

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: P197028

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
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-SL2-8030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19373 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 249
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

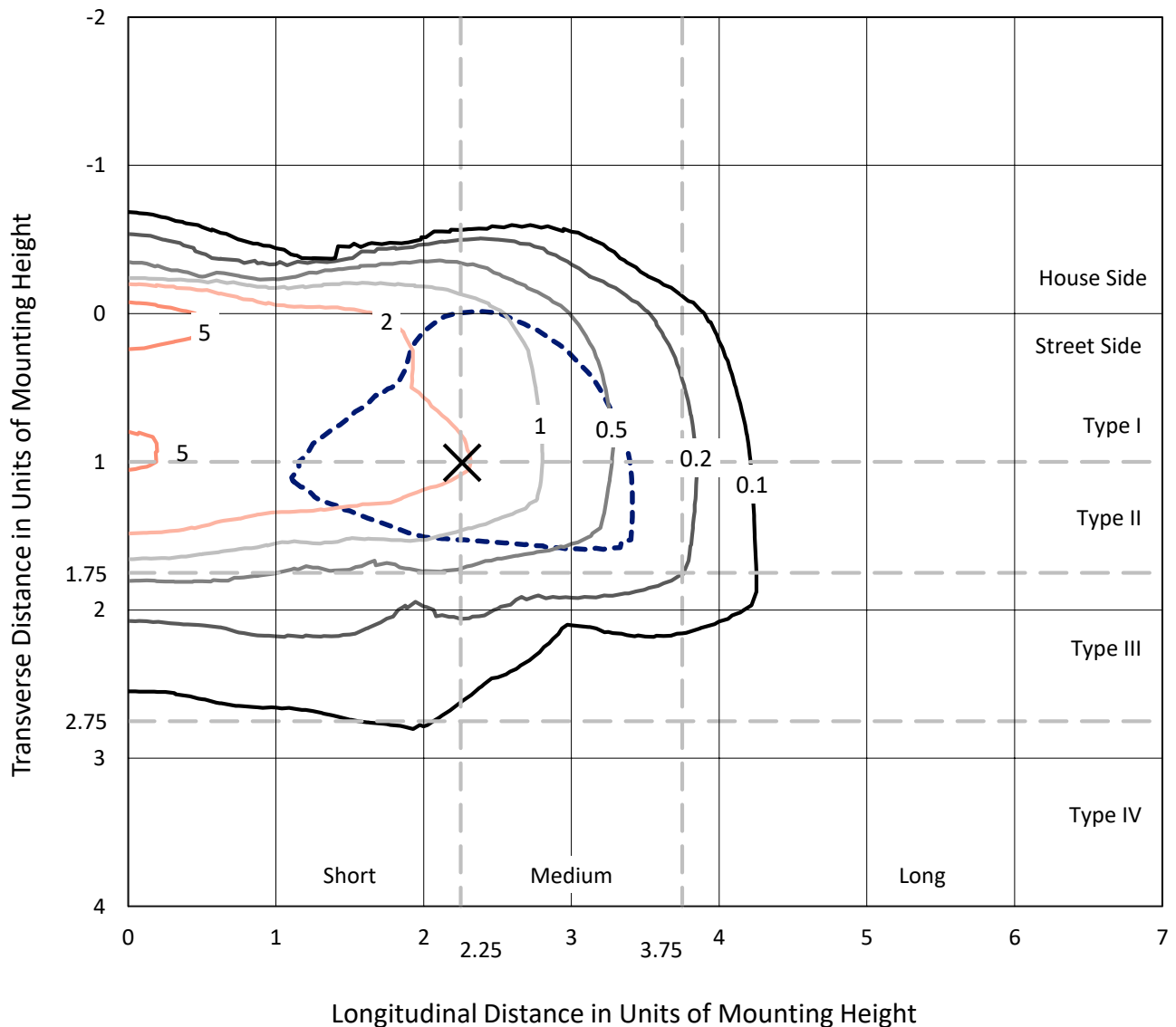


REPORT NUMBER: P197028

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

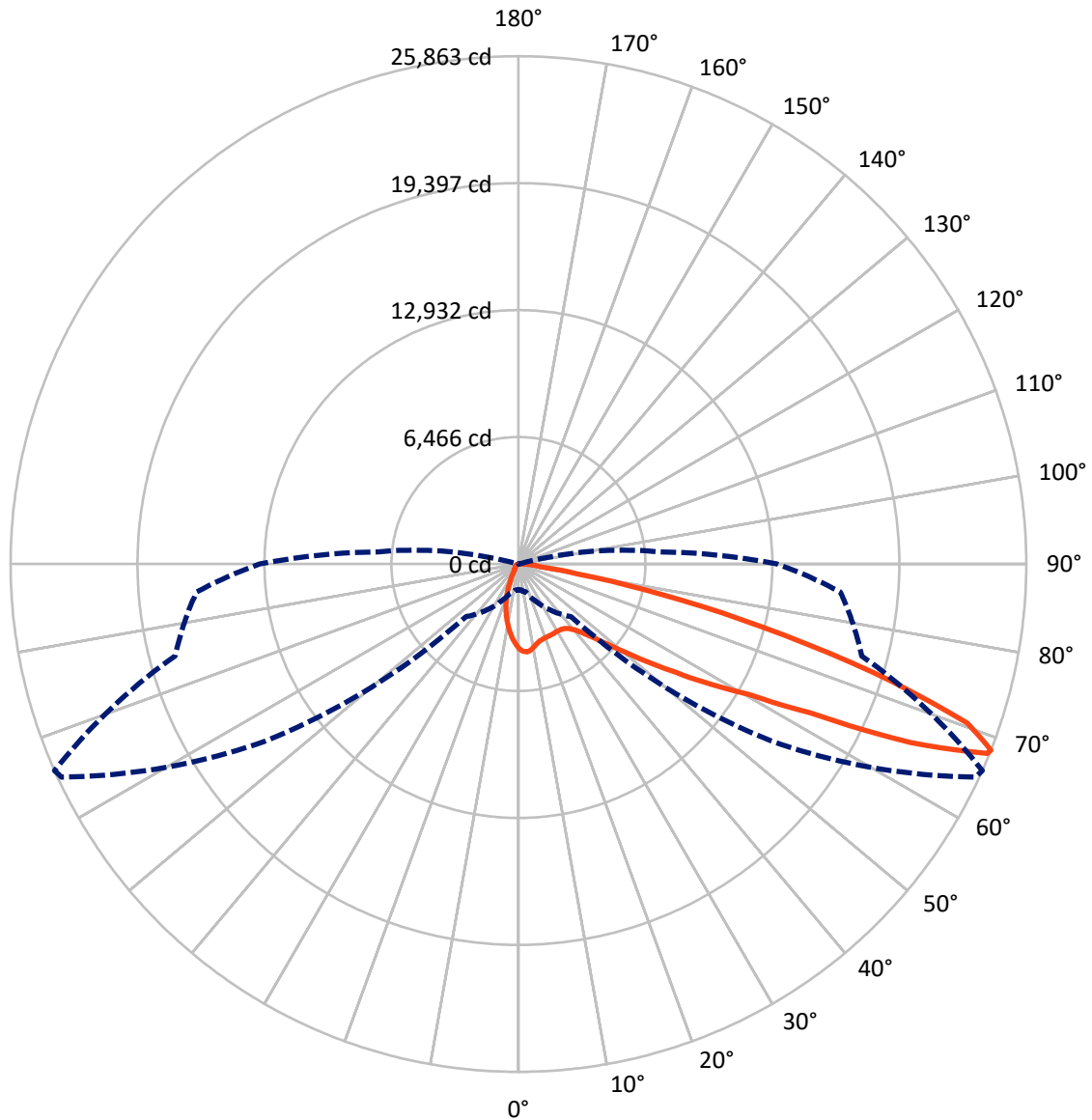


Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P197028

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P197028

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

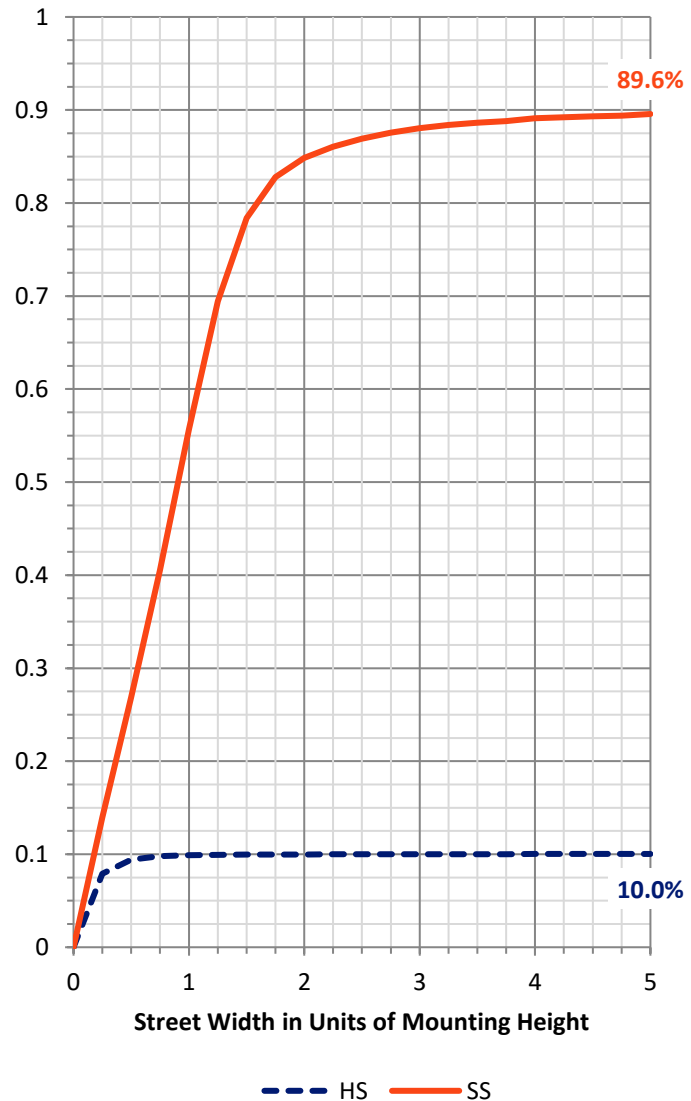
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1962.3	0.0	1962.3
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	17410.7	0.0	17410.7
	% Fixture	89.9	0.0	89.9
Total	Lumens	19373.0	0.0	19373.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.8	1.8
10°-20°	761.3	3.9
20°-30°	1103.2	5.7
30°-40°	1688.8	8.7
40°-50°	2888.6	14.9
50°-60°	4518.5	23.3
60°-70°	5202.9	26.9
70°-80°	2603.6	13.4
80°-90°	252.2	1.3
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°	19373.0	100.0
0°-180°	19373.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197028

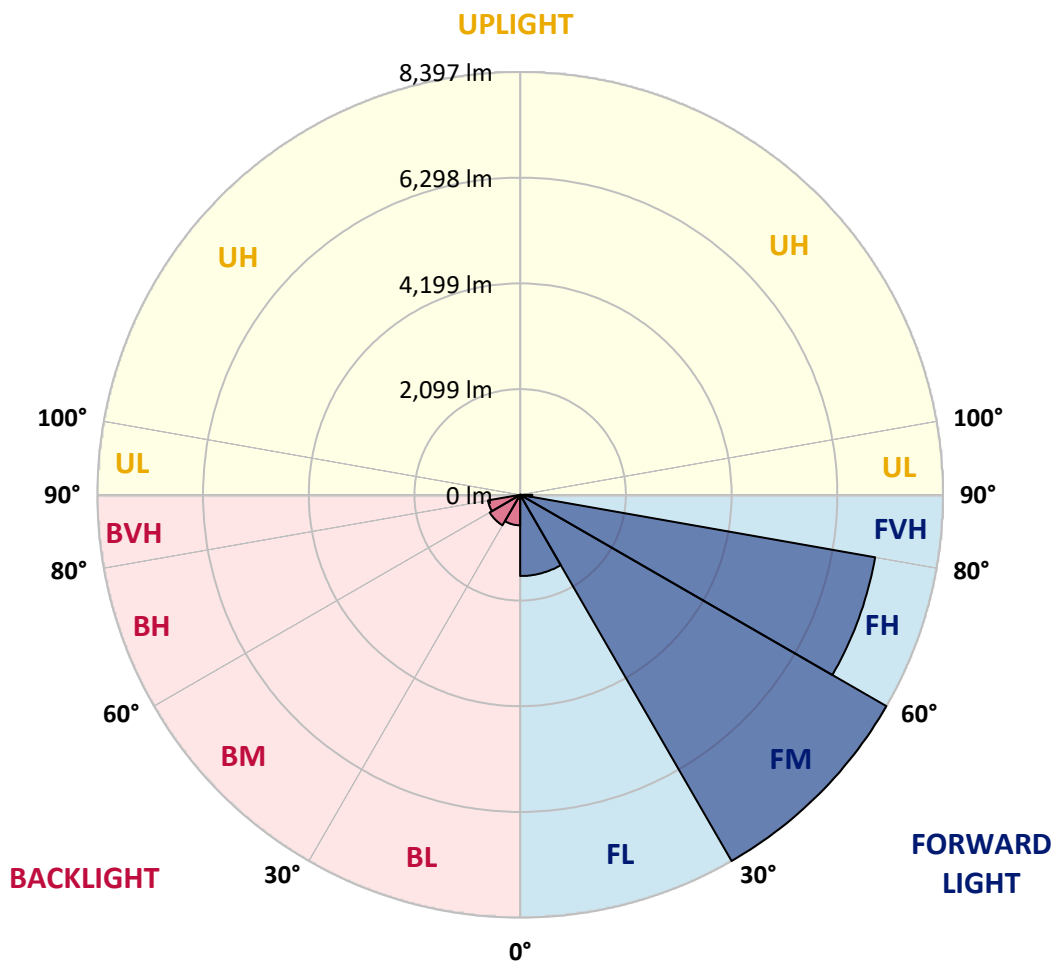
CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1612.7	8.3			
FM (30°-60°)	8397.2	43.3			
FH (60°-80°)	7158.3	36.9			G3/7500
FVH (80°-90°)	242.6	1.3			G3/500
BL (0°-30°)	605.6	3.1	B2/1000		
BM (30°-60°)	698.7	3.6	B1/1000		
BH (60°-80°)	648.3	3.3	B2/1000		G2/1000
BVH (80°-90°)	9.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Medium





REPORT NUMBER: P197028

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1
2.5°	4539.7	4542.7	4541.2	4545.8	4542.7	4519.9	4495.6	4443.9	4448.4	4381.5	4307.0
5°	4220.3	4246.2	4272.0	4297.9	4360.2	4415.0	4480.4	4495.6	4495.6	4437.8	4328.3
7.5°	3894.9	3896.4	3925.3	3960.2	4043.9	4144.3	4296.4	4433.2	4436.3	4451.5	4331.3
10°	3650.0	3657.6	3677.4	3715.4	3799.0	3897.9	4068.2	4282.7	4299.4	4411.9	4300.9
12.5°	3459.9	3469.0	3490.3	3534.4	3610.5	3712.4	3891.8	4136.7	4159.5	4373.9	4291.8
15°	3313.9	3326.1	3342.8	3386.9	3469.0	3577.0	3773.2	4039.3	4066.7	4358.7	4320.7
17.5°	3253.1	3253.1	3251.5	3282.0	3364.1	3473.6	3678.9	3987.6	4022.6	4370.9	4369.4
20°	3278.9	3274.4	3242.4	3234.8	3285.0	3394.5	3604.4	3954.2	3993.7	4393.7	4428.7
22.5°	3415.8	3406.7	3335.2	3275.9	3260.7	3333.7	3554.2	3931.4	3978.5	4440.8	4507.7
25°	3706.3	3678.9	3580.0	3446.2	3326.1	3318.5	3519.2	3919.2	3969.4	4495.6	4594.4
27.5°	4083.4	4075.8	3917.7	3738.2	3507.0	3368.6	3508.6	3910.1	3960.2	4535.1	4664.4
30°	4551.9	4554.9	4372.4	4138.2	3788.4	3510.1	3542.0	3905.5	3957.2	4538.2	4694.8
32.5°	5035.5	5038.5	4886.4	4635.5	4173.2	3753.4	3636.3	3926.8	3973.9	4526.0	4693.3
35°	5500.8	5505.4	5414.2	5211.9	4687.2	4091.0	3814.2	3999.8	4033.2	4533.6	4690.2
37.5°	6089.4	6107.7	5995.1	5806.5	5332.0	4586.8	4104.7	4147.3	4174.7	4596.0	4713.1
40°	7093.2	7068.8	6746.4	6427.0	6031.6	5190.6	4524.5	4401.3	4410.4	4757.2	4799.7
42.5°	8262.7	8232.3	7680.2	7129.7	6751.0	5919.1	5061.3	4790.6	4789.1	5027.9	4988.3
45°	9269.5	9251.2	8670.3	7935.7	7547.9	6723.6	5722.9	5351.8	5333.6	5496.3	5332.0
47.5°	9984.3	9969.1	9529.5	8793.5	8469.5	7608.7	6548.7	6116.8	6078.8	6109.2	5890.2
50°	10054.2	10037.5	9883.9	9410.9	9546.3	8907.5	7569.2	7119.0	7070.3	7023.2	6734.2
52.5°	9400.3	9398.7	9479.3	9448.9	10300.6	10578.9	8820.8	8358.5	8300.7	8180.6	7893.1
55°	8063.5	8055.8	8361.5	8805.6	10283.9	12303.5	10729.5	9833.7	9757.7	9517.4	9140.2
57.5°	5891.7	5852.2	6490.9	7432.3	9561.5	13057.9	13760.5	11666.3	11540.1	10778.1	10197.2
60°	3253.1	3268.3	4089.5	5204.3	7850.5	12908.8	16549.7	13803.1	13471.5	11865.5	11280.0
62.5°	1823.5	1861.5	2472.9	3382.3	5005.1	11699.8	18046.2	17480.4	16682.0	13133.9	12648.8
65°	1379.4	1402.2	1709.4	2609.7	3155.7	8176.0	18285.0	22622.4	21933.4	15056.2	14828.1
67.5°	1298.8	1317.0	1467.6	2164.1	2874.4	4240.1	16487.3	25664.0	25750.7	17678.2	16516.2
68°	1307.9	1330.7	1481.3	2082.0	2869.8	3793.0	15720.8	25679.2	25863.3	18100.9	16458.4
70°	1201.5	1207.5	1566.5	2042.5	2781.6	2988.4	11372.8	23919.6	24249.7	18604.3	14940.7
72.5°	459.3	460.8	702.6	1768.7	2913.9	3005.2	5729.0	18905.5	18922.2	16190.8	11648.1
75°	238.8	200.7	220.5	553.6	2783.1	2929.1	2874.4	12908.8	12828.2	10950.0	7137.3
77.5°	164.2	139.9	147.5	191.6	1157.4	2927.6	2075.9	7423.2	7406.5	4658.3	2036.4
80°	92.8	80.6	88.2	161.2	406.1	2748.1	1934.5	3190.7	3006.7	818.2	330.0
82.5°	47.1	39.5	47.1	135.4	252.5	1729.2	1881.3	1251.6	1114.8	194.7	214.4
85°	12.2	12.2	22.8	94.3	156.6	567.3	1686.6	903.4	812.1	85.2	152.1
87.5°	3.0	1.5	9.1	35.0	56.3	123.2	935.3	503.4	433.4	44.1	88.2
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: P197028

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1	4316.1
2.5°	4276.6	4234.0	4150.4	4056.1	3989.1	3916.1	3873.6	3821.9	3782.3	3747.3	3773.2
5°	4261.4	4179.2	3993.7	3785.4	3610.5	3443.2	3318.5	3199.8	3110.1	3053.8	3076.6
7.5°	4221.8	4100.2	3799.0	3473.6	3187.7	2918.5	2699.5	2503.3	2351.2	2269.1	2294.9
10°	4154.9	3983.1	3578.5	3126.8	2726.9	2346.6	2021.2	1729.2	1508.7	1405.2	1429.6
12.5°	4106.2	3879.6	3350.4	2792.2	2266.0	1726.1	1294.2	959.6	787.8	684.4	693.5
15°	4085.0	3799.0	3137.5	2439.4	1762.6	1108.7	699.6	506.4	447.1	425.8	427.4
17.5°	4088.0	3735.2	2935.2	2072.9	1254.7	637.2	428.9	386.3	377.2	372.6	372.6
20°	4095.6	3671.3	2725.3	1691.2	803.0	410.6	357.4	343.7	339.1	333.1	334.6
22.5°	4118.4	3622.6	2513.9	1307.9	494.3	334.6	316.3	304.2	296.6	287.4	289.0
25°	4153.4	3586.1	2305.6	941.4	348.3	292.0	275.3	258.5	244.9	234.2	235.7
27.5°	4174.7	3534.4	2083.5	641.8	289.0	255.5	232.7	209.9	194.7	185.5	184.0
30°	4159.5	3450.8	1831.1	421.3	255.5	220.5	193.1	167.3	152.1	144.5	144.5
32.5°	4118.4	3342.8	1552.8	307.2	226.6	190.1	156.6	133.8	123.2	118.6	120.1
35°	4071.3	3230.2	1256.2	260.1	203.8	161.2	127.7	109.5	104.9	103.4	103.4
37.5°	4045.4	3132.9	971.8	235.7	182.5	133.8	104.9	94.3	89.7	89.7	89.7
40°	4074.3	3058.4	719.4	217.5	161.2	111.0	88.2	80.6	79.1	79.1	79.1
42.5°	4197.5	3032.5	526.2	202.3	139.9	92.8	76.0	70.0	68.4	70.0	70.0
45°	4437.8	3088.8	398.5	187.1	120.1	76.0	65.4	60.8	60.8	62.4	62.4
47.5°	4845.4	3233.3	327.0	171.9	100.4	63.9	56.3	53.2	53.2	54.7	54.7
50°	5478.0	3501.0	293.5	155.1	83.6	54.7	47.1	45.6	45.6	47.1	48.7
52.5°	6439.2	4010.4	276.8	138.4	68.4	45.6	39.5	38.0	39.5	41.1	41.1
55°	7508.3	4662.9	257.0	121.7	57.8	38.0	31.9	31.9	33.5	36.5	36.5
57.5°	8504.5	5292.5	238.8	100.4	50.2	30.4	25.9	25.9	28.9	31.9	31.9
60°	9556.9	5910.0	214.4	80.6	42.6	24.3	21.3	21.3	25.9	28.9	30.4
62.5°	10857.2	6627.8	182.5	63.9	33.5	18.2	15.2	19.8	24.3	28.9	28.9
65°	12737.0	7520.5	143.0	50.2	25.9	13.7	12.2	18.2	22.8	27.4	28.9
67.5°	13419.8	7406.5	108.0	41.1	19.8	10.6	10.6	16.7	22.8	27.4	27.4
68°	13170.4	7157.0	103.4	39.5	18.2	10.6	10.6	16.7	22.8	27.4	27.4
70°	11476.2	5850.6	85.2	30.4	15.2	9.1	9.1	15.2	22.8	25.9	27.4
72.5°	8592.7	3887.2	73.0	19.8	13.7	9.1	7.6	15.2	21.3	25.9	25.9
75°	4929.0	1613.6	62.4	15.2	12.2	7.6	7.6	13.7	21.3	25.9	25.9
77.5°	1393.1	377.2	50.2	12.2	10.6	7.6	6.1	13.7	19.8	24.3	24.3
80°	255.5	112.5	39.5	10.6	9.1	7.6	6.1	13.7	19.8	24.3	24.3
82.5°	168.8	53.2	28.9	10.6	9.1	7.6	6.1	12.2	18.2	22.8	22.8
85°	126.2	38.0	18.2	10.6	9.1	7.6	6.1	12.2	18.2	22.8	22.8
87.5°	70.0	16.7	13.7	12.2	10.6	7.6	6.1	10.6	16.7	21.3	21.3
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)