

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: P270588

Luminaire Tested: **NAV-AF-05-D-UNV-SL2-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270588  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
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-SL2-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20692.6 lumens  
Efficiency: N/A  
Efficacy: 98.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 210  
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

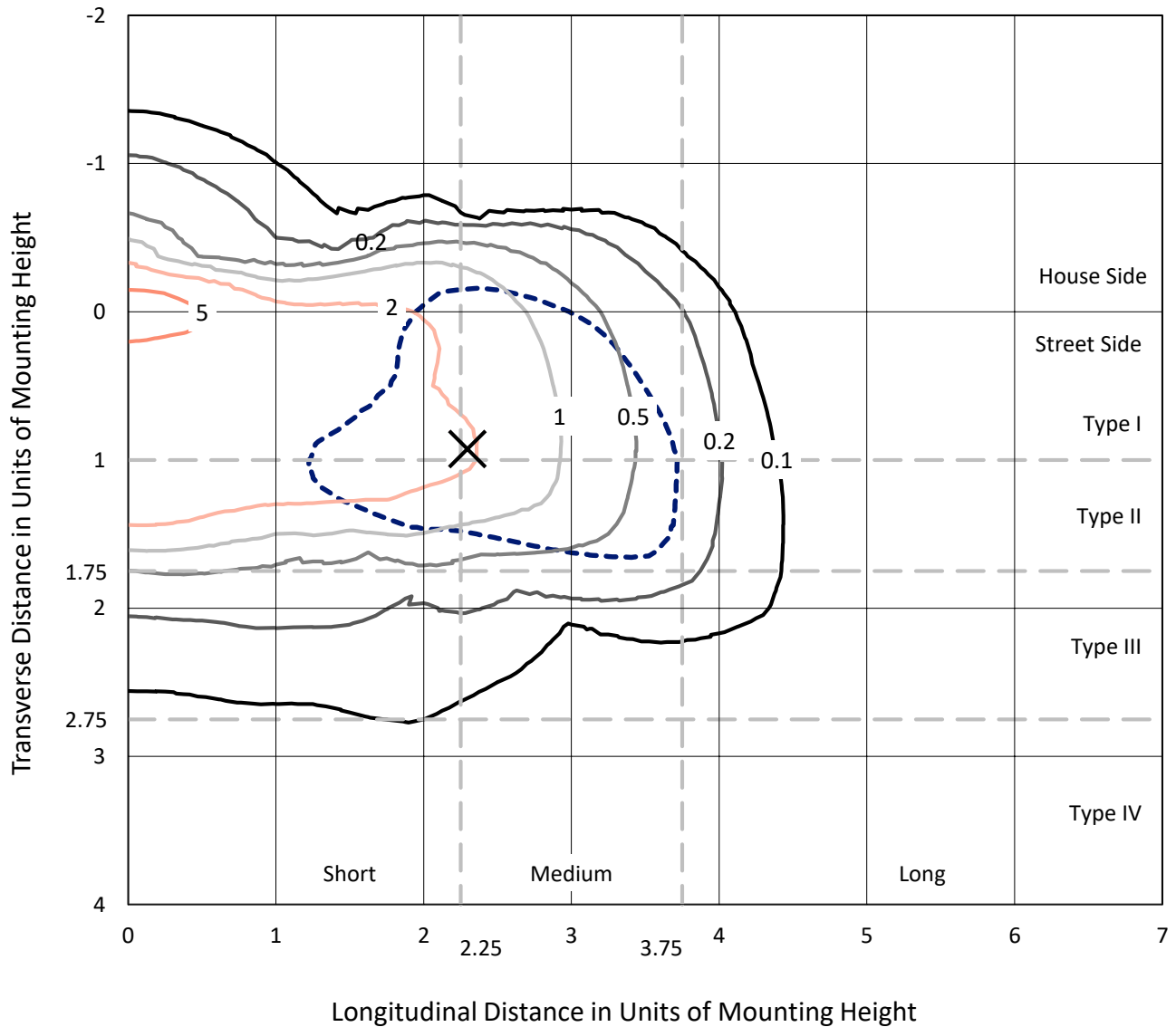


REPORT NUMBER: P270588

CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

### Iso-Footcandle Lines of Horizontal Illumination

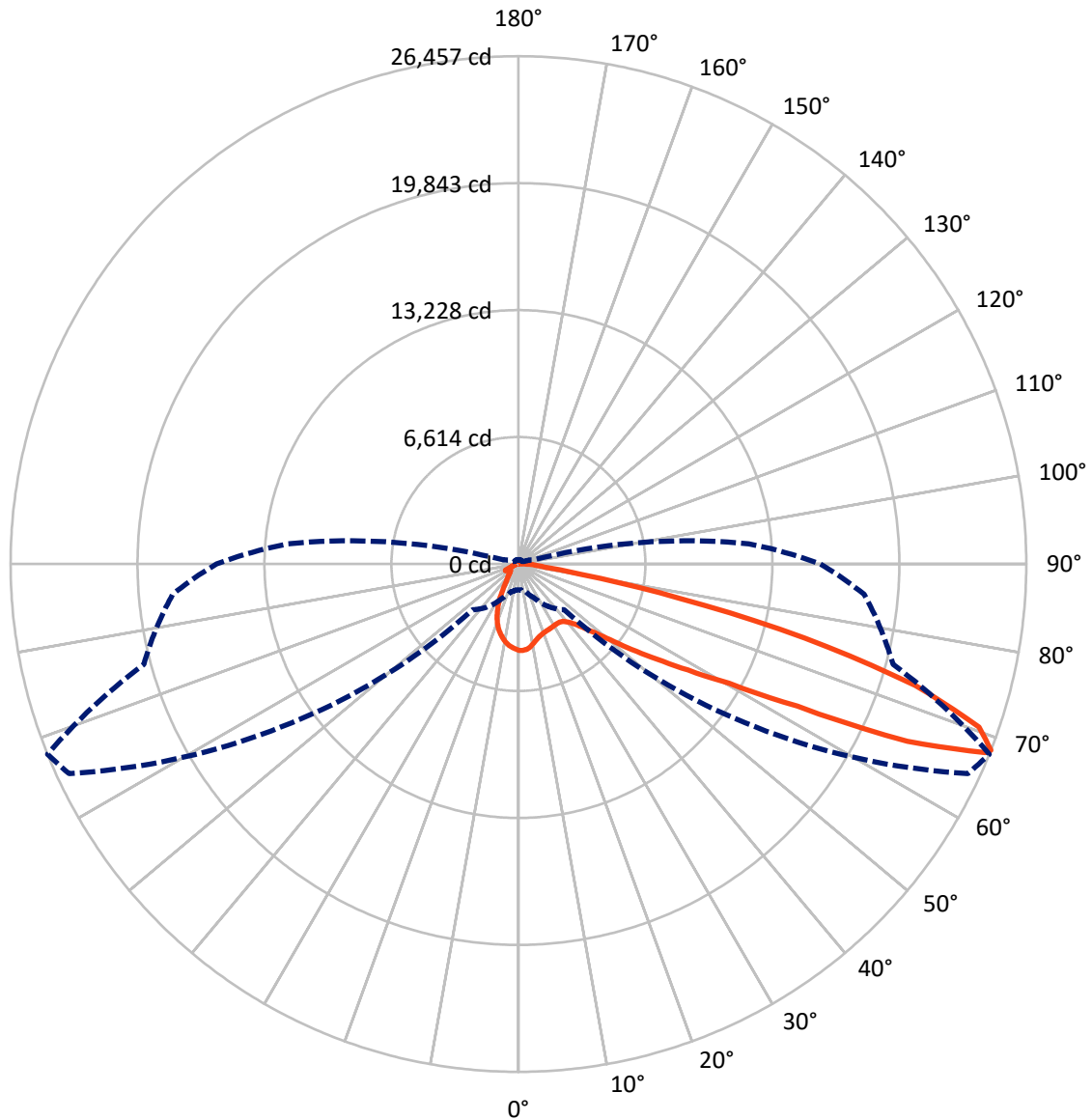
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P270588  
CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P270588

CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

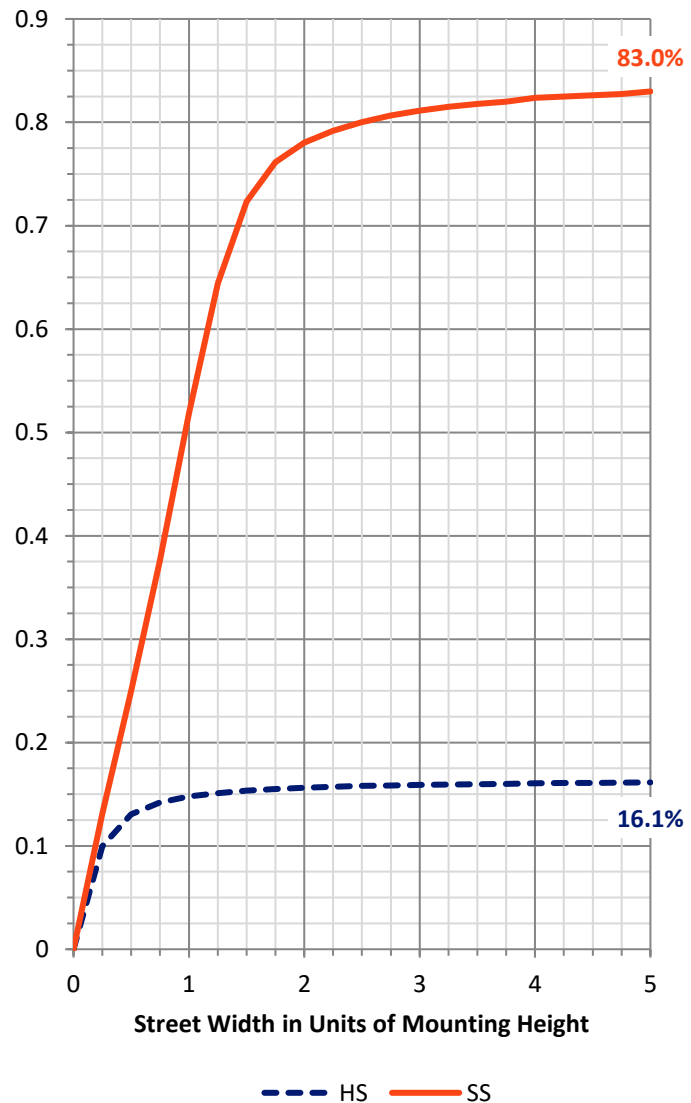
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3385.4	0.0	3385.4
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	17307.2	0.0	17307.2
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	20692.6	0.0	20692.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	385.8	1.9
10°-20°	894.8	4.3
20°-30°	1210.2	5.8
30°-40°	1706.3	8.2
40°-50°	2805.8	13.6
50°-60°	4349.2	21.0
60°-70°	5639.0	27.3
70°-80°	3236.0	15.6
80°-90°	465.6	2.3
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°	20692.6	100.0
0°-180°	20692.6	100.0

**Coefficient of Utilization**



REPORT NUMBER: P270588

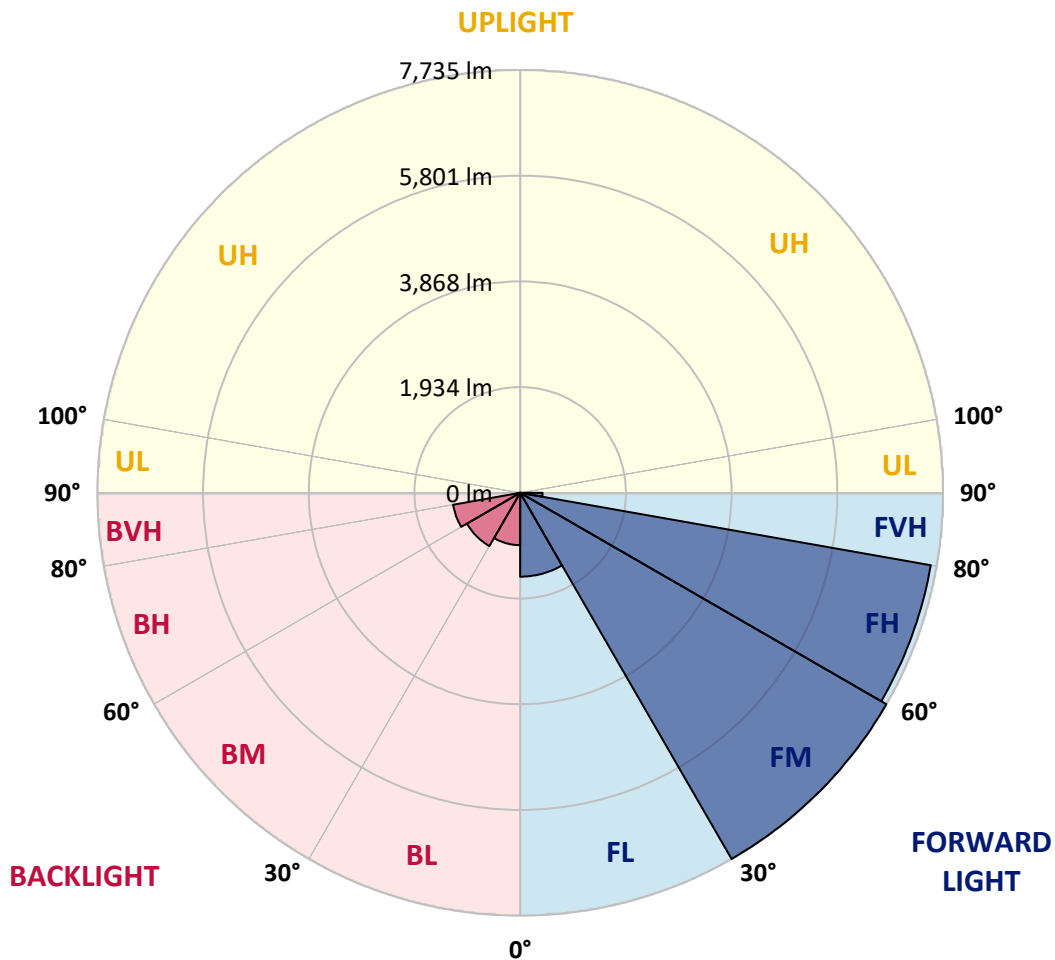
CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1533.7	7.4			
FM	(30°-60°)	7735.2	37.4			
FH	(60°-80°)	7628.2	36.9			G4/12000
FVH	(80°-90°)	410.1	2.0			G3/500
BL	(0°-30°)	957.1	4.6	B2/1000		
BM	(30°-60°)	1126.0	5.4	B2/2500		
BH	(60°-80°)	1246.8	6.0	B3/2500		G3/2500
BVH	(80°-90°)	55.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium





REPORT NUMBER: P270588

CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6
2.5°	4382.2	4417.3	4417.3	4443.0	4466.1	4485.0	4501.1	4501.1	4501.1	4490.4	4480.8
5°	3921.3	3968.6	3975.4	4040.2	4125.3	4229.5	4345.7	4448.4	4468.7	4506.5	4521.4
7.5°	3600.9	3615.8	3641.5	3686.0	3772.6	3901.0	4083.4	4313.3	4368.6	4487.7	4549.8
10°	3373.9	3386.0	3407.6	3452.2	3530.7	3646.8	3826.7	4125.3	4217.4	4428.1	4551.3
12.5°	3207.6	3217.0	3237.3	3277.8	3357.7	3461.7	3645.5	3956.4	4070.0	4368.6	4570.0
15°	3077.9	3094.0	3110.3	3149.5	3230.6	3330.6	3517.1	3833.4	3956.4	4321.3	4605.3
17.5°	3026.5	3034.6	3037.3	3057.6	3130.6	3231.9	3418.5	3746.9	3874.0	4283.6	4632.3
20°	3058.9	3060.3	3033.1	3019.7	3061.7	3154.8	3335.9	3682.1	3811.8	4249.7	4643.1
22.5°	3200.8	3200.8	3130.6	3071.0	3042.6	3100.8	3280.6	3637.4	3778.0	4224.1	4643.1
25°	3471.2	3459.1	3349.5	3231.9	3106.2	3081.8	3245.4	3609.0	3752.3	4210.5	4625.6
27.5°	3826.7	3815.9	3676.7	3502.2	3275.2	3122.4	3233.3	3586.0	3726.7	4190.2	4587.6
30°	4259.3	4249.7	4091.6	3863.3	3528.0	3250.8	3261.7	3569.9	3706.3	4156.5	4524.1
32.5°	4690.4	4685.0	4559.3	4325.5	3876.6	3468.4	3335.9	3567.1	3695.5	4115.9	4447.1
35°	5124.3	5124.3	5047.2	4849.9	4345.7	3795.6	3491.4	3617.1	3715.7	4094.4	4380.9
37.5°	5765.1	5739.4	5596.0	5391.9	4936.5	4220.0	3742.9	3722.5	3794.3	4130.8	4359.3
40°	6757.2	6682.9	6324.5	5981.3	5581.2	4763.4	4110.6	3926.8	3970.0	4255.1	4410.6
42.5°	7795.2	7677.6	7203.1	6654.5	6247.5	5433.8	4593.0	4257.8	4256.4	4495.7	4574.2
45°	8686.0	8625.3	8111.5	7415.5	7008.5	6188.1	5202.8	4749.9	4701.2	4868.9	4889.1
47.5°	9203.8	9163.3	8853.6	8221.1	7911.6	7078.9	5975.9	5432.5	5340.6	5440.7	5409.6
50°	9060.5	9099.7	9010.4	8687.4	8882.0	8330.5	6961.2	6367.8	6193.5	6293.5	6217.8
52.5°	8306.2	8411.6	8491.4	8553.7	9440.3	10005.3	8199.4	7535.7	7391.2	7373.6	7300.5
55°	6947.8	7115.4	7366.8	7823.7	9290.2	11350.3	10362.2	8948.2	8737.5	8626.6	8654.9
57.5°	4728.3	4982.4	5524.3	6393.5	8510.4	11923.4	13560.3	10773.1	10416.1	10021.5	10113.5
60°	2604.7	2816.9	3461.7	4337.6	6730.1	11838.3	16394.7	13738.7	12615.4	11569.2	11758.5
62.5°	1685.6	1731.6	2211.4	2962.9	4130.8	10451.4	17969.5	18695.3	16315.0	13610.3	13876.6
65°	1354.5	1386.9	1622.0	2389.9	2877.8	6723.4	18039.9	23837.2	22267.9	16383.9	16392.1
67.5°	1323.4	1338.1	1474.7	2010.0	2699.3	3660.5	15593.1	25864.8	26228.4	19657.8	18074.9
68°	1342.2	1359.9	1497.7	1947.9	2698.0	3373.9	14411.9	25833.7	26456.9	20205.2	18074.9
70°	1184.1	1205.7	1527.4	2015.3	2583.0	2900.7	9868.8	24461.7	25464.8	21463.7	17150.4
72.5°	619.1	601.5	755.7	1591.0	2907.5	3022.3	5213.6	20436.4	21606.9	19878.1	14817.4
75°	482.6	439.4	423.1	628.5	2557.5	3134.5	3027.7	14525.5	15409.3	14329.5	9904.0
77.5°	454.2	401.5	370.5	371.7	1125.9	3261.7	2449.3	8548.1	8548.1	6835.6	3160.2
80°	364.9	316.4	296.0	337.9	543.4	3006.2	2556.0	3895.6	3322.6	1766.6	870.5
82.5°	240.6	215.0	216.3	274.4	412.2	2007.4	2960.3	1923.5	1445.0	782.7	512.4
85°	152.7	131.2	146.0	192.0	308.2	894.8	2930.5	1336.9	957.1	439.4	255.5
87.5°	77.1	59.5	73.0	100.0	187.8	256.8	2412.8	1193.6	709.7	182.4	139.2
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: P270588

CATALOG NUMBER: NAV-AF-05-D-UNV-SL2-7027-800

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6	4502.6
2.5°	4480.8	4451.1	4436.3	4411.9	4382.2	4352.5	4332.2	4322.7	4317.3	4319.9	4318.7
5°	4513.4	4474.2	4410.6	4319.9	4226.7	4128.2	4052.4	3994.3	3957.8	3947.0	3944.3
7.5°	4537.7	4480.8	4361.9	4197.1	4037.5	3864.5	3717.1	3599.6	3519.7	3483.4	3482.0
10°	4533.6	4460.7	4272.7	4029.4	3795.6	3541.5	3310.3	3112.9	2969.6	2900.7	2898.0
12.5°	4537.7	4437.6	4163.3	3833.4	3498.2	3134.5	2791.3	2484.4	2270.8	2169.4	2165.5
15°	4553.9	4413.4	4051.0	3614.4	3150.9	2637.2	2146.5	1761.2	1566.6	1500.3	1500.3
17.5°	4552.5	4372.8	3921.3	3360.3	2738.6	2050.6	1465.2	1227.4	1208.4	1269.2	1278.6
20°	4525.5	4307.9	3753.7	3058.9	2254.7	1419.3	993.4	959.7	1111.2	1278.6	1297.6
22.5°	4483.6	4224.1	3560.4	2708.7	1691.0	924.5	766.4	817.7	1023.2	1231.3	1261.1
25°	4425.5	4122.7	3338.7	2301.9	1124.6	665.0	639.4	702.8	847.6	986.8	1008.3
27.5°	4340.3	3994.3	3096.7	1861.3	717.7	547.4	556.9	601.5	663.7	723.1	735.4
30°	4233.5	3844.2	2833.2	1373.2	544.7	489.2	505.6	532.5	559.6	597.5	605.5
32.5°	4125.3	3691.4	2558.8	943.5	475.8	458.2	474.5	489.2	512.4	537.9	543.4
35°	4028.1	3549.6	2276.2	658.3	446.1	438.0	446.1	455.5	478.4	504.2	507.0
37.5°	3957.8	3433.3	1981.7	520.4	428.5	420.3	424.4	428.5	455.5	493.3	497.4
40°	3948.3	3356.2	1682.9	467.7	414.9	404.1	401.5	404.1	439.4	482.6	486.6
42.5°	4040.2	3360.3	1390.8	446.1	404.1	392.0	381.2	386.6	417.7	451.5	454.2
45°	4257.8	3454.9	1138.2	436.5	394.6	385.3	369.1	371.7	386.6	404.1	406.8
47.5°	4641.7	3661.9	944.8	431.1	386.6	378.5	358.2	350.1	351.4	360.8	360.8
50°	5255.4	4007.8	827.2	425.7	379.9	364.9	342.0	325.7	321.8	327.2	328.5
52.5°	6170.5	4601.2	770.4	414.9	367.6	347.4	321.8	305.5	298.7	304.2	304.2
55°	7407.3	5548.7	743.4	400.1	352.9	325.7	302.8	289.3	283.9	287.8	287.8
57.5°	8817.1	6780.1	789.4	379.9	333.9	302.8	286.6	277.0	273.1	277.0	278.5
60°	10491.9	8391.3	1105.8	354.1	313.6	282.4	273.1	267.6	264.9	269.0	269.0
62.5°	12718.2	10535.1	1711.2	333.9	291.9	263.7	260.9	258.2	255.5	259.5	259.5
65°	15121.4	12485.7	1761.2	321.8	273.1	247.4	248.7	248.7	246.0	250.1	250.1
67.5°	15886.5	12316.8	984.1	306.9	250.1	231.1	236.6	236.6	235.1	239.3	238.0
68°	15724.3	12049.1	857.0	302.8	246.0	227.1	232.5	233.9	232.5	236.6	235.1
70°	14515.9	10578.4	563.6	279.8	228.3	213.5	221.7	223.0	221.7	227.1	225.7
72.5°	11982.9	7934.5	416.4	244.7	206.8	196.0	204.2	205.4	206.8	212.2	210.8
75°	7610.1	4382.2	328.5	208.1	185.2	175.7	183.9	187.8	190.6	198.6	194.7
77.5°	2084.3	1330.1	266.3	177.1	159.4	155.4	160.8	166.2	169.1	178.5	171.7
80°	730.0	588.0	221.7	150.0	132.5	131.2	136.5	141.9	144.6	152.7	144.6
82.5°	443.4	383.8	177.1	117.6	104.1	102.8	109.6	115.0	117.6	117.6	112.2
85°	231.1	202.7	129.7	82.5	71.7	67.6	79.8	86.4	87.9	86.4	82.5
87.5°	129.7	115.0	68.9	39.2	32.5	33.7	42.0	51.4	55.4	54.1	51.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)