

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: P196056

Luminaire Tested: **NAV-AF-06-D-UNV-RW-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196056  
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-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41305.7 lumens  
Efficiency: N/A  
Efficacy: 108.1 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

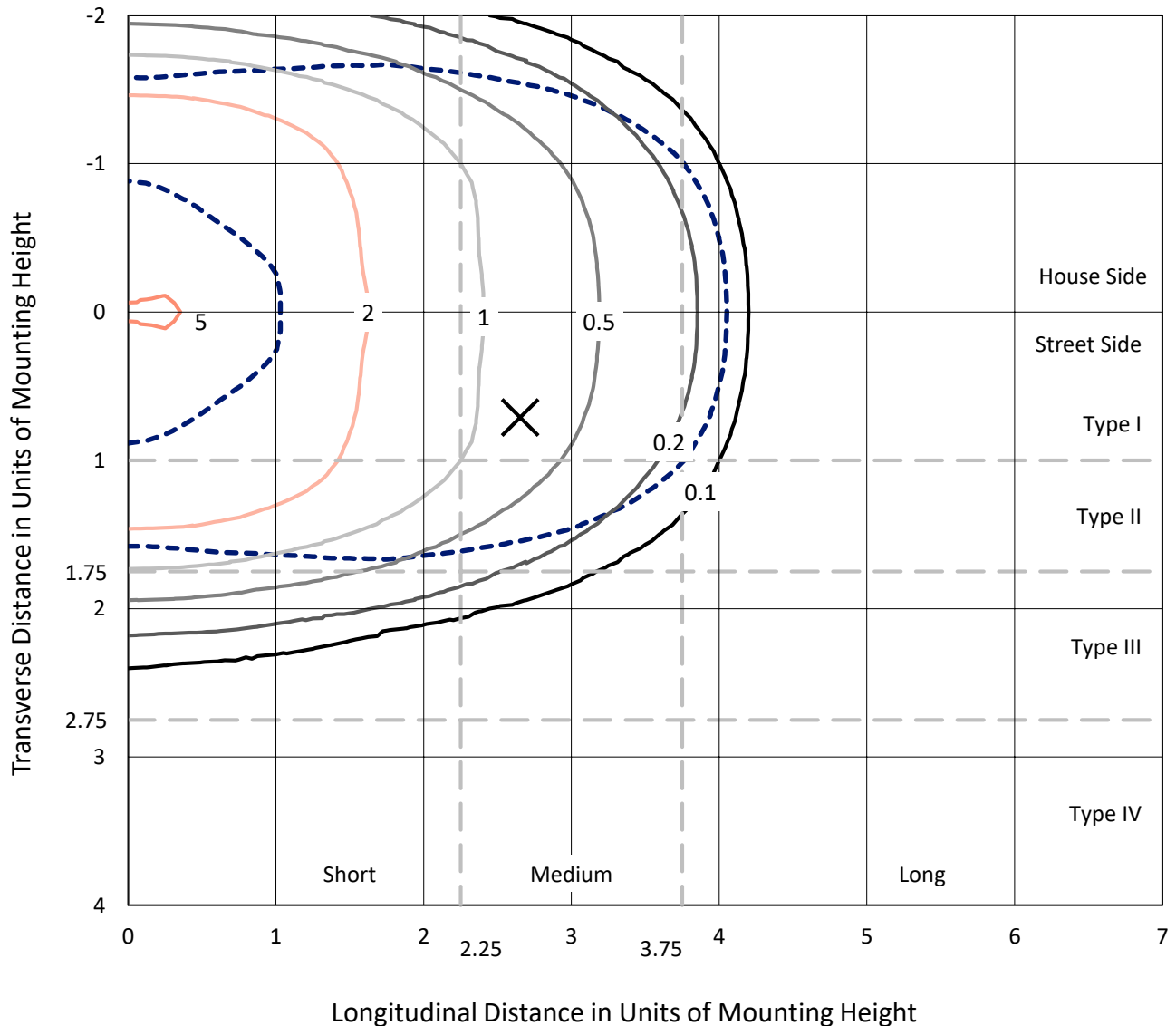
Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

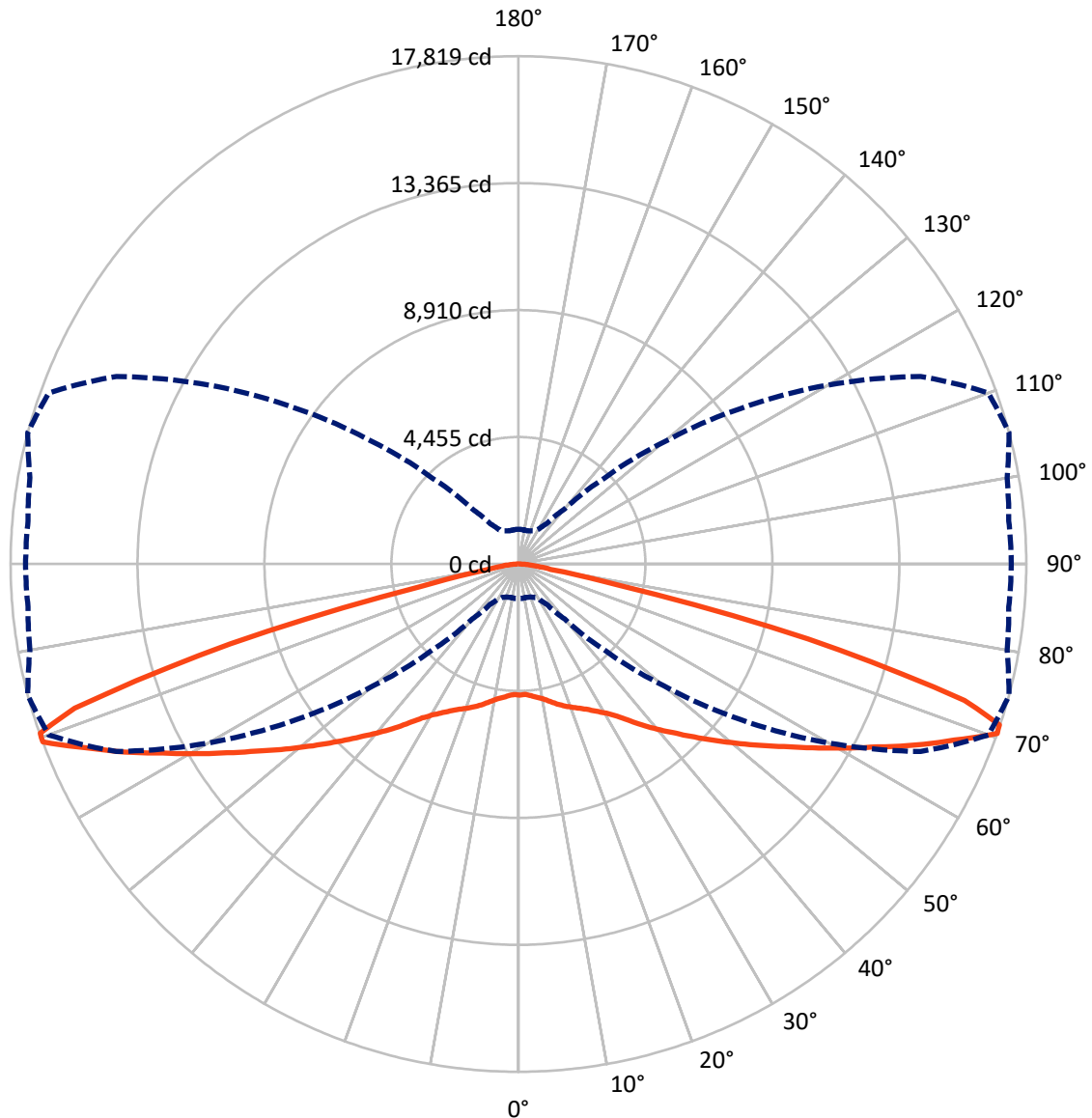
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.2 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
<b>House Side</b>	Lumens	20652.9	0.0	20652.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	20652.9	0.0	20652.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	41305.7	0.0	41305.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.2	1.1
10°-20°	1368.3	3.3
20°-30°	2570.0	6.2
30°-40°	4527.0	11.0
40°-50°	7502.7	18.2
50°-60°	10437.4	25.3
60°-70°	9853.1	23.9
70°-80°	4208.4	10.2
80°-90°	397.7	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°	41305.7	100.0
0°-180°	41305.7	100.0



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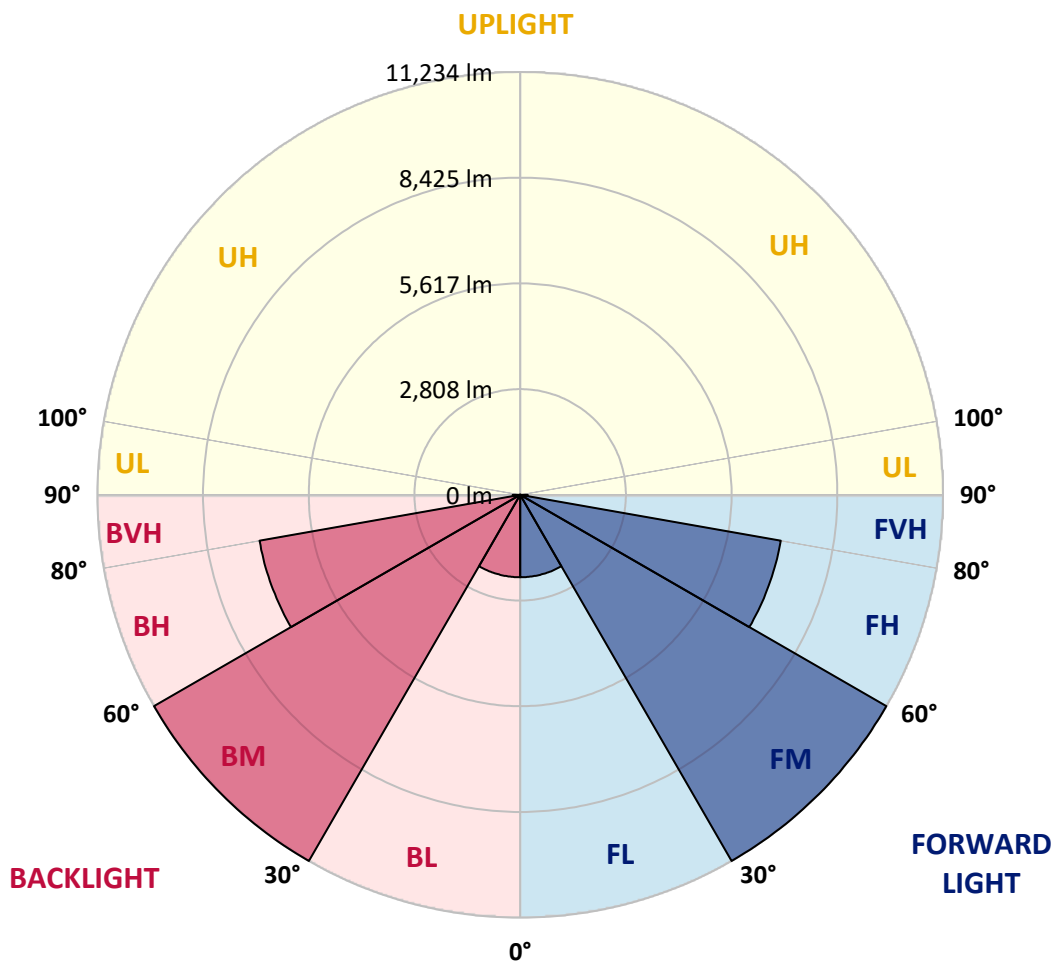
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2189.7	5.3			
FM	(30°-60°)	11233.6	27.2			
FH	(60°-80°)	7030.7	17.0			G3/7500
FVH	(80°-90°)	198.8	0.5			G2/225
BL	(0°-30°)	2189.7	5.3	B3/2500		
BM	(30°-60°)	11233.6	27.2	B5		
BH	(60°-80°)	7030.7	17.0	B5		G5
BVH	(80°-90°)	198.8	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°	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8
2.5°	4628.2	4625.7	4628.2	4620.5	4623.1	4620.5	4620.5	4610.1	4610.1	4605.0	4597.2
5°	4576.5	4581.7	4581.7	4581.7	4589.5	4589.5	4599.8	4602.4	4610.1	4617.9	4623.1
7.5°	4491.1	4493.6	4501.4	4506.6	4522.2	4542.8	4563.6	4586.8	4607.6	4633.5	4661.9
10°	4418.6	4423.8	4436.7	4449.6	4478.2	4504.1	4540.3	4576.5	4612.7	4656.8	4700.8
12.5°	4379.8	4387.5	4408.2	4429.0	4473.0	4506.6	4555.8	4612.7	4661.9	4703.3	4752.5
15°	4385.0	4387.5	4416.0	4444.5	4506.6	4553.2	4623.1	4690.4	4750.0	4796.5	4853.5
17.5°	4460.1	4465.2	4493.6	4535.0	4594.6	4654.1	4729.2	4799.1	4879.4	4933.7	5001.0
20°	4607.6	4615.3	4646.3	4690.4	4755.1	4817.3	4894.9	4967.3	5050.2	5115.0	5182.2
22.5°	4799.1	4812.1	4845.7	4900.0	4964.8	5039.9	5120.1	5195.2	5272.8	5337.6	5394.4
25°	5055.4	5070.9	5107.2	5161.5	5226.3	5306.5	5389.3	5467.0	5547.2	5596.4	5643.0
27.5°	5399.6	5425.5	5464.4	5508.4	5565.4	5650.8	5728.4	5793.1	5870.7	5925.1	5956.1
30°	5863.0	5899.3	5930.3	5976.9	6018.3	6108.9	6171.1	6222.8	6282.4	6313.3	6321.1
32.5°	6429.9	6463.5	6494.6	6528.3	6585.1	6668.0	6727.5	6756.1	6787.1	6782.0	6753.4
35°	7069.2	7095.1	7113.3	7172.8	7266.0	7320.3	7364.3	7374.7	7379.9	7325.6	7271.1
37.5°	7742.3	7773.3	7788.8	7882.0	7970.0	8032.2	8052.9	8076.2	8060.6	7970.0	7871.7
40°	8469.6	8503.3	8549.9	8630.1	8733.6	8793.2	8819.1	8816.5	8803.5	8697.4	8536.9
42.5°	9184.1	9225.5	9264.4	9404.1	9489.5	9590.5	9603.4	9600.8	9572.4	9450.6	9264.4
45°	9789.7	9838.9	9919.2	10074.5	10211.7	10333.3	10382.5	10400.6	10372.2	10242.8	10030.5
47.5°	10289.4	10323.0	10424.0	10612.9	10789.0	10967.6	11065.9	11135.8	11133.2	11040.0	10814.8
50°	10631.0	10669.9	10794.1	11006.3	11226.4	11436.1	11630.2	11788.1	11863.2	11795.9	11586.2
52.5°	10729.4	10778.6	10941.7	11195.4	11451.6	11733.8	12023.7	12303.2	12471.5	12512.9	12349.8
55°	10315.2	10369.7	10607.8	10959.8	11381.8	11798.5	12238.5	12637.1	12984.0	13144.5	13079.8
57.5°	9109.0	9147.8	9450.6	9906.3	10509.4	11241.9	11982.2	12712.2	13307.6	13724.3	13796.8
60°	7203.8	7253.0	7584.4	8065.9	8751.8	9678.4	10713.9	11909.8	13077.2	14032.3	14506.1
62.5°	4861.3	4894.9	5213.3	5653.3	6404.0	7297.0	8451.5	9965.8	11630.2	13336.0	14671.7
65°	2552.3	2552.3	2767.1	3075.2	3673.1	4473.0	5655.9	7209.0	9189.3	11319.6	13553.5
67.5°	1480.6	1478.1	1527.3	1597.1	1786.1	2109.6	2762.0	3903.5	5777.5	8257.4	10799.3
70°	1221.8	1214.0	1206.3	1206.3	1234.7	1283.9	1408.2	1721.3	2518.6	4258.1	6644.7
71°	1167.4	1162.3	1141.5	1133.7	1146.7	1172.6	1226.9	1371.9	1788.6	2904.4	4962.2
72.5°	1102.7	1089.7	1058.8	1045.8	1048.3	1058.8	1074.2	1131.2	1258.0	1651.5	2829.3
75°	1004.3	973.2	934.5	916.4	908.6	906.0	906.0	921.5	950.0	996.6	1159.6
77.5°	890.5	846.5	805.1	787.0	774.0	766.2	761.0	750.6	745.5	766.2	825.7
80°	753.3	706.7	673.0	662.7	654.9	639.3	618.7	597.9	585.0	595.4	631.6
82.5°	582.4	535.8	541.0	543.6	530.6	504.7	484.1	460.7	437.4	432.3	450.4
85°	463.3	440.1	424.5	458.2	429.7	398.6	370.2	331.3	277.0	227.8	248.5
87.5°	199.3	201.9	289.9	437.4	383.1	308.0	256.2	207.0	132.1	98.4	101.0
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°	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8	4599.8
2.5°	4594.6	4594.6	4586.8	4581.7	4581.7	4581.7	4576.5	4579.1
5°	4625.7	4630.9	4636.0	4633.5	4641.2	4649.0	4646.3	4643.8
7.5°	4677.4	4693.0	4708.5	4716.3	4726.6	4737.0	4739.5	4731.8
10°	4729.2	4760.3	4783.6	4804.3	4817.3	4827.6	4835.4	4832.7
12.5°	4794.0	4837.9	4879.4	4920.8	4949.2	4964.8	4980.3	4975.1
15°	4900.0	4949.2	5001.0	5055.4	5099.4	5122.6	5146.0	5140.8
17.5°	5045.0	5089.0	5130.4	5184.8	5239.1	5265.0	5290.9	5288.3
20°	5226.3	5259.9	5283.1	5314.2	5366.0	5394.4	5417.8	5410.0
22.5°	5433.3	5443.6	5446.3	5456.6	5498.1	5531.7	5562.7	5570.5
25°	5658.5	5650.8	5635.2	5627.5	5655.9	5692.1	5731.0	5741.3
27.5°	5938.0	5912.1	5873.4	5842.3	5850.1	5896.6	5940.7	5951.0
30°	6290.1	6230.6	6147.7	6088.2	6077.9	6127.1	6173.6	6189.2
32.5°	6691.3	6611.0	6497.2	6406.5	6367.8	6411.8	6453.2	6476.5
35°	7167.6	7079.6	6942.4	6825.9	6763.8	6792.3	6864.7	6890.6
37.5°	7731.9	7610.2	7457.5	7310.0	7206.5	7211.6	7289.2	7320.3
40°	8355.8	8179.7	7985.6	7801.8	7651.7	7641.3	7711.2	7734.5
42.5°	9005.4	8780.3	8552.5	8311.7	8125.4	8091.7	8182.3	8184.9
45°	9704.3	9414.4	9132.3	8852.7	8658.6	8599.0	8687.1	8697.4
47.5°	10449.9	10087.4	9753.5	9450.6	9241.0	9147.8	9233.3	9248.8
50°	11226.4	10851.1	10462.7	10126.3	9880.4	9766.5	9867.4	9877.8
52.5°	11995.2	11640.6	11254.9	10869.2	10571.5	10442.1	10561.1	10597.4
55°	12769.2	12427.5	12065.1	11679.4	11304.0	11190.2	11319.6	11358.4
57.5°	13574.1	13245.5	12916.7	12528.4	12163.4	11990.0	12129.8	12184.2
60°	14462.1	14172.2	13861.5	13470.6	13110.9	12908.9	13028.0	13090.1
62.5°	15334.3	15274.8	14992.7	14586.3	14130.7	13928.8	14029.8	14073.8
65°	15406.9	16372.3	16359.4	15955.6	15318.9	14979.8	15008.2	15028.9
67.5°	13447.3	15663.1	17079.1	17205.8	16496.6	15966.0	15903.8	15916.8
70°	9520.6	12562.0	15567.4	17539.8	17819.4	17407.8	17273.1	17293.9
71°	7628.3	10778.6	14086.7	16740.0	17798.6	17679.6	17604.5	17658.9
72.5°	4869.0	7941.6	11161.7	14335.2	16367.2	16949.6	17035.0	17068.7
75°	1768.0	3416.9	5782.7	8285.8	10501.6	12026.2	12864.9	12932.2
77.5°	950.0	1224.4	1892.3	2826.6	3551.5	3939.7	3986.3	4004.4
80°	698.9	810.2	926.7	1058.8	1141.5	1157.1	1128.6	1069.1
82.5°	494.4	559.1	605.7	652.3	686.0	657.5	546.2	416.8
85°	287.3	315.8	341.7	365.0	370.2	349.4	230.4	188.9
87.5°	113.9	124.3	121.6	137.2	132.1	121.6	90.6	77.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)