

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: P270667

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270667
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-SL2-7027-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA 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: 16819.7 lumens
Efficiency: N/A
Efficacy: 87.1 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): 193
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

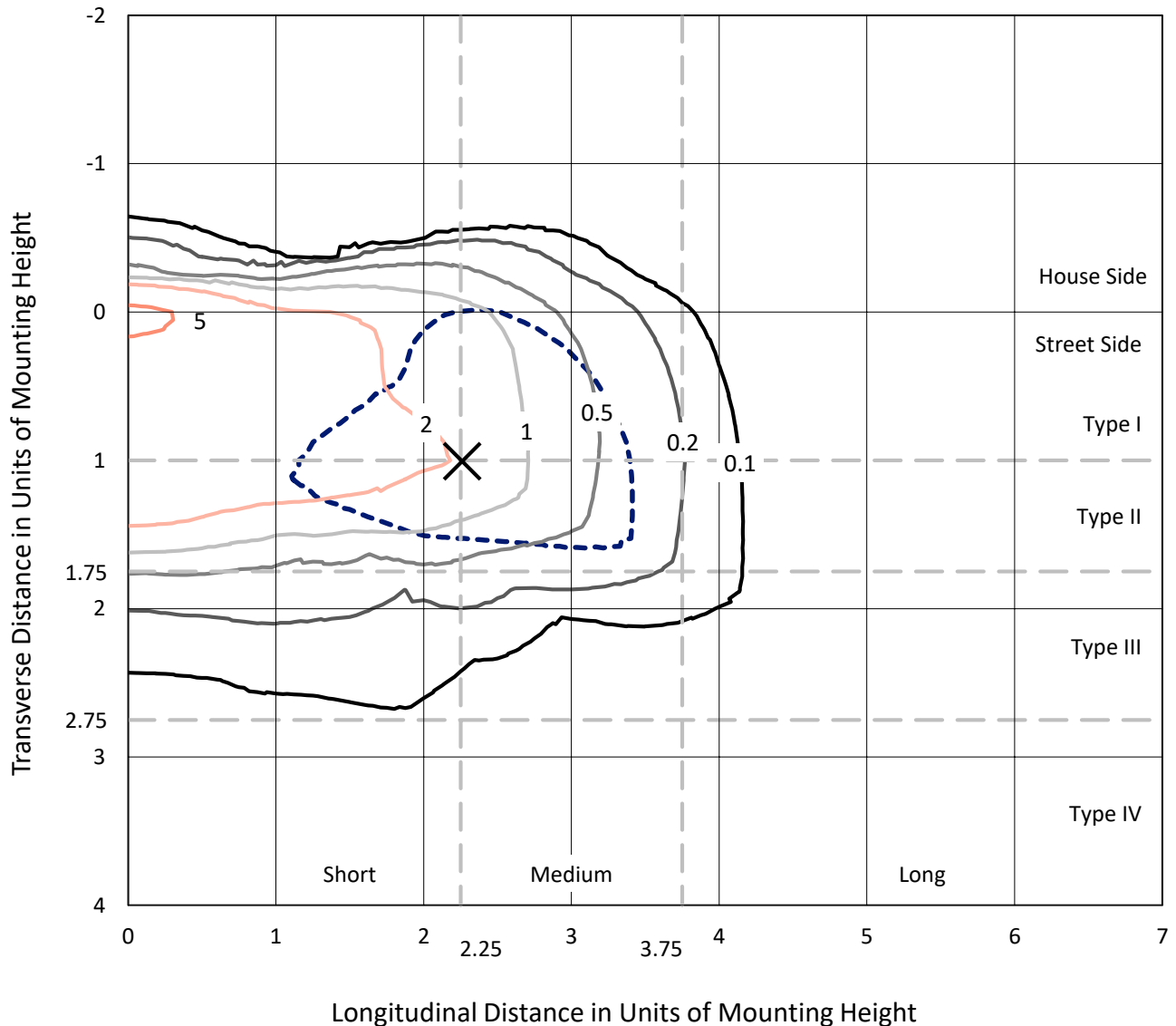


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

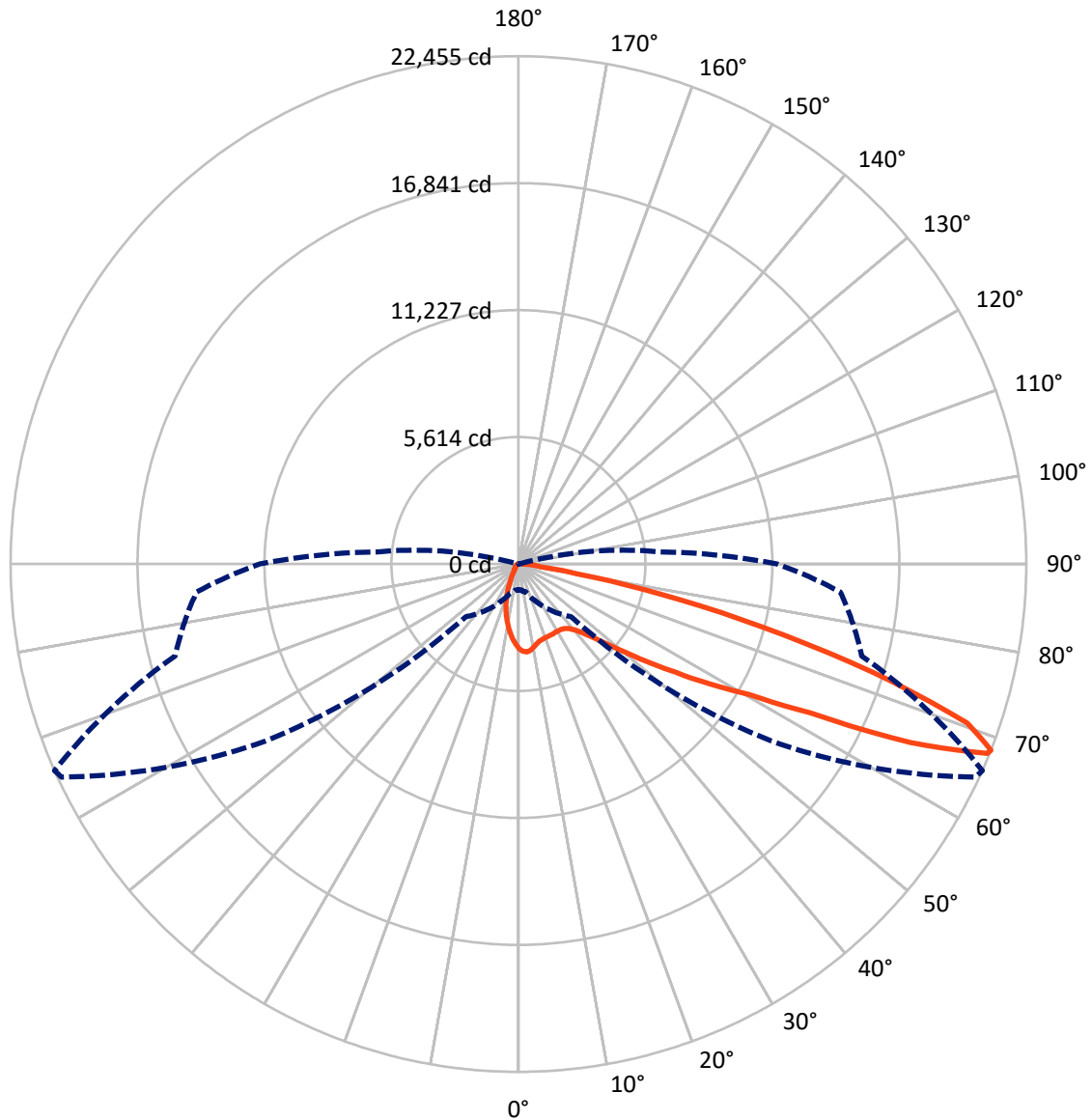


Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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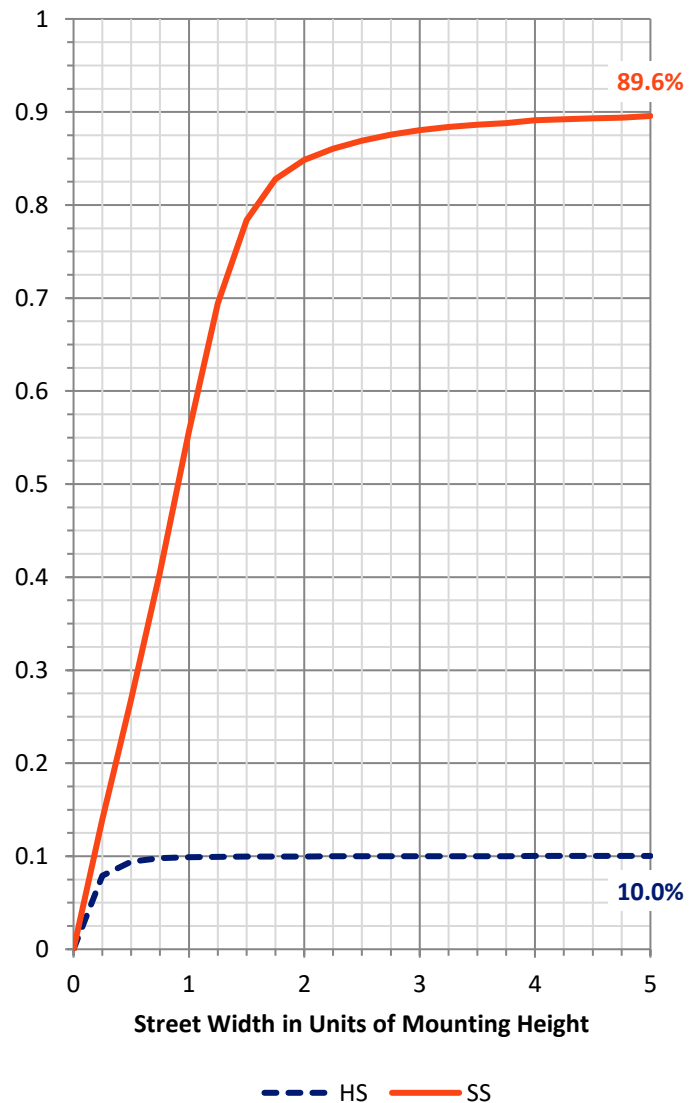
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1703.7	0.0	1703.7
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	15116.0	0.0	15116.0
	% Fixture	89.9	0.0	89.9
Total	Lumens	16819.7	0.0	16819.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.2	1.8
10°-20°	661.0	3.9
20°-30°	957.8	5.7
30°-40°	1466.2	8.7
40°-50°	2507.9	14.9
50°-60°	3923.0	23.3
60°-70°	4517.2	26.9
70°-80°	2260.5	13.4
80°-90°	218.9	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°	16819.7	100.0
0°-180°	16819.7	100.0



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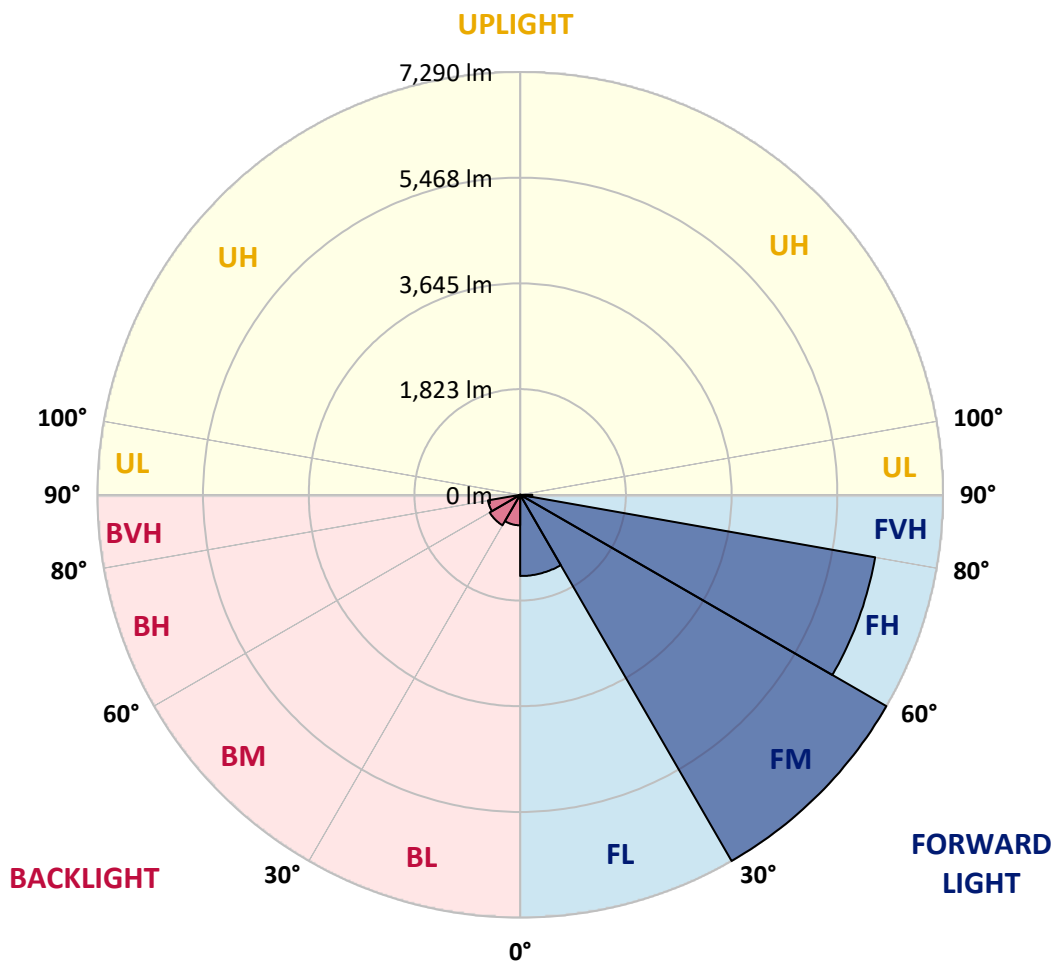
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1400.1	8.3			
FM (30°-60°)	7290.4	43.3			
FH (60°-80°)	6214.8	36.9			G3/7500
FVH (80°-90°)	210.6	1.3			G2/225
BL (0°-30°)	525.8	3.1	B2/1000		
BM (30°-60°)	606.7	3.6	B1/1000		
BH (60°-80°)	562.9	3.3	B2/1000		G2/1000
BVH (80°-90°)	8.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3
2.5°	3941.4	3944.0	3942.8	3946.7	3944.0	3924.2	3903.0	3858.2	3862.2	3804.1	3739.4
5°	3664.0	3686.6	3708.9	3731.4	3785.5	3833.1	3889.9	3903.0	3903.0	3852.9	3757.8
7.5°	3381.5	3382.8	3407.9	3438.4	3510.9	3598.0	3730.1	3848.9	3851.6	3864.8	3760.5
10°	3169.0	3175.5	3192.7	3225.8	3298.3	3384.2	3532.0	3718.3	3732.7	3830.5	3734.1
12.5°	3003.9	3011.7	3030.3	3068.6	3134.5	3223.1	3378.9	3591.5	3611.2	3797.4	3726.1
15°	2877.1	2887.7	2902.2	2940.5	3011.7	3105.5	3275.8	3507.0	3530.7	3784.2	3751.2
17.5°	2824.4	2824.4	2823.1	2849.5	2920.7	3015.8	3194.1	3462.1	3492.4	3794.8	3793.5
20°	2846.8	2842.7	2815.1	2808.6	2851.9	2947.1	3129.3	3433.1	3467.4	3814.7	3844.9
22.5°	2965.6	2957.7	2895.5	2844.2	2830.9	2894.2	3085.8	3413.2	3454.2	3855.5	3913.6
25°	3217.8	3194.1	3108.1	2992.0	2887.7	2881.0	3055.3	3402.6	3446.2	3903.0	3989.0
27.5°	3545.3	3538.7	3401.3	3245.4	3044.9	2924.6	3046.2	3394.8	3438.4	3937.5	4049.6
30°	3952.0	3954.6	3796.1	3592.9	3289.1	3047.5	3075.2	3390.7	3435.7	3940.1	4076.0
32.5°	4371.8	4374.4	4242.3	4024.5	3623.1	3258.7	3157.1	3409.2	3450.2	3929.5	4074.7
35°	4775.8	4779.8	4700.7	4524.9	4069.4	3551.9	3311.5	3472.6	3501.7	3936.1	4072.0
37.5°	5286.9	5302.6	5205.0	5041.3	4629.2	3982.2	3563.8	3600.6	3624.4	3990.2	4091.9
40°	6158.3	6137.2	5857.3	5579.9	5236.7	4506.4	3928.2	3821.2	3829.1	4130.1	4167.1
42.5°	7173.7	7147.3	6667.9	6190.0	5861.3	5138.9	4394.2	4159.2	4157.9	4365.3	4330.9
45°	8047.7	8031.9	7527.5	6889.8	6553.0	5837.5	4968.6	4646.5	4630.7	4771.8	4629.2
47.5°	8668.4	8655.1	8273.6	7634.4	7353.3	6605.9	5685.6	5310.6	5277.6	5304.0	5113.8
50°	8729.1	8714.5	8581.1	8170.5	8288.0	7733.5	6571.6	6180.7	6138.5	6097.5	5846.7
52.5°	8161.3	8160.1	8230.0	8203.5	8942.9	9184.6	7658.2	7256.9	7206.7	7102.4	6852.8
55°	7000.8	6994.2	7259.6	7645.0	8928.4	10681.9	9315.3	8537.6	8471.6	8263.0	7935.5
57.5°	5115.2	5080.9	5635.3	6452.7	8301.2	11336.8	11946.9	10128.7	10019.1	9357.6	8853.2
60°	2824.4	2837.4	3550.6	4518.4	6815.8	11207.4	14368.5	11983.7	11696.0	10301.7	9793.3
62.5°	1583.2	1616.1	2146.9	2936.5	4345.5	10157.8	15667.7	15176.5	14483.4	11402.8	10981.7
65°	1197.6	1217.5	1484.1	2265.7	2739.8	7098.3	15874.9	19640.7	19042.6	13071.9	12873.8
67.5°	1127.6	1143.5	1274.2	1879.0	2495.5	3681.3	14314.3	22281.5	22356.7	15348.3	14339.5
68°	1135.5	1155.3	1286.1	1807.6	2491.5	3293.0	13648.8	22294.8	22454.6	15715.3	14289.2
70°	1043.1	1048.4	1360.0	1773.3	2415.1	2594.6	9873.9	20767.0	21053.5	16152.3	12971.4
72.5°	398.8	400.0	609.9	1535.7	2529.8	2609.0	4973.8	16413.7	16428.3	14056.9	10112.8
75°	207.2	174.4	191.5	480.7	2416.4	2543.0	2495.5	11207.4	11137.5	9506.9	6196.6
77.5°	142.7	121.5	128.1	166.4	1004.8	2541.8	1802.3	6444.8	6430.2	4044.3	1768.0
80°	80.6	70.0	76.5	140.0	352.6	2386.0	1679.6	2770.2	2610.5	710.4	286.5
82.5°	41.0	34.3	41.0	117.5	219.1	1501.2	1633.3	1086.7	967.8	169.1	186.2
85°	10.6	10.6	19.9	81.8	136.1	492.5	1464.2	784.3	705.1	73.9	132.1
87.5°	2.6	1.3	7.9	30.4	48.9	107.0	812.1	437.0	376.3	38.3	76.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3	3747.3
2.5°	3713.0	3676.0	3603.3	3521.4	3463.3	3399.9	3363.1	3318.1	3283.8	3253.4	3275.8
5°	3699.7	3628.4	3467.4	3286.4	3134.5	2989.4	2881.0	2778.1	2700.1	2651.3	2671.1
7.5°	3665.4	3559.8	3298.3	3015.8	2767.5	2533.8	2343.7	2173.4	2041.3	1970.1	1992.5
10°	3607.4	3458.0	3106.9	2714.7	2367.5	2037.4	1754.7	1501.2	1309.8	1220.1	1241.2
12.5°	3565.1	3368.4	2908.8	2424.3	1967.4	1498.6	1123.7	833.2	684.0	594.1	602.1
15°	3546.6	3298.3	2724.0	2117.9	1530.4	962.5	607.3	439.7	388.2	369.7	371.0
17.5°	3549.3	3242.9	2548.3	1799.7	1089.4	553.3	372.3	335.3	327.4	323.5	323.5
20°	3555.9	3187.5	2366.1	1468.3	697.2	356.4	310.3	298.3	294.5	289.2	290.5
22.5°	3575.7	3145.1	2182.6	1135.5	429.1	290.5	274.6	264.1	257.5	249.5	250.8
25°	3605.9	3113.4	2001.8	817.3	302.4	253.5	238.9	224.4	212.5	203.3	204.6
27.5°	3624.4	3068.6	1808.9	557.2	250.8	221.8	201.9	182.3	169.1	161.1	159.8
30°	3611.2	2995.9	1589.7	365.7	221.8	191.5	167.8	145.3	132.1	125.5	125.5
32.5°	3575.7	2902.2	1348.1	266.7	196.6	165.1	136.1	116.2	107.0	102.9	104.4
35°	3534.7	2804.5	1090.6	225.7	177.0	140.0	110.9	95.1	91.1	89.8	89.8
37.5°	3512.3	2720.0	843.7	204.6	158.5	116.2	91.1	81.8	78.0	78.0	78.0
40°	3537.3	2655.3	624.5	188.9	140.0	96.4	76.5	70.0	68.7	68.7	68.7
42.5°	3644.2	2632.8	456.9	175.6	121.5	80.6	66.0	60.7	59.4	60.7	60.7
45°	3852.9	2681.7	345.9	162.5	104.4	66.0	56.8	52.8	52.8	54.2	54.2
47.5°	4206.8	2807.2	283.9	149.2	87.1	55.4	48.9	46.3	46.3	47.5	47.5
50°	4756.0	3039.5	254.8	134.7	72.7	47.5	41.0	39.6	39.6	41.0	42.2
52.5°	5590.5	3481.9	240.2	120.2	59.4	39.6	34.3	33.0	34.3	35.7	35.7
55°	6518.7	4048.3	223.1	105.6	50.1	33.0	27.8	27.8	29.0	31.7	31.7
57.5°	7383.6	4594.9	207.2	87.1	43.6	26.4	22.5	22.5	25.2	27.8	27.8
60°	8297.4	5130.9	186.2	70.0	37.0	21.1	18.4	18.4	22.5	25.2	26.4
62.5°	9426.3	5754.3	158.5	55.4	29.0	15.8	13.2	17.2	21.1	25.2	25.2
65°	11058.2	6529.3	124.1	43.6	22.5	11.9	10.6	15.8	19.9	23.7	25.2
67.5°	11651.0	6430.2	93.8	35.7	17.2	9.3	9.3	14.6	19.9	23.7	23.7
68°	11434.5	6213.8	89.8	34.3	15.8	9.3	9.3	14.6	19.9	23.7	23.7
70°	9963.6	5079.6	73.9	26.4	13.2	7.9	7.9	13.2	19.9	22.5	23.7
72.5°	7460.2	3374.9	63.4	17.2	11.9	7.9	6.6	13.2	18.4	22.5	22.5
75°	4279.3	1400.9	54.2	13.2	10.6	6.6	6.6	11.9	18.4	22.5	22.5
77.5°	1209.5	327.4	43.6	10.6	9.3	6.6	5.3	11.9	17.2	21.1	21.1
80°	221.8	97.7	34.3	9.3	7.9	6.6	5.3	11.9	17.2	21.1	21.1
82.5°	146.6	46.3	25.2	9.3	7.9	6.6	5.3	10.6	15.8	19.9	19.9
85°	109.7	33.0	15.8	9.3	7.9	6.6	5.3	10.6	15.8	19.9	19.9
87.5°	60.7	14.6	11.9	10.6	9.3	6.6	5.3	9.3	14.6	18.4	18.4
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)