

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: P965044

Luminaire Tested: **NAV-SB3D-727-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965044  
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-SB3D-727-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA 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: 22359.3 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

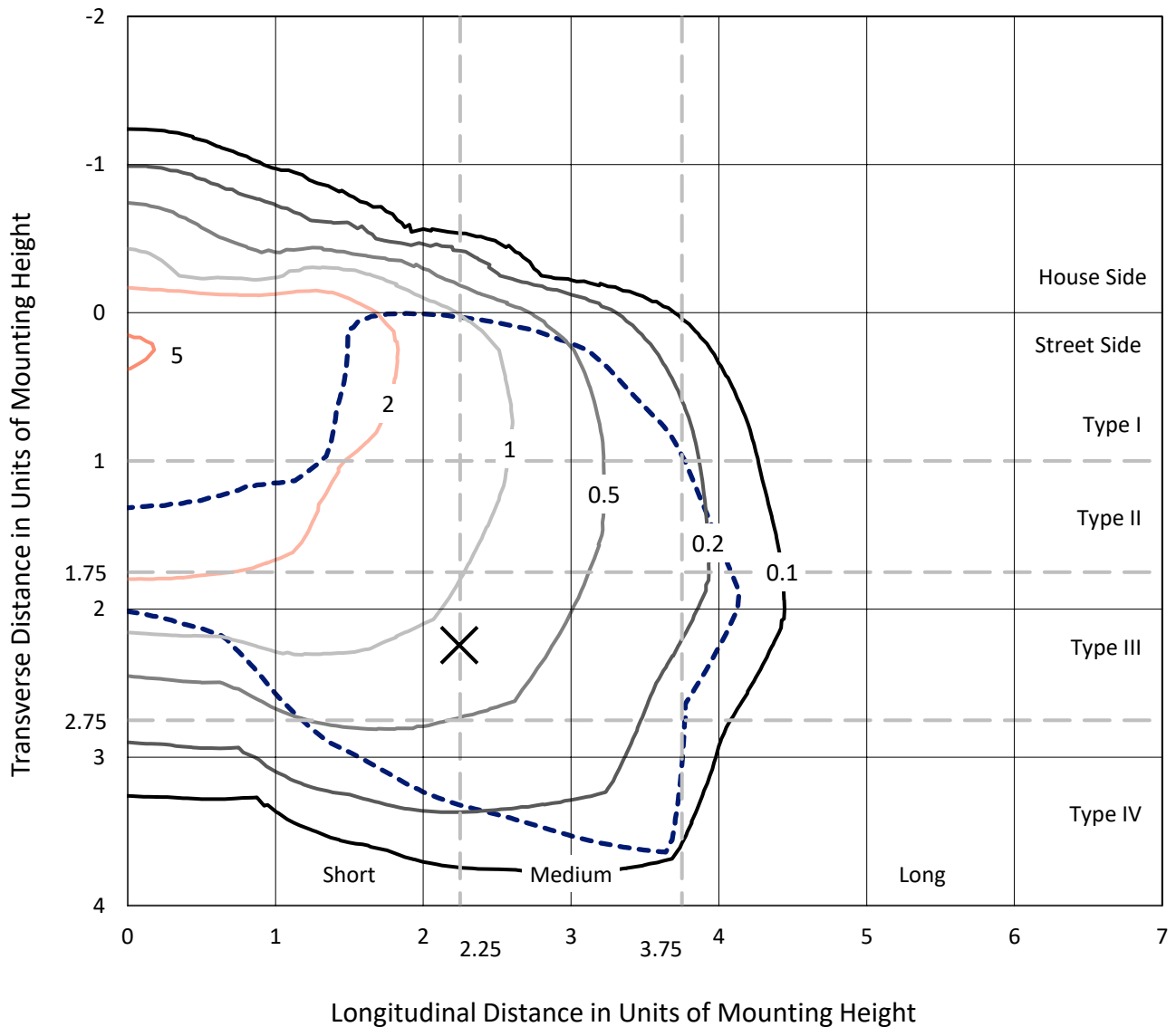
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

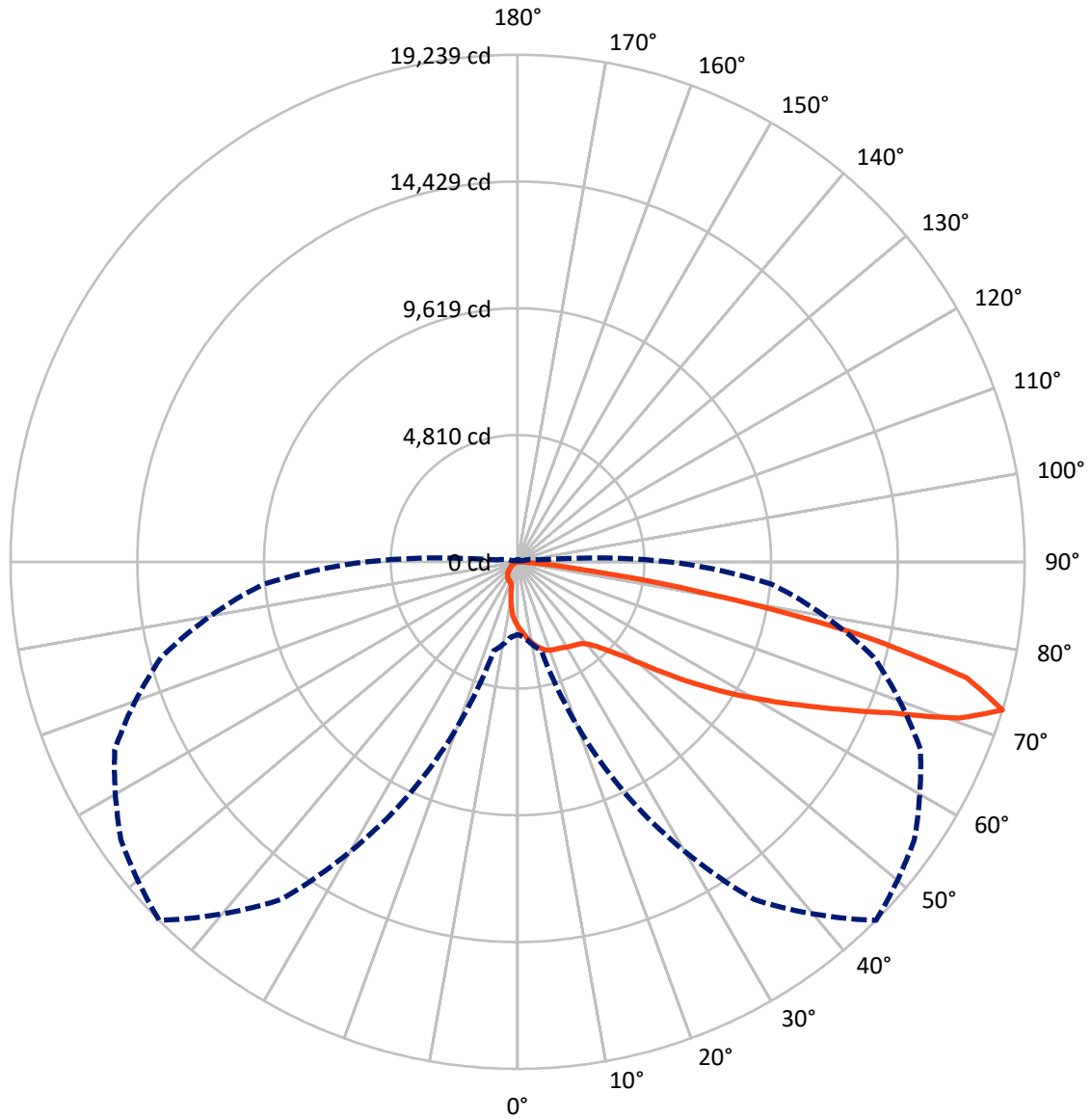
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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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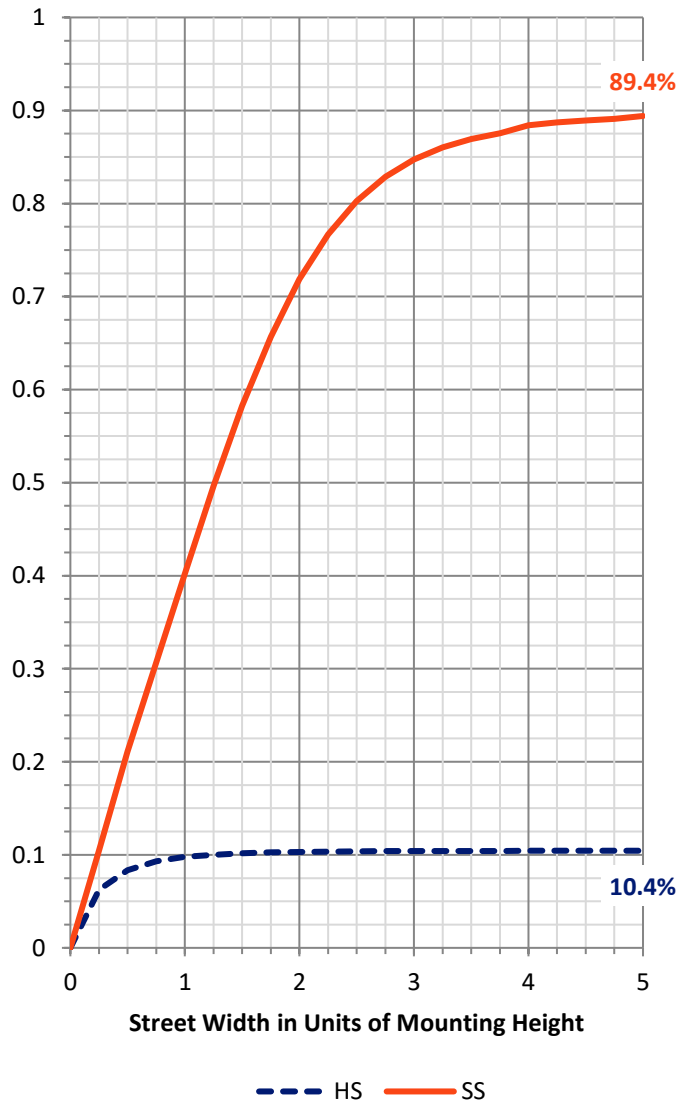
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2349.3	0.0	2349.3
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	20010.0	0.0	20010.0
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	22359.3	0.0	22359.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.8	1.0
10°-20°	674.5	3.0
20°-30°	1107.7	5.0
30°-40°	1570.9	7.0
40°-50°	2596.6	11.6
50°-60°	4664.4	20.9
60°-70°	6476.8	29.0
70°-80°	4698.1	21.0
80°-90°	339.7	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°	22359.3	100.0
0°-180°	22359.3	100.0

**Coefficient of Utilization**

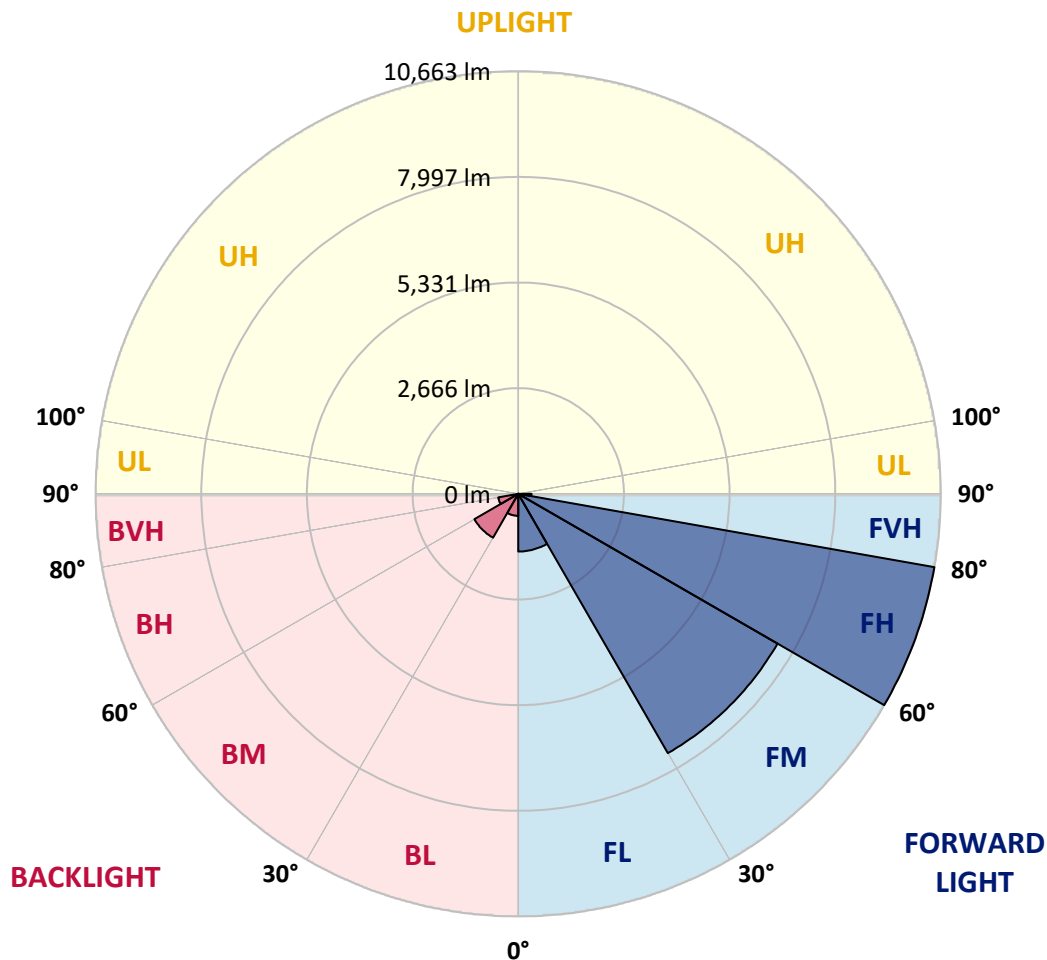


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1456.5	6.5			
FM (30°-60°)	7554.2	33.8			
FH (60°-80°)	10662.5	47.7			G4/12000
FVH (80°-90°)	336.8	1.5			G3/500
BL (0°-30°)	556.5	2.5	B2/1000		
BM (30°-60°)	1277.7	5.7	B2/2500		
BH (60°-80°)	512.3	2.3	B2/1000		G2/1000
BVH (80°-90°)	2.9	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°	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5
2.5°	2675.4	2680.0	2676.9	2658.6	2628.1	2611.3	2602.2	2571.6	2551.7	2516.7	2480.0
5°	2921.1	2939.4	2928.7	2892.1	2834.1	2792.9	2780.7	2718.1	2661.6	2596.0	2519.8
7.5°	3182.1	3191.2	3171.4	3124.1	3046.3	2976.1	2965.3	2878.4	2788.3	2687.5	2583.8
10°	3407.9	3418.7	3388.1	3319.5	3230.9	3143.9	3128.7	3032.6	2925.7	2802.0	2669.3
12.5°	3597.2	3607.9	3568.2	3485.8	3388.1	3298.0	3282.8	3182.1	3064.5	2927.2	2762.4
15°	3740.6	3760.5	3707.1	3618.6	3513.3	3423.2	3415.6	3316.4	3201.9	3049.3	2873.8
17.5°	3824.6	3844.5	3794.0	3687.2	3597.2	3520.9	3511.8	3429.3	3322.5	3176.0	2982.1
20°	3838.3	3856.7	3803.3	3710.1	3635.4	3574.3	3569.8	3510.2	3432.4	3292.0	3099.7
22.5°	3797.1	3820.1	3771.2	3696.4	3644.5	3612.5	3606.4	3572.7	3528.6	3409.5	3209.6
25°	3754.4	3772.7	3736.1	3670.4	3643.0	3640.0	3644.5	3638.4	3629.2	3528.6	3337.7
27.5°	3751.3	3771.2	3730.0	3667.4	3652.2	3684.2	3688.8	3717.8	3725.4	3636.9	3461.3
30°	3777.3	3791.1	3751.3	3685.7	3678.1	3751.3	3752.8	3804.8	3817.0	3728.4	3583.5
32.5°	3833.8	3849.0	3809.3	3713.2	3702.5	3804.8	3809.3	3878.0	3897.9	3826.1	3711.6
35°	3966.5	3984.9	3939.1	3789.5	3751.3	3855.1	3868.9	3949.7	3989.4	3930.0	3844.5
37.5°	4297.7	4244.3	4181.7	3943.7	3862.7	3934.5	3957.4	4052.0	4122.2	4053.6	4003.1
40°	5120.3	4952.5	4757.1	4206.2	4058.1	4103.9	4122.2	4216.8	4313.0	4245.9	4221.4
42.5°	6355.0	6156.6	5842.2	4810.5	4352.7	4375.5	4389.3	4471.7	4607.6	4554.1	4560.2
45°	7455.3	7383.7	7063.2	5842.2	4903.6	4790.6	4807.5	4850.2	5050.1	5030.3	5070.0
47.5°	8300.9	8259.7	8012.4	7026.5	5834.6	5298.8	5346.2	5366.1	5654.5	5724.7	5831.5
50°	8951.0	8935.7	8714.4	8079.6	7051.0	6048.2	6065.0	6022.3	6454.2	6628.2	6831.2
52.5°	9564.6	9616.4	9453.2	9057.8	8349.8	7029.6	7026.5	6825.1	7408.1	7670.6	8017.0
55°	10118.6	10136.8	10153.6	10056.0	9656.1	8146.7	8117.7	7788.1	8514.6	8786.2	9161.7
57.5°	10639.0	10646.6	10796.2	10996.1	11016.0	9346.4	9292.9	8897.6	9723.3	9917.1	10147.6
60°	10988.5	11023.6	11339.5	11895.0	12137.6	10584.0	10555.0	10152.1	10953.4	11043.5	11000.7
62.5°	10484.8	10698.5	11495.2	12597.0	13196.9	11956.1	11942.4	11563.8	12247.6	12174.3	11808.0
65°	8487.1	8848.8	10249.8	13071.7	14236.2	13488.4	13508.2	13105.2	13576.8	13338.8	12464.3
67.5°	5936.8	6318.4	7975.8	13109.9	15397.7	15287.7	15402.2	14770.4	14988.6	14454.4	12620.0
70°	4105.4	4302.3	5381.2	12288.8	16302.6	17766.2	17763.1	16815.4	16392.6	14962.6	11826.3
72.5°	2760.8	2863.1	3494.9	9749.2	15637.2	19238.9	19150.5	18378.2	16865.8	13993.5	9662.3
75°	1164.5	1239.2	1617.8	5478.9	12371.2	17601.4	17361.8	16241.5	14985.5	11019.0	6028.4
77.5°	369.3	401.4	638.0	1961.1	6814.4	13230.4	12977.1	10143.0	10043.8	5527.8	2203.8
80°	175.5	204.5	358.6	787.5	2681.5	7195.9	7160.9	4601.4	4320.6	1492.6	442.6
82.5°	76.3	90.0	198.4	421.3	1199.6	2567.0	2618.9	1565.9	1295.7	566.2	135.8
85°	24.4	32.1	91.5	193.8	506.7	638.0	630.3	372.4	521.9	308.3	47.4
87.5°	0.0	0.0	30.5	44.3	51.9	36.6	41.2	32.1	145.0	85.5	16.8
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°	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5	2449.5
2.5°	2461.7	2437.3	2394.6	2354.9	2319.8	2284.7	2263.3	2232.8	2229.8	2229.8	2237.4
5°	2478.6	2438.8	2362.5	2281.6	2188.6	2100.0	2011.5	1926.1	1898.6	1878.7	1887.8
7.5°	2527.3	2464.8	2344.2	2190.0	2013.0	1819.2	1683.4	1536.9	1480.4	1449.9	1454.5
10°	2597.6	2512.1	2328.9	2058.8	1771.9	1507.9	1314.0	1155.3	1094.3	1068.4	1068.4
12.5°	2675.4	2570.1	2301.4	1895.5	1507.9	1192.0	1002.7	929.5	920.2	920.2	920.2
15°	2768.5	2640.3	2254.2	1703.2	1231.6	943.2	876.1	879.0	888.3	894.3	894.3
17.5°	2864.7	2715.0	2179.4	1488.0	987.5	848.6	850.0	854.6	862.3	868.4	868.4
20°	2968.4	2789.8	2080.1	1259.1	847.1	821.1	825.6	830.2	836.3	839.4	840.9
22.5°	3079.8	2860.1	1962.7	1034.7	799.7	798.2	799.7	804.3	811.9	811.9	815.0
25°	3198.8	2937.9	1828.4	871.5	775.3	775.3	778.4	781.4	787.5	787.5	789.0
27.5°	3321.0	3009.6	1686.4	786.0	753.9	752.5	752.5	757.0	760.0	761.6	763.1
30°	3455.3	3093.6	1544.5	767.6	737.2	729.5	725.0	728.0	731.0	732.6	735.6
32.5°	3592.6	3174.4	1417.8	775.3	720.4	706.6	691.4	688.3	688.3	694.4	698.9
35°	3745.2	3263.0	1320.1	801.2	711.2	673.0	648.6	634.9	636.4	645.5	650.2
37.5°	3928.4	3369.8	1248.4	824.1	705.1	634.9	595.2	578.4	567.7	578.4	575.3
40°	4168.0	3527.0	1196.5	842.4	697.5	590.6	537.2	509.7	489.9	496.0	492.9
42.5°	4520.6	3774.3	1176.7	844.0	680.7	538.7	477.6	441.1	412.0	413.6	407.5
45°	5015.0	4165.0	1278.9	824.1	644.0	482.3	415.1	366.2	348.0	343.4	337.3
47.5°	5692.6	4734.2	1515.5	782.9	590.6	427.3	354.0	312.8	299.1	291.5	286.9
50°	6600.7	5465.2	1778.0	737.2	537.2	375.5	303.7	277.8	268.7	261.0	259.4
52.5°	7653.8	6207.0	1993.2	691.4	483.8	329.6	271.6	256.4	248.8	242.6	241.2
55°	8619.8	6718.3	1981.0	642.5	431.9	293.0	248.8	239.6	230.4	224.4	221.3
57.5°	9221.2	6790.0	1633.0	589.1	372.4	264.0	227.4	221.3	210.6	203.0	201.4
60°	9497.4	6380.9	1144.6	518.9	312.8	236.6	204.5	201.4	187.7	177.0	173.9
62.5°	9547.8	5620.9	763.1	431.9	261.0	210.6	181.6	177.0	158.8	140.4	131.2
65°	9343.3	4534.3	528.1	337.3	222.8	183.2	155.7	146.5	126.7	108.3	102.3
67.5°	8696.2	3183.6	367.8	242.6	189.2	145.0	123.6	120.5	105.3	90.0	85.5
70°	7510.3	1814.7	245.7	181.6	149.5	99.2	97.7	100.8	85.5	73.3	67.1
72.5°	5758.2	830.2	152.6	132.7	102.3	67.1	77.8	79.3	65.6	54.9	48.8
75°	3389.7	355.6	96.1	85.5	51.9	44.3	56.5	58.0	44.3	35.1	30.5
77.5°	1153.7	134.3	61.1	50.3	25.9	24.4	36.6	36.6	24.4	13.7	10.7
80°	262.5	50.3	30.5	19.9	12.2	10.7	12.2	10.7	6.1	1.5	0.0
82.5°	74.8	19.9	12.2	7.6	4.6	4.6	1.5	0.0	0.0	0.0	0.0
85°	21.3	9.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.1	1.5	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)