

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: P196533

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196533  
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-03-D-UNV-RW-7030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19638.3 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

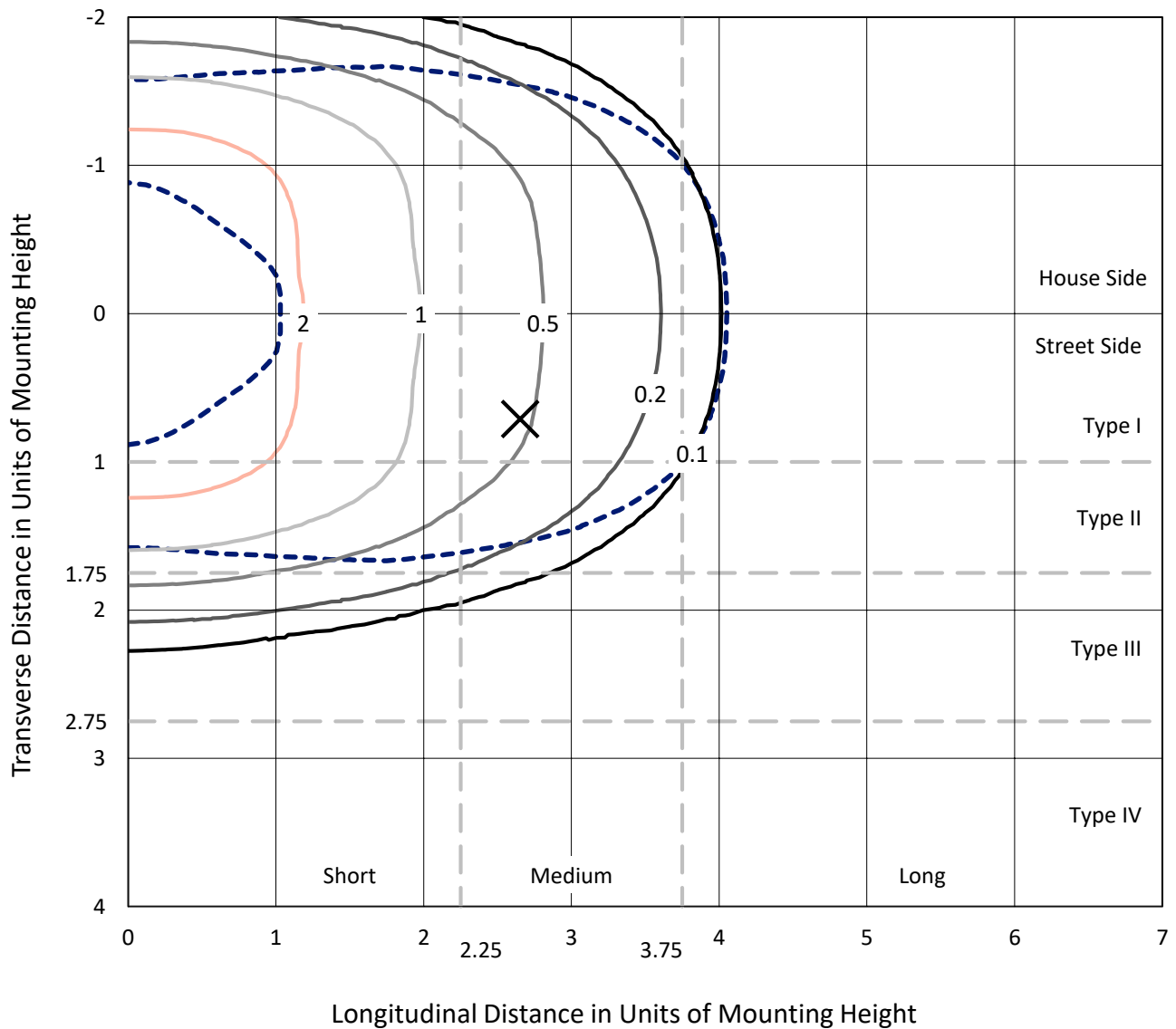
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

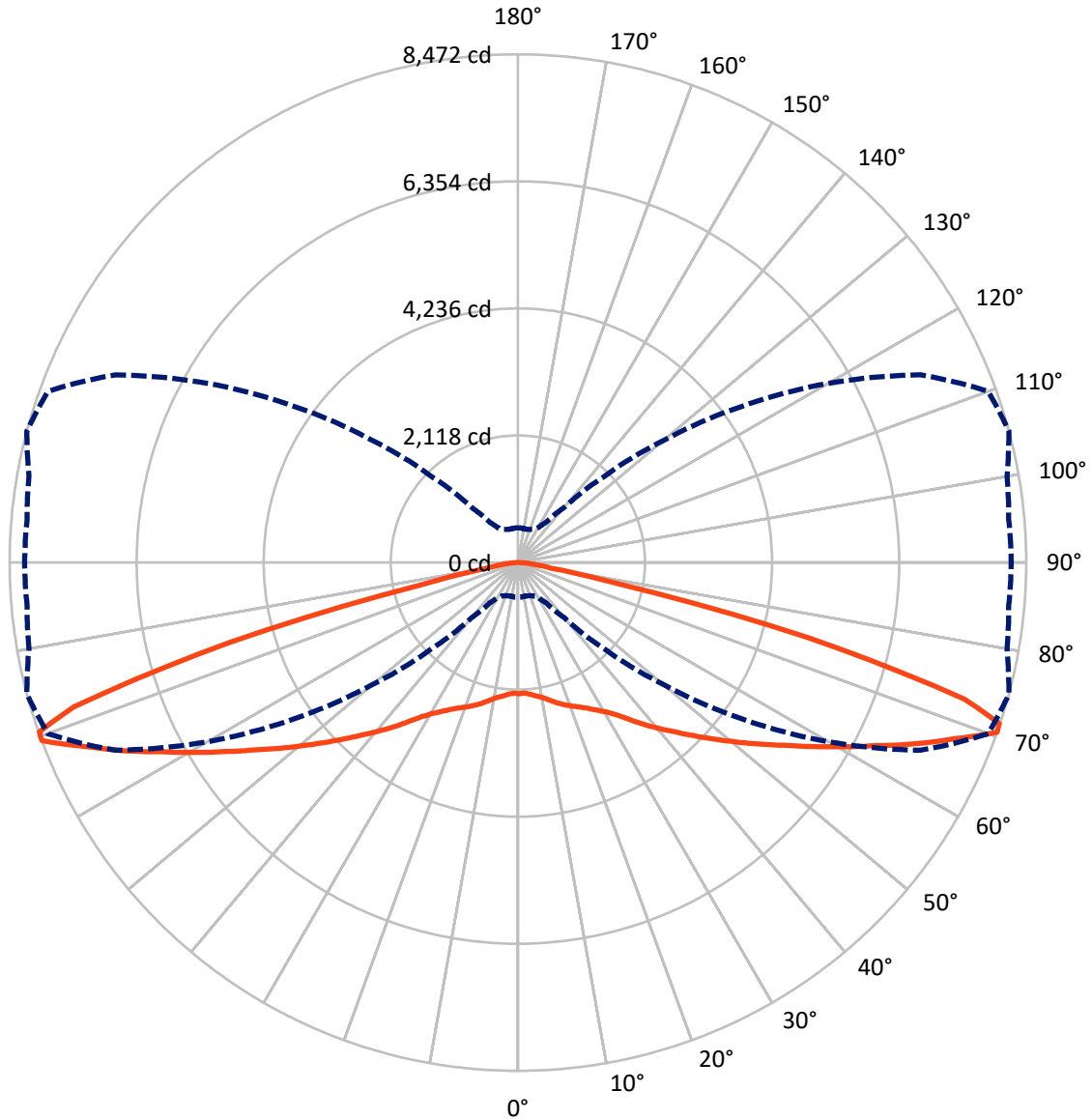
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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	9819.1	0.0	9819.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9819.1	0.0	9819.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19638.3	0.0	19638.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.8	1.1
10°-20°	650.6	3.3
20°-30°	1221.8	6.2
30°-40°	2152.3	11.0
40°-50°	3567.1	18.2
50°-60°	4962.3	25.3
60°-70°	4684.5	23.9
70°-80°	2000.8	10.2
80°-90°	189.1	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°	19638.3	100.0
0°-180°	19638.3	100.0

**Coefficient of Utilization**



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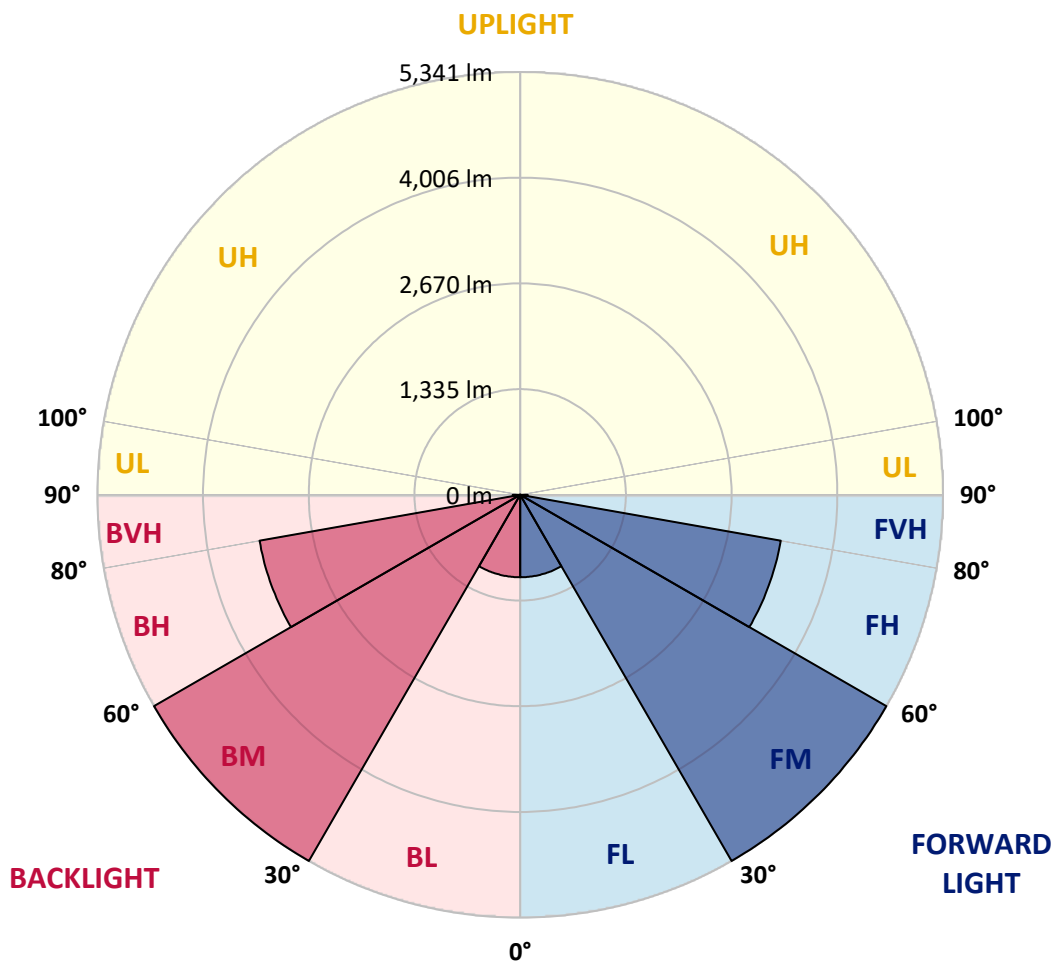
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1041.1	5.3			
FM	(30°-60°)	5340.9	27.2			
FH	(60°-80°)	3342.7	17.0			G2/5000
FVH	(80°-90°)	94.5	0.5			G1/100
BL	(0°-30°)	1041.1	5.3	B3/2500		
BM	(30°-60°)	5340.9	27.2	B4/8500		
BH	(60°-80°)	3342.7	17.0	B4/5000		G4/5000
BVH	(80°-90°)	94.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2200.5	2199.2	2200.5	2196.7	2198.0	2196.7	2196.7	2191.8	2191.8	2189.3	2185.7
5°	2175.8	2178.3	2178.3	2178.3	2182.0	2182.0	2187.0	2188.1	2191.8	2195.6	2198.0
7.5°	2135.3	2136.4	2140.2	2142.6	2150.0	2159.8	2169.7	2180.7	2190.6	2202.8	2216.5
10°	2100.7	2103.2	2109.4	2115.6	2129.0	2141.4	2158.6	2175.8	2193.1	2214.0	2234.9
12.5°	2082.3	2086.0	2095.8	2105.7	2126.6	2142.6	2165.9	2193.1	2216.5	2236.1	2259.5
15°	2084.7	2086.0	2099.5	2113.1	2142.6	2164.8	2198.0	2230.0	2258.3	2280.5	2307.5
17.5°	2120.5	2122.9	2136.4	2156.1	2184.4	2212.7	2248.4	2281.7	2319.8	2345.7	2377.7
20°	2190.6	2194.3	2209.1	2230.0	2260.8	2290.3	2327.2	2361.6	2401.1	2431.8	2463.8
22.5°	2281.7	2287.8	2303.8	2329.6	2360.4	2396.2	2434.3	2470.0	2506.9	2537.6	2564.8
25°	2403.4	2411.0	2428.2	2454.0	2484.8	2522.9	2562.2	2599.2	2637.3	2660.7	2682.9
27.5°	2567.1	2579.5	2597.9	2618.8	2645.9	2686.5	2723.5	2754.2	2791.1	2817.0	2831.8
30°	2787.5	2804.6	2819.4	2841.7	2861.3	2904.4	2933.9	2958.5	2986.8	3001.6	3005.2
32.5°	3057.0	3073.0	3087.7	3103.7	3130.9	3170.2	3198.6	3212.1	3226.9	3224.3	3210.8
35°	3361.0	3373.3	3381.9	3410.2	3454.6	3480.4	3501.3	3506.2	3508.7	3482.8	3457.0
37.5°	3681.0	3695.7	3703.2	3747.4	3789.2	3818.8	3828.7	3839.7	3832.4	3789.2	3742.4
40°	4026.7	4042.8	4064.9	4103.1	4152.3	4180.6	4193.0	4191.7	4185.5	4135.0	4058.8
42.5°	4366.4	4386.1	4404.6	4471.0	4511.7	4559.6	4565.8	4564.6	4551.0	4493.2	4404.6
45°	4654.5	4677.8	4715.9	4789.8	4855.1	4912.9	4936.3	4944.8	4931.3	4869.8	4768.8
47.5°	4892.0	4907.9	4955.9	5045.8	5129.5	5214.4	5261.2	5294.3	5293.2	5248.9	5141.7
50°	5054.4	5072.8	5131.9	5232.9	5337.5	5437.2	5529.4	5604.5	5640.2	5608.2	5508.6
52.5°	5101.2	5124.6	5202.1	5322.7	5444.5	5578.7	5716.5	5849.4	5929.4	5949.0	5871.6
55°	4904.2	4930.1	5043.3	5210.7	5411.3	5609.4	5818.6	6008.1	6173.0	6249.4	6218.6
57.5°	4330.7	4349.2	4493.2	4709.8	4996.5	5344.9	5696.8	6043.9	6326.8	6525.1	6559.5
60°	3425.0	3448.3	3605.9	3834.8	4160.9	4601.5	5093.7	5662.4	6217.4	6671.5	6896.7
62.5°	2311.2	2327.2	2478.5	2687.8	3044.7	3469.3	4018.1	4738.1	5529.4	6340.5	6975.4
65°	1213.5	1213.5	1315.6	1462.0	1746.3	2126.6	2689.0	3427.5	4368.9	5381.8	6443.8
67.5°	703.9	702.7	726.1	759.4	849.2	1003.0	1313.1	1855.9	2746.9	3925.9	5134.4
70°	580.9	577.2	573.5	573.5	587.0	610.4	669.5	818.4	1197.5	2024.5	3159.1
71°	555.0	552.6	542.7	539.0	545.2	557.6	583.3	652.3	850.4	1380.8	2359.2
72.5°	524.2	518.1	503.3	497.2	498.4	503.3	510.7	537.8	598.0	785.1	1345.1
75°	477.5	462.7	444.2	435.6	432.0	430.7	430.7	438.1	451.7	473.8	551.3
77.5°	423.4	402.4	382.7	374.1	367.9	364.3	361.8	356.9	354.4	364.3	392.6
80°	358.2	336.0	320.0	315.1	311.4	304.0	294.1	284.3	278.2	283.1	300.3
82.5°	276.9	254.8	257.2	258.4	252.3	240.0	230.1	219.1	208.0	205.5	214.1
85°	220.2	209.2	201.8	217.9	204.4	189.6	176.0	157.6	131.6	108.2	118.1
87.5°	94.7	96.0	137.8	208.0	182.1	146.4	121.9	98.5	62.8	46.8	48.0
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°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2184.4	2184.4	2180.7	2178.3	2178.3	2178.3	2175.8	2177.1
5°	2199.2	2201.7	2204.1	2202.8	2206.6	2210.4	2209.1	2207.8
7.5°	2223.9	2231.2	2238.6	2242.3	2247.3	2252.2	2253.4	2249.6
10°	2248.4	2263.2	2274.3	2284.2	2290.3	2295.2	2299.0	2297.7
12.5°	2279.2	2300.1	2319.8	2339.6	2353.0	2360.4	2367.8	2365.4
15°	2329.6	2353.0	2377.7	2403.4	2424.5	2435.5	2446.6	2444.1
17.5°	2398.6	2419.5	2439.2	2465.0	2490.9	2503.2	2515.4	2514.3
20°	2484.8	2500.7	2511.8	2526.6	2551.2	2564.8	2575.8	2572.1
22.5°	2583.2	2588.2	2589.3	2594.3	2613.9	2630.0	2644.7	2648.5
25°	2690.3	2686.5	2679.1	2675.5	2689.0	2706.3	2724.7	2729.7
27.5°	2823.2	2810.9	2792.4	2777.6	2781.3	2803.5	2824.4	2829.4
30°	2990.5	2962.2	2922.9	2894.5	2889.6	2913.0	2935.1	2942.6
32.5°	3181.3	3143.2	3089.0	3045.9	3027.5	3048.4	3068.1	3079.2
35°	3407.8	3366.0	3300.7	3245.3	3215.7	3229.2	3263.8	3276.0
37.5°	3676.0	3618.2	3545.6	3475.4	3426.2	3428.7	3465.6	3480.4
40°	3972.6	3889.0	3796.6	3709.3	3637.9	3633.0	3666.2	3677.2
42.5°	4281.6	4174.5	4066.2	3951.7	3863.1	3847.1	3890.1	3891.4
45°	4613.8	4476.1	4341.9	4208.8	4116.6	4088.3	4130.1	4135.0
47.5°	4968.2	4795.9	4637.2	4493.2	4393.6	4349.2	4389.8	4397.2
50°	5337.5	5159.0	4974.3	4814.4	4697.5	4643.3	4691.4	4696.3
52.5°	5703.0	5534.3	5351.0	5167.6	5026.0	4964.5	5021.1	5038.4
55°	6070.9	5908.5	5736.2	5552.8	5374.4	5320.2	5381.8	5400.2
57.5°	6453.6	6297.3	6141.0	5956.5	5783.0	5700.5	5766.9	5792.8
60°	6875.8	6737.9	6590.3	6404.4	6233.3	6137.4	6194.0	6223.5
62.5°	7290.6	7262.3	7128.1	6934.9	6718.3	6622.3	6670.3	6691.1
65°	7325.0	7784.0	7777.8	7585.9	7283.1	7121.9	7135.5	7145.3
67.5°	6393.5	7446.8	8120.0	8180.4	7843.0	7590.8	7561.3	7567.4
70°	4526.4	5972.4	7401.3	8339.1	8472.0	8276.3	8212.3	8222.2
71°	3626.8	5124.6	6697.4	7958.8	8462.1	8405.6	8369.8	8395.7
72.5°	2314.8	3775.7	5306.7	6815.5	7781.6	8058.4	8099.1	8115.1
75°	840.5	1624.4	2749.3	3939.4	4992.8	5717.7	6116.5	6148.4
77.5°	451.7	582.2	899.6	1343.9	1688.5	1873.1	1895.2	1903.9
80°	332.2	385.2	440.6	503.3	542.7	550.1	536.6	508.3
82.5°	235.0	265.8	288.0	310.1	326.1	312.6	259.7	198.1
85°	136.6	150.1	162.5	173.5	176.0	166.2	109.5	89.8
87.5°	54.2	59.1	57.8	65.2	62.8	57.8	43.0	36.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)