

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: P196716

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196716
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-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 800mA 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: 24860.9 lumens
Efficiency: N/A
Efficacy: 99.8 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): 249
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

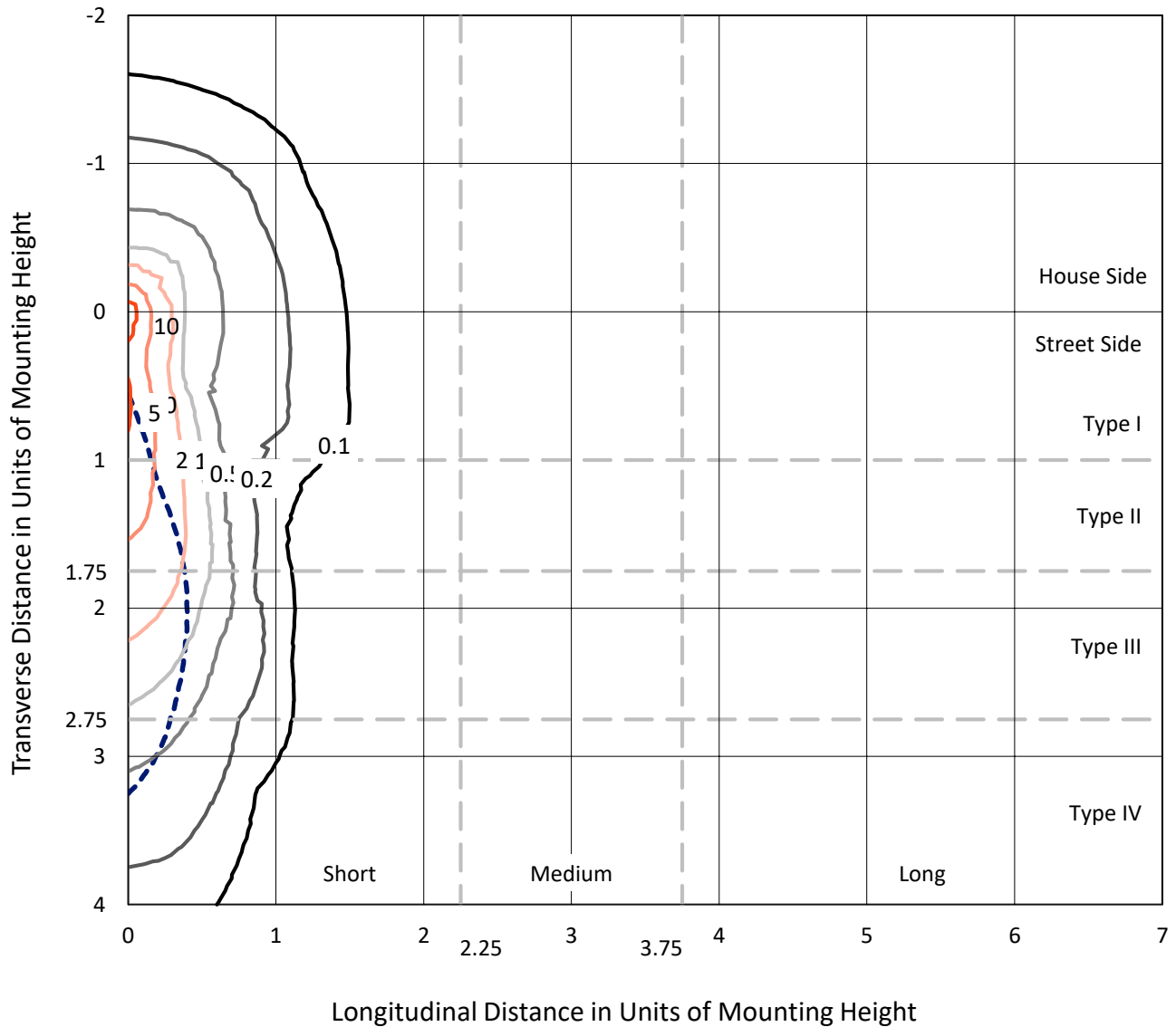


REPORT NUMBER: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

Iso-Footcandle Lines of Horizontal Illumination

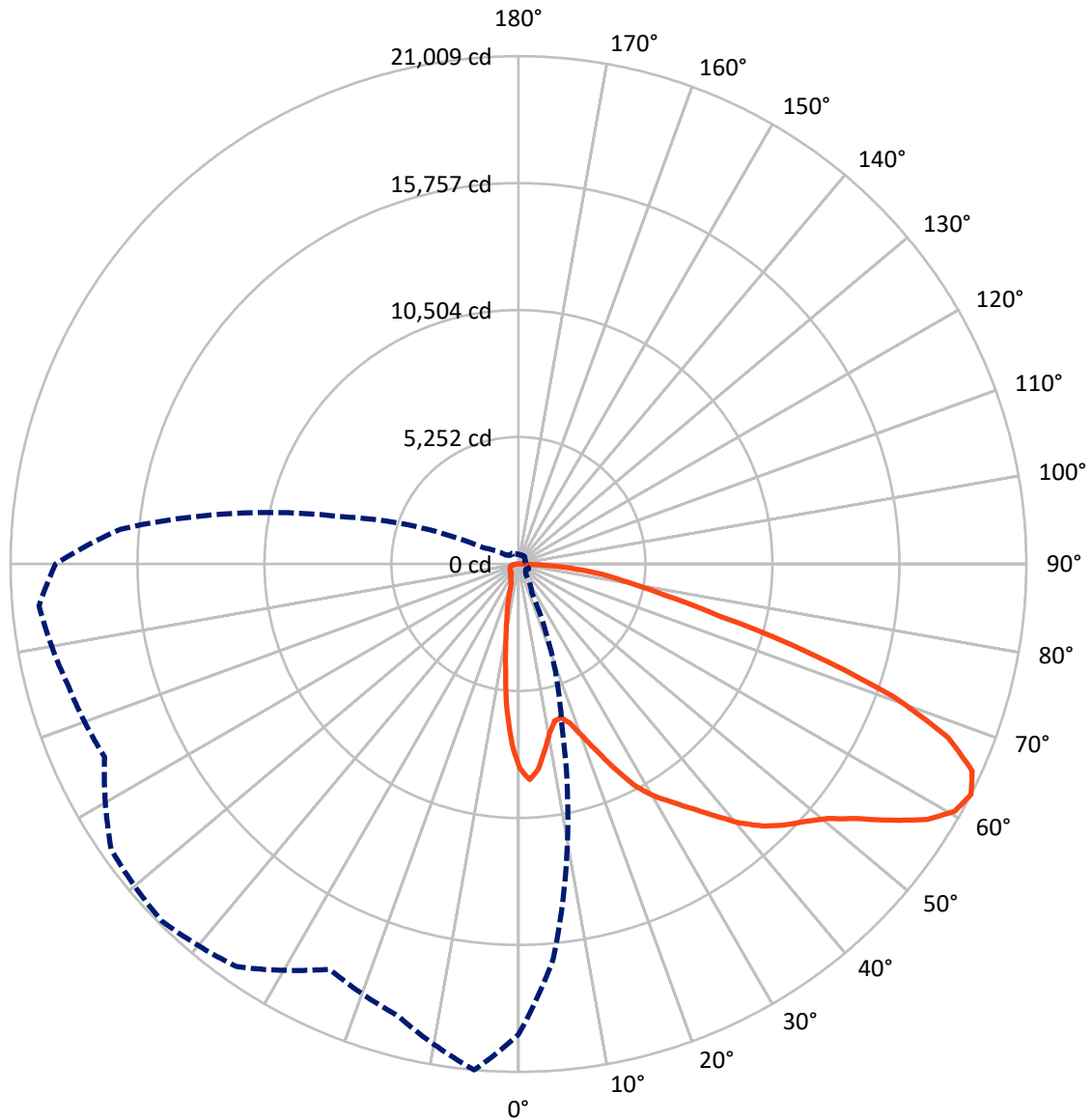
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196716
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4404.1	0.0	4404.1
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	20456.7	0.0	20456.7
	% Fixture	82.3	0.0	82.3
Total	Lumens	24860.9	0.0	24860.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	616.4	2.5
10°-20°	1125.8	4.5
20°-30°	1619.2	6.5
30°-40°	2480.0	10.0
40°-50°	3625.8	14.6
50°-60°	5275.6	21.2
60°-70°	6112.5	24.6
70°-80°	3186.4	12.8
80°-90°	819.1	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°	24860.9	100.0
0°-180°	24860.9	100.0



REPORT NUMBER: P196716

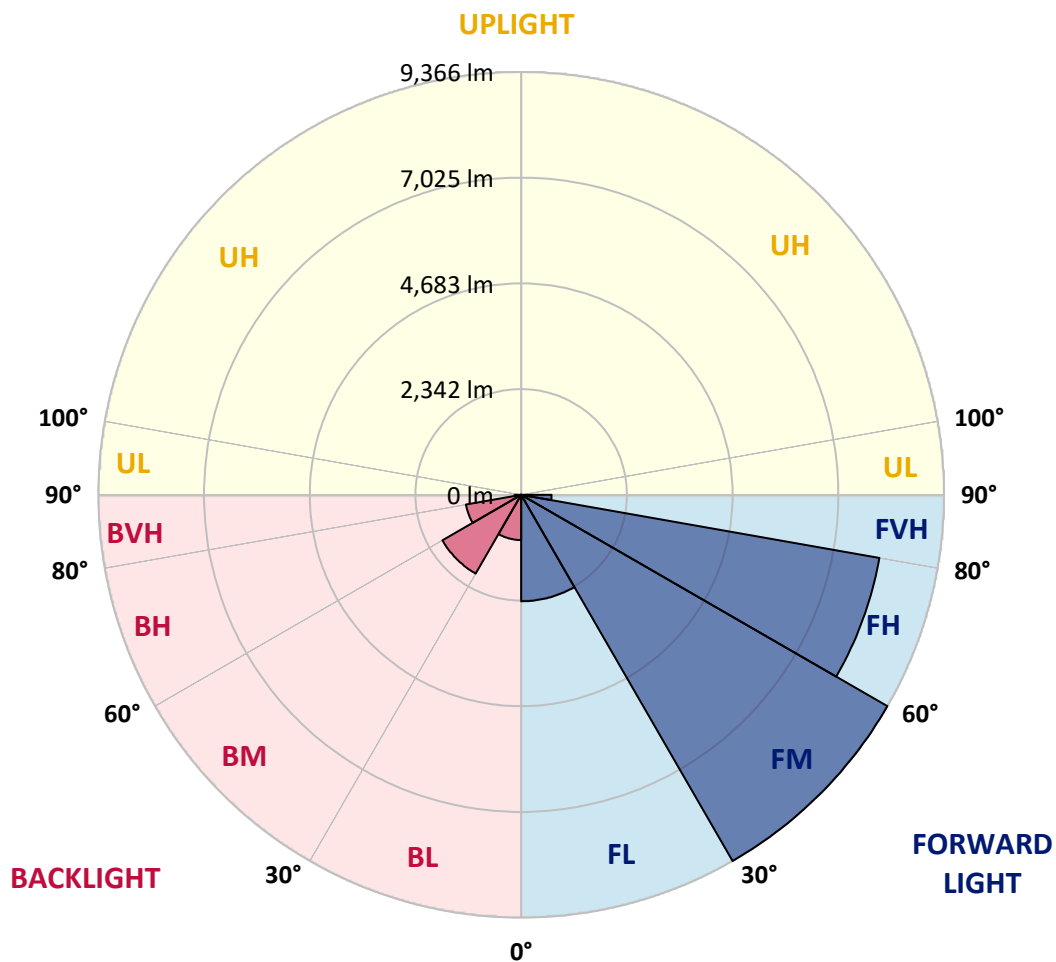
CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2359.4	9.5			
FM	(30°-60°)	9366.4	37.7			
FH	(60°-80°)	8057.1	32.4			G4/12000
FVH	(80°-90°)	673.8	2.7			G4/750
BL	(0°-30°)	1002.0	4.0	B3/2500		
BM	(30°-60°)	2015.1	8.1	B2/2500		
BH	(60°-80°)	1241.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	145.2	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





REPORT NUMBER: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6
2.5°	8749.6	8627.0	8344.0	8095.2	7785.2	7552.6	7269.7	7120.1	7010.1	6936.3	6876.7
5°	8172.7	7877.1	7336.3	6862.2	6350.3	5980.9	5548.1	5312.0	5166.1	5086.8	5050.7
7.5°	7316.5	6925.4	6226.0	5589.7	4949.8	4488.4	4160.3	3810.5	3624.9	3504.2	3464.5
10°	6568.4	6126.8	5292.3	4576.7	4082.8	3754.7	3473.5	3152.6	2914.7	2707.5	2629.9
12.5°	6134.1	5620.3	4668.5	4021.5	3606.8	3255.4	2957.9	2611.9	2361.3	2145.0	2062.2
15°	6042.1	5468.9	4407.2	3668.2	3159.9	2736.3	2379.3	2002.6	1757.4	1579.1	1521.3
17.5°	6319.7	5613.0	4297.2	3345.5	2732.7	2215.3	1775.5	1371.8	1168.1	1070.7	1047.2
20°	6891.1	5930.4	4244.9	3055.3	2318.1	1705.2	1227.5	931.9	831.0	802.2	800.4
22.5°	7642.8	6445.9	4302.6	2817.4	1928.8	1258.2	899.4	766.1	724.6	708.4	708.4
25°	8491.7	7143.5	4455.9	2635.4	1586.2	978.8	775.0	703.0	668.7	652.5	654.4
27.5°	9530.0	7992.5	4665.0	2467.7	1341.0	858.0	724.6	663.3	629.2	612.8	614.7
30°	10312.3	8722.5	4845.2	2314.4	1215.0	809.4	697.6	639.9	602.0	578.6	576.8
32.5°	11044.2	9366.0	4991.3	2204.6	1142.9	722.9	630.9	587.6	555.1	528.2	522.7
35°	11853.5	9971.6	5059.7	2200.9	1096.0	652.5	576.8	524.6	492.1	461.4	456.0
37.5°	12771.0	10712.6	5117.3	2222.6	1070.7	607.5	551.5	501.1	474.0	443.4	436.2
40°	13726.4	11437.1	5162.5	2240.6	1067.1	576.8	531.8	486.6	459.7	427.2	420.0
42.5°	14546.6	12078.8	5223.8	2233.4	1041.9	571.4	519.1	474.0	448.8	416.4	407.4
45°	15202.7	12589.0	5319.3	2231.5	1004.0	584.0	515.4	470.5	439.8	405.6	398.4
47.5°	15813.7	13164.0	5521.2	2224.3	962.6	580.3	535.4	466.9	436.2	402.0	396.6
50°	16513.1	13937.2	5865.5	2170.2	904.8	555.1	571.4	463.3	427.2	396.6	391.1
52.5°	17486.5	15069.2	6375.6	2072.9	825.6	528.2	576.8	461.4	412.8	385.8	378.6
55°	18631.1	16282.4	6925.4	1932.4	721.0	481.3	547.9	454.2	398.4	369.6	358.7
57.5°	19516.1	17178.3	7309.3	1730.4	618.3	454.2	488.5	438.0	380.3	351.5	342.5
60°	19764.9	17217.9	7377.8	1488.8	566.0	436.2	420.0	477.7	365.9	335.3	326.2
62.5°	19467.5	16430.2	6930.8	1319.5	547.9	418.3	382.2	456.0	351.5	320.9	311.8
65°	18586.0	15099.9	5930.4	1294.1	566.0	402.0	362.3	364.2	337.1	306.5	297.4
67.5°	16527.5	13142.4	4672.2	1310.4	587.6	385.8	347.9	331.7	320.9	293.8	283.0
70°	13441.6	10580.8	3680.8	1339.3	607.5	364.2	329.9	310.1	301.0	272.2	266.8
72.5°	10353.9	8468.3	2903.9	1319.5	627.2	342.5	304.7	288.5	277.6	250.5	245.2
75°	7352.6	6728.8	2134.2	1132.0	575.0	311.8	275.8	261.3	252.4	223.6	221.7
77.5°	5299.5	5039.9	1485.3	850.8	454.2	274.0	243.3	230.7	225.3	192.9	192.9
80°	4226.9	3835.8	888.6	555.1	331.7	227.2	203.7	198.3	192.9	160.4	162.2
82.5°	3037.3	2660.6	567.8	346.2	243.3	173.0	158.7	156.8	147.8	119.0	119.0
85°	1557.4	1359.0	364.2	232.5	171.2	111.8	104.6	100.9	95.5	73.9	73.9
87.5°	302.8	416.4	201.9	113.5	82.9	39.7	39.7	34.2	39.7	27.0	28.9
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: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6
2.5°	6990.3	6954.3	6929.0	6916.3	7098.5	7174.1	7260.6	7385.1	7469.7	7433.7	7549.0
5°	5220.2	5245.4	5303.1	5393.2	5647.4	5768.2	5845.7	5948.4	6022.3	5948.4	6071.0
7.5°	3569.1	3606.8	3729.4	3915.1	4221.6	4356.7	4383.8	4385.5	4369.4	4248.5	4331.5
10°	2628.1	2552.4	2579.4	2712.8	2986.8	3107.6	3120.2	3087.7	3082.3	3033.7	3127.4
12.5°	2036.9	1932.4	1871.1	1892.7	2098.3	2197.3	2213.5	2231.5	2305.5	2328.9	2444.2
15°	1519.6	1465.5	1420.4	1400.6	1535.7	1613.3	1622.3	1665.5	1743.0	1764.6	1863.9
17.5°	1068.9	1083.3	1106.8	1115.7	1213.1	1263.6	1249.2	1249.2	1261.7	1256.4	1312.2
20°	816.6	845.3	890.5	933.7	1022.0	1050.8	1014.8	969.7	940.9	926.5	939.1
22.5°	721.0	740.9	769.7	825.6	899.4	913.9	867.0	831.0	803.9	789.5	791.4
25°	668.7	688.6	712.1	757.0	820.2	827.4	784.2	760.7	739.0	724.6	721.0
27.5°	623.7	636.3	650.7	679.6	744.5	748.1	719.3	704.8	690.4	679.6	676.0
30°	582.3	587.6	593.1	621.9	670.6	676.0	661.6	654.4	648.9	641.7	641.7
32.5°	528.2	535.4	544.3	569.6	616.4	623.7	614.7	609.2	600.3	596.7	591.2
35°	463.3	481.3	501.1	531.8	582.3	585.8	575.0	558.8	537.1	531.8	528.2
37.5°	436.2	439.8	465.0	501.1	553.4	557.0	542.6	515.4	499.4	501.1	504.7
40°	418.3	423.6	438.0	474.0	526.3	531.8	519.1	499.4	483.0	484.9	490.2
42.5°	403.8	411.1	420.0	443.4	495.7	506.5	502.9	484.9	468.6	472.2	479.4
45°	396.6	402.0	402.0	418.3	468.6	484.9	486.6	472.2	459.7	463.3	472.2
47.5°	393.0	393.0	387.6	400.2	450.5	466.9	470.5	463.3	456.0	459.7	468.6
50°	387.6	380.3	375.0	385.8	436.2	450.5	454.2	448.8	452.5	459.7	465.0
52.5°	371.4	364.2	364.2	371.4	421.7	436.2	438.0	434.5	441.6	450.5	459.7
55°	351.5	351.5	353.4	360.5	414.6	425.3	423.6	420.0	427.2	438.0	447.0
57.5°	333.5	331.7	340.7	349.7	405.6	412.8	409.1	409.1	414.6	423.6	432.5
60°	322.7	313.7	320.9	335.3	396.6	403.8	398.4	396.6	405.6	412.8	420.0
62.5°	311.8	302.8	308.2	322.7	383.9	389.4	385.8	385.8	394.8	400.2	407.4
65°	295.6	292.0	295.6	310.1	373.1	375.0	375.0	376.7	383.9	387.6	394.8
67.5°	281.3	281.3	283.0	297.4	364.2	360.5	360.5	369.6	371.4	375.0	382.2
70°	263.2	266.8	266.8	284.8	356.9	344.2	346.2	353.4	356.9	360.5	362.3
72.5°	243.3	245.2	248.8	272.2	346.2	328.1	329.9	335.3	337.1	342.5	344.2
75°	221.7	223.6	228.9	259.6	338.9	311.8	308.2	311.8	315.4	319.0	317.3
77.5°	196.4	200.1	205.5	252.4	315.4	308.2	281.3	284.8	288.5	288.5	286.6
80°	165.8	171.2	180.3	241.6	266.8	297.4	250.5	252.4	254.1	254.1	250.5
82.5°	124.3	135.2	147.8	200.1	209.1	254.1	216.4	219.9	214.4	210.9	209.1
85°	81.1	90.1	108.1	138.8	153.2	200.1	178.4	180.3	169.5	167.6	167.6
87.5°	32.4	34.2	48.6	70.3	91.9	124.3	128.0	131.5	122.6	122.6	126.2
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: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6
2.5°	7723.9	7904.2	8111.4	8322.4	8495.4	8718.9	8935.2	9166.0	9283.1	9351.6	9544.5
5°	6262.0	6509.0	6802.8	7132.7	7406.6	7875.3	8380.0	8942.5	9212.8	9479.6	9984.3
7.5°	4479.3	4720.9	5063.3	5490.5	5879.9	6498.2	7163.2	7924.0	8298.9	8731.6	9558.9
10°	3325.8	3581.6	3891.7	4254.0	4637.9	5281.5	6027.8	6882.1	7294.9	7783.4	8724.4
12.5°	2696.6	2995.8	3316.7	3641.2	3971.0	4403.5	5185.9	6135.9	6579.3	7071.4	8014.0
15°	2103.6	2424.5	2770.5	3123.8	3451.8	3935.0	4733.4	5856.6	6362.9	6838.9	7610.4
17.5°	1488.8	1791.8	2181.1	2610.1	3085.9	3657.4	4636.1	5979.0	6593.7	7091.3	7608.5
20°	1014.8	1223.9	1613.3	2121.6	2709.2	3433.8	4672.2	6409.8	7177.7	7723.9	7920.4
22.5°	811.1	910.2	1173.5	1690.8	2384.8	3271.7	4820.0	7001.2	8016.0	8681.0	8488.2
25°	737.3	793.1	930.2	1335.7	2096.3	3163.5	5108.4	7781.6	8955.0	9629.2	9171.3
27.5°	692.1	740.9	829.2	1097.7	1847.6	3093.1	5474.3	8700.9	10013.2	10566.5	9883.4
30°	663.3	712.1	793.1	985.9	1660.2	2988.6	5795.2	9540.8	10858.5	11217.2	10267.3
32.5°	607.5	645.2	712.1	883.3	1519.6	2866.1	6072.7	10292.6	11657.1	11776.0	10728.7
35°	549.8	589.5	656.1	800.4	1436.6	2770.5	6218.8	10959.5	12448.4	12334.9	11186.6
37.5°	528.2	560.6	621.9	740.9	1391.5	2707.5	6274.6	11615.6	13297.4	12953.1	11505.6
40°	513.7	542.6	596.7	701.2	1379.0	2647.9	6262.0	12239.2	14121.1	13593.0	11756.2
42.5°	502.9	528.2	578.6	674.1	1344.7	2592.0	6220.5	12778.2	14780.8	14144.6	11995.9
45°	493.9	520.9	571.4	688.6	1281.6	2530.8	6195.3	13270.3	15287.3	14609.6	12316.8
47.5°	490.2	520.9	573.2	684.9	1213.1	2462.2	6285.4	13816.5	15729.0	15000.7	12744.0
50°	484.9	519.1	612.8	652.5	1119.4	2377.6	6590.1	14467.2	16192.2	15440.6	13297.4
52.5°	475.9	517.4	654.4	627.2	998.6	2260.3	7084.1	15386.6	16992.5	16296.8	14115.7
55°	465.0	520.9	625.5	587.6	870.6	2108.9	7577.9	16646.5	18290.4	17677.5	15291.0
57.5°	452.5	515.4	591.2	551.5	764.3	1917.9	7952.9	17679.4	19361.1	19101.6	16734.8
60°	443.4	528.2	531.8	529.9	695.8	1735.8	7988.8	17612.7	19669.4	20026.2	18148.0
62.5°	432.5	538.9	484.9	513.7	661.6	1566.4	7543.7	16522.0	19148.4	19907.2	19299.9
65°	418.3	470.5	459.7	499.4	661.6	1476.3	6507.2	14707.0	17708.2	18782.5	19925.3
67.5°	403.8	427.2	441.6	479.4	676.0	1391.5	5229.1	12405.1	15437.0	16967.3	19222.3
70°	383.9	403.8	421.7	461.4	668.7	1332.1	4115.2	9942.8	12704.3	14456.4	17277.3
72.5°	365.9	380.3	398.4	434.5	668.7	1305.0	3305.8	7799.6	9699.5	11175.8	14312.2
75°	338.9	351.5	367.7	407.4	656.1	1193.3	2482.2	6249.4	7096.6	8021.3	11292.9
77.5°	311.8	320.9	333.5	373.1	591.2	996.8	1755.7	4839.8	5258.0	5770.0	8803.7
80°	277.6	284.8	293.8	333.5	490.2	773.3	1142.9	3785.3	3931.3	4178.3	5791.7
82.5°	237.9	248.8	250.5	286.6	394.8	560.6	679.6	2593.9	2592.0	2954.4	4086.4
85°	194.7	200.1	203.7	225.3	292.0	373.1	447.0	1416.8	1263.6	1770.1	3549.2
87.5°	146.0	140.6	146.0	151.5	192.9	219.9	239.8	261.3	156.8	320.9	2063.9
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: P196716

CATALOG NUMBER: NAV-AF-06-D-UNV-SLR-7030-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6	8475.6
2.5°	9647.3	9753.6	9690.4	9614.9	9425.5	9147.9	8935.2	8749.6
5°	10334.0	10530.4	10444.0	10162.8	9672.4	9115.5	8529.7	8172.7
7.5°	10247.4	10636.8	10602.5	10133.9	9430.9	8610.7	7787.0	7316.5
10°	9555.3	10101.4	10195.2	9715.7	8971.3	8053.7	7100.2	6568.4
12.5°	8801.8	9261.5	9452.6	9270.4	8569.3	7637.3	6665.8	6134.1
15°	8171.0	8403.4	8592.7	8709.9	8275.6	7489.6	6590.1	6042.1
17.5°	7704.1	7659.0	7817.6	8098.9	8116.9	7686.1	6932.6	6319.7
20°	7478.8	7125.5	7217.3	7612.1	8073.6	8185.3	7615.7	6891.1
22.5°	7466.1	6914.6	6932.6	7357.9	8197.9	8866.7	8468.3	7642.8
25°	7660.8	6891.1	6907.4	7331.0	8417.9	9553.5	9454.3	8491.7
27.5°	7992.5	6992.0	6981.2	7450.0	8711.7	10126.7	10449.3	9530.0
30°	8351.2	7138.1	7111.0	7640.9	9000.1	10480.0	11155.9	10312.3
32.5°	8798.2	7397.6	7303.9	7920.4	9284.9	10818.9	11759.8	11044.2
35°	9223.6	7777.9	7642.8	8320.5	9589.5	11195.6	12435.8	11853.5
37.5°	9658.1	8345.8	8270.1	8897.3	10020.3	11604.8	13209.0	12771.0
40°	10214.9	9153.3	9117.2	9735.5	10595.3	12051.9	14076.1	13726.4
42.5°	10815.2	10011.3	9980.8	10698.1	11309.2	12500.7	14818.8	14546.6
45°	11426.4	11051.3	11058.5	11725.6	12060.8	12924.3	15402.8	15202.7
47.5°	12147.3	12188.9	12446.6	12790.9	12792.6	13396.5	15920.0	15813.7
50°	13063.0	13562.4	14038.1	14092.3	13531.6	14020.1	16552.8	16513.1
52.5°	14099.5	15146.7	15700.1	15528.9	14252.8	14793.4	17488.2	17486.5
55°	15330.6	16803.3	17324.2	17032.2	15116.1	15801.1	18710.4	18631.1
57.5°	16606.9	18396.7	18816.7	18436.4	16195.8	16974.5	19936.1	19516.1
60°	17985.8	19768.5	20195.7	19624.3	17407.1	18144.3	20747.2	19764.9
62.5°	18888.8	20570.7	20877.0	20329.1	18492.3	19335.8	21008.7	19467.5
65°	18935.7	20037.0	20118.2	19923.5	18953.8	20370.6	20630.2	18586.0
67.5°	17648.7	17713.5	17819.9	18029.1	17967.8	19909.1	19170.1	16527.5
70°	14896.2	14031.0	14380.7	14582.7	15036.8	17708.2	16471.6	13441.6
72.5°	11390.3	10126.7	10523.2	10454.8	11399.2	14524.9	12601.6	10353.9
75°	8197.9	6905.5	6936.3	6939.8	8190.7	11593.9	8592.7	7352.6
77.5°	5571.6	4886.7	4987.6	4924.6	5481.5	9083.0	6186.4	5299.5
80°	3810.5	3792.5	3814.1	3666.4	3655.6	5870.9	4580.2	4226.9
82.5°	2826.4	2611.9	2581.2	2424.5	2801.2	4488.4	3477.0	3037.3
85°	2229.8	1445.6	1256.4	1516.0	2426.2	4129.7	2119.7	1557.4
87.5°	944.5	567.8	344.2	681.3	1348.3	3026.5	587.6	302.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)