

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: P197136

Luminaire Tested: **NAV-AF-06-D-UNV-SL4-8030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197136
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-SL4-8030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1200mA 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: 26268 lumens
Efficiency: N/A
Efficacy: 68.8 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 - G4

Input Watts (W): 382
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

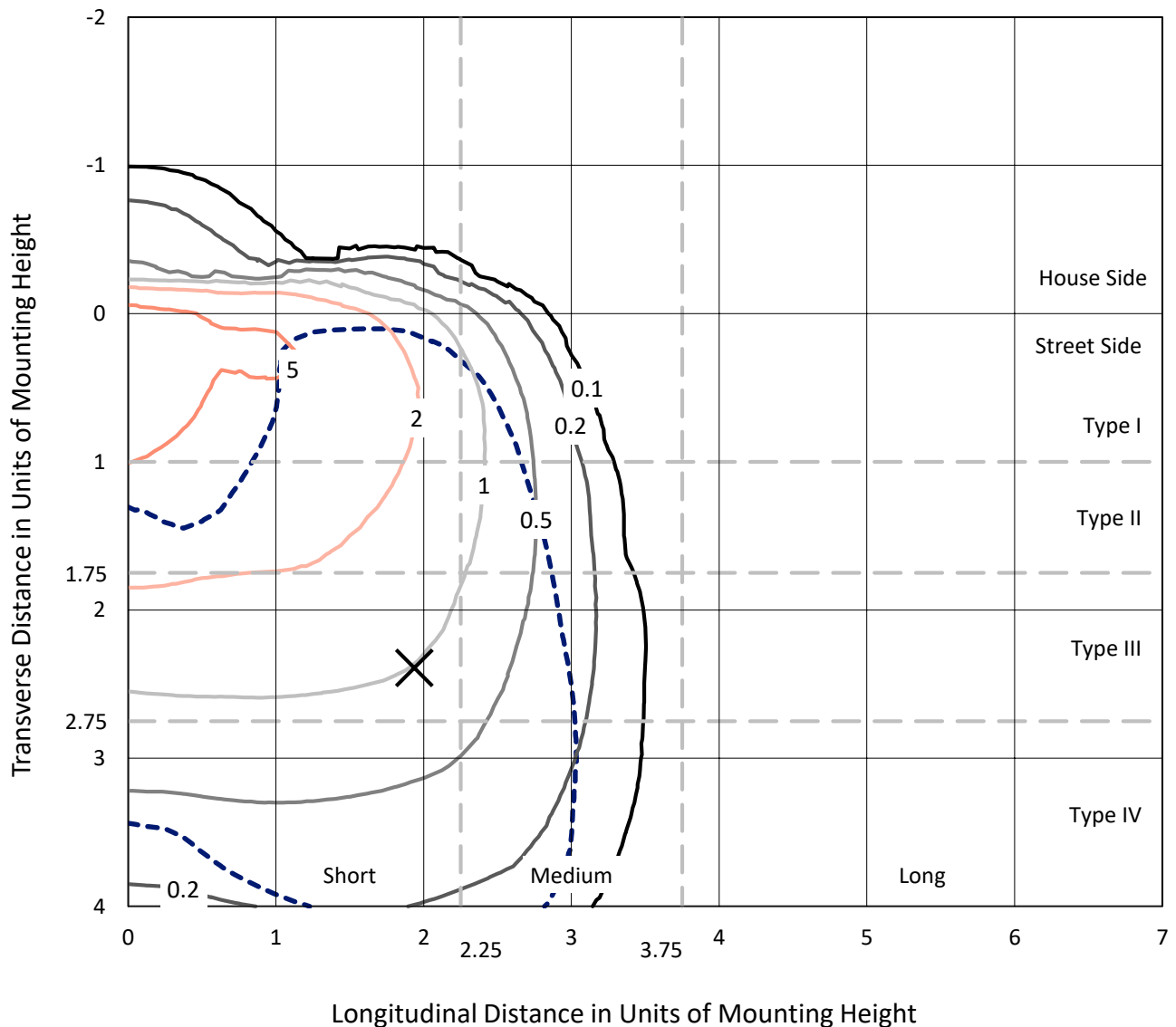


REPORT NUMBER: P197136

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

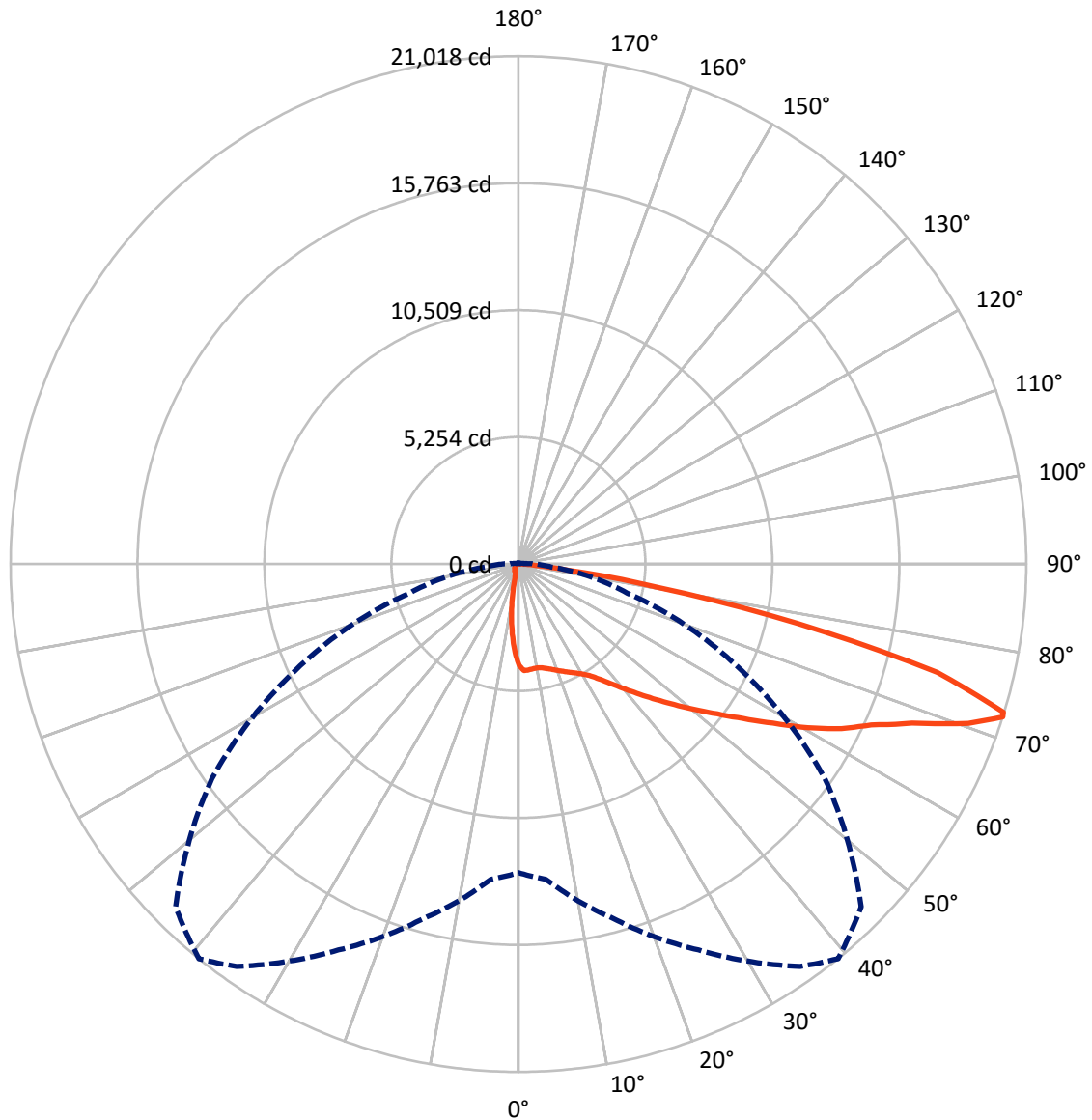


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P197136

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P197136

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

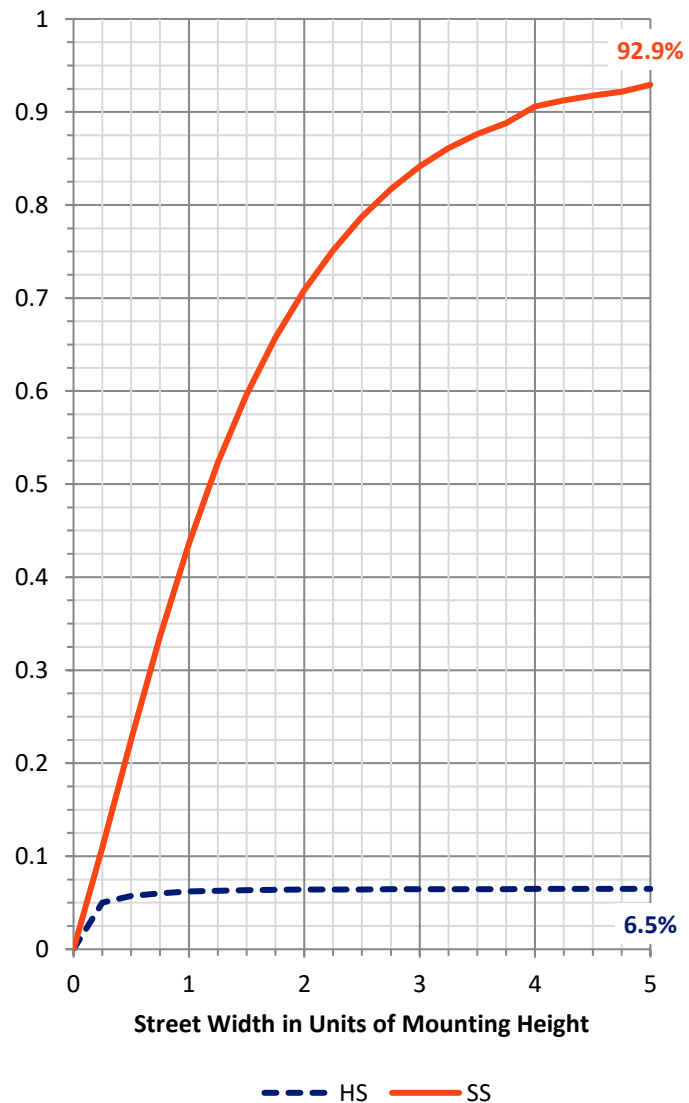
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1721.6	0.0	1721.6
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	24546.4	0.0	24546.4
	% Fixture	93.4	0.0	93.4
Total	Lumens	26268.0	0.0	26268.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.0	1.3
10°-20°	827.9	3.2
20°-30°	1375.0	5.2
30°-40°	2191.5	8.3
40°-50°	3617.3	13.8
50°-60°	5462.8	20.8
60°-70°	7116.3	27.1
70°-80°	4808.5	18.3
80°-90°	526.6	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°	26268.0	100.0
0°-180°	26268.0	100.0



REPORT NUMBER: P197136

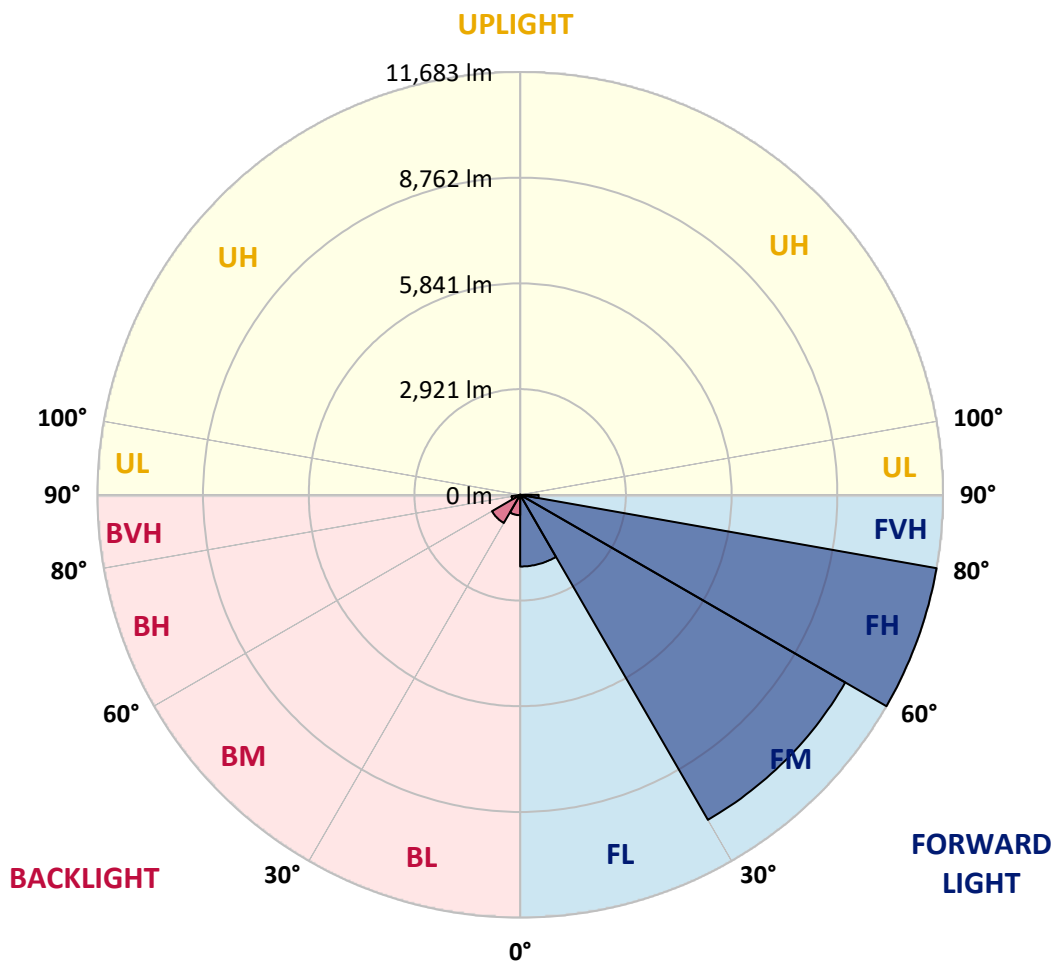
CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1981.2	7.5			
FM	(30°-60°)	10370.9	39.5			
FH	(60°-80°)	11682.8	44.5			G4/12000
FVH	(80°-90°)	511.5	1.9			G4/750
BL	(0°-30°)	563.7	2.1	B2/1000		
BM	(30°-60°)	900.7	3.4	B1/1000		
BH	(60°-80°)	242.0	0.9	B1/500		G1/500
BVH	(80°-90°)	15.1	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-G4

Type IV Short





REPORT NUMBER: P197136

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4
2.5°	4476.9	4485.2	4474.9	4456.3	4429.4	4412.9	4390.2	4340.7	4278.7	4225.0	4163.1
5°	4512.1	4516.2	4503.8	4468.7	4427.4	4404.7	4375.8	4322.1	4258.1	4183.7	4072.2
7.5°	4522.4	4520.3	4505.9	4462.5	4398.5	4369.6	4320.0	4253.9	4187.8	4119.7	3993.7
10°	4518.2	4518.2	4507.9	4466.6	4394.3	4367.5	4311.7	4241.5	4158.9	4090.8	3956.6
12.5°	4503.8	4512.1	4505.9	4483.1	4429.4	4408.8	4359.2	4289.0	4210.6	4140.3	3997.9
15°	4522.4	4534.8	4547.2	4538.9	4507.9	4489.3	4443.9	4371.6	4307.6	4233.3	4080.5
17.5°	4596.7	4623.6	4652.5	4654.5	4621.5	4588.5	4536.8	4462.5	4400.5	4332.4	4167.2
20°	4737.1	4757.8	4811.5	4821.8	4755.7	4708.2	4636.0	4549.2	4487.3	4429.4	4247.7
22.5°	4945.7	4968.4	5011.8	4997.3	4885.8	4830.1	4739.2	4640.1	4576.1	4543.0	4340.7
25°	5261.6	5267.8	5278.2	5214.2	5030.4	4968.4	4856.9	4745.4	4693.8	4689.6	4472.8
27.5°	5633.4	5641.6	5596.2	5453.7	5191.4	5110.9	4984.9	4883.8	4859.0	4889.9	4640.1
30°	6058.7	6060.8	5934.8	5703.6	5377.3	5288.5	5158.4	5046.9	5069.6	5146.0	4854.8
32.5°	6494.5	6473.8	6300.3	5998.9	5631.3	5523.9	5412.4	5300.9	5367.0	5521.8	5168.7
35°	6893.0	6884.7	6680.3	6329.3	5961.7	5866.7	5786.2	5668.5	5775.8	6027.8	5596.2
37.5°	7291.6	7285.4	7052.0	6686.5	6368.5	6300.3	6240.5	6149.6	6325.1	6694.8	6168.2
40°	7731.4	7721.1	7434.0	7083.0	6841.4	6804.2	6769.1	6729.9	7029.3	7543.5	6880.6
42.5°	8274.5	8229.1	7838.8	7514.6	7361.8	7372.1	7374.2	7413.4	7882.1	8553.3	7721.1
45°	8898.1	8796.9	8245.6	7977.1	7933.8	7995.7	8057.7	8220.8	8875.4	9715.9	8650.3
47.5°	9503.2	9340.0	8714.3	8474.8	8563.6	8691.6	8840.3	9158.3	9990.5	10932.2	9492.9
50°	10023.6	9856.3	9179.0	8980.7	9263.6	9453.6	9717.9	10199.1	11167.6	11960.5	10023.6
52.5°	10432.4	10300.3	9670.4	9538.3	10040.1	10300.3	10715.3	11347.2	12278.6	12637.9	10395.3
55°	10733.9	10667.8	10141.3	10159.9	10903.3	11279.1	11795.3	12509.8	13216.1	13164.4	10674.0
57.5°	11074.7	11023.0	10634.8	10892.9	11942.0	12427.2	13024.0	13598.1	13897.5	13587.8	10946.6
60°	11423.6	11440.2	11233.7	11780.9	13226.4	13763.3	14283.7	14426.2	14481.9	14017.3	11233.7
62.5°	11688.0	11758.2	11776.8	12739.1	14543.9	15002.3	15227.4	15126.2	15113.8	14593.4	11210.9
65°	11991.5	12175.3	12480.9	13790.1	15741.6	16043.1	16204.1	16350.8	16041.0	14764.8	10108.2
67.5°	12516.0	12805.1	13492.8	15078.7	17125.1	17571.2	18027.5	17872.7	16179.4	13024.0	7700.4
70°	13222.3	13575.4	14789.6	16761.7	19002.2	19749.8	20131.8	17750.8	13736.5	8999.3	4061.9
72°	12776.2	13096.3	15190.2	17620.7	20332.1	21017.7	20061.6	15483.5	9957.5	4664.9	1360.8
72.5°	12342.6	12673.0	15062.2	17610.4	20464.3	20988.8	19605.2	14589.3	8811.4	3630.3	937.5
75°	8563.6	8980.7	12912.5	15830.4	18479.8	17903.6	15000.2	8834.1	3192.5	623.6	309.8
77.5°	4427.4	4749.5	7832.6	11186.2	12879.5	11795.3	8865.1	3832.7	883.8	330.4	204.4
80°	2744.4	2903.4	3663.3	5511.5	6690.6	5852.2	3911.1	1548.8	565.8	196.2	163.1
82.5°	1420.7	1542.6	2306.6	2224.0	2471.8	2054.7	1443.4	1296.8	349.0	121.8	167.3
85°	466.7	495.6	1416.6	1478.5	1057.3	710.4	640.2	1236.9	101.2	78.5	142.5
87.5°	62.0	72.3	497.7	846.7	520.4	322.1	384.1	435.7	35.1	43.4	39.2
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: P197136

CATALOG NUMBER: NAV-AF-06-D-UNV-SL4-8030-1200-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4	4204.4
2.5°	4121.8	4094.9	4010.3	3925.6	3828.5	3739.7	3669.5	3624.1	3644.7	3576.6	3586.9
5°	4004.1	3935.9	3750.1	3549.8	3332.9	3130.6	2969.5	2849.7	2827.0	2723.8	2727.9
7.5°	3890.5	3779.0	3477.5	3147.1	2787.8	2496.6	2232.3	2001.0	1918.4	1833.7	1784.2
10°	3828.5	3675.7	3248.3	2767.1	2261.2	1833.7	1462.0	1170.9	1049.0	960.2	916.9
12.5°	3847.1	3644.7	3076.9	2422.3	1757.3	1214.2	826.0	613.3	539.0	497.7	483.2
15°	3909.1	3650.9	2922.0	2085.7	1278.2	735.1	485.3	415.1	408.9	406.8	404.7
17.5°	3966.9	3657.1	2758.9	1734.6	854.9	468.8	390.3	384.1	384.1	384.1	384.1
20°	4026.8	3659.2	2579.2	1367.0	561.7	384.1	367.6	363.4	367.6	367.6	367.6
22.5°	4097.0	3673.7	2405.7	1009.8	415.1	361.4	351.1	349.0	351.1	351.1	349.0
25°	4183.7	3704.6	2217.8	722.8	375.8	346.9	336.6	334.5	336.6	334.5	334.5
27.5°	4299.4	3745.9	1998.9	518.3	359.3	332.5	322.1	322.1	322.1	320.1	320.1
30°	4448.0	3795.5	1705.7	408.9	342.8	318.0	309.8	309.8	307.7	305.6	305.6
32.5°	4660.7	3876.0	1385.6	369.6	324.2	299.4	291.2	293.2	291.2	289.1	287.0
35°	4962.2	4002.0	1069.7	349.0	305.6	280.8	272.6	272.6	272.6	268.5	268.5
37.5°	5389.7	4194.0	801.2	328.3	287.0	262.3	251.9	251.9	249.9	245.7	247.8
40°	5918.3	4435.6	580.3	309.8	268.5	241.6	233.3	229.2	225.1	221.0	221.0
42.5°	6554.3	4671.1	435.7	291.2	249.9	225.1	214.8	210.6	202.4	198.2	196.2
45°	7266.8	4920.9	361.4	268.5	229.2	206.5	198.2	190.0	179.7	173.5	171.4
47.5°	7867.7	5073.7	322.1	245.7	208.6	187.9	179.7	167.3	154.9	150.7	150.7
50°	8229.1	5009.7	289.1	223.0	187.9	169.3	159.0	142.5	134.2	130.1	128.0
52.5°	8431.4	4819.7	262.3	204.4	169.3	148.7	134.2	119.8	115.6	111.5	111.5
55°	8569.8	4545.1	233.3	185.9	152.8	130.1	113.6	103.3	99.1	97.1	95.0
57.5°	8702.0	4210.6	206.5	169.3	136.3	115.6	97.1	92.9	84.7	82.6	82.6
60°	8741.2	3750.1	181.7	150.7	121.8	101.2	84.7	78.5	70.2	68.1	68.1
62.5°	8241.5	2983.9	161.1	128.0	107.4	86.7	74.3	66.1	57.8	57.8	57.8
65°	6886.8	2025.8	138.4	111.5	95.0	74.3	64.0	53.7	49.6	49.6	49.6
67.5°	4797.0	1129.6	117.7	95.0	80.5	62.0	53.7	45.4	43.4	45.4	45.4
70°	2162.1	448.1	99.1	78.5	66.1	51.6	45.4	39.2	43.4	43.4	43.4
72°	648.4	239.5	82.6	64.0	53.7	45.4	39.2	37.2	41.3	43.4	43.4
72.5°	481.1	214.8	78.5	62.0	53.7	43.4	37.2	37.2	41.3	43.4	43.4
75°	247.8	146.6	59.9	45.4	39.2	35.1	31.0	35.1	41.3	41.3	41.3
77.5°	194.1	119.8	49.6	35.1	33.0	31.0	28.9	33.0	37.2	37.2	37.2
80°	181.7	78.5	39.2	33.0	28.9	26.8	26.8	28.9	33.0	35.1	35.1
82.5°	183.8	64.0	35.1	31.0	26.8	24.8	24.8	26.8	31.0	33.0	33.0
85°	117.7	43.4	31.0	26.8	24.8	22.7	22.7	24.8	28.9	31.0	31.0
87.5°	39.2	33.0	26.8	24.8	20.7	20.7	20.7	20.7	24.8	26.8	28.9
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)