

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: P196431

Luminaire Tested: **NAV-AF-03-D-UNV-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18009.2 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

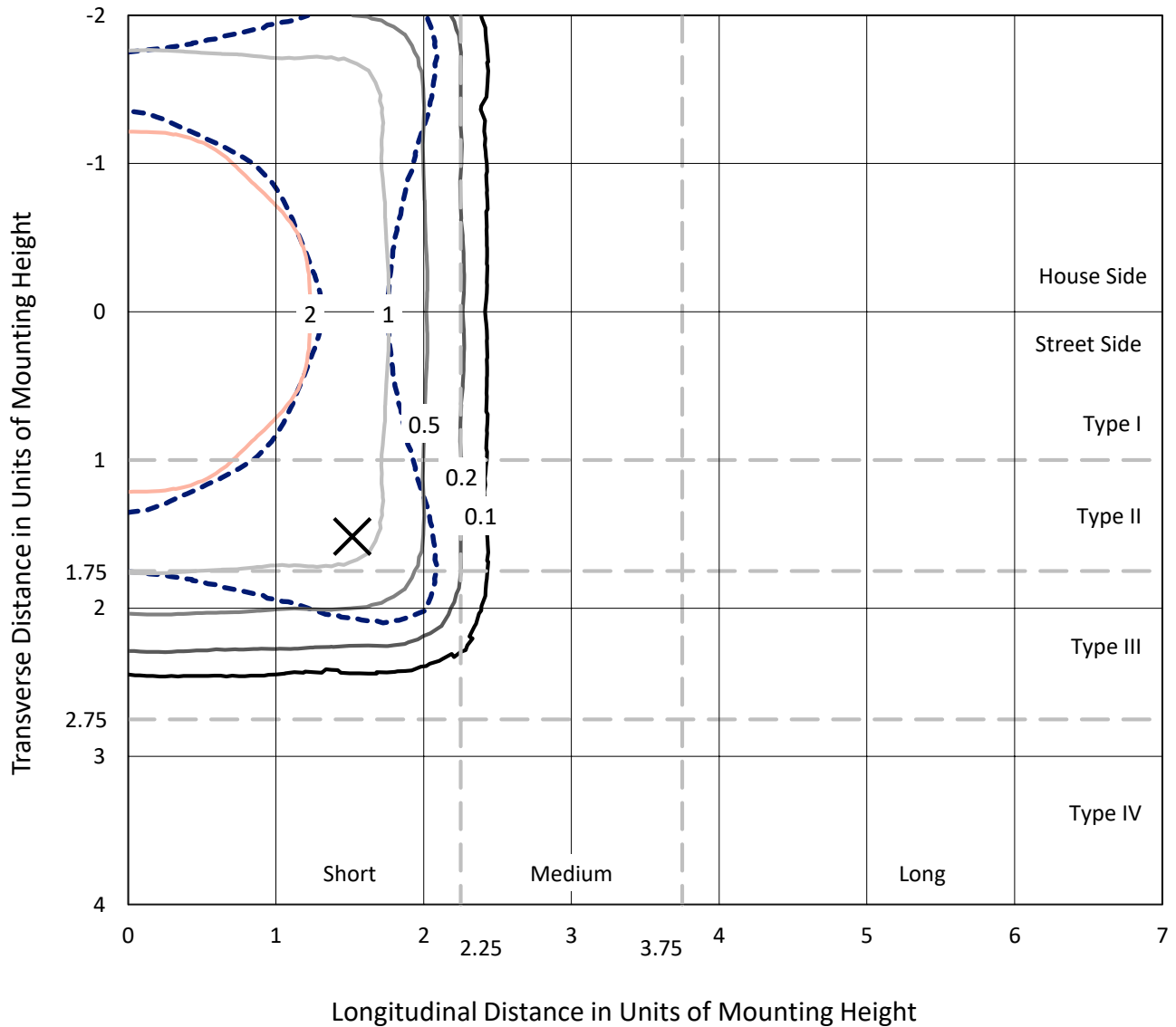
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196431
 CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

Iso-Footcandle Lines of Horizontal Illumination

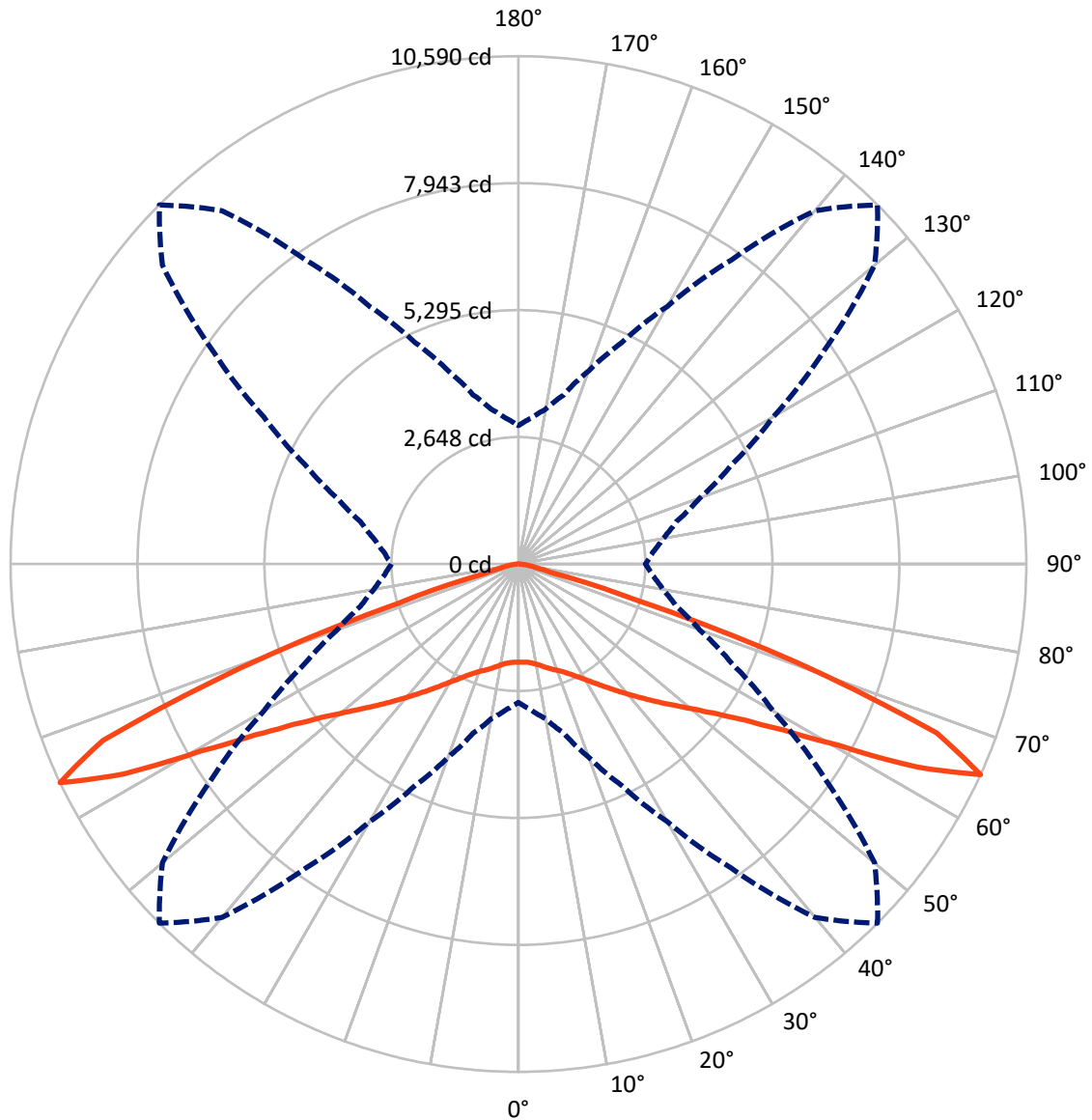
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196431
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P196431

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9004.6	0.0	9004.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9004.6	0.0	9004.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	18009.2	0.0	18009.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.5	1.1
10°-20°	639.4	3.6
20°-30°	1192.7	6.6
30°-40°	2011.1	11.2
40°-50°	3266.6	18.1
50°-60°	5118.2	28.4
60°-70°	4831.4	26.8
70°-80°	651.1	3.6
80°-90°	99.2	0.6
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°	18009.2	100.0
0°-180°	18009.2	100.0

Coefficient of Utilization



REPORT NUMBER: P196431

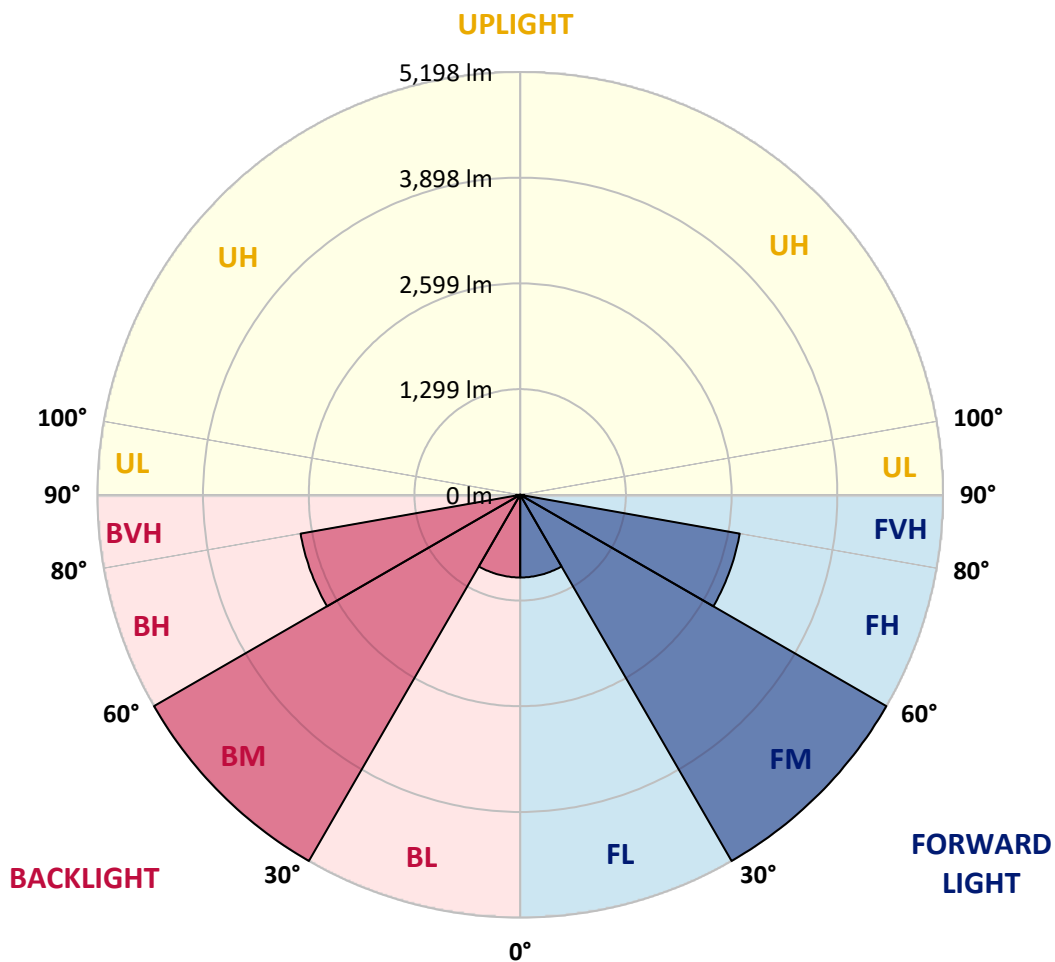
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1015.8	5.6			
FM	(30°-60°)	5198.0	28.9			
FH	(60°-80°)	2741.2	15.2			G2/5000
FVH	(80°-90°)	49.6	0.3			G1/100
BL	(0°-30°)	1015.8	5.6	B3/2500		
BM	(30°-60°)	5198.0	28.9	B4/8500		
BH	(60°-80°)	2741.2	15.2	B4/5000		G2/5000
BVH	(80°-90°)	49.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P196431

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5
2.5°	2065.3	2065.3	2068.8	2067.6	2063.2	2059.7	2056.4	2051.9	2049.6	2047.4	2046.3
5°	2076.6	2076.6	2080.0	2078.7	2075.5	2071.0	2068.8	2065.3	2061.9	2059.7	2060.8
7.5°	2104.7	2105.8	2106.8	2105.8	2102.3	2099.0	2094.5	2093.4	2088.9	2085.5	2087.8
10°	2147.3	2147.3	2148.4	2149.4	2147.3	2139.4	2139.4	2137.1	2132.6	2128.2	2129.4
12.5°	2194.4	2194.4	2195.4	2195.4	2195.4	2190.9	2192.2	2190.9	2185.4	2183.1	2185.4
15°	2240.4	2241.5	2241.5	2243.7	2243.7	2244.8	2249.3	2249.3	2247.1	2246.0	2246.0
17.5°	2294.2	2296.4	2297.6	2300.9	2302.1	2304.3	2308.7	2310.0	2311.1	2307.7	2308.7
20°	2366.0	2367.1	2370.5	2371.6	2376.1	2376.1	2378.3	2377.3	2375.0	2370.5	2370.5
22.5°	2446.8	2449.0	2455.7	2455.7	2461.4	2458.0	2459.1	2455.7	2450.1	2448.0	2445.7
25°	2552.3	2555.6	2561.2	2559.0	2561.2	2555.6	2555.6	2555.6	2552.3	2548.9	2547.7
27.5°	2685.7	2680.1	2685.7	2681.2	2680.1	2675.6	2676.8	2674.5	2671.2	2670.1	2665.6
30°	2824.9	2818.2	2821.5	2822.6	2820.4	2819.2	2814.7	2811.3	2805.8	2806.9	2803.6
32.5°	2984.2	2977.5	2980.8	2981.9	2979.7	2981.9	2980.8	2973.0	2966.2	2970.6	2970.6
35°	3173.8	3169.3	3178.3	3181.6	3174.8	3171.5	3167.0	3158.0	3148.0	3154.7	3155.9
37.5°	3401.5	3395.9	3402.7	3411.6	3399.3	3392.5	3374.6	3361.2	3354.4	3357.7	3362.2
40°	3638.3	3639.3	3658.4	3660.6	3647.2	3639.3	3621.4	3601.1	3582.1	3582.1	3587.7
42.5°	3887.2	3890.6	3913.0	3920.9	3916.4	3901.8	3877.2	3852.5	3827.8	3832.3	3839.1
45°	4168.9	4164.4	4187.9	4207.0	4203.6	4199.2	4175.6	4130.6	4108.2	4107.2	4118.4
47.5°	4465.0	4473.9	4498.6	4531.2	4530.1	4518.9	4488.6	4447.1	4405.6	4408.9	4422.4
50°	4810.5	4822.9	4864.4	4896.9	4901.5	4898.1	4862.1	4814.0	4755.6	4759.0	4777.0
52.5°	5120.2	5138.1	5186.4	5253.7	5295.2	5314.3	5290.7	5245.9	5186.4	5189.7	5208.8
55°	5400.6	5428.6	5500.5	5592.6	5675.5	5752.9	5787.7	5786.6	5742.7	5752.9	5777.6
57.5°	5576.8	5616.0	5724.8	5873.0	6037.8	6193.8	6328.4	6455.2	6483.2	6536.0	6536.0
60°	5340.0	5432.1	5576.8	5830.3	6154.6	6504.5	6883.8	7252.8	7490.7	7678.0	7577.1
62.5°	4459.4	4595.1	4798.2	5132.6	5637.3	6262.3	7023.9	7882.2	8777.5	9324.9	8923.3
65°	2885.4	3056.0	3277.0	3652.7	4288.9	5093.2	6202.7	7745.4	9618.8	10590.4	9692.9
67.5°	1143.2	1258.7	1393.4	1660.4	2212.3	3002.1	4247.4	6150.1	8493.6	9410.2	8403.9
70°	546.3	565.4	591.2	648.5	786.4	1061.2	1706.4	3030.2	5208.8	6174.8	5084.3
72.5°	394.9	398.2	410.6	429.7	470.1	526.2	639.5	926.6	1796.1	2611.8	1798.3
75°	299.6	304.1	310.8	320.9	342.2	369.1	411.7	493.7	614.8	709.0	613.7
77.5°	227.7	232.1	237.8	247.9	259.2	278.2	293.9	326.4	378.0	398.2	396.1
80°	166.1	173.9	182.9	191.9	199.7	208.6	209.8	225.5	254.7	273.7	268.1
82.5°	105.4	112.2	135.7	145.9	147.0	149.2	148.0	149.2	164.9	178.4	173.9
85°	67.3	71.8	84.1	95.4	93.1	97.6	97.6	95.4	88.6	76.3	90.9
87.5°	33.7	34.8	40.4	50.5	48.3	42.6	41.5	41.5	30.3	25.7	28.1
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: P196431

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5	2048.5
2.5°	2042.9	2045.2	2041.8	2041.8	2040.6	2042.9	2039.6	2039.6
5°	2058.7	2061.9	2060.8	2060.8	2063.2	2065.3	2064.2	2063.2
7.5°	2086.7	2088.9	2091.1	2092.4	2094.5	2093.4	2095.6	2094.5
10°	2129.4	2127.1	2130.4	2127.1	2128.2	2125.9	2127.1	2127.1
12.5°	2183.1	2179.8	2177.5	2175.3	2175.3	2170.8	2170.8	2172.0
15°	2244.8	2239.3	2234.8	2232.5	2230.3	2230.3	2226.9	2229.1
17.5°	2305.5	2299.8	2291.9	2291.9	2288.7	2286.4	2284.1	2289.7
20°	2369.4	2363.9	2359.2	2358.2	2351.5	2349.2	2350.2	2357.0
22.5°	2443.5	2440.1	2440.1	2437.8	2433.3	2429.9	2429.9	2437.8
25°	2543.2	2536.6	2537.6	2538.7	2536.6	2536.6	2534.3	2540.0
27.5°	2665.6	2659.9	2663.3	2665.6	2663.3	2666.7	2663.3	2667.8
30°	2809.2	2805.8	2809.2	2812.6	2806.9	2806.9	2804.6	2808.1
32.5°	2980.8	2976.3	2978.5	2978.5	2970.6	2963.9	2955.0	2961.7
35°	3169.3	3163.7	3168.2	3171.5	3162.5	3155.9	3142.3	3148.0
37.5°	3376.7	3379.1	3384.7	3399.3	3397.0	3385.8	3375.7	3380.2
40°	3609.1	3620.3	3644.9	3655.0	3652.7	3641.6	3628.1	3630.3
42.5°	3871.6	3886.2	3911.9	3928.8	3920.9	3905.3	3888.4	3895.1
45°	4157.7	4180.0	4213.7	4230.5	4220.4	4203.6	4180.0	4192.4
47.5°	4460.5	4505.5	4550.3	4572.7	4569.3	4545.8	4515.4	4518.9
50°	4822.9	4882.4	4939.6	4962.0	4945.2	4909.2	4866.6	4865.6
52.5°	5273.8	5337.9	5385.0	5379.4	5337.9	5281.7	5233.5	5231.3
55°	5837.0	5858.4	5851.6	5803.5	5730.5	5643.0	5581.3	5571.1
57.5°	6518.1	6446.2	6340.8	6194.9	6031.1	5865.1	5752.9	5711.4
60°	7350.4	7026.3	6649.3	6252.2	5889.8	5618.3	5446.7	5342.3
62.5°	8038.2	7099.1	6256.6	5566.6	5002.4	4667.0	4432.5	4287.8
65°	7802.5	6133.3	4912.7	4023.0	3407.1	3060.5	2812.6	2647.6
67.5°	6027.9	4098.2	2851.7	1976.7	1498.8	1268.8	1108.4	1004.1
70°	3039.1	1571.7	952.4	672.0	574.3	534.1	507.1	491.3
72.5°	891.9	595.7	494.7	437.5	402.7	378.0	362.4	354.5
75°	493.7	402.7	355.6	323.1	300.7	283.8	273.7	267.0
77.5°	339.9	292.9	269.3	247.9	230.0	217.7	209.8	203.0
80°	237.8	214.2	204.2	193.0	179.5	169.4	158.2	153.7
82.5°	158.2	148.0	145.9	136.9	129.0	117.8	97.6	90.9
85°	93.1	92.0	92.0	88.6	83.0	72.8	58.4	58.4
87.5°	32.6	33.7	34.8	37.0	35.9	30.3	24.7	23.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)