

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: P962896

Luminaire Tested: **NAV-SB2D-722-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962896
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-722-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13169.2 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

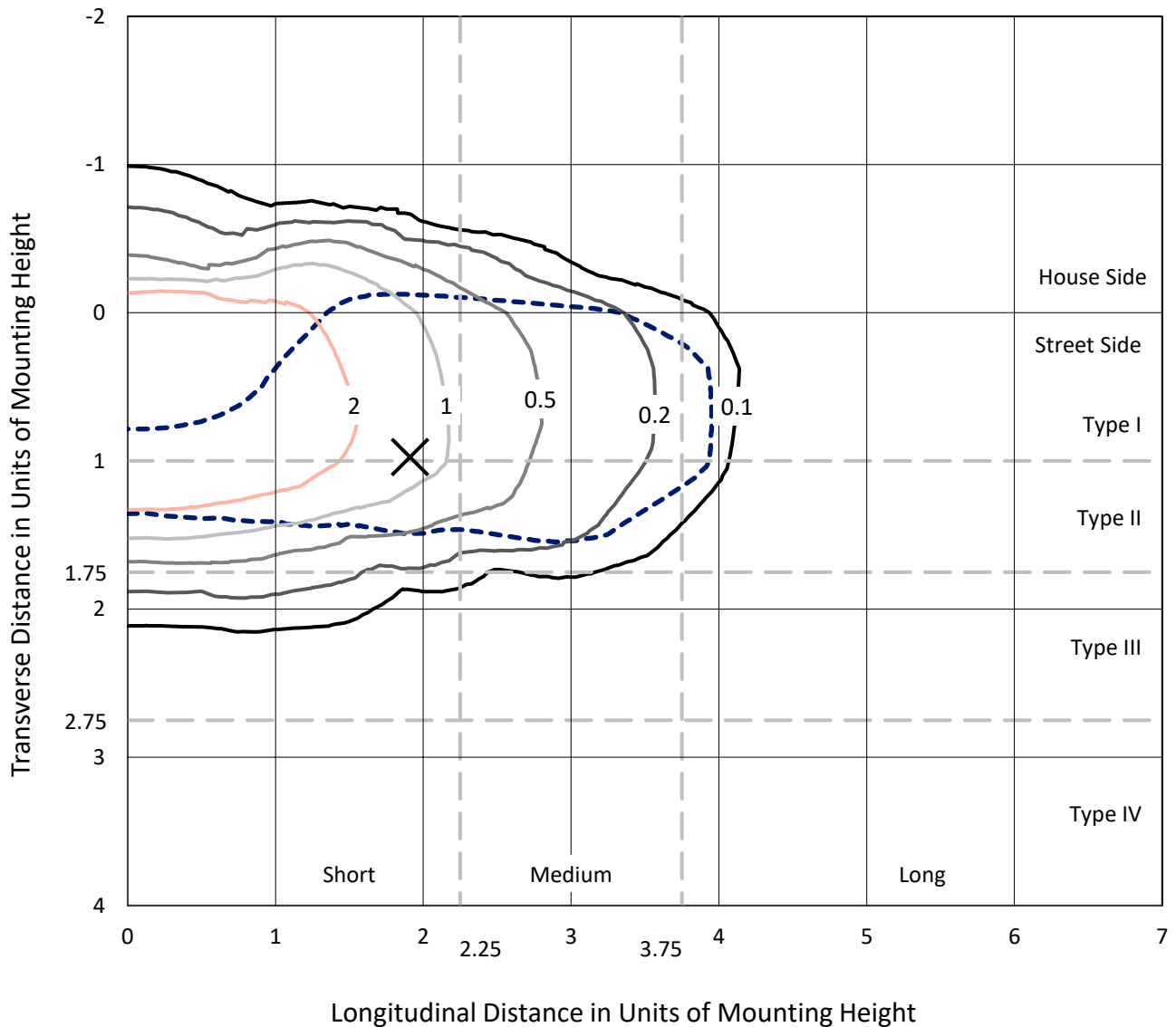
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P962896
 CATALOG NUMBER: NAV-SB2D-722-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

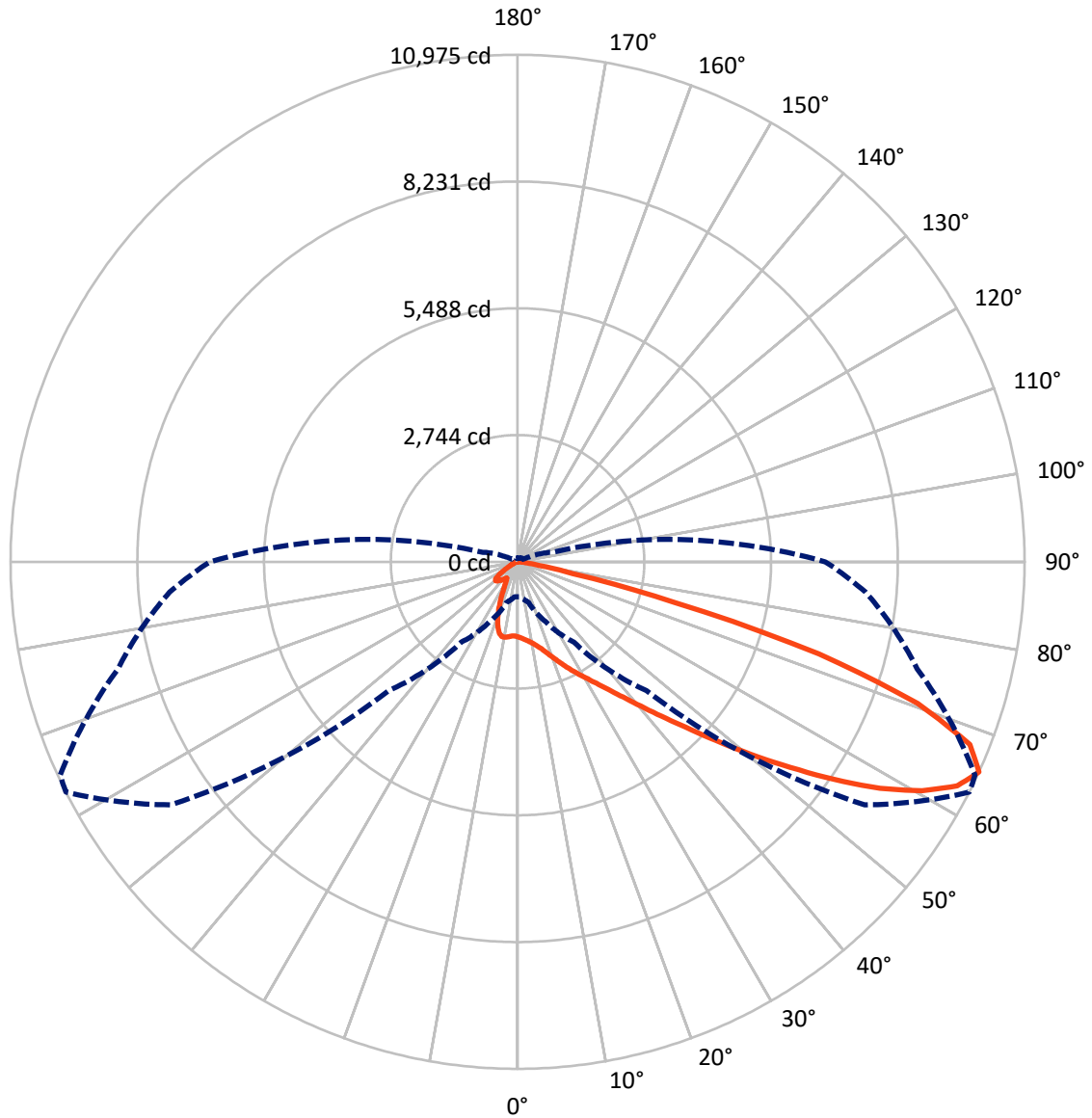
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Short - N/A

REPORT NUMBER: P962896
CATALOG NUMBER: NAV-SB2D-722-U-T2U-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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 CATALOG NUMBER: NAV-SB2D-722-U-T2U-HSS

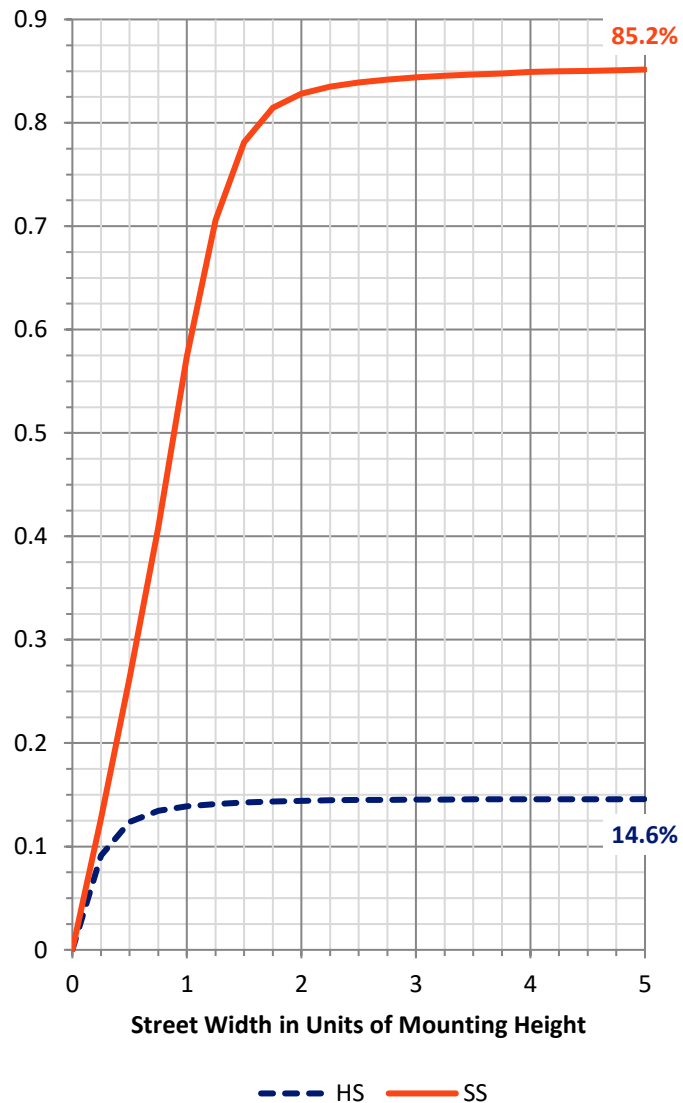
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1935.8	0.0	1935.8
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	11233.4	0.0	11233.4
	% Fixture	85.3	0.0	85.3
Total	Lumens	13169.2	0.0	13169.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.1	1.2
10°-20°	424.9	3.2
20°-30°	739.9	5.6
30°-40°	1333.5	10.1
40°-50°	2644.8	20.1
50°-60°	3602.6	27.4
60°-70°	2875.6	21.8
70°-80°	1301.3	9.9
80°-90°	93.5	0.7
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°	13169.2	100.0
0°-180°	13169.2	100.0

Coefficient of Utilization

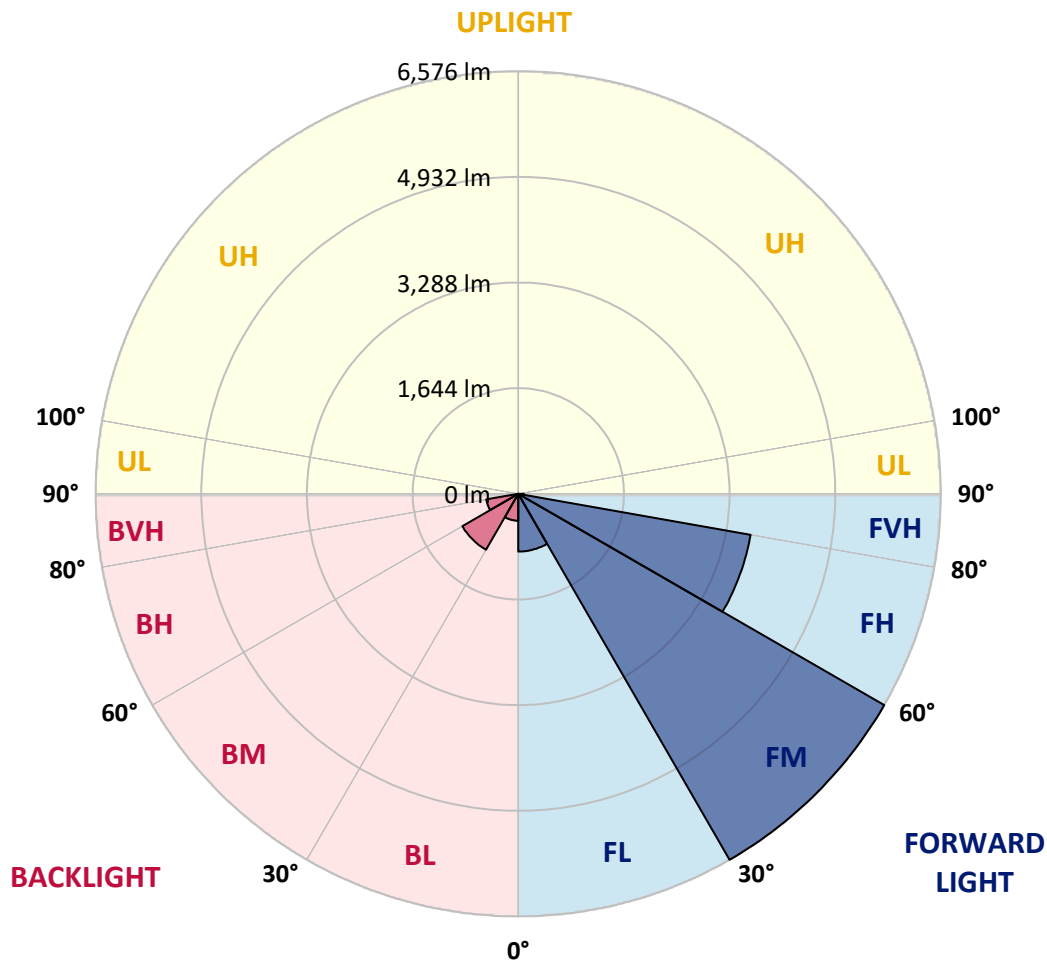


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 CATALOG NUMBER: NAV-SB2D-722-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	899.0	6.8			
FM (30°-60°)	6576.4	49.9			
FH (60°-80°)	3671.5	27.9			G2/5000
FVH (80°-90°)	86.6	0.7			G1/100
BL (0°-30°)	418.9	3.2	B1/500		
BM (30°-60°)	1004.5	7.6	B2/2500		
BH (60°-80°)	505.3	3.8	B2/1000		G2/1000
BVH (80°-90°)	6.9	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3
2.5°	1663.4	1658.9	1665.2	1662.4	1660.7	1657.0	1655.3	1653.4	1649.8	1647.1	1636.2
5°	1667.9	1665.2	1671.6	1677.0	1682.4	1687.9	1690.5	1694.2	1690.5	1683.4	1672.4
7.5°	1629.9	1628.0	1641.6	1657.9	1682.4	1703.2	1725.9	1738.6	1739.5	1736.8	1725.0
10°	1627.2	1622.6	1636.2	1656.1	1687.9	1725.0	1764.8	1792.0	1795.7	1807.4	1794.8
12.5°	1669.7	1665.2	1684.2	1706.0	1738.6	1777.6	1826.4	1864.5	1869.9	1886.2	1877.2
15°	1741.3	1734.9	1756.6	1784.7	1826.4	1870.8	1922.5	1956.9	1961.4	1981.4	1965.0
17.5°	1824.6	1818.4	1843.7	1873.6	1918.9	1979.6	2039.3	2077.4	2082.8	2095.5	2065.7
20°	1931.5	1923.4	1943.3	1970.5	2018.5	2091.0	2162.5	2217.0	2216.0	2216.0	2167.1
22.5°	2055.6	2043.0	2060.1	2082.0	2127.3	2215.1	2310.2	2374.6	2374.6	2349.2	2268.5
25°	2188.9	2176.2	2195.1	2215.1	2255.0	2354.6	2466.0	2545.8	2549.4	2505.9	2377.3
27.5°	2355.6	2339.3	2353.7	2377.3	2400.9	2502.3	2634.6	2727.0	2728.9	2661.7	2480.6
30°	2676.3	2630.0	2584.7	2559.4	2570.3	2670.8	2812.2	2914.6	2923.6	2831.2	2592.9
32.5°	3263.3	3254.3	3094.8	2886.5	2777.7	2852.1	3010.5	3133.8	3139.3	3020.6	2738.8
35°	4175.6	4164.8	3908.4	3511.5	3157.3	3094.8	3251.6	3397.5	3393.8	3259.7	2928.1
37.5°	5264.6	5254.7	4916.7	4385.9	3812.4	3461.7	3562.3	3715.4	3738.1	3562.3	3172.8
40°	6195.1	6158.0	5944.2	5432.3	4682.1	4070.6	4004.5	4105.9	4129.4	3921.0	3483.5
42.5°	6900.0	6868.2	6759.6	6439.7	5734.9	4971.1	4525.4	4564.3	4590.6	4340.6	3840.5
45°	7265.1	7257.8	7301.3	7271.4	6807.5	6076.4	5270.0	5107.9	5117.9	4805.3	4245.4
47.5°	7316.7	7313.1	7511.5	7792.4	7729.8	7323.0	6225.8	5785.6	5750.2	5329.9	4685.7
50°	7012.3	7005.1	7385.5	7911.9	8345.9	8370.4	7311.2	6549.3	6471.4	5872.5	5145.1
52.5°	6040.1	6038.4	6663.5	7539.6	8562.4	9287.2	8384.0	7388.3	7257.8	6446.9	5630.6
55°	4647.7	4681.2	5397.9	6433.4	8167.4	9728.4	9347.0	8319.6	8119.4	7024.9	6078.2
57.5°	3292.3	3341.3	4049.8	4972.0	6942.5	9467.5	9998.4	9252.8	9037.1	7601.2	6532.1
60°	1768.4	1812.0	2521.3	3622.1	5165.0	8494.5	10341.7	10062.7	9858.9	8148.3	6941.6
62.5°	1053.7	1068.2	1361.7	2338.3	3493.5	6489.6	10195.9	10679.7	10512.1	8607.7	7297.7
65°	756.4	759.2	906.9	1427.8	2120.9	3942.9	9173.0	10975.1	10923.4	8953.8	7561.3
67.5°	636.9	635.1	696.7	948.5	1445.0	1975.1	7030.4	10557.4	10776.6	9173.0	7710.8
70°	546.3	549.0	621.5	694.8	1086.3	1118.0	3495.2	9192.1	9659.6	9231.0	7701.7
72.5°	406.8	415.8	482.9	633.2	819.9	769.2	1206.7	6815.7	7661.0	8697.4	7302.2
75°	287.2	291.7	339.8	532.7	611.5	559.9	616.0	3523.3	4606.9	6668.0	5976.8
77.5°	221.1	229.2	257.3	372.4	602.5	393.2	376.9	1219.4	1873.6	4027.9	4097.7
80°	119.6	134.1	185.7	269.1	423.1	278.2	186.7	485.6	635.1	1883.5	1580.0
82.5°	61.6	68.9	129.6	193.9	241.0	242.8	92.5	202.0	261.8	581.7	216.5
85°	24.5	29.9	87.0	106.9	124.1	119.6	41.7	81.5	94.2	161.2	66.1
87.5°	5.4	9.0	31.7	24.5	23.6	25.3	9.9	19.1	18.1	19.1	11.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P962896
 CATALOG NUMBER: NAV-SB2D-722-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3	1625.3
2.5°	1635.3	1631.7	1621.8	1610.8	1598.2	1590.9	1586.4	1585.5	1579.1	1574.6	1579.1
5°	1662.4	1658.9	1639.8	1617.1	1592.7	1573.7	1555.5	1539.2	1515.7	1511.2	1509.3
7.5°	1716.9	1706.8	1676.1	1645.2	1599.1	1543.8	1476.7	1399.7	1330.9	1310.1	1300.1
10°	1783.9	1770.3	1731.3	1677.0	1574.6	1424.2	1262.0	1111.6	992.1	958.5	945.9
12.5°	1860.0	1848.2	1796.5	1696.0	1472.2	1199.6	951.3	764.6	648.7	619.7	611.5
15°	1950.6	1933.4	1861.8	1667.0	1289.2	911.4	653.2	542.6	501.0	495.6	490.2
17.5°	2046.6	2018.5	1919.7	1562.8	1042.7	647.8	504.6	472.9	454.8	449.4	446.7
20°	2134.5	2098.3	1954.2	1405.2	779.1	504.6	452.1	431.2	414.9	408.6	405.0
22.5°	2222.4	2170.7	1954.2	1190.4	584.4	447.5	414.9	396.0	376.9	368.7	364.2
25°	2313.8	2245.1	1919.7	951.3	470.2	410.4	379.6	358.7	342.5	332.5	328.8
27.5°	2402.7	2307.5	1841.0	724.8	418.6	377.8	347.0	327.1	311.7	304.4	304.4
30°	2487.0	2369.2	1730.4	549.9	385.1	346.0	317.1	299.9	284.4	277.3	278.2
32.5°	2601.0	2447.1	1612.6	451.2	356.1	316.2	289.9	273.6	260.0	254.6	254.6
35°	2759.6	2562.1	1511.2	443.0	331.6	291.7	265.5	250.1	236.5	232.0	232.0
37.5°	2984.3	2747.8	1457.8	497.4	311.7	270.0	245.5	229.2	216.5	212.9	212.0
40°	3261.5	2999.7	1486.8	551.8	298.1	250.9	227.4	211.0	200.2	195.7	194.7
42.5°	3590.4	3310.4	1647.1	593.4	289.0	234.6	210.2	192.1	184.8	183.0	183.0
45°	3968.2	3652.0	1892.6	637.9	274.5	219.2	193.0	179.4	173.9	173.0	172.1
47.5°	4397.7	4027.1	2177.1	693.1	260.0	204.8	179.4	170.4	165.8	164.0	164.0
50°	4823.4	4404.8	2469.7	723.9	248.3	191.2	168.5	161.2	157.6	156.7	156.7
52.5°	5269.2	4793.5	2706.2	694.8	238.3	180.3	159.5	154.1	150.4	149.4	149.4
55°	5694.1	5107.9	2746.9	589.8	218.3	169.4	149.4	146.8	142.3	142.3	141.3
57.5°	6060.1	5265.5	2458.9	433.1	198.4	153.1	139.5	136.8	133.1	132.2	131.4
60°	6396.2	5220.2	1898.0	291.7	176.7	136.8	126.8	125.0	121.4	116.8	115.9
62.5°	6585.5	5021.0	1298.3	190.2	154.9	119.6	112.3	111.4	103.3	94.2	92.5
65°	6657.2	4611.5	810.0	138.6	129.6	102.4	97.0	95.1	83.3	73.4	72.5
67.5°	6594.6	3937.4	408.6	109.6	102.4	85.2	79.7	79.7	71.5	62.5	61.6
70°	6344.5	2951.7	172.1	87.8	78.8	65.2	65.2	68.9	60.7	50.7	49.8
72.5°	5801.9	1985.9	91.5	67.0	58.9	46.2	53.4	56.2	48.0	38.0	38.0
75°	4612.3	1211.3	63.4	49.8	37.1	32.6	40.8	42.5	32.6	25.3	24.5
77.5°	3154.6	695.8	42.5	31.7	23.6	19.1	28.1	26.2	17.2	11.8	12.7
80°	1385.3	289.9	24.5	14.5	9.0	7.3	9.9	7.3	5.4	3.6	3.6
82.5°	162.2	68.0	9.0	5.4	3.6	1.8	0.9	0.0	0.0	0.0	0.0
85°	33.5	8.2	4.5	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.4	1.8	0.9	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)