

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: P967152

Luminaire Tested: **NAV-SB4D-727-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967152  
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-SB4D-727-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

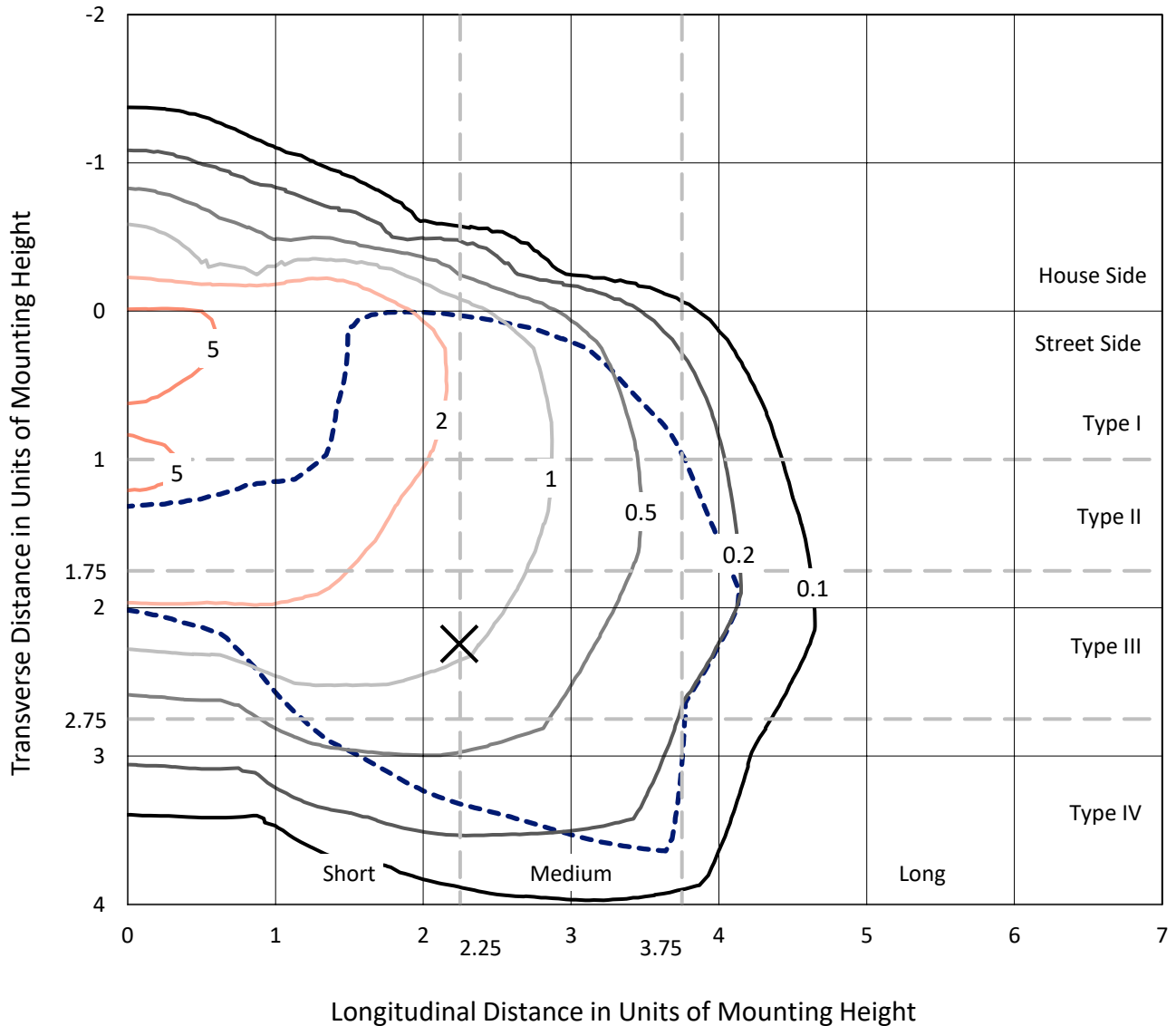
Lumens per Lamp: N/A  
Luminaire Lumens: 29866.4 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 293.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

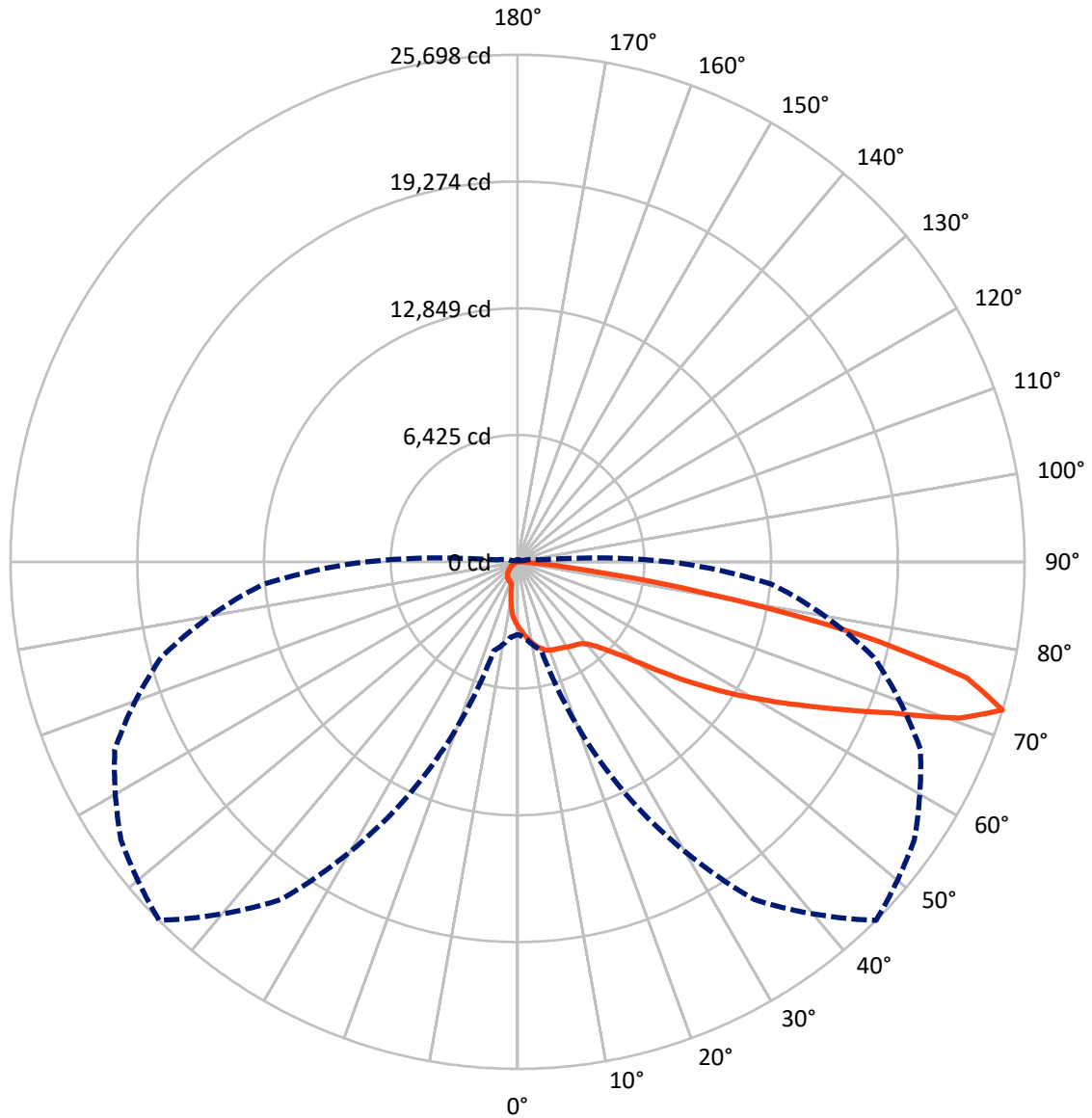
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 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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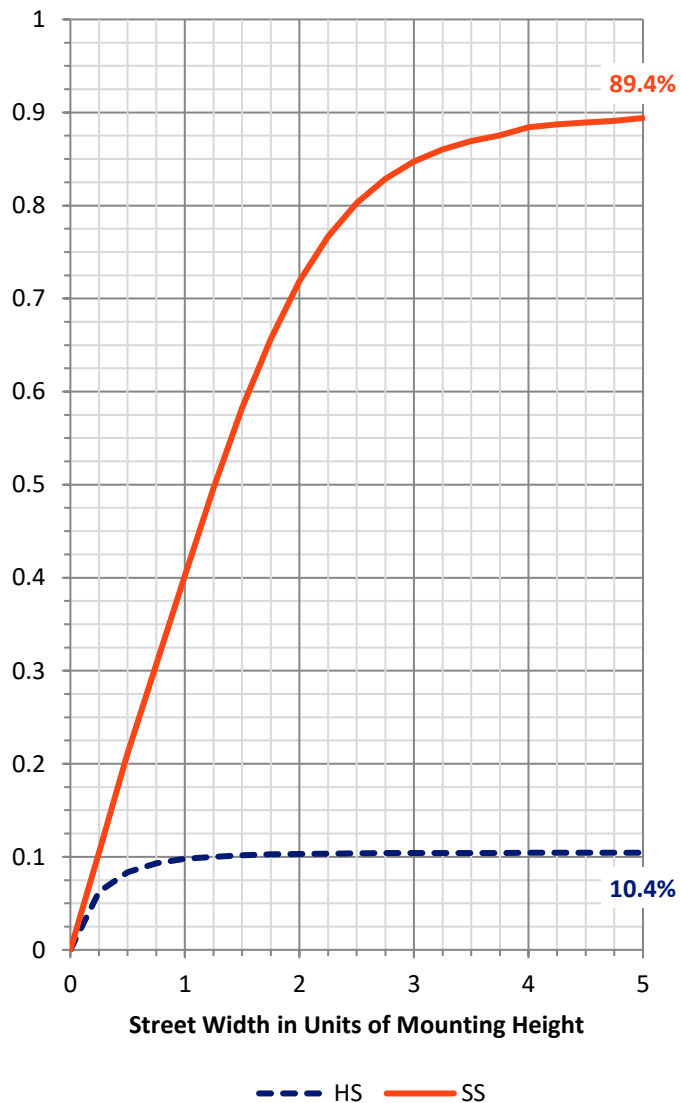
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3138.1	0.0	3138.1
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	26728.3	0.0	26728.3
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	29866.4	0.0	29866.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.3	1.0
10°-20°	901.0	3.0
20°-30°	1479.6	5.0
30°-40°	2098.3	7.0
40°-50°	3468.3	11.6
50°-60°	6230.5	20.9
60°-70°	8651.4	29.0
70°-80°	6275.4	21.0
80°-90°	453.7	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°	29866.4	100.0
0°-180°	29866.4	100.0

**Coefficient of Utilization**

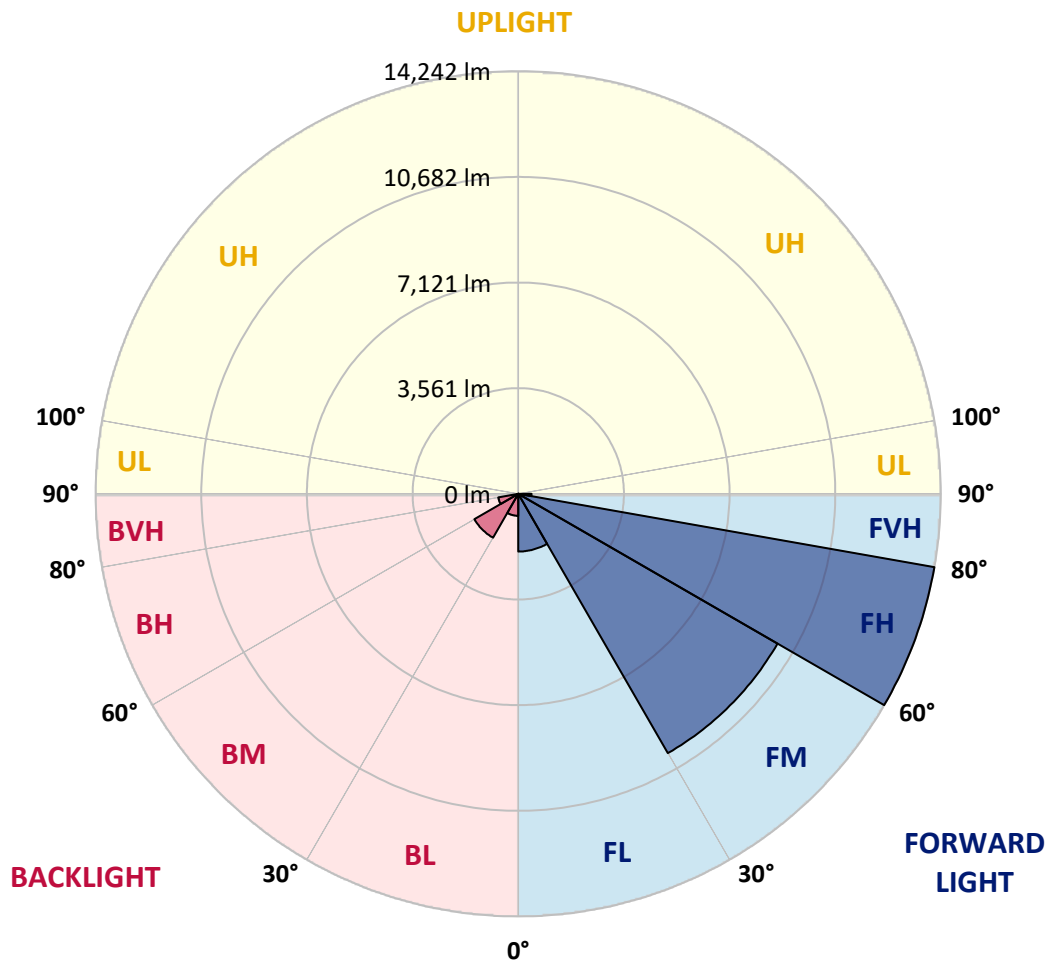


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1945.5	6.5			
FM	(30°-60°)	10090.5	33.8			
FH	(60°-80°)	14242.5	47.7			G5
FVH	(80°-90°)	449.9	1.5			G3/500
BL	(0°-30°)	743.3	2.5	B2/1000		
BM	(30°-60°)	1706.7	5.7	B2/2500		
BH	(60°-80°)	684.3	2.3	B2/1000		G2/1000
BVH	(80°-90°)	3.8	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-G5**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9
2.5°	3573.7	3579.7	3575.7	3551.2	3510.4	3488.0	3475.8	3435.0	3408.5	3361.6	3312.7
5°	3901.9	3926.4	3912.0	3863.1	3785.6	3730.6	3714.3	3630.8	3555.3	3467.7	3365.7
7.5°	4250.5	4262.7	4236.2	4173.0	4069.0	3975.3	3961.0	3844.8	3724.5	3590.0	3451.4
10°	4552.1	4566.5	4525.7	4433.9	4315.7	4199.5	4179.1	4050.7	3908.0	3742.9	3565.5
12.5°	4805.0	4819.2	4766.2	4656.2	4525.7	4405.3	4385.1	4250.5	4093.4	3910.0	3689.8
15°	4996.6	5023.1	4951.8	4833.5	4692.9	4572.5	4562.4	4429.8	4276.9	4073.1	3838.6
17.5°	5108.7	5135.2	5067.9	4925.2	4805.0	4703.0	4690.8	4580.7	4438.0	4242.3	3983.4
20°	5127.0	5151.5	5080.2	4955.8	4855.9	4774.3	4768.3	4688.8	4584.8	4397.2	4140.4
22.5°	5072.0	5102.6	5037.4	4937.4	4868.1	4825.3	4817.2	4772.3	4713.3	4554.2	4287.2
25°	5014.9	5039.4	4990.4	4902.8	4866.1	4862.0	4868.1	4860.0	4847.7	4713.3	4458.3
27.5°	5010.8	5037.4	4982.3	4898.7	4878.4	4921.1	4927.3	4966.0	4976.2	4858.0	4623.5
30°	5045.5	5063.8	5010.8	4923.2	4913.0	5010.8	5012.9	5082.2	5098.6	4980.3	4786.6
32.5°	5120.9	5141.3	5088.3	4959.9	4945.6	5082.2	5088.3	5180.0	5206.6	5110.8	4957.8
35°	5298.3	5322.7	5261.6	5061.9	5010.8	5149.5	5167.8	5275.9	5328.9	5249.3	5135.2
37.5°	5740.6	5669.3	5585.7	5267.7	5159.6	5255.5	5286.0	5412.4	5506.2	5414.5	5347.2
40°	6839.4	6615.2	6354.3	5618.3	5420.6	5481.8	5506.2	5632.6	5761.0	5671.3	5638.7
42.5°	8488.6	8223.7	7803.7	6425.6	5814.0	5844.7	5863.0	5973.1	6154.5	6083.2	6091.3
45°	9958.5	9862.7	9434.6	7803.7	6550.0	6399.2	6421.5	6478.6	6745.7	6719.2	6772.2
47.5°	11087.8	11032.8	10702.5	9385.6	7793.5	7077.9	7141.2	7167.7	7552.9	7646.7	7789.5
50°	11956.3	11935.9	11640.3	10792.3	9418.3	8078.9	8101.4	8044.3	8621.2	8853.5	9124.8
52.5°	12775.8	12845.1	12627.0	12099.0	11153.1	9389.7	9385.6	9116.6	9895.3	10245.9	10708.7
55°	13515.9	13540.2	13562.7	13432.2	12898.2	10882.0	10843.3	10402.9	11373.3	11736.1	12237.7
57.5°	14211.0	14221.2	14420.9	14688.0	14714.5	12484.3	12413.0	11885.0	12987.9	13246.8	13554.6
60°	14677.8	14724.7	15146.7	15888.7	16212.9	14137.6	14098.9	13560.6	14631.0	14751.2	14694.1
62.5°	14005.1	14290.6	15354.6	16826.5	17627.6	15970.3	15952.0	15446.3	16359.6	16261.8	15772.6
65°	11336.6	11819.7	13691.1	17460.5	19015.9	18017.0	18043.6	17505.4	18135.3	17817.3	16649.2
67.5°	7930.1	8439.7	10653.6	17511.5	20567.3	20420.6	20573.4	19729.4	20021.0	19307.4	16857.0
70°	5483.7	5746.8	7188.0	16414.7	21776.2	23731.2	23727.1	22461.1	21896.5	19986.3	15797.0
72.5°	3687.8	3824.4	4668.4	13022.5	20887.3	25698.4	25580.2	24548.6	22528.5	18691.8	12906.3
75°	1555.4	1655.4	2160.9	7318.5	16524.7	23511.0	23190.9	21694.6	20016.9	14718.6	8052.4
77.5°	493.3	536.2	852.1	2619.6	9102.3	17672.5	17334.1	13548.4	13415.9	7383.8	2943.7
80°	234.4	273.2	479.1	1052.0	3581.8	9611.9	9565.1	6146.3	5771.3	1993.7	591.2
82.5°	101.9	120.2	265.1	562.6	1602.3	3428.9	3498.2	2091.6	1730.7	756.3	181.4
85°	32.6	42.8	122.3	258.9	676.8	852.1	841.9	497.4	697.2	411.8	63.2
87.5°	0.0	0.0	40.8	59.1	69.3	48.9	55.0	42.8	193.6	114.2	22.4
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°	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9	3271.9
2.5°	3288.2	3255.6	3198.5	3145.5	3098.7	3051.7	3023.2	2982.4	2978.3	2978.3	2988.6
5°	3310.6	3257.7	3155.8	3047.7	2923.3	2805.1	2686.8	2572.6	2536.0	2509.5	2521.7
7.5°	3375.9	3292.3	3131.3	2925.4	2688.9	2430.0	2248.5	2052.9	1977.4	1936.6	1942.8
10°	3469.6	3355.5	3110.9	2750.1	2366.8	2014.1	1755.2	1543.2	1461.6	1427.0	1427.0
12.5°	3573.7	3433.0	3074.2	2532.0	2014.1	1592.1	1339.4	1241.5	1229.3	1229.3	1229.3
15°	3698.0	3526.7	3011.0	2275.1	1645.1	1259.8	1170.1	1174.2	1186.4	1194.6	1194.6
17.5°	3826.4	3626.7	2911.1	1987.6	1319.0	1133.4	1135.5	1141.6	1151.8	1160.0	1160.0
20°	3965.0	3726.5	2778.6	1681.8	1131.4	1096.8	1102.9	1108.9	1117.1	1121.2	1123.3
22.5°	4113.8	3820.3	2621.6	1382.2	1068.3	1066.2	1068.3	1074.3	1084.6	1084.6	1088.7
25°	4272.9	3924.3	2442.3	1164.0	1035.6	1035.6	1039.7	1043.8	1052.0	1052.0	1053.9
27.5°	4436.0	4020.0	2252.6	1049.9	1007.1	1005.0	1005.0	1011.2	1015.3	1017.2	1019.3
30°	4615.4	4132.2	2063.0	1025.4	984.6	974.5	968.3	972.4	976.5	978.6	982.6
32.5°	4798.8	4240.2	1893.9	1035.6	962.2	943.8	923.5	919.4	919.4	927.5	933.7
35°	5002.7	4358.5	1763.4	1070.3	950.0	899.0	866.4	848.1	850.1	862.3	868.5
37.5°	5247.3	4501.2	1667.6	1100.8	941.9	848.1	795.1	772.6	758.4	772.6	768.5
40°	5567.4	4711.2	1598.3	1125.3	931.6	788.9	717.6	680.9	654.4	662.6	658.5
42.5°	6038.3	5041.5	1571.7	1127.3	909.2	719.7	638.1	589.2	550.4	552.5	544.3
45°	6698.8	5563.3	1708.4	1100.8	860.3	644.2	554.5	489.2	464.8	458.7	450.5
47.5°	7604.0	6323.7	2024.3	1045.8	788.9	570.8	472.9	417.9	399.5	389.4	383.2
50°	8816.8	7300.2	2374.9	984.6	717.6	501.5	405.7	371.0	358.7	348.6	346.6
52.5°	10223.6	8290.9	2662.4	923.5	646.3	440.3	362.8	342.5	332.3	324.1	322.1
55°	11513.9	8973.9	2646.0	858.2	576.9	391.4	332.3	320.1	307.8	299.7	295.6
57.5°	12317.1	9069.7	2181.3	786.9	497.4	352.7	303.7	295.6	281.4	271.1	269.1
60°	12686.1	8523.3	1528.9	693.1	417.9	316.0	273.2	269.1	250.7	236.5	232.4
62.5°	12753.4	7508.1	1019.3	576.9	348.6	281.4	242.6	236.5	212.0	187.6	175.3
65°	12480.2	6056.6	705.3	450.5	297.7	244.7	208.0	195.7	169.2	144.7	136.6
67.5°	11615.9	4252.5	491.3	324.1	252.8	193.6	165.1	161.0	140.6	120.2	114.2
70°	10031.9	2423.9	328.2	242.6	199.8	132.5	130.5	134.6	114.2	97.9	89.7
72.5°	7691.6	1108.9	203.9	177.3	136.6	89.7	103.9	106.0	87.6	73.4	65.2
75°	4527.7	475.0	128.4	114.2	69.3	59.1	75.4	77.5	59.1	46.8	40.8
77.5°	1541.2	179.4	81.6	67.2	34.6	32.6	48.9	48.9	32.6	18.3	14.2
80°	350.7	67.2	40.8	26.5	16.3	14.2	16.3	14.2	8.2	2.0	0.0
82.5°	99.9	26.5	16.3	10.1	6.1	6.1	2.0	0.0	0.0	0.0	0.0
85°	28.5	12.2	4.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.2	2.0	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)