

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: P195564

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195564
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29740 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

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

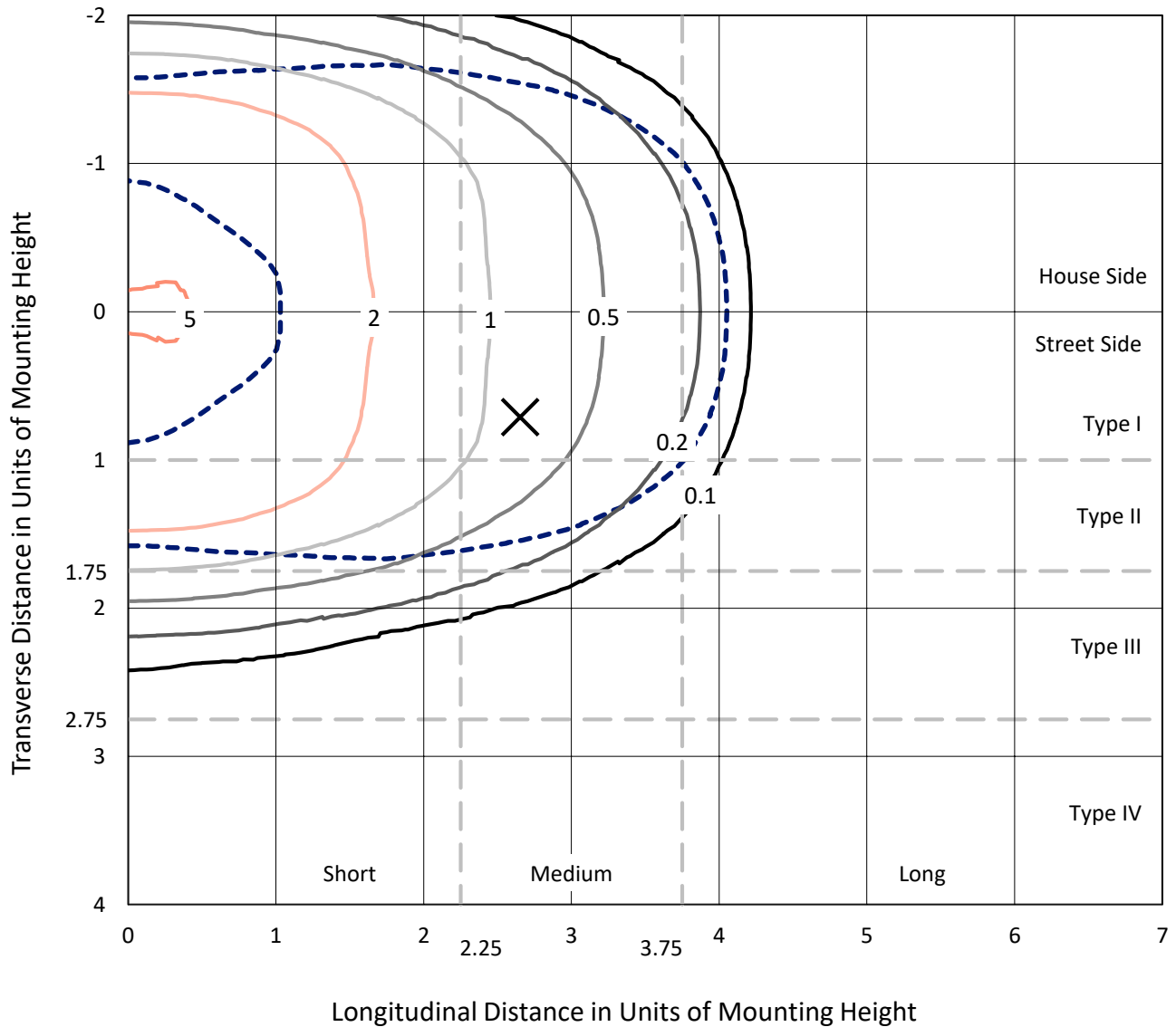


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Iso-Footcandle Lines of Horizontal Illumination

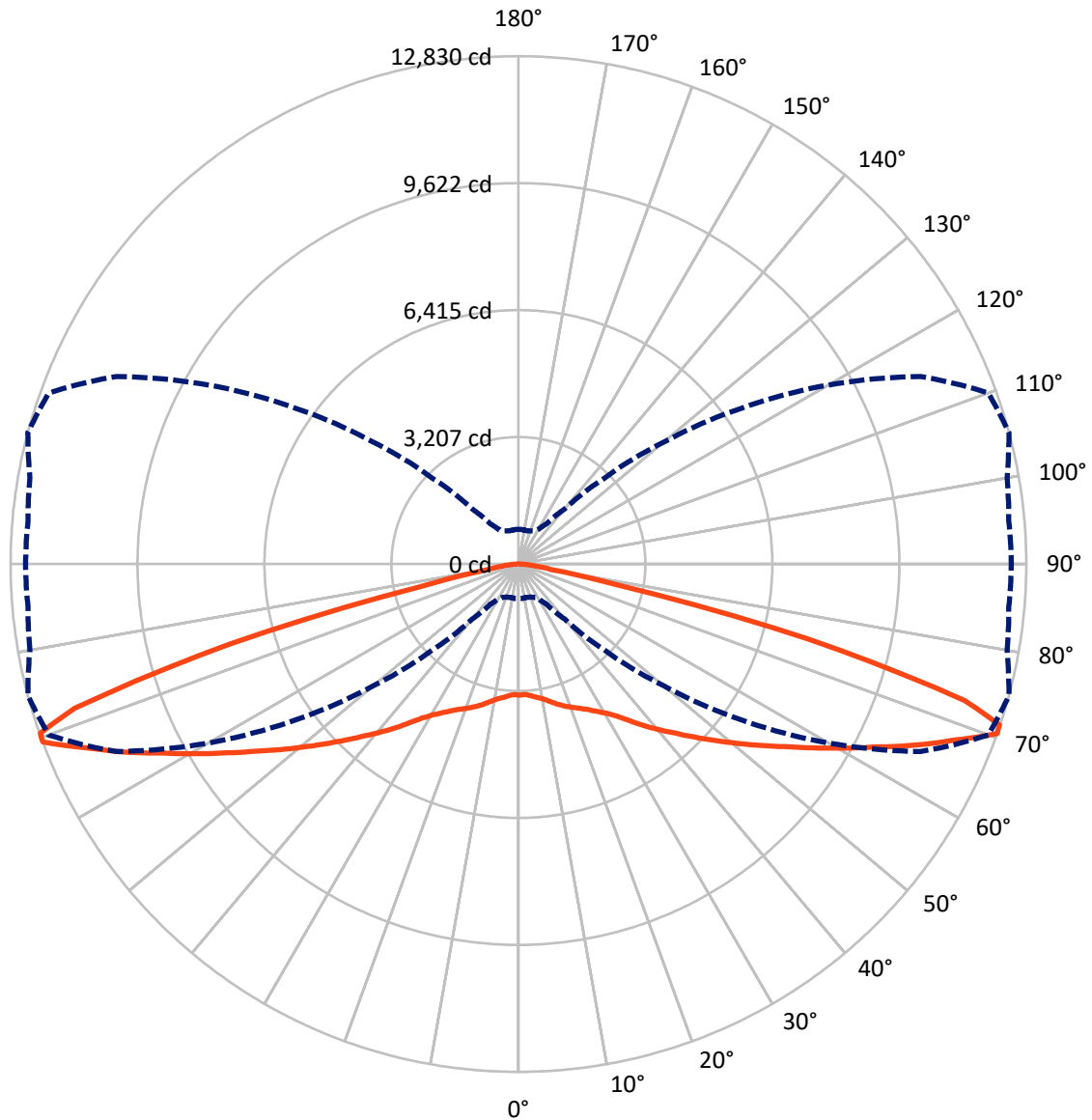
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14870.0	0.0	14870.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14870.0	0.0	14870.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	29740.0	0.0	29740.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.7	1.1
10°-20°	985.2	3.3
20°-30°	1850.4	6.2
30°-40°	3259.4	11.0
40°-50°	5401.9	18.2
50°-60°	7514.9	25.3
60°-70°	7094.2	23.9
70°-80°	3030.0	10.2
80°-90°	286.3	1.0
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°	29740.0	100.0
0°-180°	29740.0	100.0



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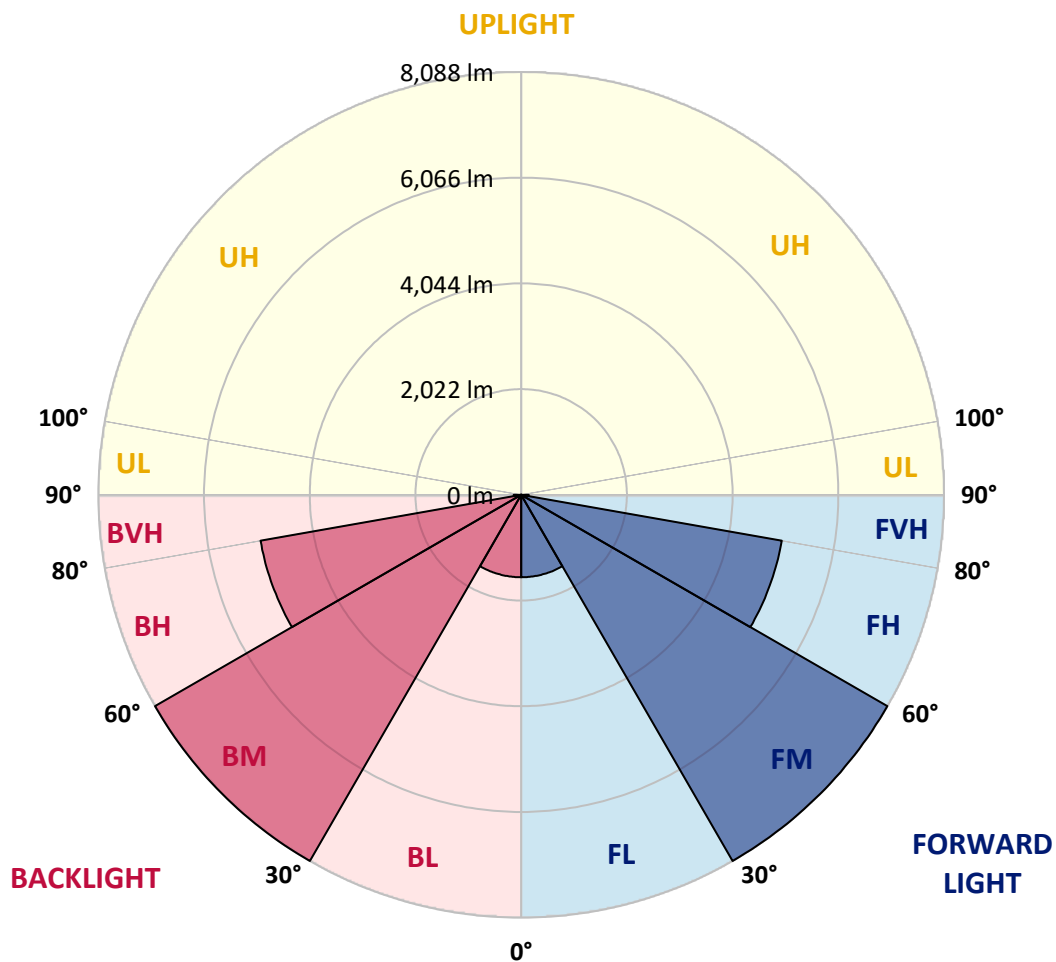
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1576.6	5.3			
FM	(30°-60°)	8088.1	27.2			
FH	(60°-80°)	5062.1	17.0			G3/7500
FVH	(80°-90°)	143.2	0.5			G2/225
BL	(0°-30°)	1576.6	5.3	B3/2500		
BM	(30°-60°)	8088.1	27.2	B4/8500		
BH	(60°-80°)	5062.1	17.0	B5		G5
BVH	(80°-90°)	143.2	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3332.3	3330.5	3332.3	3326.7	3328.6	3326.7	3326.7	3319.3	3319.3	3315.6	3310.0
5°	3295.1	3298.8	3298.8	3298.8	3304.4	3304.4	3311.8	3313.7	3319.3	3324.9	3328.6
7.5°	3233.6	3235.4	3241.0	3244.7	3255.9	3270.8	3285.7	3302.5	3317.4	3336.1	3356.6
10°	3181.4	3185.1	3194.4	3203.7	3224.2	3242.9	3269.0	3295.1	3321.2	3352.8	3384.5
12.5°	3153.4	3159.0	3173.9	3188.8	3220.5	3244.7	3280.2	3321.2	3356.6	3386.4	3421.8
15°	3157.1	3159.0	3179.5	3200.0	3244.7	3278.3	3328.6	3377.1	3419.9	3453.5	3494.5
17.5°	3211.2	3214.9	3235.4	3265.2	3308.1	3351.0	3405.0	3455.3	3513.1	3552.3	3600.7
20°	3317.4	3323.0	3345.4	3377.1	3423.7	3468.4	3524.3	3576.5	3636.1	3682.7	3731.2
22.5°	3455.3	3464.7	3488.9	3528.0	3574.6	3628.7	3686.4	3740.5	3796.4	3843.0	3884.0
25°	3639.9	3651.0	3677.1	3716.3	3762.9	3820.6	3880.3	3936.2	3994.0	4029.4	4062.9
27.5°	3887.7	3906.4	3934.3	3966.0	4007.0	4068.5	4124.4	4171.0	4226.9	4266.1	4288.4
30°	4221.3	4247.4	4269.8	4303.3	4333.2	4398.4	4443.1	4480.4	4523.3	4545.6	4551.2
32.5°	4629.5	4653.7	4676.1	4700.3	4741.3	4801.0	4843.8	4864.3	4886.7	4883.0	4862.5
35°	5089.8	5108.5	5121.5	5164.4	5231.5	5270.6	5302.3	5309.8	5313.5	5274.3	5235.2
37.5°	5574.4	5596.8	5607.9	5675.0	5738.4	5783.1	5798.0	5814.8	5803.6	5738.4	5667.6
40°	6098.1	6122.3	6155.9	6213.7	6288.2	6331.1	6349.7	6347.8	6338.5	6262.1	6146.6
42.5°	6612.5	6642.3	6670.3	6770.9	6832.4	6905.1	6914.4	6912.6	6892.1	6804.5	6670.3
45°	7048.6	7084.0	7141.8	7253.6	7352.4	7440.0	7475.4	7488.4	7467.9	7374.8	7221.9
47.5°	7408.3	7432.5	7505.2	7641.3	7768.0	7896.6	7967.4	8017.7	8015.9	7948.8	7786.6
50°	7654.3	7682.3	7771.7	7924.6	8083.0	8233.9	8373.7	8487.4	8541.5	8493.0	8342.0
52.5°	7725.1	7760.6	7878.0	8060.6	8245.1	8448.3	8657.0	8858.3	8979.4	9009.2	8891.8
55°	7426.9	7466.1	7637.5	7891.0	8194.8	8494.9	8811.7	9098.7	9348.4	9464.0	9417.4
57.5°	6558.4	6586.4	6804.5	7132.5	7566.7	8094.2	8627.2	9152.8	9581.4	9881.5	9933.7
60°	5186.7	5222.2	5460.7	5807.4	6301.3	6968.5	7714.0	8575.0	9415.5	10103.3	10444.3
62.5°	3500.1	3524.3	3753.5	4070.4	4610.9	5253.8	6085.1	7175.3	8373.7	9601.9	10563.6
65°	1837.6	1837.6	1992.3	2214.1	2644.6	3220.5	4072.2	5190.5	6616.2	8150.1	9758.5
67.5°	1066.1	1064.2	1099.6	1149.9	1286.0	1518.9	1988.6	2810.5	4159.8	5945.3	7775.5
70°	879.7	874.1	868.5	868.5	889.0	924.4	1013.9	1239.4	1813.4	3065.8	4784.2
71°	840.5	836.8	821.9	816.3	825.6	844.3	883.4	987.8	1287.8	2091.1	3572.8
72.5°	793.9	784.6	762.3	752.9	754.8	762.3	773.4	814.4	905.8	1189.1	2037.1
75°	723.1	700.8	672.8	659.8	654.2	652.3	652.3	663.5	684.0	717.5	834.9
77.5°	641.1	609.4	579.6	566.6	557.3	551.7	547.9	540.5	536.8	551.7	594.5
80°	542.3	508.8	484.6	477.1	471.5	460.3	445.4	430.5	421.2	428.7	454.7
82.5°	419.3	385.8	389.5	391.4	382.1	363.4	348.5	331.7	315.0	311.2	324.3
85°	333.6	316.8	305.7	329.9	309.4	287.0	266.5	238.6	199.4	164.0	178.9
87.5°	143.5	145.4	208.7	315.0	275.8	221.8	184.5	149.1	95.0	70.8	72.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3308.1	3308.1	3302.5	3298.8	3298.8	3298.8	3295.1	3296.9
5°	3330.5	3334.2	3337.9	3336.1	3341.7	3347.2	3345.4	3343.5
7.5°	3367.8	3378.9	3390.1	3395.7	3403.2	3410.6	3412.5	3406.9
10°	3405.0	3427.4	3444.2	3459.1	3468.4	3475.8	3481.4	3479.6
12.5°	3451.6	3483.3	3513.1	3542.9	3563.4	3574.6	3585.8	3582.1
15°	3528.0	3563.4	3600.7	3639.9	3671.5	3688.3	3705.1	3701.4
17.5°	3632.4	3664.1	3693.9	3733.0	3772.2	3790.8	3809.5	3807.6
20°	3762.9	3787.1	3803.9	3826.2	3863.5	3884.0	3900.8	3895.2
22.5°	3912.0	3919.4	3921.3	3928.7	3958.6	3982.8	4005.1	4010.7
25°	4074.1	4068.5	4057.3	4051.7	4072.2	4098.3	4126.3	4133.7
27.5°	4275.4	4256.7	4228.8	4206.4	4212.0	4245.6	4277.2	4284.7
30°	4528.9	4486.0	4426.3	4383.5	4376.0	4411.4	4445.0	4456.2
32.5°	4817.7	4760.0	4677.9	4612.7	4584.8	4616.4	4646.3	4663.0
35°	5160.7	5097.3	4998.5	4914.6	4869.9	4890.4	4942.6	4961.2
37.5°	5566.9	5479.4	5369.4	5263.2	5188.6	5192.3	5248.2	5270.6
40°	6016.1	5889.4	5749.6	5617.3	5509.2	5501.7	5552.0	5568.8
42.5°	6483.9	6321.8	6157.7	5984.4	5850.2	5826.0	5891.2	5893.1
45°	6987.1	6778.4	6575.2	6373.9	6234.2	6191.3	6254.7	6262.1
47.5°	7523.9	7262.9	7022.5	6804.5	6653.5	6586.4	6647.9	6659.1
50°	8083.0	7812.7	7533.2	7290.9	7113.8	7031.8	7104.5	7112.0
52.5°	8636.5	8381.2	8103.5	7825.8	7611.5	7518.3	7604.0	7630.1
55°	9193.8	8947.7	8686.8	8409.1	8138.9	8056.9	8150.1	8178.0
57.5°	9773.4	9536.7	9300.0	9020.4	8757.6	8632.8	8733.4	8772.6
60°	10412.6	10203.9	9980.2	9698.8	9439.8	9294.4	9380.1	9424.9
62.5°	11040.7	10997.8	10794.7	10502.1	10174.1	10028.7	10101.4	10133.1
65°	11092.9	11788.1	11778.7	11488.0	11029.5	10785.4	10805.9	10820.8
67.5°	9682.1	11277.4	12296.9	12388.2	11877.5	11495.5	11450.7	11460.0
70°	6854.8	9044.7	11208.4	12628.6	12829.9	12533.5	12436.6	12451.5
71°	5492.4	7760.6	10142.4	12052.7	12815.0	12729.2	12675.2	12714.3
72.5°	3505.7	5717.9	8036.4	10321.3	11784.3	12203.7	12265.2	12289.4
75°	1272.9	2460.1	4163.6	5965.8	7561.1	8658.9	9262.7	9311.2
77.5°	684.0	881.5	1362.4	2035.2	2557.0	2836.6	2870.1	2883.2
80°	503.2	583.3	667.2	762.3	821.9	833.1	812.6	769.7
82.5°	356.0	402.6	436.1	469.7	493.9	473.4	393.2	300.1
85°	206.9	227.4	246.0	262.8	266.5	251.6	165.9	136.1
87.5°	82.0	89.5	87.6	98.8	95.0	87.6	65.2	55.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)