

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: P195972

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195972
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-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30973.9 lumens
Efficiency: N/A
Efficacy: 124.4 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

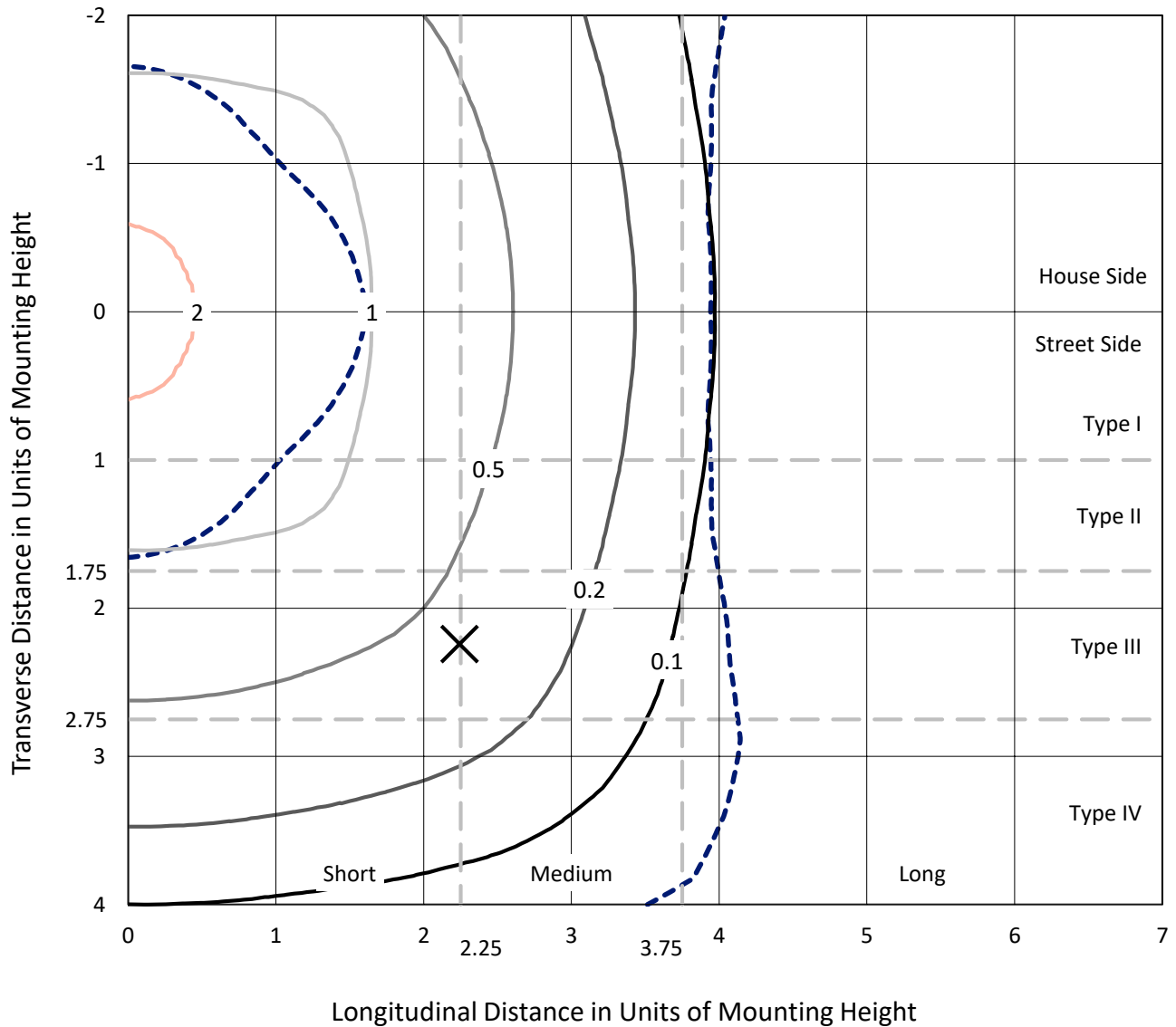
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

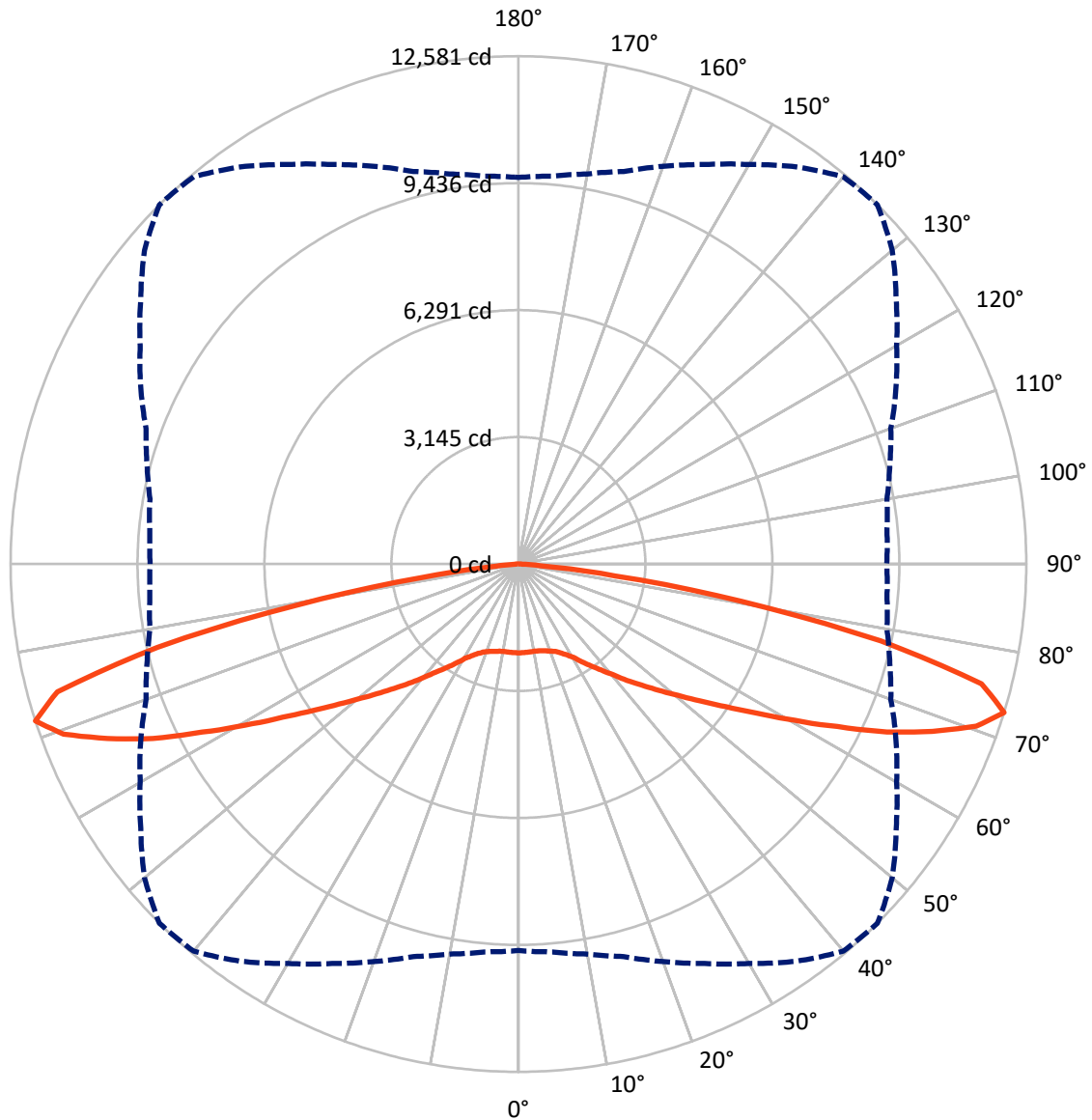
✕ Max cd
 - - - 1/2 Max cd



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	15487.0	0.0	15487.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15487.0	0.0	15487.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	30973.9	0.0	30973.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.2	0.7
10°-20°	636.1	2.1
20°-30°	1148.3	3.7
30°-40°	1958.7	6.3
40°-50°	3334.8	10.8
50°-60°	5366.8	17.3
60°-70°	8925.1	28.8
70°-80°	8634.0	27.9
80°-90°	759.9	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°	30973.9	100.0
0°-180°	30973.9	100.0



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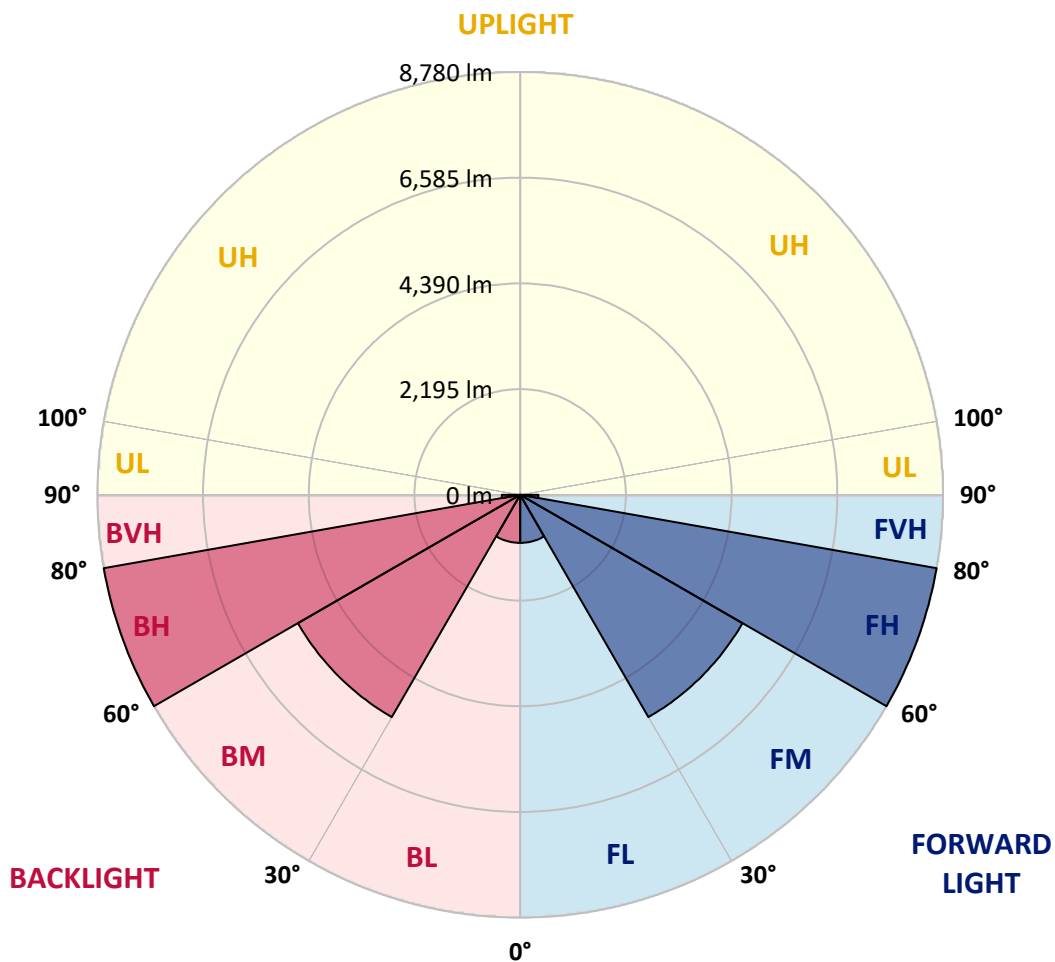
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	997.3	3.2			
FM	(30°-60°)	5330.1	17.2			
FH	(60°-80°)	8779.6	28.3			G4/12000
FVH	(80°-90°)	380.0	1.2			G3/500
BL	(0°-30°)	997.3	3.2	B2/1000		
BM	(30°-60°)	5330.1	17.2	B4/8500		
BH	(60°-80°)	8779.6	28.3	B5		G4/12000
BVH	(80°-90°)	380.0	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°	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0
2.5°	2219.2	2219.2	2221.0	2219.2	2215.4	2213.5	2207.7	2203.9	2200.1	2198.2	2194.4
5°	2221.0	2221.0	2223.0	2221.0	2217.2	2213.5	2209.7	2203.9	2200.1	2196.3	2194.4
7.5°	2228.7	2230.6	2232.5	2230.6	2223.0	2219.2	2213.5	2207.7	2200.1	2196.3	2192.5
10°	2243.9	2243.9	2243.9	2242.0	2236.4	2228.7	2221.0	2215.4	2205.8	2196.3	2190.5
12.5°	2255.4	2257.3	2257.3	2253.5	2245.9	2236.4	2228.7	2223.0	2215.4	2207.7	2202.0
15°	2272.6	2272.6	2270.6	2263.0	2251.6	2243.9	2240.2	2238.2	2236.4	2232.5	2226.8
17.5°	2306.9	2305.0	2299.3	2287.8	2274.4	2268.7	2264.9	2264.9	2264.9	2263.0	2259.2
20°	2356.5	2356.5	2348.8	2329.8	2318.3	2312.6	2306.9	2306.9	2306.9	2301.1	2295.4
22.5°	2436.5	2438.4	2427.0	2404.1	2388.9	2377.4	2369.8	2364.0	2358.3	2354.5	2345.0
25°	2545.2	2543.3	2530.0	2501.3	2489.9	2478.5	2463.2	2453.6	2446.1	2440.4	2428.9
27.5°	2659.6	2657.6	2642.4	2617.6	2610.0	2592.9	2581.4	2568.0	2558.5	2549.0	2537.5
30°	2806.4	2796.8	2785.4	2766.4	2762.5	2749.2	2733.9	2714.9	2699.6	2684.3	2671.0
32.5°	2937.9	2937.9	2920.7	2911.2	2918.9	2913.2	2915.0	2903.6	2894.0	2888.4	2875.0
35°	3120.9	3120.9	3113.4	3101.9	3103.8	3090.4	3088.5	3090.4	3098.1	3098.1	3082.9
37.5°	3365.0	3368.8	3344.0	3340.2	3330.6	3311.6	3302.1	3305.9	3323.1	3332.6	3311.6
40°	3668.1	3675.8	3668.1	3643.3	3631.9	3599.5	3580.4	3580.4	3593.7	3603.3	3595.7
42.5°	3967.4	3980.8	3967.4	3948.4	3938.9	3914.0	3904.5	3912.2	3929.4	3940.7	3929.4
45°	4301.1	4310.6	4293.4	4270.6	4259.2	4245.8	4240.0	4245.8	4264.9	4276.2	4272.5
47.5°	4629.0	4642.4	4621.4	4611.9	4611.9	4598.5	4613.7	4629.0	4646.1	4672.8	4661.4
50°	4949.2	4966.4	4953.1	4955.0	4970.2	4995.1	5023.6	5054.2	5084.7	5113.2	5117.1
52.5°	5235.3	5262.0	5263.9	5298.2	5345.8	5384.0	5464.1	5530.8	5603.2	5628.0	5616.6
55°	5536.5	5572.7	5620.4	5673.8	5750.0	5828.2	5963.6	6083.7	6179.0	6238.1	6228.5
57.5°	5967.4	6003.6	6053.1	6140.9	6255.2	6362.0	6547.0	6733.8	6878.6	6968.2	6924.5
60°	6526.0	6564.1	6628.9	6722.3	6871.1	7015.9	7269.5	7538.3	7763.3	7866.3	7786.2
62.5°	7265.7	7301.9	7343.9	7467.7	7633.7	7820.5	8138.9	8483.9	8770.0	8869.1	8756.6
65°	8320.0	8363.9	8377.1	8478.2	8640.3	8813.7	9156.9	9545.9	9871.9	10033.9	9809.0
67.5°	9507.7	9524.9	9578.3	9696.4	9862.4	10018.7	10289.5	10657.4	10970.0	11059.6	10819.4
70°	10203.6	10237.9	10331.4	10495.3	10693.6	10939.5	11235.1	11631.6	11986.2	12028.2	11723.1
72.5°	9574.5	9645.0	9810.9	10066.3	10482.0	10918.6	11427.6	12012.9	12521.9	12581.1	12091.1
75°	7679.4	7759.5	7957.7	8238.0	8729.9	9378.1	10114.0	10992.9	11755.5	11852.7	11204.5
77.5°	4093.2	4192.4	4480.3	4857.8	5559.3	6417.3	7303.9	8306.7	8954.8	9174.1	8707.1
80°	1031.4	1084.8	1224.0	1445.1	1919.9	2611.9	3376.5	4455.5	5260.0	5601.3	5260.0
82.5°	400.4	440.4	478.5	505.2	551.0	646.3	892.2	1454.6	1959.9	2413.7	2089.5
85°	154.5	164.0	236.4	268.8	268.8	295.5	339.3	400.4	495.7	541.4	453.8
87.5°	61.0	66.7	81.9	125.8	129.6	114.4	122.0	137.3	104.9	87.7	99.1
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°	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0	2202.0
2.5°	2192.5	2190.5	2186.8	2188.7	2186.8	2186.8	2186.8	2186.8
5°	2190.5	2190.5	2186.8	2186.8	2186.8	2188.7	2186.8	2186.8
7.5°	2188.7	2186.8	2183.0	2181.0	2181.0	2179.1	2179.1	2179.1
10°	2184.8	2181.0	2177.2	2175.3	2175.3	2171.5	2171.5	2171.5
12.5°	2194.4	2188.7	2184.8	2183.0	2183.0	2183.0	2184.8	2184.8
15°	2221.0	2209.7	2203.9	2202.0	2203.9	2207.7	2209.7	2211.5
17.5°	2249.7	2238.2	2228.7	2224.9	2226.8	2232.5	2238.2	2242.0
20°	2285.9	2276.4	2264.9	2261.1	2261.1	2268.7	2272.6	2278.3
22.5°	2337.3	2329.8	2320.3	2314.5	2310.6	2320.3	2326.0	2329.8
25°	2419.4	2411.7	2404.1	2398.4	2396.5	2406.0	2409.9	2411.7
27.5°	2528.0	2520.4	2516.6	2514.7	2509.0	2512.8	2518.5	2516.6
30°	2669.1	2674.8	2669.1	2669.1	2659.6	2663.4	2659.6	2655.8
32.5°	2857.8	2852.1	2835.0	2823.5	2810.1	2810.1	2804.4	2798.8
35°	3046.6	3027.5	3018.0	3023.7	3018.0	3021.8	3012.3	3002.8
37.5°	3269.7	3258.2	3256.4	3273.4	3269.7	3273.4	3273.4	3260.1
40°	3565.2	3557.5	3570.9	3599.5	3610.9	3609.0	3612.9	3595.7
42.5°	3904.5	3891.2	3896.9	3921.7	3935.0	3938.9	3936.9	3921.7
45°	4243.9	4247.7	4247.7	4274.4	4287.7	4295.4	4282.0	4276.2
47.5°	4627.1	4632.8	4619.4	4636.6	4640.4	4653.8	4642.4	4632.8
50°	5069.4	5048.5	5017.9	5023.6	5023.6	5019.8	5006.5	4995.1
52.5°	5563.2	5515.5	5458.4	5439.2	5418.3	5397.3	5370.6	5349.6
55°	6125.6	6043.6	5940.7	5893.0	5853.0	5805.3	5744.3	5723.3
57.5°	6777.7	6636.5	6499.3	6413.5	6310.6	6247.6	6169.4	6165.6
60°	7551.6	7361.1	7118.9	6991.2	6888.2	6813.9	6754.7	6731.8
62.5°	8445.8	8117.9	7856.7	7719.4	7599.3	7553.6	7479.2	7488.7
65°	9362.9	9029.2	8775.7	8665.1	8552.6	8522.1	8453.5	8478.2
67.5°	10356.1	10081.6	9803.2	9700.3	9597.3	9566.8	9496.3	9517.2
70°	11246.5	10897.6	10581.1	10379.1	10203.6	10062.6	9973.0	9936.7
72.5°	11423.8	10819.4	10321.8	9816.6	9524.9	9269.5	9164.6	9124.5
75°	10264.6	9326.7	8617.4	8024.4	7696.6	7324.8	7284.7	7229.5
77.5°	7984.4	6916.8	6058.8	5296.2	4855.8	4402.2	4245.8	4127.6
80°	4762.4	3660.5	2836.8	1988.5	1622.4	1306.0	1227.7	1145.8
82.5°	1704.4	1092.4	735.9	573.9	512.8	472.8	442.3	402.2
85°	411.8	347.0	328.0	297.4	293.6	249.7	177.3	158.3
87.5°	131.6	120.1	122.0	116.3	122.0	91.6	74.4	66.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)