

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: P270692

Luminaire Tested: **NAV-AF-06-D-UNV-SLL-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270692
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-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA 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: 30321.9 lumens
Efficiency: N/A
Efficacy: 79.4 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): 382
Input Voltage (V): NR
Input Current (A_{in}): 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

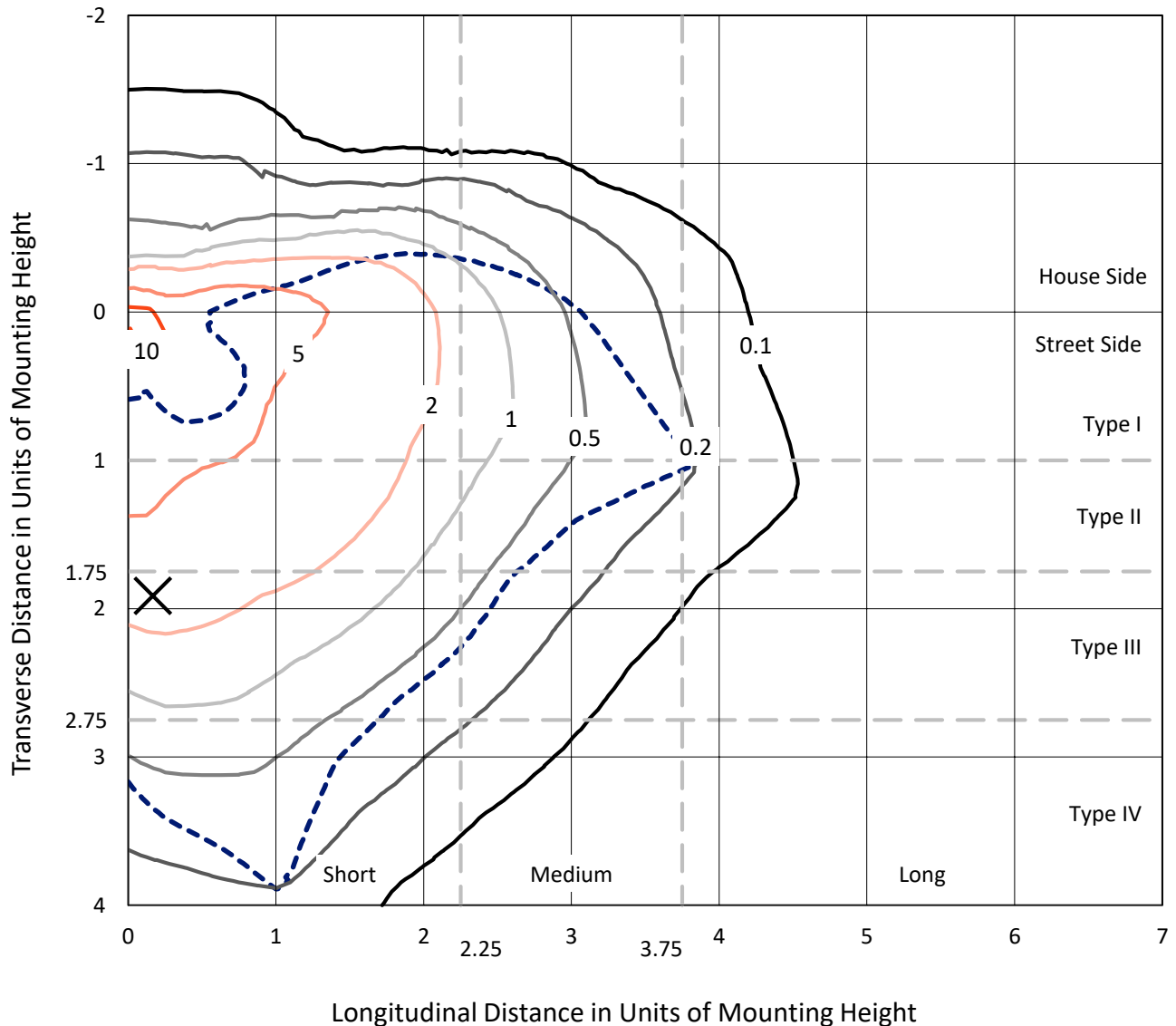


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Iso-Footcandle Lines of Horizontal Illumination

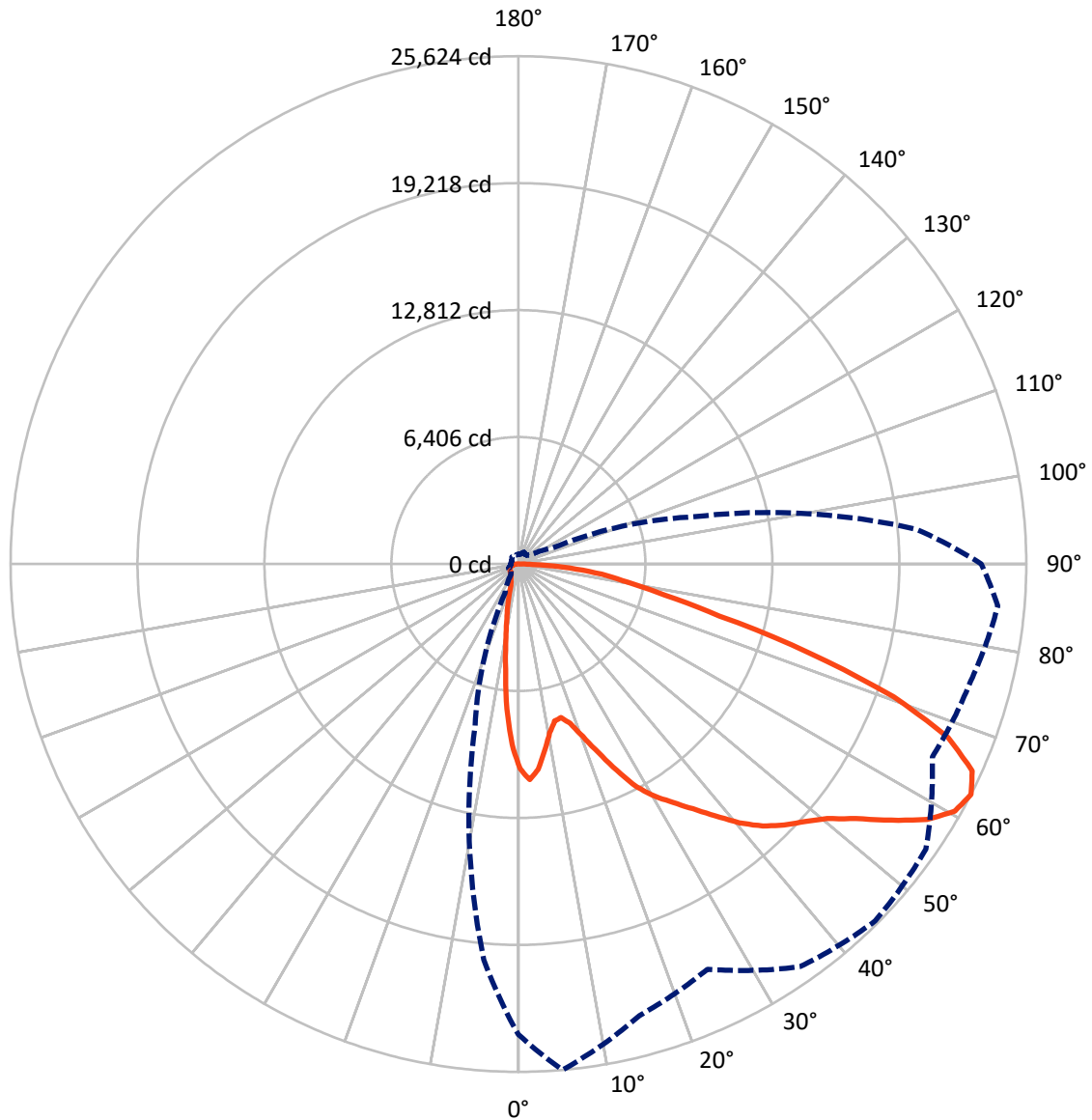
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.2 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	5371.6	0.0	5371.6
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	24950.3	0.0	24950.3
	% Fixture	82.3	0.0	82.3
Total	Lumens	30321.9	0.0	30321.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	751.8	2.5
10°-20°	1373.1	4.5
20°-30°	1974.9	6.5
30°-40°	3024.8	10.0
40°-50°	4422.3	14.6
50°-60°	6434.5	21.2
60°-70°	7455.2	24.6
70°-80°	3886.3	12.8
80°-90°	999.0	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°	30321.9	100.0
0°-180°	30321.9	100.0



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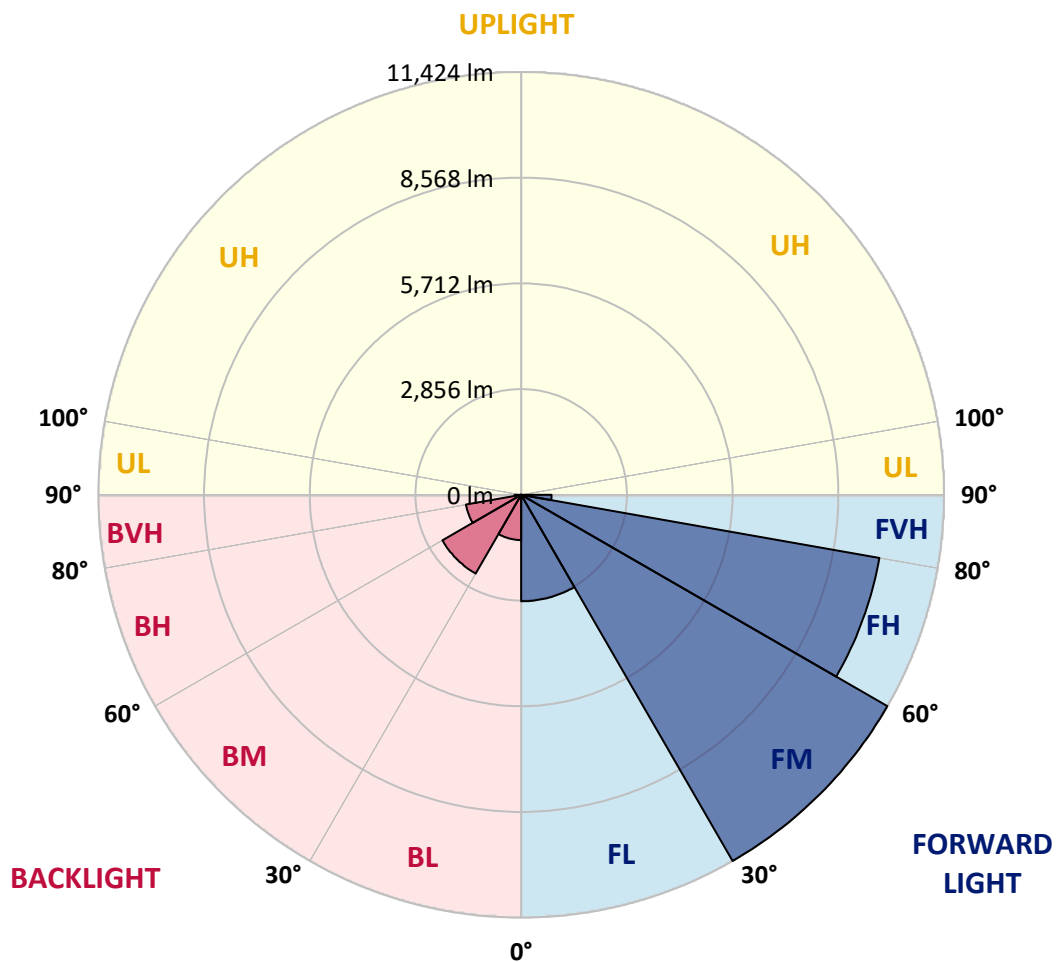
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2877.7	9.5			
FM	(30°-60°)	11423.9	37.7			
FH	(60°-80°)	9826.9	32.4			G4/12000
FVH	(80°-90°)	821.8	2.7			G5
BL	(0°-30°)	1222.1	4.0	B3/2500		
BM	(30°-60°)	2457.7	8.1	B2/2500		
BH	(60°-80°)	1514.6	5.0	B3/2500		G3/2500
BVH	(80°-90°)	177.1	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°	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3
2.5°	10671.5	10898.0	11157.4	11495.9	11726.7	11819.1	11896.1	11766.4	11641.0	11405.8	11322.2
5°	9968.0	10403.4	11117.9	11797.1	12395.2	12738.1	12843.6	12603.9	12177.5	11561.8	11236.4
7.5°	8923.8	9497.5	10502.3	11502.5	12360.0	12931.6	12973.3	12498.5	11658.7	10649.5	10121.9
10°	8011.4	8659.9	9822.8	10942.0	11849.9	12434.7	12320.3	11654.3	10640.8	9493.1	8897.4
12.5°	7481.4	8130.0	9315.1	10451.7	11306.8	11528.8	11295.8	10735.3	9774.5	8624.6	8024.5
15°	7369.3	8037.8	9134.8	10093.3	10623.1	10480.3	10249.4	9965.7	9282.0	8341.1	7760.6
17.5°	7707.9	8455.4	9374.4	9899.9	9877.9	9534.9	9341.5	9396.5	9279.9	8648.9	8042.0
20°	8404.8	9288.7	9983.4	9847.1	9284.3	8802.9	8690.7	9121.6	9660.3	9420.5	8754.4
22.5°	9321.6	10328.5	10814.4	9998.8	8974.2	8455.4	8433.5	9106.2	10352.7	10588.0	9776.8
25°	10357.1	11531.2	11652.0	10267.0	8941.3	8424.7	8404.8	9343.6	11186.0	11744.4	10922.1
27.5°	11623.4	12744.8	12351.2	10625.3	9086.4	8514.8	8528.0	9748.1	12054.4	12887.7	12212.6
30°	12577.6	13606.4	12782.1	10977.1	9319.5	8673.0	8706.1	10185.6	12522.6	13681.2	13243.7
32.5°	13470.2	14343.0	13195.5	11324.5	9660.3	8908.3	9022.7	10730.9	13085.5	14362.8	14217.7
35°	14457.3	15167.4	13654.9	11696.0	10148.2	9321.6	9486.6	11249.7	13643.8	15044.4	15182.9
37.5°	15576.3	16110.7	14154.0	12221.4	10851.7	10086.7	10179.1	11779.6	14033.1	15798.4	16218.3
40°	16741.5	17168.0	14699.1	12922.7	11874.1	11119.9	11164.0	12459.0	14338.6	16578.8	17223.1
42.5°	17741.9	18073.9	15246.7	13793.4	13048.2	12173.1	12210.4	13191.0	14631.1	17251.6	18027.6
45°	18542.2	18786.2	15763.2	14710.1	14301.2	13487.8	13479.0	13936.2	15022.4	17818.8	18645.5
47.5°	19287.4	19417.1	16339.2	15602.8	15600.5	15180.6	14866.2	14815.7	15543.4	18295.9	19184.2
50°	20140.4	20188.8	17100.0	16504.1	17187.9	17122.0	16541.5	15932.5	16218.3	18832.3	19749.1
52.5°	21327.6	21329.8	18043.0	17383.6	18940.0	19148.9	18474.0	17196.7	17216.5	19876.5	20725.2
55°	22723.6	22820.5	19272.1	18436.6	20773.7	21129.8	20494.4	18698.2	18649.8	21560.7	22308.1
57.5°	23803.1	24315.4	20703.2	19753.5	22486.3	22950.1	22437.9	20254.8	20410.8	23297.5	23614.0
60°	24106.6	25304.7	22130.0	21230.9	23935.0	24632.0	24110.9	21936.6	22134.4	24425.4	23990.0
62.5°	23743.8	25623.6	23583.4	22554.4	24794.7	25462.9	25089.2	23038.0	23539.4	24280.2	23354.7
65°	22668.6	25161.9	24845.2	23117.3	24300.1	24537.5	24438.5	23095.2	24302.1	22908.3	21598.0
67.5°	20158.1	23381.1	24282.4	21914.6	21989.4	21734.3	21604.6	21525.5	23444.8	20694.4	18827.9
70°	16394.2	20089.9	21598.0	18339.8	17785.8	17539.6	17113.2	18168.4	21072.6	17631.9	15495.0
72.5°	12628.2	15369.7	17715.5	13903.2	12751.4	12834.9	12351.2	13892.3	17456.0	13630.7	11830.0
75°	8967.7	10480.3	14140.7	9990.1	8464.2	8459.8	8422.5	9998.8	13773.6	9783.4	8655.4
77.5°	6463.6	7545.3	11078.3	6685.6	6006.2	6083.2	5960.2	6795.6	10737.5	7037.4	6413.0
80°	5155.6	5586.4	7160.5	4458.6	4471.8	4652.1	4625.6	4647.7	7063.8	5096.2	4795.0
82.5°	3704.5	4240.9	5474.2	3416.4	2957.0	3148.2	3185.6	3447.2	4983.9	3603.3	3161.4
85°	1899.5	2585.4	5036.7	2959.1	1848.9	1532.4	1763.3	2719.6	4328.8	2158.9	1541.1
87.5°	369.4	716.7	3691.2	1644.4	831.0	419.9	692.6	1151.9	2517.3	391.3	191.2
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°	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3
2.5°	11179.3	10898.0	10634.1	10361.5	10150.5	9893.3	9640.4	9420.5	9207.3	9066.7	9110.6
5°	10906.7	10220.8	9605.2	9033.6	8699.5	8297.1	7938.9	7637.6	7404.5	7255.0	7345.3
7.5°	9664.5	8736.8	7925.6	7171.4	6696.7	6175.6	5757.9	5463.2	5283.0	5181.9	5329.1
10°	8393.9	7351.8	6441.6	5656.7	5188.4	4746.6	4368.4	4056.2	3814.5	3700.1	3759.4
12.5°	7483.7	6325.1	5371.0	4843.3	4441.0	4045.2	3653.9	3289.0	2981.1	2840.5	2811.9
15°	7143.0	5773.2	4799.4	4210.1	3810.0	3379.1	2957.0	2565.6	2273.3	2152.2	2126.0
17.5°	7292.4	5654.6	4460.8	3763.8	3183.5	2660.2	2185.2	1816.0	1600.5	1532.4	1538.9
20°	7817.9	5698.5	4188.2	3304.3	2587.7	1967.6	1492.8	1237.8	1145.3	1130.0	1147.7
22.5°	8539.0	5878.8	3990.4	2908.6	2062.1	1431.2	1110.2	989.4	965.1	963.0	980.5
25°	9491.0	6230.6	3858.4	2556.8	1629.0	1134.4	967.4	899.3	879.4	883.8	901.4
27.5°	10612.1	6676.8	3772.6	2253.5	1338.8	1011.3	903.5	844.2	824.5	828.9	842.0
30°	11636.6	7068.1	3645.1	2024.8	1202.7	967.4	868.4	809.1	782.7	782.7	791.4
32.5°	12553.5	7406.7	3495.7	1853.4	1077.2	868.4	787.0	740.9	721.1	727.6	732.1
35°	13366.9	7584.7	3379.1	1752.2	976.2	800.3	719.0	670.6	644.2	648.5	655.1
37.5°	14167.1	7653.0	3302.1	1697.3	903.5	758.4	683.7	644.2	615.6	611.1	609.1
40°	14927.9	7637.6	3229.5	1681.8	855.2	727.6	661.7	626.6	598.0	591.4	589.2
42.5°	15585.1	7587.1	3161.4	1640.0	822.3	705.7	644.2	613.5	584.7	576.1	571.6
45°	16185.3	7556.3	3086.7	1563.1	839.8	696.9	635.5	602.5	576.1	565.0	560.6
47.5°	16851.5	7666.1	3003.2	1479.6	835.5	699.2	635.5	598.0	571.6	560.6	556.2
50°	17645.1	8037.8	2899.8	1365.2	795.9	747.5	633.1	591.4	567.2	560.6	551.7
52.5°	18766.4	8640.1	2756.9	1217.9	765.0	798.1	631.0	580.5	560.6	549.7	538.7
55°	20303.1	9242.5	2572.2	1061.8	716.7	762.9	635.5	567.2	545.2	534.2	521.0
57.5°	21562.8	9699.8	2339.1	932.3	672.7	721.1	628.8	551.7	527.7	516.6	505.7
60°	21481.4	9743.7	2117.1	848.5	646.4	648.5	644.2	540.8	512.3	503.5	494.6
62.5°	20151.4	9200.7	1910.4	806.9	626.6	591.4	657.4	527.7	496.9	488.0	481.5
65°	17937.5	7936.5	1800.6	806.9	609.1	560.6	573.7	510.1	481.5	472.7	468.2
67.5°	15130.1	6377.8	1697.3	824.5	584.7	538.7	521.0	492.5	466.1	457.2	452.8
70°	12126.8	5019.2	1624.7	815.7	562.8	514.5	492.5	468.2	441.8	439.7	435.3
72.5°	9513.0	4032.0	1591.6	815.7	529.8	485.9	463.9	446.3	419.9	417.7	411.2
75°	7622.2	3027.4	1455.4	800.3	496.9	448.6	428.8	413.3	386.9	389.1	384.7
77.5°	5902.9	2141.3	1215.8	721.1	455.1	406.8	391.3	380.3	349.6	351.7	351.7
80°	4616.8	1393.8	943.2	598.0	406.8	358.3	347.4	338.7	305.7	309.9	309.9
82.5°	3163.7	828.9	683.7	481.5	349.6	305.7	303.4	290.2	254.9	257.3	261.6
85°	1728.0	545.2	455.1	356.2	274.8	248.4	244.0	237.4	204.5	204.5	206.7
87.5°	318.8	292.4	268.2	235.3	184.7	178.0	171.4	178.0	153.9	149.5	149.5
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°	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3
2.5°	9007.2	8855.5	8750.0	8657.7	8435.7	8451.1	8481.7	8525.8	8387.3	8459.8	8550.0
5°	7255.0	7129.8	7035.2	6887.9	6577.8	6467.9	6397.5	6366.8	6160.1	6204.1	6300.9
7.5°	5349.0	5346.7	5313.7	5148.8	4775.1	4548.7	4399.2	4353.0	4225.4	4273.9	4421.2
10°	3766.1	3805.6	3790.2	3642.8	3308.7	3146.0	3113.0	3205.4	3207.6	3302.1	3555.0
12.5°	2721.8	2699.8	2680.0	2559.0	2308.5	2282.1	2356.9	2484.4	2515.1	2616.3	2880.1
15°	2031.3	1978.6	1967.6	1873.1	1708.2	1732.4	1787.4	1853.4	1855.4	1925.8	2143.5
17.5°	1523.5	1523.5	1541.1	1479.6	1360.8	1349.9	1321.2	1303.7	1277.3	1305.9	1424.6
20°	1182.8	1237.8	1281.7	1246.6	1138.8	1086.1	1031.2	996.0	976.2	978.3	1013.5
22.5°	1013.5	1057.5	1114.6	1097.0	1006.9	938.8	903.5	879.4	864.0	864.0	883.8
25°	927.8	956.3	1009.2	1000.4	923.4	868.4	839.8	815.7	798.1	795.9	815.7
27.5°	859.6	877.3	912.4	907.9	828.9	793.7	776.0	760.7	749.6	747.5	767.3
30°	798.1	806.9	824.5	817.8	758.4	723.3	716.7	710.1	703.6	705.7	734.4
32.5°	743.1	749.6	760.7	751.9	694.7	663.9	653.0	644.2	637.5	644.2	677.1
35°	681.5	701.3	714.5	710.1	648.5	611.1	587.0	565.0	556.2	562.8	600.2
37.5°	628.8	661.7	679.4	674.9	611.1	567.2	536.5	532.1	532.1	540.8	578.1
40°	609.1	633.1	648.5	642.0	578.1	534.2	516.6	510.1	512.3	521.0	560.6
42.5°	591.4	613.5	617.8	604.6	540.8	512.3	501.3	492.5	496.9	507.8	547.4
45°	576.1	593.6	591.4	571.6	510.1	490.3	490.3	483.6	485.9	494.6	536.5
47.5°	565.0	573.7	569.4	549.7	488.0	472.7	479.2	479.2	483.6	490.3	532.1
50°	547.4	554.1	549.7	532.1	470.5	457.2	463.9	472.7	477.1	483.6	521.0
52.5°	529.8	534.2	532.1	514.5	452.8	444.1	444.1	452.8	461.6	470.5	503.5
55°	512.3	516.6	518.9	505.7	439.7	430.8	428.8	428.8	437.6	450.7	485.9
57.5°	499.1	499.1	503.5	494.6	426.5	415.6	404.5	406.8	417.7	428.8	463.9
60°	483.6	485.9	492.5	483.6	408.9	391.3	382.6	393.5	397.9	408.9	446.3
62.5°	470.5	470.5	474.8	468.2	393.5	375.9	369.4	380.3	380.3	391.3	428.8
65°	459.6	457.2	457.2	455.1	378.1	360.6	356.2	360.6	362.7	373.8	411.2
67.5°	450.7	439.7	439.7	444.1	362.7	345.2	343.0	343.0	345.2	358.3	391.3
70°	430.8	422.2	419.9	435.3	347.4	325.4	325.4	321.0	325.4	332.0	367.1
72.5°	408.9	402.4	400.1	422.2	332.0	303.4	299.0	296.8	299.0	305.7	338.7
75°	380.3	375.9	380.3	413.3	316.7	279.3	272.6	270.4	270.4	272.6	307.8
77.5°	347.4	343.0	375.9	384.7	307.8	250.6	244.0	239.7	235.3	235.3	274.8
80°	307.8	305.7	362.7	325.4	294.6	219.8	208.9	202.3	197.8	195.7	235.3
82.5°	268.2	263.8	309.9	254.9	244.0	180.3	164.8	151.8	145.0	145.0	180.3
85°	219.8	217.7	244.0	186.8	169.3	132.0	110.0	99.0	90.1	90.1	116.5
87.5°	160.4	156.0	151.8	112.1	85.8	59.4	41.9	39.5	35.2	33.0	48.4
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: P270692

CATALOG NUMBER: NAV-AF-06-D-UNV-SLL-7027-1200

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3	10337.3
2.5°	8684.0	8866.5	9211.7	9495.4	9873.5	10176.9	10521.9	10671.5
5°	6478.9	6767.0	7294.5	7745.2	8369.7	8947.8	9607.5	9968.0
7.5°	4647.7	5074.2	5474.2	6037.1	6817.5	7593.6	8446.7	8923.8
10°	3845.1	4236.4	4579.5	4979.7	5582.0	6454.9	7472.7	8011.4
12.5°	3185.6	3607.8	3970.5	4399.2	4904.8	5694.0	6855.0	7481.4
15°	2442.5	2902.1	3337.4	3854.0	4474.0	5375.3	6670.3	7369.3
17.5°	1673.1	2165.5	2701.9	3332.9	4080.5	5241.3	6846.2	7707.9
20°	1136.6	1497.1	2079.8	2827.2	3726.4	5177.4	7233.1	8404.8
22.5°	934.3	1097.0	1534.6	2352.4	3436.2	5247.8	7861.8	9321.6
25°	857.4	945.3	1193.8	1934.7	3214.1	5434.7	8712.7	10357.1
27.5°	809.1	883.8	1046.4	1635.6	3009.7	5689.8	9748.1	11623.4
30°	780.4	850.9	987.1	1481.8	2822.8	5909.6	10638.5	12577.6
32.5°	716.7	769.5	881.5	1393.8	2688.7	6087.6	11423.3	13470.2
35°	639.8	703.6	795.9	1336.7	2684.3	6171.1	12162.2	14457.3
37.5°	611.1	672.7	740.9	1305.9	2710.7	6241.6	13065.7	15576.3
40°	593.6	648.5	703.6	1301.6	2732.7	6296.5	13949.5	16741.5
42.5°	578.1	633.1	696.9	1270.7	2723.9	6371.3	14732.2	17741.9
45°	573.7	628.8	712.4	1224.6	2721.8	6487.7	15354.3	18542.2
47.5°	569.4	653.0	708.0	1173.9	2712.9	6734.1	16055.6	19287.4
50°	565.0	696.9	677.1	1103.7	2646.9	7153.9	16998.7	20140.4
52.5°	562.8	703.6	644.2	1006.9	2528.3	7776.1	18379.4	21327.6
55°	554.1	668.3	587.0	879.4	2356.9	8446.7	19859.0	22723.6
57.5°	534.2	595.8	554.1	754.0	2110.6	8914.9	20951.7	23803.1
60°	582.6	512.3	532.1	690.3	1816.0	8998.4	21000.0	24106.6
62.5°	556.2	466.1	510.1	668.3	1609.4	8453.2	20039.3	23743.8
65°	444.1	441.8	490.3	690.3	1578.5	7233.1	18416.8	22668.6
67.5°	404.5	424.3	470.5	716.7	1598.4	5698.5	16029.3	20158.1
70°	378.1	402.4	444.1	740.9	1633.5	4489.3	12905.2	16394.2
72.5°	351.7	371.5	417.7	765.0	1609.4	3541.7	10328.5	12628.2
75°	318.8	336.3	380.3	701.3	1380.7	2603.0	8206.9	8967.7
77.5°	281.3	296.8	334.2	554.1	1037.7	1811.5	6147.0	6463.6
80°	241.9	248.4	276.9	404.5	677.1	1083.8	4678.5	5155.6
82.5°	191.2	193.4	211.0	296.8	422.2	692.6	3244.9	3704.5
85°	123.1	127.5	136.4	208.9	283.7	444.1	1657.6	1899.5
87.5°	41.9	48.4	48.4	101.1	138.5	246.2	507.8	369.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)