

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: P196709

Luminaire Tested: **NAV-AF-05-D-UNV-SLR-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196709  
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-05-D-UNV-SLR-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 3000K, 615mA 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: 16923.2 lumens  
Efficiency: N/A  
Efficacy: 104.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 162  
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

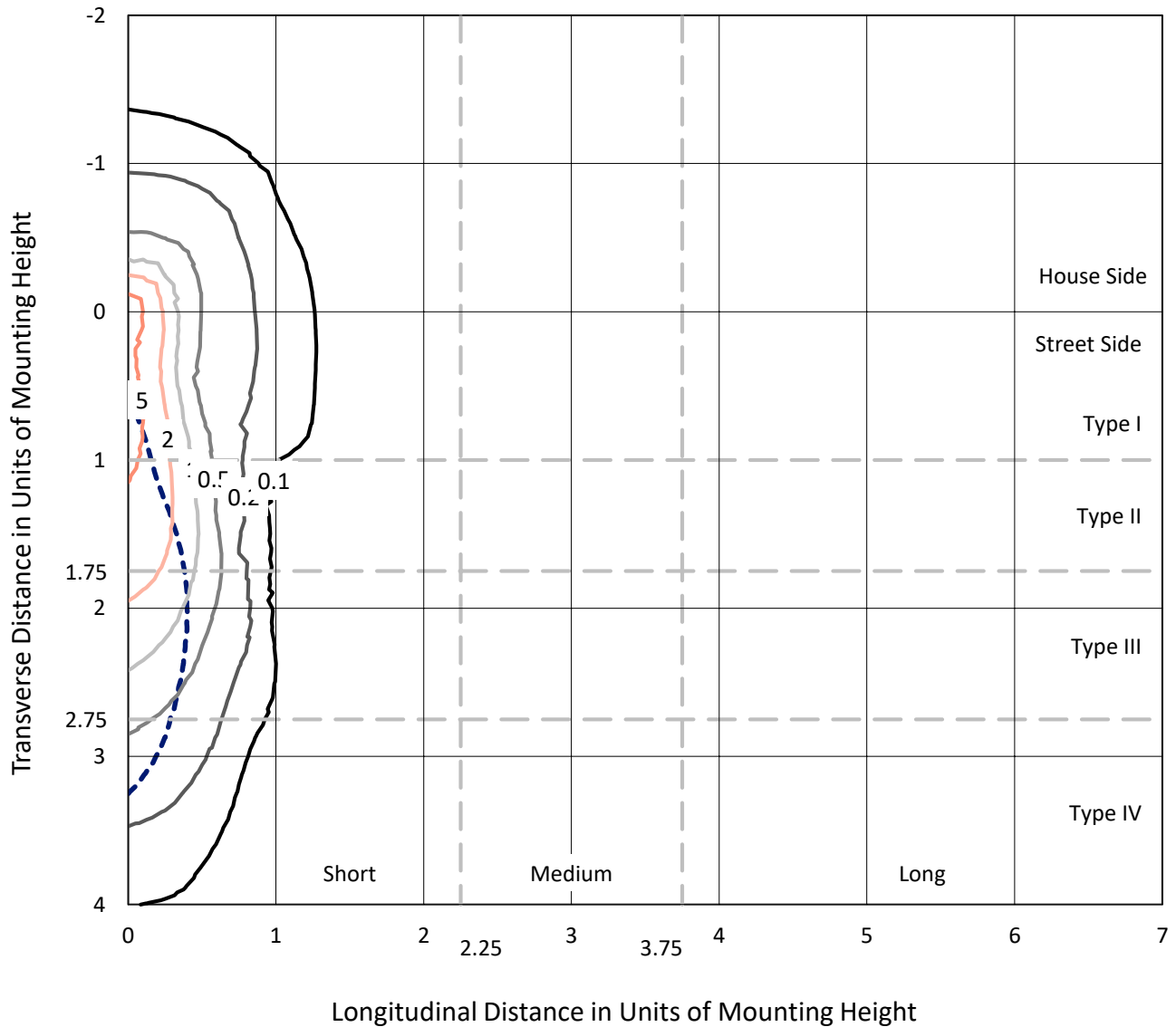


REPORT NUMBER: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

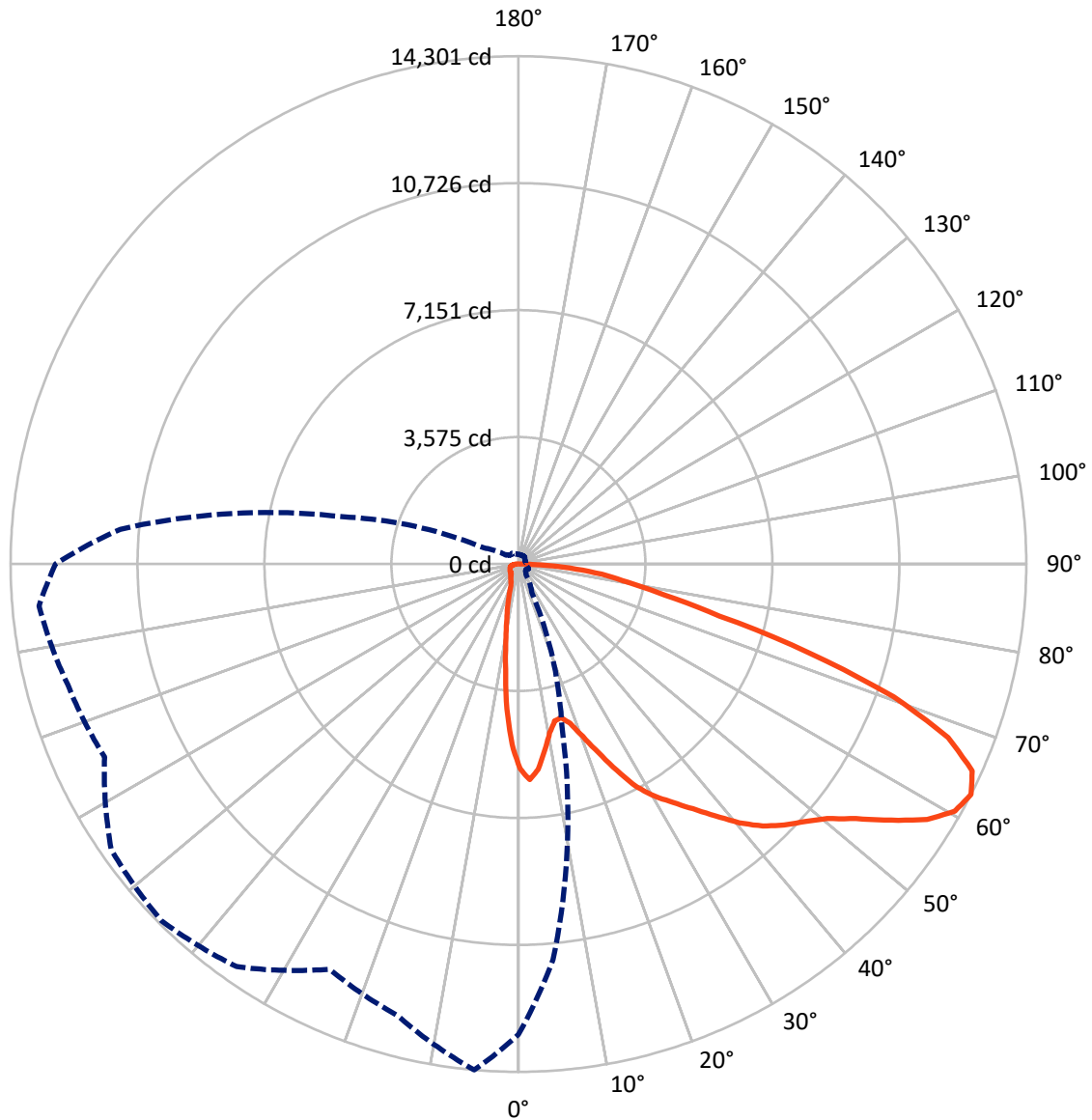


Based on 25 foot mounting height. Maximum calculated value = 9.2 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2998.0	0.0	2998.0
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	13925.2	0.0	13925.2
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	16923.2	0.0	16923.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.6	2.5
10°-20°	766.4	4.5
20°-30°	1102.2	6.5
30°-40°	1688.2	10.0
40°-50°	2468.2	14.6
50°-60°	3591.2	21.2
60°-70°	4160.9	24.6
70°-80°	2169.0	12.8
80°-90°	557.6	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°	16923.2	100.0
0°-180°	16923.2	100.0



REPORT NUMBER: P196709

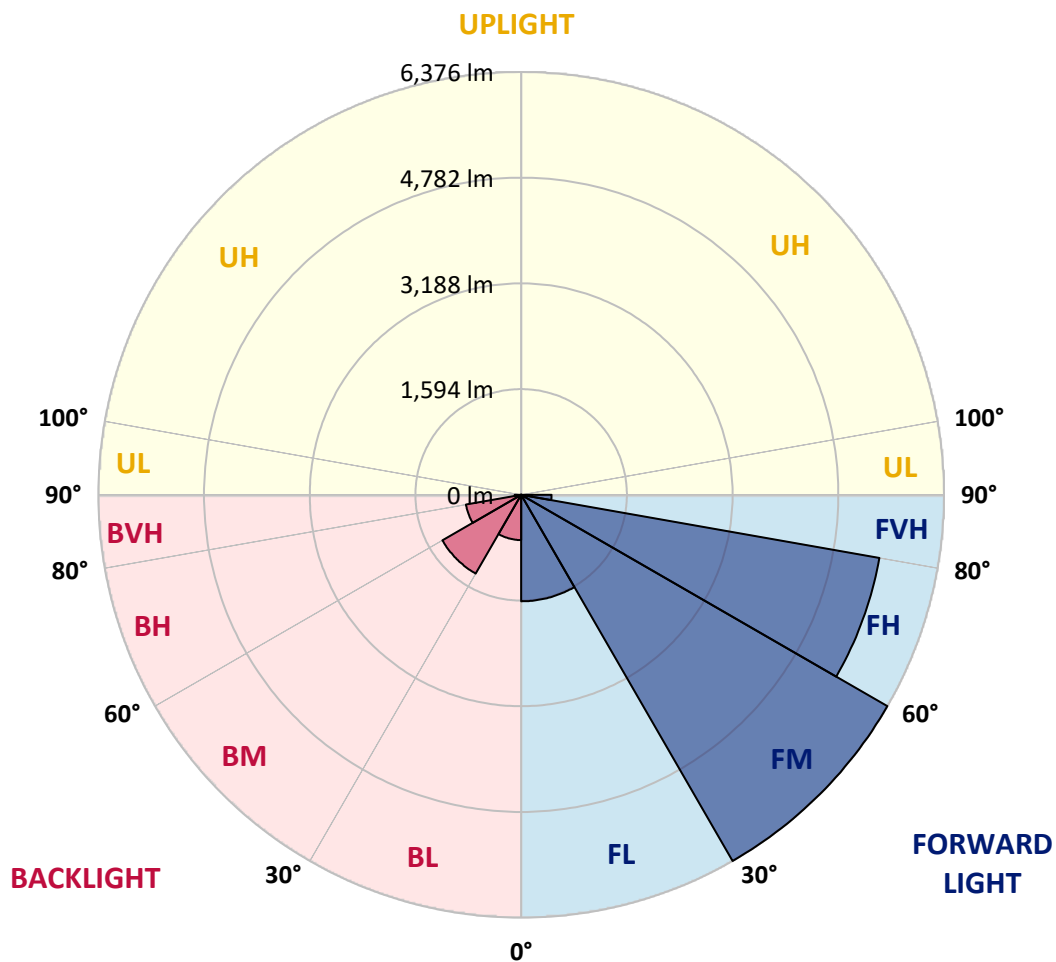
CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1606.1	9.5			
FM	(30°-60°)	6375.9	37.7			
FH	(60°-80°)	5484.6	32.4			G3/7500
FVH	(80°-90°)	458.7	2.7			G3/500
BL	(0°-30°)	682.1	4.0	B2/1000		
BM	(30°-60°)	1371.7	8.1	B2/2500		
BH	(60°-80°)	845.3	5.0	B2/1000		G2/1000
BVH	(80°-90°)	98.9	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





REPORT NUMBER: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4
2.5°	5955.9	5872.4	5679.9	5510.5	5299.5	5141.2	4948.6	4846.7	4771.9	4721.5	4681.1
5°	5563.3	5362.1	4994.0	4671.3	4322.9	4071.2	3776.8	3616.1	3516.6	3462.7	3438.1
7.5°	4980.5	4714.2	4238.1	3805.0	3369.4	3055.3	2832.0	2594.0	2467.5	2385.3	2358.4
10°	4471.2	4170.7	3602.5	3115.4	2779.2	2555.9	2364.5	2146.1	1984.0	1842.9	1790.2
12.5°	4175.6	3825.8	3178.1	2737.5	2455.3	2216.0	2013.5	1777.9	1607.4	1460.1	1403.8
15°	4112.9	3722.8	3000.0	2497.0	2151.0	1862.7	1619.7	1363.2	1196.4	1074.9	1035.6
17.5°	4302.0	3820.9	2925.2	2277.4	1860.1	1508.0	1208.6	933.7	795.1	728.9	712.9
20°	4690.9	4036.9	2889.6	2079.8	1577.9	1160.8	835.7	634.4	565.6	546.1	544.7
22.5°	5202.6	4387.9	2928.9	1917.8	1312.9	856.5	612.3	521.5	493.3	482.3	482.3
25°	5780.5	4862.7	3033.1	1793.9	1079.8	666.3	527.6	478.5	455.2	444.1	445.4
27.5°	6487.3	5440.6	3175.5	1679.8	912.9	584.1	493.3	451.6	428.2	417.2	418.5
30°	7019.8	5937.5	3298.2	1575.5	827.0	550.8	474.8	435.6	409.8	393.9	392.7
32.5°	7517.9	6375.6	3397.6	1500.6	777.9	492.0	429.5	400.0	377.9	359.5	355.8
35°	8068.9	6787.8	3444.3	1498.2	746.0	444.1	392.7	357.1	335.0	314.1	310.4
37.5°	8693.4	7292.2	3483.5	1512.9	728.9	413.5	375.5	341.1	322.8	301.9	296.9
40°	9343.8	7785.5	3514.3	1525.1	726.3	392.7	361.9	331.3	312.9	290.8	285.9
42.5°	9902.0	8222.3	3556.0	1520.3	709.2	389.0	353.4	322.8	305.5	283.4	277.3
45°	10348.7	8569.5	3621.0	1519.0	683.4	397.6	350.9	320.2	299.4	276.1	271.2
47.5°	10764.7	8960.9	3758.4	1514.2	655.2	395.1	364.4	317.8	296.9	273.5	270.0
50°	11240.7	9487.3	3992.8	1477.3	616.0	377.9	389.0	315.3	290.8	270.0	266.3
52.5°	11903.4	10258.0	4340.0	1411.1	561.9	359.5	392.7	314.1	281.1	262.6	257.7
55°	12682.5	11083.7	4714.2	1315.4	490.8	327.7	373.0	309.2	271.2	251.6	244.2
57.5°	13285.0	11693.5	4975.5	1178.0	420.8	309.2	332.4	298.2	259.0	239.3	233.2
60°	13454.3	11720.5	5022.2	1013.5	385.2	296.9	285.9	325.1	249.1	228.3	222.2
62.5°	13251.8	11184.4	4718.0	898.2	373.0	284.6	260.1	310.4	239.3	218.4	212.3
65°	12651.7	10278.8	4036.9	880.9	385.2	273.5	246.6	247.9	229.5	208.5	202.4
67.5°	11250.5	8946.1	3180.4	892.0	400.0	262.6	236.8	225.7	218.4	200.1	192.7
70°	9149.9	7202.6	2505.6	911.7	413.5	247.9	224.5	211.1	204.9	185.3	181.6
72.5°	7048.0	5764.5	1976.7	898.2	426.9	233.2	207.4	196.3	188.9	170.6	166.8
75°	5005.0	4580.4	1452.8	770.6	391.3	212.3	187.7	177.9	171.7	152.2	150.9
77.5°	3607.4	3430.7	1011.0	579.2	309.2	186.5	165.6	157.0	153.4	131.3	131.3
80°	2877.4	2611.1	605.0	377.9	225.7	154.6	138.6	134.9	131.3	109.3	110.5
82.5°	2067.5	1811.1	386.6	235.6	165.6	117.8	107.9	106.7	100.6	81.0	81.0
85°	1060.2	925.2	247.9	158.3	116.6	76.1	71.1	68.8	65.0	50.3	50.3
87.5°	206.2	283.4	137.4	77.3	56.5	27.0	27.0	23.3	27.0	18.3	19.6
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: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4
2.5°	4758.3	4733.8	4716.6	4708.1	4832.0	4883.6	4942.5	5027.1	5084.8	5060.3	5138.8
5°	3553.4	3570.6	3609.9	3671.2	3844.3	3926.4	3979.2	4049.1	4099.5	4049.1	4132.6
7.5°	2429.5	2455.3	2538.7	2665.1	2873.6	2965.8	2984.1	2985.3	2974.2	2892.1	2948.6
10°	1789.0	1737.4	1755.9	1846.7	2033.2	2115.4	2124.0	2101.9	2098.3	2065.1	2128.9
12.5°	1386.5	1315.4	1273.6	1288.3	1428.2	1495.8	1506.8	1519.0	1569.4	1585.4	1663.8
15°	1034.3	997.5	967.0	953.4	1045.4	1098.2	1104.3	1133.8	1186.5	1201.3	1268.7
17.5°	727.6	737.4	753.4	759.6	825.8	860.1	850.4	850.4	858.9	855.3	893.3
20°	555.8	575.5	606.2	635.6	695.8	715.3	690.8	660.2	640.5	630.7	639.2
22.5°	490.8	504.3	523.9	561.9	612.3	622.1	590.2	565.6	547.3	537.4	538.6
25°	455.2	468.7	484.7	515.3	558.4	563.2	533.7	517.8	503.0	493.3	490.8
27.5°	424.6	433.1	442.9	462.6	506.8	509.2	489.6	479.7	470.0	462.6	460.1
30°	396.3	400.0	403.7	423.3	456.4	460.1	450.3	445.4	441.7	436.8	436.8
32.5°	359.5	364.4	370.6	387.8	419.7	424.6	418.5	414.7	408.6	406.1	402.5
35°	315.3	327.7	341.1	361.9	396.3	398.8	391.3	380.3	365.7	361.9	359.5
37.5°	296.9	299.4	316.6	341.1	376.7	379.1	369.3	350.9	339.9	341.1	343.5
40°	284.6	288.3	298.2	322.8	358.3	361.9	353.4	339.9	328.9	330.1	333.8
42.5°	274.9	279.8	285.9	301.9	337.4	344.8	342.3	330.1	319.0	321.4	326.3
45°	270.0	273.5	273.5	284.6	319.0	330.1	331.3	321.4	312.9	315.3	321.4
47.5°	267.4	267.4	263.9	272.4	306.8	317.8	320.2	315.3	310.4	312.9	319.0
50°	263.9	259.0	255.2	262.6	296.9	306.8	309.2	305.5	308.0	312.9	316.6
52.5°	252.7	247.9	247.9	252.7	287.2	296.9	298.2	295.8	300.6	306.8	312.9
55°	239.3	239.3	240.5	245.4	282.2	289.5	288.3	285.9	290.8	298.2	304.3
57.5°	227.0	225.7	231.9	238.0	276.1	281.1	278.5	278.5	282.2	288.3	294.5
60°	219.6	213.5	218.4	228.3	270.0	274.9	271.2	270.0	276.1	281.1	285.9
62.5°	212.3	206.2	209.8	219.6	261.3	265.1	262.6	262.6	268.7	272.4	277.3
65°	201.2	198.8	201.2	211.1	254.0	255.2	255.2	256.4	261.3	263.9	268.7
67.5°	191.4	191.4	192.7	202.4	247.9	245.4	245.4	251.6	252.7	255.2	260.1
70°	179.1	181.6	181.6	193.8	243.0	234.4	235.6	240.5	243.0	245.4	246.6
72.5°	165.6	166.8	169.4	185.3	235.6	223.3	224.5	228.3	229.5	233.2	234.4
75°	150.9	152.2	155.8	176.7	230.6	212.3	209.8	212.3	214.7	217.2	216.0
77.5°	133.8	136.2	139.9	171.7	214.7	209.8	191.4	193.8	196.3	196.3	195.1
80°	112.9	116.6	122.7	164.4	181.6	202.4	170.6	171.7	172.9	172.9	170.6
82.5°	84.6	92.0	100.6	136.2	142.4	172.9	147.3	149.6	146.0	143.5	142.4
85°	55.1	61.4	73.6	94.5	104.4	136.2	121.5	122.7	115.4	114.0	114.0
87.5°	22.1	23.3	33.1	47.8	62.6	84.6	87.1	89.6	83.5	83.5	85.9
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: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4
2.5°	5257.8	5380.5	5521.6	5665.2	5783.0	5935.1	6082.4	6239.4	6319.1	6365.8	6497.1
5°	4262.6	4430.8	4630.7	4855.3	5041.8	5360.8	5704.4	6087.3	6271.3	6452.9	6796.5
7.5°	3049.1	3213.6	3446.7	3737.5	4002.5	4423.4	4876.1	5394.0	5649.2	5943.7	6506.9
10°	2263.9	2438.1	2649.1	2895.8	3157.1	3595.1	4103.1	4684.7	4965.8	5298.3	5938.8
12.5°	1835.7	2039.4	2257.8	2478.5	2703.1	2997.6	3530.1	4176.8	4478.6	4813.6	5455.4
15°	1432.0	1650.4	1886.0	2126.4	2349.7	2678.6	3222.2	3986.6	4331.4	4655.3	5180.5
17.5°	1013.5	1219.7	1484.8	1776.8	2100.6	2489.6	3155.9	4070.0	4488.5	4827.1	5179.2
20°	690.8	833.1	1098.2	1444.2	1844.2	2337.5	3180.4	4363.3	4886.0	5257.8	5391.5
22.5°	552.2	619.6	798.8	1150.9	1623.4	2227.0	3281.0	4765.8	5456.5	5909.3	5778.0
25°	501.8	539.8	633.1	909.2	1427.0	2153.4	3477.4	5297.0	6095.8	6554.8	6243.1
27.5°	471.1	504.3	564.5	747.3	1257.7	2105.5	3726.5	5922.8	6816.1	7192.7	6727.7
30°	451.6	484.7	539.8	671.2	1130.1	2034.4	3945.0	6494.6	7391.6	7635.7	6989.1
32.5°	413.5	439.2	484.7	601.3	1034.3	1951.0	4133.9	7006.2	7935.2	8016.2	7303.2
35°	374.2	401.2	446.7	544.7	978.0	1886.0	4233.2	7460.3	8473.8	8396.5	7615.0
37.5°	359.5	381.7	423.3	504.3	947.3	1842.9	4271.3	7906.9	9051.7	8817.3	7832.0
40°	349.7	369.3	406.1	477.4	938.6	1802.4	4262.6	8331.4	9612.5	9252.9	8002.5
42.5°	342.3	359.5	393.9	458.9	915.4	1764.4	4234.5	8698.3	10061.5	9628.5	8165.8
45°	336.2	354.6	389.0	468.7	872.4	1722.7	4217.3	9033.3	10406.4	9945.0	8384.2
47.5°	333.8	354.6	390.2	466.3	825.8	1676.1	4278.6	9405.1	10707.0	10211.3	8675.0
50°	330.1	353.4	417.2	444.1	762.0	1618.4	4485.9	9848.1	11022.3	10510.6	9051.7
52.5°	324.0	352.2	445.4	426.9	679.8	1538.7	4822.1	10473.8	11567.1	11093.5	9608.8
55°	316.6	354.6	425.8	400.0	592.6	1435.6	5158.3	11331.5	12450.5	12033.4	10408.8
57.5°	308.0	350.9	402.5	375.5	520.3	1305.5	5413.6	12034.6	13179.4	13002.7	11391.7
60°	301.9	359.5	361.9	360.8	473.6	1181.6	5438.2	11989.2	13389.2	13632.2	12353.6
62.5°	294.5	366.9	330.1	349.7	450.3	1066.3	5135.0	11246.8	13034.6	13551.2	13137.7
65°	284.6	320.2	312.9	339.9	450.3	1004.9	4429.6	10011.2	12054.2	12785.5	13563.5
67.5°	274.9	290.8	300.6	326.3	460.1	947.3	3559.5	8444.3	10508.2	11549.9	13084.9
70°	261.3	274.9	287.2	314.1	455.2	906.8	2801.3	6768.3	8648.0	9840.7	11761.0
72.5°	249.1	259.0	271.2	295.8	455.2	888.4	2250.3	5309.4	6602.5	7607.5	9742.5
75°	230.6	239.3	250.3	277.3	446.7	812.3	1689.5	4254.1	4830.8	5460.2	7687.3
77.5°	212.3	218.4	227.0	254.0	402.5	678.5	1195.1	3294.5	3579.3	3927.7	5992.8
80°	188.9	193.8	200.1	227.0	333.8	526.4	777.9	2576.8	2676.1	2844.2	3942.4
82.5°	161.9	169.4	170.6	195.1	268.7	381.7	462.6	1765.6	1764.4	2011.1	2781.6
85°	132.5	136.2	138.6	153.4	198.8	254.0	304.3	964.4	860.1	1204.9	2416.0
87.5°	99.4	95.7	99.4	103.0	131.3	149.6	163.3	177.9	106.7	218.4	1405.0
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: P196709

CATALOG NUMBER: NAV-AF-05-D-UNV-SLR-7030-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4	5769.4
2.5°	6567.0	6639.3	6596.4	6544.9	6416.0	6227.1	6082.4	5955.9
5°	7034.5	7168.3	7109.4	6918.0	6584.2	6205.1	5806.2	5563.3
7.5°	6975.6	7240.6	7217.3	6898.3	6419.7	5861.4	5300.7	4980.5
10°	6504.4	6876.2	6940.0	6613.7	6106.8	5482.3	4833.2	4471.2
12.5°	5991.6	6304.5	6434.5	6310.6	5833.3	5198.9	4537.5	4175.6
15°	5562.1	5720.4	5849.2	5929.0	5633.3	5098.2	4485.9	4112.9
17.5°	5244.2	5213.7	5321.6	5513.0	5525.2	5232.0	4719.1	4302.0
20°	5090.9	4850.4	4913.0	5181.7	5495.8	5571.9	5184.2	4690.9
22.5°	5082.3	4706.9	4719.1	5008.7	5580.5	6035.7	5764.5	5202.6
25°	5214.8	4690.9	4702.0	4990.3	5730.2	6503.2	6435.7	5780.5
27.5°	5440.6	4759.7	4752.2	5071.3	5930.1	6893.3	7113.0	6487.3
30°	5684.8	4859.0	4840.6	5201.3	6126.5	7133.9	7594.1	7019.8
32.5°	5989.0	5035.6	4971.9	5391.5	6320.4	7364.6	8005.1	7517.9
35°	6278.7	5294.6	5202.6	5663.9	6527.7	7621.1	8465.2	8068.9
37.5°	6574.3	5681.2	5629.6	6056.6	6820.9	7899.6	8991.6	8693.4
40°	6953.5	6230.8	6206.3	6627.1	7212.4	8203.8	9581.8	9343.8
42.5°	7362.1	6814.8	6794.0	7282.3	7698.3	8509.3	10087.4	9902.0
45°	7778.0	7522.8	7527.8	7981.7	8210.0	8797.8	10484.8	10348.7
47.5°	8268.8	8297.1	8472.6	8707.0	8708.2	9119.3	10837.0	10764.7
50°	8892.2	9232.1	9556.1	9592.9	9211.2	9543.8	11267.7	11240.7
52.5°	9597.8	10310.7	10687.3	10570.8	9702.0	10070.1	11904.6	11903.4
55°	10435.8	11438.3	11792.9	11594.1	10289.8	10756.0	12736.5	12682.5
57.5°	11304.5	12523.0	12808.9	12549.9	11024.8	11554.8	13570.9	13285.0
60°	12243.1	13456.7	13747.5	13358.6	11849.2	12351.2	14123.0	13454.3
62.5°	12857.9	14002.7	14211.4	13838.3	12588.0	13162.3	14301.0	13251.8
65°	12889.9	13639.6	13694.8	13562.3	12902.1	13866.5	14043.2	12651.7
67.5°	12013.7	12058.0	12130.3	12272.6	12230.9	13552.4	13049.4	11250.5
70°	10140.2	9551.1	9789.2	9926.5	10235.9	12054.2	11212.5	9149.9
72.5°	7753.6	6893.3	7163.4	7116.7	7759.7	9887.3	8578.1	7048.0
75°	5580.5	4700.7	4721.5	4724.1	5575.6	7892.3	5849.2	5005.0
77.5°	3792.7	3326.4	3395.1	3352.2	3731.3	6183.0	4211.2	3607.4
80°	2594.0	2581.7	2596.3	2495.8	2488.4	3996.3	3117.8	2877.4
82.5°	1923.9	1777.9	1757.1	1650.4	1906.8	3055.3	2366.9	2067.5
85°	1517.8	984.1	855.3	1032.0	1651.6	2811.1	1443.0	1060.2
87.5°	643.0	386.6	234.4	463.8	917.8	2060.2	400.0	206.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)