

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: P195492

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195492
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-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 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: 30279 lumens
Efficiency: N/A
Efficacy: 121.6 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

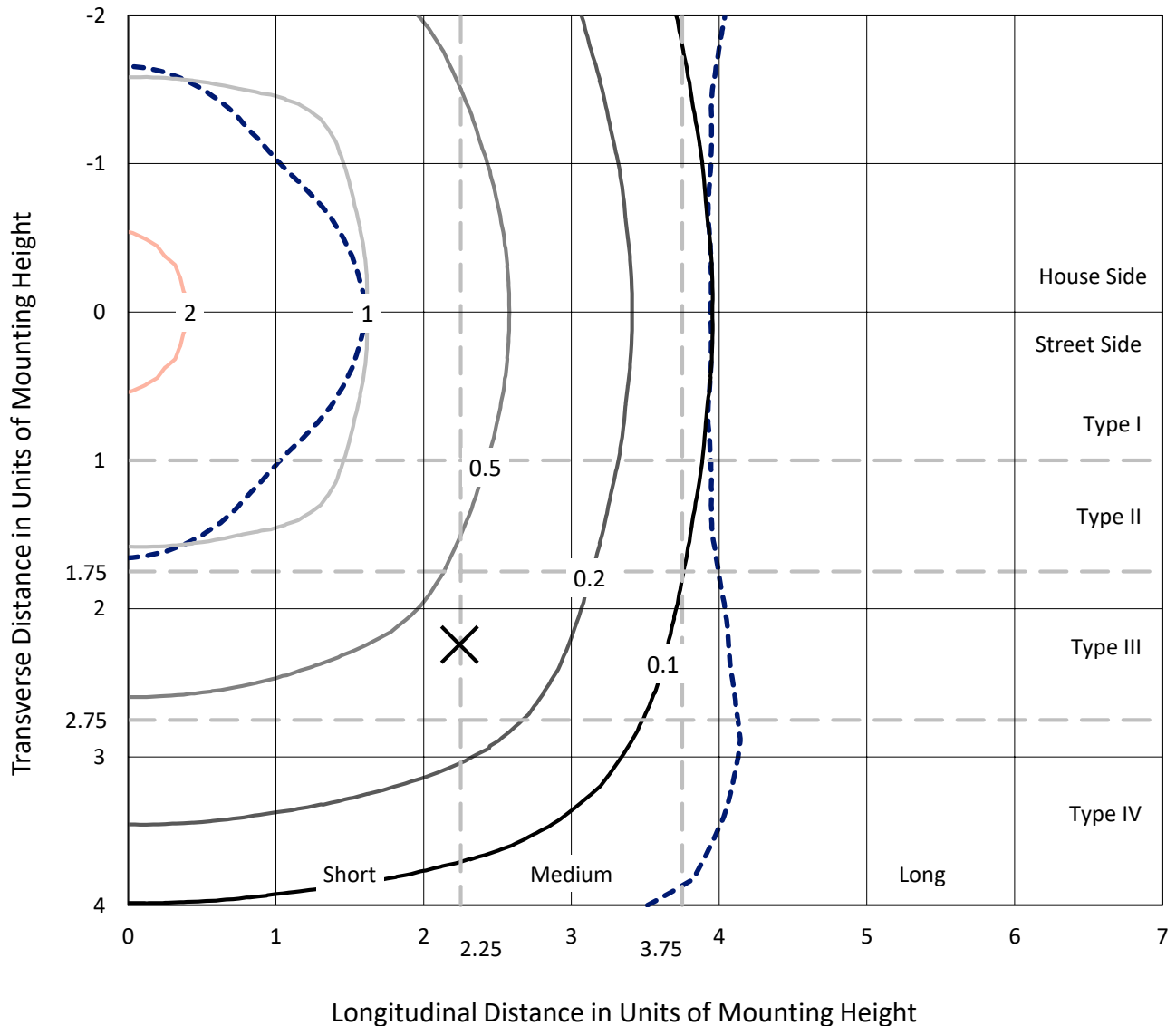
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

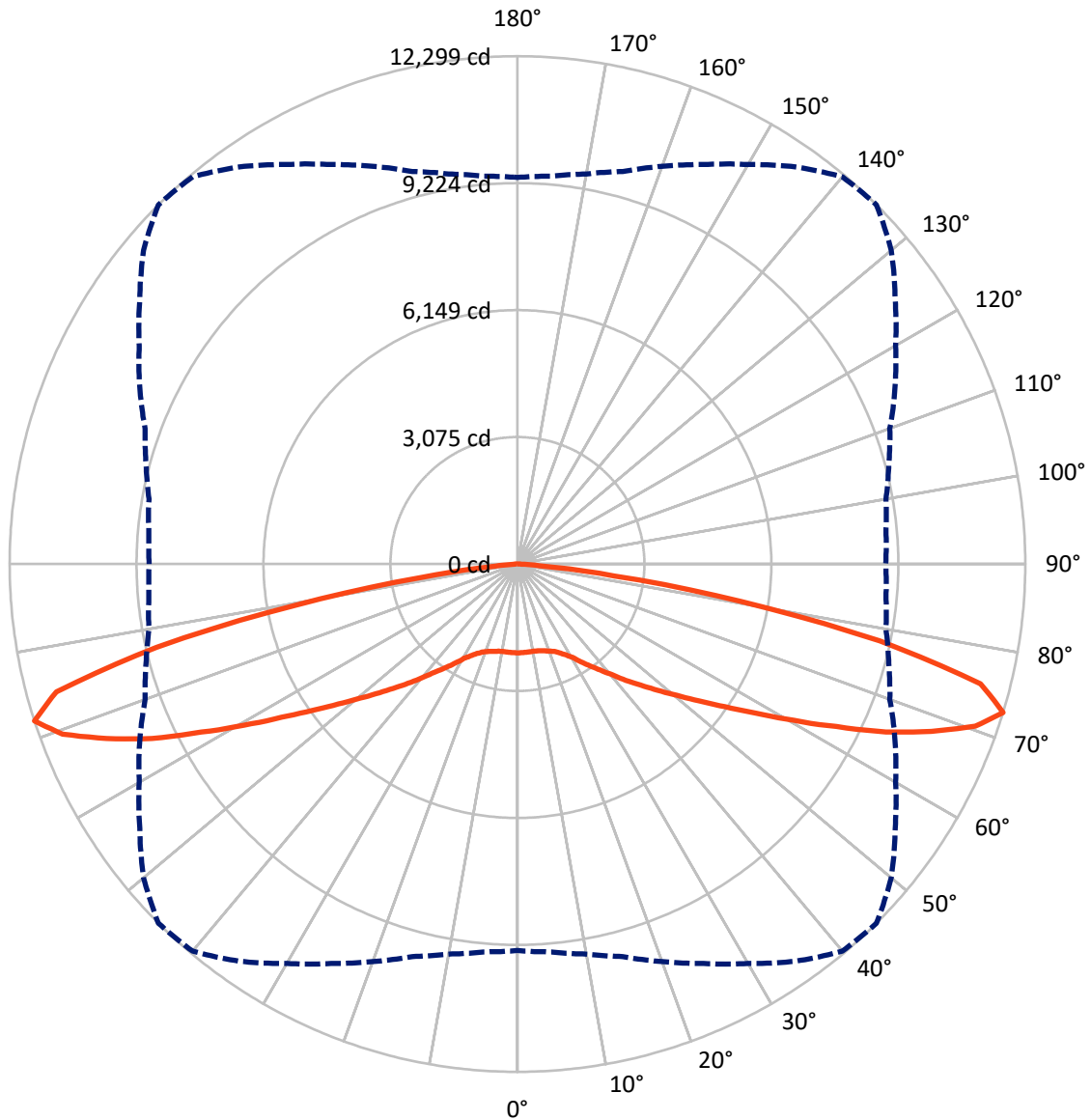
× Max cd
 - - - 1/2 Max cd



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	15139.5	0.0	15139.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15139.5	0.0	15139.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	30279.0	0.0	30279.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.5	0.7
10°-20°	621.8	2.1
20°-30°	1122.6	3.7
30°-40°	1914.8	6.3
40°-50°	3259.9	10.8
50°-60°	5246.4	17.3
60°-70°	8724.9	28.8
70°-80°	8440.3	27.9
80°-90°	742.9	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°	30279.0	100.0
0°-180°	30279.0	100.0



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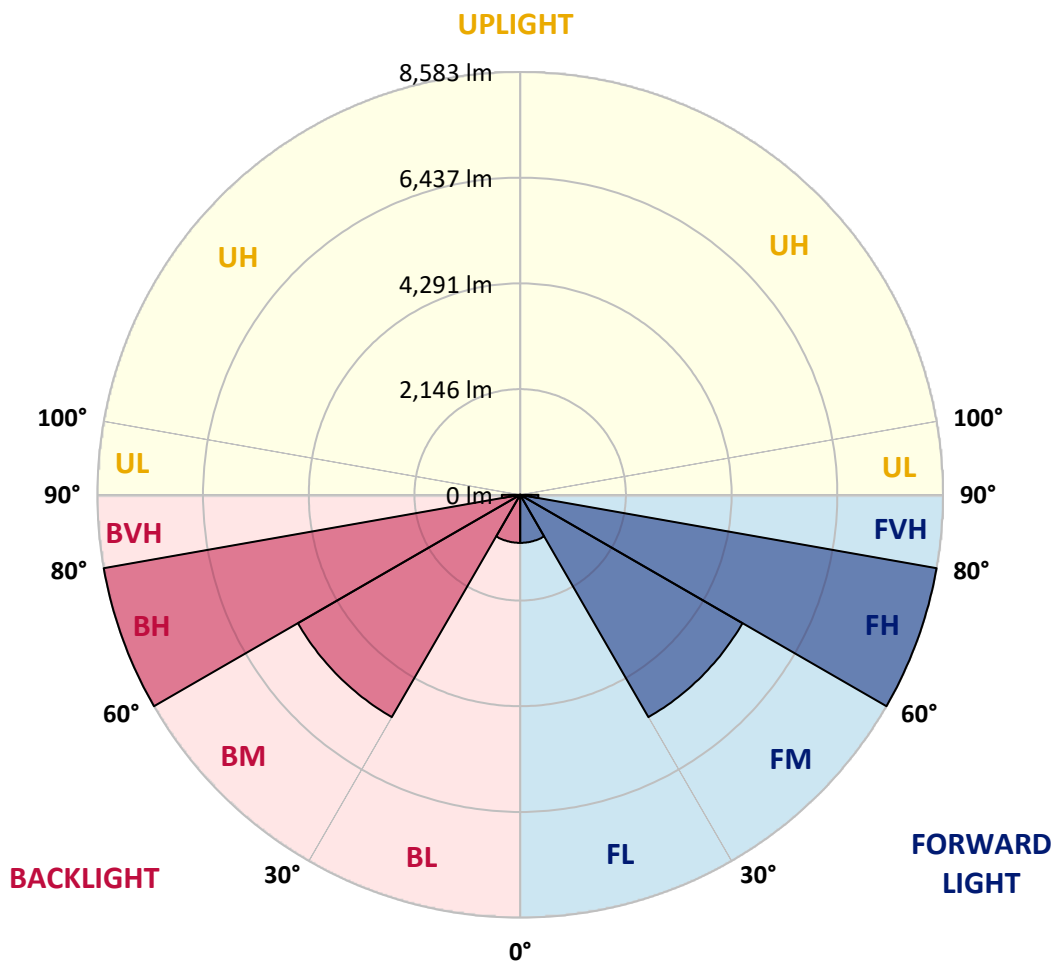
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	974.9	3.2			
FM	(30°-60°)	5210.6	17.2			
FH	(60°-80°)	8582.6	28.3			G4/12000
FVH	(80°-90°)	371.4	1.2			G3/500
BL	(0°-30°)	974.9	3.2	B2/1000		
BM	(30°-60°)	5210.6	17.2	B4/8500		
BH	(60°-80°)	8582.6	28.3	B5		G4/12000
BVH	(80°-90°)	371.4	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°	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6
2.5°	2169.4	2169.4	2171.2	2169.4	2165.7	2163.8	2158.2	2154.5	2150.7	2148.9	2145.2
5°	2171.2	2171.2	2173.1	2171.2	2167.5	2163.8	2160.1	2154.5	2150.7	2147.0	2145.2
7.5°	2178.7	2180.6	2182.4	2180.6	2173.1	2169.4	2163.8	2158.2	2150.7	2147.0	2143.3
10°	2193.6	2193.6	2193.6	2191.7	2186.2	2178.7	2171.2	2165.7	2156.3	2147.0	2141.4
12.5°	2204.8	2206.7	2206.7	2202.9	2195.5	2186.2	2178.7	2173.1	2165.7	2158.2	2152.6
15°	2221.6	2221.6	2219.7	2212.2	2201.1	2193.6	2189.9	2188.0	2186.2	2182.4	2176.8
17.5°	2255.1	2253.3	2247.7	2236.5	2223.4	2217.8	2214.1	2214.1	2214.1	2212.2	2208.5
20°	2303.6	2303.6	2296.1	2277.5	2266.3	2260.7	2255.1	2255.1	2255.1	2249.5	2243.9
22.5°	2381.8	2383.7	2372.5	2350.2	2335.3	2324.1	2316.6	2311.0	2305.4	2301.7	2292.4
25°	2488.1	2486.2	2473.2	2445.2	2434.0	2422.9	2407.9	2398.6	2391.2	2385.6	2374.4
27.5°	2599.9	2598.0	2583.1	2558.9	2551.4	2534.7	2523.5	2510.4	2501.1	2491.8	2480.6
30°	2743.4	2734.1	2722.9	2704.3	2700.5	2687.5	2672.6	2654.0	2639.0	2624.1	2611.1
32.5°	2872.0	2872.0	2855.2	2845.9	2853.4	2847.8	2849.6	2838.5	2829.1	2823.6	2810.5
35°	3050.9	3050.9	3043.5	3032.3	3034.2	3021.1	3019.2	3021.1	3028.6	3028.6	3013.7
37.5°	3289.5	3293.2	3269.0	3265.3	3255.9	3237.3	3228.0	3231.7	3248.5	3257.8	3237.3
40°	3585.8	3593.3	3585.8	3561.6	3550.4	3518.7	3500.1	3500.1	3513.1	3522.5	3515.0
42.5°	3878.4	3891.5	3878.4	3859.8	3850.5	3826.2	3816.9	3824.4	3841.2	3852.3	3841.2
45°	4204.6	4213.9	4197.1	4174.8	4163.6	4150.5	4144.9	4150.5	4169.2	4180.3	4176.6
47.5°	4525.1	4538.2	4517.7	4508.4	4508.4	4495.3	4510.2	4525.1	4541.9	4568.0	4556.8
50°	4838.2	4855.0	4842.0	4843.8	4858.7	4883.0	4910.9	4940.8	4970.6	4998.5	5002.3
52.5°	5117.8	5143.9	5145.8	5179.3	5225.9	5263.2	5341.5	5406.7	5477.5	5501.7	5490.6
55°	5412.3	5447.7	5494.3	5546.5	5621.0	5697.4	5829.8	5947.2	6040.4	6098.1	6088.8
57.5°	5833.5	5868.9	5917.3	6003.1	6114.9	6219.3	6400.1	6582.7	6724.3	6811.9	6769.1
60°	6379.6	6416.8	6480.2	6571.5	6716.9	6858.5	7106.4	7369.2	7589.1	7689.8	7611.5
62.5°	7102.7	7138.1	7179.1	7300.2	7462.4	7645.0	7956.3	8293.6	8573.2	8670.1	8560.1
65°	8133.3	8176.2	8189.2	8288.0	8446.4	8616.0	8951.5	9331.7	9650.4	9808.8	9588.9
67.5°	9294.4	9311.2	9363.4	9478.9	9641.1	9793.9	10058.6	10418.3	10723.9	10811.5	10576.7
70°	9974.7	10008.2	10099.6	10259.8	10453.7	10694.1	10983.0	11370.6	11717.3	11758.3	11460.1
72.5°	9359.7	9428.6	9590.8	9840.5	10246.8	10673.6	11171.2	11743.4	12241.0	12298.8	11819.8
75°	7507.1	7585.4	7779.2	8053.2	8534.0	9167.7	9887.1	10746.3	11491.8	11586.8	10953.1
77.5°	4001.4	4098.3	4379.8	4748.8	5434.6	6273.3	7140.0	8120.3	8753.9	8968.3	8511.7
80°	1008.3	1060.5	1196.5	1412.7	1876.8	2553.3	3300.7	4355.5	5142.0	5475.6	5142.0
82.5°	391.4	430.5	467.8	493.9	538.6	631.8	872.2	1422.0	1915.9	2359.5	2042.6
85°	151.0	160.3	231.1	262.8	262.8	288.9	331.7	391.4	484.6	529.3	443.6
87.5°	59.6	65.2	80.1	123.0	126.7	111.8	119.3	134.2	102.5	85.7	96.9
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°	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6	2152.6
2.5°	2143.3	2141.4	2137.7	2139.6	2137.7	2137.7	2137.7	2137.7
5°	2141.4	2141.4	2137.7	2137.7	2137.7	2139.6	2137.7	2137.7
7.5°	2139.6	2137.7	2134.0	2132.1	2132.1	2130.2	2130.2	2130.2
10°	2135.8	2132.1	2128.4	2126.5	2126.5	2122.8	2122.8	2122.8
12.5°	2145.2	2139.6	2135.8	2134.0	2134.0	2134.0	2135.8	2135.8
15°	2171.2	2160.1	2154.5	2152.6	2154.5	2158.2	2160.1	2161.9
17.5°	2199.2	2188.0	2178.7	2175.0	2176.8	2182.4	2188.0	2191.7
20°	2234.6	2225.3	2214.1	2210.4	2210.4	2217.8	2221.6	2227.2
22.5°	2284.9	2277.5	2268.2	2262.6	2258.8	2268.2	2273.8	2277.5
25°	2365.1	2357.6	2350.2	2344.6	2342.7	2352.0	2355.8	2357.6
27.5°	2471.3	2463.9	2460.1	2458.3	2452.7	2456.4	2462.0	2460.1
30°	2609.2	2614.8	2609.2	2609.2	2599.9	2603.6	2599.9	2596.2
32.5°	2793.7	2788.1	2771.4	2760.2	2747.1	2747.1	2741.5	2736.0
35°	2978.2	2959.6	2950.3	2955.9	2950.3	2954.0	2944.7	2935.4
37.5°	3196.3	3185.1	3183.3	3200.0	3196.3	3200.0	3200.0	3187.0
40°	3485.2	3477.7	3490.8	3518.7	3529.9	3528.0	3531.8	3515.0
42.5°	3816.9	3803.9	3809.5	3833.7	3846.7	3850.5	3848.6	3833.7
45°	4148.7	4152.4	4152.4	4178.5	4191.5	4199.0	4185.9	4180.3
47.5°	4523.3	4528.9	4515.8	4532.6	4536.3	4549.4	4538.2	4528.9
50°	4955.7	4935.2	4905.3	4910.9	4910.9	4907.2	4894.2	4883.0
52.5°	5438.4	5391.8	5335.9	5317.2	5296.7	5276.2	5250.1	5229.6
55°	5988.2	5908.0	5807.4	5760.8	5721.7	5675.1	5615.4	5594.9
57.5°	6625.6	6487.6	6353.5	6269.6	6169.0	6107.4	6031.0	6027.3
60°	7382.2	7195.9	6959.2	6834.3	6733.7	6661.0	6603.2	6580.8
62.5°	8256.3	7935.8	7680.4	7546.2	7428.8	7384.1	7311.4	7320.7
65°	9152.8	8826.6	8578.8	8470.7	8360.7	8330.9	8263.8	8288.0
67.5°	10123.8	9855.4	9583.3	9482.7	9382.0	9352.2	9283.2	9303.7
70°	10994.2	10653.1	10343.7	10146.2	9974.7	9836.8	9749.2	9713.8
72.5°	11167.5	10576.7	10090.2	9596.4	9311.2	9061.5	8959.0	8919.8
75°	10034.3	9117.4	8424.1	7844.4	7523.9	7160.5	7121.3	7067.3
77.5°	7805.3	6761.6	5922.9	5177.4	4746.9	4303.4	4150.5	4035.0
80°	4655.6	3578.4	2773.2	1943.9	1586.0	1276.7	1200.2	1120.1
82.5°	1666.2	1067.9	719.4	561.0	501.3	462.2	432.4	393.2
85°	402.6	339.2	320.6	290.7	287.0	244.1	173.3	154.7
87.5°	128.6	117.4	119.3	113.7	119.3	89.5	72.7	65.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)