

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: P196896

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196896  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
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-5MQ-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34340 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - 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

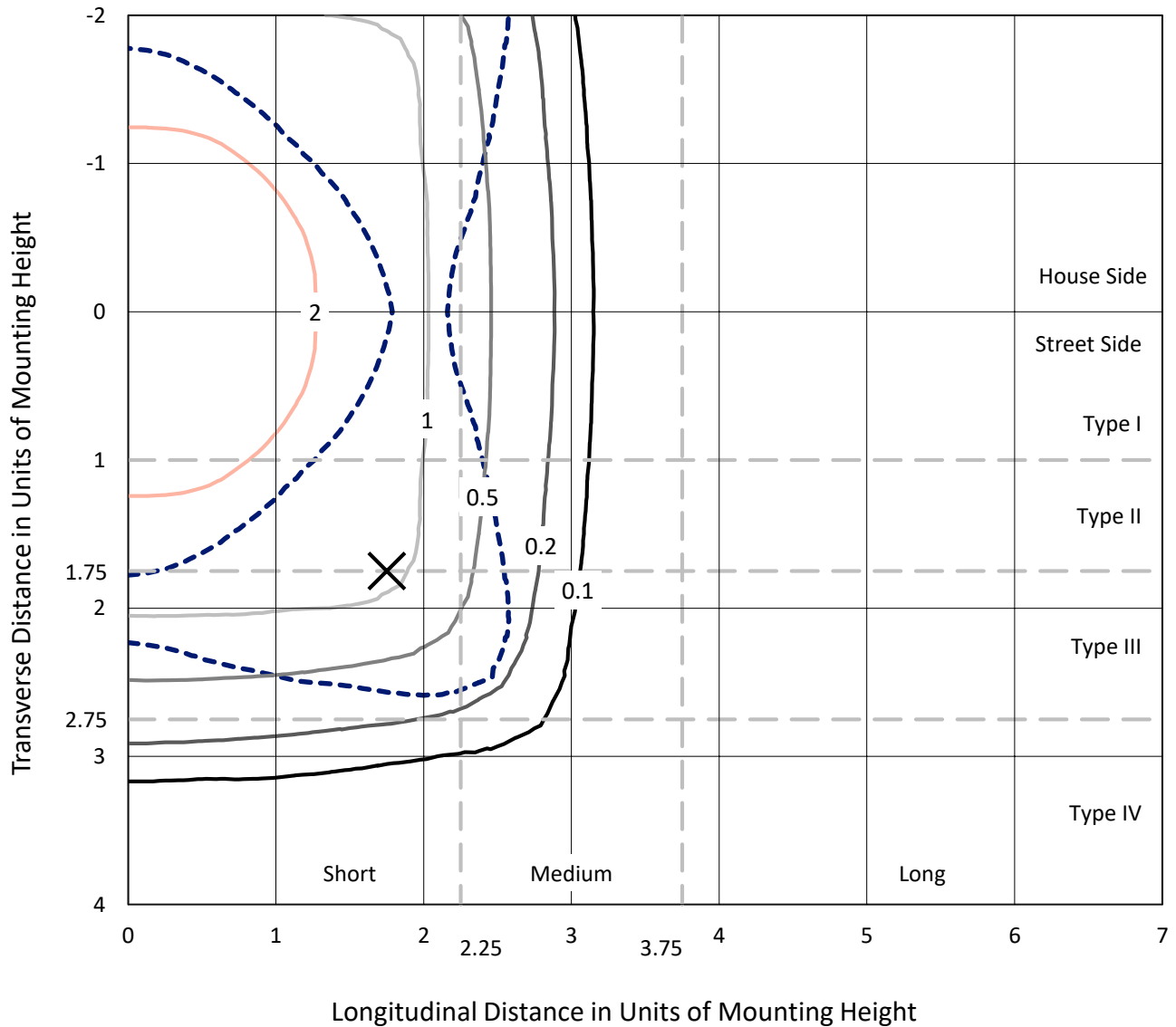


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### Iso-Footcandle Lines of Horizontal Illumination

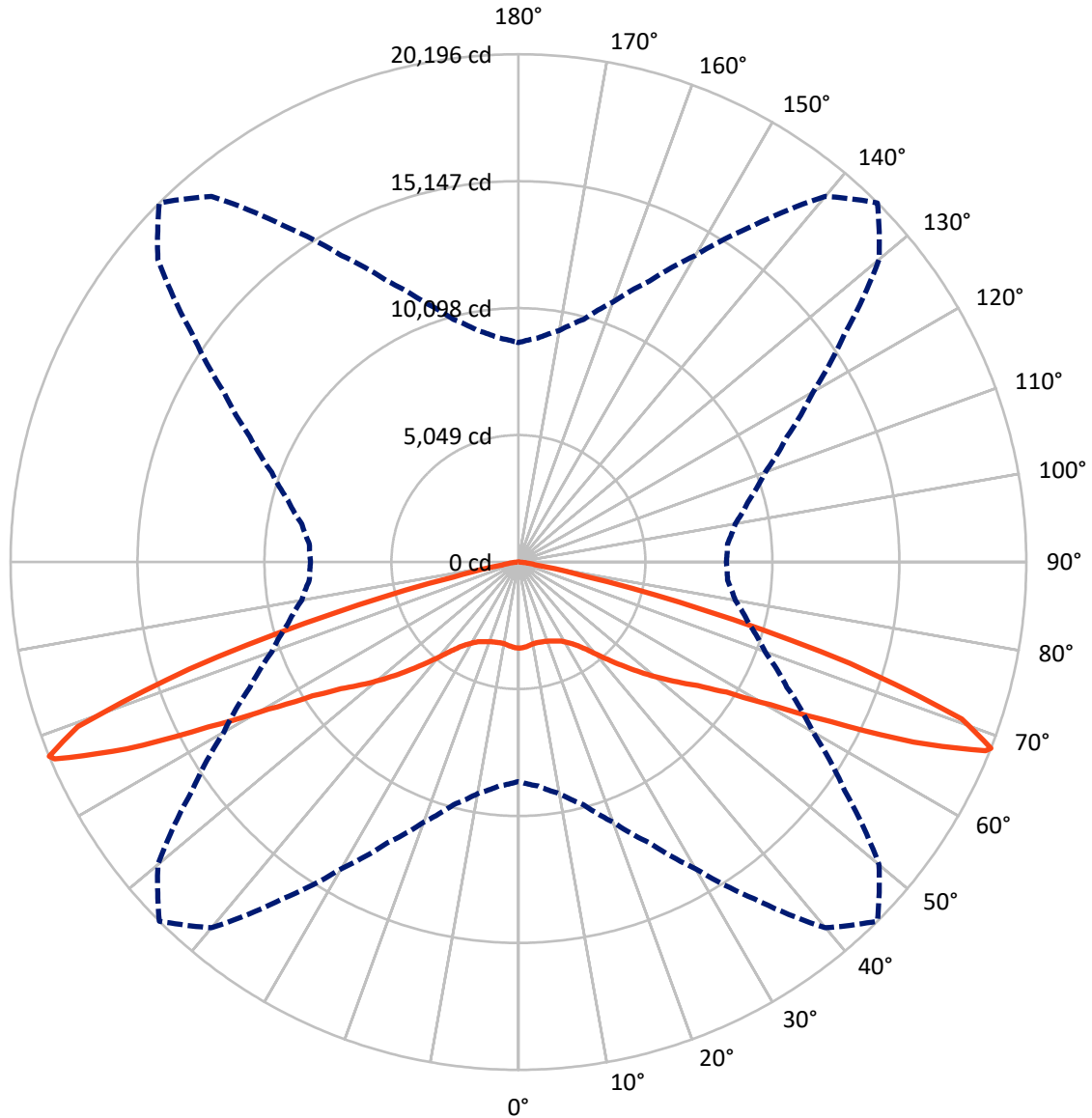
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17170.0	0.0	17170.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	17170.0	0.0	17170.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	34340.0	0.0	34340.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	320.5	0.9
10°-20°	929.6	2.7
20°-30°	1580.4	4.6
30°-40°	2586.4	7.5
40°-50°	4622.2	13.5
50°-60°	7806.1	22.7
60°-70°	12104.4	35.2
70°-80°	4161.8	12.1
80°-90°	228.7	0.7
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°	34340.0	100.0
0°-180°	34340.0	100.0



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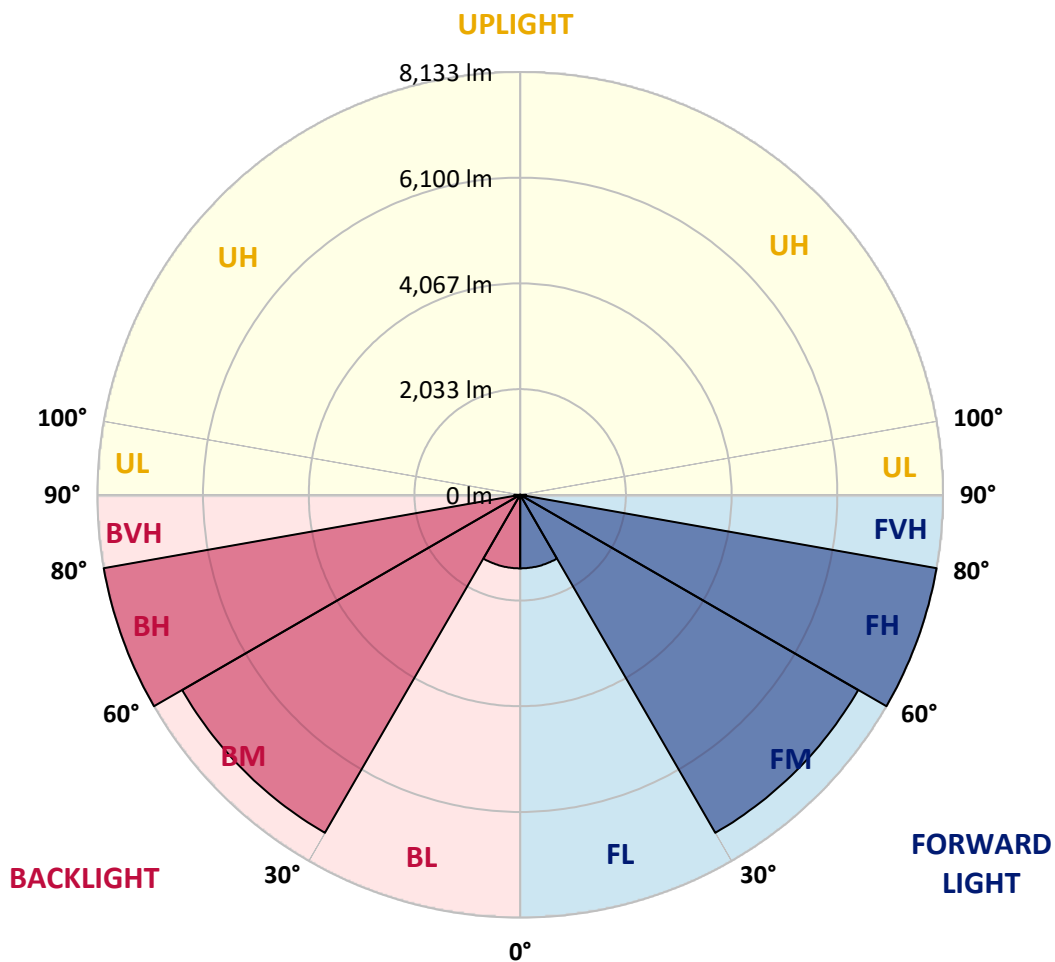
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1415.3	4.1			
FM	(30°-60°)	7507.3	21.9			
FH	(60°-80°)	8133.1	23.7			G4/12000
FVH	(80°-90°)	114.4	0.3			G2/225
BL	(0°-30°)	1415.3	4.1	B3/2500		
BM	(30°-60°)	7507.3	21.9	B4/8500		
BH	(60°-80°)	8133.1	23.7	B5		G4/12000
BVH	(80°-90°)	114.4	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5
2.5°	3440.2	3440.2	3444.4	3442.3	3436.0	3429.7	3423.4	3417.1	3412.9	3408.7	3404.5
5°	3404.5	3404.5	3410.8	3406.6	3402.4	3396.1	3391.9	3385.6	3381.4	3377.2	3379.3
7.5°	3358.2	3362.4	3366.6	3364.5	3356.1	3354.0	3347.7	3345.6	3341.4	3335.1	3337.2
10°	3318.3	3320.4	3324.6	3322.5	3320.4	3314.1	3312.0	3309.9	3307.8	3299.3	3297.2
12.5°	3278.3	3282.5	3286.7	3288.8	3286.7	3288.8	3290.9	3293.0	3290.9	3286.7	3286.7
15°	3246.8	3251.0	3257.3	3263.6	3265.7	3278.3	3286.7	3295.1	3301.4	3303.6	3297.2
17.5°	3230.0	3236.3	3244.7	3257.3	3267.8	3282.5	3297.2	3309.9	3320.4	3322.5	3316.2
20°	3227.9	3234.2	3246.8	3261.5	3280.4	3299.3	3322.5	3341.4	3351.9	3358.2	3351.9
22.5°	3242.6	3251.0	3267.8	3286.7	3309.9	3335.1	3364.5	3385.6	3406.6	3415.0	3408.7
25°	3284.6	3293.0	3312.0	3335.1	3360.3	3391.9	3421.3	3448.6	3469.7	3480.2	3471.8
27.5°	3372.9	3375.0	3396.1	3421.3	3450.8	3478.1	3515.9	3528.6	3545.4	3555.9	3545.4
30°	3497.0	3501.2	3520.1	3560.1	3587.4	3623.2	3644.2	3656.8	3675.8	3686.3	3673.7
32.5°	3686.3	3690.5	3707.3	3745.1	3770.4	3797.7	3823.0	3831.4	3850.3	3862.9	3848.2
35°	3953.3	3961.7	3976.5	4001.7	4022.7	4043.8	4062.7	4056.4	4069.0	4085.8	4071.1
37.5°	4319.2	4317.1	4321.3	4340.3	4361.3	4373.9	4403.3	4388.6	4401.2	4416.0	4407.5
40°	4746.1	4746.1	4744.0	4777.6	4786.1	4798.7	4830.2	4811.3	4828.1	4844.9	4830.2
42.5°	5231.9	5240.3	5250.8	5278.1	5301.2	5305.5	5320.2	5311.8	5332.8	5347.5	5332.8
45°	5791.2	5803.8	5816.4	5879.5	5890.0	5898.5	5909.0	5881.6	5904.8	5917.4	5913.2
47.5°	6371.6	6394.7	6422.1	6487.2	6529.3	6548.2	6556.6	6525.1	6527.2	6546.1	6548.2
50°	7027.7	7052.9	7080.2	7153.8	7193.8	7227.4	7238.0	7202.2	7206.4	7221.1	7225.3
52.5°	7633.3	7662.7	7721.6	7820.4	7877.2	7936.1	7940.3	7896.1	7915.1	7925.6	7917.2
55°	8203.2	8241.0	8318.8	8451.3	8554.3	8670.0	8722.6	8674.2	8674.2	8665.8	8661.6
57.5°	8867.7	8909.7	8989.6	9143.1	9286.1	9452.2	9595.2	9643.6	9731.9	9761.4	9715.1
60°	9868.6	9912.8	9994.8	10196.6	10377.5	10619.3	10854.8	11046.2	11357.4	11525.6	11374.2
62.5°	10783.3	10850.6	11044.1	11397.4	11788.5	12236.4	12755.8	13125.9	13691.6	13973.3	13592.7
65°	10575.2	10711.8	11090.3	11645.5	12453.0	13424.5	14482.2	15497.9	16667.1	17266.4	16492.5
67.5°	9237.8	9353.4	9761.4	10406.9	11414.2	12753.7	14398.1	16500.9	18912.9	20035.8	18666.9
68°	8726.8	8943.4	9349.2	9990.6	11006.2	12322.6	14078.5	16349.5	18982.3	20195.6	18717.3
70°	6691.2	6769.0	7158.0	7734.2	8829.8	10120.9	11893.6	14482.2	17457.7	18706.8	17186.5
72.5°	3179.5	3225.7	3478.1	4045.9	4741.9	5793.3	7357.8	9799.2	12480.3	13779.9	12263.7
75°	1165.0	1175.5	1234.4	1368.9	1629.7	2025.0	2775.7	4294.0	6356.9	7580.7	6382.1
77.5°	628.7	630.9	654.0	687.6	733.9	786.5	900.0	1207.0	1947.2	2649.6	2056.6
80°	395.3	393.2	416.4	443.7	475.2	500.5	511.0	546.7	616.1	721.3	662.4
82.5°	201.9	220.8	273.4	302.8	349.1	357.5	347.0	344.9	365.9	395.3	407.9
85°	111.5	98.8	145.1	193.5	210.3	216.6	218.7	206.1	201.9	197.7	208.2
87.5°	56.8	52.6	63.1	96.7	103.0	84.1	86.2	73.6	50.5	50.5	52.6
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°	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5	3425.5
2.5°	3400.3	3402.4	3398.2	3398.2	3398.2	3400.3	3398.2	3396.1
5°	3372.9	3377.2	3377.2	3379.3	3381.4	3381.4	3381.4	3381.4
7.5°	3333.0	3335.1	3339.3	3339.3	3339.3	3339.3	3339.3	3339.3
10°	3295.1	3290.9	3288.8	3284.6	3284.6	3278.3	3280.4	3282.5
12.5°	3276.2	3267.8	3263.6	3257.3	3253.1	3246.8	3246.8	3248.9
15°	3284.6	3272.0	3259.4	3255.2	3251.0	3246.8	3242.6	3244.7
17.5°	3301.4	3286.7	3272.0	3263.6	3255.2	3248.9	3246.8	3248.9
20°	3337.2	3316.2	3293.0	3278.3	3261.5	3257.3	3251.0	3257.3
22.5°	3385.6	3360.3	3330.9	3303.6	3284.6	3276.2	3267.8	3274.1
25°	3444.4	3417.1	3387.7	3356.1	3335.1	3328.8	3318.3	3318.3
27.5°	3526.5	3503.3	3478.1	3448.6	3427.6	3421.3	3404.5	3404.5
30°	3656.8	3633.7	3610.6	3585.3	3564.3	3558.0	3537.0	3537.0
32.5°	3829.3	3804.0	3789.3	3768.3	3751.5	3740.9	3715.7	3713.6
35°	4060.6	4037.4	4035.3	4020.6	4003.8	4005.9	3980.7	3976.5
37.5°	4392.8	4373.9	4380.2	4367.6	4352.9	4365.5	4350.8	4350.8
40°	4817.6	4811.3	4817.6	4809.2	4811.3	4813.4	4800.8	4805.0
42.5°	5330.7	5313.9	5351.7	5347.5	5341.2	5358.0	5328.6	5307.6
45°	5921.6	5915.3	5953.1	5959.4	5946.8	5957.3	5904.8	5902.7
47.5°	6562.9	6562.9	6596.6	6592.4	6579.8	6581.9	6518.8	6478.8
50°	7231.6	7227.4	7261.1	7252.7	7235.9	7233.8	7168.6	7128.6
52.5°	7927.7	7927.7	7976.1	7952.9	7913.0	7894.0	7814.1	7761.6
55°	8697.3	8686.8	8701.5	8625.8	8548.0	8491.2	8392.4	8352.5
57.5°	9670.9	9549.0	9443.8	9347.1	9237.8	9170.5	9054.8	9012.7
60°	11052.5	10726.6	10585.7	10392.2	10211.4	10120.9	9967.4	9885.4
62.5°	12966.1	12425.6	12042.9	11616.1	11203.9	10913.7	10680.3	10577.3
65°	15178.3	14000.7	13027.1	12112.3	11336.4	10720.2	10377.5	10270.2
67.5°	16019.4	13857.7	12177.5	10865.3	9923.3	9189.4	8779.3	8693.1
68°	15840.7	13529.6	11784.3	10440.6	9494.3	8754.1	8346.1	8268.3
70°	13973.3	11414.2	9572.1	8234.7	7351.5	6647.1	6359.0	6234.9
72.5°	9525.8	7330.5	5623.0	4498.0	3837.7	3391.9	3126.9	3036.5
75°	4384.4	2962.9	1978.8	1478.3	1255.4	1148.1	1066.1	1045.1
77.5°	1278.5	929.5	799.1	740.2	696.0	658.2	630.9	628.7
80°	607.7	569.9	553.0	515.2	475.2	439.5	414.3	418.5
82.5°	407.9	397.4	397.4	359.6	296.5	254.4	210.3	189.3
85°	216.6	225.0	237.6	225.0	195.6	145.1	94.6	103.0
87.5°	73.6	84.1	88.3	86.2	77.8	58.9	44.2	44.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)