

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: P194988

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194988  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
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-5NQ-7060-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29919 lumens  
Efficiency: N/A  
Efficacy: 120.2 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 - G2

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

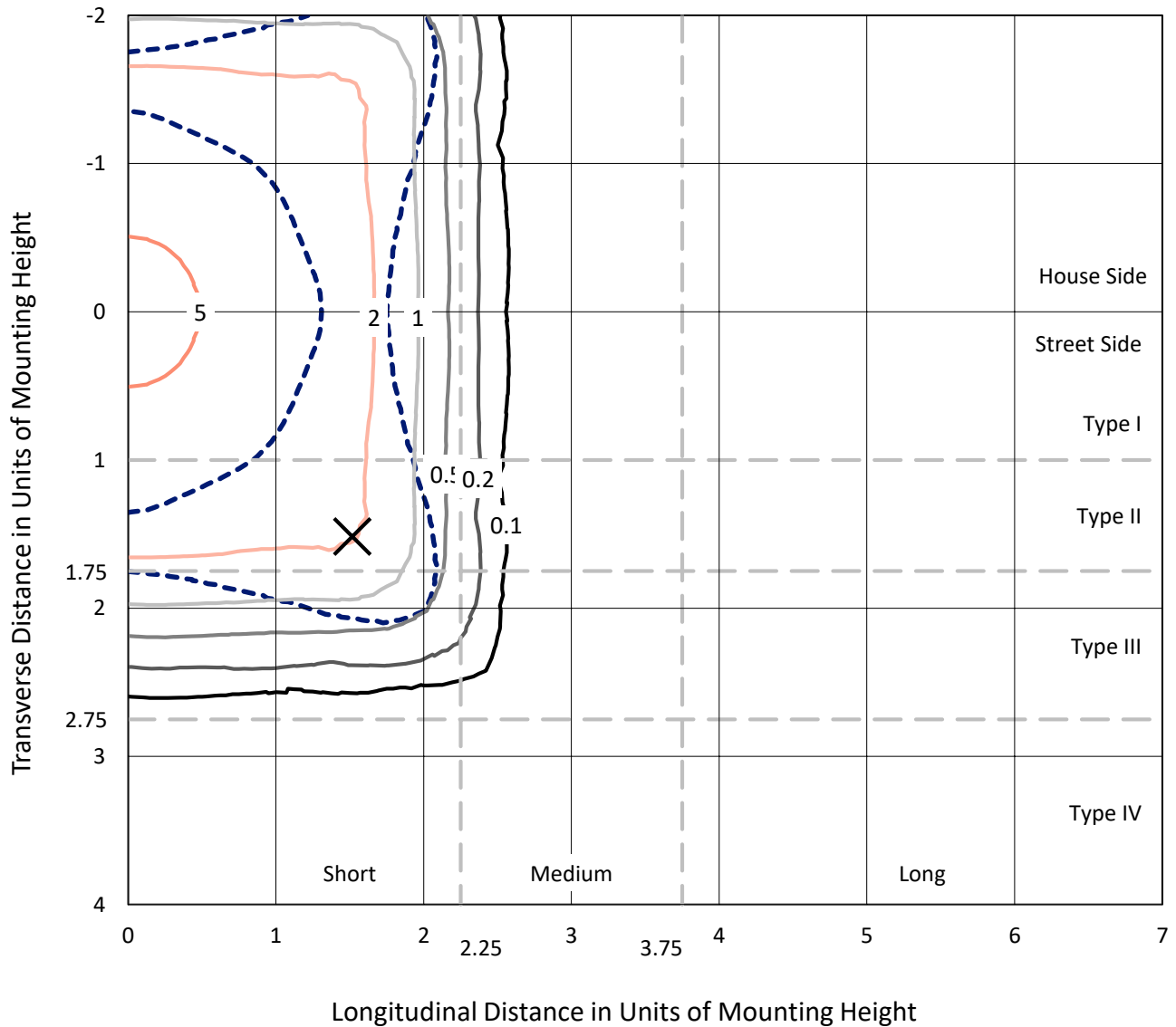


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### Iso-Footcandle Lines of Horizontal Illumination

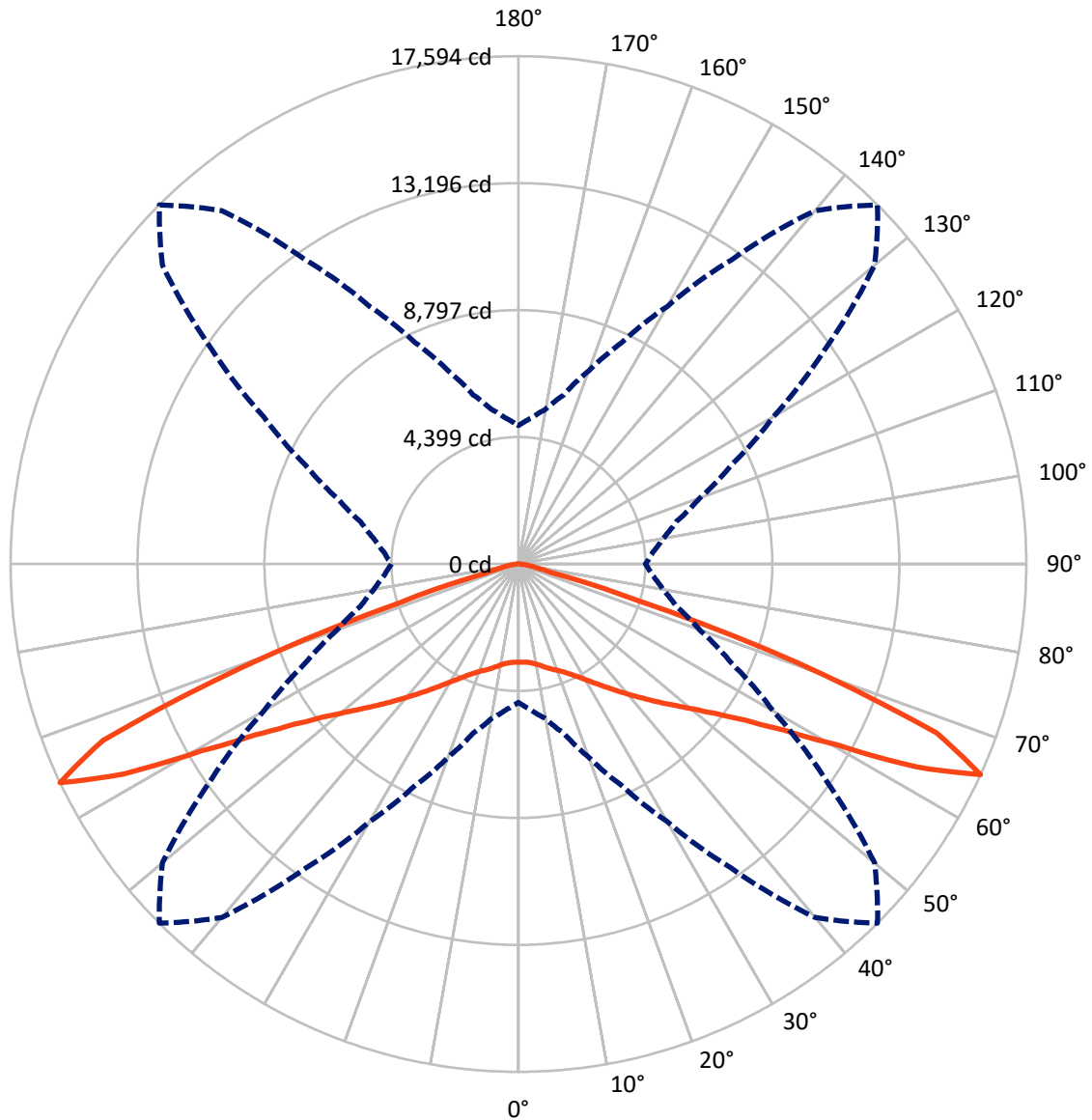
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14959.5	0.0	14959.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	14959.5	0.0	14959.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	29919.0	0.0	29919.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	331.4	1.1
10°-20°	1062.2	3.6
20°-30°	1981.5	6.6
30°-40°	3341.1	11.2
40°-50°	5426.9	18.1
50°-60°	8503.0	28.4
60°-70°	8026.4	26.8
70°-80°	1081.7	3.6
80°-90°	164.8	0.6
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°	29919.0	100.0
0°-180°	29919.0	100.0



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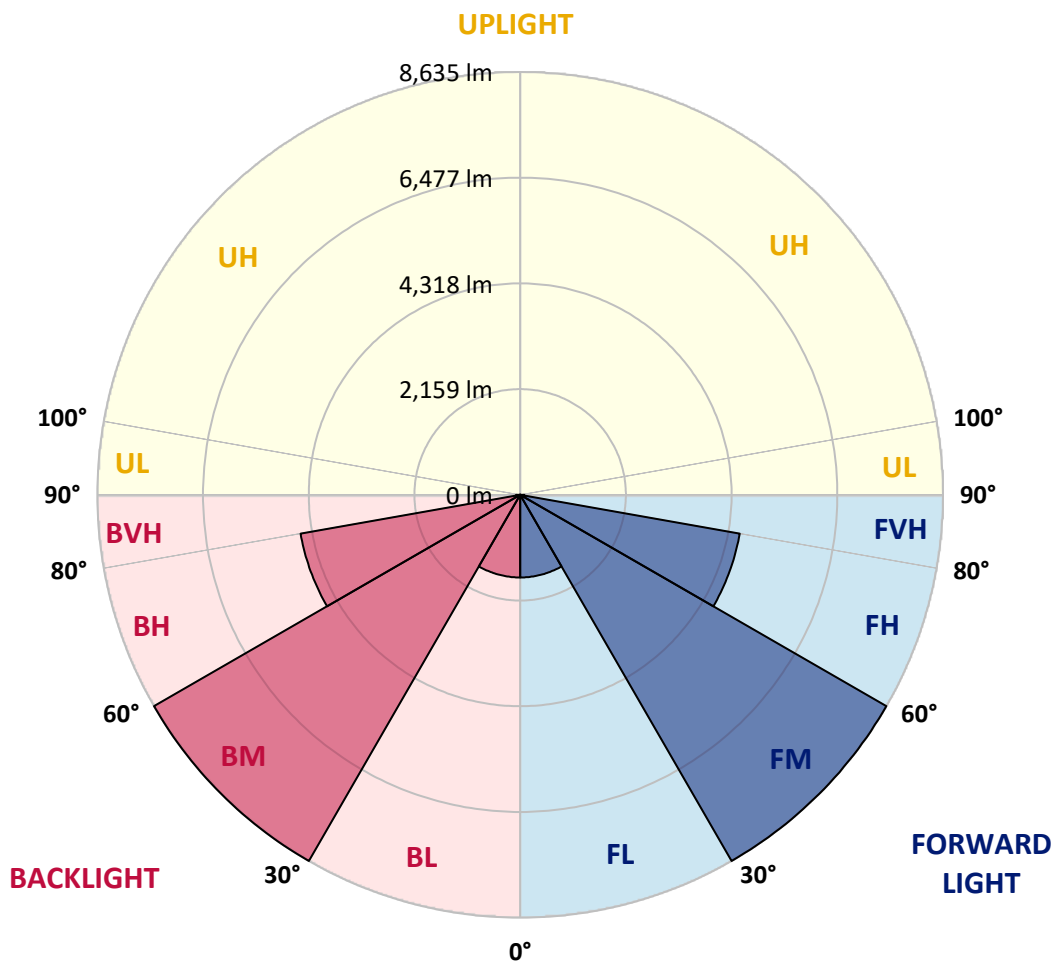
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1687.5	5.6			
FM	(30°-60°)	8635.5	28.9			
FH	(60°-80°)	4554.1	15.2			G2/5000
FVH	(80°-90°)	82.4	0.3			G1/100
BL	(0°-30°)	1687.5	5.6	B3/2500		
BM	(30°-60°)	8635.5	28.9	B5		
BH	(60°-80°)	4554.1	15.2	B4/5000		G2/5000
BVH	(80°-90°)	82.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3
2.5°	3431.2	3431.2	3436.8	3434.9	3427.5	3421.9	3416.3	3408.8	3405.1	3401.4	3399.5
5°	3449.8	3449.8	3455.4	3453.6	3448.0	3440.5	3436.8	3431.2	3425.6	3421.9	3423.8
7.5°	3496.4	3498.3	3500.2	3498.3	3492.7	3487.1	3479.7	3477.8	3470.3	3464.8	3468.5
10°	3567.3	3567.3	3569.1	3571.0	3567.3	3554.2	3554.2	3550.5	3543.0	3535.6	3537.4
12.5°	3645.5	3645.5	3647.4	3647.4	3647.4	3639.9	3641.8	3639.9	3630.6	3626.9	3630.6
15°	3722.0	3723.8	3723.8	3727.5	3727.5	3729.4	3736.9	3736.9	3733.1	3731.3	3731.3
17.5°	3811.4	3815.1	3817.0	3822.6	3824.5	3828.2	3835.6	3837.5	3839.4	3833.8	3835.6
20°	3930.7	3932.6	3938.2	3940.0	3947.5	3947.5	3951.2	3949.3	3945.6	3938.2	3938.2
22.5°	4064.9	4068.6	4079.8	4079.8	4089.1	4083.5	4085.4	4079.8	4070.5	4066.8	4063.0
25°	4240.1	4245.7	4255.0	4251.3	4255.0	4245.7	4245.7	4245.7	4240.1	4234.5	4232.6
27.5°	4461.9	4452.6	4461.9	4454.4	4452.6	4445.1	4447.0	4443.2	4437.6	4435.8	4428.3
30°	4693.0	4681.8	4687.4	4689.3	4685.5	4683.7	4676.2	4670.6	4661.3	4663.2	4657.6
32.5°	4957.6	4946.5	4952.0	4953.9	4950.2	4953.9	4952.0	4939.0	4927.8	4935.3	4935.3
35°	5272.6	5265.2	5280.1	5285.7	5274.5	5268.9	5261.4	5246.5	5229.7	5240.9	5242.8
37.5°	5651.0	5641.6	5652.8	5667.7	5647.2	5636.1	5606.2	5583.9	5572.7	5578.3	5585.7
40°	6044.2	6046.1	6077.8	6081.5	6059.1	6046.1	6016.3	5982.7	5951.0	5951.0	5960.3
42.5°	6458.0	6463.6	6500.8	6513.9	6506.4	6482.2	6441.2	6400.2	6359.2	6366.7	6377.8
45°	6925.8	6918.3	6957.5	6989.2	6983.6	6976.1	6937.0	6862.4	6825.1	6823.3	6841.9
47.5°	7417.8	7432.7	7473.7	7527.8	7525.9	7507.3	7457.0	7388.0	7319.0	7324.6	7347.0
50°	7991.9	8012.4	8081.3	8135.4	8142.8	8137.2	8077.6	7997.5	7900.5	7906.1	7935.9
52.5°	8506.3	8536.1	8616.2	8728.1	8797.0	8828.7	8789.6	8715.0	8616.2	8621.8	8653.5
55°	8972.2	9018.8	9138.1	9290.9	9428.8	9557.4	9615.2	9613.3	9540.7	9557.4	9598.4
57.5°	9264.8	9330.1	9510.8	9756.9	10030.8	10289.9	10513.5	10724.2	10770.7	10858.3	10858.3
60°	8871.6	9024.4	9264.8	9686.0	10224.7	10806.2	11436.1	12049.3	12444.4	12755.7	12587.9
62.5°	7408.5	7634.0	7971.4	8526.8	9365.5	10403.6	11669.1	13094.9	14582.2	15491.7	14824.5
65°	4793.6	5076.9	5444.1	6068.4	7125.2	8461.5	10304.8	12867.5	15980.0	17594.0	16103.0
67.5°	1899.2	2091.2	2314.8	2758.4	3675.4	4987.5	7056.2	10217.2	14110.6	15633.3	13961.5
70°	907.7	939.3	982.2	1077.3	1306.5	1763.1	2834.8	5034.1	8653.5	10258.2	8446.6
72.5°	656.0	661.6	682.1	713.8	780.9	874.1	1062.4	1539.5	2983.9	4338.9	2987.6
75°	497.6	505.1	516.3	533.0	568.5	613.2	684.0	820.1	1021.3	1177.9	1019.5
77.5°	378.3	385.8	395.1	411.9	430.5	462.2	488.3	542.4	628.1	661.6	657.9
80°	275.8	288.9	303.8	318.7	331.8	346.7	348.5	374.6	423.1	454.8	445.4
82.5°	175.2	186.4	225.5	242.3	244.2	247.9	246.0	247.9	274.0	296.3	288.9
85°	111.8	119.3	139.8	158.4	154.7	162.1	162.1	158.4	147.2	126.7	151.0
87.5°	55.9	57.8	67.1	83.9	80.1	70.8	69.0	69.0	50.3	42.9	46.6
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°	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3	3403.3
2.5°	3393.9	3397.7	3392.1	3392.1	3390.2	3393.9	3388.3	3388.3
5°	3420.0	3425.6	3423.8	3423.8	3427.5	3431.2	3429.3	3427.5
7.5°	3466.6	3470.3	3474.1	3475.9	3479.7	3477.8	3481.5	3479.7
10°	3537.4	3533.7	3539.3	3533.7	3535.6	3531.9	3533.7	3533.7
12.5°	3626.9	3621.3	3617.6	3613.9	3613.9	3606.4	3606.4	3608.3
15°	3729.4	3720.1	3712.6	3708.9	3705.2	3705.2	3699.6	3703.3
17.5°	3830.1	3820.7	3807.7	3807.7	3802.1	3798.4	3794.6	3804.0
20°	3936.3	3927.0	3919.5	3917.7	3906.5	3902.7	3904.6	3915.8
22.5°	4059.3	4053.7	4053.7	4050.0	4042.5	4036.9	4036.9	4050.0
25°	4225.2	4214.0	4215.9	4217.7	4214.0	4214.0	4210.3	4219.6
27.5°	4428.3	4419.0	4424.6	4428.3	4424.6	4430.2	4424.6	4432.1
30°	4666.9	4661.3	4666.9	4672.5	4663.2	4663.2	4659.4	4665.0
32.5°	4952.0	4944.6	4948.3	4948.3	4935.3	4924.1	4909.2	4920.4
35°	5265.2	5255.8	5263.3	5268.9	5254.0	5242.8	5220.4	5229.7
37.5°	5610.0	5613.7	5623.0	5647.2	5643.5	5624.9	5608.1	5615.5
40°	5995.8	6014.4	6055.4	6072.2	6068.4	6049.8	6027.4	6031.2
42.5°	6431.9	6456.1	6499.0	6526.9	6513.9	6487.8	6459.8	6471.0
45°	6907.1	6944.4	7000.3	7028.3	7011.5	6983.6	6944.4	6964.9
47.5°	7410.4	7484.9	7559.5	7596.7	7591.1	7552.0	7501.7	7507.3
50°	8012.4	8111.1	8206.2	8243.5	8215.5	8155.9	8085.0	8083.2
52.5°	8761.6	8867.8	8946.1	8936.8	8867.8	8774.6	8694.5	8690.8
55°	9697.2	9732.6	9721.4	9641.3	9520.2	9374.8	9272.3	9255.5
57.5°	10828.5	10709.2	10534.0	10291.8	10019.6	9743.8	9557.4	9488.5
60°	12211.4	11672.8	11046.6	10386.8	9784.8	9333.8	9048.6	8875.3
62.5°	13353.9	11794.0	10394.3	9248.0	8310.6	7753.3	7363.8	7123.3
65°	12962.5	10189.3	8161.5	6683.5	5660.3	5084.4	4672.5	4398.5
67.5°	10014.1	6808.4	4737.7	3284.0	2490.0	2107.9	1841.4	1668.1
70°	5049.0	2611.1	1582.3	1116.4	954.3	887.2	842.4	816.3
72.5°	1481.7	989.7	821.9	726.9	669.1	628.1	602.0	589.0
75°	820.1	669.1	590.8	536.8	499.5	471.5	454.8	443.6
77.5°	564.7	486.4	447.3	411.9	382.1	361.6	348.5	337.3
80°	395.1	356.0	339.2	320.6	298.2	281.4	262.8	255.3
82.5°	262.8	246.0	242.3	227.4	214.3	195.7	162.1	151.0
85°	154.7	152.8	152.8	147.2	137.9	121.1	96.9	96.9
87.5°	54.0	55.9	57.8	61.5	59.6	50.3	41.0	39.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)