

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: P197208

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197208
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 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: 28479 lumens
Efficiency: N/A
Efficacy: 74.6 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

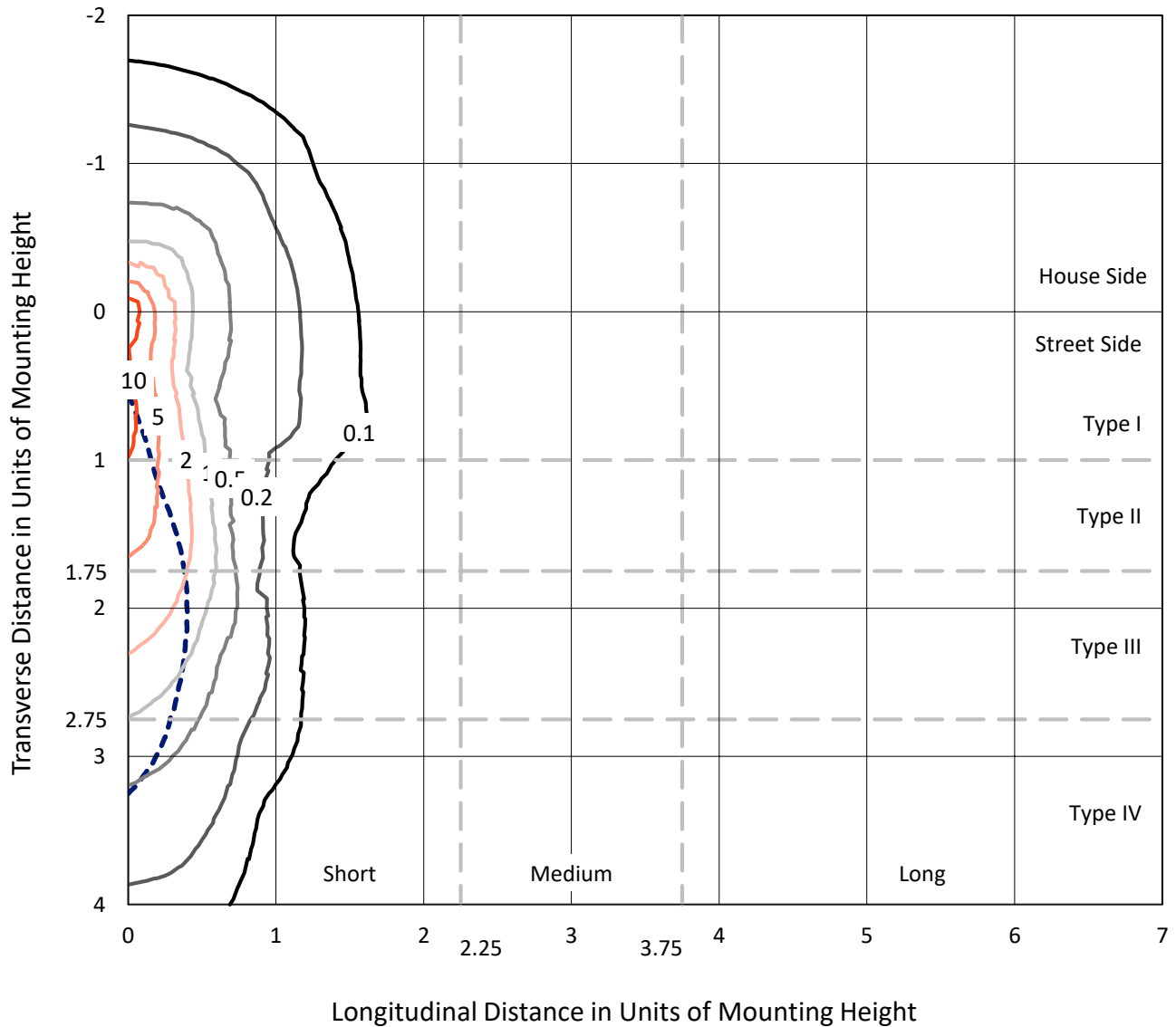
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

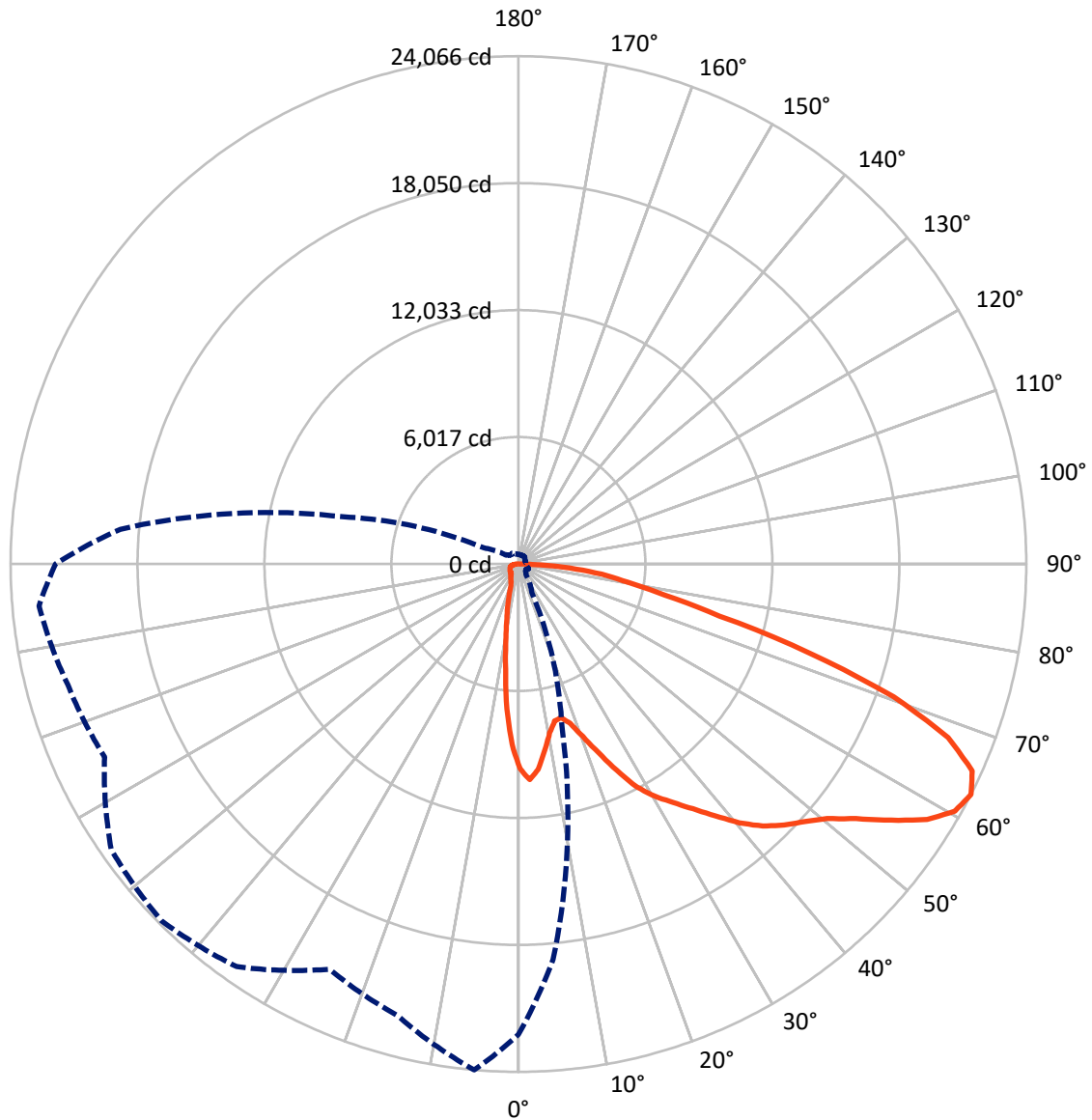
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.5 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	5045.1	0.0	5045.1
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	23433.9	0.0	23433.9
	% Fixture	82.3	0.0	82.3
Total	Lumens	28479.0	0.0	28479.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	706.1	2.5
10°-20°	1289.7	4.5
20°-30°	1854.9	6.5
30°-40°	2840.9	10.0
40°-50°	4153.5	14.6
50°-60°	6043.4	21.2
60°-70°	7002.1	24.6
70°-80°	3650.1	12.8
80°-90°	938.3	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°	28479.0	100.0
0°-180°	28479.0	100.0



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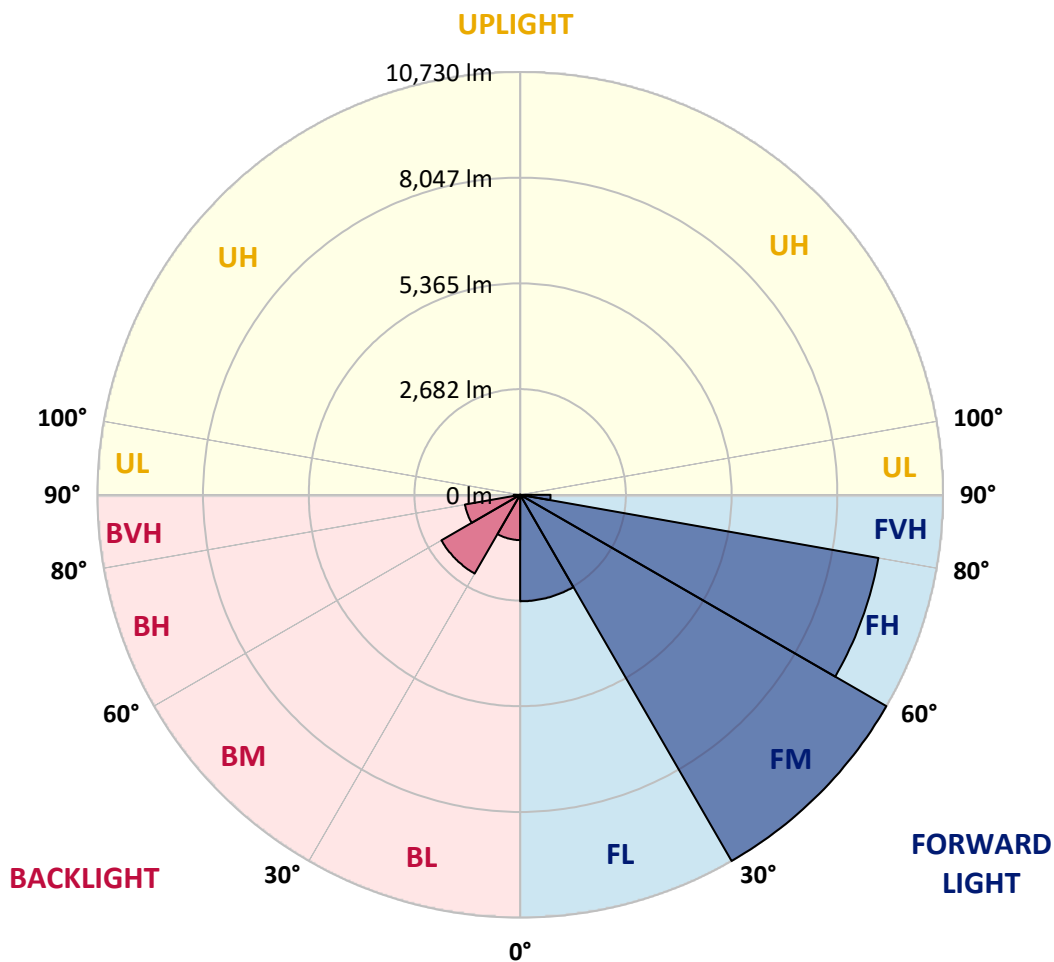
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-8030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2702.8	9.5			
FM	(30°-60°)	10729.6	37.7			
FH	(60°-80°)	9229.6	32.4			G4/12000
FVH	(80°-90°)	771.9	2.7			G5
BL	(0°-30°)	1147.8	4.0	B3/2500		
BM	(30°-60°)	2308.3	8.1	B2/2500		
BH	(60°-80°)	1422.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	166.4	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°	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1
2.5°	10022.9	9882.5	9558.3	9273.4	8918.2	8651.8	8327.7	8156.3	8030.3	7945.7	7877.5
5°	9362.2	9023.5	8404.1	7861.0	7274.6	6851.3	6355.7	6085.2	5917.9	5827.1	5785.8
7.5°	8381.3	7933.3	7132.1	6403.2	5670.2	5141.5	4765.7	4365.2	4152.5	4014.1	3968.7
10°	7524.4	7018.5	6062.5	5242.7	4676.9	4301.1	3979.0	3611.5	3338.9	3101.4	3012.7
12.5°	7026.8	6438.3	5348.0	4606.7	4131.8	3729.2	3388.5	2992.0	2705.0	2457.2	2362.2
15°	6921.5	6264.8	5048.6	4202.0	3619.7	3134.5	2725.6	2294.1	2013.3	1808.8	1742.8
17.5°	7239.5	6430.0	4922.7	3832.4	3130.4	2537.7	2033.9	1571.4	1338.0	1226.5	1199.7
20°	7894.0	6793.5	4862.8	3500.0	2655.4	1953.4	1406.2	1067.5	951.9	918.9	916.8
22.5°	8755.1	7384.0	4928.9	3227.4	2209.4	1441.3	1030.4	877.6	830.1	811.5	811.5
25°	9727.6	8183.1	5104.4	3018.9	1817.1	1121.2	887.9	805.3	766.1	747.5	749.6
27.5°	10917.0	9155.7	5343.9	2826.8	1536.3	982.9	830.1	759.9	720.6	702.1	704.1
30°	11813.2	9991.9	5550.4	2651.3	1391.7	927.1	799.1	733.0	689.7	662.8	660.8
32.5°	12651.5	10729.1	5717.6	2525.3	1309.1	828.0	722.7	673.2	636.0	605.0	598.8
35°	13578.6	11422.9	5796.1	2521.2	1255.4	747.5	660.8	600.9	563.7	528.6	522.4
37.5°	14629.7	12271.6	5862.2	2546.0	1226.5	695.9	631.9	574.0	543.1	508.0	499.7
40°	15724.0	13101.7	5913.8	2566.6	1222.4	660.8	609.1	557.5	526.5	489.4	481.1
42.5°	16663.6	13836.8	5984.0	2558.4	1193.5	654.6	594.7	543.1	514.2	477.0	466.7
45°	17415.2	14421.1	6093.5	2556.3	1150.1	669.0	590.6	538.9	503.8	464.6	456.3
47.5°	18115.2	15079.8	6324.7	2548.1	1102.6	664.9	613.3	534.8	499.7	460.5	454.3
50°	18916.4	15965.6	6719.1	2486.1	1036.6	636.0	654.6	530.7	489.4	454.3	448.1
52.5°	20031.4	17262.4	7303.5	2374.6	945.7	605.0	660.8	528.6	472.9	441.9	433.6
55°	21342.6	18652.0	7933.3	2213.5	826.0	551.3	627.7	520.3	456.3	423.3	410.9
57.5°	22356.4	19678.3	8373.1	1982.3	708.3	520.3	559.6	501.8	435.7	402.7	392.3
60°	22641.4	19723.7	8451.5	1705.6	648.4	499.7	481.1	547.2	419.2	384.1	373.7
62.5°	22300.7	18821.4	7939.5	1511.5	627.7	479.1	437.8	522.4	402.7	367.5	357.2
65°	21291.0	17297.5	6793.5	1482.6	648.4	460.5	415.0	417.1	386.1	351.0	340.7
67.5°	18932.9	15055.0	5352.2	1501.2	673.2	441.9	398.5	379.9	367.5	336.6	324.2
70°	15397.8	12120.8	4216.5	1534.2	695.9	417.1	377.9	355.2	344.8	311.8	305.6
72.5°	11860.7	9700.8	3326.5	1511.5	718.6	392.3	349.0	330.4	318.0	287.0	280.8
75°	8422.6	7708.2	2444.8	1296.7	658.7	357.2	315.9	299.4	289.1	256.0	254.0
77.5°	6070.7	5773.4	1701.5	974.6	520.3	313.9	278.8	264.3	258.1	220.9	220.9
80°	4842.1	4394.1	1018.0	636.0	379.9	260.2	233.3	227.1	220.9	183.8	185.8
82.5°	3479.3	3047.8	650.4	396.5	278.8	198.2	181.7	179.6	169.3	136.3	136.3
85°	1784.1	1556.9	417.1	266.4	196.2	128.0	119.8	115.6	109.4	84.7	84.7
87.5°	346.9	477.0	231.3	130.1	95.0	45.4	45.4	39.2	45.4	31.0	33.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1
2.5°	8007.6	7966.3	7937.4	7922.9	8131.5	8218.2	8317.3	8459.8	8556.9	8515.6	8647.7
5°	5979.9	6008.8	6074.9	6178.1	6469.3	6607.6	6696.4	6814.1	6898.8	6814.1	6954.5
7.5°	4088.5	4131.8	4272.2	4484.9	4835.9	4990.8	5021.8	5023.8	5005.3	4866.9	4961.9
10°	3010.6	2923.9	2954.8	3107.6	3421.5	3559.9	3574.3	3537.1	3530.9	3475.2	3582.6
12.5°	2333.3	2213.5	2143.3	2168.1	2403.5	2517.1	2535.7	2556.3	2641.0	2667.8	2800.0
15°	1740.7	1678.7	1627.1	1604.4	1759.3	1848.1	1858.4	1907.9	1996.7	2021.5	2135.1
17.5°	1224.5	1241.0	1267.8	1278.2	1389.7	1447.5	1431.0	1431.0	1445.4	1439.2	1503.2
20°	935.4	968.4	1020.0	1069.6	1170.8	1203.8	1162.5	1110.9	1077.9	1061.3	1075.8
22.5°	826.0	848.7	881.7	945.7	1030.4	1046.9	993.2	951.9	920.9	904.4	906.5
25°	766.1	788.8	815.6	867.2	939.5	947.8	898.2	871.4	846.6	830.1	826.0
27.5°	714.4	728.9	745.4	778.5	852.8	856.9	823.9	807.4	790.8	778.5	774.3
30°	667.0	673.2	679.3	712.4	768.1	774.3	757.8	749.6	743.4	735.1	735.1
32.5°	605.0	613.3	623.6	652.5	706.2	714.4	704.1	697.9	687.6	683.5	677.3
35°	530.7	551.3	574.0	609.1	667.0	671.1	658.7	640.1	615.3	609.1	605.0
37.5°	499.7	503.8	532.7	574.0	633.9	638.0	621.5	590.6	572.0	574.0	578.2
40°	479.1	485.2	501.8	543.1	602.9	609.1	594.7	572.0	553.4	555.5	561.6
42.5°	462.5	470.8	481.1	508.0	567.8	580.2	576.1	555.5	536.9	541.0	549.3
45°	454.3	460.5	460.5	479.1	536.9	555.5	557.5	541.0	526.5	530.7	541.0
47.5°	450.1	450.1	443.9	458.4	516.2	534.8	538.9	530.7	522.4	526.5	536.9
50°	443.9	435.7	429.5	441.9	499.7	516.2	520.3	514.2	518.3	526.5	532.7
52.5°	425.4	417.1	417.1	425.4	483.2	499.7	501.8	497.6	505.9	516.2	526.5
55°	402.7	402.7	404.7	413.0	474.9	487.3	485.2	481.1	489.4	501.8	512.1
57.5°	382.0	379.9	390.3	400.6	464.6	472.9	468.7	468.7	474.9	485.2	495.6
60°	369.6	359.3	367.5	384.1	454.3	462.5	456.3	454.3	464.6	472.9	481.1
62.5°	357.2	346.9	353.1	369.6	439.8	446.0	441.9	441.9	452.2	458.4	466.7
65°	338.6	334.5	338.6	355.2	427.4	429.5	429.5	431.6	439.8	443.9	452.2
67.5°	322.1	322.1	324.2	340.7	417.1	413.0	413.0	423.3	425.4	429.5	437.8
70°	301.5	305.6	305.6	326.3	408.8	394.4	396.5	404.7	408.8	413.0	415.0
72.5°	278.8	280.8	285.0	311.8	396.5	375.8	377.9	384.1	386.1	392.3	394.4
75°	254.0	256.0	262.2	297.3	388.2	357.2	353.1	357.2	361.4	365.5	363.4
77.5°	225.1	229.2	235.4	289.1	361.4	353.1	322.1	326.3	330.4	330.4	328.3
80°	190.0	196.2	206.5	276.7	305.6	340.7	287.0	289.1	291.1	291.1	287.0
82.5°	142.5	154.9	169.3	229.2	239.5	291.1	247.8	251.9	245.7	241.6	239.5
85°	92.9	103.2	123.9	159.0	175.5	229.2	204.4	206.5	194.1	192.0	192.0
87.5°	37.2	39.2	55.8	80.5	105.3	142.5	146.6	150.7	140.4	140.4	144.5
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°	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1
2.5°	8848.0	9054.5	9292.0	9533.5	9731.8	9987.8	10235.6	10499.9	10634.1	10712.6	10933.5
5°	7173.4	7456.3	7792.9	8170.7	8484.6	9021.5	9599.6	10243.9	10553.6	10859.2	11437.4
7.5°	5131.2	5407.9	5800.2	6289.6	6735.6	7443.9	8205.8	9077.2	9506.7	10002.3	10950.1
10°	3809.7	4102.9	4458.1	4873.1	5312.9	6050.1	6905.0	7883.7	8356.6	8916.1	9994.0
12.5°	3089.1	3431.8	3799.4	4171.1	4548.9	5044.5	5940.7	7028.8	7536.8	8100.5	9180.4
15°	2409.7	2777.3	3173.7	3578.4	3954.2	4507.6	5422.4	6708.8	7289.0	7834.1	8717.9
17.5°	1705.6	2052.5	2498.5	2989.9	3535.1	4189.6	5310.9	6849.2	7553.3	8123.2	8715.9
20°	1162.5	1402.1	1848.1	2430.4	3103.5	3933.6	5352.2	7342.7	8222.3	8848.0	9073.1
22.5°	929.2	1042.8	1344.2	1936.9	2731.8	3747.8	5521.5	8020.0	9182.5	9944.5	9723.5
25°	844.5	908.5	1065.5	1530.1	2401.5	3623.9	5851.9	8914.1	10258.3	11030.6	10506.1
27.5°	792.9	848.7	949.8	1257.5	2116.5	3543.3	6271.0	9967.2	11470.4	12104.3	11321.7
30°	759.9	815.6	908.5	1129.5	1901.8	3423.6	6638.6	10929.4	12438.8	12849.7	11761.5
32.5°	695.9	739.2	815.6	1011.8	1740.7	3283.2	6956.6	11790.5	13353.6	13489.9	12290.2
35°	629.8	675.2	751.6	916.8	1645.7	3173.7	7123.8	12554.5	14260.1	14130.0	12814.6
37.5°	605.0	642.2	712.4	848.7	1594.1	3101.4	7187.8	13306.1	15232.6	14838.2	13180.1
40°	588.5	621.5	683.5	803.2	1579.6	3033.3	7173.4	14020.5	16176.3	15571.2	13467.1
42.5°	576.1	605.0	662.8	772.3	1540.4	2969.3	7125.9	14637.9	16932.0	16203.1	13741.8
45°	565.8	596.7	654.6	788.8	1468.1	2899.1	7097.0	15201.6	17512.2	16735.8	14109.3
47.5°	561.6	596.7	656.6	784.7	1389.7	2820.6	7200.2	15827.3	18018.1	17183.9	14598.7
50°	555.5	594.7	702.1	747.5	1282.3	2723.6	7549.2	16572.7	18548.8	17687.7	15232.6
52.5°	545.1	592.6	749.6	718.6	1143.9	2589.4	8115.0	17625.8	19465.6	18668.6	16170.1
55°	532.7	596.7	716.5	673.2	997.3	2415.9	8680.7	19069.2	20952.3	20250.3	17516.4
57.5°	518.3	590.6	677.3	631.9	875.5	2197.0	9110.2	20252.3	22178.9	21881.5	19170.3
60°	508.0	605.0	609.1	607.1	797.0	1988.5	9151.5	20175.9	22532.0	22940.8	20789.2
62.5°	495.6	617.4	555.5	588.5	757.8	1794.4	8641.5	18926.7	21935.2	22804.5	22108.7
65°	479.1	538.9	526.5	572.0	757.8	1691.1	7454.2	16847.3	20285.4	21516.0	22825.2
67.5°	462.5	489.4	505.9	549.3	774.3	1594.1	5990.2	14210.5	17683.6	19436.7	22019.9
70°	439.8	462.5	483.2	528.6	766.1	1525.9	4714.1	11389.9	14553.3	16560.3	19791.9
72.5°	419.2	435.7	456.3	497.6	766.1	1495.0	3787.0	8934.7	11111.1	12802.2	16395.1
75°	388.2	402.7	421.2	466.7	751.6	1366.9	2843.3	7158.9	8129.4	9188.7	12936.5
77.5°	357.2	367.5	382.0	427.4	677.3	1141.9	2011.2	5544.2	6023.3	6609.7	10084.9
80°	318.0	326.3	336.6	382.0	561.6	885.8	1309.1	4336.2	4503.5	4786.4	6634.5
82.5°	272.6	285.0	287.0	328.3	452.2	642.2	778.5	2971.4	2969.3	3384.3	4681.1
85°	223.0	229.2	233.3	258.1	334.5	427.4	512.1	1623.0	1447.5	2027.7	4065.7
87.5°	167.3	161.1	167.3	173.4	220.9	251.9	274.6	299.4	179.6	367.5	2364.3
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1	9709.1
2.5°	11051.2	11173.1	11100.8	11014.1	10797.2	10479.3	10235.6	10022.9
5°	11837.9	12063.0	11963.9	11641.8	11080.1	10442.1	9771.0	9362.2
7.5°	11738.8	12184.8	12145.6	11608.7	10803.4	9863.9	8920.3	8381.3
10°	10945.9	11571.6	11679.0	11129.7	10276.9	9225.9	8133.6	7524.4
12.5°	10082.8	10609.3	10828.2	10619.7	9816.4	8748.9	7635.9	7026.8
15°	9360.1	9626.5	9843.3	9977.5	9479.9	8579.6	7549.2	6921.5
17.5°	8825.3	8773.7	8955.4	9277.5	9298.1	8804.6	7941.5	7239.5
20°	8567.2	8162.5	8267.8	8720.0	9248.6	9376.6	8724.1	7894.0
22.5°	8552.7	7920.9	7941.5	8428.8	9391.1	10157.1	9700.8	8755.1
25°	8775.7	7894.0	7912.6	8397.9	9643.0	10943.9	10830.3	9727.6
27.5°	9155.7	8009.7	7997.3	8534.1	9979.6	11600.5	11970.1	10917.0
30°	9566.6	8176.9	8145.9	8753.0	10309.9	12005.2	12779.5	11813.2
32.5°	10078.7	8474.3	8366.9	9073.1	10636.2	12393.4	13471.3	12651.5
35°	10566.0	8910.0	8755.1	9531.5	10985.2	12825.0	14245.6	13578.6
37.5°	11063.6	9560.4	9473.7	10192.2	11478.7	13293.7	15131.4	14629.7
40°	11701.7	10485.5	10444.2	11152.4	12137.4	13805.8	16124.6	15724.0
42.5°	12389.3	11468.3	11433.2	12255.1	12955.0	14319.9	16975.4	16663.6
45°	13089.3	12659.8	12668.0	13432.0	13816.1	14805.2	17644.4	17415.2
47.5°	13915.2	13962.7	14258.0	14652.4	14654.4	15346.2	18237.0	18115.2
50°	14964.2	15536.1	16081.3	16143.2	15501.0	16060.6	18961.8	18916.4
52.5°	16151.5	17351.2	17985.1	17788.9	16327.0	16946.5	20033.5	20031.4
55°	17561.8	19248.8	19845.5	19511.0	17316.1	18100.7	21433.4	21342.6
57.5°	19023.7	21074.1	21555.3	21119.6	18552.9	19445.0	22837.6	22356.4
60°	20603.4	22645.5	23134.9	22480.3	19940.5	20785.1	23766.8	22641.4
62.5°	21637.9	23564.4	23915.4	23287.7	21183.6	22150.0	24066.2	22300.7
65°	21691.5	22953.2	23046.1	22823.1	21712.2	23335.2	23632.5	21291.0
67.5°	20217.2	20291.6	20413.4	20652.9	20582.7	22806.6	21960.0	18932.9
70°	17064.2	16073.0	16473.6	16704.9	17225.2	20285.4	18868.9	15397.8
72.5°	13048.0	11600.5	12054.8	11976.3	13058.3	16638.8	14435.6	11860.7
75°	9391.1	7910.5	7945.7	7949.8	9382.8	13281.3	9843.3	8422.6
77.5°	6382.5	5597.9	5713.5	5641.2	6279.3	10404.9	7086.7	6070.7
80°	4365.2	4344.5	4369.3	4200.0	4187.6	6725.3	5246.9	4842.1
82.5°	3237.7	2992.0	2956.9	2777.3	3208.8	5141.5	3983.2	3479.3
85°	2554.3	1656.0	1439.2	1736.6	2779.3	4730.6	2428.3	1784.1
87.5°	1082.0	650.4	394.4	780.5	1544.5	3466.9	673.2	346.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)