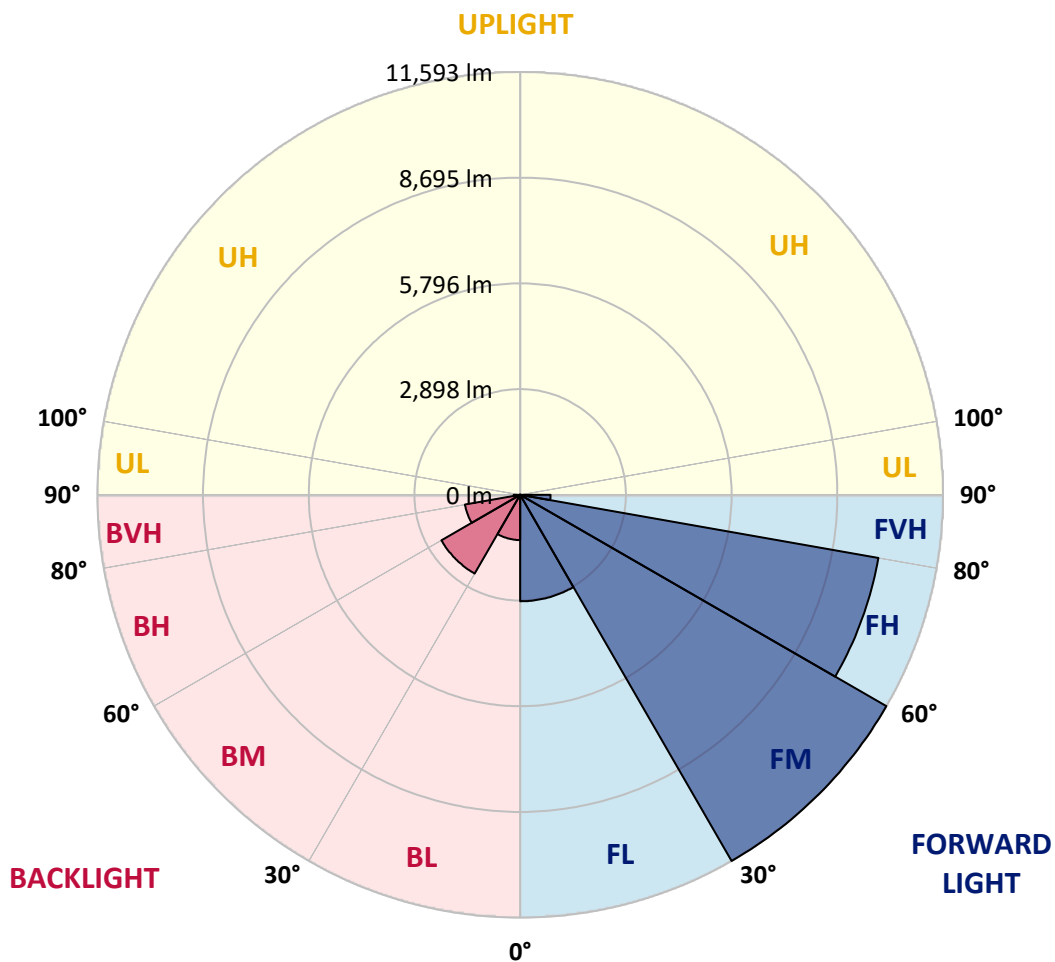
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2920.3	9.5			
FM	(30°-60°)	11593.0	37.7			
FH	(60°-80°)	9972.3	32.4			G4/12000
FVH	(80°-90°)	834.0	2.7			G5
BL	(0°-30°)	1240.2	4.0	B3/2500		
BM	(30°-60°)	2494.1	8.1	B2/2500		
BH	(60°-80°)	1537.0	5.0	B3/2500		G3/2500
BVH	(80°-90°)	179.8	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3
2.5°	10829.4	10677.8	10327.5	10019.6	9635.9	9348.0	8997.8	8812.7	8676.5	8585.0	8511.4
5°	10115.6	9749.6	9080.3	8493.6	7859.9	7402.6	6867.2	6574.9	6394.2	6295.9	6251.4
7.5°	9055.7	8571.6	7706.0	6918.4	6126.3	5555.3	5149.3	4716.4	4486.6	4337.1	4288.1
10°	8129.9	7583.2	6550.3	5664.6	5053.3	4647.3	4299.3	3902.0	3607.6	3351.0	3255.1
12.5°	7592.2	6956.4	5778.4	4977.5	4464.4	4029.3	3661.2	3232.8	2922.6	2654.9	2552.3
15°	7478.5	6768.9	5454.9	4540.2	3911.1	3386.7	2945.0	2478.6	2175.3	1954.4	1883.0
17.5°	7822.0	6947.5	5318.7	4140.8	3382.2	2742.0	2197.5	1697.8	1445.7	1325.2	1296.3
20°	8529.3	7340.1	5254.1	3781.6	2869.1	2110.6	1519.4	1153.4	1028.4	992.8	990.6
22.5°	9459.5	7978.2	5325.6	3487.1	2387.2	1557.3	1113.3	948.2	896.9	876.8	876.8
25°	10510.4	8841.6	5515.1	3261.8	1963.3	1211.4	959.3	870.1	827.7	807.7	809.8
27.5°	11795.5	9892.5	5774.0	3054.4	1659.8	1062.0	896.9	821.0	778.6	758.6	760.8
30°	12763.7	10796.0	5997.0	2864.7	1503.7	1001.7	863.3	792.0	745.1	716.2	713.9
32.5°	13669.5	11592.5	6177.7	2728.5	1414.5	894.7	780.8	727.3	687.1	653.7	647.1
35°	14671.4	12342.2	6262.5	2724.1	1356.5	807.7	713.9	649.2	609.1	571.1	564.5
37.5°	15806.9	13259.0	6333.9	2750.8	1325.2	751.8	682.7	620.3	586.7	548.8	540.0
40°	16989.4	14155.9	6389.7	2773.2	1320.7	713.9	658.2	602.3	568.9	528.7	519.8
42.5°	18004.5	14950.2	6465.5	2764.3	1289.6	707.2	642.6	586.7	555.5	515.3	504.2
45°	18816.5	15581.6	6583.8	2762.1	1242.8	722.9	638.1	582.4	544.3	501.9	493.1
47.5°	19572.9	16293.3	6833.6	2753.2	1191.4	718.4	662.6	577.9	540.0	497.5	490.8
50°	20438.6	17250.4	7259.8	2686.1	1120.0	687.1	707.2	573.4	528.7	490.8	484.1
52.5°	21643.2	18651.4	7891.1	2565.7	1021.8	653.7	713.9	571.1	510.9	477.5	468.5
55°	23060.0	20153.0	8571.6	2391.6	892.4	595.7	678.3	562.2	493.1	457.4	444.0
57.5°	24155.5	21261.8	9046.8	2141.8	765.3	562.2	604.6	542.2	470.8	435.1	423.9
60°	24463.3	21310.9	9131.7	1842.8	700.6	540.0	519.8	591.2	452.9	414.9	403.8
62.5°	24095.2	20335.9	8578.4	1633.1	678.3	517.6	473.0	564.5	435.1	397.1	386.0
65°	23004.2	18689.5	7340.1	1601.8	700.6	497.5	448.4	450.7	417.2	379.2	368.1
67.5°	20456.4	16266.5	5782.9	1622.0	727.3	477.5	430.6	410.5	397.1	363.7	350.2
70°	16636.8	13096.2	4555.8	1657.7	751.8	450.7	408.3	383.7	372.6	336.8	330.2
72.5°	12815.1	10481.5	3594.2	1633.1	776.4	423.9	377.1	356.9	343.6	310.1	303.4
75°	9100.4	8328.5	2641.6	1401.1	711.8	386.0	341.3	323.5	312.4	276.7	274.5
77.5°	6559.3	6237.9	1838.4	1053.0	562.2	339.1	301.2	285.6	278.8	238.7	238.7
80°	5231.8	4747.7	1099.9	687.1	410.5	281.2	252.1	245.4	238.7	198.6	200.8
82.5°	3759.3	3293.0	702.7	428.4	301.2	214.1	196.3	194.2	182.9	147.3	147.3
85°	1927.7	1682.1	450.7	287.8	212.0	138.3	129.4	125.0	118.2	91.4	91.4
87.5°	374.9	515.3	249.8	140.5	102.6	49.0	49.0	42.4	49.0	33.5	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3
2.5°	8651.9	8607.3	8576.1	8560.5	8785.9	8879.5	8986.6	9140.5	9245.4	9200.8	9343.7
5°	6461.0	6492.3	6563.7	6675.3	6989.9	7139.3	7235.2	7362.4	7453.8	7362.4	7514.1
7.5°	4417.5	4464.4	4615.9	4845.8	5225.1	5392.4	5426.0	5428.1	5408.0	5258.5	5361.2
10°	3252.8	3159.1	3192.7	3357.7	3696.8	3846.4	3861.9	3821.8	3815.2	3754.8	3870.8
12.5°	2521.0	2391.6	2315.9	2342.6	2596.9	2719.7	2739.6	2762.1	2853.6	2882.5	3025.3
15°	1880.8	1813.8	1758.1	1733.5	1900.9	1996.8	2007.9	2061.5	2157.5	2184.2	2306.9
17.5°	1323.0	1340.8	1369.9	1381.0	1501.4	1563.9	1546.1	1546.1	1561.8	1555.1	1624.2
20°	1010.6	1046.3	1102.1	1155.6	1265.0	1300.7	1256.1	1200.3	1164.6	1146.7	1162.4
22.5°	892.4	916.9	952.6	1021.8	1113.3	1131.2	1073.2	1028.4	995.1	977.3	979.4
25°	827.7	852.2	881.2	937.0	1015.1	1024.1	970.6	941.5	914.7	896.9	892.4
27.5°	771.9	787.5	805.4	841.1	921.4	925.9	890.1	872.3	854.5	841.1	836.6
30°	720.7	727.3	734.0	769.7	830.0	836.6	818.8	809.8	803.2	794.2	794.2
32.5°	653.7	662.6	673.8	705.0	763.0	771.9	760.8	754.1	743.0	738.5	731.8
35°	573.4	595.7	620.3	658.2	720.7	725.1	711.8	691.6	664.9	658.2	653.7
37.5°	540.0	544.3	575.6	620.3	684.9	689.4	671.5	638.1	618.0	620.3	624.8
40°	517.6	524.3	542.2	586.7	651.5	658.2	642.6	618.0	597.8	600.2	606.8
42.5°	499.8	508.7	519.8	548.8	613.5	626.9	622.4	600.2	580.0	584.5	593.5
45°	490.8	497.5	497.5	517.6	580.0	600.2	602.3	584.5	568.9	573.4	584.5
47.5°	486.3	486.3	479.6	495.3	557.8	577.9	582.4	573.4	564.5	568.9	580.0
50°	479.6	470.8	464.1	477.5	540.0	557.8	562.2	555.5	560.0	568.9	575.6
52.5°	459.6	450.7	450.7	459.6	522.0	540.0	542.2	537.7	546.7	557.8	568.9
55°	435.1	435.1	437.2	446.3	513.2	526.5	524.3	519.8	528.7	542.2	553.3
57.5°	412.8	410.5	421.6	432.7	501.9	510.9	506.4	506.4	513.2	524.3	535.5
60°	399.4	388.2	397.1	414.9	490.8	499.8	493.1	490.8	501.9	510.9	519.8
62.5°	386.0	374.9	381.6	399.4	475.2	482.0	477.5	477.5	488.6	495.3	504.2
65°	365.9	361.4	365.9	383.7	461.8	464.1	464.1	466.3	475.2	479.6	488.6
67.5°	348.0	348.0	350.2	368.1	450.7	446.3	446.3	457.4	459.6	464.1	473.0
70°	325.7	330.2	330.2	352.5	441.7	426.1	428.4	437.2	441.7	446.3	448.4
72.5°	301.2	303.4	307.9	336.8	428.4	406.0	408.3	414.9	417.2	423.9	426.1
75°	274.5	276.7	283.3	321.2	419.4	386.0	381.6	386.0	390.4	394.9	392.7
77.5°	243.2	247.7	254.3	312.4	390.4	381.6	348.0	352.5	356.9	356.9	354.8
80°	205.3	212.0	223.1	299.0	330.2	368.1	310.1	312.4	314.5	314.5	310.1
82.5°	153.9	167.2	182.9	247.7	258.8	314.5	267.6	272.2	265.5	261.0	258.8
85°	100.4	111.6	133.9	171.7	189.7	247.7	220.9	223.1	209.7	207.5	207.5
87.5°	40.2	42.4	60.2	87.0	113.7	153.9	158.4	162.9	151.8	151.8	156.1
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°	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3
2.5°	9559.9	9783.1	10039.8	10300.8	10514.9	10791.5	11059.2	11344.8	11489.8	11574.6	11813.3
5°	7750.7	8056.2	8419.9	8828.2	9167.3	9747.4	10372.1	11068.2	11402.9	11733.1	12357.8
7.5°	5544.2	5843.0	6267.0	6795.7	7277.6	8042.9	8866.2	9807.6	10271.7	10807.2	11831.1
10°	4116.3	4433.0	4816.8	5265.2	5740.5	6537.0	7460.6	8518.1	9028.9	9633.6	10798.2
12.5°	3337.7	3707.9	4105.1	4506.7	4915.0	5450.4	6418.7	7594.5	8143.3	8752.3	9919.2
15°	2603.6	3000.7	3429.1	3866.3	4272.5	4870.3	5858.7	7248.6	7875.5	8464.6	9419.5
17.5°	1842.8	2217.6	2699.6	3230.6	3819.4	4526.8	5738.2	7400.3	8161.1	8776.9	9417.2
20°	1256.1	1514.9	1996.8	2625.9	3353.2	4250.0	5782.9	7933.6	8884.0	9559.9	9803.2
22.5°	1004.0	1126.7	1452.4	2092.8	2951.6	4049.3	5965.8	8665.4	9921.4	10744.7	10506.0
25°	912.6	981.7	1151.3	1653.2	2594.7	3915.6	6322.8	9631.4	11083.8	11918.2	11351.5
27.5°	856.7	916.9	1026.3	1358.7	2286.8	3828.5	6775.7	10769.2	12393.4	13078.4	12232.7
30°	821.0	881.2	981.7	1220.4	2054.8	3699.1	7172.8	11808.8	13439.8	13883.8	12708.0
32.5°	751.8	798.6	881.2	1093.2	1880.8	3547.3	7516.4	12739.2	14428.1	14575.4	13279.2
35°	680.4	729.6	812.2	990.6	1778.0	3429.1	7697.1	13564.7	15407.5	15267.1	13845.8
37.5°	653.7	693.9	769.7	916.9	1722.4	3351.0	7766.2	14376.8	16458.4	16032.2	14240.8
40°	635.9	671.5	738.5	867.8	1706.7	3277.3	7750.7	15148.8	17477.9	16824.3	14550.8
42.5°	622.4	653.7	716.2	834.4	1664.3	3208.2	7699.3	15815.9	18294.5	17506.9	14847.6
45°	611.3	644.7	707.2	852.2	1586.2	3132.4	7668.1	16425.0	18921.4	18082.5	15244.7
47.5°	606.8	644.7	709.4	847.8	1501.4	3047.6	7779.6	17100.9	19468.1	18566.7	15773.4
50°	600.2	642.6	758.6	807.7	1385.5	2942.8	8156.6	17906.3	20041.4	19111.1	16458.4
52.5°	589.0	640.3	809.8	776.4	1235.9	2797.7	8767.9	19044.1	21032.0	20170.8	17471.2
55°	575.6	644.7	774.2	727.3	1077.7	2610.3	9379.3	20603.7	22638.3	21879.8	18925.9
57.5°	560.0	638.1	731.8	682.7	945.9	2373.8	9843.3	21882.0	23963.7	23642.3	20713.0
60°	548.8	653.7	658.2	655.9	861.2	2148.5	9888.0	21799.5	24345.0	24786.9	22462.1
62.5°	535.5	667.0	600.2	635.9	818.8	1938.8	9336.9	20449.7	23700.3	24639.6	23887.7
65°	517.6	582.4	568.9	618.0	818.8	1827.3	8054.0	18203.0	21917.7	23247.4	24661.9
67.5°	499.8	528.7	546.7	593.5	836.6	1722.4	6472.2	15353.9	19106.6	21000.7	23791.8
70°	475.2	499.8	522.0	571.1	827.7	1648.7	5093.4	12306.4	15724.4	17893.0	21384.5
72.5°	452.9	470.8	493.1	537.7	827.7	1615.3	4091.8	9653.7	12005.2	13832.4	17714.4
75°	419.4	435.1	455.2	504.2	812.2	1476.9	3072.2	7735.0	8783.6	9928.2	13977.4
77.5°	386.0	397.1	412.8	461.8	731.8	1233.7	2173.0	5990.3	6507.9	7141.5	10896.4
80°	343.6	352.5	363.7	412.8	606.8	957.1	1414.5	4685.1	4865.9	5171.6	7168.3
82.5°	294.5	307.9	310.1	354.8	488.6	693.9	841.1	3210.5	3208.2	3656.7	5057.7
85°	240.9	247.7	252.1	278.8	361.4	461.8	553.3	1753.6	1563.9	2190.8	4392.9
87.5°	180.8	174.0	180.8	187.4	238.7	272.2	296.7	323.5	194.2	397.1	2554.6
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°	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3	10490.3
2.5°	11940.5	12072.2	11994.1	11900.4	11666.0	11322.5	11059.2	10829.4
5°	12790.6	13033.7	12926.7	12578.6	11971.7	11282.3	10557.2	10115.6
7.5°	12683.5	13165.3	13122.9	12542.9	11672.8	10657.7	9638.1	9055.7
10°	11826.8	12502.7	12618.8	12025.3	11103.9	9968.3	8788.0	8129.9
12.5°	10894.1	11463.1	11699.6	11474.2	10606.4	9452.9	8250.3	7592.2
15°	10113.2	10401.1	10635.4	10780.4	10242.7	9270.0	8156.6	7478.5
17.5°	9535.5	9479.7	9676.0	10024.1	10046.4	9513.1	8580.5	7822.0
20°	9256.6	8819.3	8933.0	9421.7	9992.9	10131.2	9426.2	8529.3
22.5°	9240.9	8558.3	8580.5	9107.1	10146.8	10974.4	10481.5	9459.5
25°	9481.9	8529.3	8549.3	9073.7	10419.0	11824.5	11701.7	10510.4
27.5°	9892.5	8654.2	8640.8	9220.8	10782.6	12534.0	12933.3	11795.5
30°	10336.4	8834.9	8801.5	9457.4	11139.5	12971.3	13807.8	12763.7
32.5°	10889.7	9156.2	9040.1	9803.2	11492.1	13390.7	14555.3	13669.5
35°	11416.2	9627.0	9459.5	10298.4	11869.2	13857.1	15391.9	14671.4
37.5°	11953.9	10329.7	10236.0	11012.4	12402.3	14363.4	16349.0	15806.9
40°	12643.3	11329.2	11284.7	12049.8	13114.1	14916.7	17422.2	16989.4
42.5°	13386.2	12391.2	12353.3	13241.2	13997.5	15472.2	18341.4	18004.5
45°	14142.5	13678.5	13687.5	14512.9	14927.9	15996.5	19064.2	18816.5
47.5°	15034.9	15086.3	15405.3	15831.4	15833.7	16581.0	19704.6	19572.9
50°	16168.3	16786.4	17375.3	17442.2	16748.4	17353.0	20487.6	20438.6
52.5°	17451.2	18747.4	19432.3	19220.4	17640.8	18310.1	21645.6	21643.2
55°	18974.9	20797.7	21442.4	21081.0	18709.4	19557.3	23158.1	23060.0
57.5°	20554.5	22769.9	23289.8	22819.1	20045.9	21009.7	24675.3	24155.5
60°	22261.2	24467.7	24996.6	24289.3	21545.2	22457.5	25679.2	24463.3
62.5°	23379.1	25460.5	25840.0	25161.7	22888.1	23932.3	26002.7	24095.2
65°	23437.1	24800.2	24900.6	24659.7	23459.4	25213.0	25534.2	23004.2
67.5°	21844.1	21924.4	22056.0	22314.9	22238.9	24641.8	23727.1	20456.4
70°	18437.3	17366.4	17799.2	18049.1	18611.3	21917.7	20387.2	16636.8
72.5°	14097.9	12534.0	13024.8	12940.0	14109.0	17977.7	15597.2	12815.1
75°	10146.8	8547.2	8585.0	8589.5	10137.8	14350.0	10635.4	9100.4
77.5°	6896.1	6048.4	6173.2	6095.2	6784.6	11242.2	7656.9	6559.3
80°	4716.4	4694.1	4720.9	4538.0	4524.5	7266.5	5669.0	5231.8
82.5°	3498.3	3232.8	3194.8	3000.7	3467.1	5555.3	4303.7	3759.3
85°	2759.8	1789.3	1555.1	1876.3	3003.0	5111.2	2623.8	1927.7
87.5°	1169.1	702.7	426.1	843.4	1668.8	3746.0	727.3	374.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)