

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: P197250

Luminaire Tested: **NAV-AF-06-D-UNV-T2R-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197250  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24459)  
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-T2R-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30803 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

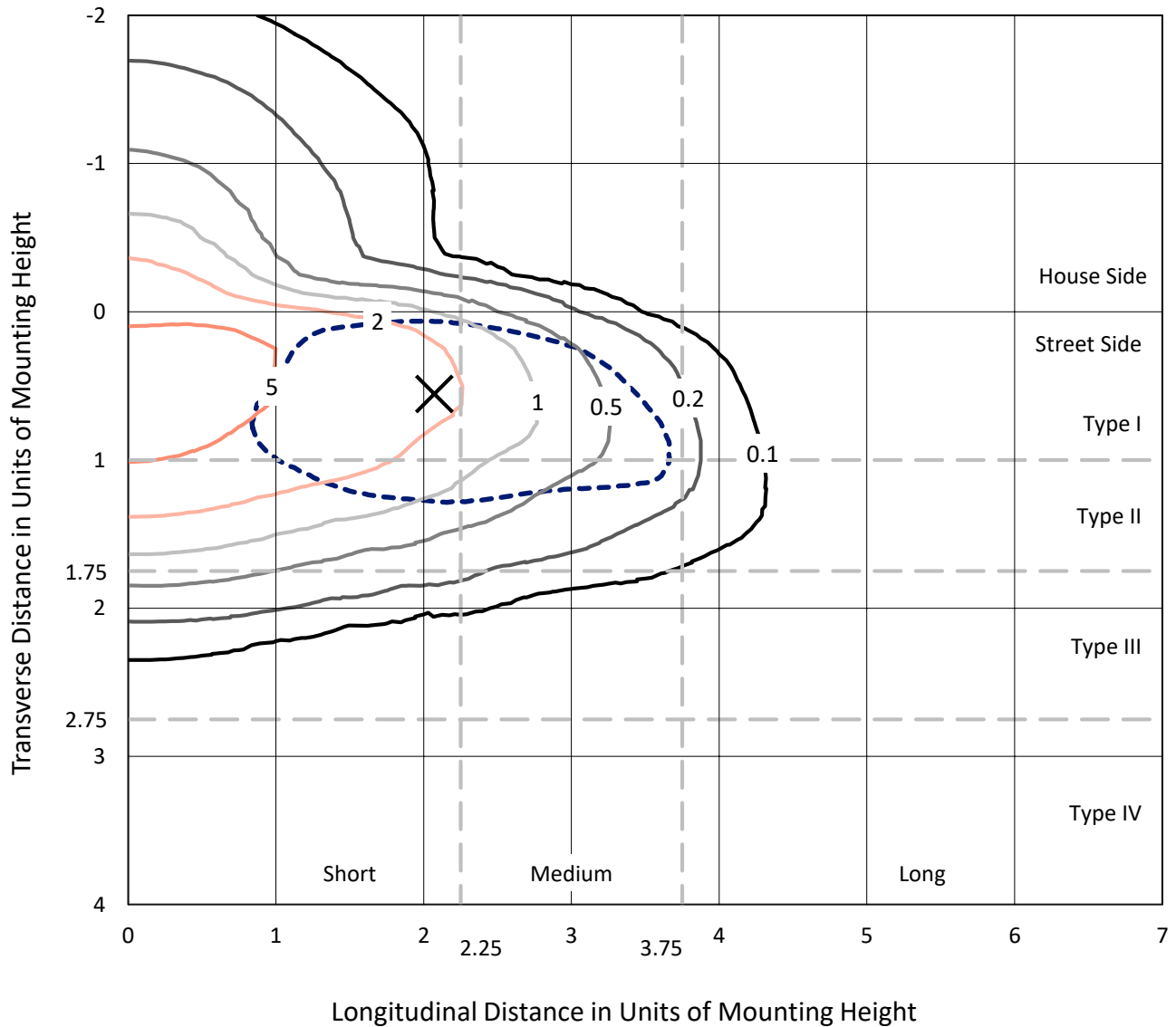
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P197250  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

### Iso-Footcandle Lines of Horizontal Illumination

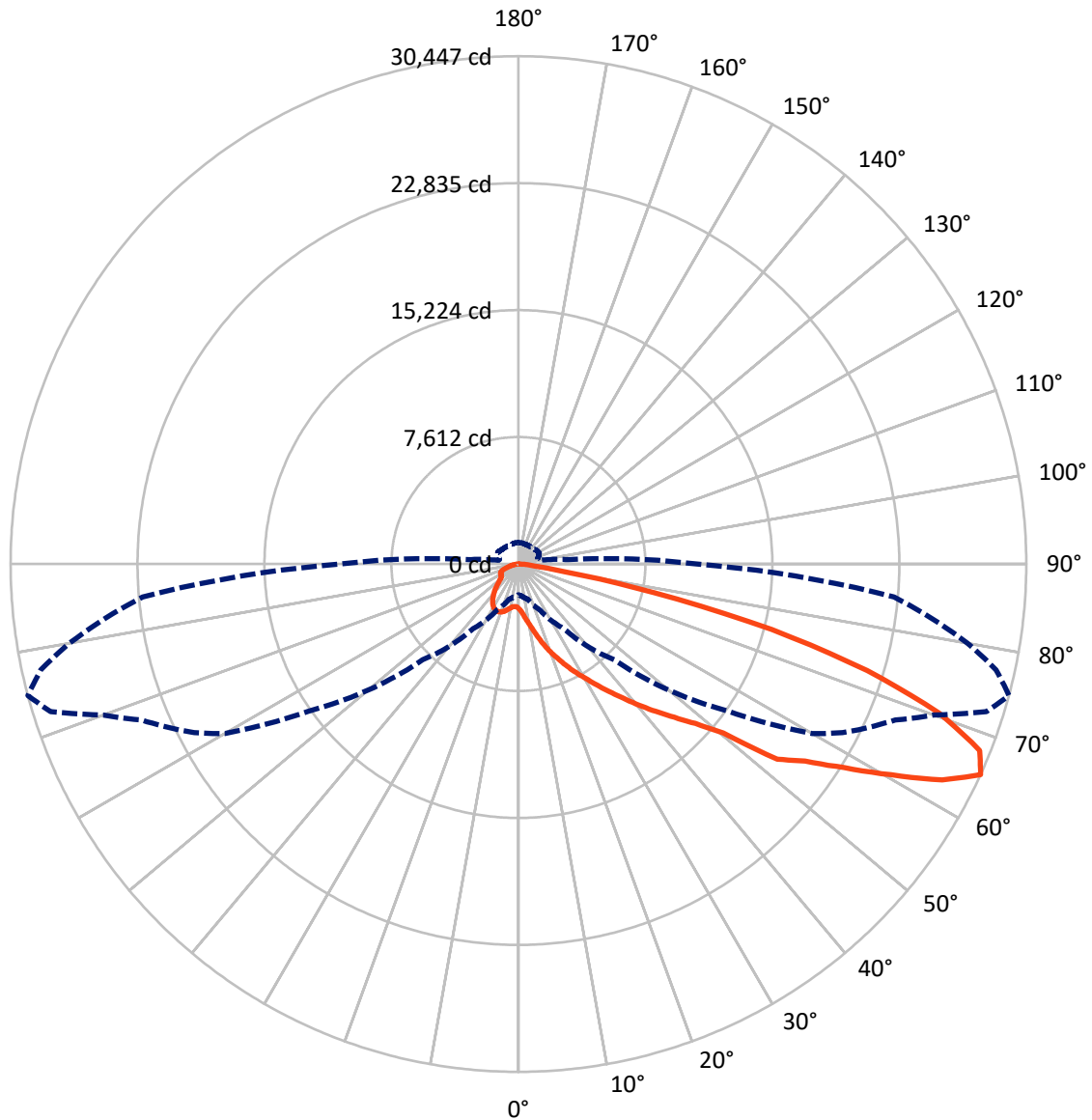
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P197250  
CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P197250

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4628.6	0.0	4628.6
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	26174.4	0.0	26174.4
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	30803.0	0.0	30803.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.1	1.0
10°-20°	1203.5	3.9
20°-30°	2428.7	7.9
30°-40°	4124.6	13.4
40°-50°	5752.8	18.7
50°-60°	7050.8	22.9
60°-70°	6633.8	21.5
70°-80°	2908.9	9.4
80°-90°	384.9	1.2
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°	30803.0	100.0
0°-180°	30803.0	100.0



REPORT NUMBER: P197250

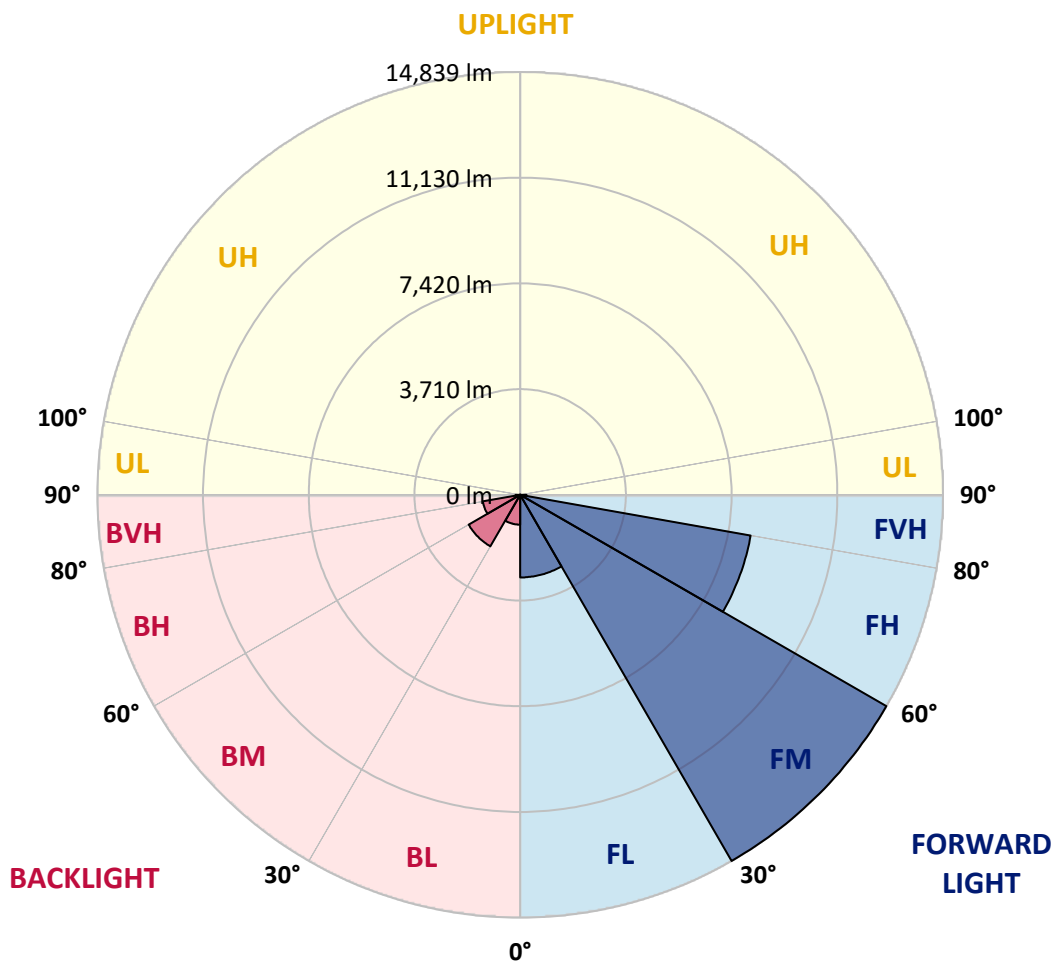
CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2899.4	9.4			
FM	(30°-60°)	14839.5	48.2			
FH	(60°-80°)	8212.4	26.7			G4/12000
FVH	(80°-90°)	223.1	0.7			G2/225
BL	(0°-30°)	1047.8	3.4	B3/2500		
BM	(30°-60°)	2088.7	6.8	B2/2500		
BH	(60°-80°)	1330.3	4.3	B3/2500		G3/2500
BVH	(80°-90°)	161.8	0.5			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 II Short





REPORT NUMBER: P197250

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9
2.5°	3360.6	3321.4	3325.3	3270.5	3190.1	3101.9	3029.4	2990.3	2956.9	2947.1	2892.3
5°	4395.2	4346.3	4328.6	4203.2	4015.1	3791.7	3570.3	3484.1	3413.5	3370.4	3264.6
7.5°	5241.8	5216.3	5192.8	5077.2	4891.0	4604.9	4248.3	4120.9	4003.3	3874.0	3746.6
10°	5817.9	5808.1	5798.3	5717.9	5563.1	5314.3	4930.2	4791.1	4644.1	4479.5	4312.9
12.5°	6252.9	6252.9	6260.7	6194.1	6100.0	5908.0	5559.2	5429.9	5281.0	5108.5	4918.4
15°	6544.9	6552.7	6593.8	6613.4	6564.5	6441.0	6135.3	6021.7	5880.6	5710.1	5522.0
17.5°	6738.9	6754.5	6815.3	6879.9	6942.6	6899.5	6672.2	6566.4	6439.0	6282.3	6105.9
20°	7189.5	7170.0	7171.9	7152.3	7244.4	7277.7	7152.3	7064.1	6962.2	6819.2	6658.5
22.5°	8136.0	8098.8	8002.8	7757.8	7646.1	7634.4	7559.9	7512.9	7434.5	7344.4	7183.7
25°	9370.5	9327.4	9137.3	8733.7	8400.5	8092.9	7955.7	7926.3	7875.4	7814.6	7699.0
27.5°	10646.2	10599.1	10354.2	9844.7	9409.7	8788.5	8361.4	8322.2	8275.1	8249.7	8194.8
30°	11769.0	11718.0	11477.0	10959.7	10434.5	9693.8	8908.1	8770.9	8690.6	8698.4	8667.0
32.5°	12754.6	12709.6	12439.2	11912.0	11379.0	10659.9	9617.4	9403.8	9223.5	9156.9	9180.4
35°	13581.6	13540.4	13244.5	12713.5	12176.6	11578.9	10530.6	10209.2	9915.3	9731.1	9709.5
37.5°	14067.5	14044.0	13836.3	13385.6	12852.6	12413.7	11553.4	11196.8	10763.7	10495.3	10377.7
40°	14040.1	14065.6	14030.3	13826.5	13413.0	13093.6	12619.4	12266.7	11843.5	11443.7	11204.6
42.5°	13640.3	13675.6	13834.3	13940.2	13828.5	13634.5	13550.2	13287.6	12907.5	12484.2	12153.1
45°	13091.7	13123.0	13328.8	13710.9	14030.3	14085.2	14365.4	14234.1	13912.7	13552.2	13187.7
47.5°	12251.0	12311.8	12550.8	13158.3	13918.6	14447.7	15049.3	15110.0	14923.8	14626.0	14285.0
50°	11034.2	11114.5	11449.6	12313.7	13495.3	14820.0	16066.3	16297.5	16223.0	15921.3	15576.4
52.5°	9787.9	9868.2	10315.0	11234.0	12813.4	14972.8	17067.6	17659.4	18086.5	18398.1	18458.9
55°	8490.7	8580.8	9070.7	10128.9	11904.2	14778.8	17782.8	18454.9	18888.0	19213.3	19344.6
57.5°	7026.9	7128.8	7603.0	8672.9	10618.7	13998.9	18578.4	19530.7	20175.4	20677.1	20959.2
60°	5347.6	5475.0	5966.8	7044.5	8929.6	12505.8	18933.1	20342.0	21366.8	22119.3	22566.0
62.5°	3390.0	3519.3	4030.8	5149.7	7007.3	10465.9	17929.8	19985.3	21733.2	22846.3	23665.3
65°	1849.8	1906.6	2190.8	3033.4	4724.4	8120.3	15386.3	17810.2	20328.3	21905.7	23163.7
67.5°	1387.4	1395.2	1424.6	1630.3	2516.0	5482.8	12029.6	14249.8	17046.0	19076.1	20579.1
70°	1214.9	1214.9	1218.8	1220.8	1365.8	2970.7	8149.7	10193.5	12756.6	14810.2	16677.6
72.5°	1089.5	1077.7	1073.8	1050.3	1069.9	1522.6	4436.4	6272.5	8433.9	10738.3	12480.3
75°	940.6	938.6	938.6	915.1	926.9	1071.9	1924.3	3009.9	4685.3	6831.0	8545.5
77.5°	813.2	799.5	801.5	787.7	825.0	821.0	913.1	1240.4	2039.9	3587.9	5010.5
80°	670.2	660.4	666.2	658.4	717.2	607.5	615.3	758.3	1013.1	1573.5	2218.2
82.5°	495.8	499.7	536.9	533.0	603.5	409.5	450.7	566.3	681.9	783.8	852.4
85°	290.0	295.9	386.0	405.6	442.9	215.5	276.3	337.0	380.2	421.3	438.9
87.5°	31.4	41.2	215.5	221.4	197.9	64.7	111.7	141.1	150.9	160.7	141.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P197250

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

**CANDELA DISTRIBUTION (continued):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9
2.5°	2874.6	2849.2	2821.7	2806.1	2778.6	2755.1	2712.0	2676.7	2637.5	2610.1	2598.3
5°	3211.7	3150.9	3086.3	3039.2	2980.5	2929.5	2831.5	2714.0	2676.7	2598.3	2578.8
7.5°	3650.6	3540.9	3431.2	3341.0	3239.1	3154.9	2990.3	2778.6	2751.2	2625.8	2598.3
10°	4166.0	4005.3	3842.7	3703.5	3554.6	3425.3	3182.3	2884.4	2855.0	2694.4	2666.9
12.5°	4742.1	4546.1	4336.5	4128.7	3952.4	3770.2	3439.0	3049.0	3002.0	2811.9	2774.7
15°	5335.8	5124.2	4881.2	4630.4	4412.9	4171.9	3754.5	3264.6	3178.4	2955.0	2904.0
17.5°	5921.7	5692.5	5437.7	5157.5	4902.8	4614.7	4095.4	3505.6	3356.7	3096.1	3031.4
20°	6488.0	6254.8	5986.4	5712.1	5394.6	5065.4	4444.2	3742.7	3515.4	3213.6	3129.4
22.5°	7003.4	6803.5	6535.1	6219.6	5898.2	5527.9	4798.9	3979.8	3654.5	3303.8	3196.0
25°	7546.2	7363.9	7097.4	6793.7	6419.4	6007.9	5165.3	4205.2	3766.2	3352.8	3219.5
27.5°	8094.9	7938.1	7687.3	7367.9	6966.2	6509.6	5537.7	4412.9	3856.4	3368.4	3207.8
30°	8680.8	8559.3	8328.0	7971.4	7565.8	7060.2	5943.3	4616.7	3913.2	3346.9	3154.9
32.5°	9235.3	9231.4	9025.6	8655.3	8218.3	7661.8	6370.5	4822.4	3942.6	3286.1	3062.8
35°	9811.4	9891.8	9736.9	9384.2	8923.7	8306.5	6842.7	5041.9	3944.6	3178.4	2943.2
37.5°	10465.9	10608.9	10540.4	10205.3	9721.3	9041.3	7397.3	5288.8	3932.8	3029.4	2768.8
40°	11210.5	11406.5	11404.5	11122.3	10605.0	9864.3	8041.9	5565.1	3905.4	2843.3	2563.1
42.5°	12062.9	12296.1	12360.8	12082.5	11559.3	10763.7	8780.7	5868.8	3862.3	2659.1	2345.6
45°	13038.8	13244.5	13366.0	13107.4	12582.2	11743.5	9629.2	6213.7	3809.3	2422.0	2096.7
47.5°	14083.2	14322.3	14504.5	14283.1	13722.6	12860.5	10634.4	6658.5	3789.7	2151.6	1828.2
50°	15378.5	15625.4	16019.2	15919.3	15611.6	14918.0	12760.5	7708.8	3797.6	1894.9	1602.9
52.5°	18592.1	19158.4	19656.1	19434.7	18703.8	17514.4	14488.8	8292.8	3633.0	1685.2	1446.1
55°	19562.1	20204.8	20939.6	20847.5	20146.0	18946.8	15854.6	8780.7	3474.3	1532.4	1344.2
57.5°	21259.0	22017.4	23044.2	23024.6	22164.3	20814.2	17612.3	9364.6	3405.7	1444.2	1293.3
60°	23055.9	24022.0	25440.7	25662.1	24727.4	23322.4	19689.4	10081.8	3415.5	1395.2	1263.9
62.5°	24368.8	25785.6	27849.0	28511.3	27410.0	25862.0	21844.9	10799.0	3356.7	1338.4	1228.6
65°	24449.2	26489.0	29416.6	30447.3	29332.3	27343.4	22605.2	10657.9	3004.0	1261.9	1171.8
67.5°	22489.6	25146.8	28703.3	29834.0	28693.5	26430.3	21272.8	9317.6	2441.6	1128.7	1073.8
70°	18731.2	21815.5	25507.3	26767.3	25824.8	23534.1	18513.7	7442.3	1824.3	952.3	926.9
72.5°	14475.1	17351.7	20704.5	21870.4	21149.3	19134.9	14602.5	5424.0	1303.1	772.1	752.5
75°	10348.3	12797.7	15231.5	15676.3	14965.0	13115.2	9474.4	3388.0	913.1	632.9	605.5
77.5°	6407.7	8000.8	8874.8	8302.6	7395.3	6147.1	3856.4	1673.4	607.5	515.4	487.9
80°	2843.3	3337.1	3115.7	2776.7	2192.7	1802.8	1177.7	742.7	391.9	397.8	382.1
82.5°	956.3	1011.1	983.7	977.8	881.8	772.1	499.7	321.4	219.5	254.7	248.9
85°	466.4	487.9	489.9	507.5	440.9	342.9	135.2	127.4	94.1	137.2	143.0
87.5°	141.1	143.0	129.3	141.1	113.7	78.4	25.5	35.3	17.6	33.3	33.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P197250

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

**CANDELA DISTRIBUTION (continued):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9
2.5°	2576.8	2569.0	2555.2	2539.6	2535.6	2516.0	2510.2	2500.4	2494.5	2484.7	2476.9
5°	2553.3	2539.6	2523.9	2506.2	2506.2	2478.8	2467.1	2455.3	2455.3	2437.7	2429.8
7.5°	2576.8	2559.2	2541.5	2525.8	2531.7	2500.4	2488.6	2476.9	2474.9	2457.3	2449.4
10°	2643.4	2625.8	2604.2	2588.6	2582.7	2557.2	2543.5	2525.8	2514.1	2502.3	2490.6
12.5°	2745.3	2721.8	2694.4	2661.1	2647.3	2625.8	2604.2	2580.7	2553.3	2541.5	2523.9
15°	2866.8	2827.6	2790.4	2749.2	2712.0	2690.4	2661.1	2623.8	2586.6	2570.9	2547.4
17.5°	2966.7	2925.6	2872.7	2823.7	2757.1	2739.4	2698.3	2653.2	2592.5	2586.6	2551.3
20°	3051.0	2988.3	2923.6	2864.8	2762.9	2753.2	2702.2	2649.3	2563.1	2563.1	2520.0
22.5°	3098.0	3011.8	2935.4	2857.0	2729.6	2721.8	2663.0	2600.3	2494.5	2498.4	2445.5
25°	3105.9	3002.0	2906.0	2811.9	2665.0	2651.3	2576.8	2508.2	2392.6	2384.8	2329.9
27.5°	3074.5	2953.0	2841.3	2727.7	2569.0	2539.6	2457.3	2375.0	2261.3	2241.7	2182.9
30°	3002.0	2859.0	2733.6	2602.3	2435.7	2388.7	2302.5	2218.2	2102.6	2077.1	2022.2
32.5°	2886.4	2723.8	2584.6	2453.3	2269.1	2210.4	2124.1	2039.9	1928.2	1908.6	1857.6
35°	2733.6	2551.3	2404.4	2265.2	2081.0	2020.3	1938.0	1863.5	1761.6	1753.8	1718.5
37.5°	2541.5	2351.4	2194.7	2061.4	1887.0	1855.7	1771.4	1716.6	1632.3	1640.1	1622.5
40°	2324.0	2130.0	1981.1	1863.5	1712.6	1685.2	1634.3	1593.1	1520.6	1542.2	1544.1
42.5°	2104.5	1910.6	1775.3	1669.5	1540.2	1522.6	1487.3	1463.8	1408.9	1452.0	1469.7
45°	1855.7	1675.4	1559.8	1479.5	1383.4	1383.4	1365.8	1363.8	1326.6	1387.4	1405.0
47.5°	1614.7	1473.6	1393.2	1344.2	1277.6	1309.0	1303.1	1318.8	1291.3	1354.0	1369.7
50°	1432.4	1334.4	1285.5	1261.9	1214.9	1263.9	1275.7	1297.2	1273.7	1328.6	1340.3
52.5°	1316.8	1252.1	1224.7	1218.8	1185.5	1246.3	1265.9	1285.5	1258.0	1309.0	1307.0
55°	1252.1	1209.0	1199.2	1211.0	1185.5	1244.3	1263.9	1277.6	1254.1	1289.4	1287.4
57.5°	1228.6	1205.1	1211.0	1228.6	1211.0	1260.0	1269.8	1285.5	1261.9	1277.6	1285.5
60°	1226.7	1226.7	1250.2	1273.7	1261.9	1297.2	1303.1	1301.1	1279.6	1281.5	1285.5
62.5°	1214.9	1244.3	1283.5	1320.7	1316.8	1359.9	1363.8	1338.4	1320.7	1301.1	1295.3
65°	1177.7	1226.7	1283.5	1334.4	1342.3	1408.9	1416.7	1391.3	1379.5	1346.2	1320.7
67.5°	1095.4	1158.1	1224.7	1287.4	1301.1	1391.3	1408.9	1418.7	1424.6	1403.0	1369.7
70°	956.3	1020.9	1089.5	1162.0	1181.6	1281.5	1318.8	1363.8	1399.1	1430.5	1418.7
72.5°	777.9	836.7	895.5	962.1	991.5	1095.4	1144.4	1222.8	1277.6	1358.0	1391.3
75°	617.3	652.5	687.8	728.9	752.5	854.4	915.1	1009.2	1083.6	1195.3	1269.8
77.5°	486.0	503.6	521.2	538.9	548.7	605.5	654.5	748.5	834.8	975.9	1085.6
80°	374.3	384.1	386.0	391.9	388.0	415.4	433.1	489.9	564.3	703.5	832.8
82.5°	241.0	248.9	252.8	262.6	243.0	278.3	290.0	295.9	335.1	437.0	529.1
85°	135.2	137.2	139.1	143.0	115.6	150.9	152.8	143.0	139.1	180.3	203.8
87.5°	33.3	31.4	33.3	33.3	13.7	31.4	31.4	21.6	15.7	29.4	23.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P197250

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-8030

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	2668.9	2668.9	2668.9	2668.9	2668.9	2668.9
2.5°	2459.2	2455.3	2457.3	2447.5	2443.5	2445.5
5°	2420.0	2412.2	2412.2	2406.3	2398.5	2398.5
7.5°	2437.7	2422.0	2416.1	2404.4	2392.6	2394.6
10°	2465.1	2437.7	2418.1	2400.4	2386.7	2386.7
12.5°	2482.7	2433.7	2404.4	2380.8	2365.2	2365.2
15°	2486.7	2412.2	2369.1	2343.6	2327.9	2327.9
17.5°	2463.1	2369.1	2314.2	2280.9	2263.3	2267.2
20°	2404.4	2288.7	2224.1	2188.8	2171.2	2173.1
22.5°	2312.3	2179.0	2104.5	2063.4	2045.8	2045.8
25°	2186.8	2041.8	1961.5	1928.2	1912.5	1912.5
27.5°	2043.8	1894.9	1824.3	1798.9	1789.1	1789.1
30°	1883.1	1759.7	1708.7	1691.1	1675.4	1675.4
32.5°	1747.9	1659.7	1642.1	1618.6	1577.4	1575.5
35°	1640.1	1630.3	1616.6	1546.1	1487.3	1479.5
37.5°	1581.3	1640.1	1553.9	1432.4	1385.4	1383.4
40°	1550.0	1604.9	1455.9	1397.2	1391.3	1391.3
42.5°	1475.5	1514.7	1450.1	1416.7	1416.7	1418.7
45°	1397.2	1430.5	1463.8	1434.4	1444.2	1446.1
47.5°	1342.3	1408.9	1463.8	1438.3	1457.9	1469.7
50°	1291.3	1389.3	1434.4	1434.4	1455.9	1457.9
52.5°	1279.6	1361.9	1406.9	1428.5	1430.5	1420.7
55°	1281.5	1340.3	1385.4	1412.8	1401.1	1401.1
57.5°	1279.6	1328.6	1367.8	1377.6	1383.4	1383.4
60°	1281.5	1312.9	1344.2	1340.3	1359.9	1359.9
62.5°	1287.4	1291.3	1307.0	1303.1	1332.5	1332.5
65°	1301.1	1263.9	1254.1	1258.0	1293.3	1291.3
67.5°	1326.6	1226.7	1195.3	1197.3	1248.2	1240.4
70°	1363.8	1175.7	1128.7	1116.9	1203.2	1189.4
72.5°	1375.6	1116.9	1042.5	1030.7	1081.7	1042.5
75°	1320.7	1069.9	950.4	911.2	889.6	877.9
77.5°	1177.7	1040.5	854.4	772.1	738.7	730.9
80°	975.9	979.8	728.9	631.0	732.9	730.9
82.5°	736.8	846.5	583.9	546.7	531.0	442.9
85°	356.6	636.9	448.7	376.2	225.3	213.6
87.5°	31.4	266.5	258.7	168.5	76.4	72.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)