

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: P196686

Luminaire Tested: **NAV-AF-06-D-UNV-SLL-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196686
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-SLL-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20274.1 lumens
Efficiency: N/A
Efficacy: 105.0 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

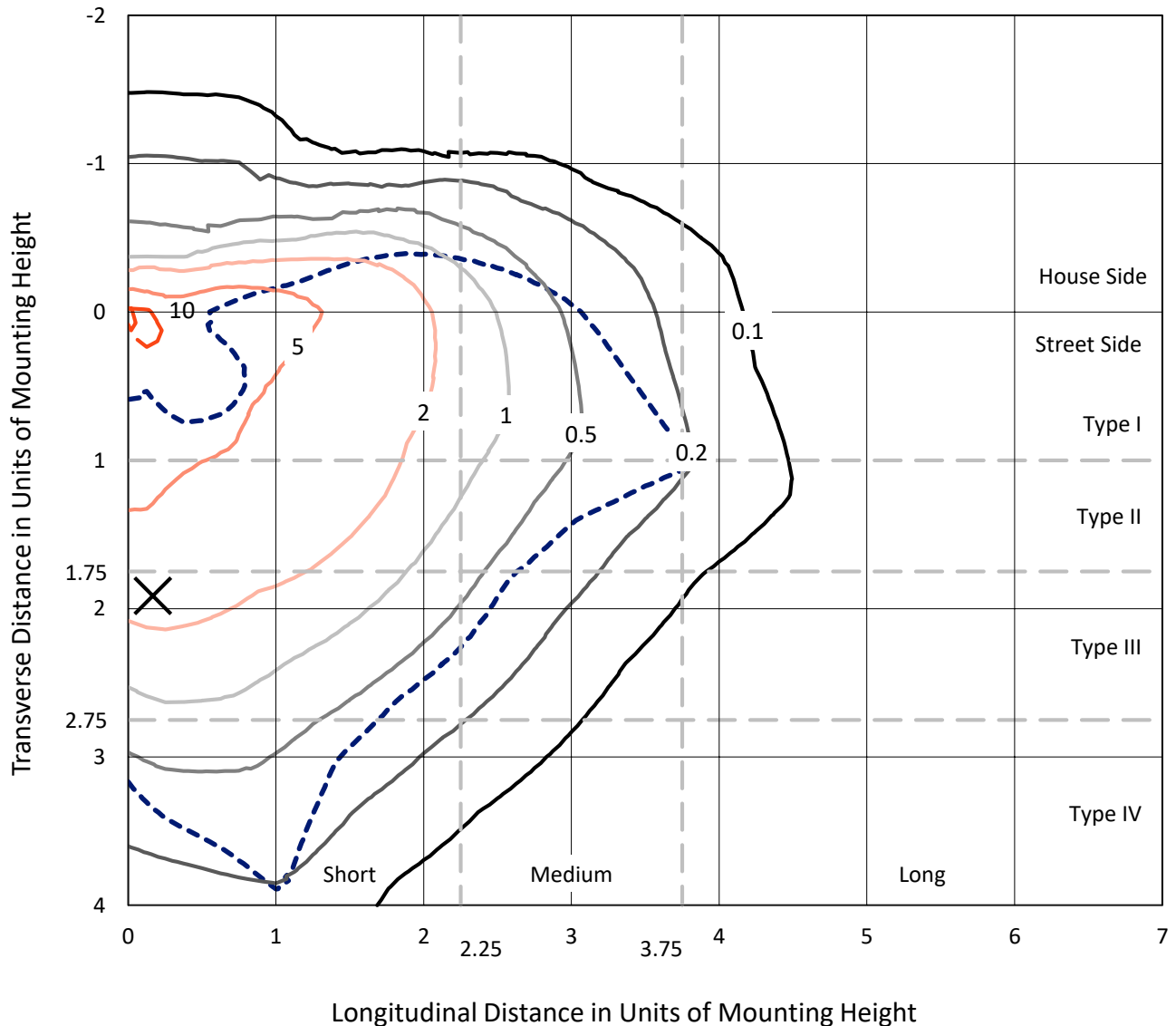
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

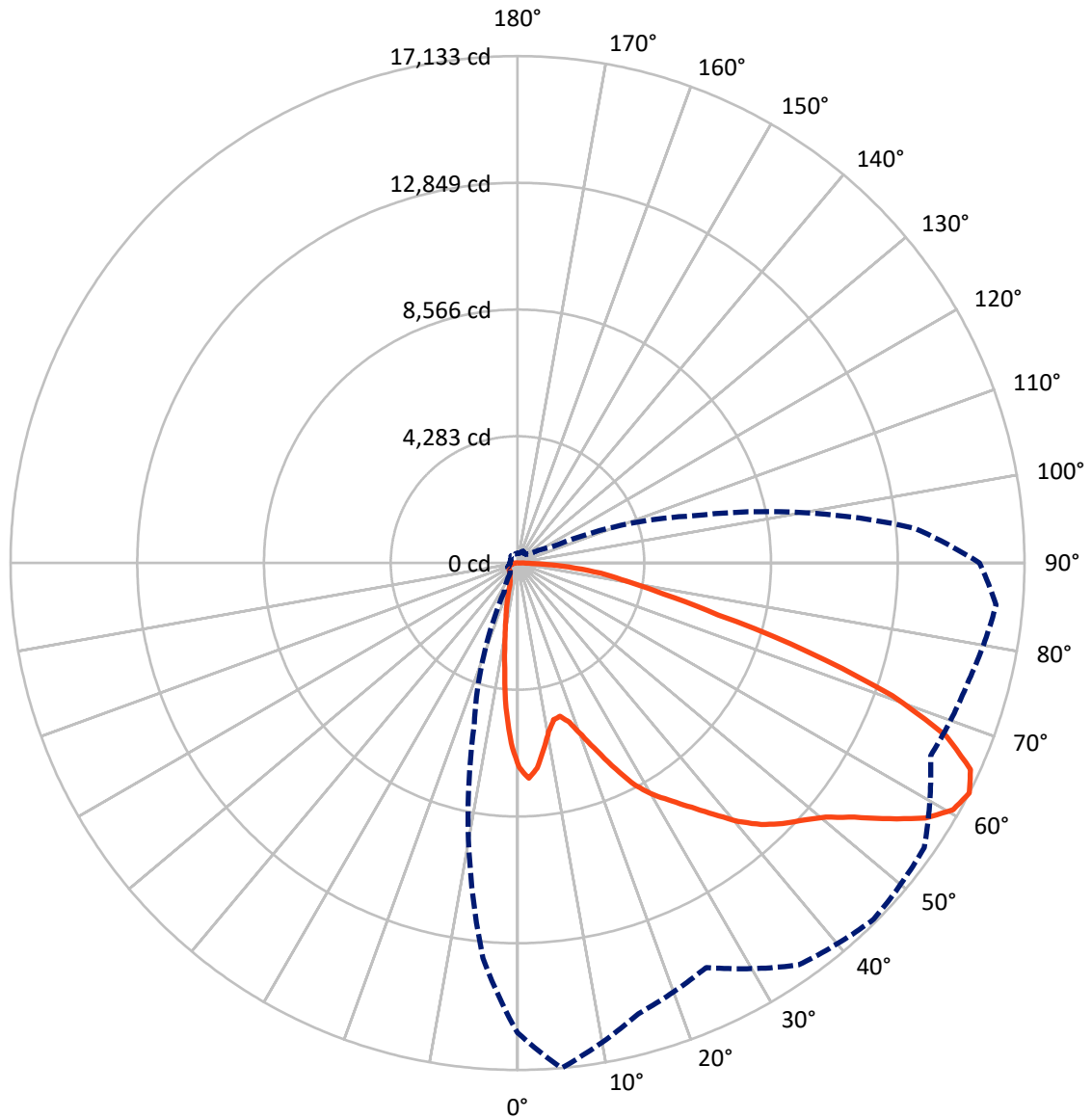
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3591.6	0.0	3591.6
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	16682.6	0.0	16682.6
	% Fixture	82.3	0.0	82.3
Total	Lumens	20274.1	0.0	20274.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.7	2.5
10°-20°	918.1	4.5
20°-30°	1320.5	6.5
30°-40°	2022.5	10.0
40°-50°	2956.9	14.6
50°-60°	4302.3	21.2
60°-70°	4984.8	24.6
70°-80°	2598.5	12.8
80°-90°	668.0	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°	20274.1	100.0
0°-180°	20274.1	100.0



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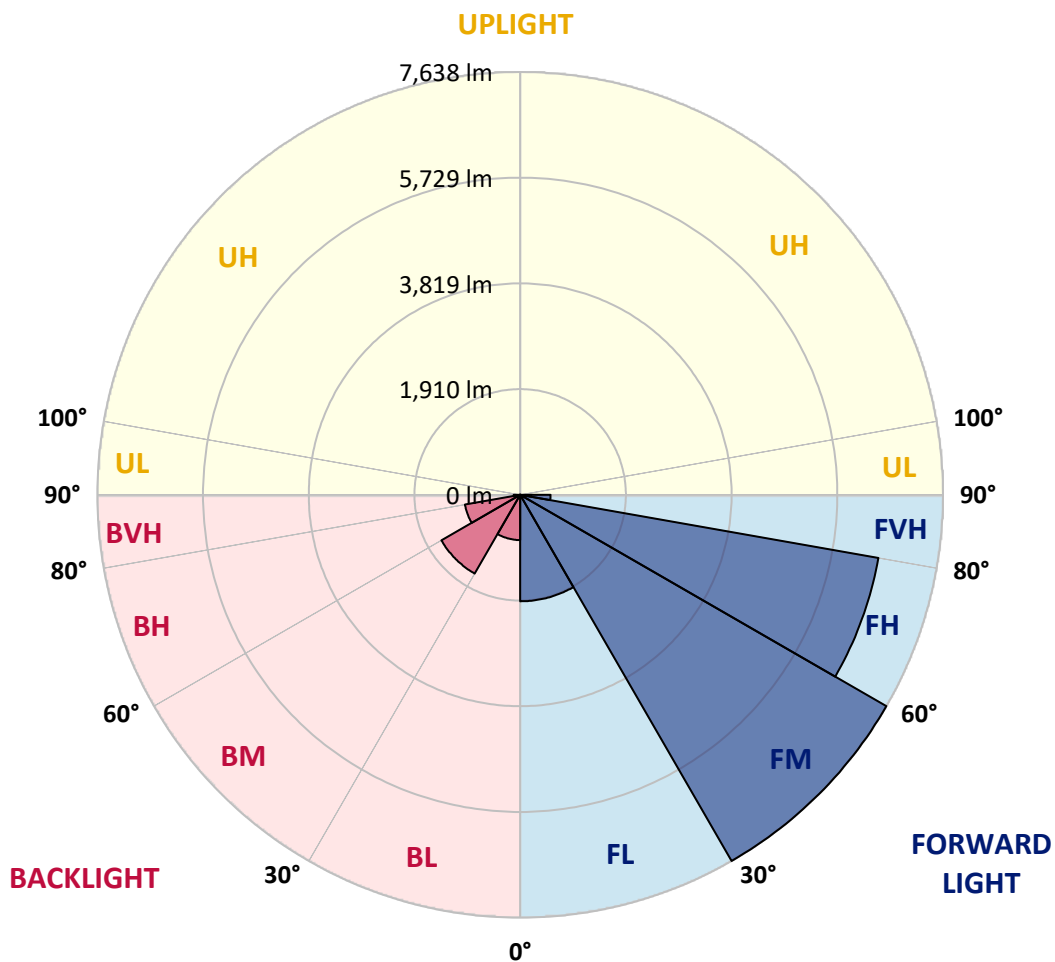
CATALOG NUMBER: NAV-AF-06-D-UNV-SLL-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1924.1	9.5			
FM	(30°-60°)	7638.4	37.7			
FH	(60°-80°)	6570.6	32.4			G3/7500
FVH	(80°-90°)	549.5	2.7			G4/750
BL	(0°-30°)	817.1	4.0	B2/1000		
BM	(30°-60°)	1643.3	8.1	B2/2500		
BH	(60°-80°)	1012.7	5.0	B3/2500		G3/2500
BVH	(80°-90°)	118.4	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8
2.5°	7135.2	7286.7	7460.1	7686.5	7840.9	7902.6	7954.1	7867.3	7783.5	7626.3	7570.5
5°	6665.0	6956.0	7433.7	7888.0	8287.8	8517.1	8587.7	8427.3	8142.2	7730.6	7513.1
7.5°	5966.6	6350.3	7022.1	7691.0	8264.3	8646.4	8674.4	8356.8	7795.3	7120.7	6767.8
10°	5356.7	5790.3	6567.9	7316.1	7923.3	8314.2	8237.8	7792.4	7114.8	6347.4	5949.0
12.5°	5002.3	5435.9	6228.4	6988.3	7560.0	7708.6	7552.8	7177.9	6535.6	5766.7	5365.4
15°	4927.4	5374.3	6107.8	6748.7	7103.0	7007.5	6853.1	6663.4	6206.3	5577.1	5189.0
17.5°	5153.8	5653.5	6267.9	6619.4	6604.6	6375.3	6246.0	6282.7	6204.9	5782.9	5377.2
20°	5619.8	6210.8	6675.2	6584.1	6207.8	5885.8	5810.9	6099.0	6459.1	6298.9	5853.4
22.5°	6232.7	6905.9	7230.9	6685.5	6000.5	5653.5	5638.9	6088.7	6922.1	7079.5	6537.0
25°	6925.1	7710.1	7790.9	6864.9	5978.4	5633.0	5619.8	6247.5	7479.3	7852.7	7302.9
27.5°	7771.8	8521.4	8258.4	7104.5	6075.5	5693.3	5702.0	6517.9	8059.9	8617.1	8165.7
30°	8409.8	9097.7	8546.5	7339.6	6231.3	5799.1	5821.2	6810.4	8373.0	9147.7	8855.1
32.5°	9006.6	9590.1	8822.8	7571.8	6459.1	5956.4	6032.9	7174.9	8749.4	9603.5	9506.4
35°	9666.6	10141.5	9130.0	7820.3	6785.4	6232.7	6342.9	7522.0	9122.7	10059.1	10151.8
37.5°	10414.8	10772.1	9463.7	8171.6	7255.8	6744.2	6806.0	7876.2	9382.8	10563.3	10844.1
40°	11193.9	11479.1	9828.3	8640.6	7939.5	7435.2	7464.6	8330.4	9587.3	11085.1	11515.8
42.5°	11862.8	12084.7	10194.3	9222.7	8724.4	8139.3	8164.3	8820.0	9782.7	11534.9	12053.8
45°	12397.8	12561.0	10539.8	9835.6	9562.3	9018.4	9012.5	9318.1	10044.4	11914.1	12466.9
47.5°	12896.2	12982.8	10925.0	10432.5	10431.0	10150.1	9940.1	9906.2	10392.7	12233.2	12827.0
50°	13466.5	13498.9	11433.6	11035.1	11492.3	11448.1	11060.2	10653.0	10844.1	12591.9	13204.8
52.5°	14260.3	14261.8	12064.2	11623.1	12663.9	12803.5	12352.3	11498.2	11511.4	13290.1	13857.6
55°	15193.7	15258.4	12885.8	12327.2	13889.9	14128.0	13703.2	12502.2	12469.9	14416.1	14916.0
57.5°	15915.5	16258.0	13842.8	13207.8	15034.9	15345.1	15002.6	13542.9	13647.3	15577.4	15789.0
60°	16118.4	16919.5	14796.9	14195.6	16003.7	16469.7	16121.3	14667.5	14799.8	16331.5	16040.5
62.5°	15875.8	17132.6	15768.6	15080.5	16578.5	17025.4	16775.4	15403.9	15739.2	16234.5	15615.7
65°	15157.0	16824.0	16612.4	15456.9	16247.7	16406.5	16340.4	15442.1	16249.1	15317.3	14441.2
67.5°	13478.2	15633.3	16235.9	14652.8	14702.8	14532.2	14445.5	14392.6	15675.9	13836.9	12589.0
70°	10961.7	13432.7	14441.2	12262.6	11892.3	11727.6	11442.4	12148.0	14089.7	11789.3	10360.4
72.5°	8443.5	10276.6	11845.2	9296.3	8525.9	8581.8	8258.4	9288.7	11671.6	9113.9	7910.0
75°	5996.0	7007.5	9455.0	6679.6	5659.4	5656.5	5631.6	6685.5	9209.5	6541.5	5787.4
77.5°	4321.8	5044.9	7407.2	4470.3	4016.1	4067.4	3985.1	4543.8	7179.4	4705.5	4288.0
80°	3447.1	3735.2	4787.7	2981.1	2990.0	3110.5	3092.8	3107.6	4723.1	3407.5	3206.0
82.5°	2476.9	2835.6	3660.3	2284.4	1977.1	2105.0	2130.0	2305.0	3332.4	2409.2	2113.8
85°	1270.0	1728.7	3367.7	1978.5	1236.3	1024.6	1178.9	1818.4	2894.4	1443.6	1030.5
87.5°	246.9	479.2	2468.0	1099.5	555.7	280.8	463.0	770.3	1683.1	261.6	128.0
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°	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8
2.5°	7474.9	7286.7	7110.3	6928.0	6786.9	6614.9	6445.9	6298.9	6156.3	6062.2	6091.6
5°	7292.6	6833.9	6422.4	6040.2	5816.8	5547.7	5308.2	5106.7	4950.9	4850.9	4911.2
7.5°	6462.0	5841.8	5299.3	4795.1	4477.6	4129.2	3849.9	3652.9	3532.4	3464.7	3563.3
10°	5612.4	4915.6	4307.0	3782.2	3469.2	3173.7	2920.8	2712.2	2550.4	2473.9	2513.6
12.5°	5003.8	4229.1	3591.2	3238.3	2969.3	2704.8	2443.1	2199.1	1993.3	1899.3	1880.2
15°	4775.9	3860.1	3209.0	2815.1	2547.5	2259.4	1977.1	1715.5	1520.1	1439.2	1421.5
17.5°	4875.9	3780.8	2982.6	2516.6	2128.6	1778.6	1461.2	1214.2	1070.2	1024.6	1029.0
20°	5227.3	3810.2	2800.4	2209.3	1730.1	1315.6	998.1	827.6	765.9	755.5	767.3
22.5°	5709.5	3930.7	2668.0	1944.9	1378.9	957.0	742.3	661.4	645.2	643.9	655.7
25°	6345.9	4165.9	2579.8	1709.6	1089.2	758.5	646.9	601.3	588.1	591.0	602.7
27.5°	7095.7	4464.4	2522.5	1506.6	895.3	676.2	604.2	564.5	551.2	554.2	563.0
30°	7780.6	4726.0	2437.2	1353.8	804.0	646.9	580.6	541.0	523.4	523.4	529.2
32.5°	8393.7	4952.4	2337.3	1239.2	720.3	580.6	526.3	495.4	482.2	486.5	489.5
35°	8937.5	5071.5	2259.4	1171.6	652.8	535.1	480.6	448.3	430.7	433.6	438.0
37.5°	9472.6	5117.0	2207.9	1134.8	604.2	507.2	457.1	430.7	411.6	408.6	407.2
40°	9981.2	5106.7	2159.4	1124.5	571.9	486.5	442.5	418.9	399.9	395.4	394.0
42.5°	10420.7	5072.9	2113.8	1096.6	549.8	471.9	430.7	410.2	391.0	385.1	382.2
45°	10822.0	5052.3	2063.9	1045.2	561.5	466.0	424.8	402.7	385.1	377.8	374.9
47.5°	11267.5	5125.8	2007.9	989.4	558.7	467.4	424.8	399.9	382.2	374.9	371.9
50°	11798.1	5374.3	1939.0	912.9	532.1	499.8	423.4	395.4	379.2	374.9	369.0
52.5°	12547.8	5777.1	1843.3	814.4	511.6	533.6	421.8	388.1	374.9	367.5	360.1
55°	13575.3	6179.8	1719.8	709.9	479.2	510.1	424.8	379.2	364.6	357.2	348.4
57.5°	14417.7	6485.5	1564.0	623.4	449.8	482.2	420.4	369.0	352.8	345.5	338.0
60°	14363.2	6514.9	1415.6	567.4	432.2	433.6	430.7	361.6	342.5	336.6	330.7
62.5°	13473.9	6151.9	1277.5	539.5	418.9	395.4	439.6	352.8	332.2	326.3	321.9
65°	11993.6	5306.6	1203.9	539.5	407.2	374.9	383.7	341.0	321.9	316.1	313.1
67.5°	10116.5	4264.4	1134.8	551.2	391.0	360.1	348.4	329.3	311.6	305.7	302.8
70°	8108.4	3356.0	1086.4	545.3	376.3	343.9	329.3	313.1	295.4	294.0	291.0
72.5°	6360.6	2696.0	1064.3	545.3	354.2	324.8	310.2	298.4	280.8	279.2	274.9
75°	5096.4	2024.1	973.2	535.1	332.2	299.9	286.7	276.3	258.7	260.1	257.2
77.5°	3946.9	1431.8	812.9	482.2	304.3	271.9	261.6	254.3	233.7	235.2	235.2
80°	3087.0	932.0	630.7	399.9	271.9	239.6	232.2	226.3	204.4	207.3	207.3
82.5°	2115.3	554.2	457.1	321.9	233.7	204.4	202.9	194.1	170.6	172.0	175.0
85°	1155.4	364.6	304.3	238.1	183.8	166.1	163.2	158.8	136.7	136.7	138.2
87.5°	213.2	195.5	179.3	157.4	123.5	119.1	114.6	119.1	102.9	100.0	100.0
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8
2.5°	6022.5	5921.1	5850.5	5788.8	5640.3	5650.6	5671.2	5700.6	5607.9	5656.5	5716.8
5°	4850.9	4767.2	4703.9	4605.5	4398.2	4324.7	4277.6	4257.1	4118.8	4148.2	4212.9
7.5°	3576.5	3575.0	3553.0	3442.6	3192.8	3041.3	2941.5	2910.5	2825.3	2857.6	2956.1
10°	2518.1	2544.5	2534.3	2435.7	2212.3	2103.6	2081.5	2143.2	2144.8	2207.9	2376.9
12.5°	1819.8	1805.2	1792.0	1711.1	1543.5	1525.8	1575.8	1661.1	1681.6	1749.2	1925.7
15°	1358.3	1323.0	1315.6	1252.4	1142.2	1158.3	1195.1	1239.2	1240.6	1287.7	1433.3
17.5°	1018.8	1018.8	1030.5	989.4	909.9	902.6	883.5	871.7	854.1	873.2	952.5
20°	790.8	827.6	857.0	833.4	761.4	726.1	689.4	665.9	652.8	654.1	677.6
22.5°	677.6	707.0	745.2	733.5	673.2	627.7	604.2	588.1	577.7	577.7	591.0
25°	620.4	639.5	674.6	668.8	617.5	580.6	561.5	545.3	533.6	532.1	545.3
27.5°	574.8	586.5	610.0	607.2	554.2	530.7	518.9	508.6	501.3	499.8	513.0
30°	533.6	539.5	551.2	546.9	507.2	483.6	479.2	474.8	470.4	471.9	491.0
32.5°	496.8	501.3	508.6	502.7	464.5	443.9	436.6	430.7	426.3	430.7	452.8
35°	455.7	468.9	477.8	474.8	433.6	408.6	392.5	377.8	371.9	376.3	401.3
37.5°	420.4	442.5	454.2	451.2	408.6	379.2	358.7	355.7	355.7	361.6	386.6
40°	407.2	423.4	433.6	429.3	386.6	357.2	345.5	341.0	342.5	348.4	374.9
42.5°	395.4	410.2	413.1	404.3	361.6	342.5	335.2	329.3	332.2	339.6	366.0
45°	385.1	396.9	395.4	382.2	341.0	327.8	327.8	323.4	324.8	330.7	358.7
47.5°	377.8	383.7	380.8	367.5	326.3	316.1	320.4	320.4	323.4	327.8	355.7
50°	366.0	370.4	367.5	355.7	314.5	305.7	310.2	316.1	319.0	323.4	348.4
52.5°	354.2	357.2	355.7	343.9	302.8	296.9	296.9	302.8	308.6	314.5	336.6
55°	342.5	345.5	346.9	338.0	294.0	288.1	286.7	286.7	292.5	301.3	324.8
57.5°	333.7	333.7	336.6	330.7	285.1	277.8	270.5	271.9	279.2	286.7	310.2
60°	323.4	324.8	329.3	323.4	273.3	261.6	255.7	263.1	266.0	273.3	298.4
62.5°	314.5	314.5	317.5	313.1	263.1	251.4	246.9	254.3	254.3	261.6	286.7
65°	307.2	305.7	305.7	304.3	252.8	241.0	238.1	241.0	242.5	249.8	274.9
67.5°	301.3	294.0	294.0	296.9	242.5	230.7	229.3	229.3	230.7	239.6	261.6
70°	288.1	282.2	280.8	291.0	232.2	217.5	217.5	214.5	217.5	222.1	245.5
72.5°	273.3	269.0	267.5	282.2	222.1	202.9	200.0	198.5	200.0	204.4	226.3
75°	254.3	251.4	254.3	276.3	211.6	186.8	182.3	180.9	180.9	182.3	205.9
77.5°	232.2	229.3	251.4	257.2	205.9	167.6	163.2	160.2	157.4	157.4	183.8
80°	205.9	204.4	242.5	217.5	197.0	147.0	139.7	135.3	132.3	130.8	157.4
82.5°	179.3	176.4	207.3	170.6	163.2	120.5	110.3	101.4	97.0	97.0	120.5
85°	147.0	145.6	163.2	125.0	113.2	88.2	73.5	66.1	60.3	60.3	77.9
87.5°	107.3	104.4	101.4	75.0	57.4	39.7	28.0	26.4	23.5	22.1	32.3
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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CATALOG NUMBER: NAV-AF-06-D-UNV-SLL-7030-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8	6911.8
2.5°	5806.5	5928.4	6159.3	6348.8	6601.7	6804.5	7035.3	7135.2
5°	4332.0	4524.7	4877.5	5178.8	5596.3	5982.8	6423.8	6665.0
7.5°	3107.6	3392.7	3660.3	4036.6	4558.4	5077.3	5647.7	5966.6
10°	2571.0	2832.6	3062.0	3329.4	3732.3	4315.8	4996.4	5356.7
12.5°	2130.0	2412.2	2654.8	2941.5	3279.5	3807.2	4583.4	5002.3
15°	1633.1	1940.3	2231.4	2576.9	2991.4	3594.1	4460.0	4927.4
17.5°	1118.7	1447.9	1806.6	2228.5	2728.3	3504.5	4577.5	5153.8
20°	760.0	1001.1	1390.7	1890.4	2491.6	3461.8	4836.3	5619.8
22.5°	624.8	733.5	1026.1	1572.9	2297.6	3508.9	5256.7	6232.7
25°	573.3	632.1	798.2	1293.6	2149.1	3633.8	5825.6	6925.1
27.5°	541.0	591.0	699.7	1093.6	2012.4	3804.3	6517.9	7771.8
30°	521.8	568.9	660.0	990.8	1887.5	3951.4	7113.3	8409.8
32.5°	479.2	514.5	589.5	932.0	1797.8	4070.4	7638.0	9006.6
35°	427.7	470.4	532.1	893.7	1794.8	4126.2	8131.9	9666.6
37.5°	408.6	449.8	495.4	873.2	1812.5	4173.2	8736.2	10414.8
40°	396.9	433.6	470.4	870.2	1827.2	4210.0	9327.0	11193.9
42.5°	386.6	423.4	466.0	849.6	1821.4	4260.0	9850.4	11862.8
45°	383.7	420.4	476.3	818.8	1819.8	4337.9	10266.3	12397.8
47.5°	380.8	436.6	473.3	784.9	1813.9	4502.6	10735.3	12896.2
50°	377.8	466.0	452.8	737.9	1769.9	4783.4	11365.9	13466.5
52.5°	376.3	470.4	430.7	673.2	1690.5	5199.3	12289.1	14260.3
55°	370.4	446.9	392.5	588.1	1575.8	5647.7	13278.4	15193.7
57.5°	357.2	398.4	370.4	504.2	1411.2	5960.7	14008.9	15915.5
60°	389.5	342.5	355.7	461.6	1214.2	6016.7	14041.2	16118.4
62.5°	371.9	311.6	341.0	446.9	1075.9	5652.1	13398.9	15875.8
65°	296.9	295.4	327.8	461.6	1055.5	4836.3	12314.1	15157.0
67.5°	270.5	283.7	314.5	479.2	1068.7	3810.2	10717.7	13478.2
70°	252.8	269.0	296.9	495.4	1092.1	3001.7	8628.8	10961.7
72.5°	235.2	248.4	279.2	511.6	1075.9	2368.2	6905.9	8443.5
75°	213.2	224.8	254.3	468.9	923.1	1740.5	5487.4	5996.0
77.5°	188.2	198.5	223.4	370.4	693.8	1211.2	4110.2	4321.8
80°	161.7	166.1	185.2	270.5	452.8	724.7	3128.1	3447.1
82.5°	128.0	129.4	141.2	198.5	282.2	463.0	2169.7	2476.9
85°	82.3	85.2	91.1	139.7	189.7	296.9	1108.3	1270.0
87.5°	28.0	32.3	32.3	67.6	92.7	164.7	339.6	246.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)