

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: P270536

Luminaire Tested: **NAV-AF-04-D-UNV-SLR-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270536  
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-04-D-UNV-SLR-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 2700K, 1200mA 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: 20536.5 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

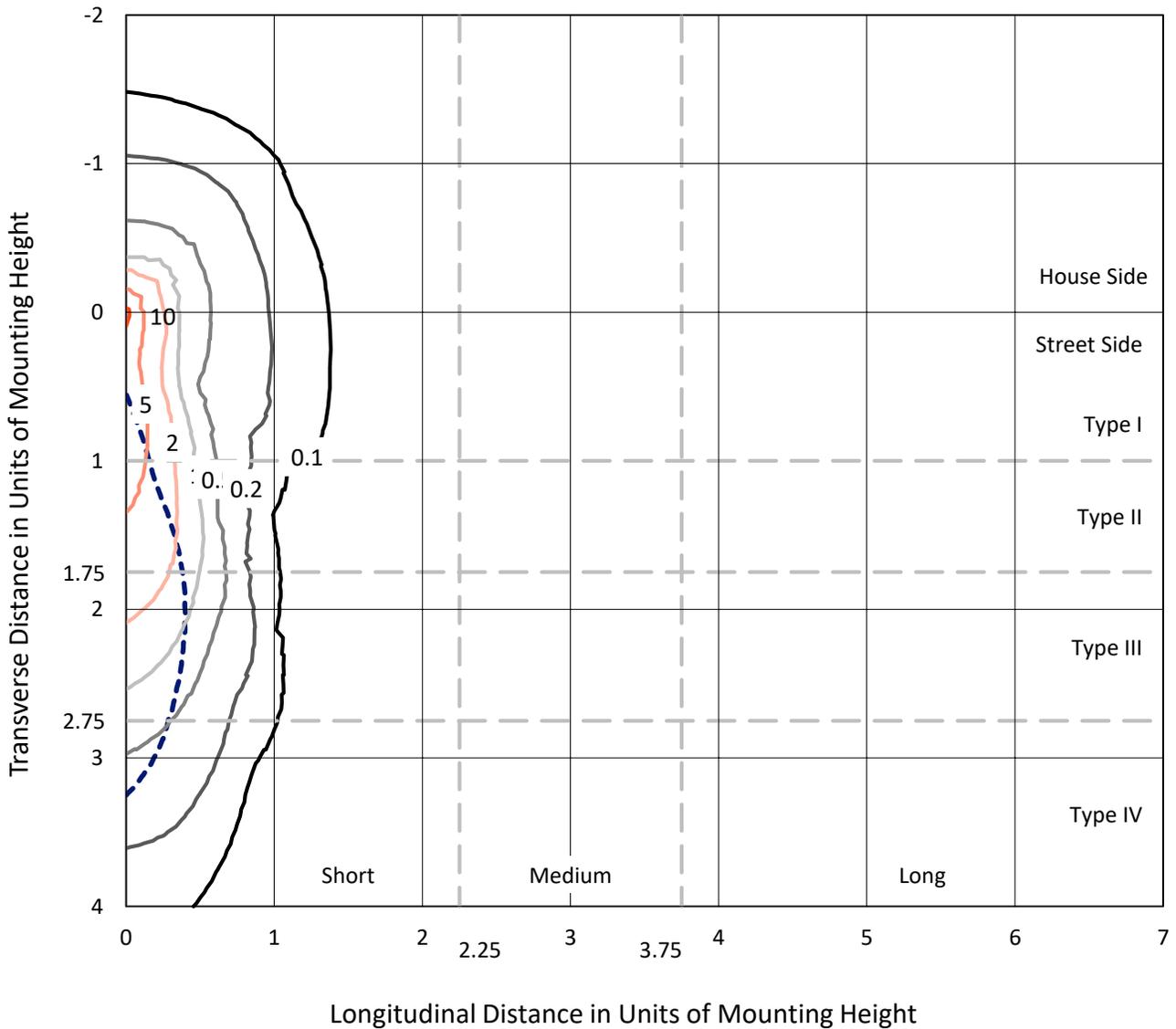
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P270536  
 CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

### Iso-Footcandle Lines of Horizontal Illumination

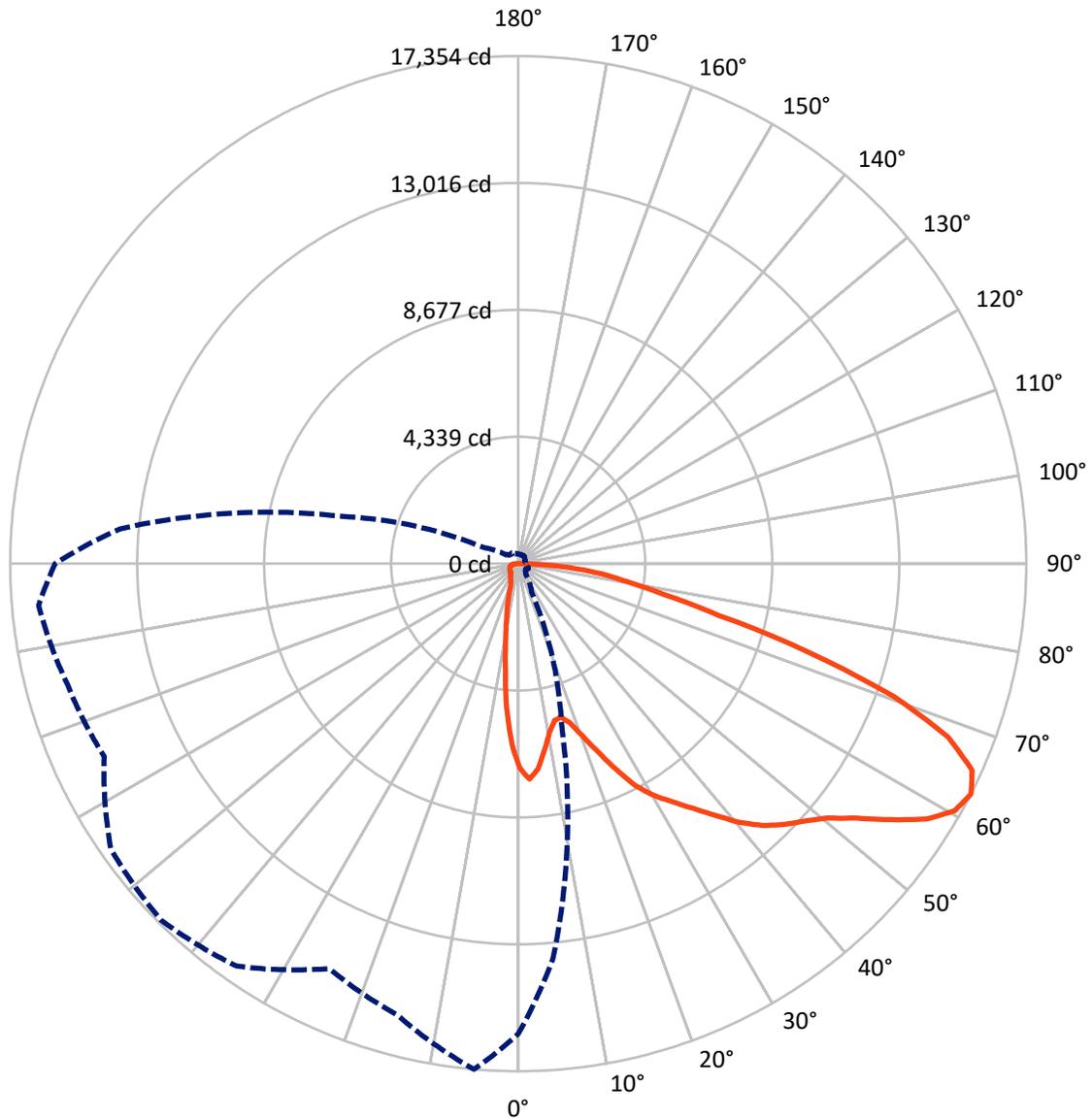
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P270536  
CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P270536

CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

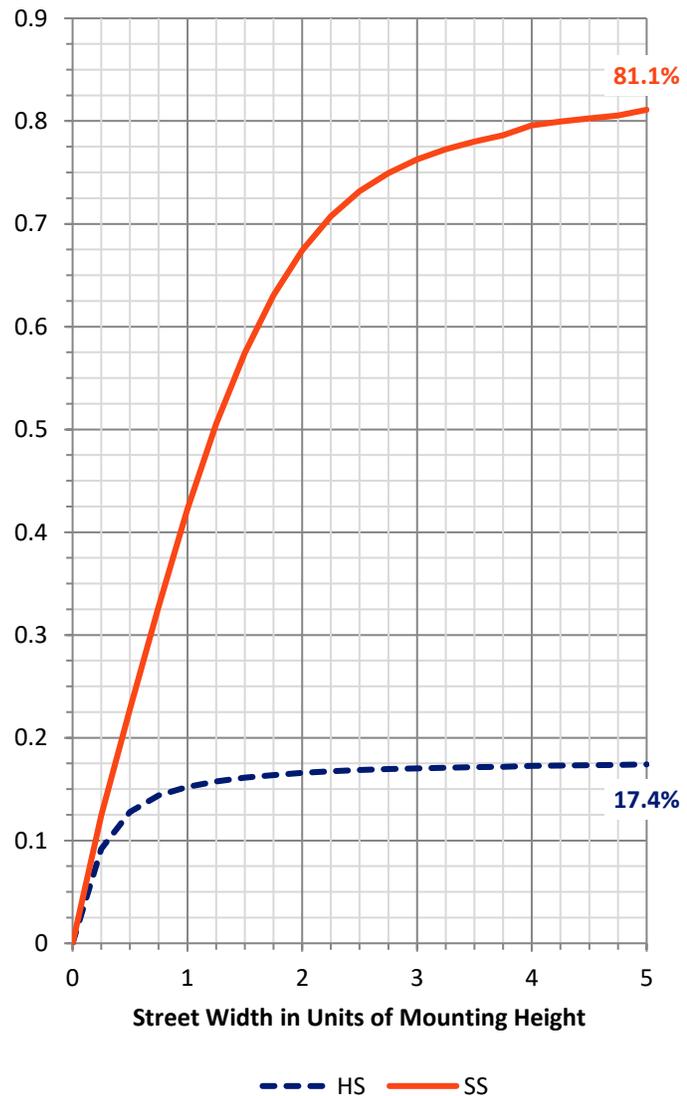
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3638.1	0.0	3638.1
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	16898.5	0.0	16898.5
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	20536.5	0.0	20536.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	509.2	2.5
10°-20°	930.0	4.5
20°-30°	1337.6	6.5
30°-40°	2048.6	10.0
40°-50°	2995.2	14.6
50°-60°	4358.0	21.2
60°-70°	5049.3	24.6
70°-80°	2632.1	12.8
80°-90°	676.6	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°	20536.5	100.0
0°-180°	20536.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P270536

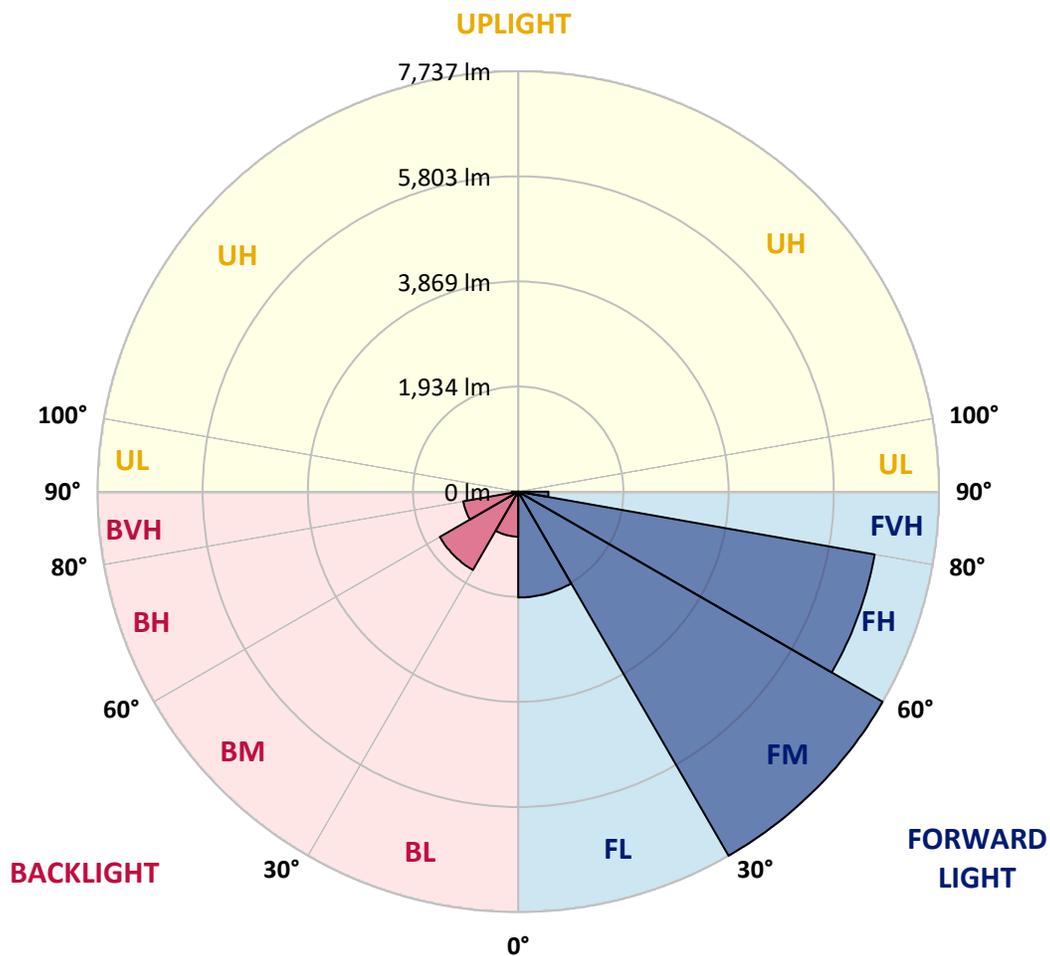
CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1949.0	9.5			
FM	(30°-60°)	7737.2	37.7			
FH	(60°-80°)	6655.6	32.4			G3/7500
FVH	(80°-90°)	556.6	2.7			G4/750
BL	(0°-30°)	827.7	4.0	B2/1000		
BM	(30°-60°)	1664.5	8.1	B2/2500		
BH	(60°-80°)	1025.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	120.0	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: P270536  
 CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3
2.5°	7227.7	7126.3	6892.6	6687.2	6431.1	6239.0	6005.2	5881.6	5790.7	5729.7	5680.5
5°	6751.1	6507.0	6060.2	5668.7	5245.7	4940.5	4583.2	4388.1	4267.5	4202.0	4172.2
7.5°	6043.8	5720.8	5143.1	4617.4	4088.8	3707.7	3436.6	3147.8	2994.4	2894.6	2861.9
10°	5425.9	5061.1	4371.7	3780.5	3372.5	3101.6	2869.4	2604.2	2407.7	2236.5	2172.6
12.5°	5067.1	4642.7	3856.6	3322.0	2979.5	2689.2	2443.5	2157.5	1950.6	1771.9	1703.5
15°	4991.2	4517.7	3640.7	3030.2	2610.3	2260.3	1965.5	1654.3	1451.8	1304.3	1256.6
17.5°	5220.5	4636.8	3549.8	2763.5	2257.4	1829.9	1466.7	1133.1	964.9	884.6	865.1
20°	5692.5	4898.8	3506.7	2523.9	1914.8	1408.6	1013.9	769.8	686.5	662.6	661.2
22.5°	6313.4	5324.8	3554.2	2327.2	1593.2	1039.2	743.0	632.9	598.6	585.2	585.2
25°	7014.8	5901.0	3680.8	2177.0	1310.3	808.6	640.3	580.8	552.4	539.1	540.5
27.5°	7872.3	6602.3	3853.5	2038.4	1107.8	708.8	598.6	548.0	519.7	506.3	507.7
30°	8518.5	7205.3	4002.5	1912.0	1003.5	668.6	576.3	528.7	497.3	478.0	476.6
32.5°	9123.1	7736.9	4123.1	1821.0	943.9	597.2	521.1	485.4	458.7	436.2	431.8
35°	9791.7	8237.2	4179.6	1818.1	905.3	539.1	476.6	433.3	406.6	381.2	376.7
37.5°	10549.6	8849.2	4227.2	1836.0	884.6	501.9	455.6	413.9	391.7	366.2	360.3
40°	11338.8	9447.7	4264.6	1850.9	881.4	476.6	439.2	402.0	379.8	352.9	346.9
42.5°	12016.3	9977.8	4315.2	1844.8	860.7	472.0	428.9	391.7	370.8	344.1	336.5
45°	12558.2	10399.1	4394.1	1843.4	829.3	482.4	425.8	388.6	363.4	335.0	329.0
47.5°	13063.1	10874.3	4560.9	1837.5	795.1	479.4	442.2	385.6	360.3	332.1	327.6
50°	13640.9	11512.9	4845.2	1792.7	747.5	458.7	472.0	382.7	352.9	327.6	323.1
52.5°	14444.8	12448.2	5266.7	1712.3	682.0	436.2	476.6	381.2	340.9	318.7	312.7
55°	15390.4	13450.2	5720.8	1596.2	595.5	397.6	452.7	375.2	329.0	305.2	296.4
57.5°	16121.5	14190.3	6037.9	1429.5	510.7	375.2	403.5	361.8	314.1	290.3	282.8
60°	16327.0	14223.0	6094.6	1229.9	467.6	360.3	346.9	394.5	302.3	276.9	269.5
62.5°	16081.3	13572.3	5725.3	1090.0	452.7	345.5	315.7	376.7	290.3	265.0	257.6
65°	15353.1	12473.4	4898.8	1069.2	467.6	332.1	299.2	300.8	278.5	253.1	245.6
67.5°	13652.7	10856.3	3859.5	1082.5	485.4	318.7	287.4	274.0	265.0	242.7	233.7
70°	11103.5	8740.5	3040.6	1106.4	501.9	300.8	272.5	256.0	248.7	224.8	220.4
72.5°	8552.9	6995.3	2398.7	1090.0	518.2	282.8	251.6	238.2	229.2	207.0	202.5
75°	6073.7	5558.4	1763.0	935.0	475.1	257.6	227.8	216.0	208.4	184.6	183.2
77.5°	4377.7	4163.3	1226.9	702.8	375.2	226.4	201.0	190.6	186.0	159.3	159.3
80°	3491.7	3168.6	734.0	458.7	274.0	187.7	168.3	163.9	159.3	132.5	133.9
82.5°	2509.0	2197.8	469.0	285.9	201.0	142.9	131.1	129.5	122.1	98.3	98.3
85°	1286.6	1122.7	300.8	192.1	141.5	92.3	86.3	83.5	79.0	61.1	61.1
87.5°	250.2	344.1	166.7	93.9	68.5	32.8	32.8	28.2	32.8	22.4	23.9
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: P270536

CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3
2.5°	5774.3	5744.7	5723.7	5713.3	5863.6	5926.3	5997.8	6100.5	6170.5	6140.6	6235.9
5°	4312.1	4333.1	4380.7	4455.1	4665.1	4764.8	4828.8	4913.6	4974.8	4913.6	5015.0
7.5°	2948.2	2979.5	3080.7	3234.1	3487.3	3598.9	3621.2	3622.8	3609.4	3509.6	3578.0
10°	2170.9	2108.4	2130.8	2240.9	2467.3	2567.0	2577.4	2550.6	2546.2	2506.0	2583.4
12.5°	1682.5	1596.2	1545.7	1563.5	1733.2	1815.0	1828.5	1843.4	1904.4	1923.8	2019.1
15°	1255.2	1210.6	1173.4	1156.9	1268.6	1332.6	1340.1	1375.8	1439.9	1457.7	1539.7
17.5°	882.9	894.9	914.2	921.8	1002.1	1043.8	1032.0	1032.0	1042.4	1037.8	1084.0
20°	674.4	698.3	735.5	771.4	844.2	868.1	838.3	801.1	777.3	765.4	775.7
22.5°	595.5	611.9	635.8	682.0	743.0	754.9	716.2	686.5	664.0	652.2	653.6
25°	552.4	568.7	588.2	625.4	677.5	683.4	647.7	628.4	610.5	598.6	595.5
27.5°	515.2	525.6	537.5	561.4	615.0	617.9	594.0	582.2	570.2	561.4	558.3
30°	481.0	485.4	489.8	513.7	554.0	558.3	546.4	540.5	536.1	530.1	530.1
32.5°	436.2	442.2	449.7	470.5	509.2	515.2	507.7	503.3	495.9	492.9	488.4
35°	382.7	397.6	413.9	439.2	481.0	483.9	475.1	461.5	443.8	439.2	436.2
37.5°	360.3	363.4	384.1	413.9	457.1	460.1	448.2	425.8	412.4	413.9	417.0
40°	345.5	349.9	361.8	391.7	434.8	439.2	428.9	412.4	399.0	400.6	405.0
42.5°	333.5	339.5	346.9	366.2	409.4	418.4	415.5	400.6	387.1	390.1	396.1
45°	327.6	332.1	332.1	345.5	387.1	400.6	402.0	390.1	379.8	382.7	390.1
47.5°	324.6	324.6	320.2	330.5	372.3	385.6	388.6	382.7	376.7	379.8	387.1
50°	320.2	314.1	309.7	318.7	360.3	372.3	375.2	370.8	373.8	379.8	384.1
52.5°	306.7	300.8	300.8	306.7	348.5	360.3	361.8	358.9	364.8	372.3	379.8
55°	290.3	290.3	291.9	297.8	342.4	351.3	349.9	346.9	352.9	361.8	369.3
57.5°	275.5	274.0	281.3	288.9	335.0	340.9	338.0	338.0	342.4	349.9	357.3
60°	266.5	259.2	265.0	276.9	327.6	333.5	329.0	327.6	335.0	340.9	346.9
62.5°	257.6	250.2	254.6	266.5	317.1	321.7	318.7	318.7	326.1	330.5	336.5
65°	244.2	241.3	244.2	256.0	308.2	309.7	309.7	311.3	317.1	320.2	326.1
67.5°	232.3	232.3	233.7	245.6	300.8	297.8	297.8	305.2	306.7	309.7	315.7
70°	217.4	220.4	220.4	235.3	294.9	284.5	285.9	291.9	294.9	297.8	299.2
72.5°	201.0	202.5	205.5	224.8	285.9	271.0	272.5	276.9	278.5	282.8	284.5
75°	183.2	184.6	189.2	214.4	279.9	257.6	254.6	257.6	260.6	263.6	262.0
77.5°	162.4	165.3	169.7	208.4	260.6	254.6	232.3	235.3	238.2	238.2	236.8
80°	137.0	141.5	148.8	199.6	220.4	245.6	207.0	208.4	209.9	209.9	207.0
82.5°	102.8	111.7	122.1	165.3	172.7	209.9	178.8	181.6	177.1	174.2	172.7
85°	67.1	74.5	89.3	114.7	126.7	165.3	147.4	148.8	140.0	138.5	138.5
87.5°	26.8	28.2	40.2	58.1	75.9	102.8	105.7	108.7	101.2	101.2	104.3
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: P270536  
 CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3
2.5°	6380.4	6529.3	6700.5	6874.8	7017.6	7202.3	7381.1	7571.6	7668.4	7725.0	7884.2
5°	5172.8	5376.9	5619.4	5892.1	6118.4	6505.4	6922.3	7386.9	7610.4	7830.6	8247.6
7.5°	3700.2	3899.7	4182.6	4535.5	4857.1	5367.8	5917.3	6545.7	6855.3	7212.8	7896.2
10°	2747.2	2958.7	3214.8	3514.1	3831.2	4362.8	4979.2	5685.1	6026.0	6429.4	7206.8
12.5°	2227.5	2474.7	2739.8	3007.7	3280.3	3637.6	4283.8	5068.5	5434.8	5841.4	6620.1
15°	1737.7	2002.7	2288.6	2580.4	2851.4	3250.4	3910.1	4837.8	5256.3	5649.4	6286.6
17.5°	1229.9	1480.0	1801.7	2156.1	2549.2	3021.2	3829.7	4939.1	5446.9	5857.8	6285.1
20°	838.3	1011.0	1332.6	1752.6	2237.9	2836.6	3859.5	5294.9	5929.3	6380.4	6542.6
22.5°	670.0	751.9	969.4	1396.7	1970.0	2702.6	3981.6	5783.3	6621.5	7171.1	7011.7
25°	609.1	655.1	768.3	1103.4	1731.8	2613.2	4219.9	6428.0	7397.5	7954.3	7576.0
27.5°	571.9	611.9	685.0	906.7	1526.2	2555.0	4522.1	7187.3	8271.5	8728.6	8164.2
30°	548.0	588.2	655.1	814.6	1371.4	2468.8	4787.2	7881.3	8969.8	9266.0	8481.3
32.5°	501.9	533.1	588.2	729.7	1255.2	2367.6	5016.4	8502.2	9629.4	9727.7	8862.6
35°	454.2	486.9	541.9	661.2	1186.8	2288.6	5137.0	9053.2	10283.1	10189.3	9240.8
37.5°	436.2	463.0	513.7	611.9	1149.6	2236.5	5183.2	9595.2	10984.5	10700.0	9504.3
40°	424.4	448.2	492.9	579.2	1139.1	2187.4	5172.8	10110.3	11664.9	11228.6	9711.2
42.5°	415.5	436.2	478.0	556.9	1110.8	2141.2	5138.6	10555.5	12209.9	11684.3	9909.4
45°	408.0	430.3	472.0	568.7	1058.7	2090.5	5117.7	10962.0	12628.3	12068.4	10174.5
47.5°	405.0	430.3	473.4	565.8	1002.1	2034.0	5192.2	11413.2	12993.1	12391.5	10527.2
50°	400.6	428.9	506.3	539.1	924.6	1964.1	5443.8	11950.8	13375.8	12754.9	10984.5
52.5°	393.1	427.4	540.5	518.2	825.0	1867.1	5851.7	12710.2	14036.8	13462.1	11660.4
55°	384.1	430.3	516.6	485.4	719.3	1742.2	6259.7	13751.0	15109.0	14602.7	12631.2
57.5°	373.8	425.8	488.4	455.6	631.4	1584.3	6569.5	14604.1	15993.5	15779.0	13823.9
60°	366.2	436.2	439.2	437.7	574.7	1434.0	6599.3	14549.0	16248.1	16542.8	14991.4
62.5°	357.3	445.2	400.6	424.4	546.4	1294.0	6231.5	13648.2	15817.7	16444.6	15942.8
65°	345.5	388.6	379.8	412.4	546.4	1219.4	5375.3	12148.8	14628.0	15515.4	16459.5
67.5°	333.5	352.9	364.8	396.1	558.3	1149.6	4319.6	10247.3	12751.9	14016.1	15878.8
70°	317.1	333.5	348.5	381.2	552.4	1100.3	3399.4	8213.4	10494.4	11941.8	14272.1
72.5°	302.3	314.1	329.0	358.9	552.4	1078.1	2730.8	6443.0	8012.3	9231.8	11822.8
75°	279.9	290.3	303.7	336.5	541.9	985.7	2050.3	5162.4	5862.2	6626.1	9328.5
77.5°	257.6	265.0	275.5	308.2	488.4	823.4	1450.4	3997.9	4343.5	4766.2	7272.3
80°	229.2	235.3	242.7	275.5	405.0	638.8	943.9	3126.9	3247.6	3451.5	4784.2
82.5°	196.5	205.5	207.0	236.8	326.1	463.0	561.4	2142.6	2141.2	2440.4	3375.7
85°	160.7	165.3	168.3	186.0	241.3	308.2	369.3	1170.3	1043.8	1462.3	2931.9
87.5°	120.6	116.2	120.6	125.0	159.3	181.6	198.0	216.0	129.5	265.0	1705.0
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: P270536

CATALOG NUMBER: NAV-AF-04-D-UNV-SLR-7027-1200

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3	7001.3
2.5°	7969.1	8057.0	8004.8	7942.4	7786.0	7556.7	7381.1	7227.7
5°	8536.5	8698.7	8627.3	8395.0	7990.1	7530.0	7045.9	6751.1
7.5°	8465.0	8786.6	8758.4	8371.1	7790.6	7113.0	6432.6	6043.8
10°	7893.2	8344.4	8421.8	8025.7	7410.7	6652.8	5865.3	5425.9
12.5°	7270.8	7650.5	7808.3	7658.0	7078.7	6308.9	5506.3	5067.1
15°	6749.7	6941.7	7098.0	7194.9	6836.0	6186.8	5443.8	4991.2
17.5°	6364.0	6326.9	6457.8	6690.0	6704.9	6349.1	5726.8	5220.5
20°	6178.0	5886.1	5962.1	6288.0	6669.2	6761.6	6291.1	5692.5
22.5°	6167.5	5711.9	5726.8	6078.1	6772.1	7324.4	6995.3	6313.4
25°	6328.3	5692.5	5705.9	6055.7	6953.7	7891.7	7809.9	7014.8
27.5°	6602.3	5775.8	5766.8	6154.1	7196.3	8365.2	8631.8	7872.3
30°	6898.5	5896.5	5874.1	6311.9	7434.6	8657.1	9215.4	8518.5
32.5°	7267.8	6110.9	6033.5	6542.6	7669.9	8937.0	9714.4	9123.1
35°	7619.2	6425.0	6313.4	6873.2	7921.6	9248.2	10272.7	9791.7
37.5°	7978.0	6894.1	6831.6	7349.8	8277.4	9586.3	10911.4	10549.6
40°	8438.1	7561.2	7531.4	8042.2	8752.4	9955.5	11627.7	11338.8
42.5°	8934.1	8269.9	8244.6	8837.3	9342.1	10326.2	12241.2	12016.3
45°	9438.9	9129.0	9135.0	9686.0	9962.9	10676.1	12723.6	12558.2
47.5°	10034.3	10068.7	10281.6	10566.0	10567.5	11066.3	13150.8	13063.1
50°	10790.8	11203.3	11596.4	11641.0	11178.0	11581.5	13673.6	13640.9
52.5°	11647.1	12512.1	12969.2	12827.7	11773.5	12220.3	14446.4	14444.8
55°	12663.9	13880.5	14310.9	14069.7	12486.8	13052.6	15455.9	15390.4
57.5°	13718.2	15196.7	15543.7	15229.5	13378.7	14022.0	16468.4	16121.5
60°	14857.2	16329.8	16682.9	16210.9	14379.3	14988.3	17138.5	16327.0
62.5°	15603.3	16992.6	17245.8	16793.0	15275.7	15972.6	17354.4	16081.3
65°	15641.9	16551.8	16618.9	16457.9	15656.9	16827.3	17041.7	15353.1
67.5°	14578.9	14632.5	14720.3	14893.0	14842.4	16446.1	15835.6	13652.7
70°	12305.2	11590.4	11879.2	12046.0	12421.4	14628.0	13606.5	11103.5
72.5°	9409.0	8365.2	8692.8	8636.2	9416.5	11998.4	10409.6	8552.9
75°	6772.1	5704.3	5729.7	5732.7	6766.0	9577.3	7098.0	6073.7
77.5°	4602.6	4036.8	4120.0	4068.0	4528.0	7503.2	5110.3	4377.7
80°	3147.8	3132.8	3150.7	3028.6	3019.7	4849.7	3783.7	3491.7
82.5°	2334.8	2157.5	2132.2	2002.7	2313.9	3707.7	2872.3	2509.0
85°	1842.0	1194.1	1037.8	1252.2	2004.2	3411.4	1751.1	1286.6
87.5°	780.3	469.0	284.5	562.9	1113.8	2500.1	485.4	250.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)