

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: P196944

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196944  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
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-5WQ-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33547 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-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

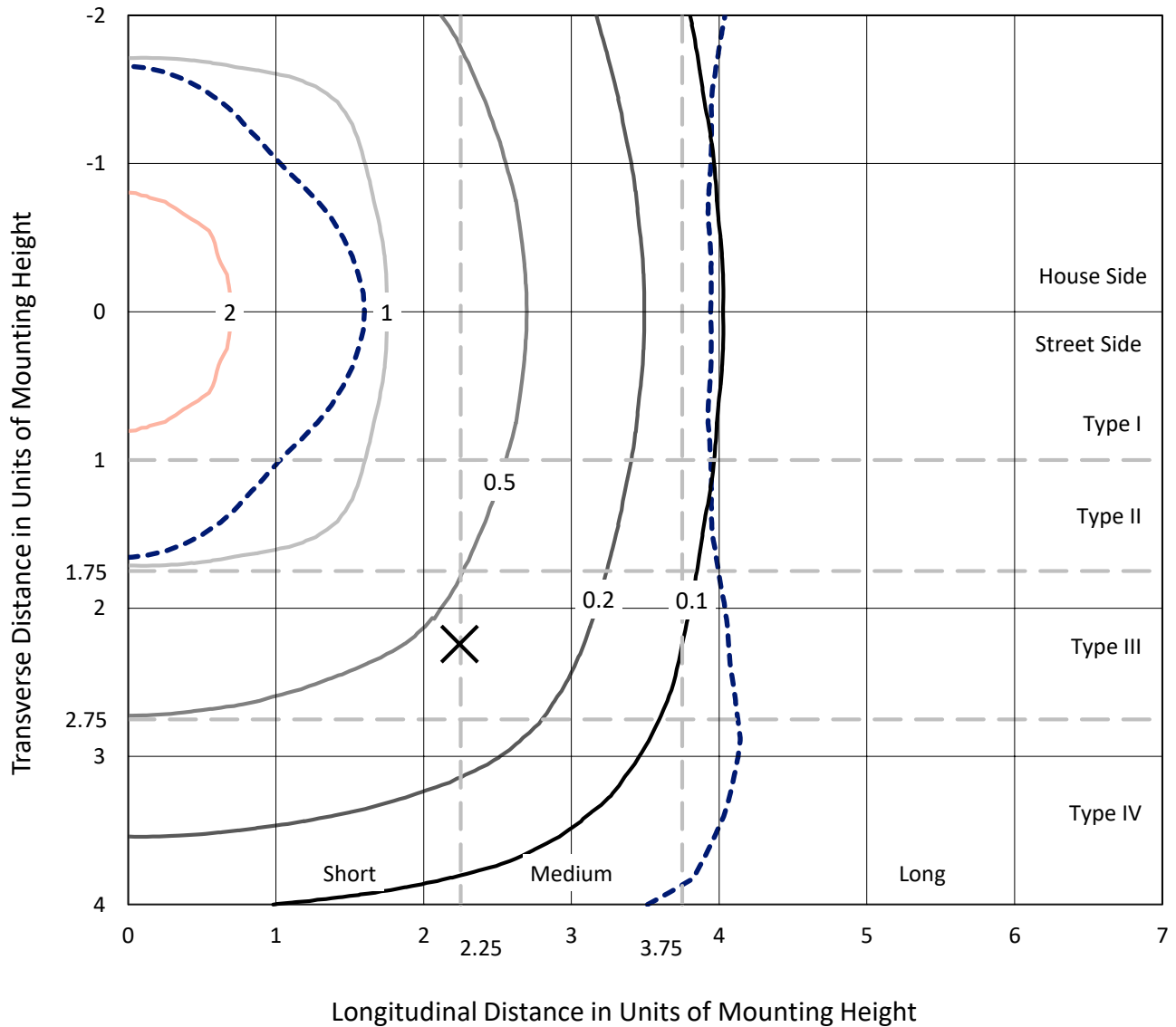


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### Iso-Footcandle Lines of Horizontal Illumination

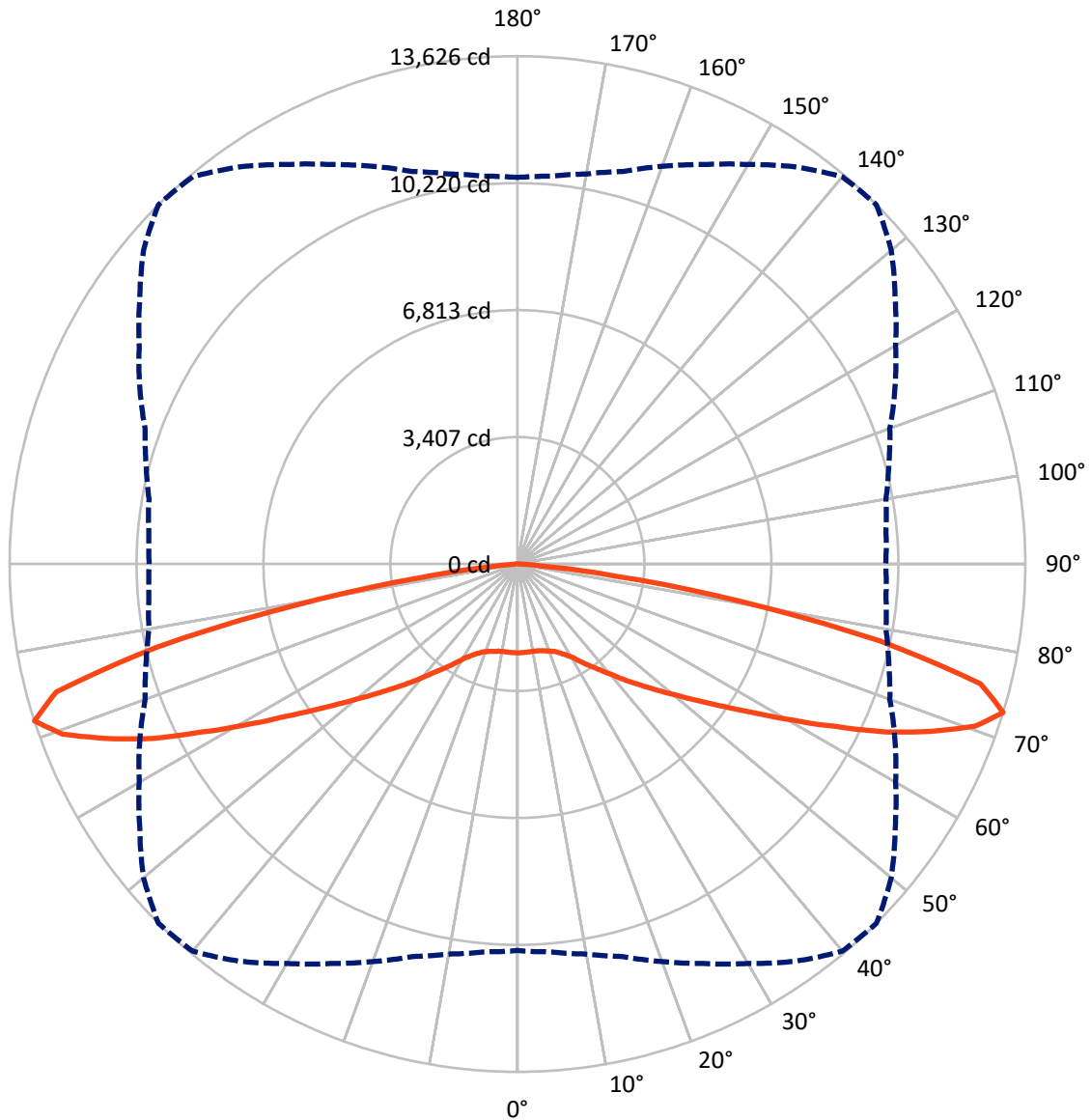
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.6 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16773.5	0.0	16773.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	16773.5	0.0	16773.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	33547.0	0.0	33547.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.6	0.7
10°-20°	688.9	2.1
20°-30°	1243.7	3.7
30°-40°	2121.4	6.3
40°-50°	3611.8	10.8
50°-60°	5812.6	17.3
60°-70°	9666.5	28.8
70°-80°	9351.3	27.9
80°-90°	823.0	2.5
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°	33547.0	100.0
0°-180°	33547.0	100.0



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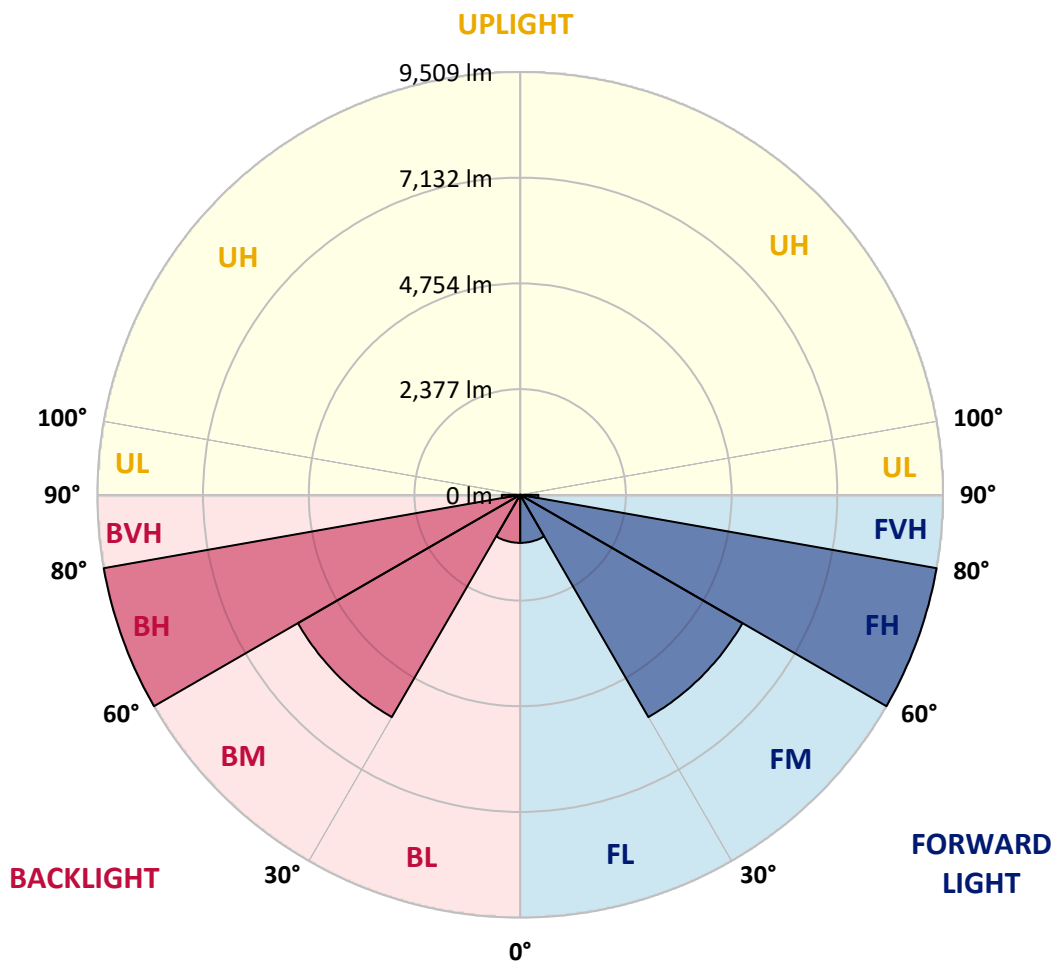
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1080.1	3.2			
FM (30°-60°)	5772.9	17.2			
FH (60°-80°)	9508.9	28.3			G4/12000
FVH (80°-90°)	411.5	1.2			G3/500
BL (0°-30°)	1080.1	3.2	B3/2500		
BM (30°-60°)	5772.9	17.2	B4/8500		
BH (60°-80°)	9508.9	28.3	B5		G4/12000
BVH (80°-90°)	411.5	1.2			G3/500
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°	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9
2.5°	2403.5	2403.5	2405.6	2403.5	2399.4	2397.3	2391.1	2387.0	2382.9	2380.8	2376.7
5°	2405.6	2405.6	2407.7	2405.6	2401.5	2397.3	2393.2	2387.0	2382.9	2378.7	2376.7
7.5°	2413.8	2415.9	2418.0	2415.9	2407.7	2403.5	2397.3	2391.1	2382.9	2378.7	2374.6
10°	2430.4	2430.4	2430.4	2428.3	2422.1	2413.8	2405.6	2399.4	2389.1	2378.7	2372.6
12.5°	2442.8	2444.8	2444.8	2440.7	2432.4	2422.1	2413.8	2407.7	2399.4	2391.1	2384.9
15°	2461.3	2461.3	2459.3	2451.0	2438.6	2430.4	2426.2	2424.2	2422.1	2418.0	2411.8
17.5°	2498.5	2496.4	2490.2	2477.9	2463.4	2457.2	2453.1	2453.1	2453.1	2451.0	2446.9
20°	2552.2	2552.2	2543.9	2523.3	2510.9	2504.7	2498.5	2498.5	2498.5	2492.3	2486.1
22.5°	2638.9	2641.0	2628.6	2603.8	2587.3	2574.9	2566.6	2560.5	2554.3	2550.1	2539.8
25°	2756.6	2754.6	2740.1	2709.1	2696.7	2684.3	2667.8	2657.5	2649.2	2643.1	2630.7
27.5°	2880.5	2878.4	2861.9	2835.1	2826.8	2808.2	2795.9	2781.4	2771.1	2760.7	2748.4
30°	3039.5	3029.2	3016.8	2996.1	2992.0	2977.6	2961.0	2940.4	2923.9	2907.4	2892.9
32.5°	3182.0	3182.0	3163.4	3153.1	3161.3	3155.1	3157.2	3144.8	3134.5	3128.3	3113.8
35°	3380.2	3380.2	3372.0	3359.6	3361.6	3347.2	3345.1	3347.2	3355.4	3355.4	3338.9
37.5°	3644.5	3648.6	3621.8	3617.7	3607.4	3586.7	3576.4	3580.5	3599.1	3609.4	3586.7
40°	3972.8	3981.1	3972.8	3946.0	3933.6	3898.5	3877.9	3877.9	3892.3	3902.6	3894.4
42.5°	4297.0	4311.5	4297.0	4276.4	4266.0	4239.2	4228.9	4237.1	4255.7	4268.1	4255.7
45°	4658.4	4668.7	4650.1	4625.3	4612.9	4598.5	4592.3	4598.5	4619.1	4631.5	4627.4
47.5°	5013.5	5028.0	5005.3	4995.0	4995.0	4980.5	4997.0	5013.5	5032.1	5061.0	5048.6
50°	5360.4	5379.0	5364.6	5366.6	5383.2	5410.0	5441.0	5474.0	5507.0	5538.0	5542.1
52.5°	5670.2	5699.1	5701.1	5738.3	5789.9	5831.2	5918.0	5990.2	6068.7	6095.5	6083.1
55°	5996.4	6035.7	6087.3	6145.1	6227.7	6312.3	6459.0	6589.0	6692.3	6756.3	6746.0
57.5°	6463.1	6502.3	6556.0	6651.0	6774.9	6890.5	7090.8	7293.2	7450.1	7547.1	7499.7
60°	7068.1	7109.4	7179.6	7280.8	7441.8	7598.8	7873.4	8164.5	8408.2	8519.7	8433.0
62.5°	7869.3	7908.5	7953.9	8088.1	8267.8	8470.2	8815.0	9188.7	9498.5	9605.8	9484.0
65°	9011.1	9058.6	9073.1	9182.5	9358.0	9546.0	9917.6	10338.9	10692.0	10867.5	10623.8
67.5°	10297.6	10316.2	10374.0	10502.0	10681.6	10851.0	11144.2	11542.7	11881.3	11978.4	11718.2
70°	11051.3	11088.4	11189.6	11367.2	11581.9	11848.3	12168.4	12597.9	12981.9	13027.3	12697.0
72.5°	10369.8	10446.2	10625.9	10902.6	11352.7	11825.6	12376.9	13010.8	13562.2	13626.2	13095.5
75°	8317.3	8404.1	8618.8	8922.4	9455.1	10157.2	10954.2	11906.1	12732.1	12837.4	12135.3
77.5°	4433.3	4540.7	4852.5	5261.3	6021.2	6950.4	7910.6	8996.7	9698.8	9936.2	9430.3
80°	1117.1	1174.9	1325.7	1565.2	2079.3	2828.9	3656.9	4825.6	5697.0	6066.6	5697.0
82.5°	433.6	477.0	518.3	547.2	596.8	700.0	966.4	1575.5	2122.7	2614.1	2263.1
85°	167.3	177.6	256.0	291.1	291.1	320.1	367.5	433.6	536.9	586.4	491.4
87.5°	66.1	72.3	88.8	136.3	140.4	123.9	132.2	148.7	113.6	95.0	107.4
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°	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9	2384.9
2.5°	2374.6	2372.6	2368.4	2370.5	2368.4	2368.4	2368.4	2368.4
5°	2372.6	2372.6	2368.4	2368.4	2368.4	2370.5	2368.4	2368.4
7.5°	2370.5	2368.4	2364.3	2362.2	2362.2	2360.2	2360.2	2360.2
10°	2366.4	2362.2	2358.1	2356.0	2356.0	2351.9	2351.9	2351.9
12.5°	2376.7	2370.5	2366.4	2364.3	2364.3	2364.3	2366.4	2366.4
15°	2405.6	2393.2	2387.0	2384.9	2387.0	2391.1	2393.2	2395.3
17.5°	2436.6	2424.2	2413.8	2409.7	2411.8	2418.0	2424.2	2428.3
20°	2475.8	2465.5	2453.1	2449.0	2449.0	2457.2	2461.3	2467.5
22.5°	2531.5	2523.3	2513.0	2506.8	2502.6	2513.0	2519.2	2523.3
25°	2620.3	2612.1	2603.8	2597.6	2595.6	2605.9	2610.0	2612.1
27.5°	2738.0	2729.8	2725.6	2723.6	2717.4	2721.5	2727.7	2725.6
30°	2890.8	2897.0	2890.8	2890.8	2880.5	2884.6	2880.5	2876.4
32.5°	3095.3	3089.1	3070.5	3058.1	3043.6	3043.6	3037.4	3031.2
35°	3299.7	3279.0	3268.7	3274.9	3268.7	3272.8	3262.5	3252.2
37.5°	3541.3	3528.9	3526.8	3545.4	3541.3	3545.4	3545.4	3530.9
40°	3861.3	3853.1	3867.5	3898.5	3910.9	3908.8	3913.0	3894.4
42.5°	4228.9	4214.4	4220.6	4247.5	4261.9	4266.0	4264.0	4247.5
45°	4596.4	4600.6	4600.6	4629.5	4643.9	4652.2	4637.7	4631.5
47.5°	5011.5	5017.7	5003.2	5021.8	5025.9	5040.4	5028.0	5017.7
50°	5490.5	5467.8	5434.8	5441.0	5441.0	5436.8	5422.4	5410.0
52.5°	6025.3	5973.7	5911.8	5891.1	5868.4	5845.7	5816.8	5794.1
55°	6634.5	6545.7	6434.2	6382.6	6339.2	6287.6	6221.5	6198.8
57.5°	7340.7	7187.9	7039.2	6946.3	6834.8	6766.6	6682.0	6677.8
60°	8179.0	7972.5	7710.3	7571.9	7460.4	7379.9	7315.9	7291.1
62.5°	9147.4	8792.3	8509.4	8360.7	8230.6	8181.1	8100.5	8110.9
65°	10140.6	9779.3	9504.7	9384.9	9263.1	9230.0	9155.7	9182.5
67.5°	11216.4	10919.1	10617.6	10506.1	10394.6	10361.6	10285.2	10307.9
70°	12180.7	11802.9	11460.1	11241.2	11051.3	10898.5	10801.4	10762.2
72.5°	12372.8	11718.2	11179.3	10632.1	10316.2	10039.5	9925.9	9882.5
75°	11117.3	10101.4	9333.3	8691.1	8335.9	7933.3	7889.9	7830.0
77.5°	8647.7	7491.4	6562.2	5736.2	5259.3	4767.8	4598.5	4470.5
80°	5158.1	3964.6	3072.5	2153.7	1757.2	1414.4	1329.8	1241.0
82.5°	1846.0	1183.2	797.0	621.5	555.5	512.1	479.1	435.7
85°	446.0	375.8	355.2	322.1	318.0	270.5	192.0	171.4
87.5°	142.5	130.1	132.2	126.0	132.2	99.1	80.5	72.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)