

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: P967110

Luminaire Tested: **NAV-SB4D-722-U-T2R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967110  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-722-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29238.1 lumens  
Efficiency: N/A  
Efficacy: 99.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G4

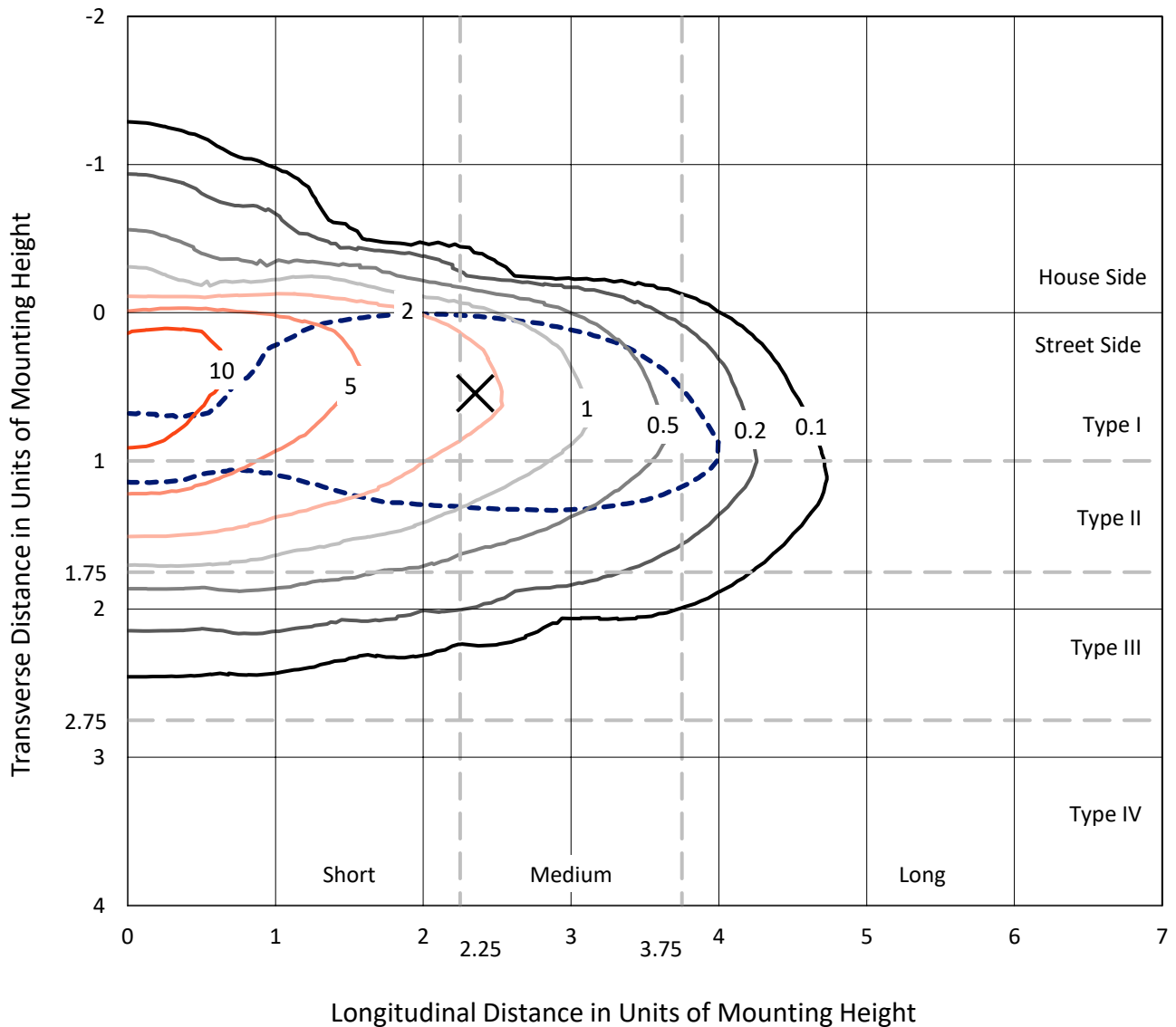
Input Watts (W): 293.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

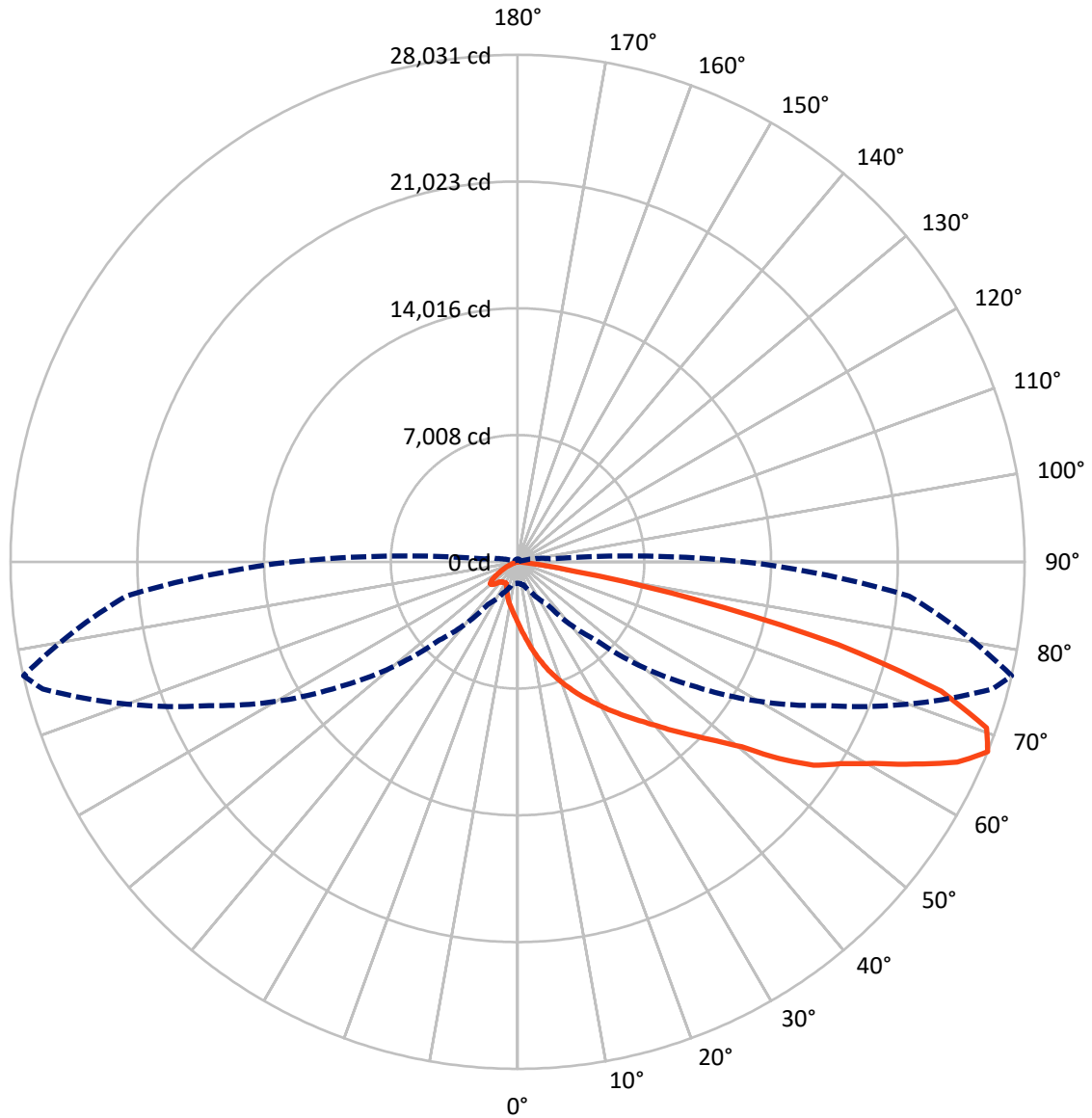
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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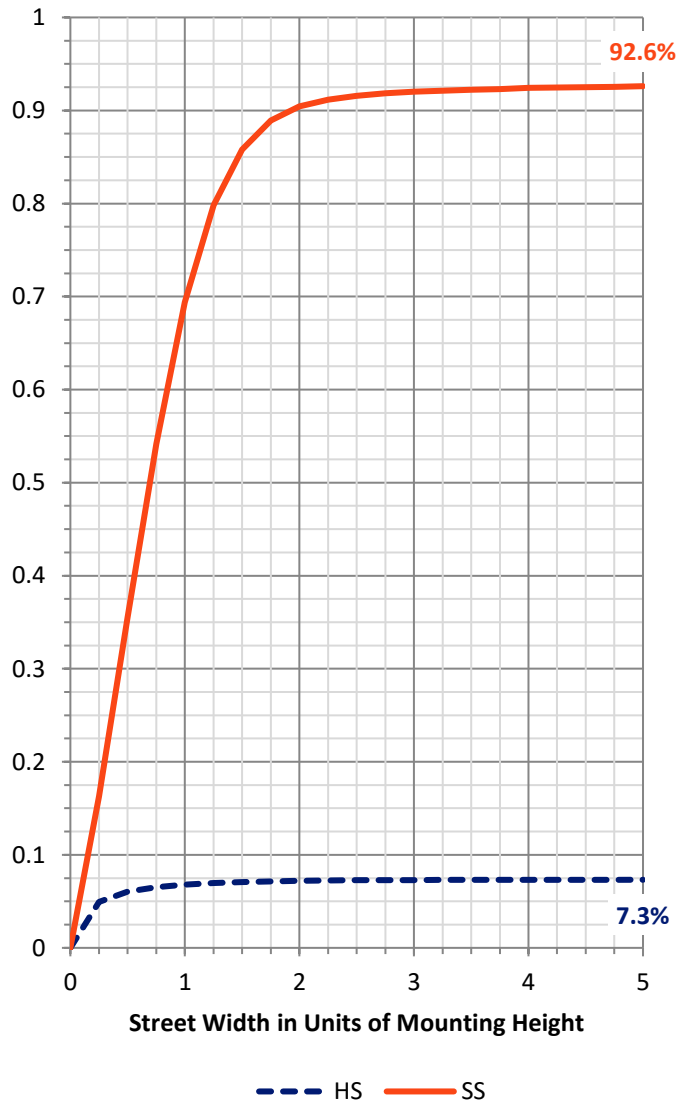
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2151.1	0.0	2151.1
	% Fixture	7.4	0.0	7.4
<b>Street Side</b>	Lumens	27087.1	0.0	27087.1
	% Fixture	92.6	0.0	92.6
<b>Total</b>	Lumens	29238.1	0.0	29238.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	344.1	1.2
10°-20°	1205.1	4.1
20°-30°	2325.5	8.0
30°-40°	4037.2	13.8
40°-50°	5861.8	20.0
50°-60°	6731.5	23.0
60°-70°	5844.2	20.0
70°-80°	2752.7	9.4
80°-90°	136.1	0.5
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°	29238.1	100.0
0°-180°	29238.1	100.0

**Coefficient of Utilization**

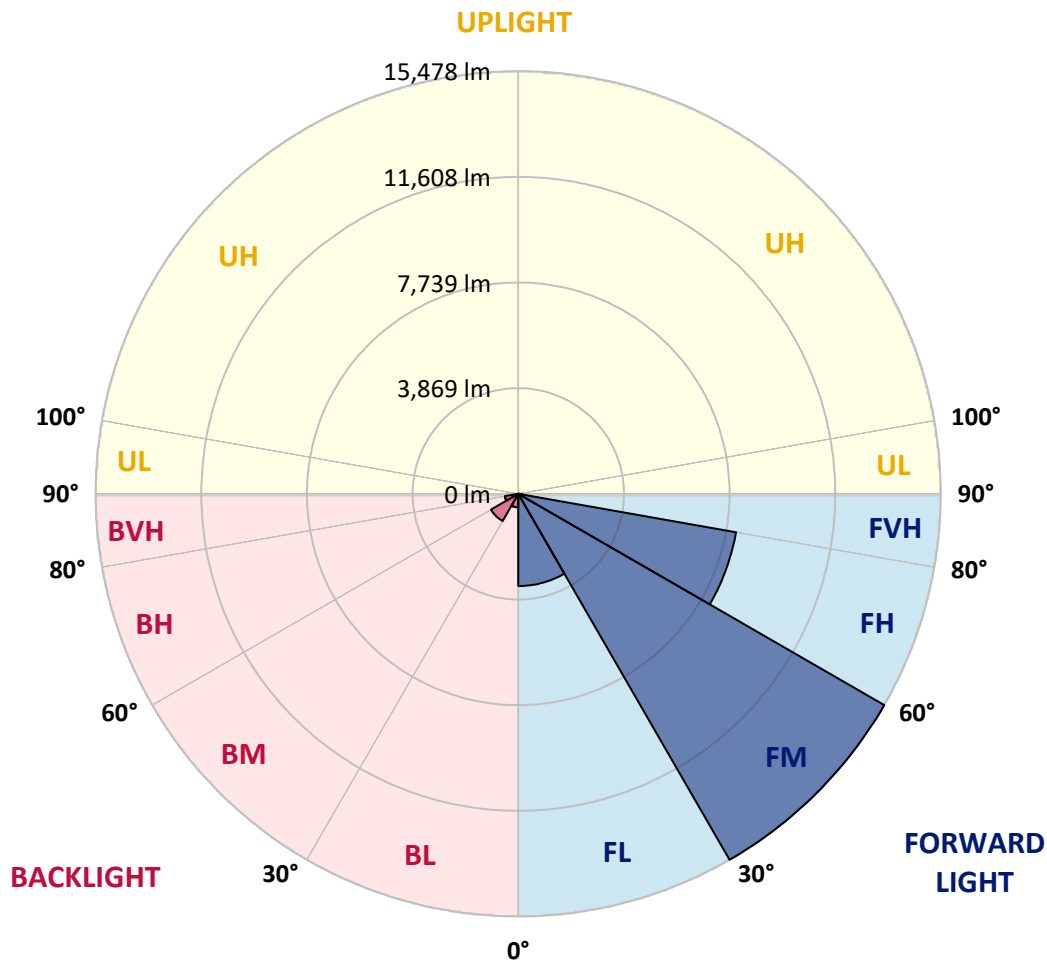


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3376.7	11.5			
FM (30°-60°)	15477.9	52.9			
FH (60°-80°)	8098.9	27.7			G4/12000
FVH (80°-90°)	133.6	0.5			G2/225
BL (0°-30°)	498.0	1.7	B1/500		
BM (30°-60°)	1152.6	3.9	B2/2500		
BH (60°-80°)	498.0	1.7	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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6
2.5°	4668.0	4697.0	4655.2	4575.3	4455.5	4377.5	4186.8	4007.0	3807.4	3743.8	3544.0
5°	5690.1	5715.5	5668.4	5581.2	5421.4	5268.9	5018.3	4642.5	4252.1	4126.9	3772.8
7.5°	6447.2	6461.7	6443.6	6363.7	6211.2	6038.7	5759.1	5314.3	4735.1	4597.1	4054.3
10°	6991.9	7039.1	7033.7	7002.8	6901.1	6761.3	6463.5	5957.0	5276.2	5098.2	4372.0
12.5°	7353.2	7405.8	7436.8	7505.8	7500.2	7411.4	7149.9	6614.2	5815.4	5606.6	4729.7
15°	7458.5	7514.8	7632.9	7792.6	7934.2	7979.6	7796.3	7258.8	6409.1	6142.2	5096.4
17.5°	7398.7	7485.8	7627.3	7879.8	8190.3	8395.4	8375.4	7881.5	6948.4	6643.3	5455.9
20°	7531.2	7614.6	7725.4	7937.8	8299.1	8671.4	8820.2	8477.1	7483.9	7164.4	5833.6
22.5°	8264.7	8250.1	8261.0	8295.5	8511.6	8880.2	9187.0	9018.2	8014.1	7687.3	6233.0
25°	9426.6	9361.3	9250.5	9063.6	9009.0	9187.0	9506.6	9497.4	8573.3	8222.9	6641.5
27.5°	10759.3	10748.4	10488.7	10038.5	9784.3	9715.4	9867.9	9964.0	9127.1	8753.1	7051.8
30°	12035.7	12064.8	11714.3	11213.2	10746.6	10476.0	10338.0	10407.0	9689.9	9324.9	7474.8
32.5°	13146.9	13177.7	12796.4	12210.0	11632.6	11305.7	11015.3	10844.6	10303.6	9906.0	7939.6
35°	14085.4	14116.4	13678.8	13030.6	12415.1	12119.2	11790.6	11324.0	10920.9	10550.5	8457.1
37.5°	14924.3	14915.2	14328.8	13675.1	13070.6	12836.4	12663.9	11914.0	11556.4	11198.6	9030.9
40°	15420.0	15458.1	14957.0	14236.2	13649.7	13479.1	13468.2	12645.7	12289.9	11943.1	9659.1
42.5°	15565.2	15632.4	15269.2	14677.4	14145.4	13960.2	14245.2	13437.3	13143.2	12805.5	10368.9
45°	15303.8	15369.2	15203.9	14793.6	14483.1	14363.3	14913.4	14258.0	14054.6	13720.5	11169.6
47.5°	14541.2	14623.0	14662.8	14575.7	14572.1	14693.7	15512.6	15122.2	15136.7	14795.4	12097.4
50°	13065.2	13203.1	13569.9	13878.5	14356.0	14955.2	16095.4	16059.1	16356.8	16062.7	13306.6
52.5°	10381.6	10577.7	11841.4	12685.7	13758.7	14906.2	16736.3	17562.4	18497.5	18067.2	15011.4
55°	8342.7	8342.7	9370.3	10950.0	12593.0	14583.0	17015.9	18539.2	19955.3	19853.6	16211.6
57.5°	6801.3	6883.0	7538.4	8934.6	10906.4	13813.1	17188.3	19152.8	21130.1	21055.7	17384.4
60°	4197.7	4373.8	5612.1	6990.1	8987.3	12442.4	17079.5	19773.8	22555.3	22615.2	18797.0
62.5°	2364.0	2429.2	2981.2	5029.3	6988.2	10599.5	16246.0	20120.5	24378.2	24632.4	20253.1
65°	1632.2	1664.9	1877.4	3130.1	4844.0	8438.9	14617.4	19904.5	26204.6	26718.5	21487.7
67.5°	1185.6	1201.9	1334.4	1911.8	2874.1	6118.6	12064.8	18815.1	27172.4	28031.2	21723.7
70°	911.4	922.3	1018.5	1256.4	1697.6	3776.5	8762.1	16649.2	26471.5	27497.4	20514.6
72.5°	740.8	751.6	826.2	929.6	1125.7	2233.2	5310.6	13520.9	23377.8	24485.3	17464.4
75°	624.5	639.1	706.2	773.5	882.4	1434.3	2491.1	9415.8	17580.5	18306.8	12144.6
77.5°	346.8	319.6	573.7	640.9	744.4	907.8	1165.6	5541.3	9846.0	10047.6	5388.7
80°	216.1	223.3	455.7	515.7	571.9	457.6	533.8	2133.3	3413.4	3242.7	1044.0
82.5°	12.7	29.0	350.4	372.2	392.2	196.1	201.5	724.5	822.5	755.3	185.2
85°	0.0	0.0	159.8	128.9	136.1	56.3	58.1	168.8	110.8	119.8	36.3
87.5°	0.0	0.0	0.0	3.6	0.0	5.4	10.9	14.6	5.4	7.3	12.7
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°	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6	3371.6
2.5°	3416.9	3289.8	3032.1	2779.7	2574.5	2383.9	2247.7	2118.8	2053.5	2049.8	2046.2
5°	3520.5	3253.6	2738.0	2282.3	1915.4	1621.3	1430.7	1294.6	1225.5	1201.9	1198.3
7.5°	3665.7	3264.4	2480.1	1846.4	1414.4	1161.9	1053.1	1009.5	995.0	978.6	975.0
10°	3849.1	3289.8	2249.6	1487.0	1114.8	987.7	944.1	926.0	915.0	904.2	900.6
12.5°	4054.3	3313.5	2020.8	1234.6	980.4	915.0	884.2	862.4	847.9	835.2	831.6
15°	4254.0	3328.0	1782.9	1058.5	911.4	858.7	826.2	802.5	782.5	768.0	766.2
17.5°	4451.9	3348.0	1559.6	953.1	855.2	802.5	769.8	740.8	724.5	708.1	706.2
20°	4671.5	3344.4	1349.0	878.7	798.9	746.2	711.8	684.5	668.1	650.0	648.2
22.5°	4874.9	3326.2	1163.8	815.2	740.8	689.9	651.8	624.5	608.2	593.7	591.9
25°	5109.1	3311.7	1009.5	757.1	686.3	635.5	593.7	568.3	550.1	537.4	535.6
27.5°	5334.3	3289.8	896.9	704.5	633.7	584.7	544.7	515.7	499.3	490.3	490.3
30°	5555.8	3284.4	855.2	653.6	586.4	537.4	497.4	470.3	457.6	453.9	452.1
32.5°	5822.6	3299.0	873.3	635.5	542.8	493.8	455.7	435.7	423.0	423.0	423.0
35°	6107.7	3295.4	900.6	651.8	513.8	450.3	421.2	408.5	395.8	395.8	395.8
37.5°	6465.4	3300.8	922.3	679.1	503.0	414.0	397.6	381.3	374.0	374.0	374.0
40°	6999.2	3480.5	911.4	702.6	499.3	388.6	355.9	350.4	345.0	345.0	345.0
42.5°	7652.8	3870.9	926.0	704.5	497.4	370.4	326.8	337.7	325.0	323.2	321.3
45°	8368.1	4297.5	1018.5	666.4	495.7	361.3	312.3	325.0	305.0	305.0	305.0
47.5°	9078.0	4720.5	1112.9	611.8	490.3	359.5	299.6	292.3	286.9	288.6	288.6
50°	10056.7	5065.5	1149.2	537.4	477.5	355.9	275.9	277.8	274.2	277.8	277.8
52.5°	11122.4	5138.2	1105.7	453.9	441.2	345.0	259.6	266.9	265.1	268.8	268.8
55°	11786.9	5060.1	913.3	377.6	384.9	301.3	243.3	257.8	257.8	257.8	257.8
57.5°	12473.2	4727.8	648.2	306.9	319.6	246.9	228.8	248.8	246.9	245.1	245.1
60°	12967.1	4190.4	426.7	252.4	254.2	203.4	212.4	234.2	232.4	223.3	223.3
62.5°	13335.7	3596.7	274.2	214.2	194.2	183.4	194.2	212.4	205.2	185.2	181.5
65°	13293.8	2774.3	210.6	183.4	159.8	159.8	168.8	185.2	163.4	130.7	127.1
67.5°	12518.6	1877.4	174.2	154.4	134.4	132.5	139.8	154.4	139.8	110.8	107.1
70°	11133.3	1227.3	139.8	119.8	107.1	98.1	112.5	132.5	118.0	89.0	85.4
72.5°	9036.3	748.0	105.3	87.1	78.1	63.6	89.0	109.0	94.4	65.4	61.7
75°	5846.3	381.3	72.7	56.3	41.7	38.1	65.4	81.7	65.4	40.0	34.5
77.5°	2236.9	159.8	40.0	25.4	21.8	18.1	36.3	49.0	27.3	9.1	7.3
80°	430.3	67.1	20.0	12.7	10.9	7.3	5.4	3.6	0.0	0.0	0.0
82.5°	74.4	21.8	7.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	25.4	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.1	0.0	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)