

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: P270680

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270680  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)  
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-SL3-7027-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26567.7 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 333  
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

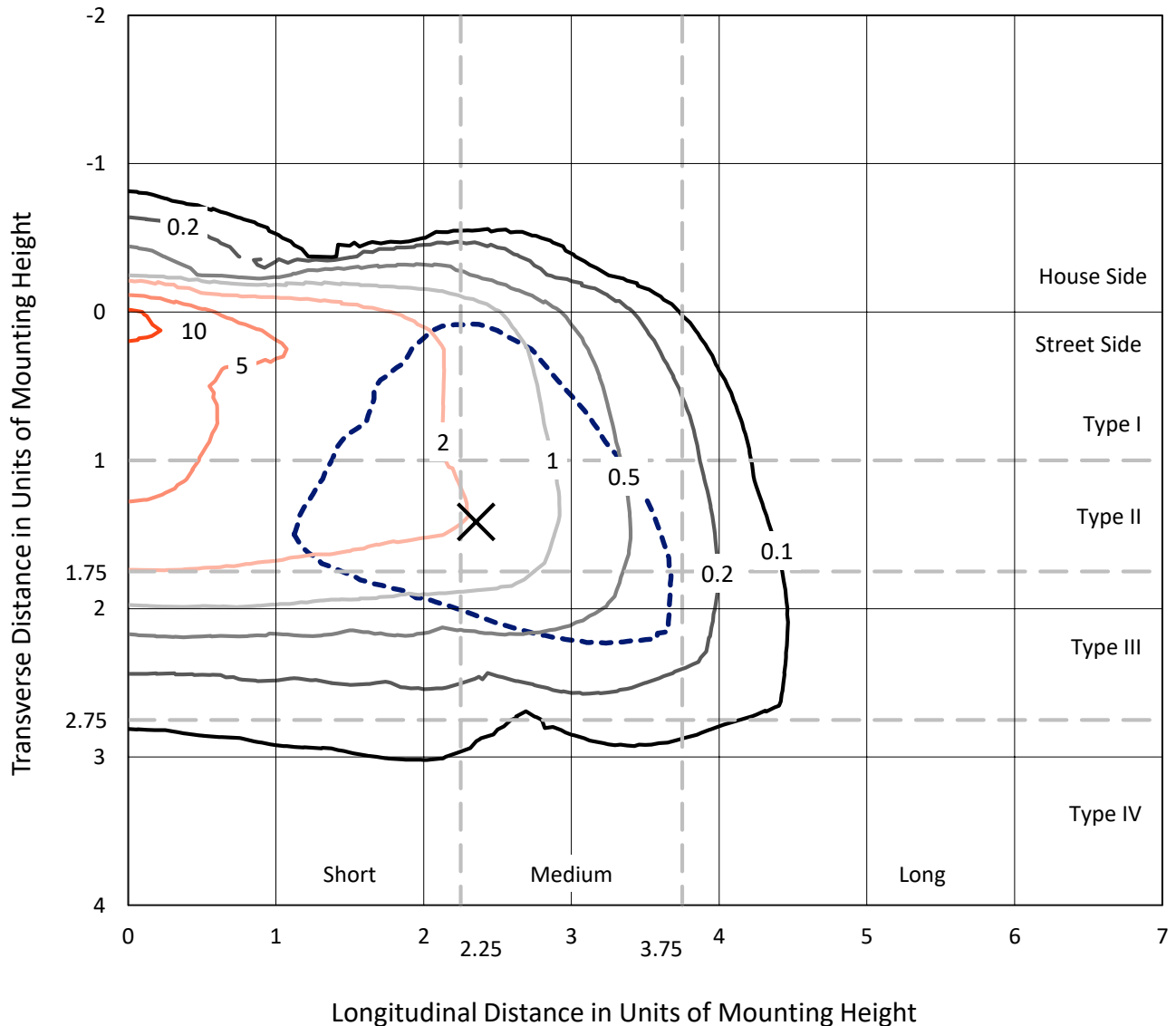


REPORT NUMBER: P270680

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

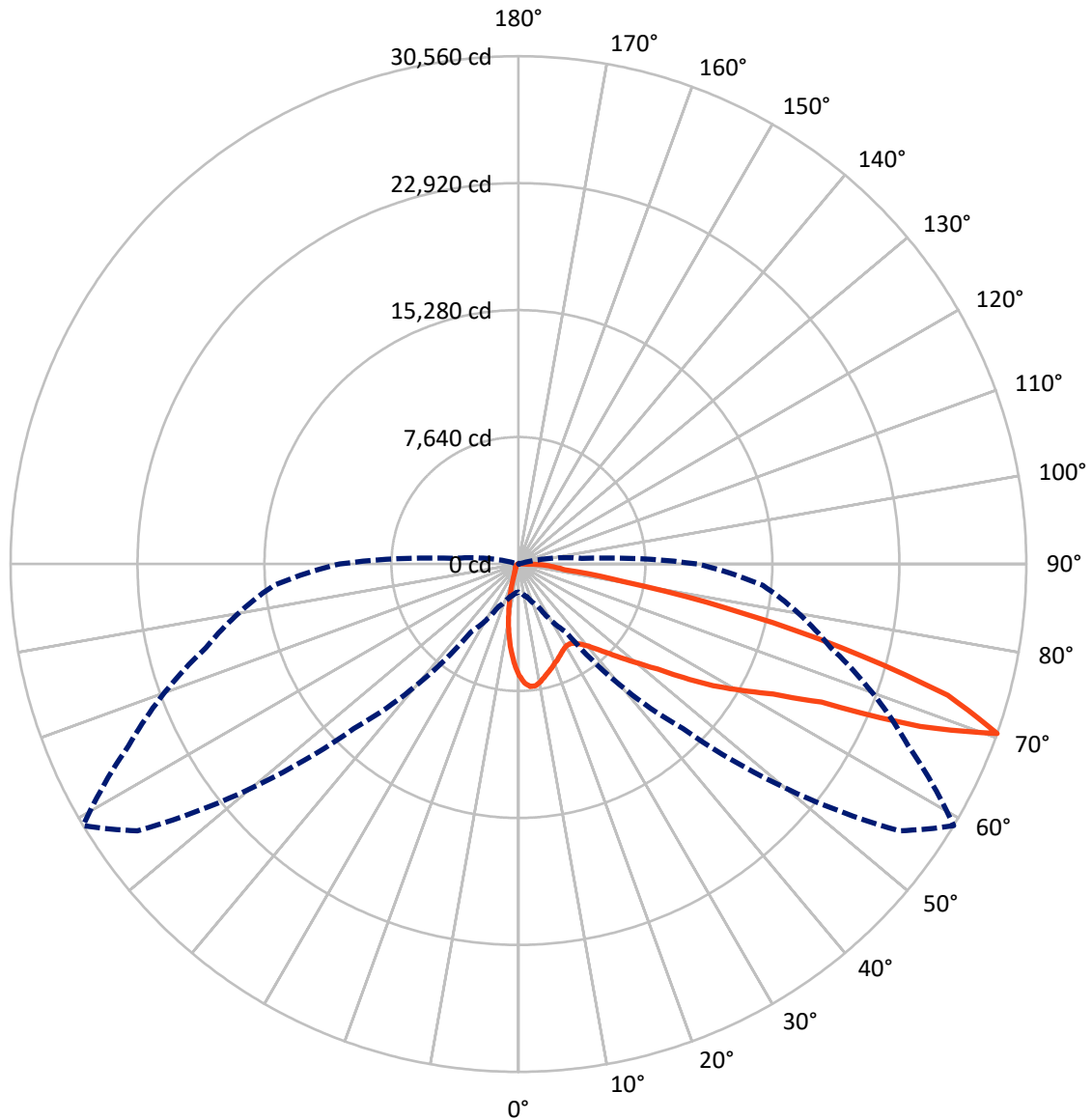


Based on 25 foot mounting height. Maximum calculated value = 11.4 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P270680

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7027-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P270680

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7027-HSS

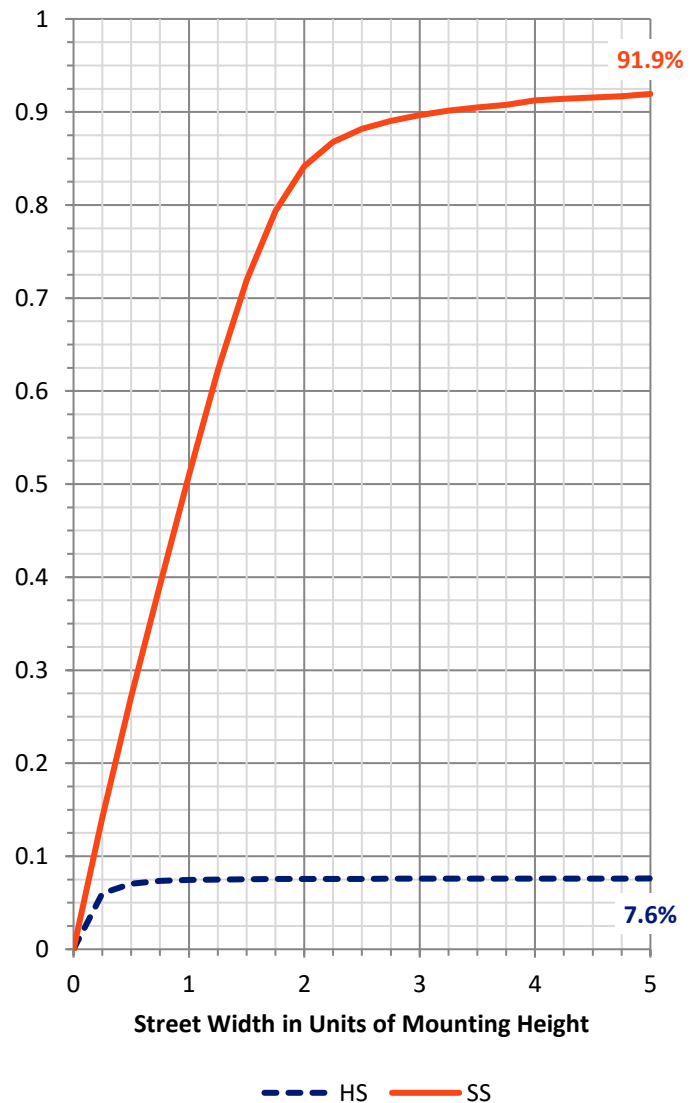
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2042.4	0.0	2042.4
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	24525.4	0.0	24525.4
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	26567.7	0.0	26567.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	552.4	2.1
10°-20°	1158.7	4.4
20°-30°	1568.5	5.9
30°-40°	2263.5	8.5
40°-50°	3759.2	14.1
50°-60°	5750.1	21.6
60°-70°	7151.8	26.9
70°-80°	3953.5	14.9
80°-90°	409.9	1.5
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°	26567.7	100.0
0°-180°	26567.7	100.0



REPORT NUMBER: P270680

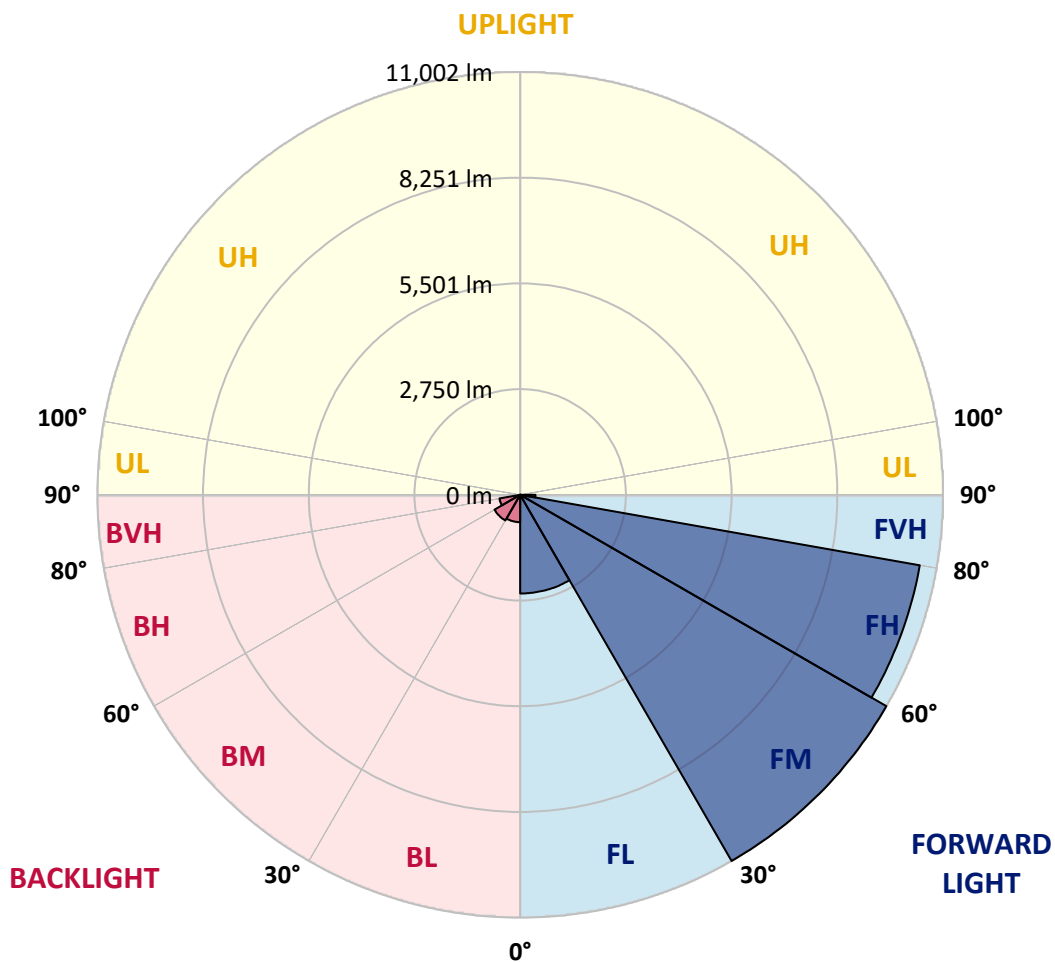
CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2567.9	9.7			
FM	(30°-60°)	11002.0	41.4			
FH	(60°-80°)	10557.5	39.7			G4/12000
FVH	(80°-90°)	398.1	1.5			G3/500
BL	(0°-30°)	711.7	2.7	B2/1000		
BM	(30°-60°)	770.9	2.9	B1/1000		
BH	(60°-80°)	547.9	2.1	B2/1000		G2/1000
BVH	(80°-90°)	11.8	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type III Medium





REPORT NUMBER: P270680

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1
2.5°	7593.8	7581.9	7531.7	7521.7	7465.5	7353.3	7223.1	7171.0	7064.7	6896.4	6710.0
5°	7720.2	7726.1	7730.2	7708.0	7700.1	7607.8	7463.6	7401.4	7259.2	6982.5	6641.9
7.5°	7247.2	7263.2	7313.2	7335.3	7431.5	7467.6	7437.5	7397.5	7285.3	6958.5	6479.6
10°	6748.1	6778.2	6832.2	6868.4	6986.6	7082.7	7205.0	7215.0	7191.0	6878.3	6297.2
12.5°	6319.1	6347.2	6407.4	6479.6	6599.8	6724.1	6906.3	6970.6	7050.6	6826.2	6166.9
15°	5950.5	5958.5	6016.6	6106.8	6265.0	6435.5	6651.9	6746.1	6902.3	6806.2	6066.7
17.5°	5627.7	5629.8	5667.9	5750.1	5942.4	6166.9	6419.4	6543.7	6742.0	6778.2	5978.5
20°	5415.3	5413.2	5415.3	5459.4	5629.8	5896.4	6202.9	6333.2	6587.7	6744.0	5888.3
22.5°	5343.2	5333.1	5287.1	5271.1	5379.2	5613.7	5980.5	6150.9	6449.4	6734.1	5822.2
25°	5431.3	5425.4	5327.0	5235.0	5244.9	5391.3	5754.1	5962.4	6341.2	6770.2	5806.1
27.5°	5715.9	5703.9	5553.6	5373.2	5258.9	5285.0	5585.7	5804.0	6255.1	6858.3	5828.2
30°	6088.7	6090.7	5930.4	5712.0	5443.4	5295.1	5495.6	5701.9	6197.0	6990.6	5876.3
32.5°	6503.5	6501.6	6387.3	6134.9	5792.1	5479.4	5535.5	5709.9	6205.0	7185.1	5968.5
35°	6932.5	6910.4	6872.4	6649.9	6249.0	5802.2	5717.9	5846.2	6289.2	7441.5	6124.7
37.5°	7427.5	7419.6	7457.5	7223.1	6814.3	6277.0	6038.5	6124.7	6501.6	7820.4	6377.2
40°	8215.1	8171.1	8189.0	7870.4	7451.5	6916.4	6487.5	6509.6	6840.2	8321.4	6776.2
42.5°	9716.2	9537.9	9203.2	8605.9	8152.9	7625.9	7074.8	7036.8	7319.3	8928.7	7301.2
45°	11510.1	11305.6	10461.8	9417.7	8854.5	8387.6	7800.3	7698.0	7908.5	9652.2	7978.7
47.5°	13007.2	12786.7	11668.4	10265.4	9567.9	9173.1	8604.0	8483.8	8613.9	10491.9	8792.3
50°	13518.2	13396.0	12413.9	10970.9	10287.5	10055.0	9612.0	9411.6	9443.7	11397.8	9742.4
52.5°	13283.7	13241.6	12584.3	11453.8	10952.9	11029.0	10716.4	10505.9	10469.8	12387.8	10792.5
55°	12788.7	12768.7	12448.0	11722.4	11540.0	11920.9	12265.5	12083.2	11742.6	13440.0	11660.3
57.5°	12081.2	12157.4	12387.8	12239.5	12261.5	12862.8	13704.6	13798.9	13289.7	14277.8	12303.6
60°	10191.4	10395.6	11452.0	12794.6	13822.8	14430.2	15245.9	15422.2	14600.5	14851.0	13047.3
62.5°	7533.7	7826.4	9331.5	11798.6	14682.6	17410.3	17296.1	17218.0	15851.1	15618.7	14400.1
65°	4425.2	4767.9	6040.7	9219.2	13386.0	19326.3	21124.2	20041.8	17757.1	17214.0	16554.5
67.5°	2204.6	2206.5	2781.8	4866.2	9892.7	17989.5	26711.7	26086.4	21809.5	19564.8	17404.3
70°	1695.6	1741.6	2058.2	2828.0	5002.4	14011.3	27992.4	30559.8	25882.1	19460.6	14766.8
72.5°	1437.0	1467.0	1831.9	2461.1	3739.9	7692.0	24232.6	27012.4	24697.6	16442.2	10884.8
75°	1034.2	1058.3	1621.4	2232.6	3443.3	3816.0	16622.6	20033.8	18530.6	11566.1	5990.4
77.5°	256.6	254.5	565.2	1811.8	3080.5	3178.7	9537.9	12846.8	10632.2	4735.9	1539.2
80°	114.3	110.2	128.3	380.8	2866.0	3000.2	4194.7	6487.5	4078.6	767.6	471.0
82.5°	80.2	76.1	80.2	140.2	958.0	2783.8	2535.2	2811.9	1493.2	262.6	200.4
85°	26.1	24.1	44.0	118.2	268.6	1605.4	2473.2	2100.3	1110.3	112.3	134.2
87.5°	4.0	4.0	16.0	64.0	78.2	535.1	1451.0	1455.1	499.1	66.1	60.1
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: P270680

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1	6718.1
2.5°	6615.7	6497.6	6331.3	6164.9	6014.5	5860.3	5735.9	5677.8	5651.7	5615.8	5537.5
5°	6463.5	6249.0	5884.3	5525.6	5190.9	4870.3	4595.5	4439.2	4270.9	4262.8	4180.7
7.5°	6219.0	5914.4	5339.2	4781.9	4270.9	3781.9	3361.0	3088.5	2902.1	2785.9	2705.7
10°	5946.4	5555.6	4794.1	4010.4	3314.9	2661.6	2120.4	1767.7	1553.2	1445.1	1382.9
12.5°	5730.0	5238.9	4256.9	3270.8	2399.1	1649.5	1146.3	889.9	775.6	731.5	711.5
15°	5543.6	4948.4	3753.8	2609.4	1601.4	948.0	663.4	579.1	561.3	561.3	559.1
17.5°	5355.2	4667.8	3264.8	1960.1	1008.1	621.3	523.2	511.0	513.1	519.1	519.1
20°	5176.8	4401.2	2793.8	1397.0	661.4	497.0	475.1	471.0	477.0	485.1	483.0
22.5°	5032.6	4166.7	2352.9	960.0	509.1	450.9	436.9	430.8	434.9	440.9	438.9
25°	4930.3	3966.2	1948.1	669.3	443.0	410.9	394.9	386.8	382.8	386.8	384.8
27.5°	4868.2	3797.9	1567.3	503.1	396.8	370.8	350.7	334.7	324.6	324.6	320.6
30°	4828.1	3639.7	1228.5	416.9	358.8	330.7	302.5	280.6	264.6	260.6	258.5
32.5°	4826.1	3503.3	917.9	368.8	322.8	290.6	256.6	228.4	210.5	206.4	204.5
35°	4876.2	3393.1	675.4	332.7	290.6	252.6	214.4	184.4	168.3	168.3	166.4
37.5°	5006.4	3328.9	511.0	304.6	264.6	220.4	180.4	152.4	138.2	142.3	142.3
40°	5248.9	3316.9	416.9	282.5	242.5	192.3	146.3	124.2	118.2	124.2	124.2
42.5°	5619.7	3381.0	370.8	266.5	222.5	164.3	122.3	106.2	104.3	110.2	110.2
45°	6102.7	3507.3	344.7	252.6	200.4	136.4	102.1	92.2	90.2	98.3	98.3
47.5°	6687.9	3677.8	320.6	236.6	178.4	112.3	86.1	78.2	78.2	86.1	88.2
50°	7381.5	3908.2	296.6	220.4	160.3	94.2	72.1	66.1	68.1	76.1	78.2
52.5°	8179.1	4190.8	274.6	206.4	140.2	76.1	60.1	56.1	58.1	66.1	68.1
55°	8866.5	4437.3	248.6	192.3	114.3	62.2	50.0	48.1	50.0	60.1	60.1
57.5°	9465.8	4673.7	224.4	170.4	90.2	50.0	40.1	40.1	44.0	54.1	56.1
60°	10261.3	5046.6	204.5	144.3	68.1	38.1	32.1	34.0	40.1	48.1	50.0
62.5°	11670.4	5679.9	178.4	120.3	50.0	30.1	26.1	28.0	36.1	46.2	48.1
65°	13434.1	6279.2	148.3	100.3	38.1	22.1	20.0	26.1	36.1	46.2	48.1
67.5°	13253.7	5461.3	116.2	80.2	28.0	18.1	16.0	24.1	34.0	46.2	48.1
70°	10748.4	3827.9	86.1	54.1	22.1	16.0	16.0	24.1	34.0	44.0	46.2
72.5°	7455.6	2130.4	66.1	36.1	20.0	16.0	14.1	22.1	32.1	44.0	46.2
75°	3547.3	653.3	52.1	26.1	18.1	14.1	12.0	22.1	32.1	44.0	46.2
77.5°	681.5	166.4	42.1	22.1	16.0	14.1	12.0	20.0	32.1	42.1	44.0
80°	230.4	74.2	34.0	20.0	16.0	14.1	12.0	20.0	30.1	40.1	42.1
82.5°	126.2	42.1	30.1	18.1	16.0	12.0	10.1	18.1	28.0	40.1	42.1
85°	98.3	30.1	24.1	18.1	16.0	12.0	10.1	18.1	28.0	38.1	40.1
87.5°	50.0	22.1	20.0	18.1	16.0	12.0	10.1	16.0	26.1	36.1	40.1
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)