

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: P884330

Luminaire Tested: **NAV-SB5A-830-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884330  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

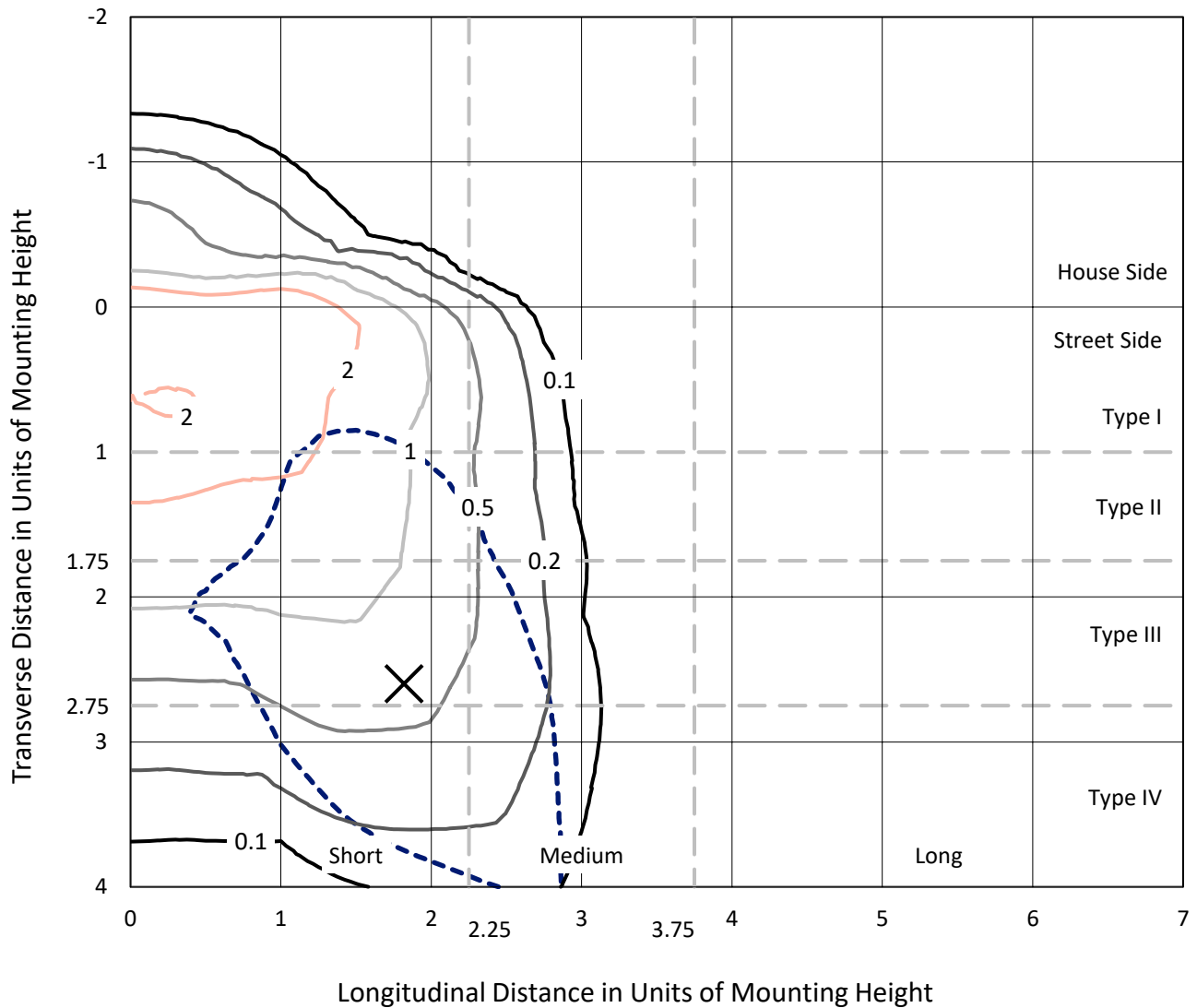
Lumens per Lamp: N/A  
Luminaire Lumens: 15080 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.201  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 10.503  
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

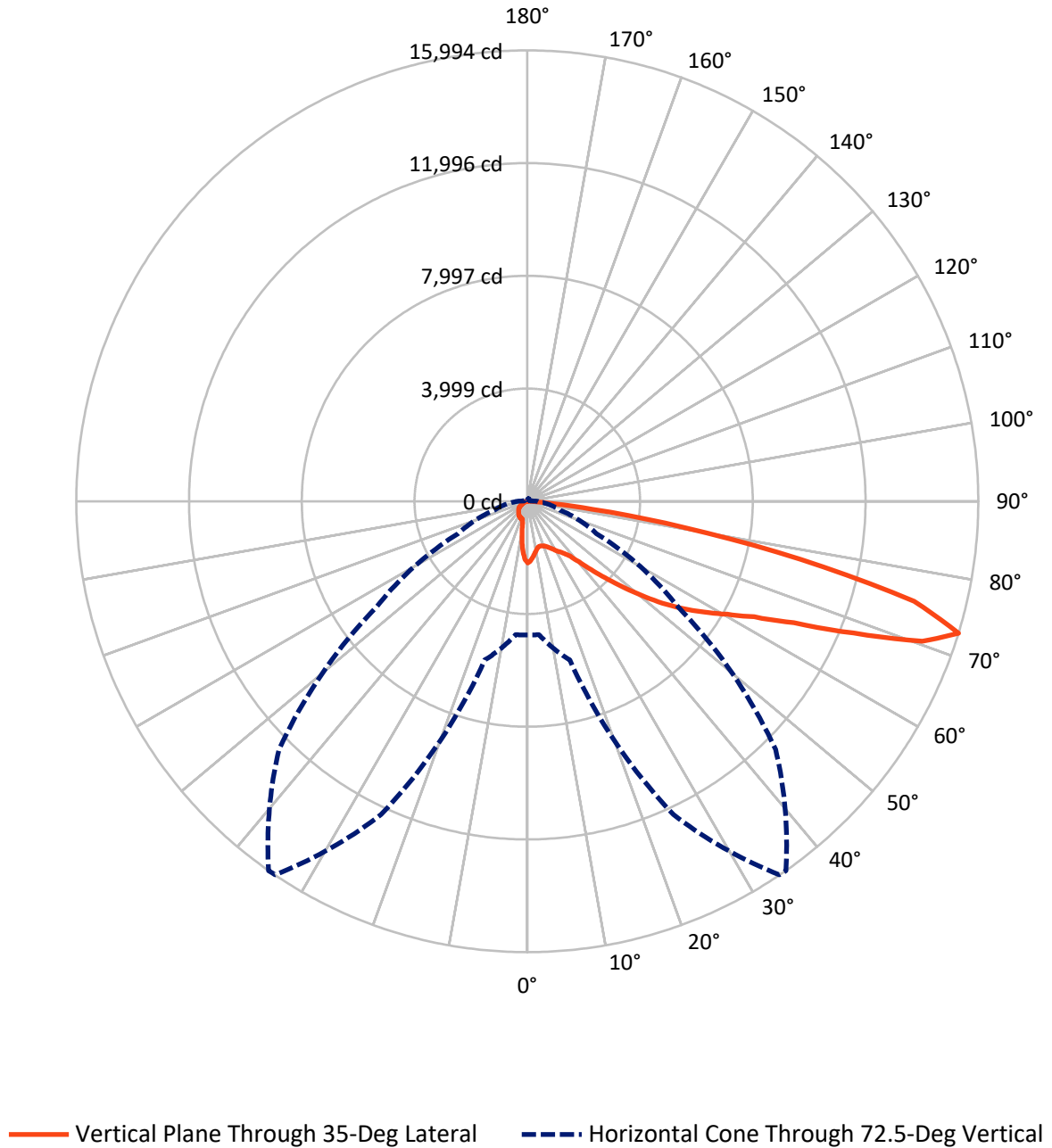
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1697.2	0.0	1697.2
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	13382.8	0.0	13382.8
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	15080.0	0.0	15080.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.6	1.2
10°-20°	420.1	2.8
20°-30°	682.5	4.5
30°-40°	1138.8	7.6
40°-50°	2154.6	14.3
50°-60°	3423.6	22.7
60°-70°	4235.3	28.1
70°-80°	2632.7	17.5
80°-90°	212.8	1.4
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°	15080.0	100.0
0°-180°	15080.0	100.0

**Coefficient of Utilization**



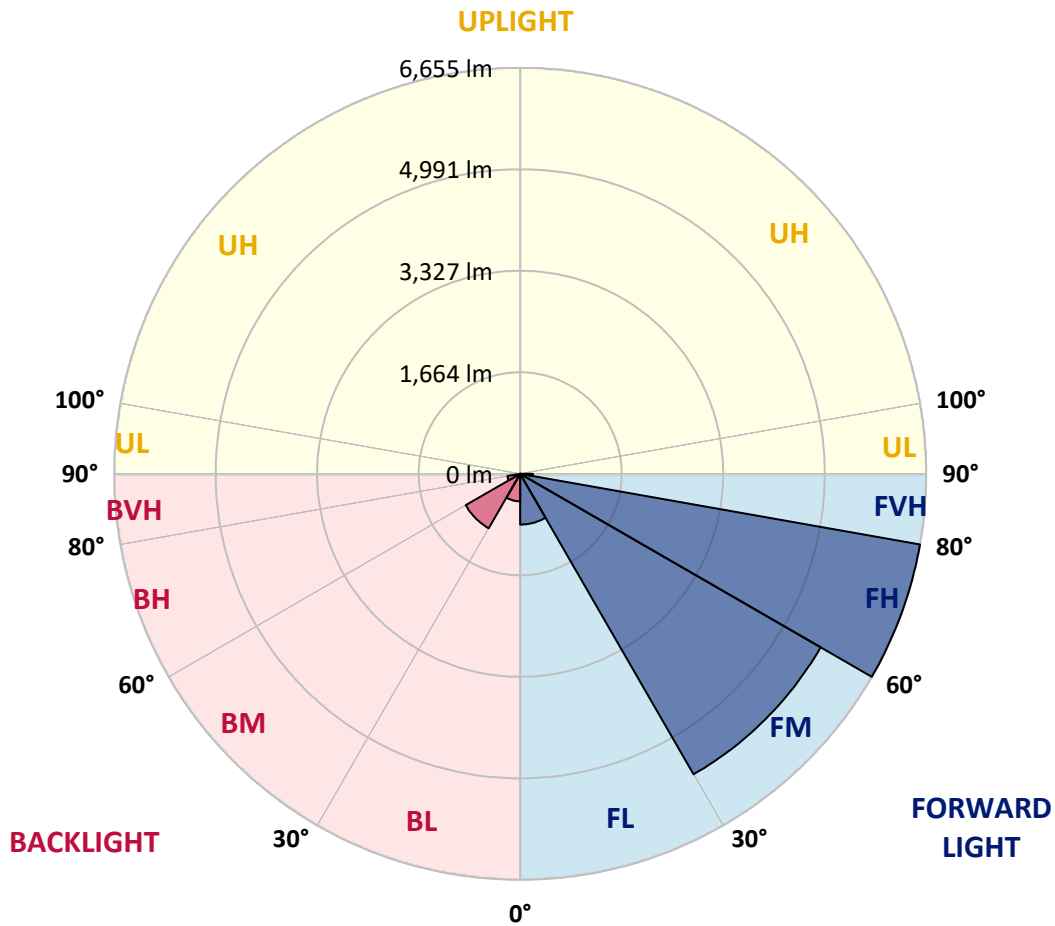
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	831.3	5.5			
FM (30°-60°)	5686.7	37.7			
FH (60°-80°)	6655.0	44.1			G3/7500
FVH (80°-90°)	209.9	1.4			G2/225
BL (0°-30°)	451.0	3.0	B1/500		
BM (30°-60°)	1030.3	6.8	B2/2500		
BH (60°-80°)	213.0	1.4	B1/500		G1/500
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-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6
2.5°	2088.4	2106.0	2109.4	2114.9	2114.9	2121.5	2132.6	2148.0	2173.4	2186.7	2195.5
5°	1924.8	1938.1	1954.7	1967.9	1993.3	1996.7	2039.7	2081.7	2140.3	2184.5	2215.4
7.5°	1760.2	1775.7	1797.8	1829.8	1863.0	1872.9	1938.1	2008.8	2101.6	2184.5	2236.4
10°	1644.2	1645.3	1665.2	1697.2	1750.2	1762.4	1842.0	1942.5	2058.5	2171.2	2256.3
12.5°	1579.0	1586.7	1595.6	1619.9	1670.7	1678.4	1763.5	1881.7	2015.4	2163.5	2279.5
15°	1579.0	1584.5	1590.0	1602.2	1643.1	1649.7	1724.8	1843.1	1993.3	2166.8	2317.1
17.5°	1595.6	1604.4	1600.0	1614.3	1657.4	1661.8	1728.1	1832.0	1992.2	2187.8	2374.5
20°	1635.3	1642.0	1633.1	1642.0	1685.1	1693.9	1762.4	1853.0	2011.0	2224.3	2446.4
22.5°	1698.3	1701.6	1680.6	1687.3	1731.5	1742.5	1822.1	1912.7	2056.3	2282.8	2542.5
25°	1777.9	1784.5	1752.5	1760.2	1802.2	1815.4	1907.1	2002.2	2128.1	2363.5	2665.1
27.5°	1869.6	1872.9	1845.3	1844.2	1898.3	1917.1	2009.9	2112.7	2224.3	2465.2	2819.8
30°	1974.6	1984.5	1958.0	1953.6	2022.1	2037.5	2129.2	2248.6	2365.7	2617.6	3039.7
32.5°	2057.4	2065.2	2049.7	2060.7	2130.3	2142.5	2274.0	2440.8	2587.8	2834.2	3339.2
35°	2176.8	2181.2	2145.8	2165.7	2245.3	2276.2	2471.8	2710.5	2867.4	3106.0	3730.3
37.5°	2608.8	2608.8	2458.5	2360.2	2436.4	2464.0	2742.5	3049.7	3212.1	3470.7	4223.1
40°	3206.6	3196.6	2976.7	2775.6	2765.7	2819.8	3128.1	3477.3	3657.4	3908.2	4777.8
42.5°	3844.1	3828.7	3529.2	3330.3	3297.2	3316.0	3573.4	4004.4	4187.8	4441.9	5374.5
45°	4409.9	4405.4	4131.4	3864.0	3804.4	3864.0	4129.2	4620.9	4752.4	5019.8	5970.1
47.5°	4883.9	4883.9	4683.9	4509.3	4478.4	4513.7	4881.7	5304.9	5292.7	5635.3	6550.2
50°	5429.7	5425.3	5235.3	5160.1	5192.2	5241.9	5748.0	6025.3	5851.8	6239.7	7068.4
52.5°	5812.1	5838.6	5773.4	5761.2	5924.8	6010.9	6627.5	6730.3	6352.4	6813.1	7456.2
55°	6114.8	6145.8	6220.9	6306.0	6620.9	6733.6	7479.4	7398.8	6771.2	7310.4	7679.4
57.5°	6543.5	6499.3	6615.4	6783.3	7292.7	7428.6	8304.8	8029.7	7108.2	7713.7	7703.7
60°	7064.0	7070.6	7090.5	7302.6	7963.4	8138.0	9118.1	8626.4	7324.7	7961.2	7434.1
62.5°	7689.4	7699.3	7740.2	8066.2	8863.9	9028.6	9984.4	9114.8	7424.2	7891.6	6738.0
65°	7646.3	7688.3	8144.6	9259.5	10233.0	10395.4	10995.4	9457.3	7273.9	7255.1	5486.1
67.5°	6965.6	7034.1	7797.7	10684.9	12297.0	12478.2	12217.5	9524.7	6625.3	5641.9	3578.9
70°	6072.8	6097.1	7015.3	11966.6	14687.0	14870.5	13311.4	8783.3	5027.5	3146.9	1603.3
72.5°	4742.5	4748.0	5825.3	12263.9	15984.3	15994.2	12452.8	6520.3	2703.8	1208.8	556.9
75°	3387.8	3354.6	3901.6	9945.7	14062.7	14175.4	9335.8	3058.5	1033.1	571.3	277.3
77.5°	1816.5	1853.0	2207.7	5898.2	9714.7	9907.0	5093.8	881.8	526.0	388.9	183.4
80°	561.3	592.3	905.0	2700.5	5502.7	5618.7	1888.4	392.3	366.8	277.3	120.4
82.5°	176.8	183.4	422.1	1134.8	2283.9	2337.0	547.0	222.1	250.8	183.4	70.7
85°	50.8	51.9	187.8	423.2	564.6	575.7	153.6	86.2	143.6	113.8	36.5
87.5°	5.5	17.7	70.7	70.7	49.7	48.6	16.6	18.8	40.9	14.4	6.6
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°	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6	2185.6
2.5°	2190.0	2191.1	2176.8	2152.4	2125.9	2103.8	2076.2	2054.1	2038.6	2034.2	2042.0
5°	2205.5	2197.8	2156.9	2082.8	1994.4	1918.2	1833.1	1765.7	1721.5	1702.7	1709.4
7.5°	2228.7	2206.6	2117.1	1971.2	1802.2	1651.9	1499.4	1381.2	1306.1	1268.5	1274.0
10°	2248.6	2204.4	2050.8	1809.9	1551.4	1323.7	1118.2	975.7	896.1	858.5	859.7
12.5°	2267.4	2203.3	1964.6	1618.8	1268.5	990.0	798.9	728.2	706.1	698.3	696.1
15°	2302.7	2206.6	1856.3	1400.0	986.7	748.1	678.4	677.3	681.8	679.5	678.4
17.5°	2351.3	2209.9	1733.7	1167.9	761.3	659.7	656.3	666.3	672.9	669.6	668.5
20°	2414.3	2223.2	1603.3	938.1	654.1	637.6	645.3	654.1	659.7	654.1	653.0
22.5°	2502.7	2246.4	1460.7	753.6	619.9	624.3	630.9	640.9	646.4	638.7	637.6
25°	2611.0	2282.8	1320.4	655.2	603.3	608.8	618.8	629.8	636.5	628.7	627.6
27.5°	2751.3	2341.4	1191.1	633.1	586.7	590.0	604.4	621.0	629.8	619.9	619.9
30°	2954.6	2437.5	1079.5	643.1	576.8	569.1	588.9	612.1	622.1	613.2	612.1
32.5°	3224.3	2573.4	1011.0	658.6	572.4	544.7	563.5	593.4	609.9	604.4	604.4
35°	3577.8	2780.1	984.5	676.2	569.1	519.3	532.6	564.6	593.4	598.9	598.9
37.5°	4006.6	3067.4	992.2	684.0	559.1	498.3	505.0	532.6	570.2	587.8	592.3
40°	4493.8	3402.2	1036.4	676.2	548.1	480.7	481.8	502.8	535.9	562.4	571.3
42.5°	4996.6	3793.3	1118.2	647.5	538.1	465.2	461.9	476.2	498.3	517.1	524.9
45°	5475.0	4195.5	1198.9	607.7	526.0	449.7	442.0	447.5	451.9	459.7	464.1
47.5°	5892.7	4478.4	1175.7	571.3	509.4	432.0	418.8	416.6	403.3	402.2	401.1
50°	6181.1	4540.3	1044.2	534.8	485.1	412.1	391.2	377.9	354.7	343.6	344.7
52.5°	6272.8	4296.1	853.0	498.3	445.3	385.6	355.8	334.8	306.1	296.1	295.0
55°	6151.3	3817.6	681.8	454.1	390.0	350.3	317.1	289.5	266.3	254.1	254.1
57.5°	5854.0	3208.8	539.2	402.2	331.5	310.5	277.3	249.7	229.8	217.7	215.5
60°	5361.2	2548.0	426.5	340.3	282.9	267.4	233.1	215.5	197.8	183.4	180.1
62.5°	4613.2	1818.8	334.8	269.6	236.5	218.8	198.9	185.6	164.6	144.7	141.4
65°	3599.9	1112.7	258.6	197.8	190.1	181.2	169.1	156.9	131.5	111.6	108.3
67.5°	2270.7	527.1	184.5	149.2	150.3	145.9	140.3	130.4	111.6	93.9	91.7
70°	1000.0	255.2	121.5	113.8	111.6	111.6	116.0	112.7	95.0	78.5	75.1
72.5°	340.3	137.0	90.6	86.2	80.7	79.6	97.2	93.9	76.2	60.8	57.5
75°	177.9	91.7	66.3	61.9	48.6	58.6	77.3	72.9	54.1	39.8	36.5
77.5°	116.0	65.2	45.3	39.8	27.6	38.7	57.5	50.8	32.0	19.9	17.7
80°	72.9	43.1	26.5	18.8	13.3	21.0	30.9	22.1	12.2	4.4	3.3
82.5°	38.7	22.1	9.9	6.6	5.5	6.6	7.7	5.5	2.2	0.0	0.0
85°	15.5	7.7	3.3	2.2	1.1	0.0	2.2	1.1	0.0	0.0	0.0
87.5°	5.5	1.1	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)