

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: P196529

Luminaire Tested: **NAV-AF-05-D-UNV-RW-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196529
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-05-D-UNV-RW-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29718.5 lumens
Efficiency: N/A
Efficacy: 106.5 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

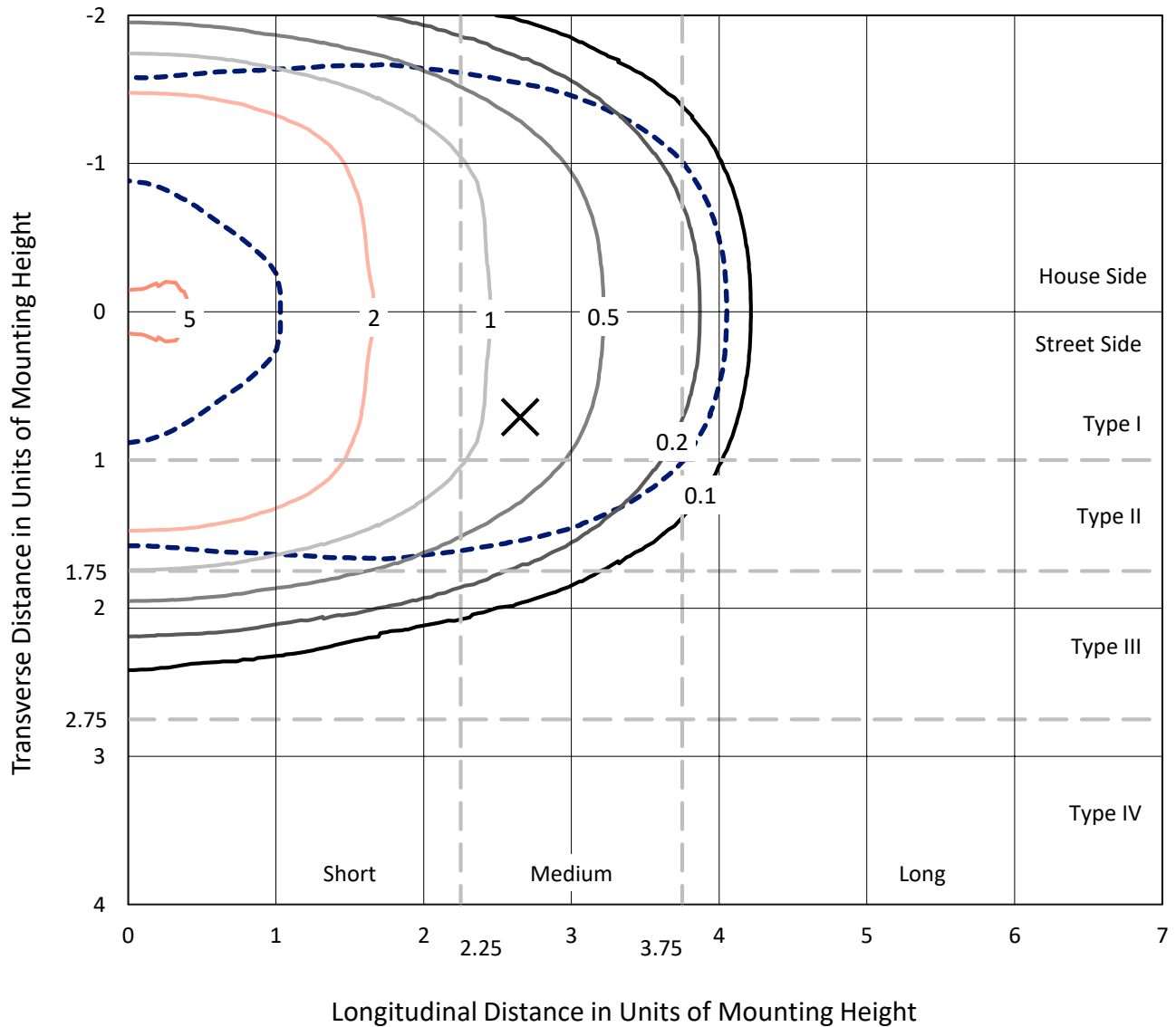
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

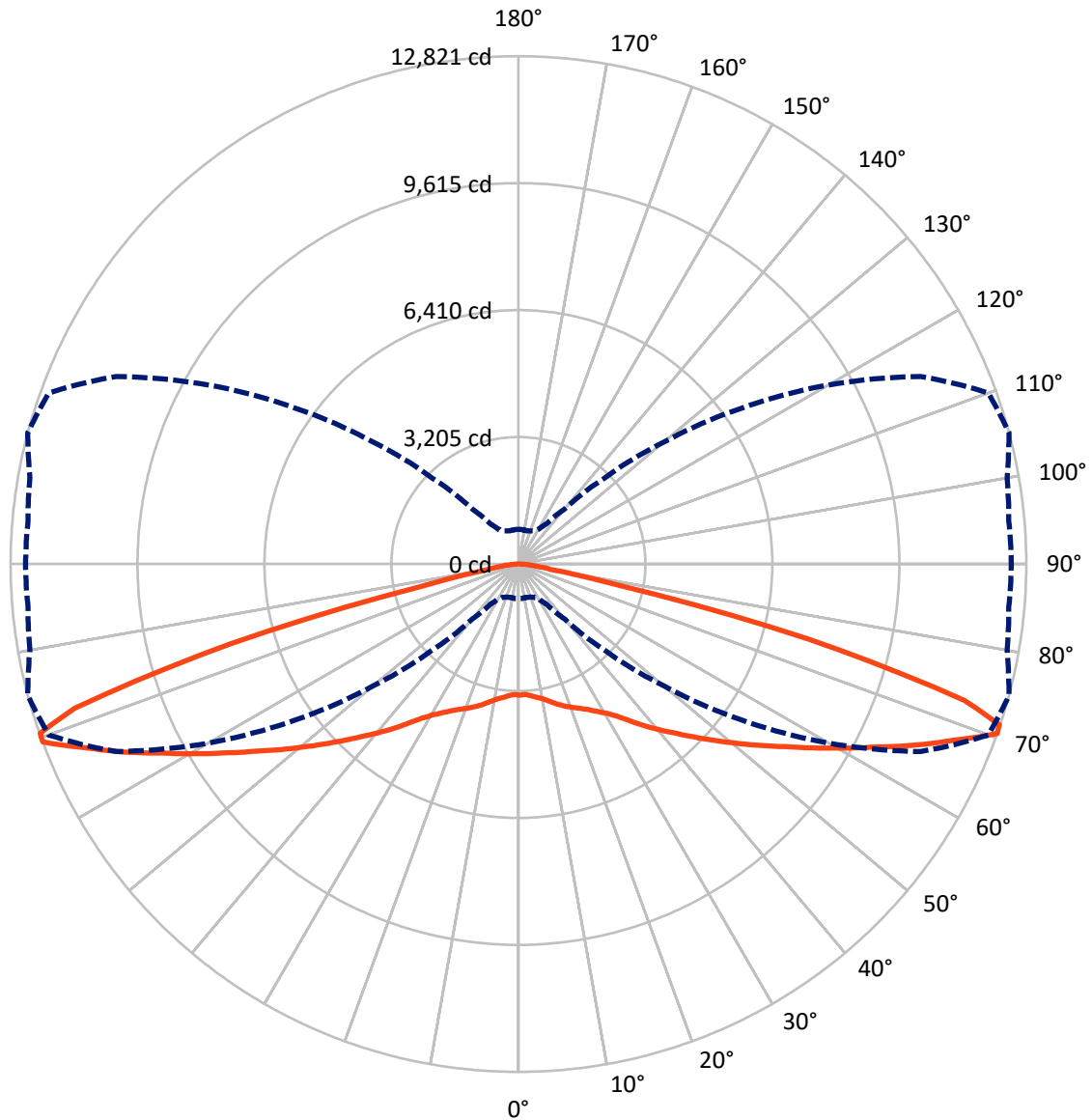
× Max cd
 - - - 1/2 Max cd



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	14859.3	0.0	14859.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14859.3	0.0	14859.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	29718.5	0.0	29718.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.4	1.1
10°-20°	984.5	3.3
20°-30°	1849.0	6.2
30°-40°	3257.1	11.0
40°-50°	5398.0	18.2
50°-60°	7509.4	25.3
60°-70°	7089.1	23.9
70°-80°	3027.8	10.2
80°-90°	286.1	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°	29718.5	100.0
0°-180°	29718.5	100.0

Coefficient of Utilization



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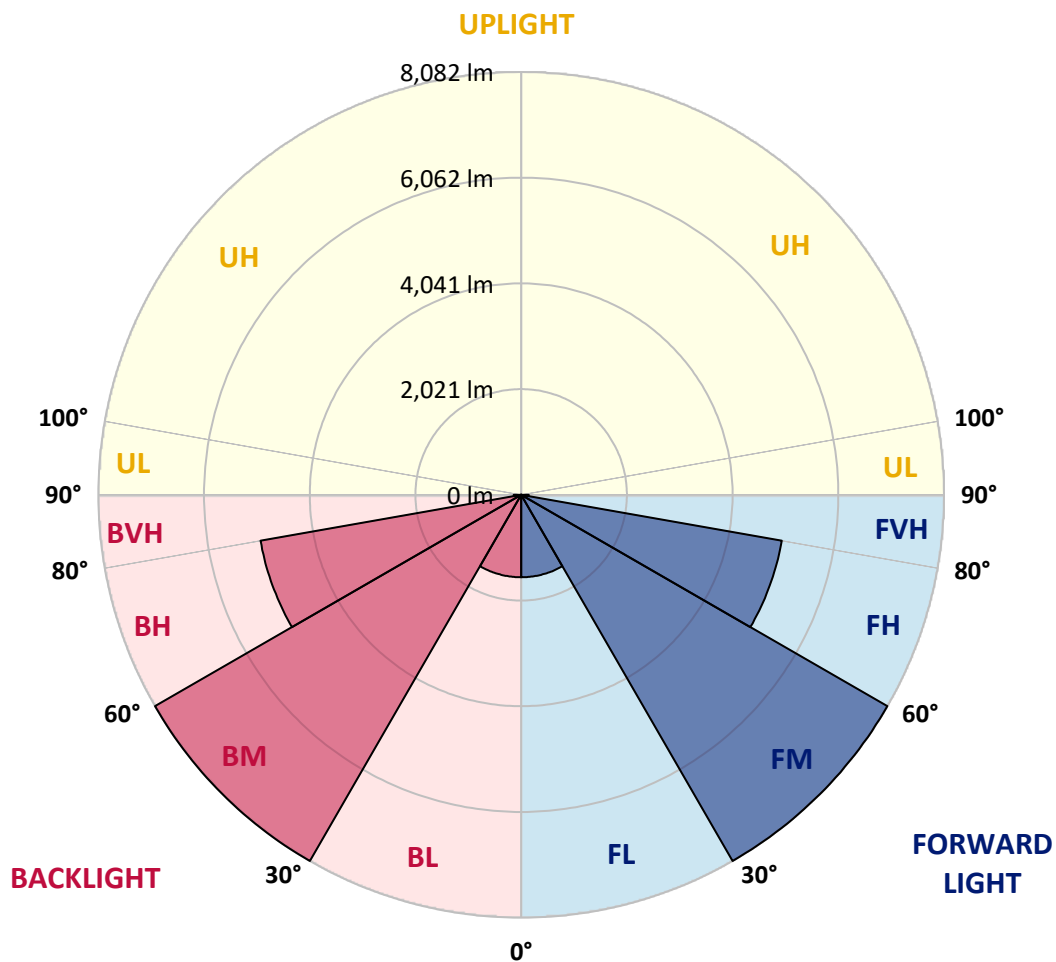
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1575.5	5.3			
FM	(30°-60°)	8082.3	27.2			
FH	(60°-80°)	5058.4	17.0			G3/7500
FVH	(80°-90°)	143.1	0.5			G2/225
BL	(0°-30°)	1575.5	5.3	B3/2500		
BM	(30°-60°)	8082.3	27.2	B4/8500		
BH	(60°-80°)	5058.4	17.0	B5		G5
BVH	(80°-90°)	143.1	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°	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5
2.5°	3329.9	3328.0	3329.9	3324.3	3326.2	3324.3	3324.3	3316.9	3316.9	3313.2	3307.6
5°	3292.6	3296.5	3296.5	3296.5	3302.1	3302.1	3309.5	3311.3	3316.9	3322.5	3326.2
7.5°	3231.3	3233.1	3238.7	3242.4	3253.5	3268.5	3283.3	3300.1	3315.0	3333.6	3354.2
10°	3179.1	3182.8	3192.1	3201.4	3221.9	3240.5	3266.7	3292.6	3318.7	3350.4	3382.1
12.5°	3151.1	3156.7	3171.6	3186.5	3218.2	3242.4	3277.8	3318.7	3354.2	3384.0	3419.4
15°	3154.9	3156.7	3177.3	3197.7	3242.4	3275.9	3326.2	3374.6	3417.4	3451.0	3491.9
17.5°	3208.8	3212.5	3233.1	3262.9	3305.7	3348.6	3402.6	3452.8	3510.6	3549.8	3598.1
20°	3315.0	3320.6	3343.0	3374.6	3421.2	3465.9	3521.8	3573.9	3633.5	3680.1	3728.5
22.5°	3452.8	3462.2	3486.4	3525.5	3572.0	3626.1	3683.7	3737.8	3793.7	3840.3	3881.2
25°	3637.2	3648.3	3674.5	3713.6	3760.1	3817.8	3877.5	3933.4	3991.1	4026.4	4060.0
27.5°	3884.9	3903.5	3931.4	3963.2	4004.2	4065.5	4121.5	4168.0	4223.9	4263.0	4285.3
30°	4218.3	4244.4	4266.7	4300.2	4330.1	4395.2	4439.9	4477.1	4519.9	4542.4	4547.9
32.5°	4626.1	4650.4	4672.7	4696.9	4737.9	4797.5	4840.3	4860.8	4883.2	4879.4	4859.0
35°	5086.1	5104.8	5117.8	5160.7	5227.7	5266.9	5298.4	5305.9	5309.7	5270.5	5231.5
37.5°	5570.4	5592.8	5603.9	5671.0	5734.3	5778.9	5793.9	5810.6	5799.5	5734.3	5663.5
40°	6093.7	6117.9	6151.4	6209.2	6283.7	6326.5	6345.1	6343.3	6334.0	6257.6	6142.1
42.5°	6607.7	6637.5	6665.5	6766.0	6827.5	6900.2	6909.4	6907.6	6887.0	6799.5	6665.5
45°	7043.5	7078.9	7136.6	7248.4	7347.0	7434.6	7469.9	7483.0	7462.5	7369.4	7216.7
47.5°	7403.0	7427.1	7499.8	7635.8	7762.5	7890.9	7961.7	8012.0	8010.2	7943.0	7781.0
50°	7648.8	7676.8	7766.1	7918.8	8077.1	8228.0	8367.6	8481.2	8535.4	8486.8	8336.1
52.5°	7719.6	7754.9	7872.2	8054.8	8239.1	8442.1	8650.7	8851.8	8972.9	9002.8	8885.4
55°	7421.6	7460.7	7632.0	7885.4	8188.9	8488.7	8805.3	9092.1	9341.6	9457.2	9410.6
57.5°	6553.7	6581.7	6799.5	7127.3	7561.3	8088.4	8621.0	9146.1	9574.5	9874.3	9926.5
60°	5183.0	5218.3	5456.7	5803.2	6296.7	6963.4	7708.4	8568.7	9408.8	10096.0	10436.8
62.5°	3497.5	3521.8	3750.9	4067.4	4607.6	5250.0	6080.8	7170.1	8367.6	9594.9	10556.0
65°	1836.3	1836.3	1990.9	2212.5	2642.8	3218.2	4069.3	5186.7	6611.5	8144.1	9751.4
67.5°	1065.3	1063.4	1098.8	1149.1	1285.0	1517.8	1987.2	2808.5	4156.9	5941.0	7769.9
70°	879.0	873.4	867.8	867.8	888.4	923.8	1013.2	1238.5	1812.1	3063.6	4780.7
71°	839.9	836.2	821.3	815.7	825.0	843.7	882.9	987.0	1286.8	2089.6	3570.1
72.5°	793.3	784.1	761.7	752.4	754.2	761.7	772.9	813.9	905.1	1188.2	2035.6
75°	722.6	700.3	672.3	659.3	653.7	651.8	651.8	662.9	683.5	717.1	834.3
77.5°	640.7	609.0	579.2	566.2	556.9	551.2	547.5	540.1	536.4	551.2	594.2
80°	541.9	508.4	484.2	476.8	471.2	460.0	445.1	430.3	420.8	428.3	454.4
82.5°	419.0	385.4	389.3	391.1	381.8	363.2	348.3	331.5	314.7	311.1	324.1
85°	333.3	316.7	305.4	329.6	309.2	286.8	266.4	238.4	199.3	163.9	178.7
87.5°	143.4	145.4	208.5	314.7	275.7	221.6	184.4	149.0	94.9	70.8	72.6
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°	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5	3309.5
2.5°	3305.7	3305.7	3300.1	3296.5	3296.5	3296.5	3292.6	3294.5
5°	3328.0	3331.8	3335.4	3333.6	3339.3	3344.9	3343.0	3341.1
7.5°	3365.3	3376.4	3387.7	3393.3	3400.7	3408.2	3410.0	3404.4
10°	3402.6	3425.0	3441.6	3456.5	3465.9	3473.4	3479.0	3477.0
12.5°	3449.1	3480.8	3510.6	3540.3	3560.9	3572.0	3583.2	3579.5
15°	3525.5	3560.9	3598.1	3637.2	3668.9	3685.7	3702.4	3698.7
17.5°	3629.8	3661.4	3691.3	3730.3	3769.5	3788.1	3806.7	3804.9
20°	3760.1	3784.3	3801.1	3823.4	3860.6	3881.2	3898.0	3892.4
22.5°	3909.2	3916.6	3918.5	3925.9	3955.7	3979.9	4002.2	4007.8
25°	4071.1	4065.5	4054.4	4048.8	4069.3	4095.4	4123.3	4130.8
27.5°	4272.2	4253.7	4225.7	4203.4	4209.0	4242.5	4274.1	4281.7
30°	4525.6	4482.8	4423.2	4380.3	4372.9	4408.3	4441.8	4453.0
32.5°	4814.3	4756.5	4674.5	4609.4	4581.5	4613.2	4642.9	4659.7
35°	5156.9	5093.5	4994.9	4911.1	4866.4	4886.8	4939.1	4957.6
37.5°	5562.9	5475.4	5365.5	5259.3	5184.9	5188.6	5244.5	5266.9
40°	6011.8	5885.1	5745.4	5613.2	5505.1	5497.7	5548.0	5564.8
42.5°	6479.2	6317.2	6153.3	5980.1	5846.0	5821.8	5887.0	5888.8
45°	6982.1	6773.4	6570.6	6369.4	6229.6	6186.8	6250.1	6257.6
47.5°	7518.4	7257.6	7017.4	6799.5	6648.7	6581.7	6643.1	6654.3
50°	8077.1	7807.1	7527.8	7285.6	7108.7	7026.8	7099.3	7106.9
52.5°	8630.3	8375.2	8097.6	7820.1	7606.0	7512.8	7598.6	7624.5
55°	9187.1	8941.2	8680.5	8403.0	8133.0	8051.1	8144.1	8172.1
57.5°	9766.3	9529.8	9293.3	9013.9	8751.3	8626.6	8727.1	8766.2
60°	10405.1	10196.5	9973.0	9691.9	9432.9	9287.7	9373.4	9418.0
62.5°	11032.8	10989.9	10786.9	10494.5	10166.7	10021.5	10094.1	10125.7
65°	11084.9	11779.6	11770.3	11479.7	11021.5	10777.6	10798.1	10813.0
67.5°	9675.0	11269.2	12288.0	12379.2	11869.0	11487.2	11442.5	11451.8
70°	6849.8	9038.2	11200.3	12619.5	12820.6	12524.5	12427.7	12442.6
71°	5488.4	7754.9	10135.1	12043.9	12805.7	12720.1	12666.0	12705.1
72.5°	3503.2	5713.8	8030.5	10313.8	11775.9	12194.9	12256.2	12280.5
75°	1272.0	2458.4	4160.6	5961.5	7555.8	8652.6	9256.0	9304.4
77.5°	683.5	880.9	1361.4	2033.8	2555.1	2834.5	2868.0	2881.0
80°	502.8	582.9	666.7	761.7	821.3	832.4	812.1	769.1
82.5°	355.7	402.3	435.8	469.3	493.6	473.1	393.0	299.8
85°	206.7	227.3	245.9	262.6	266.4	251.4	165.7	135.9
87.5°	82.0	89.4	87.5	98.7	94.9	87.5	65.2	55.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)