

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: P968392

Luminaire Tested: **NAV-SB5B-827-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968392  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-827-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

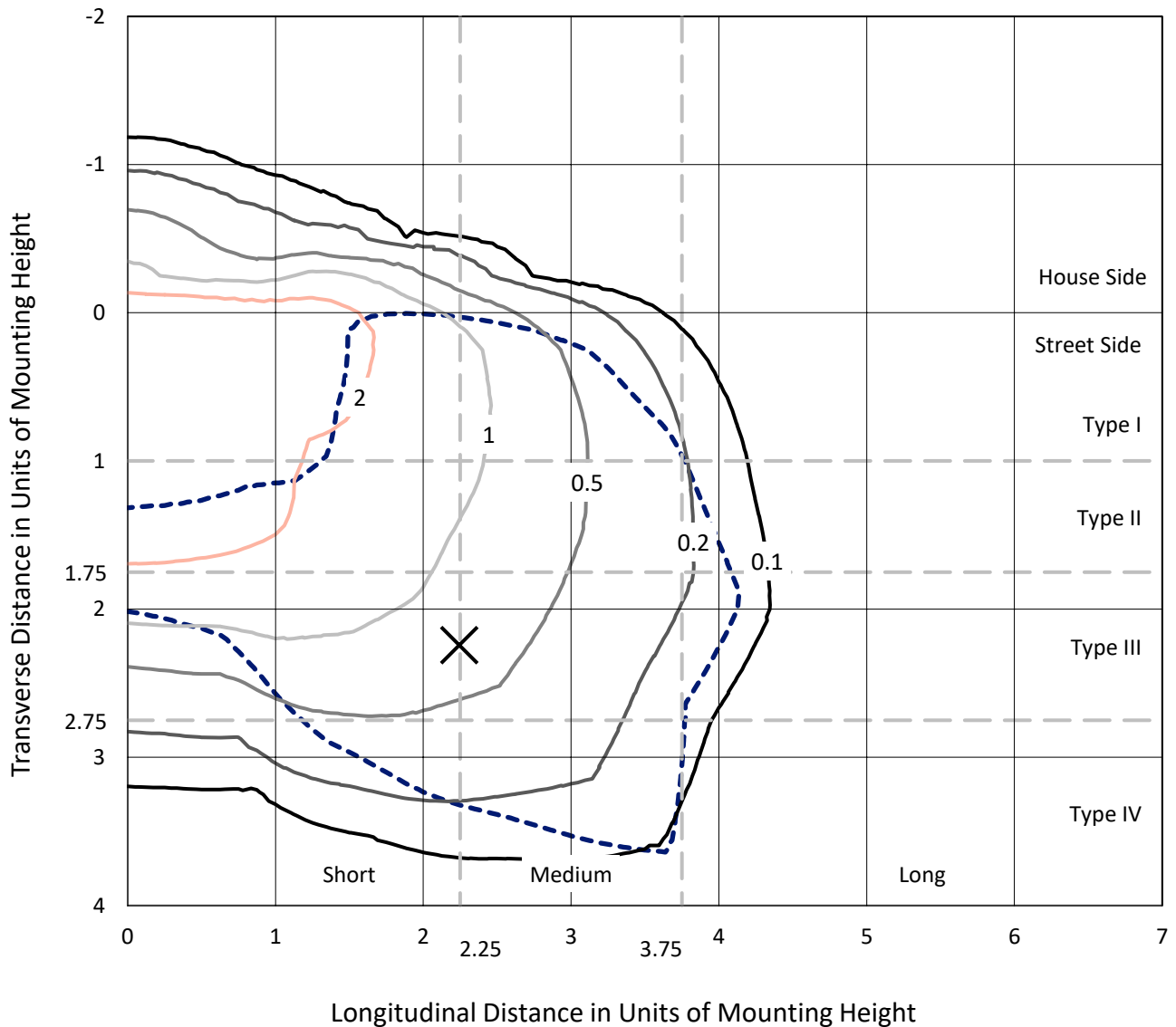
Lumens per Lamp: N/A  
Luminaire Lumens: 19529.3 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): NR  
Input Current (Ain): 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

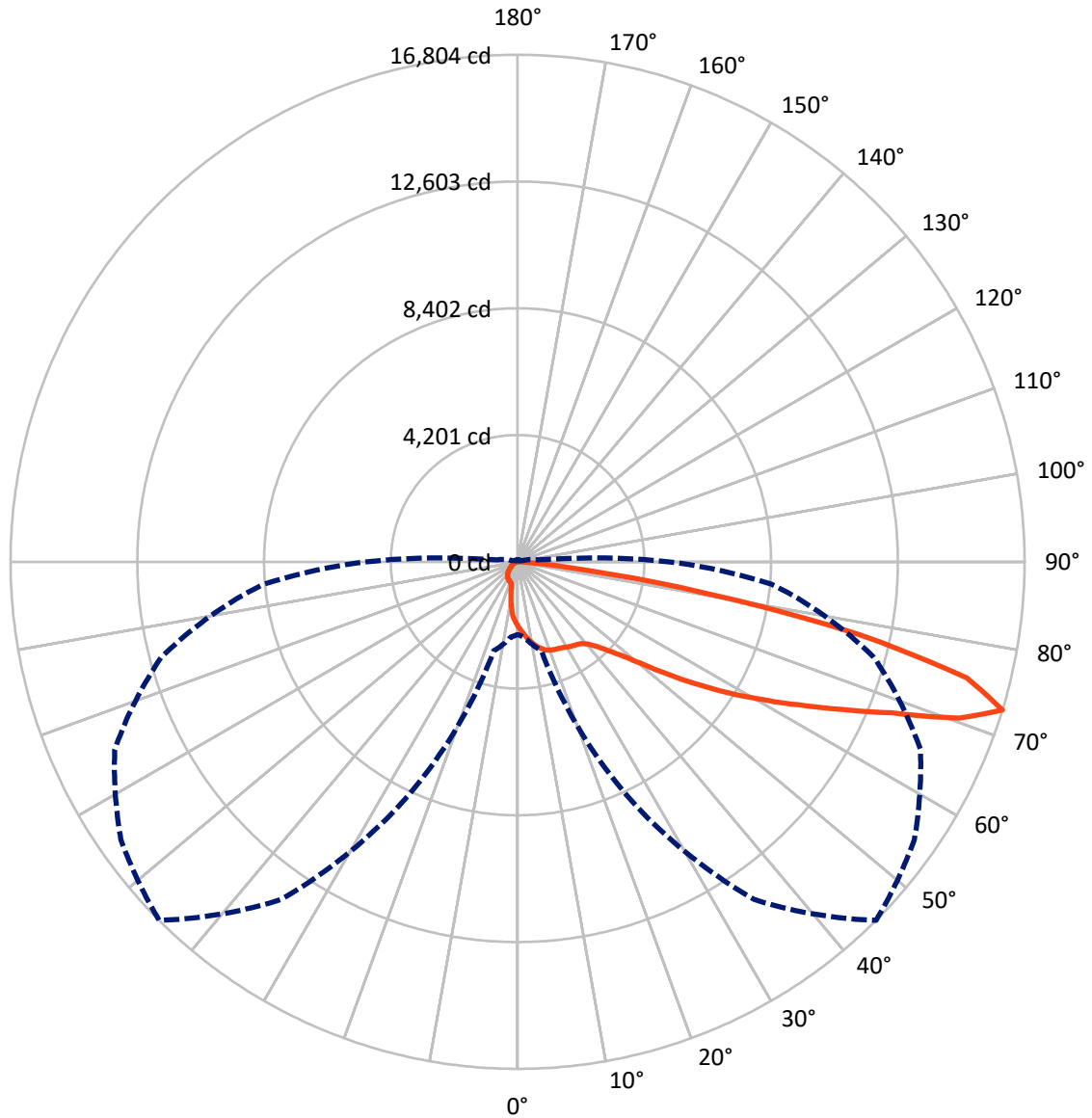
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type IV - Short - N/A

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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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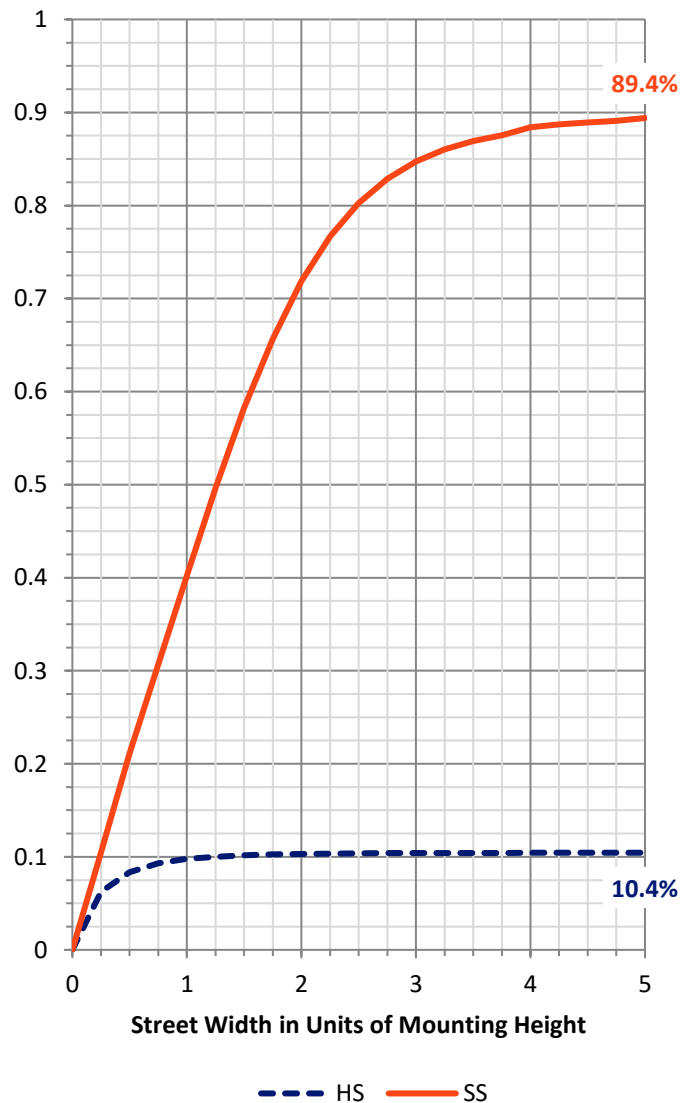
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2052.0	0.0	2052.0
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	17477.3	0.0	17477.3
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	19529.3	0.0	19529.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.6	1.0
10°-20°	589.1	3.0
20°-30°	967.5	5.0
30°-40°	1372.1	7.0
40°-50°	2267.9	11.6
50°-60°	4074.0	20.9
60°-70°	5657.0	29.0
70°-80°	4103.4	21.0
80°-90°	296.7	1.5
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°	19529.3	100.0
0°-180°	19529.3	100.0

**Coefficient of Utilization**

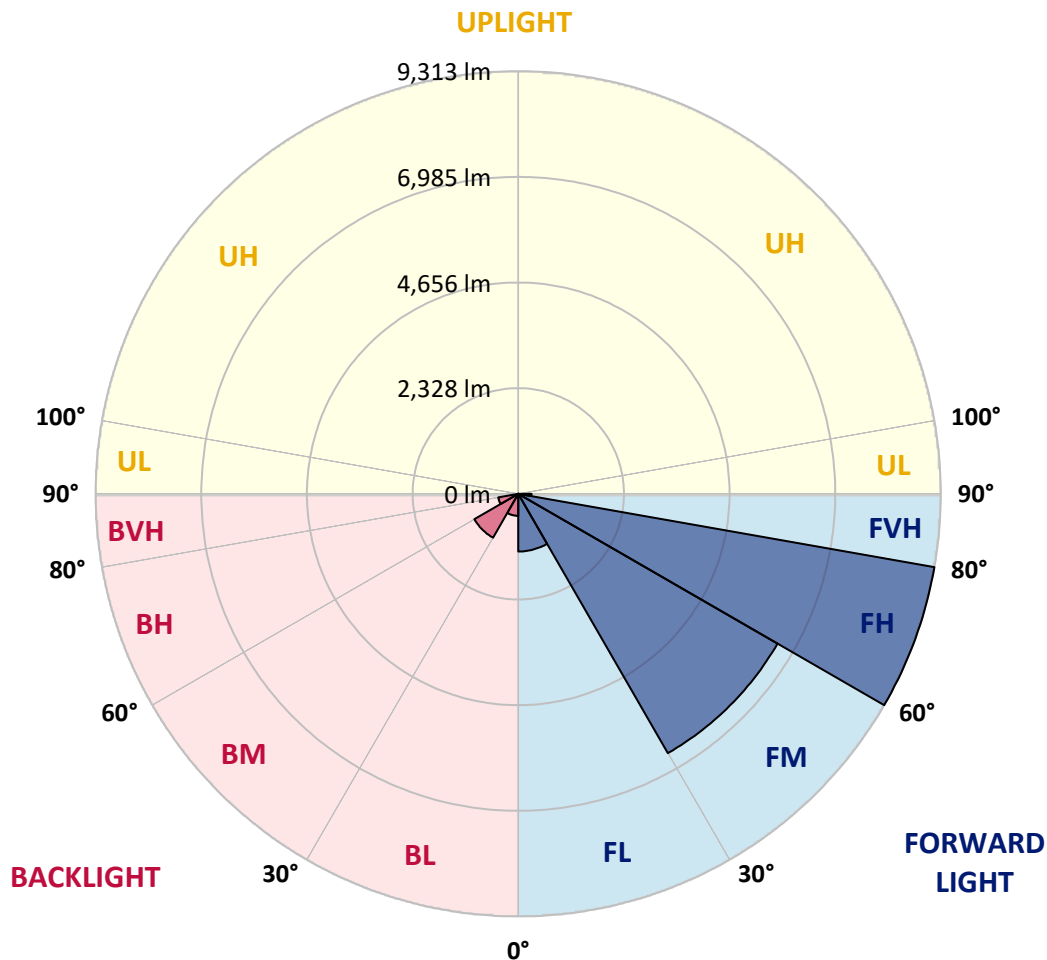


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1272.1	6.5			
FM (30°-60°)	6598.0	33.8			
FH (60°-80°)	9313.0	47.7			G4/12000
FVH (80°-90°)	294.2	1.5			G3/500
BL (0°-30°)	486.0	2.5	B1/500		
BM (30°-60°)	1116.0	5.7	B2/2500		
BH (60°-80°)	447.5	2.3	B1/500		G1/500
BVH (80°-90°)	2.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5
2.5°	2336.8	2340.8	2338.1	2322.1	2295.5	2280.7	2272.7	2246.1	2228.8	2198.1	2166.1
5°	2551.4	2567.4	2558.1	2526.0	2475.4	2439.4	2428.7	2374.1	2324.8	2267.4	2200.8
7.5°	2779.3	2787.3	2770.0	2728.7	2660.7	2599.4	2590.1	2514.0	2435.4	2347.5	2256.7
10°	2976.6	2985.9	2959.3	2899.3	2822.0	2746.0	2732.6	2648.7	2555.4	2447.4	2331.5
12.5°	3141.9	3151.3	3116.6	3044.6	2959.3	2880.7	2867.3	2779.3	2676.7	2556.8	2412.7
15°	3267.2	3284.5	3237.9	3160.6	3068.5	2989.9	2983.3	2896.6	2796.6	2663.4	2510.0
17.5°	3340.5	3357.9	3313.8	3220.5	3141.9	3075.2	3067.2	2995.3	2902.0	2774.0	2604.7
20°	3352.5	3368.6	3321.8	3240.5	3175.2	3121.9	3117.9	3065.9	2997.9	2875.3	2707.3
22.5°	3316.5	3336.5	3293.8	3228.5	3183.2	3155.3	3149.9	3120.6	3081.9	2977.9	2803.3
25°	3279.2	3295.2	3263.2	3205.9	3181.9	3179.2	3183.2	3177.9	3169.9	3081.9	2915.3
27.5°	3276.5	3293.8	3257.9	3203.2	3189.9	3217.9	3221.9	3247.2	3253.9	3176.6	3023.2
30°	3299.2	3311.2	3276.5	3219.2	3212.6	3276.5	3277.8	3323.2	3333.8	3256.5	3129.9
32.5°	3348.5	3361.9	3327.2	3243.2	3233.9	3323.2	3327.2	3387.2	3404.5	3341.8	3241.9
35°	3464.5	3480.5	3440.5	3309.8	3276.5	3367.2	3379.2	3449.8	3484.5	3432.5	3357.9
37.5°	3753.8	3707.1	3652.5	3444.5	3373.9	3436.5	3456.5	3539.1	3600.4	3540.5	3496.5
40°	4472.3	4325.6	4154.9	3673.8	3544.4	3584.4	3600.4	3683.1	3767.1	3708.4	3687.1
42.5°	5550.7	5377.4	5102.8	4201.7	3801.7	3821.7	3833.7	3905.8	4024.4	3977.7	3983.0
45°	6511.7	6449.1	6169.2	5102.8	4283.0	4184.4	4199.0	4236.3	4410.9	4393.6	4428.2
47.5°	7250.2	7214.3	6998.3	6137.2	5096.1	4628.2	4669.5	4686.8	4938.8	5000.2	5093.4
50°	7818.1	7804.8	7611.4	7056.9	6158.5	5282.7	5297.4	5260.1	5637.3	5789.3	5966.5
52.5°	8354.0	8399.3	8256.7	7911.4	7292.9	6139.9	6137.2	5961.2	6470.4	6699.7	7002.3
55°	8837.9	8853.8	8868.5	8783.2	8433.9	7115.6	7090.2	6802.3	7436.9	7674.2	8002.1
57.5°	9292.4	9299.1	9429.7	9604.4	9621.7	8163.3	8116.7	7771.4	8492.6	8661.9	8863.2
60°	9597.7	9628.3	9904.3	10389.5	10601.4	9244.4	9219.1	8867.2	9567.0	9645.7	9608.3
62.5°	9157.8	9344.4	10040.2	11002.7	11526.5	10442.8	10430.8	10100.2	10697.4	10633.5	10313.4
65°	7412.9	7728.8	8952.5	11417.3	12434.3	11781.1	11798.5	11446.6	11858.4	11650.5	10886.7
67.5°	5185.4	5518.7	6966.3	11450.6	13448.7	13352.8	13452.7	12900.9	13091.5	12624.9	11022.6
70°	3585.8	3757.8	4700.2	10733.4	14239.2	15517.6	15514.9	14687.1	14317.8	13068.9	10329.4
72.5°	2411.4	2500.7	3052.6	8515.3	13658.0	16804.0	16726.6	16052.1	14731.1	12222.4	8439.2
75°	1017.1	1082.4	1413.0	4785.5	10805.3	15373.6	15164.3	14185.9	13088.8	9624.3	5265.4
77.5°	322.6	350.5	557.2	1712.9	5951.9	11555.8	11334.6	8859.2	8772.6	4828.2	1924.8
80°	153.3	178.7	313.2	687.9	2342.1	6285.1	6254.4	4019.0	3773.7	1303.7	386.5
82.5°	66.6	78.6	173.3	367.9	1047.8	2242.1	2287.5	1367.7	1131.7	494.6	118.6
85°	21.3	28.0	79.9	169.3	442.6	557.2	550.5	325.2	455.9	269.3	41.3
87.5°	0.0	0.0	26.6	38.6	45.3	32.0	36.0	28.0	126.6	74.6	14.7
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°	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5	2139.5
2.5°	2150.1	2128.8	2091.5	2056.9	2026.2	1995.5	1976.8	1950.2	1947.5	1947.5	1954.2
5°	2164.8	2130.2	2063.5	1992.8	1911.5	1834.2	1757.0	1682.2	1658.2	1640.9	1648.9
7.5°	2207.4	2152.8	2047.5	1912.9	1758.3	1589.0	1470.3	1342.3	1293.0	1266.4	1270.4
10°	2268.7	2194.1	2034.2	1798.3	1547.6	1317.0	1147.7	1009.1	955.8	933.1	933.1
12.5°	2336.8	2244.8	2010.1	1655.6	1317.0	1041.1	875.8	811.8	803.8	803.8	803.8
15°	2418.1	2306.1	1968.8	1487.7	1075.7	823.8	765.2	767.8	775.8	781.2	781.2
17.5°	2502.0	2371.4	1903.5	1299.7	862.4	741.2	742.5	746.5	753.2	758.5	758.5
20°	2592.7	2436.7	1816.9	1099.7	739.8	717.2	721.2	725.2	730.5	733.2	734.5
22.5°	2690.0	2498.0	1714.2	903.7	698.5	697.2	698.5	702.5	709.2	709.2	711.9
25°	2793.9	2566.1	1596.9	761.2	677.2	677.2	679.9	682.5	687.9	687.9	689.2
27.5°	2900.6	2628.7	1472.9	686.5	658.5	657.1	657.1	661.1	663.8	665.1	666.5
30°	3017.9	2702.0	1349.0	670.5	643.8	637.1	633.1	635.8	638.5	639.8	642.5
32.5°	3137.9	2772.6	1238.4	677.2	629.1	617.2	603.8	601.2	601.2	606.5	610.5
35°	3271.2	2850.0	1153.0	699.9	621.2	587.8	566.5	554.5	555.9	563.9	567.8
37.5°	3431.2	2943.3	1090.4	719.9	615.8	554.5	519.9	505.2	495.9	505.2	502.6
40°	3640.5	3080.5	1045.1	735.8	609.2	515.9	469.2	445.3	427.9	433.3	430.6
42.5°	3948.4	3296.5	1027.8	737.2	594.5	470.6	417.3	385.2	359.9	361.2	355.9
45°	4380.2	3637.8	1117.0	719.9	562.5	421.3	362.5	319.9	303.9	299.9	294.6
47.5°	4972.2	4135.0	1323.7	683.9	515.9	373.2	309.2	273.3	261.3	254.6	250.6
50°	5765.2	4773.5	1553.0	643.8	469.2	327.9	265.3	242.6	234.6	228.0	226.6
52.5°	6685.0	5421.3	1740.9	603.8	422.6	287.9	237.3	224.0	217.3	212.0	210.6
55°	7528.8	5867.9	1730.2	561.2	377.2	255.9	217.3	209.3	201.3	196.0	193.3
57.5°	8054.0	5930.5	1426.3	514.6	325.2	230.6	198.6	193.3	184.0	177.3	176.0
60°	8295.3	5573.3	999.8	453.3	273.3	206.6	178.7	176.0	164.0	154.7	152.0
62.5°	8339.3	4909.4	666.5	377.2	228.0	184.0	158.7	154.7	138.7	122.6	114.6
65°	8160.6	3960.4	461.2	294.6	194.6	160.0	136.0	127.9	110.6	94.6	89.3
67.5°	7595.5	2780.6	321.2	212.0	165.3	126.6	107.9	105.3	91.9	78.6	74.6
70°	6559.7	1585.0	214.6	158.7	130.6	86.6	85.3	87.9	74.6	64.0	58.6
72.5°	5029.5	725.2	133.2	115.9	89.3	58.6	68.0	69.3	57.3	48.0	42.6
75°	2960.6	310.6	83.9	74.6	45.3	38.6	49.3	50.6	38.6	30.6	26.6
77.5°	1007.8	117.3	53.3	44.0	22.7	21.3	32.0	32.0	21.3	12.0	9.3
80°	229.3	44.0	26.6	17.3	10.7	9.3	10.7	9.3	5.3	1.3	0.0
82.5°	65.3	17.3	10.7	6.7	4.0	4.0	1.3	0.0	0.0	0.0	0.0
85°	18.7	8.0	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)