

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: P968940

Luminaire Tested: **NAV-SB5C-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35488.6 lumens
Efficiency: N/A
Efficacy: 142.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

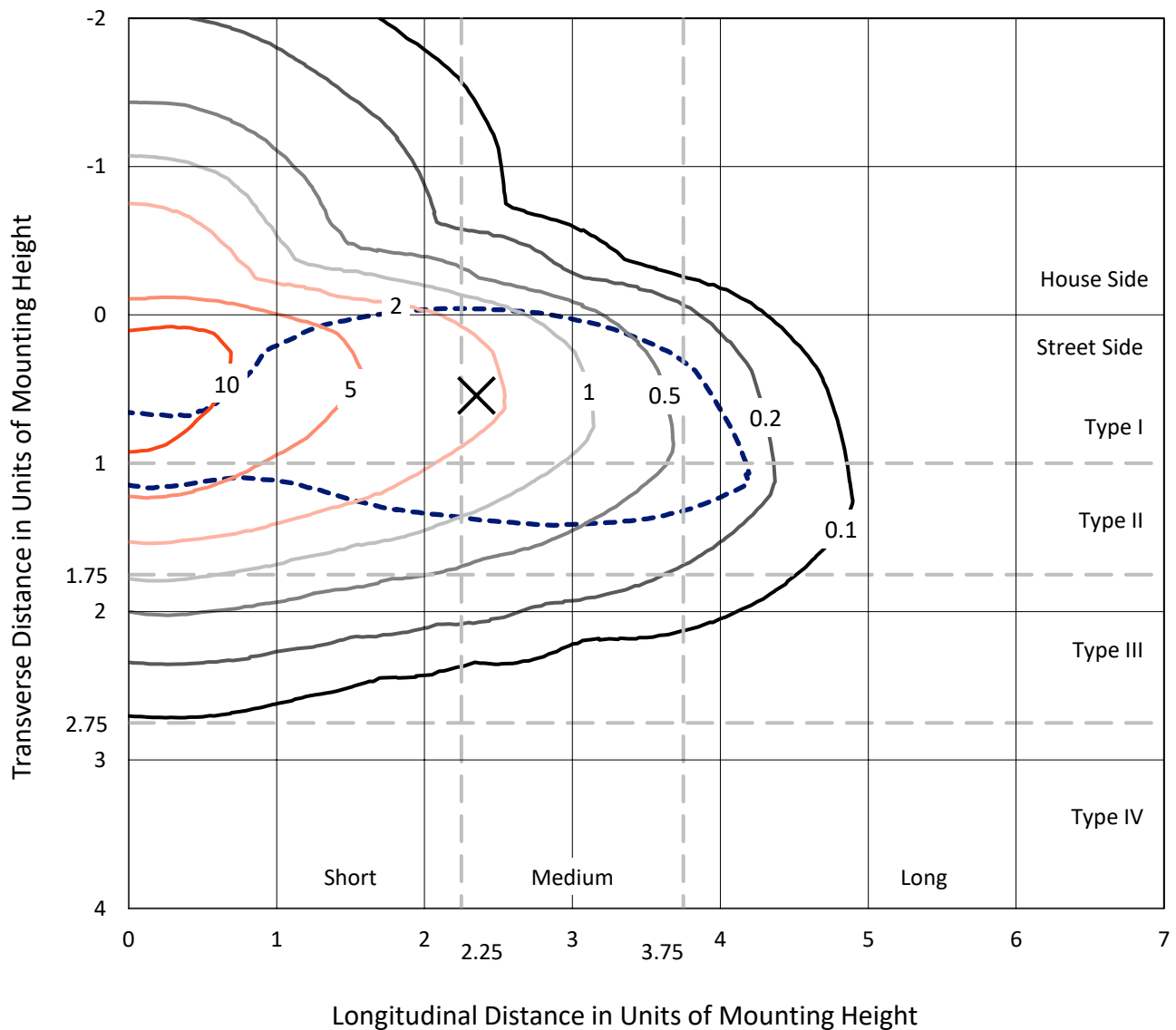
Input Watts (W): 249.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

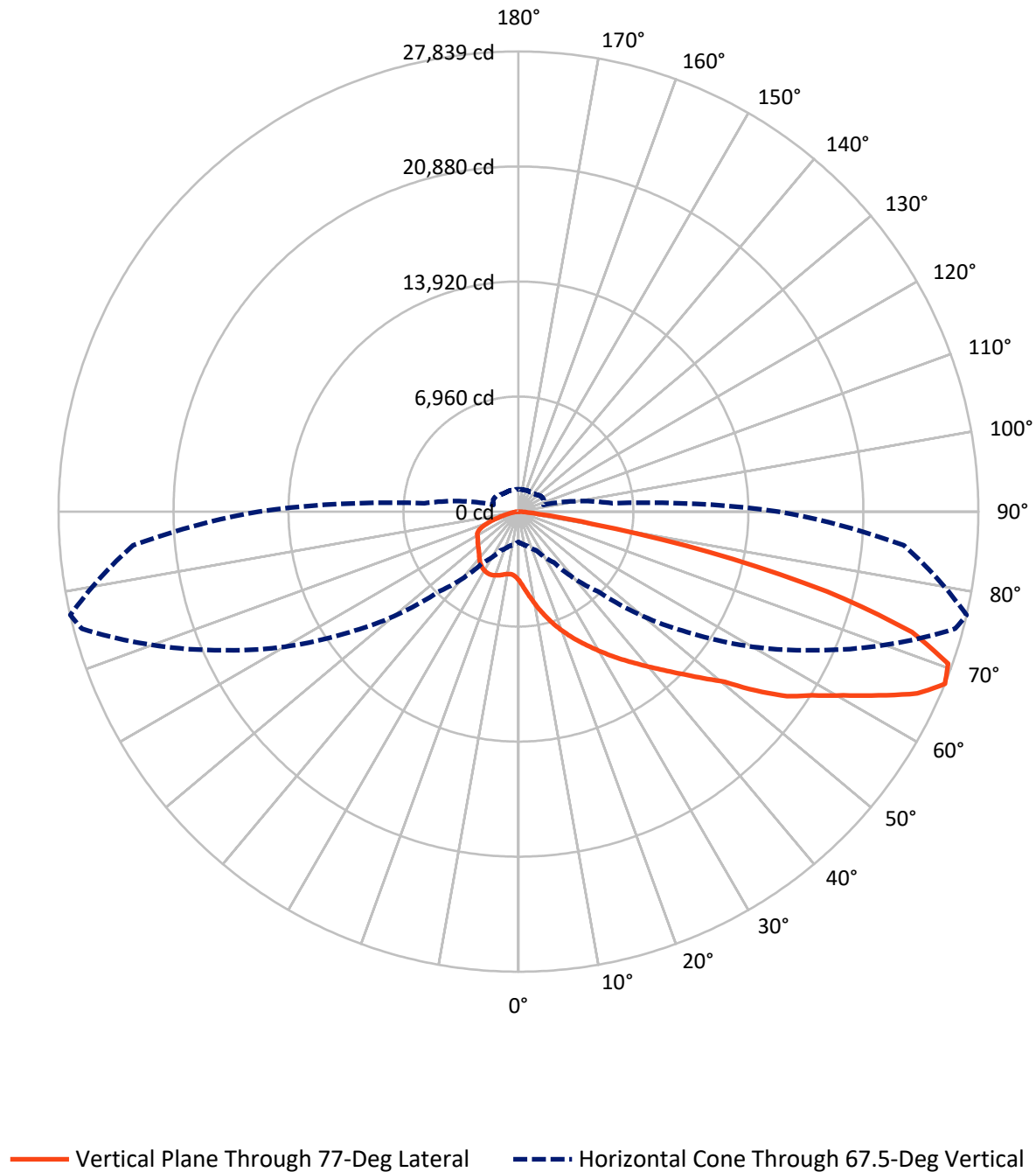
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6713.0	0.0	6713.0
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	28775.6	0.0	28775.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	35488.6	0.0	35488.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	446.3	1.3
10°-20°	1603.4	4.5
20°-30°	3027.4	8.5
30°-40°	4877.1	13.7
40°-50°	6671.1	18.8
50°-60°	7525.0	21.2
60°-70°	7023.6	19.8
70°-80°	3850.1	10.8
80°-90°	464.4	1.3
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°	35488.6	100.0
0°-180°	35488.6	100.0

Coefficient of Utilization



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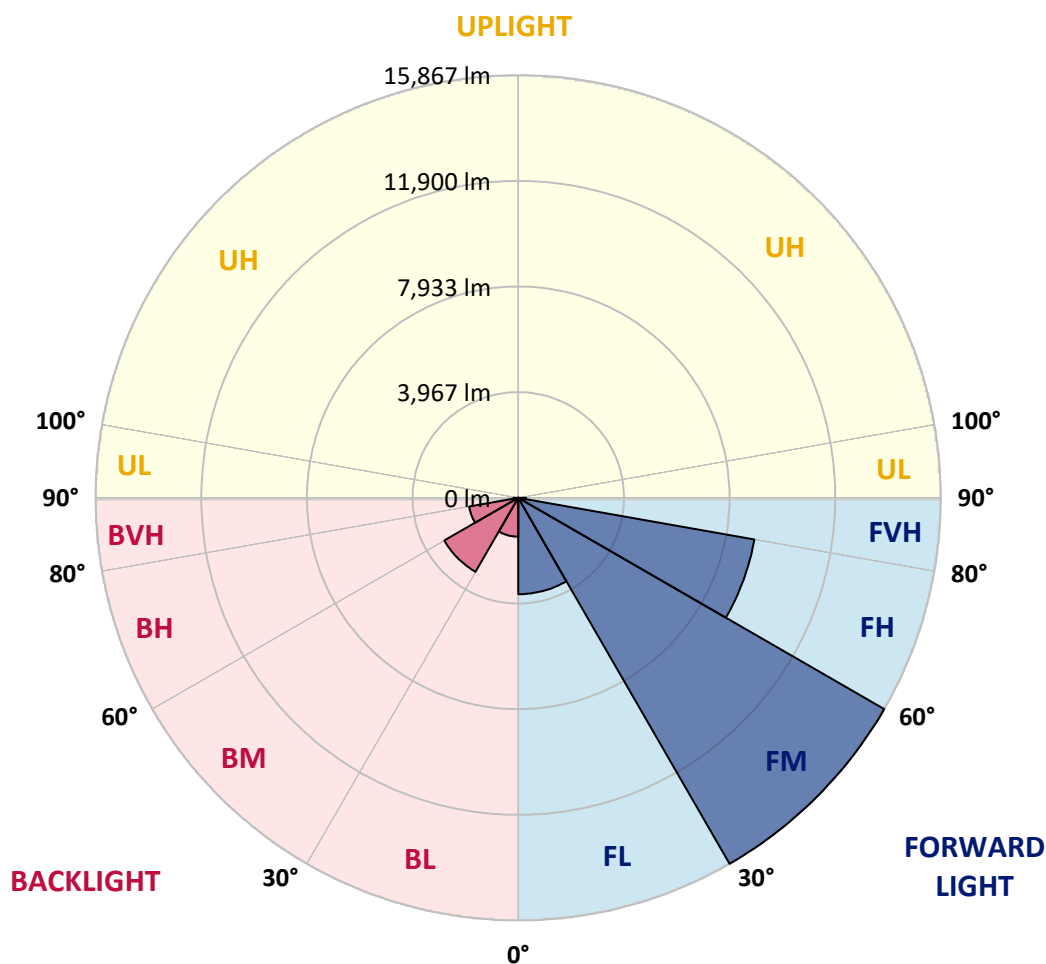
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3617.6	10.2			
FM	(30°-60°)	15866.6	44.7			
FH	(60°-80°)	9001.0	25.4			G4/12000
FVH	(80°-90°)	290.4	0.8			G3/500
BL	(0°-30°)	1459.6	4.1	B3/2500		
BM	(30°-60°)	3206.6	9.0	B3/5000		
BH	(60°-80°)	1872.8	5.3	B3/2500		G3/2500
BVH	(80°-90°)	174.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0
2.5°	5213.6	5250.3	5204.4	5204.4	5050.6	4969.9	4816.1	4698.8	4488.2	4451.5	4312.3
5°	6162.5	6208.3	6144.2	6116.7	5935.4	5768.7	5510.4	5255.7	4880.2	4841.7	4513.8
7.5°	6897.1	6955.8	6899.0	6869.7	6708.4	6521.6	6219.3	5863.9	5334.5	5259.4	4784.9
10°	7496.1	7505.3	7487.0	7498.0	7371.6	7217.7	6908.1	6494.1	5832.8	5730.2	5112.8
12.5°	7835.0	7877.2	7913.8	7979.7	7957.8	7862.6	7584.1	7089.4	6360.3	6228.5	5470.0
15°	7994.4	8067.7	8150.1	8302.2	8424.9	8448.8	8236.2	7728.8	6897.1	6737.7	5830.9
17.5°	8051.2	8120.9	8250.8	8470.7	8734.5	8912.2	8816.9	8349.9	7428.4	7245.2	6210.2
20°	8338.8	8359.0	8437.7	8646.6	8932.4	9227.3	9298.7	8947.0	7954.1	7747.2	6602.1
22.5°	8954.3	8914.0	8936.1	9031.3	9236.5	9522.2	9685.2	9474.6	8494.5	8256.4	6997.9
25°	9971.0	9853.8	9736.6	9626.6	9731.0	9892.3	10077.3	10002.2	9060.6	8758.3	7397.2
27.5°	11255.2	11112.3	10854.0	10493.1	10366.7	10423.5	10505.9	10491.3	9584.5	9278.6	7809.4
30°	12519.2	12352.5	12044.8	11522.6	11189.2	11039.0	10976.7	10934.6	10154.3	9828.1	8225.2
32.5°	13528.6	13396.6	13094.5	12510.0	12026.4	11770.0	11562.9	11412.8	10749.6	10423.5	8664.9
35°	14411.6	14288.8	13942.6	13305.1	12779.4	12506.4	12235.2	11914.7	11368.8	11039.0	9137.6
37.5°	15217.6	15094.9	14620.4	13957.2	13427.8	13239.1	12997.3	12453.2	11989.8	11678.3	9637.7
40°	15726.9	15699.4	15256.1	14505.0	13955.5	13862.0	13781.4	13078.0	12678.6	12389.2	10187.2
42.5°	15857.0	15917.4	15565.6	14948.3	14424.4	14349.3	14538.0	13785.0	13451.7	13175.0	10810.1
45°	15543.7	15717.8	15486.9	15067.4	14757.8	14717.5	15208.4	14558.1	14307.2	14054.4	11561.2
47.5°	14750.5	15045.4	14950.1	14891.5	14847.5	15021.6	15798.3	15378.8	15276.2	15056.4	12418.5
50°	13149.4	13708.1	13874.8	14244.8	14669.9	15257.9	16335.1	16274.6	16408.3	16186.7	13462.7
52.5°	10381.4	11150.8	12118.1	13045.0	14124.0	15179.1	16924.9	17560.6	18124.9	18003.9	15122.3
55°	8569.6	8915.9	9659.6	11359.7	13065.2	14847.5	17190.6	18599.3	19828.5	19720.4	16380.8
57.5°	7177.4	7487.0	7945.0	9364.7	11464.0	14094.7	17355.4	19233.1	20995.4	20984.4	17622.9
60°	5684.3	6012.3	6481.3	7487.0	9593.7	12794.0	17318.8	19954.9	22484.8	22576.3	19137.9
62.5°	3999.0	4359.9	4880.2	5818.1	7683.0	11108.6	16571.4	20477.0	24237.9	24487.0	20960.6
65°	2628.8	2866.9	3259.0	4068.6	5724.7	8941.5	15144.4	20544.8	26113.7	26535.1	22671.6
67.5°	1842.8	1934.5	2165.3	2604.9	3773.7	6856.8	12870.9	19843.2	27364.9	27839.4	23413.6
70°	1438.1	1483.8	1601.0	1776.9	2370.5	4610.9	9863.0	18018.6	27097.5	27592.1	22638.7
72.5°	1242.0	1286.0	1329.9	1352.0	1590.1	2846.7	6681.0	15065.6	24578.6	24913.9	19683.8
75°	1126.6	1137.6	1174.2	1167.0	1212.7	1846.5	3856.2	10976.7	19392.5	19277.1	14530.6
77.5°	947.1	961.8	1022.2	1013.0	1077.2	1262.2	2002.2	7084.0	12572.3	11788.3	8087.9
80°	802.4	809.7	875.7	864.7	936.1	914.1	1022.2	3610.7	5332.7	4517.5	2332.0
82.5°	278.5	344.4	668.6	688.8	714.4	553.2	589.9	1472.8	1628.5	1247.5	489.1
85°	135.6	144.7	340.7	483.6	481.7	278.5	287.6	525.7	512.9	403.0	163.1
87.5°	21.9	27.5	40.3	188.7	150.3	73.3	98.9	102.6	106.3	91.6	36.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0
2.5°	4209.7	4118.1	3925.7	3748.1	3608.8	3475.2	3400.0	3335.9	3299.3	3291.9	3291.9
5°	4323.2	4134.6	3784.7	3489.8	3297.4	3154.5	3079.4	3031.8	3008.0	2993.3	2991.5
7.5°	4486.3	4209.7	3711.4	3376.1	3174.7	3072.1	3033.6	3026.3	3024.5	3026.3	3031.8
10°	4711.6	4332.5	3704.1	3348.7	3180.2	3123.4	3121.5	3123.4	3130.8	3132.5	3134.3
12.5°	4955.3	4458.9	3733.5	3372.6	3249.8	3218.6	3213.2	3211.3	3216.9	3220.4	3222.3
15°	5220.9	4625.5	3782.9	3423.8	3326.7	3293.7	3288.3	3277.2	3275.5	3273.6	3271.8
17.5°	5493.9	4790.4	3837.8	3478.7	3376.1	3330.4	3310.2	3284.6	3264.4	3259.0	3264.4
20°	5770.4	4953.4	3876.3	3506.2	3379.8	3315.8	3275.5	3231.5	3196.7	3176.5	3183.9
22.5°	6065.4	5123.9	3900.1	3498.9	3346.9	3259.0	3185.7	3134.3	3081.3	3046.4	3048.2
25°	6353.1	5272.2	3898.3	3460.5	3282.8	3171.0	3077.6	3011.7	2938.4	2901.8	2901.8
27.5°	6629.7	5406.0	3852.5	3392.6	3191.1	3066.6	2954.9	2876.0	2804.6	2769.9	2768.0
30°	6915.5	5517.7	3781.0	3293.7	3083.1	2945.7	2823.0	2755.2	2691.0	2658.1	2656.3
32.5°	7199.4	5620.3	3680.3	3171.0	2958.6	2826.6	2705.7	2643.5	2604.9	2604.9	2606.8
35°	7499.8	5691.7	3546.6	3028.2	2826.6	2700.3	2604.9	2568.3	2564.7	2542.7	2537.2
37.5°	7816.8	5737.5	3383.5	2881.6	2696.6	2577.5	2548.1	2504.2	2467.6	2419.9	2412.6
40°	8150.1	5783.4	3187.5	2729.6	2559.1	2493.2	2480.4	2421.8	2317.3	2200.2	2183.7
42.5°	8555.0	5814.4	2984.2	2577.5	2414.5	2392.5	2410.8	2310.0	2143.3	2055.4	2057.2
45°	9024.0	5865.8	2797.3	2427.3	2266.1	2266.1	2343.0	2211.1	2073.7	2018.7	2028.0
47.5°	9632.1	5984.9	2623.3	2262.4	2128.7	2165.3	2192.8	2092.0	2015.0	1947.3	1945.4
50°	10511.5	6270.6	2443.8	2095.7	2024.3	2097.6	2059.0	2000.4	1910.7	1855.8	1850.2
52.5°	11603.3	6439.2	2284.4	1945.4	1934.5	2007.8	1952.8	1897.9	1830.0	1756.7	1742.1
55°	12347.0	6470.3	2150.7	1835.6	1874.0	1866.7	1846.5	1797.1	1760.4	1663.4	1665.2
57.5°	13178.7	6532.5	2040.8	1769.7	1835.6	1755.0	1747.6	1705.5	1657.8	1591.9	1569.9
60°	14173.4	6629.7	1945.4	1743.9	1802.6	1681.7	1645.0	1628.5	1581.0	1548.0	1557.1
62.5°	15257.9	6717.5	1848.4	1747.6	1764.1	1610.3	1555.3	1549.8	1520.5	1509.5	1509.5
65°	15998.0	6477.6	1727.4	1743.9	1703.7	1537.0	1467.4	1465.5	1441.7	1438.1	1436.2
67.5°	15739.7	5717.3	1564.5	1692.7	1641.4	1463.7	1386.7	1379.4	1348.3	1350.1	1350.1
70°	14446.4	4632.9	1339.2	1566.3	1564.5	1397.7	1302.5	1278.7	1236.6	1243.8	1251.2
72.5°	12020.9	3433.0	1036.9	1355.6	1441.7	1337.3	1205.4	1167.0	1113.8	1121.1	1119.3
75°	8681.3	2333.8	754.7	1031.4	1254.8	1265.9	1110.2	1044.2	980.1	991.1	994.8
77.5°	4442.3	1322.7	555.0	710.7	985.5	1150.5	1024.1	936.1	921.5	1024.1	1009.4
80°	1449.0	663.2	384.7	498.3	646.7	941.6	897.6	796.8	793.2	817.0	701.6
82.5°	432.3	280.2	247.3	327.9	357.2	721.8	774.9	602.7	518.4	545.9	564.3
85°	148.4	135.6	141.0	163.1	170.4	423.1	542.2	399.3	377.4	415.8	410.3
87.5°	34.8	47.7	40.3	36.6	36.6	102.6	210.6	166.7	230.8	153.9	148.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)