

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: P196938

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196938
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30580 lumens
Efficiency: N/A
Efficacy: 91.8 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

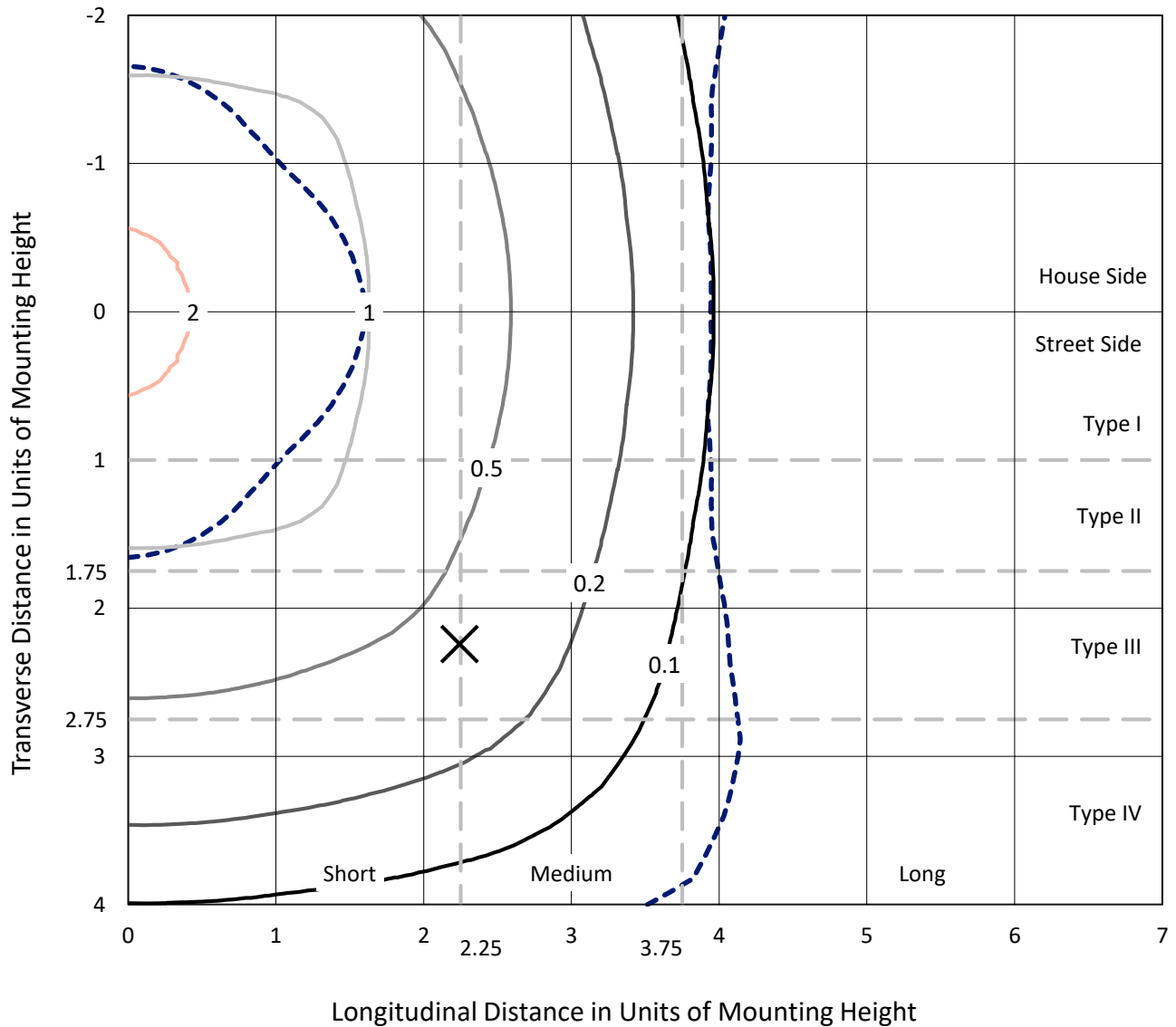
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

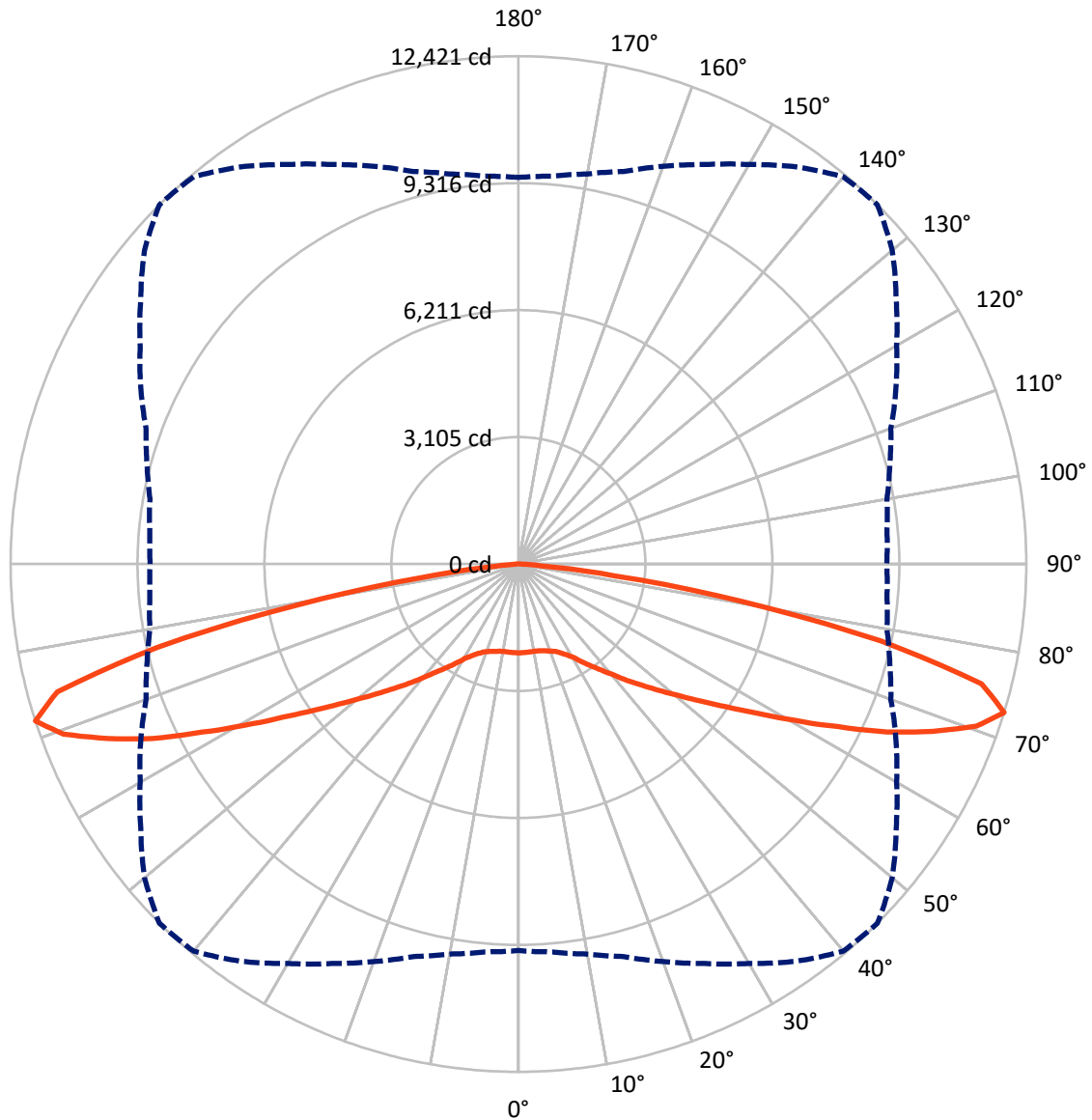


Based on 30 foot mounting height. Maximum calculated value = 2.4 fc
 Type V - Short - Semi-Cutoff

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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
House Side	Lumens	15290.0	0.0	15290.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15290.0	0.0	15290.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	30580.0	0.0	30580.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.5	0.7
10°-20°	628.0	2.1
20°-30°	1133.7	3.7
30°-40°	1933.8	6.3
40°-50°	3292.4	10.8
50°-60°	5298.6	17.3
60°-70°	8811.6	28.8
70°-80°	8524.2	27.9
80°-90°	750.2	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°	30580.0	100.0
0°-180°	30580.0	100.0



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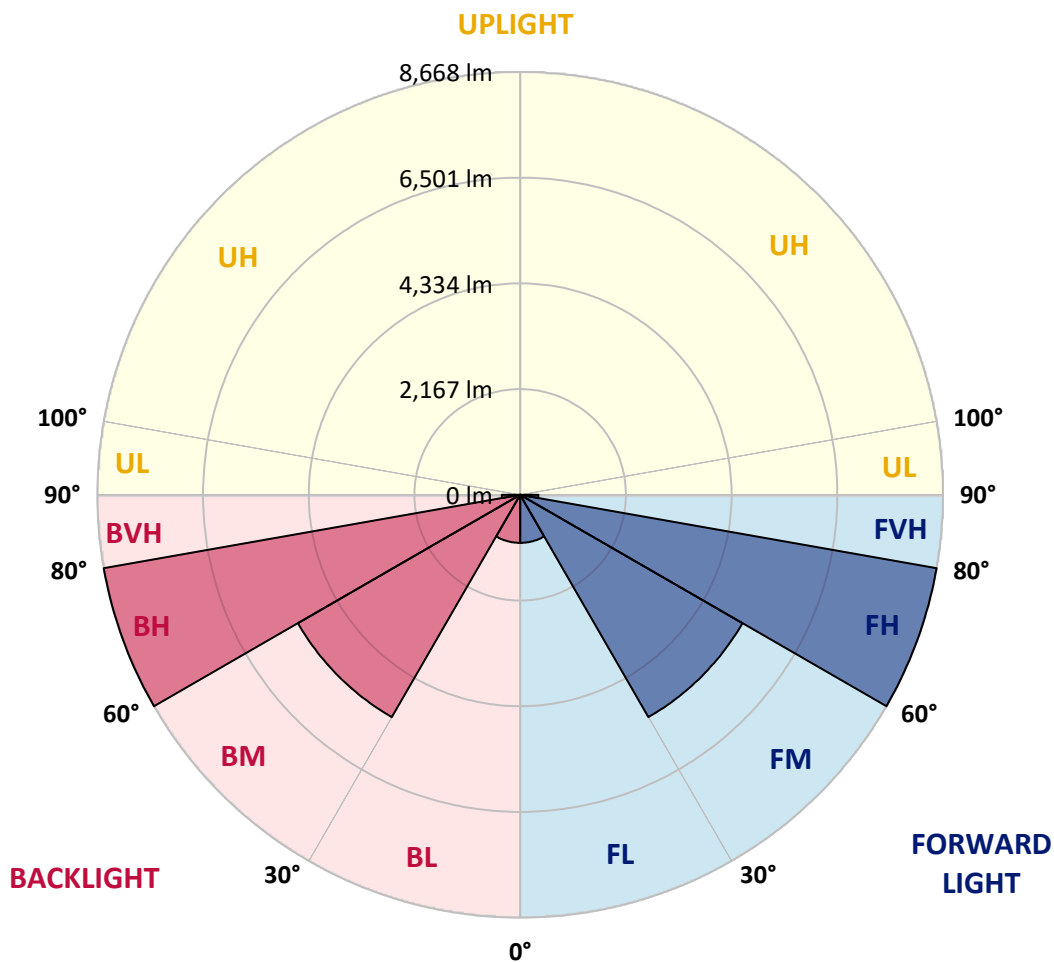
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	984.6	3.2			
FM	(30°-60°)	5262.4	17.2			
FH	(60°-80°)	8667.9	28.3			G4/12000
FVH	(80°-90°)	375.1	1.2			G3/500
BL	(0°-30°)	984.6	3.2	B2/1000		
BM	(30°-60°)	5262.4	17.2	B4/8500		
BH	(60°-80°)	8667.9	28.3	B5		G4/12000
BVH	(80°-90°)	375.1	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°	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0
2.5°	2190.9	2190.9	2192.8	2190.9	2187.2	2185.3	2179.7	2175.9	2172.1	2170.2	2166.5
5°	2192.8	2192.8	2194.7	2192.8	2189.1	2185.3	2181.5	2175.9	2172.1	2168.4	2166.5
7.5°	2200.4	2202.2	2204.1	2202.2	2194.7	2190.9	2185.3	2179.7	2172.1	2168.4	2164.6
10°	2215.4	2215.4	2215.4	2213.5	2207.9	2200.4	2192.8	2187.2	2177.8	2168.4	2162.7
12.5°	2226.7	2228.6	2228.6	2224.8	2217.3	2207.9	2200.4	2194.7	2187.2	2179.7	2174.0
15°	2243.7	2243.7	2241.8	2234.2	2222.9	2215.4	2211.7	2209.8	2207.9	2204.1	2198.5
17.5°	2277.5	2275.7	2270.0	2258.7	2245.5	2239.9	2236.1	2236.1	2236.1	2234.2	2230.5
20°	2326.5	2326.5	2318.9	2300.1	2288.8	2283.2	2277.5	2277.5	2277.5	2271.9	2266.2
22.5°	2405.5	2407.4	2396.1	2373.5	2358.5	2347.2	2339.6	2334.0	2328.4	2324.6	2315.2
25°	2512.8	2510.9	2497.8	2469.5	2458.2	2446.9	2431.9	2422.5	2414.9	2409.3	2398.0
27.5°	2625.8	2623.9	2608.8	2584.3	2576.8	2559.9	2548.6	2535.4	2526.0	2516.6	2505.3
30°	2770.7	2761.3	2750.0	2731.2	2727.4	2714.2	2699.2	2680.3	2665.3	2650.2	2637.0
32.5°	2900.6	2900.6	2883.6	2874.2	2881.7	2876.1	2878.0	2866.7	2857.3	2851.6	2838.4
35°	3081.3	3081.3	3073.7	3062.4	3064.3	3051.1	3049.3	3051.1	3058.7	3058.7	3043.6
37.5°	3322.2	3326.0	3301.5	3297.7	3288.3	3269.5	3260.1	3263.8	3280.8	3290.2	3269.5
40°	3621.5	3629.0	3621.5	3597.0	3585.7	3553.7	3534.9	3534.9	3548.1	3557.5	3549.9
42.5°	3917.0	3930.2	3917.0	3898.2	3888.7	3864.3	3854.9	3862.4	3879.3	3890.6	3879.3
45°	4246.4	4255.8	4238.8	4216.3	4205.0	4191.8	4186.1	4191.8	4210.6	4221.9	4218.1
47.5°	4570.1	4583.3	4562.6	4553.2	4553.2	4540.0	4555.1	4570.1	4587.1	4613.4	4602.1
50°	4886.3	4903.3	4890.1	4892.0	4907.0	4931.5	4959.8	4989.9	5020.0	5048.2	5052.0
52.5°	5168.7	5195.0	5196.9	5230.8	5277.9	5315.5	5394.6	5460.4	5532.0	5556.4	5545.1
55°	5466.1	5501.8	5548.9	5601.6	5676.9	5754.1	5887.7	6006.3	6100.4	6158.7	6149.3
57.5°	5891.5	5927.2	5976.2	6062.8	6175.7	6281.1	6463.7	6648.1	6791.2	6879.7	6836.4
60°	6443.0	6480.6	6544.6	6636.8	6783.7	6926.7	7177.1	7442.4	7664.6	7766.2	7687.1
62.5°	7173.3	7209.0	7250.5	7372.8	7536.6	7721.0	8035.4	8376.0	8658.4	8756.3	8645.2
65°	8214.2	8257.5	8270.6	8370.4	8530.4	8701.7	9040.5	9424.5	9746.3	9906.3	9684.2
67.5°	9386.8	9403.8	9456.5	9573.2	9736.9	9891.3	10158.5	10521.8	10830.5	10919.0	10681.8
70°	10073.8	10107.7	10200.0	10361.8	10557.6	10800.4	11092.1	11483.7	11833.8	11875.2	11574.0
72.5°	9452.7	9522.3	9686.1	9938.3	10348.7	10779.7	11282.3	11860.1	12362.7	12421.0	11937.3
75°	7581.7	7660.8	7856.5	8133.2	8618.9	9258.8	9985.4	10853.1	11606.0	11702.0	11062.0
77.5°	4041.2	4139.1	4423.3	4796.0	5488.7	6335.7	7210.9	8201.0	8841.0	9057.4	8596.3
80°	1018.3	1071.0	1208.4	1426.8	1895.4	2578.7	3333.5	4398.8	5193.2	5530.1	5193.2
82.5°	395.3	434.8	472.4	498.8	544.0	638.1	880.9	1436.2	1935.0	2382.9	2063.0
85°	152.5	161.9	233.4	265.4	265.4	291.8	335.0	395.3	489.4	534.6	448.0
87.5°	60.2	65.9	80.9	124.2	128.0	112.9	120.5	135.5	103.5	86.6	97.9
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°	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0
2.5°	2164.6	2162.7	2159.0	2160.8	2159.0	2159.0	2159.0	2159.0
5°	2162.7	2162.7	2159.0	2159.0	2159.0	2160.8	2159.0	2159.0
7.5°	2160.8	2159.0	2155.2	2153.3	2153.3	2151.4	2151.4	2151.4
10°	2157.1	2153.3	2149.5	2147.7	2147.7	2143.9	2143.9	2143.9
12.5°	2166.5	2160.8	2157.1	2155.2	2155.2	2155.2	2157.1	2157.1
15°	2192.8	2181.5	2175.9	2174.0	2175.9	2179.7	2181.5	2183.4
17.5°	2221.1	2209.8	2200.4	2196.6	2198.5	2204.1	2209.8	2213.5
20°	2256.8	2247.4	2236.1	2232.4	2232.4	2239.9	2243.7	2249.3
22.5°	2307.6	2300.1	2290.7	2285.1	2281.3	2290.7	2296.4	2300.1
25°	2388.6	2381.1	2373.5	2367.9	2366.0	2375.4	2379.2	2381.1
27.5°	2495.9	2488.3	2484.6	2482.7	2477.1	2480.8	2486.5	2484.6
30°	2635.2	2640.8	2635.2	2635.2	2625.8	2629.5	2625.8	2622.0
32.5°	2821.5	2815.9	2798.9	2787.6	2774.4	2774.4	2768.8	2763.2
35°	3007.8	2989.0	2979.6	2985.3	2979.6	2983.4	2974.0	2964.6
37.5°	3228.1	3216.8	3214.9	3231.8	3228.1	3231.8	3231.8	3218.7
40°	3519.8	3512.3	3525.5	3553.7	3565.0	3563.1	3566.9	3549.9
42.5°	3854.9	3841.7	3847.3	3871.8	3885.0	3888.7	3886.9	3871.8
45°	4189.9	4193.7	4193.7	4220.0	4233.2	4240.7	4227.6	4221.9
47.5°	4568.2	4573.9	4560.7	4577.7	4581.4	4594.6	4583.3	4573.9
50°	5004.9	4984.2	4954.1	4959.8	4959.8	4956.0	4942.8	4931.5
52.5°	5492.4	5445.4	5388.9	5370.1	5349.4	5328.7	5302.3	5281.6
55°	6047.7	5966.8	5865.1	5818.1	5778.5	5731.5	5671.2	5650.5
57.5°	6691.4	6552.1	6416.6	6331.9	6230.3	6168.2	6091.0	6087.2
60°	7455.6	7267.4	7028.4	6902.2	6800.6	6727.2	6668.8	6646.3
62.5°	8338.4	8014.7	7756.8	7621.3	7502.7	7457.5	7384.1	7393.5
65°	9243.8	8914.4	8664.0	8554.9	8443.8	8413.7	8345.9	8370.4
67.5°	10224.4	9953.4	9678.6	9576.9	9475.3	9445.2	9375.5	9396.2
70°	11103.4	10759.0	10446.5	10247.0	10073.8	9934.6	9846.1	9810.3
72.5°	11278.5	10681.8	10190.5	9691.7	9403.8	9151.5	9048.0	9008.5
75°	10134.1	9208.0	8507.8	7922.4	7598.7	7231.6	7192.1	7137.5
77.5°	7882.9	6828.8	5981.8	5228.9	4794.1	4346.1	4191.8	4075.1
80°	4701.9	3613.9	2800.8	1963.2	1601.8	1289.3	1212.2	1131.2
82.5°	1682.7	1078.5	726.6	566.6	506.3	466.8	436.7	397.2
85°	406.6	342.6	323.7	293.6	289.9	246.6	175.1	156.2
87.5°	129.9	118.6	120.5	114.8	120.5	90.3	73.4	65.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)