

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: P196770

Luminaire Tested: **NAV-AF-06-D-UNV-T2R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196770  
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-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 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: 36509 lumens  
Efficiency: N/A  
Efficacy: 109.6 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

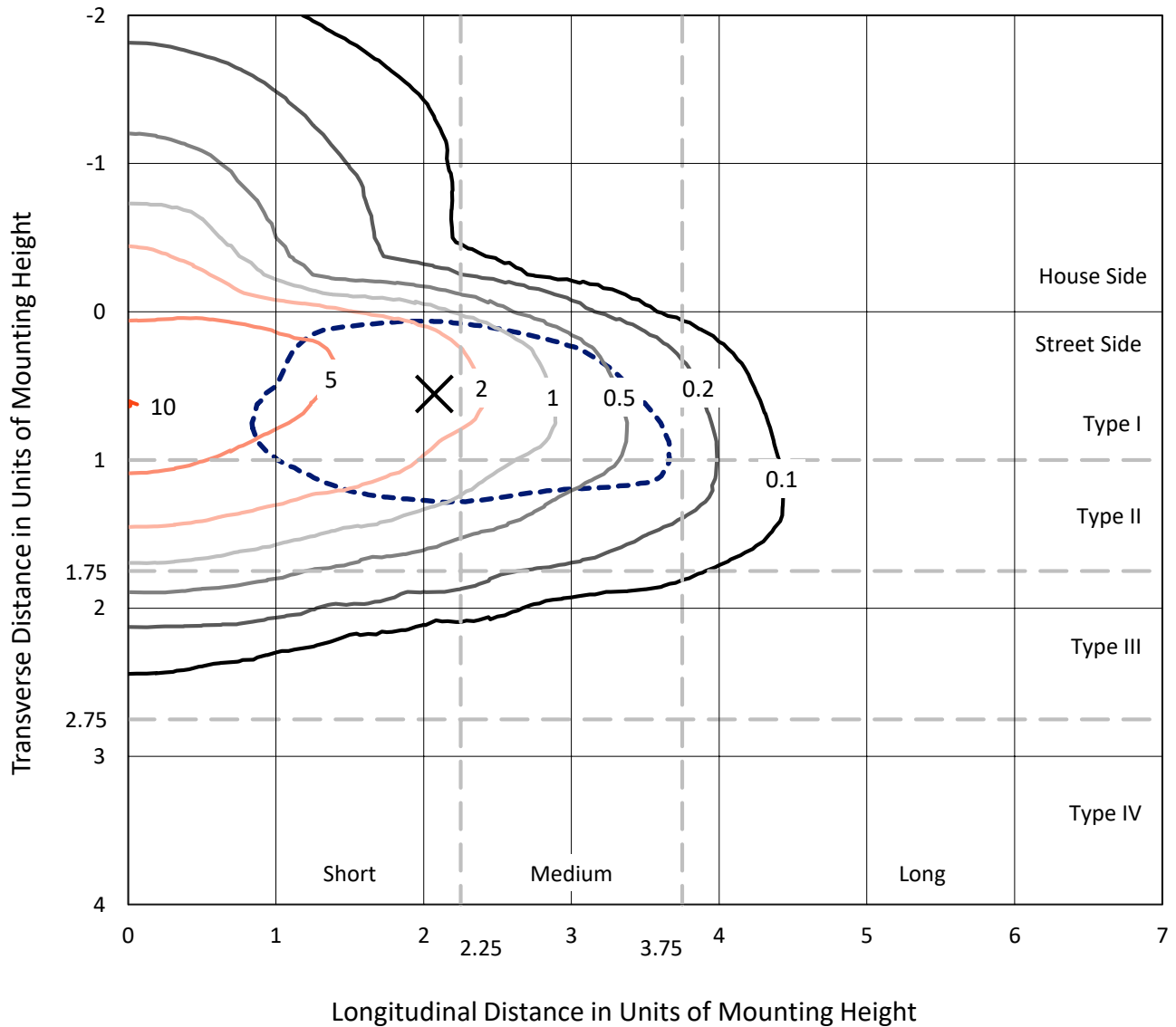
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196770  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

### Iso-Footcandle Lines of Horizontal Illumination

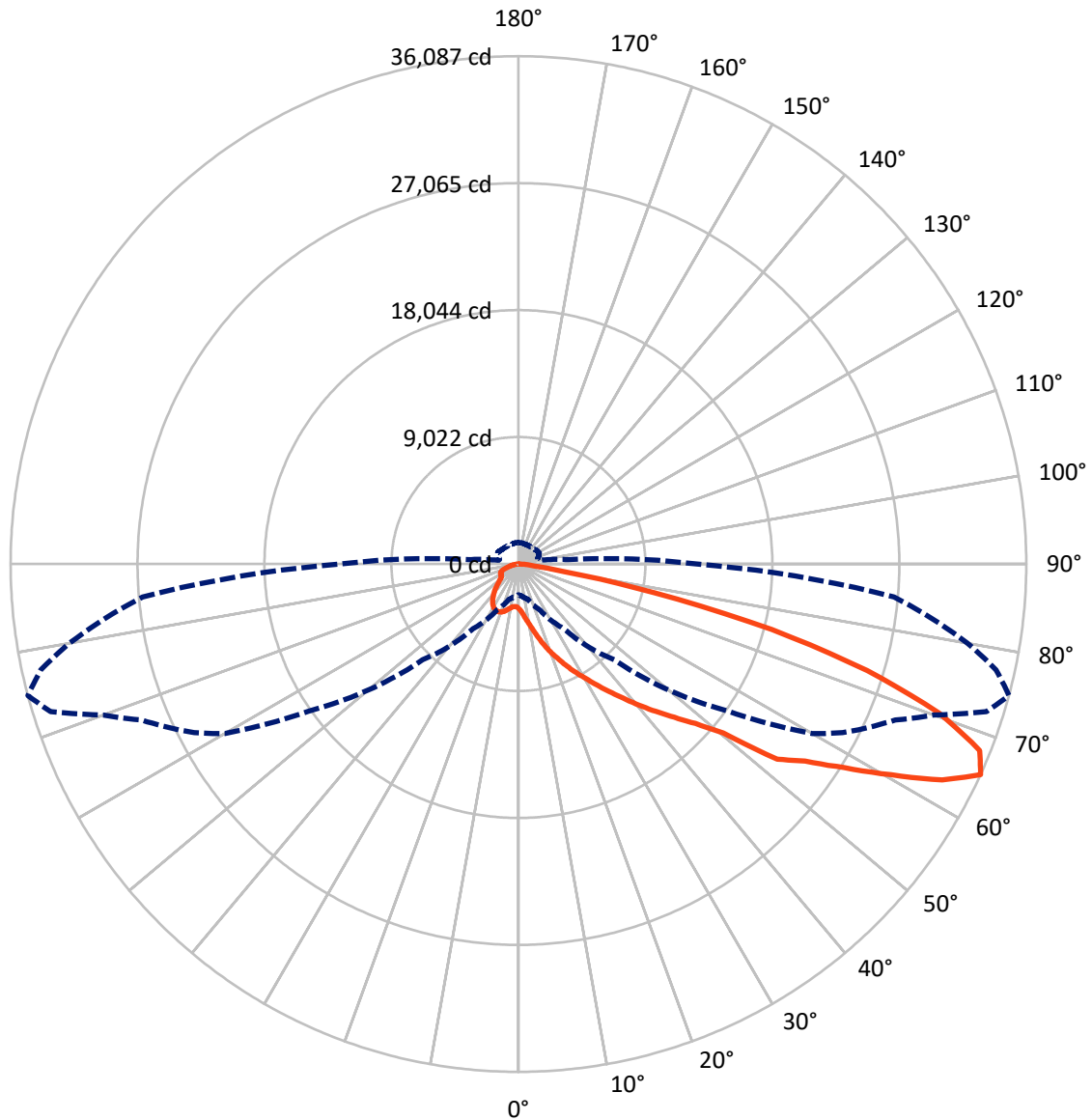
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.1 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P196770  
CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196770

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5486.0	0.0	5486.0
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	31022.9	0.0	31022.9
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	36509.0	0.0	36509.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	373.4	1.0
10°-20°	1426.4	3.9
20°-30°	2878.6	7.9
30°-40°	4888.6	13.4
40°-50°	6818.5	18.7
50°-60°	8356.9	22.9
60°-70°	7862.7	21.5
70°-80°	3447.7	9.4
80°-90°	456.2	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°	36509.0	100.0
0°-180°	36509.0	100.0



REPORT NUMBER: P196770

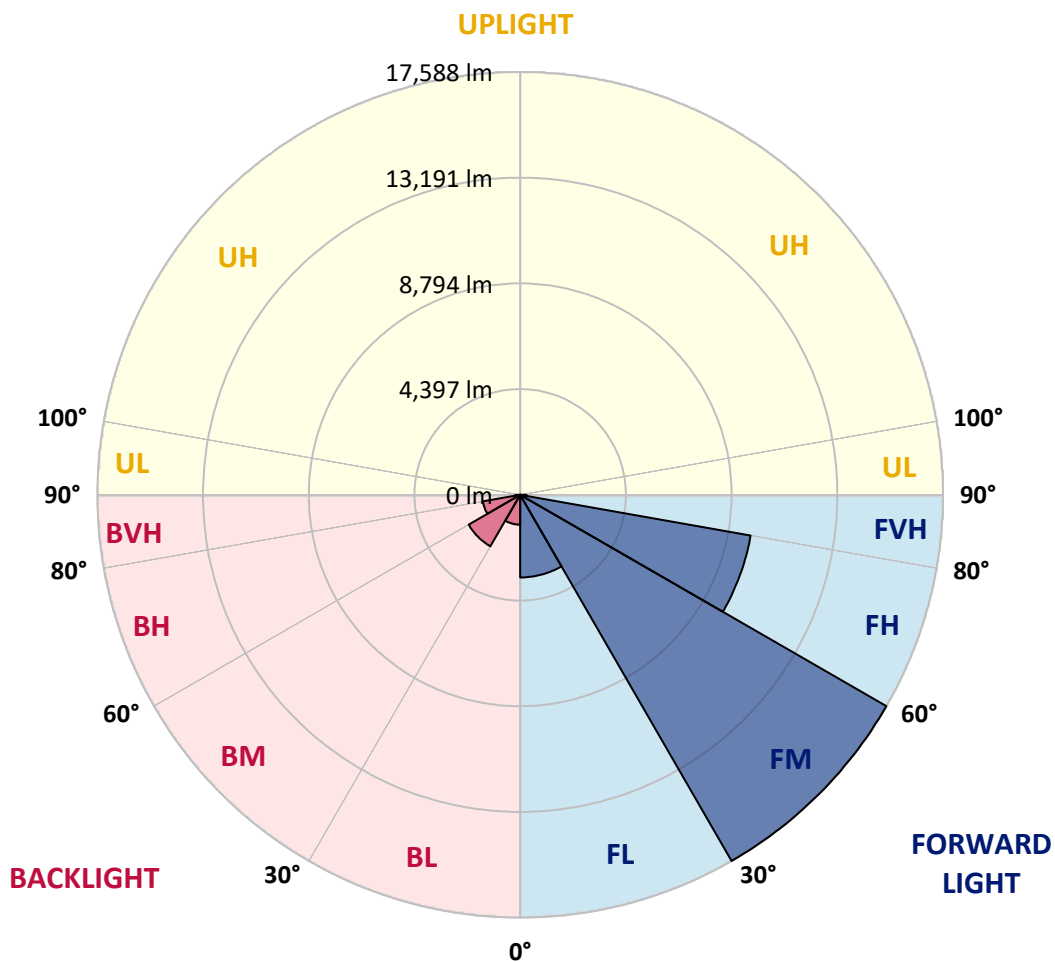
CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3436.5	9.4			
FM	(30°-60°)	17588.4	48.2			
FH	(60°-80°)	9733.6	26.7			G4/12000
FVH	(80°-90°)	264.5	0.7			G3/500
BL	(0°-30°)	1241.9	3.4	B3/2500		
BM	(30°-60°)	2475.6	6.8	B2/2500		
BH	(60°-80°)	1576.8	4.3	B3/2500		G3/2500
BVH	(80°-90°)	191.7	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: P196770  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3
2.5°	3983.1	3936.7	3941.3	3876.3	3781.0	3676.6	3590.6	3544.2	3504.7	3493.1	3428.0
5°	5209.4	5151.3	5130.5	4981.7	4758.9	4494.1	4231.6	4129.5	4045.9	3994.7	3869.3
7.5°	6212.8	6182.6	6154.7	6017.7	5797.1	5457.9	5035.2	4884.3	4744.9	4591.6	4440.7
10°	6895.6	6884.0	6872.4	6777.2	6593.7	6298.7	5843.5	5678.5	5504.4	5309.4	5111.9
12.5°	7411.2	7411.2	7420.5	7341.4	7230.0	7002.4	6589.0	6435.7	6259.3	6054.8	5829.5
15°	7757.2	7766.4	7815.4	7838.5	7780.5	7634.2	7271.9	7137.2	6969.8	6767.8	6544.8
17.5°	7987.2	8005.8	8077.7	8154.3	8228.8	8177.6	7908.1	7782.7	7631.9	7446.0	7237.0
20°	8521.3	8498.0	8500.5	8477.2	8586.3	8625.9	8477.2	8372.7	8252.0	8082.4	7891.9
22.5°	9643.1	9599.0	9485.3	9194.9	9062.5	9048.6	8960.4	8904.5	8811.6	8704.8	8514.3
25°	11106.3	11055.2	10829.9	10351.6	9956.7	9592.0	9429.4	9394.6	9334.2	9262.2	9125.3
27.5°	12618.3	12562.5	12272.2	11668.4	11152.7	10416.6	9910.3	9863.8	9807.9	9777.8	9712.8
30°	13949.1	13888.7	13603.0	12989.9	12367.5	11489.4	10558.2	10395.6	10300.4	10309.7	10272.5
32.5°	15117.3	15063.9	14743.5	14118.6	13486.9	12634.5	11398.9	11145.7	10932.2	10853.2	10881.0
35°	16097.3	16048.6	15698.0	15068.6	14432.2	13723.8	12481.2	12100.4	11751.9	11533.6	11508.2
37.5°	16673.4	16645.5	16399.4	15865.2	15233.5	14713.2	13693.6	13270.9	12757.6	12439.5	12300.1
40°	16640.9	16671.1	16629.3	16387.7	15897.7	15519.0	14957.0	14539.0	14037.3	13563.6	13280.3
42.5°	16167.1	16208.9	16397.1	16522.4	16390.1	16160.1	16060.2	15749.0	15298.5	14796.8	14404.3
45°	15516.8	15553.9	15797.8	16250.6	16629.3	16694.3	17026.4	16870.8	16490.0	16062.6	15630.6
47.5°	14520.4	14592.4	14875.7	15595.7	16496.9	17123.9	17837.0	17909.0	17688.3	17335.3	16931.3
50°	13078.2	13173.4	13570.5	14594.8	15995.2	17565.3	19042.4	19316.5	19228.2	18870.5	18461.7
52.5°	11601.0	11696.2	12225.8	13315.0	15187.0	17746.4	20229.3	20930.6	21436.8	21806.2	21878.2
55°	10063.6	10170.3	10751.0	12005.2	14109.3	17516.5	21076.8	21873.6	22386.7	22772.4	22927.9
57.5°	8328.7	8449.3	9011.3	10279.5	12585.8	16592.1	22019.9	23148.6	23912.7	24507.3	24841.7
60°	6338.1	6489.1	7072.2	8349.5	10583.7	14822.3	22440.2	24110.1	25324.7	26216.6	26746.2
62.5°	4018.0	4171.3	4777.5	6103.6	8305.4	12404.6	21251.2	23687.4	25759.2	27078.4	28049.1
65°	2192.5	2259.8	2596.5	3595.2	5599.6	9624.5	18236.5	21109.4	24093.9	25963.5	27454.5
67.5°	1644.4	1653.6	1688.5	1932.4	2982.1	6498.4	14258.0	16889.4	20203.6	22609.8	24391.1
70°	1439.9	1439.9	1444.6	1446.9	1618.7	3521.0	9659.4	12081.8	15119.7	17553.7	19766.9
72.5°	1291.3	1277.4	1272.8	1244.9	1268.1	1804.6	5258.2	7434.4	9996.1	12727.4	14792.2
75°	1114.8	1112.5	1112.5	1084.6	1098.6	1270.4	2280.7	3567.5	5553.2	8096.3	10128.6
77.5°	963.8	947.6	949.9	933.6	977.8	973.2	1082.3	1470.2	2417.8	4252.6	5938.7
80°	794.4	782.8	789.6	780.3	850.0	720.0	729.3	898.7	1200.8	1864.9	2629.1
82.5°	587.6	592.3	636.3	631.7	715.3	485.4	534.2	671.2	808.2	929.0	1010.3
85°	343.7	350.7	457.6	480.7	524.9	255.4	327.4	399.5	450.5	499.4	520.3
87.5°	37.1	48.7	255.4	262.4	234.6	76.6	132.4	167.2	178.8	190.4	167.2
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: P196770

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

**CANDELA DISTRIBUTION (continued):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3
2.5°	3407.1	3376.9	3344.4	3325.9	3293.3	3265.4	3214.4	3172.6	3126.1	3093.5	3079.7
5°	3806.6	3734.6	3658.0	3602.3	3532.6	3472.2	3356.0	3216.7	3172.6	3079.7	3056.4
7.5°	4326.8	4196.7	4066.7	3959.9	3839.2	3739.3	3544.2	3293.3	3260.9	3112.1	3079.7
10°	4937.7	4747.2	4554.5	4389.6	4213.0	4059.7	3771.7	3418.7	3383.9	3193.4	3161.0
12.5°	5620.6	5388.2	5139.8	4893.6	4684.5	4468.4	4076.0	3613.9	3558.1	3332.9	3288.7
15°	6324.3	6073.4	5785.4	5488.1	5230.3	4944.6	4449.9	3869.3	3767.2	3502.5	3442.0
17.5°	7018.7	6747.0	6444.9	6112.8	5811.0	5469.5	4854.1	4155.0	3978.4	3669.6	3593.0
20°	7689.8	7413.5	7095.3	6770.1	6394.0	6003.7	5267.5	4436.0	4166.6	3809.0	3709.1
22.5°	8300.8	8063.8	7745.6	7371.7	6990.9	6551.8	5687.8	4717.0	4331.5	3915.8	3788.0
25°	8944.1	8728.0	8412.2	8052.2	7608.6	7120.9	6122.2	4984.2	4463.9	3973.9	3815.9
27.5°	9594.4	9408.6	9111.2	8732.6	8256.6	7715.5	6563.4	5230.3	4570.8	3992.5	3802.0
30°	10288.8	10144.8	9870.7	9448.0	8967.2	8368.0	7044.3	5471.9	4638.0	3966.8	3739.3
32.5°	10946.0	10941.4	10697.6	10258.6	9740.7	9081.1	7550.6	5715.8	4672.9	3894.9	3630.1
35°	11628.9	11724.1	11540.6	11122.6	10576.8	9845.2	8110.2	5975.8	4675.2	3767.2	3488.4
37.5°	12404.6	12574.1	12492.8	12095.8	11522.1	10716.1	8767.5	6268.5	4661.3	3590.6	3281.7
40°	13287.1	13519.4	13517.1	13182.6	12569.5	11691.7	9531.7	6596.0	4628.8	3370.0	3037.9
42.5°	14297.4	14573.9	14650.5	14320.7	13700.6	12757.6	10407.3	6956.0	4577.8	3151.7	2780.1
45°	15454.0	15698.0	15841.9	15535.3	14912.9	13918.9	11412.9	7364.7	4515.0	2870.7	2485.1
47.5°	16692.0	16975.4	17191.3	16928.8	16264.7	15242.8	12604.3	7891.9	4491.7	2550.1	2166.9
50°	18227.1	18519.8	18986.6	18868.2	18503.6	17681.4	15124.3	9136.8	4501.1	2246.0	1899.8
52.5°	22036.2	22707.4	23297.3	23034.8	22168.4	20758.7	17172.8	9829.0	4306.0	1997.4	1714.1
55°	23185.8	23947.6	24818.5	24709.3	23877.8	22456.5	18791.6	10407.3	4117.9	1816.2	1593.2
57.5°	25197.1	26095.9	27312.8	27289.6	26270.1	24669.8	20874.8	11099.3	4036.6	1711.6	1532.9
60°	27326.9	28471.9	30153.4	30415.8	29307.9	27642.7	23336.6	11949.3	4048.2	1653.6	1498.1
62.5°	28882.9	30562.1	33007.8	33792.8	32487.4	30652.6	25891.5	12799.4	3978.4	1586.3	1456.2
65°	28978.2	31395.8	34865.7	36087.3	34765.9	32408.5	26792.7	12632.2	3560.4	1495.8	1388.9
67.5°	26655.7	29805.0	34020.4	35360.4	34008.7	31326.3	25213.3	11043.6	2893.8	1337.8	1272.8
70°	22201.1	25856.6	30232.4	31725.7	30608.6	27893.6	21943.2	8820.9	2162.2	1128.7	1098.6
72.5°	17156.6	20566.0	24539.8	25921.8	25067.1	22679.5	17307.4	6428.7	1544.5	915.0	891.9
75°	12265.2	15168.5	18053.0	18580.2	17737.1	15544.7	11229.4	4015.6	1082.3	750.2	717.7
77.5°	7594.6	9482.8	10518.7	9840.6	8765.3	7285.7	4570.8	1983.4	720.0	610.9	578.3
80°	3370.0	3955.3	3692.9	3291.0	2599.0	2136.7	1395.8	880.2	464.5	471.5	452.9
82.5°	1133.3	1198.5	1165.9	1158.9	1045.2	915.0	592.3	380.9	260.1	301.9	295.0
85°	552.8	578.3	580.6	601.6	522.6	406.5	160.3	151.0	111.5	162.6	169.6
87.5°	167.2	169.6	153.3	167.2	134.7	92.9	30.1	41.8	20.9	39.5	39.5
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: P196770  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

**CANDELA DISTRIBUTION (continued):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3
2.5°	3054.2	3044.8	3028.5	3010.0	3005.4	2982.1	2975.1	2963.5	2956.5	2945.0	2935.7
5°	3026.3	3010.0	2991.4	2970.5	2970.5	2938.0	2924.1	2910.1	2910.1	2889.3	2880.0
7.5°	3054.2	3033.2	3012.3	2993.7	3000.7	2963.5	2949.6	2935.7	2933.4	2912.5	2903.1
10°	3133.1	3112.1	3086.7	3068.1	3061.1	3030.9	3014.7	2993.7	2979.8	2965.9	2951.9
12.5°	3253.8	3226.0	3193.4	3154.0	3137.7	3112.1	3086.7	3058.7	3026.3	3012.3	2991.4
15°	3397.9	3351.4	3307.3	3258.5	3214.4	3188.8	3154.0	3109.8	3065.7	3047.1	3019.3
17.5°	3516.3	3467.6	3404.8	3346.7	3267.8	3246.8	3198.1	3144.7	3072.7	3065.7	3024.0
20°	3616.2	3541.8	3465.1	3395.6	3274.7	3263.1	3202.7	3140.0	3037.9	3037.9	2986.8
22.5°	3671.8	3569.7	3479.2	3386.3	3235.2	3226.0	3156.3	3081.9	2956.5	2961.3	2898.5
25°	3681.2	3558.1	3444.3	3332.9	3158.6	3142.4	3054.2	2972.8	2835.9	2826.5	2761.5
27.5°	3644.1	3500.0	3367.7	3233.0	3044.8	3010.0	2912.5	2814.9	2680.2	2656.9	2587.3
30°	3558.1	3388.5	3240.0	3084.3	2886.8	2831.1	2729.0	2629.1	2492.1	2461.8	2396.8
32.5°	3421.1	3228.3	3063.4	2907.8	2689.5	2619.8	2517.7	2417.8	2285.3	2262.1	2201.8
35°	3240.0	3024.0	2849.7	2684.8	2466.5	2394.5	2296.9	2208.6	2088.0	2078.6	2036.8
37.5°	3012.3	2786.9	2601.3	2443.2	2236.6	2199.4	2099.5	2034.5	1934.7	1943.9	1923.1
40°	2754.5	2524.6	2348.1	2208.6	2029.9	1997.4	1936.9	1888.2	1802.2	1827.8	1830.2
42.5°	2494.4	2264.5	2104.3	1978.8	1825.5	1804.6	1762.8	1734.9	1669.9	1721.0	1741.9
45°	2199.4	1985.8	1848.7	1753.5	1639.7	1639.7	1618.7	1616.5	1572.4	1644.4	1665.2
47.5°	1913.7	1746.5	1651.4	1593.2	1514.4	1551.5	1544.5	1563.1	1530.5	1604.9	1623.5
50°	1697.8	1581.6	1523.6	1495.8	1439.9	1498.1	1511.9	1537.5	1509.6	1574.7	1588.6
52.5°	1560.8	1484.1	1451.6	1444.6	1405.1	1477.0	1500.3	1523.6	1491.1	1551.5	1549.1
55°	1484.1	1433.1	1421.4	1435.3	1405.1	1474.8	1498.1	1514.4	1486.4	1528.2	1526.0
57.5°	1456.2	1428.3	1435.3	1456.2	1435.3	1493.3	1505.0	1523.6	1495.8	1514.4	1523.6
60°	1453.9	1453.9	1481.8	1509.6	1495.8	1537.5	1544.5	1542.2	1516.6	1518.9	1523.6
62.5°	1439.9	1474.8	1521.2	1565.3	1560.8	1611.8	1616.5	1586.3	1565.3	1542.2	1535.2
65°	1395.8	1453.9	1521.2	1581.6	1591.0	1669.9	1679.2	1648.9	1635.1	1595.6	1565.3
67.5°	1298.3	1372.7	1451.6	1526.0	1542.2	1648.9	1669.9	1681.5	1688.5	1662.9	1623.5
70°	1133.3	1210.0	1291.3	1377.2	1400.4	1518.9	1563.1	1616.5	1658.3	1695.4	1681.5
72.5°	922.0	991.7	1061.4	1140.3	1175.2	1298.3	1356.4	1449.3	1514.4	1609.5	1648.9
75°	731.6	773.4	815.2	864.0	891.9	1012.7	1084.6	1196.1	1284.4	1416.8	1505.0
77.5°	576.1	596.9	617.8	638.7	650.3	717.7	775.7	887.1	989.4	1156.6	1286.6
80°	443.6	455.2	457.6	464.5	459.9	492.3	513.3	580.6	668.8	833.7	987.0
82.5°	285.7	295.0	299.6	311.2	288.0	329.8	343.7	350.7	397.1	517.9	627.0
85°	160.3	162.6	164.9	169.6	137.0	178.8	181.2	169.6	164.9	213.7	241.6
87.5°	39.5	37.1	39.5	39.5	16.3	37.1	37.1	25.5	18.6	34.9	27.9
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: P196770

CATALOG NUMBER: NAV-AF-06-D-UNV-T2R-7030

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	3163.3	3163.3	3163.3	3163.3	3163.3	3163.3
2.5°	2914.8	2910.1	2912.5	2900.9	2896.1	2898.5
5°	2868.3	2859.0	2859.0	2852.1	2842.8	2842.8
7.5°	2889.3	2870.7	2863.6	2849.7	2835.9	2838.1
10°	2921.7	2889.3	2866.0	2845.1	2828.8	2828.8
12.5°	2942.7	2884.6	2849.7	2821.8	2803.3	2803.3
15°	2947.3	2859.0	2808.0	2777.7	2759.2	2759.2
17.5°	2919.4	2808.0	2743.0	2703.4	2682.6	2687.1
20°	2849.7	2712.7	2636.1	2594.3	2573.4	2575.7
22.5°	2740.5	2582.7	2494.4	2445.7	2424.7	2424.7
25°	2591.9	2420.1	2324.8	2285.3	2266.8	2266.8
27.5°	2422.4	2246.0	2162.2	2132.0	2120.5	2120.5
30°	2231.9	2085.6	2025.2	2004.4	1985.8	1985.8
32.5°	2071.7	1967.2	1946.2	1918.4	1869.7	1867.4
35°	1943.9	1932.4	1916.1	1832.5	1762.8	1753.5
37.5°	1874.3	1943.9	1841.8	1697.8	1642.0	1639.7
40°	1837.0	1902.1	1725.6	1656.0	1648.9	1648.9
42.5°	1748.9	1795.3	1718.6	1679.2	1679.2	1681.5
45°	1656.0	1695.4	1734.9	1700.1	1711.6	1714.1
47.5°	1591.0	1669.9	1734.9	1704.8	1727.9	1741.9
50°	1530.5	1646.6	1700.1	1700.1	1725.6	1727.9
52.5°	1516.6	1614.2	1667.7	1693.1	1695.4	1683.8
55°	1518.9	1588.6	1642.0	1674.5	1660.6	1660.6
57.5°	1516.6	1574.7	1621.1	1632.8	1639.7	1639.7
60°	1518.9	1556.1	1593.2	1588.6	1611.8	1611.8
62.5°	1526.0	1530.5	1549.1	1544.5	1579.4	1579.4
65°	1542.2	1498.1	1486.4	1491.1	1532.9	1530.5
67.5°	1572.4	1453.9	1416.8	1419.1	1479.5	1470.2
70°	1616.5	1393.5	1337.8	1323.7	1426.1	1409.8
72.5°	1630.3	1323.7	1235.6	1221.6	1282.0	1235.6
75°	1565.3	1268.1	1126.5	1080.0	1054.5	1040.4
77.5°	1395.8	1233.2	1012.7	915.0	875.6	866.3
80°	1156.6	1161.3	864.0	747.9	868.6	866.3
82.5°	873.3	1003.3	692.1	648.0	629.5	524.9
85°	422.8	754.9	531.9	445.9	267.1	253.2
87.5°	37.1	315.9	306.6	199.7	90.5	86.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)