

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: P196650

Luminaire Tested: **NAV-AF-06-D-UNV-SL4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
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-SL4-7030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28381.2 lumens
Efficiency: N/A
Efficacy: 85.2 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 - G5

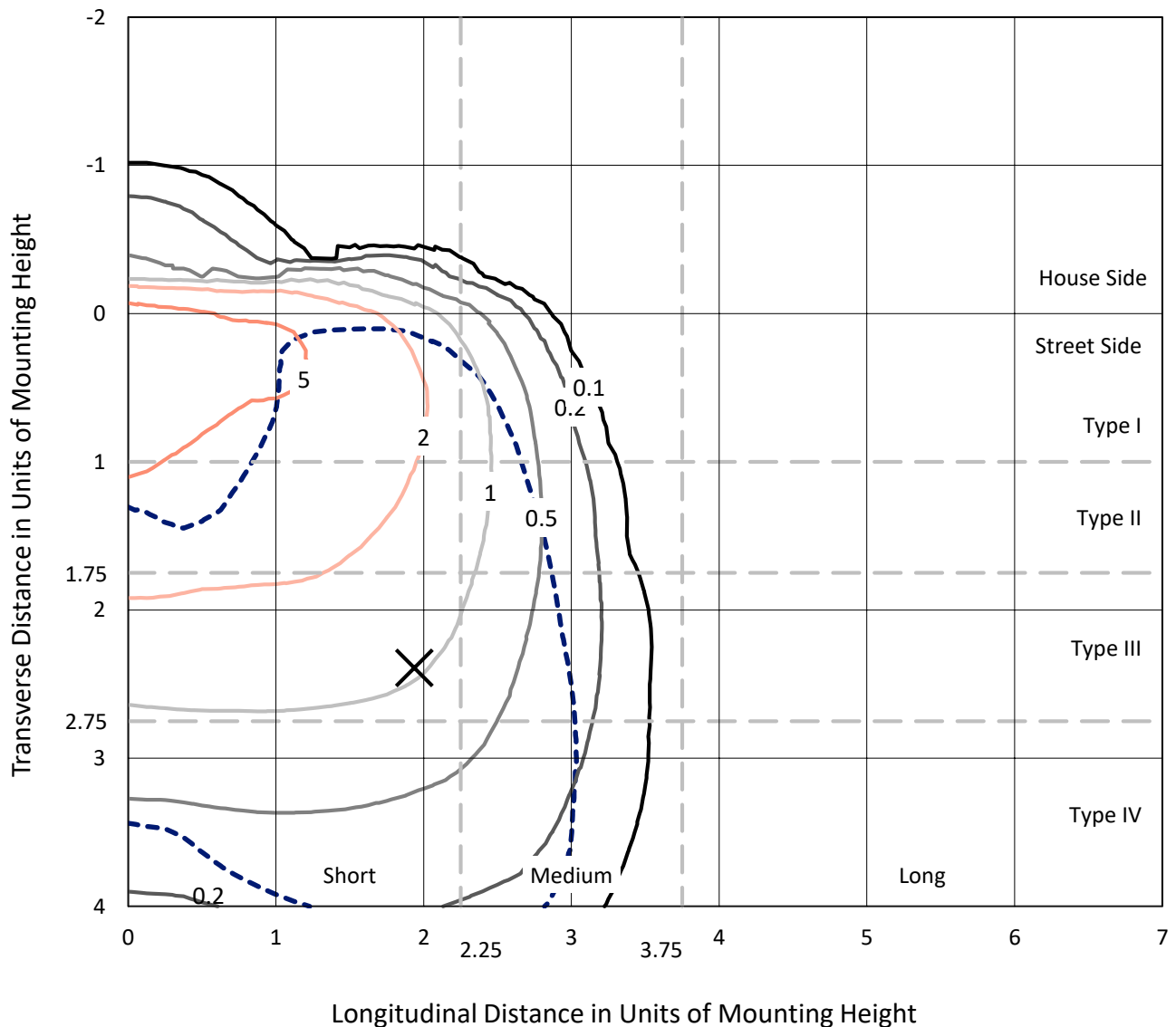
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196650
 CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

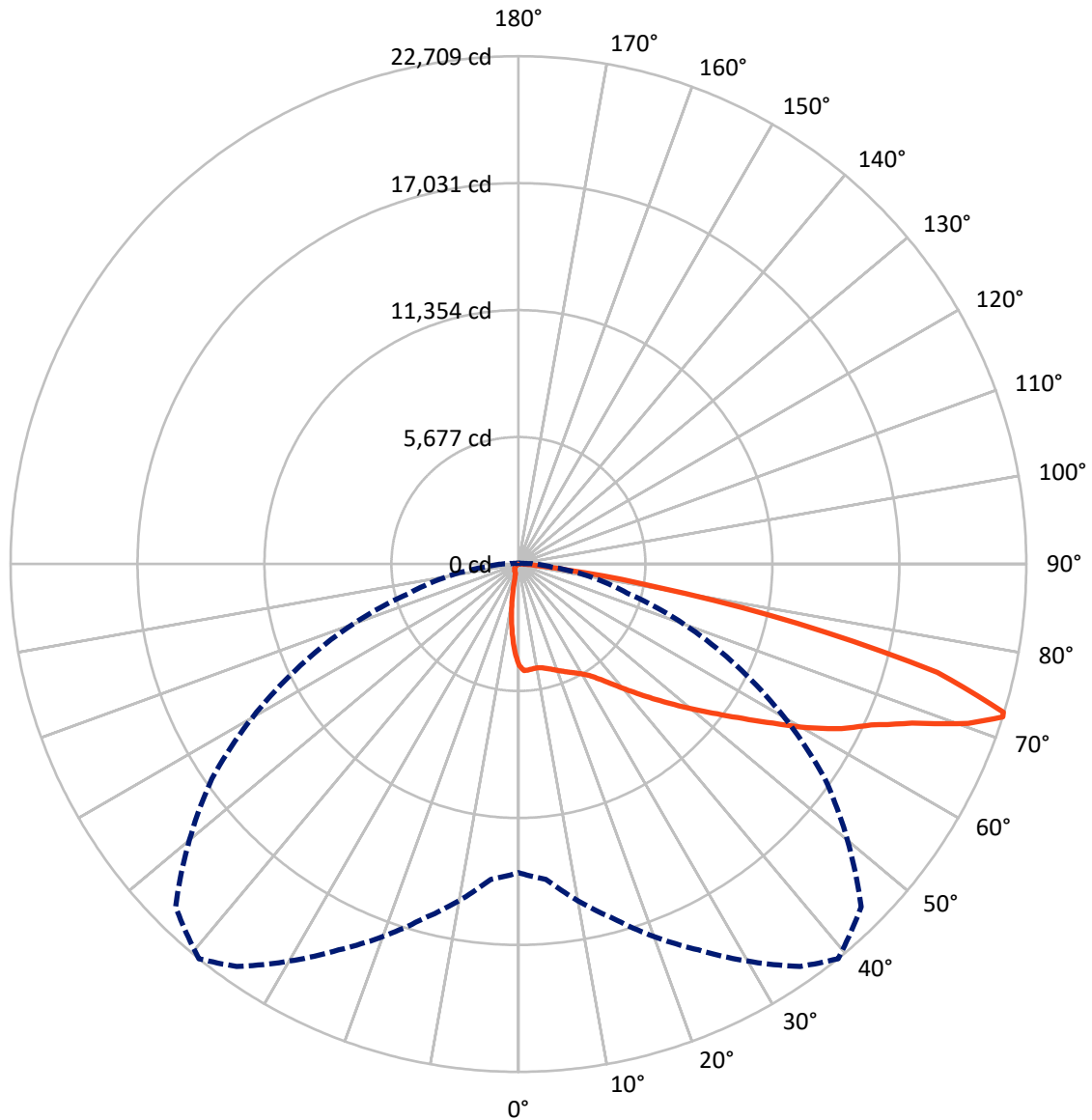
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196650
CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

REPORT NUMBER: P196650

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

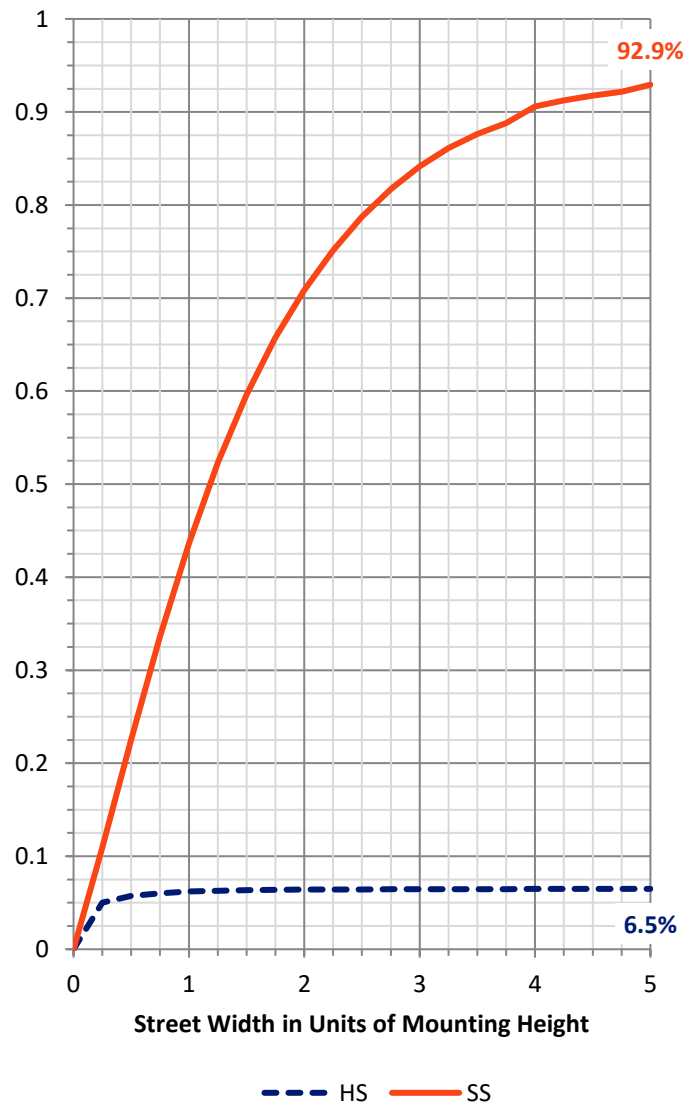
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1860.0	0.0	1860.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	26521.1	0.0	26521.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	28381.2	0.0	28381.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.5	1.3
10°-20°	894.5	3.2
20°-30°	1485.6	5.2
30°-40°	2367.8	8.3
40°-50°	3908.3	13.8
50°-60°	5902.3	20.8
60°-70°	7688.7	27.1
70°-80°	5195.4	18.3
80°-90°	569.0	2.0
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°	28381.2	100.0
0°-180°	28381.2	100.0



REPORT NUMBER: P196650

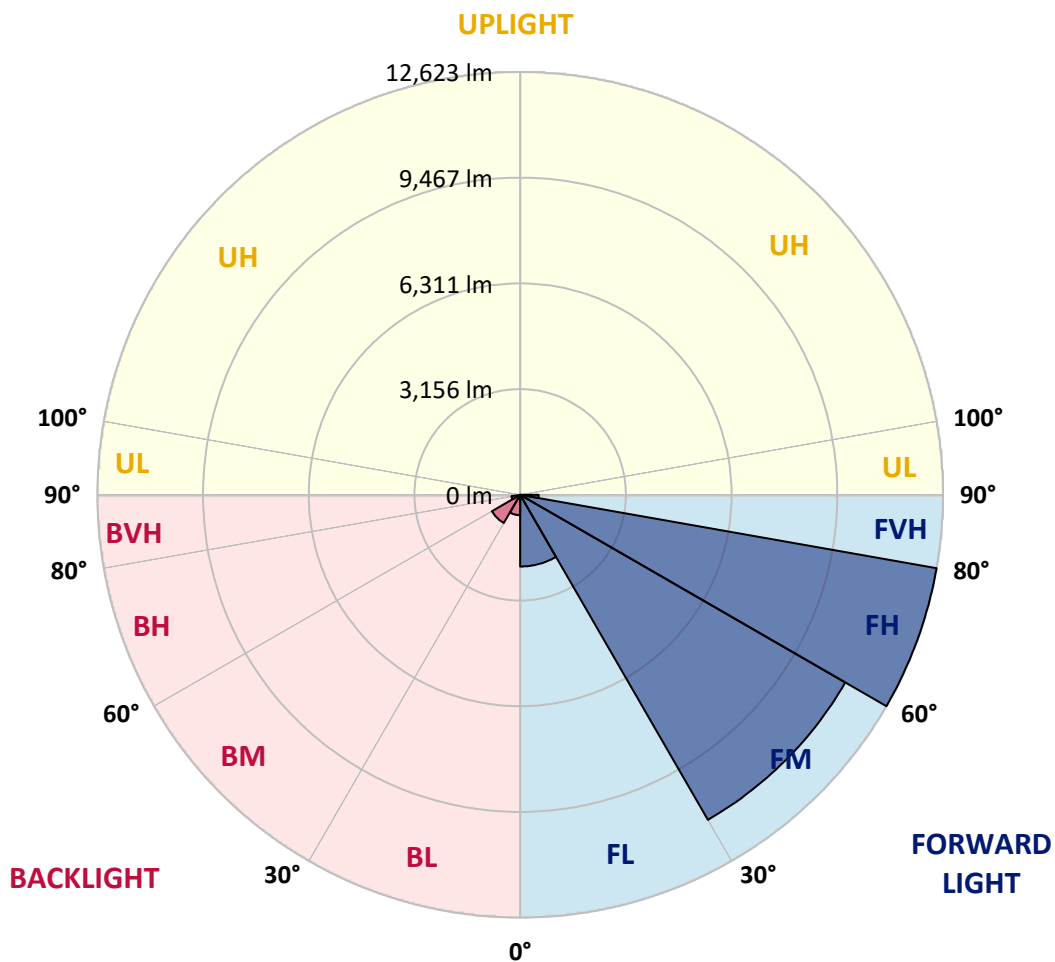
CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2140.6	7.5			
FM	(30°-60°)	11205.2	39.5			
FH	(60°-80°)	12622.7	44.5			G5
FVH	(80°-90°)	552.6	1.9			G4/750
BL	(0°-30°)	609.1	2.1	B2/1000		
BM	(30°-60°)	973.2	3.4	B1/1000		
BH	(60°-80°)	261.4	0.9	B1/500		G1/500
BVH	(80°-90°)	16.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





REPORT NUMBER: P196650

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6
2.5°	4837.1	4845.9	4834.8	4814.8	4785.8	4768.0	4743.4	4689.9	4622.9	4564.9	4497.9
5°	4875.0	4879.5	4866.1	4828.1	4783.6	4759.0	4727.7	4669.7	4600.6	4520.3	4399.8
7.5°	4886.2	4884.0	4868.4	4821.5	4752.3	4721.1	4667.5	4596.1	4524.8	4451.1	4314.9
10°	4881.7	4881.7	4870.6	4826.0	4747.9	4718.8	4658.6	4582.8	4493.5	4419.9	4274.9
12.5°	4866.1	4875.0	4868.4	4843.8	4785.8	4763.4	4709.9	4634.1	4549.3	4473.4	4319.4
15°	4886.2	4899.6	4913.0	4904.0	4870.6	4850.4	4801.4	4723.3	4654.1	4573.8	4408.7
17.5°	4966.5	4995.6	5026.8	5028.9	4993.2	4957.5	4901.8	4821.5	4754.5	4680.8	4502.5
20°	5118.2	5140.5	5198.5	5209.7	5138.4	5087.0	5008.9	4915.2	4848.3	4785.8	4589.4
22.5°	5343.6	5368.1	5415.0	5399.4	5278.9	5218.7	5120.4	5013.4	4944.2	4908.5	4689.9
25°	5685.0	5691.7	5702.8	5633.6	5435.0	5368.1	5247.6	5127.1	5071.4	5066.9	4832.6
27.5°	6086.5	6095.5	6046.4	5892.5	5609.1	5522.1	5385.9	5276.6	5249.9	5283.3	5013.4
30°	6546.2	6548.4	6412.3	6162.4	5809.9	5713.9	5573.5	5452.9	5477.3	5559.9	5245.4
32.5°	7016.9	6994.6	6807.2	6481.5	6084.3	5968.3	5847.8	5727.4	5798.7	5966.1	5584.6
35°	7447.5	7438.6	7217.7	6838.4	6441.3	6338.6	6251.6	6124.4	6240.5	6512.7	6046.4
37.5°	7878.1	7871.5	7619.3	7224.4	6880.8	6807.2	6742.5	6644.3	6833.9	7233.3	6664.4
40°	8353.4	8342.2	8032.0	7652.8	7391.7	7351.6	7313.7	7271.3	7594.8	8150.3	7434.1
42.5°	8940.1	8891.1	8469.3	8119.0	7954.0	7965.1	7967.4	8009.8	8516.2	9241.3	8342.2
45°	9613.9	9504.7	8908.9	8618.9	8572.1	8638.9	8705.9	8882.1	9589.4	10497.5	9346.2
47.5°	10267.6	10091.4	9415.4	9156.6	9252.5	9390.9	9551.5	9895.1	10794.3	11811.6	10256.5
50°	10829.9	10649.2	9917.4	9703.2	10008.9	10214.1	10499.7	11019.6	12065.9	12922.7	10829.9
52.5°	11271.7	11128.9	10448.5	10305.7	10847.8	11128.9	11577.3	12260.1	13266.4	13654.5	11231.6
55°	11597.5	11526.1	10957.1	10977.2	11780.5	12186.4	12744.2	13516.3	14279.3	14223.5	11532.8
57.5°	11965.5	11909.8	11490.4	11769.2	12902.7	13427.0	14071.7	14692.0	15015.5	14680.8	11827.2
60°	12342.7	12360.5	12137.4	12728.6	14290.4	14870.5	15432.8	15586.7	15646.9	15145.0	12137.4
62.5°	12628.1	12704.1	12724.2	13763.8	15713.8	16209.1	16452.4	16343.1	16329.7	15767.4	12112.8
65°	12956.2	13154.9	13485.0	14899.5	17008.0	17333.7	17507.7	17666.1	17331.5	15952.6	10921.4
67.5°	13522.9	13835.3	14578.3	16291.7	18502.8	18984.8	19477.8	19310.5	17480.9	14071.7	8319.9
70°	14285.9	14667.5	15979.3	18110.2	20530.9	21338.6	21751.4	19178.9	14841.6	9723.3	4388.6
72°	13804.1	14149.8	16412.3	19038.3	21967.7	22708.6	21675.5	16729.0	10758.5	5040.1	1470.3
72.5°	13335.5	13692.5	16273.9	19027.2	22110.6	22677.3	21182.4	15763.0	9520.3	3922.3	1013.0
75°	9252.5	9703.2	13951.4	17103.9	19966.5	19344.0	16207.0	9544.8	3449.4	673.8	334.7
77.5°	4783.6	5131.6	8462.6	12086.0	13915.6	12744.2	9578.2	4141.0	954.9	356.9	220.9
80°	2965.2	3137.0	3958.0	5954.8	7228.9	6323.1	4225.8	1673.3	611.3	212.0	176.2
82.5°	1535.0	1666.6	2492.2	2402.9	2670.7	2219.9	1559.5	1401.1	377.1	131.6	180.8
85°	504.2	535.5	1530.6	1597.5	1142.3	767.5	691.6	1336.5	109.4	84.7	153.9
87.5°	66.9	78.1	537.7	914.7	562.2	348.1	414.9	470.8	37.9	46.9	42.4
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: P196650

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6	4542.6
2.5°	4453.3	4424.4	4332.9	4241.3	4136.5	4040.6	3964.7	3915.7	3937.9	3864.3	3875.5
5°	4326.1	4252.6	4051.8	3835.3	3601.0	3382.4	3208.4	3078.9	3054.5	2942.9	2947.4
7.5°	4203.4	4083.0	3757.2	3400.2	3012.1	2697.4	2411.9	2162.0	2072.7	1981.2	1927.7
10°	4136.5	3971.5	3509.6	2989.8	2443.1	1981.2	1579.7	1265.0	1133.4	1037.5	990.7
12.5°	4156.7	3937.9	3324.4	2617.1	1898.7	1311.8	892.4	662.6	582.4	537.7	522.0
15°	4223.5	3944.7	3157.0	2253.5	1381.0	794.4	524.3	448.5	441.7	439.6	437.2
17.5°	4286.0	3951.4	2980.8	1874.2	923.7	506.4	421.6	414.9	414.9	414.9	414.9
20°	4350.7	3953.5	2786.6	1476.9	606.8	414.9	397.1	392.7	397.1	397.1	397.1
22.5°	4426.5	3969.2	2599.3	1091.1	448.5	390.5	379.2	377.1	379.2	379.2	377.1
25°	4520.3	4002.6	2396.3	780.8	406.1	374.9	363.8	361.4	363.8	361.4	361.4
27.5°	4645.2	4047.3	2159.7	560.1	388.2	359.3	348.1	348.1	348.1	345.8	345.8
30°	4805.9	4100.8	1842.8	441.7	370.4	343.6	334.7	334.7	332.4	330.2	330.2
32.5°	5035.6	4187.8	1497.1	399.4	350.2	323.5	314.5	316.9	314.5	312.4	310.1
35°	5361.5	4323.9	1155.8	377.1	330.2	303.4	294.6	294.6	294.6	290.1	290.1
37.5°	5823.3	4531.4	865.7	354.8	310.1	283.3	272.2	272.2	270.0	265.5	267.6
40°	6394.4	4792.4	626.9	334.7	290.1	261.0	252.2	247.7	243.2	238.7	238.7
42.5°	7081.6	5046.8	470.8	314.5	270.0	243.2	232.0	227.6	218.6	214.1	212.0
45°	7851.4	5316.8	390.5	290.1	247.7	223.1	214.1	205.3	194.2	187.4	185.2
47.5°	8500.6	5481.9	348.1	265.5	225.3	203.0	194.2	180.8	167.3	162.9	162.9
50°	8891.1	5412.7	312.4	240.9	203.0	182.9	171.7	153.9	145.0	140.5	138.3
52.5°	9109.7	5207.6	283.3	220.9	182.9	160.6	145.0	129.4	125.0	120.5	120.5
55°	9259.1	4910.7	252.2	200.8	165.1	140.5	122.7	111.6	107.1	104.9	102.6
57.5°	9402.0	4549.3	223.1	182.9	147.3	125.0	104.9	100.4	91.4	89.3	89.3
60°	9444.4	4051.8	196.3	162.9	131.6	109.4	91.4	84.7	75.8	73.6	73.6
62.5°	8904.4	3224.0	174.0	138.3	116.1	93.8	80.3	71.3	62.5	62.5	62.5
65°	7440.9	2188.8	149.4	120.5	102.6	80.3	69.2	58.0	53.5	53.5	53.5
67.5°	5182.9	1220.4	127.2	102.6	87.0	66.9	58.0	49.0	46.9	49.0	49.0
70°	2336.0	484.1	107.1	84.7	71.3	55.8	49.0	42.4	46.9	46.9	46.9
72°	700.6	258.8	89.3	69.2	58.0	49.0	42.4	40.2	44.6	46.9	46.9
72.5°	519.8	232.0	84.7	66.9	58.0	46.9	40.2	40.2	44.6	46.9	46.9
75°	267.6	158.4	64.7	49.0	42.4	37.9	33.5	37.9	44.6	44.6	44.6
77.5°	209.8	129.4	53.5	37.9	35.7	33.5	31.2	35.7	40.2	40.2	40.2
80°	196.3	84.7	42.4	35.7	31.2	29.0	29.0	31.2	35.7	37.9	37.9
82.5°	198.6	69.2	37.9	33.5	29.0	26.8	26.8	29.0	33.5	35.7	35.7
85°	127.2	46.9	33.5	29.0	26.8	24.6	24.6	26.8	31.2	33.5	33.5
87.5°	42.4	35.7	29.0	26.8	22.3	22.3	22.3	22.3	26.8	29.0	31.2
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)