

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: P884418

Luminaire Tested: **NAV-SB5B-722-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884418  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-722-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

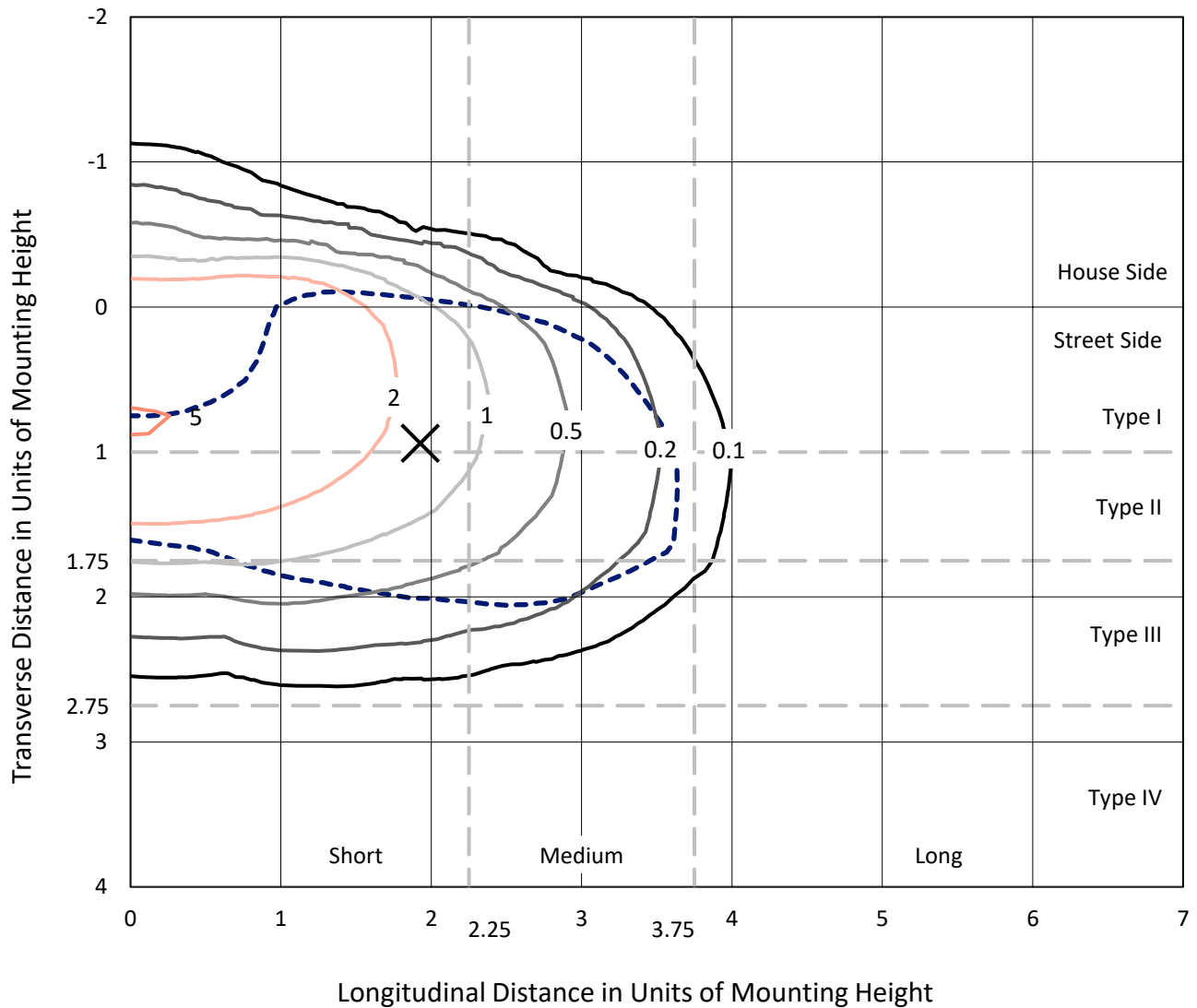
Lumens per Lamp: N/A  
Luminaire Lumens: 17858 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

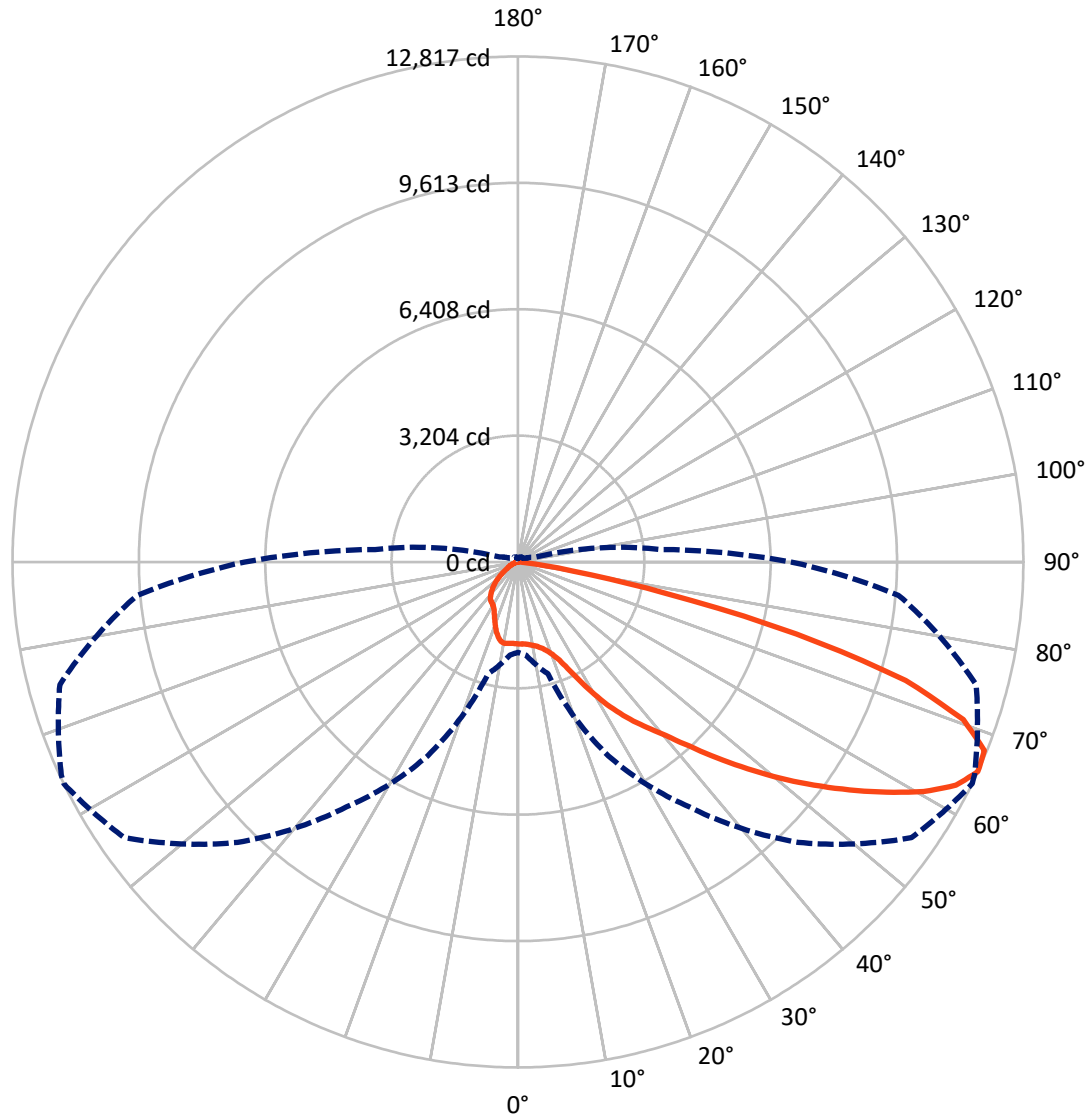
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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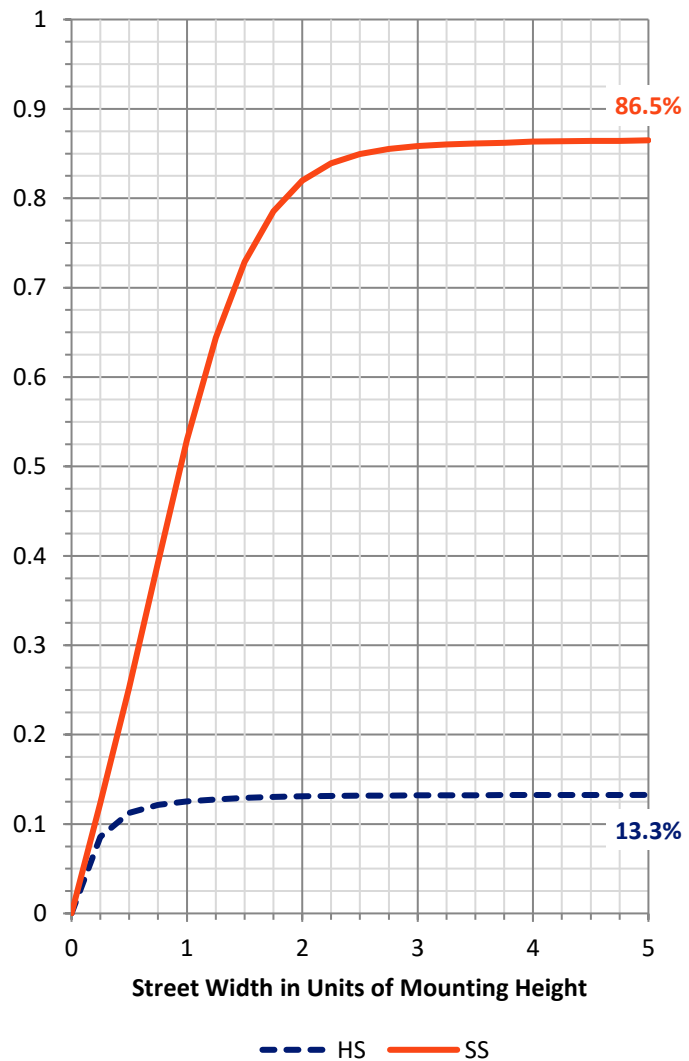
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2388.2	0.0	2388.2
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	15469.8	0.0	15469.8
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	17858.0	0.0	17858.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.6	1.1
10°-20°	519.8	2.9
20°-30°	984.9	5.5
30°-40°	1993.0	11.2
40°-50°	3395.0	19.0
50°-60°	4617.0	25.9
60°-70°	4335.6	24.3
70°-80°	1737.0	9.7
80°-90°	84.2	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°	17858.0	100.0
0°-180°	17858.0	100.0

**Coefficient of Utilization**



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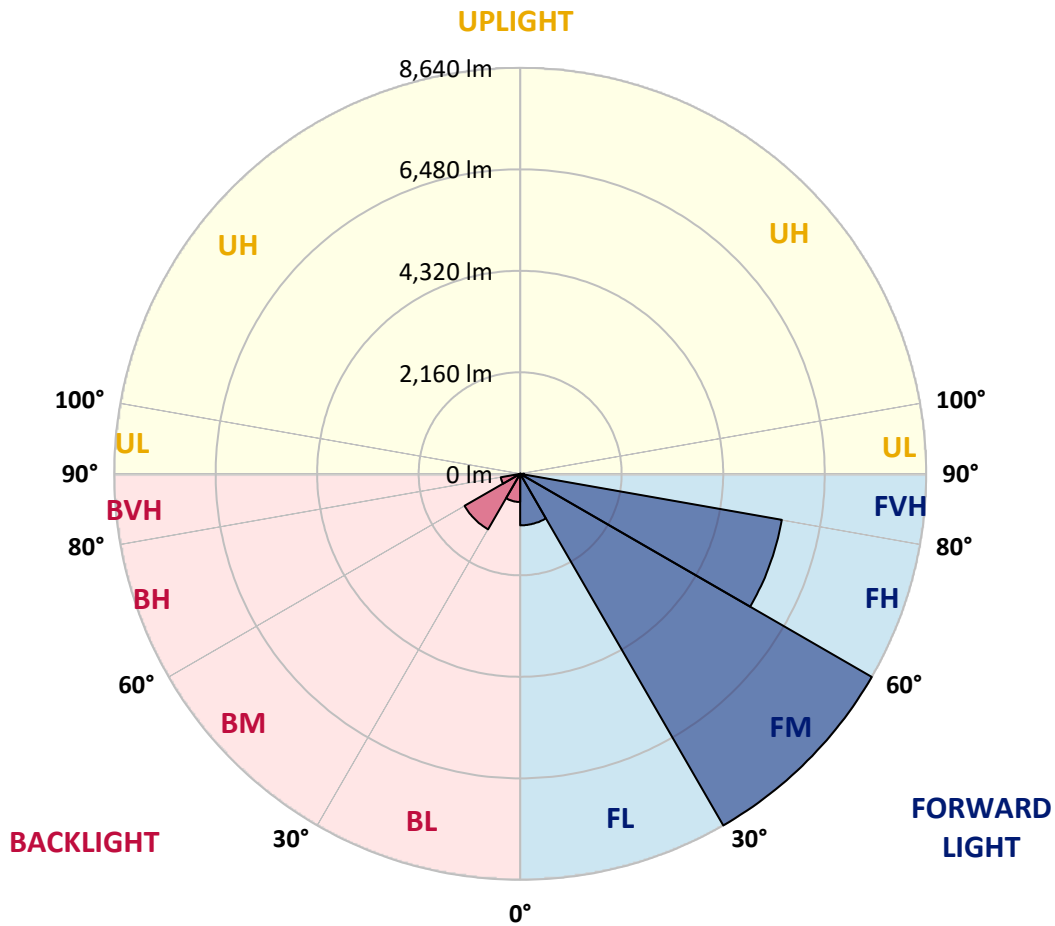
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1096.7	6.1			
FM (30°-60°)	8639.7	48.4			
FH (60°-80°)	5653.4	31.7			G3/7500
FVH (80°-90°)	80.0	0.4			G1/100
BL (0°-30°)	599.6	3.4	B2/1000		
BM (30°-60°)	1365.3	7.6	B2/2500		
BH (60°-80°)	419.2	2.3	B1/500		G1/500
BVH (80°-90°)	4.1	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-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1
2.5°	2069.9	2084.3	2080.7	2077.1	2075.9	2078.3	2079.5	2078.3	2078.3	2078.3	2079.5
5°	2030.4	2042.4	2042.4	2050.7	2062.7	2077.1	2087.8	2090.2	2092.6	2096.2	2095.0
7.5°	1955.0	1964.5	1971.7	1999.3	2029.2	2067.5	2099.8	2116.6	2119.0	2132.1	2136.9
10°	1903.5	1915.5	1927.4	1956.2	1999.3	2056.7	2111.8	2152.5	2158.5	2189.6	2204.0
12.5°	1901.1	1913.1	1928.6	1959.7	2010.0	2071.1	2138.1	2196.8	2207.6	2253.1	2283.0
15°	1926.2	1940.6	1955.0	1993.3	2047.1	2121.4	2193.2	2266.2	2277.0	2341.6	2374.0
17.5°	1977.7	1996.9	2007.6	2045.9	2103.4	2186.0	2280.6	2364.4	2374.0	2449.4	2490.1
20°	2079.5	2102.2	2105.8	2136.9	2193.2	2281.8	2394.3	2498.5	2510.4	2596.6	2642.1
22.5°	2290.2	2322.5	2293.8	2309.3	2359.6	2448.2	2570.3	2702.0	2718.7	2816.9	2857.6
25°	2661.3	2706.8	2632.6	2606.2	2627.8	2719.9	2873.2	3039.6	3058.7	3137.8	3158.1
27.5°	3390.4	3331.7	3219.2	3109.0	3044.4	3097.1	3269.4	3475.4	3499.3	3575.9	3552.0
30°	4191.3	4139.8	3987.7	3743.5	3590.3	3581.9	3741.1	3971.0	3998.5	4071.5	3998.5
32.5°	4993.4	4944.3	4779.1	4478.6	4212.8	4081.1	4191.3	4446.2	4460.6	4507.3	4399.6
35°	5782.3	5732.0	5566.8	5259.1	4932.3	4633.0	4611.5	4898.8	4903.6	4952.6	4792.2
37.5°	6576.0	6534.1	6358.1	6056.4	5734.4	5321.4	5121.4	5327.4	5333.3	5381.2	5214.8
40°	7142.3	7160.2	7039.3	6805.8	6529.3	6078.0	5693.7	5783.5	5747.6	5827.8	5728.4
42.5°	7628.3	7664.2	7558.9	7441.5	7281.1	6883.7	6402.4	6386.8	6329.4	6372.5	6269.5
45°	8048.5	8078.4	7983.9	7956.3	7952.7	7673.8	7177.0	7083.6	7003.4	6995.0	6871.7
47.5°	8202.9	8260.4	8301.1	8393.3	8572.9	8455.5	7977.9	7833.0	7743.2	7677.4	7482.2
50°	8261.6	8322.6	8461.5	8729.7	9154.7	9205.0	8775.2	8612.4	8502.2	8382.5	8095.2
52.5°	8182.6	8291.5	8478.3	8929.6	9546.1	9805.9	9540.2	9397.7	9272.0	9076.9	8650.7
55°	7716.9	7825.8	8207.7	8927.2	9741.3	10227.3	10263.2	10199.8	10058.5	9750.9	9099.6
57.5°	6735.2	6896.8	7501.4	8623.1	9737.7	10590.1	10972.0	11017.5	10859.4	10418.9	9452.8
60°	5375.2	5594.3	6331.8	7949.1	9437.2	10786.4	11593.3	11820.7	11653.1	11077.3	9738.9
62.5°	3750.7	4004.5	4702.4	6893.2	8750.0	10645.1	12047.0	12467.2	12340.3	11666.3	9849.0
65°	2287.8	2369.2	2931.8	5424.3	7581.6	10053.7	12187.1	12816.8	12774.9	12026.7	9686.2
67.5°	1524.0	1592.2	1753.8	3719.6	5885.2	8872.1	11851.9	12755.7	12767.7	11968.0	9090.0
70°	918.2	976.9	1082.2	2163.3	3814.1	7022.5	10813.9	11977.6	12047.0	11183.9	7959.9
72.5°	378.3	417.8	513.6	980.5	1975.3	4457.0	8611.2	10283.6	10445.2	9403.7	6109.1
75°	214.3	234.6	301.7	492.0	857.2	2077.1	5216.0	7300.3	7538.5	6481.4	3675.3
77.5°	142.5	152.0	195.1	318.4	482.5	708.7	2229.1	3803.4	4258.3	3540.0	1591.0
80°	95.8	104.2	134.1	213.1	313.7	304.1	709.9	1409.1	1733.5	1216.3	387.9
82.5°	64.6	65.8	95.8	140.1	198.7	147.3	209.5	438.2	550.7	352.0	147.3
85°	37.1	35.9	70.6	81.4	88.6	61.1	63.4	131.7	172.4	148.4	83.8
87.5°	4.8	7.2	27.5	21.5	12.0	13.2	13.2	22.7	33.5	35.9	18.0
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°	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1	2077.1
2.5°	2079.5	2078.3	2074.7	2071.1	2062.7	2057.9	2060.3	2057.9	2056.7	2057.9	2062.7
5°	2095.0	2091.4	2081.9	2069.9	2053.1	2032.8	2019.6	2000.5	1982.5	1971.7	1974.1
7.5°	2136.9	2133.3	2120.2	2086.6	2032.8	1947.8	1870.0	1801.7	1750.2	1720.3	1721.5
10°	2204.0	2198.0	2177.6	2103.4	1962.1	1776.6	1622.2	1494.1	1410.3	1370.7	1367.2
12.5°	2283.0	2275.8	2239.9	2087.8	1828.1	1538.3	1325.3	1182.8	1105.0	1070.3	1066.7
15°	2376.4	2366.8	2296.2	2013.6	1632.9	1275.0	1079.8	973.3	923.0	891.9	893.1
17.5°	2492.5	2475.7	2338.1	1902.3	1421.0	1073.9	929.0	848.8	804.5	774.6	772.2
20°	2643.3	2615.8	2371.6	1769.4	1225.9	947.0	827.2	760.2	726.7	700.3	695.5
22.5°	2854.0	2814.5	2412.3	1625.7	1088.2	859.6	751.8	702.7	675.2	645.3	640.5
25°	3115.0	3068.3	2462.6	1492.9	993.6	784.1	696.7	656.0	623.7	589.0	585.4
27.5°	3480.1	3396.3	2522.4	1383.9	912.2	719.5	646.5	601.0	563.9	535.1	529.1
30°	3887.2	3749.5	2575.1	1318.1	838.0	659.6	580.6	535.1	500.4	480.1	476.5
32.5°	4272.7	4085.9	2609.8	1289.3	771.0	591.4	508.8	459.7	433.4	427.4	431.0
35°	4636.6	4390.0	2606.2	1261.8	711.1	523.2	438.2	387.9	367.5	371.1	371.1
37.5°	5055.6	4714.4	2581.1	1218.7	662.0	460.9	377.1	332.8	314.9	316.0	320.8
40°	5542.8	5089.1	2565.5	1137.3	608.2	403.4	326.8	290.9	277.7	273.0	271.8
42.5°	6062.4	5451.9	2567.9	1045.1	541.1	352.0	292.1	262.2	250.2	246.6	245.4
45°	6584.4	5797.8	2571.5	949.3	470.5	312.5	267.0	241.8	234.6	229.9	229.9
47.5°	7075.2	6092.3	2504.5	846.4	401.0	282.5	246.6	229.9	223.9	217.9	217.9
50°	7532.5	6288.7	2342.8	726.7	346.0	258.6	231.1	219.1	213.1	207.1	207.1
52.5°	7888.1	6319.8	2075.9	603.4	307.7	240.6	221.5	210.7	203.5	197.5	196.3
55°	8046.1	6124.7	1696.4	488.4	277.7	225.1	211.9	201.1	192.7	186.8	185.6
57.5°	8005.4	5714.0	1322.9	392.7	249.0	209.5	199.9	192.7	183.2	173.6	172.4
60°	7805.5	5164.5	997.2	326.8	222.7	192.7	186.8	180.8	167.6	153.2	150.8
62.5°	7459.5	4473.8	711.1	270.6	193.9	173.6	171.2	166.4	147.3	120.9	118.5
65°	6930.4	3634.6	478.9	225.1	166.4	152.0	153.2	144.9	119.7	89.8	87.4
67.5°	6157.0	2657.7	306.5	184.4	138.9	126.9	128.1	123.3	101.8	76.6	73.0
70°	5171.7	1759.8	199.9	140.1	111.3	98.2	105.3	106.5	86.2	62.3	59.9
72.5°	3791.4	1039.1	140.1	104.2	81.4	68.2	86.2	88.6	69.4	46.7	44.3
75°	2160.9	493.2	105.3	75.4	50.3	47.9	67.0	67.0	47.9	31.1	28.7
77.5°	907.4	205.9	74.2	49.1	28.7	27.5	45.5	41.9	23.9	14.4	14.4
80°	262.2	92.2	39.5	23.9	12.0	10.8	18.0	13.2	6.0	2.4	2.4
82.5°	103.0	40.7	15.6	9.6	4.8	4.8	2.4	0.0	0.0	0.0	0.0
85°	61.1	16.8	7.2	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.6	3.6	2.4	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)