

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: P196410

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196410  
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-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37102.3 lumens  
Efficiency: N/A  
Efficacy: 111.4 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

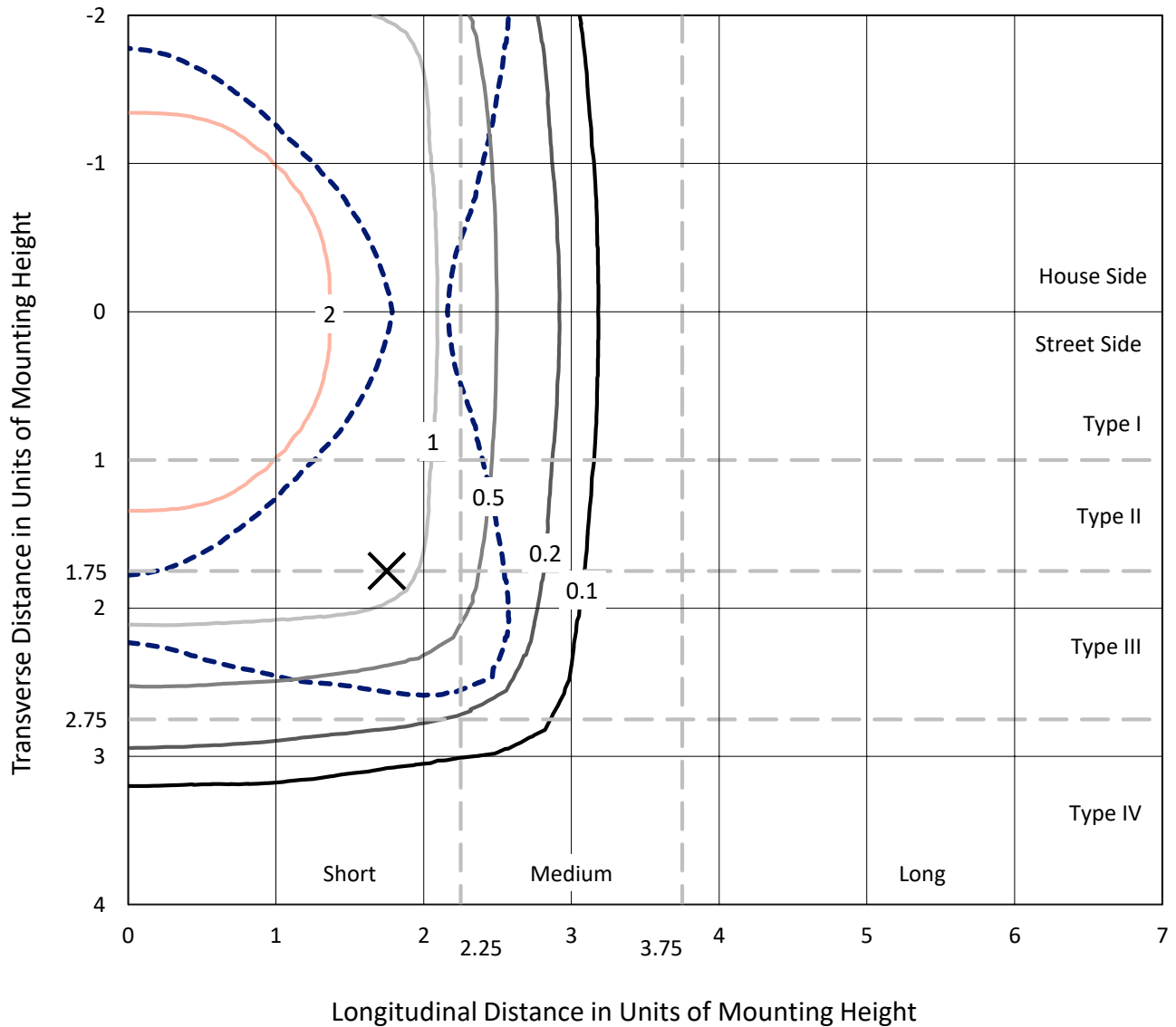
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

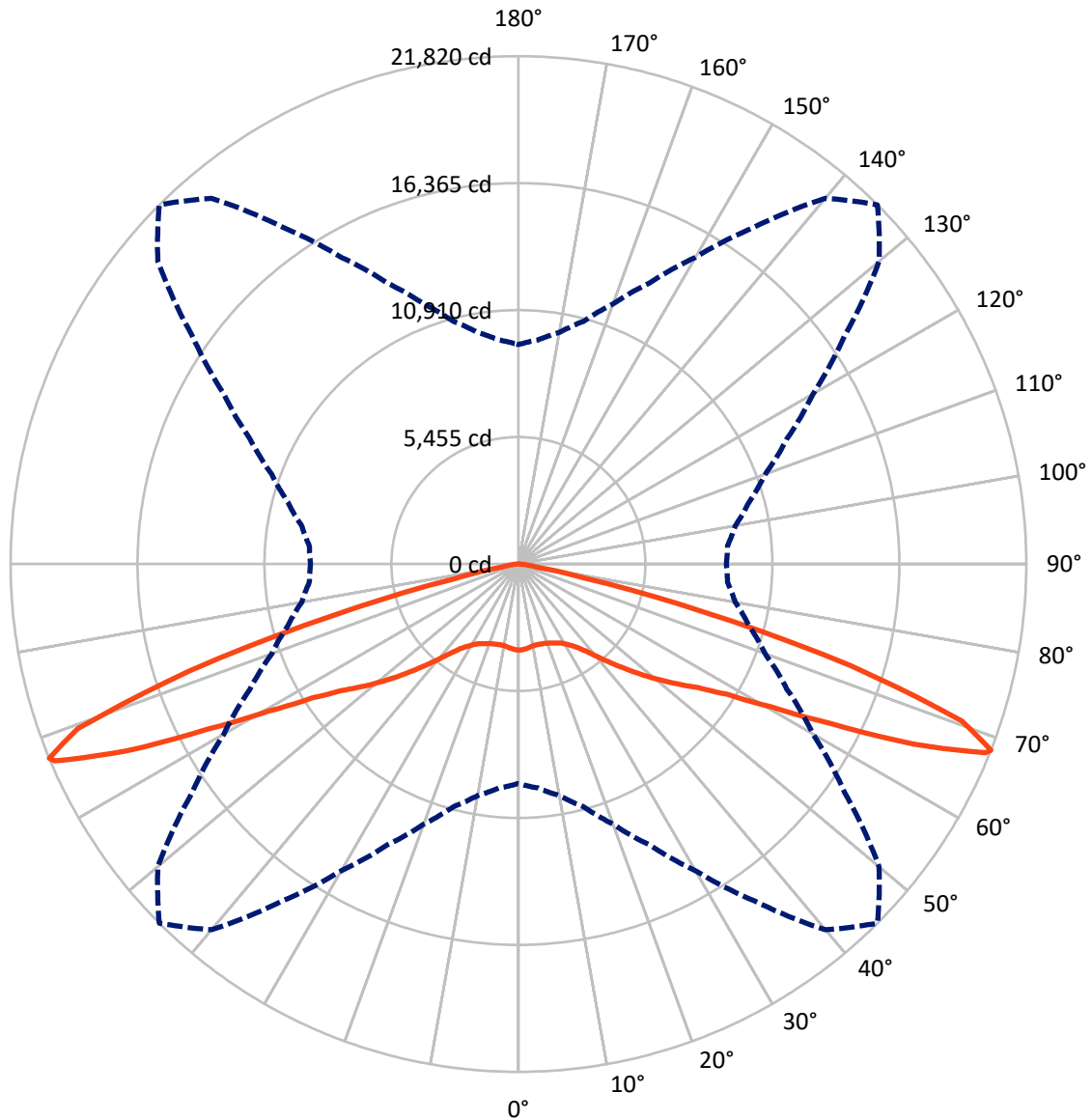
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.1 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	18551.1	0.0	18551.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	18551.1	0.0	18551.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	37102.3	0.0	37102.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	346.3	0.9
10°-20°	1004.4	2.7
20°-30°	1707.6	4.6
30°-40°	2794.4	7.5
40°-50°	4994.0	13.5
50°-60°	8434.0	22.7
60°-70°	13078.0	35.2
70°-80°	4496.5	12.1
80°-90°	247.1	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°	37102.3	100.0
0°-180°	37102.3	100.0



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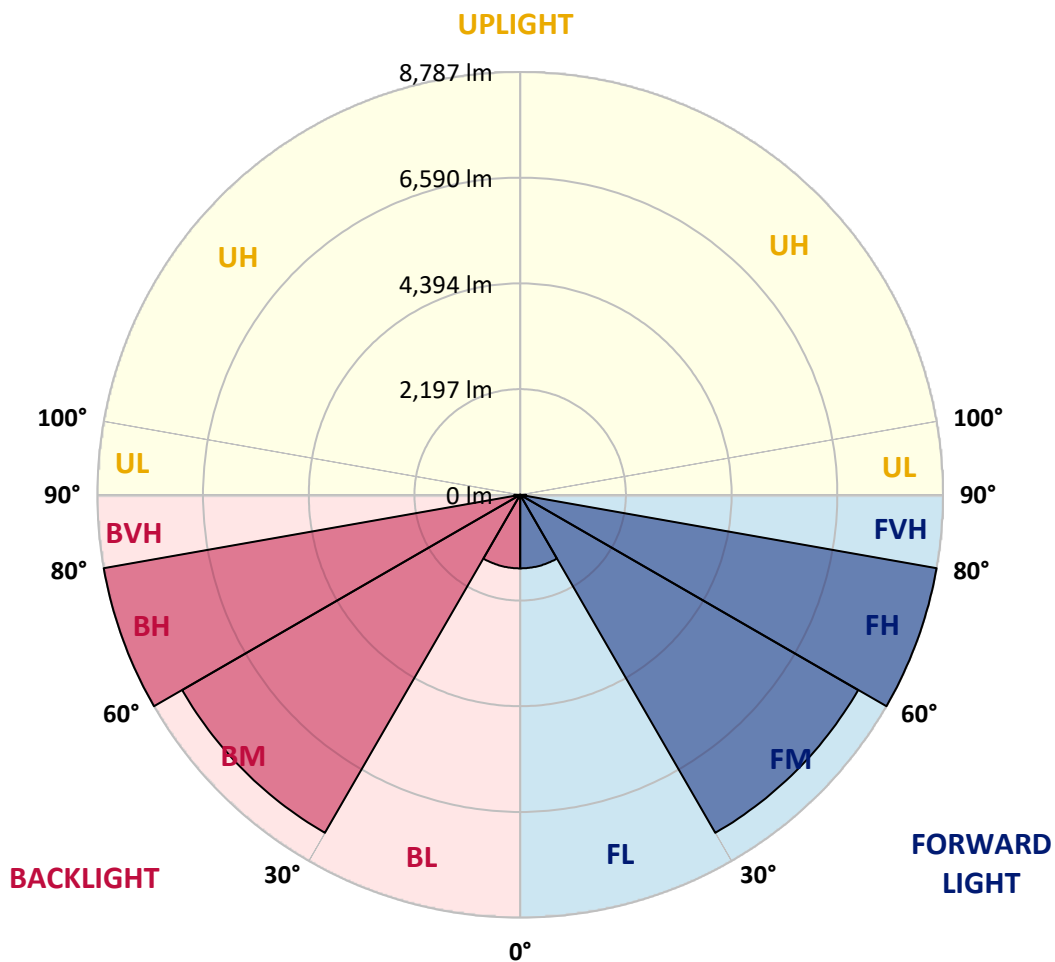
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1529.1	4.1			
FM	(30°-60°)	8111.2	21.9			
FH	(60°-80°)	8787.3	23.7			G4/12000
FVH	(80°-90°)	123.6	0.3			G2/225
BL	(0°-30°)	1529.1	4.1	B3/2500		
BM	(30°-60°)	8111.2	21.9	B4/8500		
BH	(60°-80°)	8787.3	23.7	B5		G4/12000
BVH	(80°-90°)	123.6	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°	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0
2.5°	3717.0	3717.0	3721.5	3719.1	3712.4	3705.6	3698.8	3692.0	3687.4	3682.9	3678.3
5°	3678.3	3678.3	3685.2	3680.6	3676.0	3669.3	3664.7	3657.9	3653.3	3648.8	3651.1
7.5°	3628.4	3632.9	3637.5	3635.2	3626.1	3623.8	3617.0	3614.8	3610.2	3603.4	3605.7
10°	3585.3	3587.4	3592.0	3589.7	3587.4	3580.7	3578.3	3576.0	3573.9	3564.7	3562.5
12.5°	3542.0	3546.5	3551.2	3553.3	3551.2	3553.3	3555.7	3557.9	3555.7	3551.2	3551.2
15°	3508.0	3512.4	3519.3	3526.2	3528.4	3542.0	3551.2	3560.2	3567.0	3569.3	3562.5
17.5°	3489.7	3496.7	3505.7	3519.3	3530.7	3546.5	3562.5	3576.0	3587.4	3589.7	3582.9
20°	3487.4	3494.3	3508.0	3523.8	3544.3	3564.7	3589.7	3610.2	3621.5	3628.4	3621.5
22.5°	3503.4	3512.4	3530.7	3551.2	3576.0	3603.4	3635.2	3657.9	3680.6	3689.6	3682.9
25°	3548.8	3557.9	3578.3	3603.4	3630.5	3664.7	3696.6	3726.1	3748.8	3760.1	3751.1
27.5°	3644.3	3646.5	3669.3	3696.6	3728.4	3757.9	3798.7	3812.4	3830.5	3841.9	3830.5
30°	3778.3	3782.9	3803.4	3846.5	3876.0	3914.6	3937.3	3951.1	3971.5	3982.8	3969.2
32.5°	3982.8	3987.3	4005.6	4046.4	4073.6	4103.2	4130.4	4139.5	4160.0	4173.6	4157.8
35°	4271.4	4280.4	4296.3	4323.6	4346.4	4369.1	4389.5	4382.6	4396.3	4414.5	4398.6
37.5°	4666.7	4664.4	4668.9	4689.4	4712.2	4725.7	4757.5	4741.7	4755.3	4771.2	4762.1
40°	5127.9	5127.9	5125.6	5162.0	5171.0	5184.7	5218.8	5198.3	5216.5	5234.6	5218.8
42.5°	5652.7	5661.9	5673.2	5702.7	5727.7	5732.2	5748.1	5739.1	5761.8	5777.6	5761.8
45°	6257.1	6270.7	6284.3	6352.5	6363.8	6372.9	6384.2	6354.7	6379.7	6393.5	6388.8
47.5°	6884.1	6909.1	6938.6	7009.1	7054.6	7075.0	7084.1	7050.0	7052.2	7072.7	7075.0
50°	7593.0	7620.2	7649.8	7729.3	7772.4	7808.8	7820.1	7781.6	7786.1	7801.9	7806.6
52.5°	8247.3	8279.1	8342.7	8449.4	8510.9	8574.4	8579.0	8531.3	8551.7	8563.0	8554.0
55°	8863.0	8903.9	8988.0	9131.2	9242.5	9367.4	9424.1	9371.9	9371.9	9362.9	9358.3
57.5°	9581.0	9626.4	9712.7	9878.5	10033.1	10212.6	10367.1	10419.3	10514.8	10546.6	10496.5
60°	10662.4	10710.1	10798.7	11016.8	11212.1	11473.6	11728.0	11934.7	12271.0	12452.8	12289.2
62.5°	11650.8	11723.4	11932.4	12314.2	12736.8	13220.7	13781.9	14181.8	14792.8	15097.3	14686.1
65°	11425.8	11573.5	11982.5	12582.3	13454.7	14504.3	15647.1	16744.5	18007.8	18655.3	17819.2
67.5°	9980.9	10105.8	10546.6	11244.1	12332.3	13779.6	15556.3	17828.3	20434.2	21647.4	20168.3
68°	9428.7	9662.8	10101.2	10794.2	11891.6	13313.8	15211.0	17664.7	20509.2	21820.1	20222.9
70°	7229.4	7313.5	7733.8	8356.3	9540.1	10935.1	12850.3	15647.1	18862.0	20211.6	18568.9
72.5°	3435.2	3485.3	3757.9	4371.3	5123.2	6259.4	7949.7	10587.4	13484.2	14888.3	13250.2
75°	1258.6	1270.0	1333.6	1479.1	1760.8	2187.9	2999.0	4639.3	6868.2	8190.5	6895.5
77.5°	679.4	681.6	706.6	743.0	792.9	849.7	972.4	1304.1	2103.9	2862.7	2222.0
80°	427.1	424.9	449.8	479.4	513.5	540.8	552.1	590.8	665.7	779.2	715.6
82.5°	218.1	238.5	295.3	327.1	377.2	386.2	374.9	372.6	395.3	427.1	440.8
85°	120.4	106.7	156.8	209.0	227.2	234.1	236.3	222.7	218.1	213.6	225.0
87.5°	61.3	56.9	68.2	104.6	111.3	90.9	93.2	79.5	54.5	54.5	56.9
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°	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0	3701.0
2.5°	3673.9	3676.0	3671.5	3671.5	3671.5	3673.9	3671.5	3669.3
5°	3644.3	3648.8	3648.8	3651.1	3653.3	3653.3	3653.3	3653.3
7.5°	3601.0	3603.4	3608.0	3608.0	3608.0	3608.0	3608.0	3608.0
10°	3560.2	3555.7	3553.3	3548.8	3548.8	3542.0	3544.3	3546.5
12.5°	3539.8	3530.7	3526.2	3519.3	3514.8	3508.0	3508.0	3510.2
15°	3548.8	3535.2	3521.5	3517.0	3512.4	3508.0	3503.4	3505.7
17.5°	3567.0	3551.2	3535.2	3526.2	3517.0	3510.2	3508.0	3510.2
20°	3605.7	3582.9	3557.9	3542.0	3523.8	3519.3	3512.4	3519.3
22.5°	3657.9	3630.5	3598.8	3569.3	3548.8	3539.8	3530.7	3537.5
25°	3721.5	3692.0	3660.1	3626.1	3603.4	3596.6	3585.3	3585.3
27.5°	3810.1	3785.2	3757.9	3726.1	3703.4	3696.6	3678.3	3678.3
30°	3951.1	3926.0	3901.0	3873.7	3851.1	3844.2	3821.5	3821.5
32.5°	4137.3	4110.0	4094.2	4071.4	4053.2	4041.8	4014.6	4012.3
35°	4387.2	4362.1	4359.9	4344.0	4325.9	4328.1	4300.9	4296.3
37.5°	4746.2	4725.7	4732.6	4718.9	4702.9	4716.6	4700.8	4700.8
40°	5205.1	5198.3	5205.1	5196.1	5198.3	5200.5	5187.0	5191.5
42.5°	5759.5	5741.3	5782.2	5777.6	5770.8	5789.0	5757.2	5734.5
45°	6397.9	6391.1	6432.0	6438.7	6425.2	6436.6	6379.7	6377.5
47.5°	7090.8	7090.8	7127.2	7122.7	7109.1	7111.3	7043.2	7000.0
50°	7813.3	7808.8	7845.2	7836.1	7817.9	7815.7	7745.2	7702.0
52.5°	8565.4	8565.4	8617.6	8592.7	8549.4	8529.0	8442.7	8385.8
55°	9397.0	9385.6	9401.4	9319.7	9235.5	9174.3	9067.5	9024.3
57.5°	10448.9	10317.1	10203.5	10099.0	9980.9	9908.0	9783.2	9737.7
60°	11941.5	11589.3	11437.1	11228.1	11032.8	10935.1	10769.2	10680.6
62.5°	14009.0	13425.1	13011.6	12550.4	12105.2	11791.6	11539.4	11428.1
65°	16399.2	15126.8	14074.9	13086.6	12248.3	11582.6	11212.1	11096.4
67.5°	17308.0	14972.4	13157.1	11739.4	10721.5	9928.6	9485.6	9392.4
68°	17114.8	14617.9	12732.2	11280.4	10258.1	9458.2	9017.5	8933.5
70°	15097.3	12332.3	10342.1	8897.1	7942.8	7181.7	6870.4	6736.4
72.5°	10292.1	7920.1	6075.3	4859.8	4146.4	3664.7	3378.4	3280.7
75°	4737.1	3201.2	2137.9	1597.2	1356.4	1240.5	1151.9	1129.2
77.5°	1381.4	1004.2	863.3	799.8	752.0	711.2	681.6	679.4
80°	656.6	615.6	597.5	556.6	513.5	474.8	447.6	452.2
82.5°	440.8	429.4	429.4	388.5	320.3	274.9	227.2	204.5
85°	234.1	243.1	256.8	243.1	211.3	156.8	102.2	111.3
87.5°	79.5	90.9	95.4	93.2	84.0	63.6	47.7	47.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)