

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: P270642

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270642
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
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-5MQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21959.6 lumens
Efficiency: N/A
Efficacy: 113.8 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 - G3

Input Watts (W): 193
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

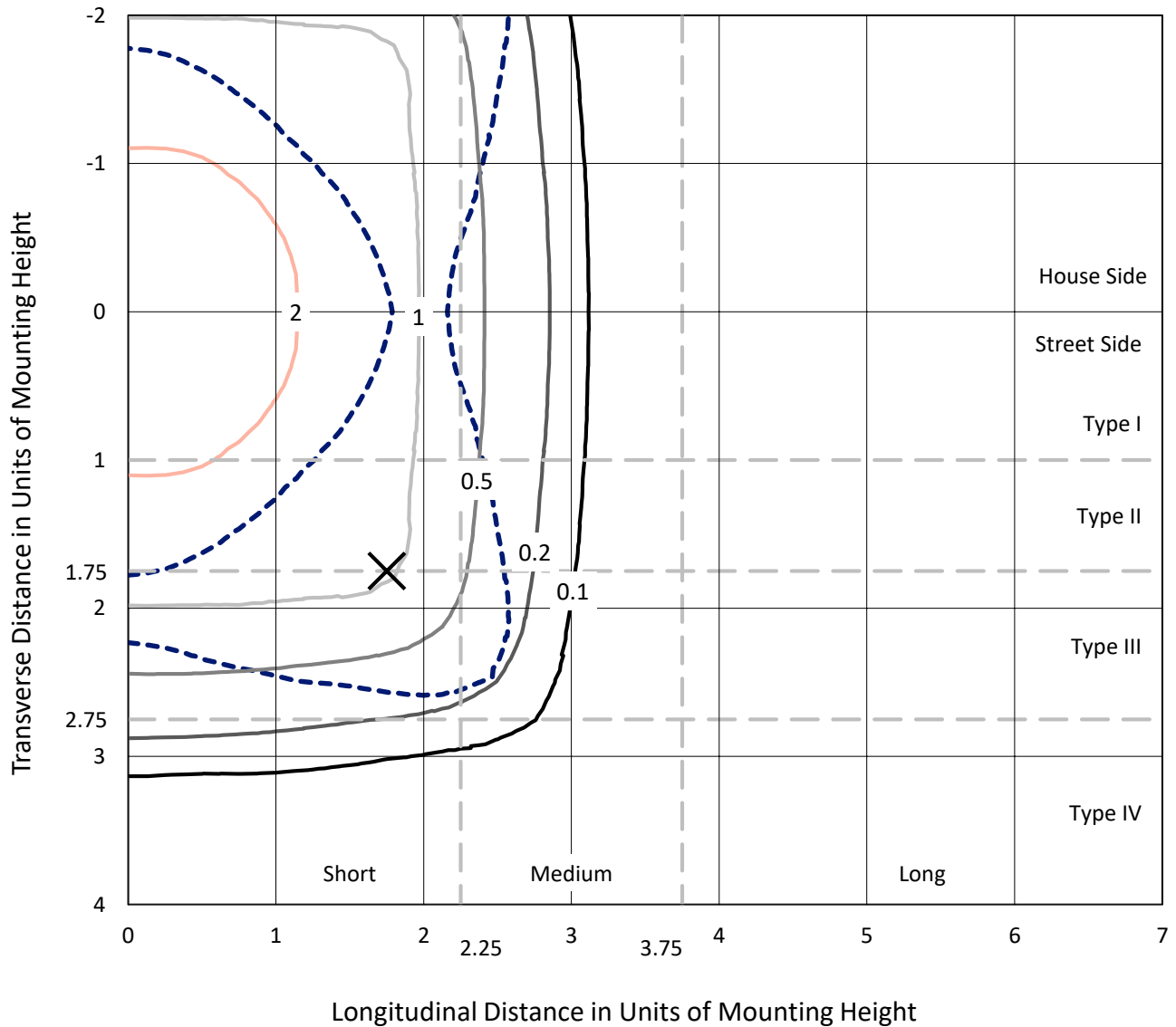


REPORT NUMBER: P270642

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

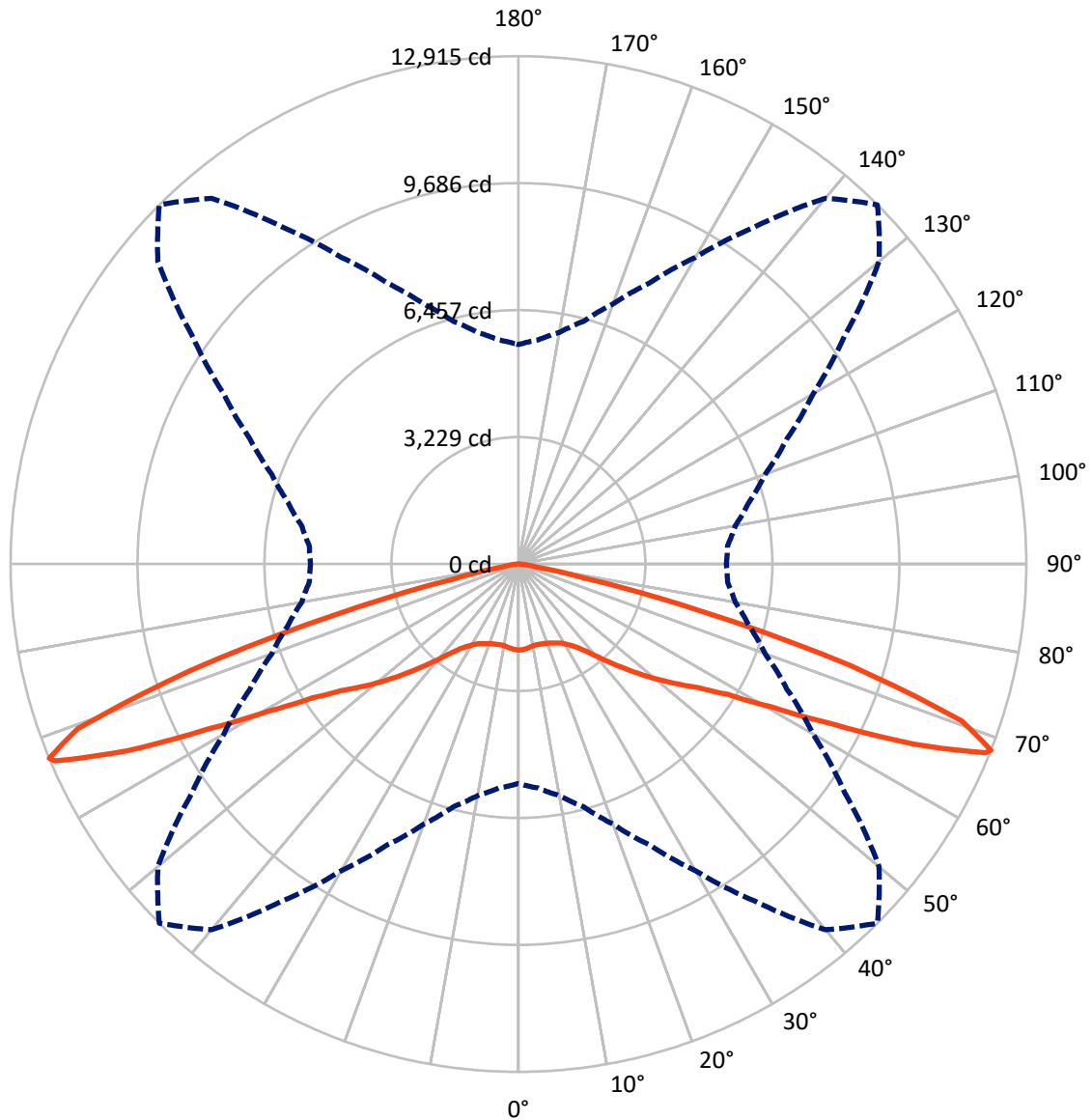


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270642

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P270642

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10979.8	0.0	10979.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10979.8	0.0	10979.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	21959.6	0.0	21959.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.0	0.9
10°-20°	594.5	2.7
20°-30°	1010.6	4.6
30°-40°	1653.9	7.5
40°-50°	2955.8	13.5
50°-60°	4991.8	22.7
60°-70°	7740.5	35.2
70°-80°	2661.3	12.1
80°-90°	146.2	0.7
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°	21959.6	100.0
0°-180°	21959.6	100.0



REPORT NUMBER: P270642

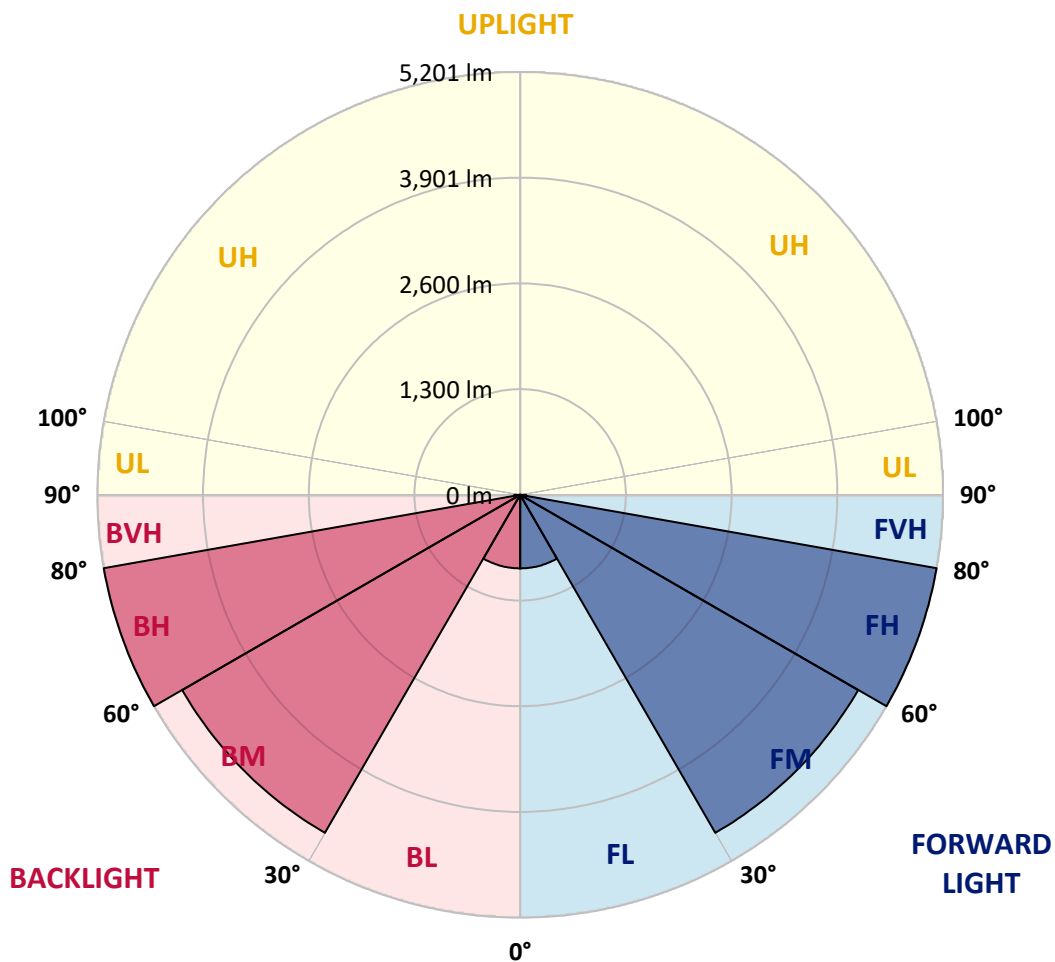
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	905.0	4.1			
FM	(30°-60°)	4800.7	21.9			
FH	(60°-80°)	5200.9	23.7			G3/7500
FVH	(80°-90°)	73.1	0.3			G1/100
BL	(0°-30°)	905.0	4.1	B2/1000		
BM	(30°-60°)	4800.7	21.9	B3/5000		
BH	(60°-80°)	5200.9	23.7	B5		G3/7500
BVH	(80°-90°)	73.1	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-G3

Type V Short





REPORT NUMBER: P270642

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5
2.5°	2199.9	2199.9	2202.6	2201.2	2197.3	2193.2	2189.2	2185.1	2182.5	2179.7	2177.1
5°	2177.1	2177.1	2181.2	2178.4	2175.8	2171.7	2169.0	2164.9	2162.3	2159.6	2161.0
7.5°	2147.5	2150.3	2152.9	2151.5	2146.2	2144.9	2140.8	2139.5	2136.8	2132.8	2134.1
10°	2121.9	2123.4	2126.0	2124.6	2123.4	2119.3	2117.9	2116.5	2115.1	2109.8	2108.5
12.5°	2096.5	2099.1	2101.8	2103.1	2101.8	2103.1	2104.5	2105.8	2104.5	2101.8	2101.8
15°	2076.3	2078.9	2083.0	2087.0	2088.3	2096.5	2101.8	2107.2	2111.1	2112.5	2108.5
17.5°	2065.6	2069.5	2074.8	2083.0	2089.6	2099.1	2108.5	2116.5	2123.4	2124.6	2120.5
20°	2064.1	2068.2	2076.3	2085.7	2097.7	2109.8	2124.6	2136.8	2143.4	2147.5	2143.4
22.5°	2073.6	2078.9	2089.6	2101.8	2116.5	2132.8	2151.5	2164.9	2178.4	2183.8	2179.7
25°	2100.4	2105.8	2117.9	2132.8	2148.8	2169.0	2187.8	2205.2	2218.8	2225.6	2220.2
27.5°	2156.9	2158.3	2171.7	2187.8	2206.6	2224.2	2248.4	2256.5	2267.2	2273.9	2267.2
30°	2236.3	2238.9	2251.1	2276.7	2294.1	2317.0	2330.5	2338.5	2350.5	2357.3	2349.2
32.5°	2357.3	2359.9	2370.7	2394.9	2411.1	2428.6	2444.6	2450.0	2462.2	2470.2	2460.8
35°	2528.1	2533.4	2542.8	2559.0	2572.4	2586.0	2598.0	2593.9	2602.0	2612.8	2603.4
37.5°	2762.1	2760.8	2763.4	2775.6	2789.0	2797.1	2815.8	2806.5	2814.5	2823.9	2818.5
40°	3035.1	3035.1	3033.7	3055.1	3060.5	3068.6	3088.8	3076.8	3087.5	3098.3	3088.8
42.5°	3345.6	3351.0	3357.8	3375.2	3390.1	3392.7	3402.2	3396.8	3410.1	3419.6	3410.1
45°	3703.4	3711.3	3719.5	3759.9	3766.6	3772.0	3778.6	3761.2	3775.9	3784.0	3781.3
47.5°	4074.5	4089.3	4106.7	4148.5	4175.3	4187.4	4192.7	4172.6	4174.1	4186.1	4187.4
50°	4494.0	4510.2	4527.6	4574.7	4600.3	4621.8	4628.4	4605.7	4608.3	4617.7	4620.4
52.5°	4881.3	4900.2	4937.9	5001.0	5037.2	5075.0	5077.7	5049.5	5061.5	5068.2	5062.8
55°	5245.7	5269.9	5319.8	5404.5	5470.3	5544.2	5577.8	5546.9	5546.9	5541.6	5538.9
57.5°	5670.7	5697.6	5748.7	5846.8	5938.2	6044.4	6136.0	6166.9	6223.4	6242.1	6212.6
60°	6310.8	6339.0	6391.4	6520.5	6636.1	6790.7	6941.5	7063.8	7262.7	7370.5	7273.5
62.5°	6895.7	6938.8	7062.5	7288.4	7538.4	7824.9	8157.1	8393.8	8755.4	8935.6	8692.2
65°	6762.6	6849.9	7091.9	7446.9	7963.5	8584.7	9261.0	9910.6	10658.2	11041.4	10546.6
67.5°	5907.3	5981.4	6242.1	6655.1	7299.1	8155.7	9207.3	10552.0	12094.4	12812.4	11937.0
68°	5580.6	5719.1	5978.6	6388.7	7038.2	7880.0	9002.9	10455.2	12138.7	12914.7	11969.3
70°	4278.8	4328.7	4577.5	4945.9	5646.4	6472.1	7605.7	9261.0	11163.9	11962.5	10990.4
72.5°	2033.3	2062.8	2224.2	2587.2	3032.3	3704.7	4705.1	6266.3	7980.9	8812.0	7842.5
75°	745.0	751.7	789.3	875.4	1042.2	1294.9	1775.1	2745.8	4065.1	4847.8	4081.2
77.5°	402.1	403.3	418.3	439.7	469.4	503.0	575.5	771.9	1245.2	1694.4	1315.1
80°	252.9	251.4	266.3	283.8	303.8	320.1	326.8	349.6	393.9	461.2	423.6
82.5°	129.0	141.3	174.8	193.7	223.1	228.6	221.9	220.5	234.0	252.9	260.9
85°	71.2	63.2	92.7	123.6	134.4	138.5	139.9	131.8	129.0	126.4	133.0
87.5°	36.3	33.6	40.3	61.9	65.8	53.8	55.2	47.2	32.2	32.2	33.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270642

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7027-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5	2190.5
2.5°	2174.3	2175.8	2173.1	2173.1	2173.1	2174.3	2173.1	2171.7
5°	2156.9	2159.6	2159.6	2161.0	2162.3	2162.3	2162.3	2162.3
7.5°	2131.4	2132.8	2135.5	2135.5	2135.5	2135.5	2135.5	2135.5
10°	2107.2	2104.5	2103.1	2100.4	2100.4	2096.5	2097.7	2099.1
12.5°	2095.0	2089.6	2087.0	2083.0	2080.3	2076.3	2076.3	2077.6
15°	2100.4	2092.4	2084.2	2081.6	2078.9	2076.3	2073.6	2074.8
17.5°	2111.1	2101.8	2092.4	2087.0	2081.6	2077.6	2076.3	2077.6
20°	2134.1	2120.5	2105.8	2096.5	2085.7	2083.0	2078.9	2083.0
22.5°	2164.9	2148.8	2130.1	2112.5	2100.4	2095.0	2089.6	2093.7
25°	2202.6	2185.1	2166.4	2146.2	2132.8	2128.7	2121.9	2121.9
27.5°	2255.0	2240.4	2224.2	2205.2	2191.9	2187.8	2177.1	2177.1
30°	2338.5	2323.6	2308.9	2292.7	2279.3	2275.2	2261.8	2261.8
32.5°	2448.7	2432.6	2423.2	2409.8	2399.0	2392.2	2376.0	2374.8
35°	2596.6	2581.9	2580.6	2571.0	2560.3	2561.6	2545.5	2542.8
37.5°	2809.1	2797.1	2801.1	2793.0	2783.6	2791.7	2782.2	2782.2
40°	3080.7	3076.8	3080.7	3075.3	3076.8	3078.0	3070.0	3072.7
42.5°	3408.9	3398.1	3422.4	3419.6	3415.5	3426.3	3407.5	3394.1
45°	3786.7	3782.8	3806.8	3810.9	3802.9	3809.6	3775.9	3774.6
47.5°	4196.8	4196.8	4218.4	4215.7	4207.7	4209.0	4168.7	4143.1
50°	4624.5	4621.8	4643.2	4637.9	4627.2	4625.8	4584.1	4558.5
52.5°	5069.6	5069.6	5100.4	5085.8	5060.2	5048.0	4996.9	4963.3
55°	5561.8	5554.9	5564.5	5516.0	5466.2	5430.0	5366.7	5341.2
57.5°	6184.3	6106.4	6039.1	5977.2	5907.3	5864.3	5790.4	5763.4
60°	7067.9	6859.4	6769.3	6645.7	6529.9	6472.1	6374.0	6321.6
62.5°	8291.5	7945.9	7701.2	7428.3	7164.6	6979.1	6829.9	6763.9
65°	9706.1	8953.0	8330.5	7745.5	7249.3	6855.3	6636.1	6567.6
67.5°	10244.0	8861.7	7787.2	6948.1	6345.6	5876.4	5614.1	5559.0
68°	10129.7	8651.8	7535.8	6676.6	6071.4	5598.1	5337.2	5287.5
70°	8935.6	7299.1	6121.1	5266.0	4701.1	4250.6	4066.4	3987.0
72.5°	6091.5	4687.6	3595.7	2876.4	2454.1	2169.0	1999.5	1941.7
75°	2803.7	1894.7	1265.4	945.3	802.7	734.3	681.8	668.2
77.5°	817.5	594.4	511.0	473.3	445.1	420.9	403.3	402.1
80°	388.6	364.4	353.7	329.5	303.8	281.0	264.9	267.5
82.5°	260.9	254.1	254.1	230.0	189.6	162.8	134.4	121.0
85°	138.5	143.9	152.0	143.9	125.0	92.7	60.5	65.8
87.5°	47.2	53.8	56.5	55.2	49.8	37.6	28.2	28.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)