

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: P884340

Luminaire Tested: **NAV-SB5A-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884340
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-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 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: 14541 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

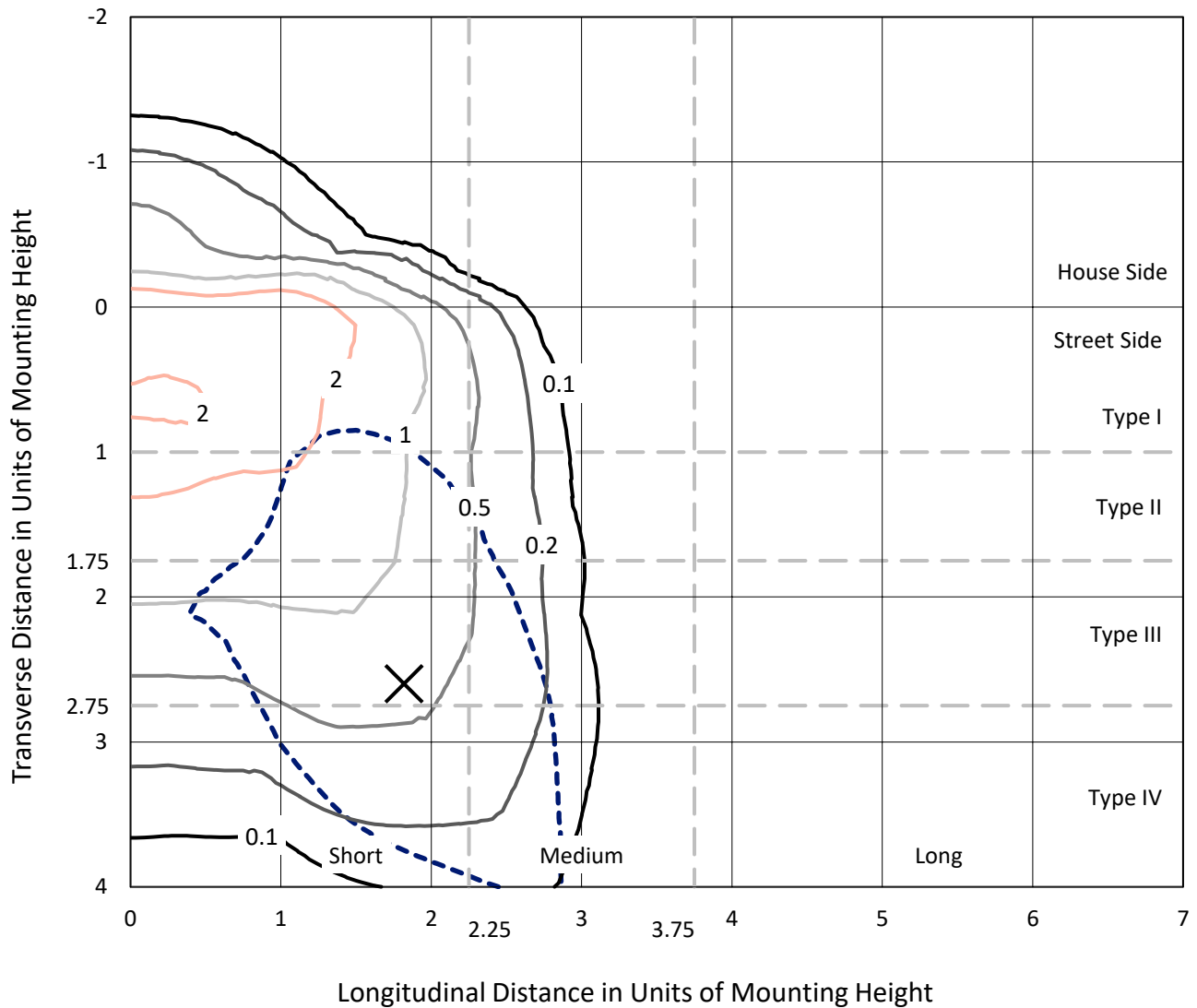
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

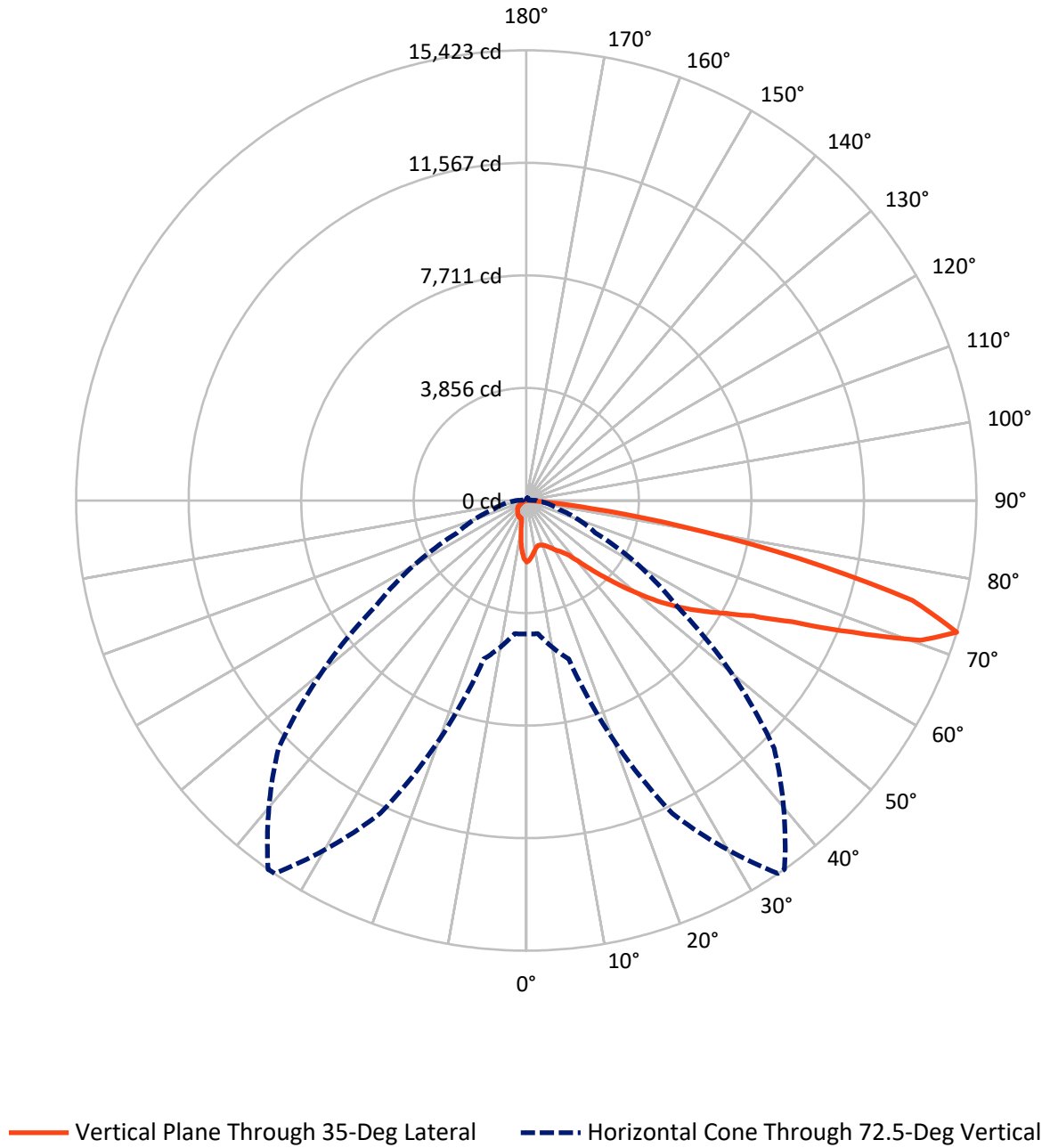
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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CATALOG NUMBER: NAV-SB5A-835-U-T4FT-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1636.5	0.0	1636.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12904.5	0.0	12904.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	14541.0	0.0	14541.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.2	1.2
10°-20°	405.1	2.8
20°-30°	658.1	4.5
30°-40°	1098.1	7.6
40°-50°	2077.6	14.3
50°-60°	3301.3	22.7
60°-70°	4083.9	28.1
70°-80°	2538.6	17.5
80°-90°	205.2	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°	14541.0	100.0
0°-180°	14541.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884340

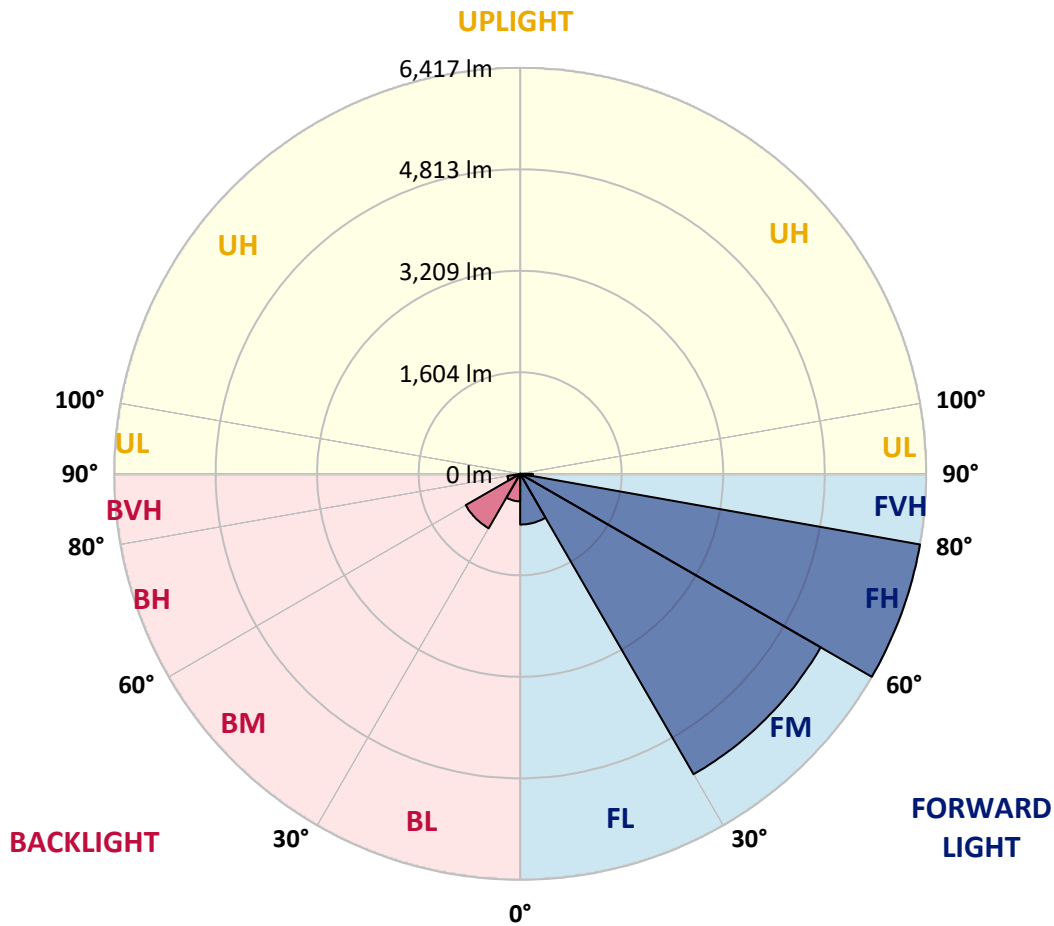
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	801.6	5.5			
FM (30°-60°)	5483.4	37.7			
FH (60°-80°)	6417.1	44.1			G3/7500
FVH (80°-90°)	202.4	1.4			G2/225
BL (0°-30°)	434.9	3.0	B1/500		
BM (30°-60°)	993.5	6.8	B1/1000		
BH (60°-80°)	205.4	1.4	B1/500		G1/500
BVH (80°-90°)	2.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



REPORT NUMBER: P884340
 CATALOG NUMBER: NAV-SB5A-835-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5
2.5°	2013.7	2030.8	2034.0	2039.3	2039.3	2045.7	2056.3	2071.3	2095.8	2108.5	2117.1
5°	1856.0	1868.8	1884.8	1897.6	1922.1	1925.3	1966.8	2007.3	2063.8	2106.4	2136.2
7.5°	1697.3	1712.2	1733.5	1764.4	1796.4	1806.0	1868.8	1937.0	2026.5	2106.4	2156.5
10°	1585.4	1586.5	1605.6	1636.5	1687.7	1699.4	1776.1	1873.1	1985.0	2093.6	2175.7
12.5°	1522.5	1530.0	1538.5	1562.0	1611.0	1618.4	1700.5	1814.5	1943.4	2086.2	2198.0
15°	1522.5	1527.9	1533.2	1544.9	1584.3	1590.7	1663.2	1777.2	1922.1	2089.4	2234.3
17.5°	1538.5	1547.0	1542.8	1556.6	1598.2	1602.5	1666.4	1766.5	1921.0	2109.6	2289.7
20°	1576.9	1583.3	1574.7	1583.3	1624.8	1633.3	1699.4	1786.8	1939.1	2144.8	2358.9
22.5°	1637.6	1640.8	1620.6	1627.0	1669.6	1680.2	1756.9	1844.3	1982.8	2201.2	2451.6
25°	1714.3	1720.7	1689.8	1697.3	1737.8	1750.5	1839.0	1930.6	2052.1	2279.0	2569.9
27.5°	1802.8	1806.0	1779.3	1778.3	1830.5	1848.6	1938.1	2037.2	2144.8	2377.0	2719.1
30°	1904.0	1913.6	1888.0	1883.7	1949.8	1964.7	2053.1	2168.2	2281.1	2524.1	2931.1
32.5°	1983.9	1991.3	1976.4	1987.1	2054.2	2065.9	2192.7	2353.6	2495.3	2732.9	3219.8
35°	2099.0	2103.2	2069.1	2088.3	2165.0	2194.8	2383.4	2613.6	2764.9	2995.0	3597.0
37.5°	2515.5	2515.5	2370.6	2275.8	2349.3	2376.0	2644.5	2940.7	3097.3	3346.6	4072.2
40°	3092.0	3082.4	2870.3	2676.4	2666.8	2719.1	3016.3	3353.0	3526.7	3768.5	4607.0
42.5°	3706.7	3691.8	3403.1	3211.3	3179.3	3197.4	3445.7	3861.2	4038.1	4283.1	5182.4
45°	4252.2	4248.0	3983.8	3725.9	3668.4	3725.9	3981.6	4455.8	4582.5	4840.4	5756.7
47.5°	4709.3	4709.3	4516.5	4348.1	4318.3	4352.4	4707.2	5115.3	5103.5	5433.8	6316.0
50°	5235.7	5231.4	5048.1	4975.7	5006.6	5054.5	5542.5	5809.9	5642.7	6016.6	6815.7
52.5°	5604.3	5629.9	5567.0	5555.3	5713.0	5796.1	6390.6	6489.7	6125.3	6569.6	7189.7
55°	5896.3	5926.1	5998.5	6080.6	6384.2	6492.9	7212.1	7134.3	6529.1	7049.1	7404.9
57.5°	6309.6	6267.0	6378.9	6540.9	7032.0	7163.1	8008.0	7742.7	6854.1	7438.0	7428.4
60°	6811.5	6817.9	6837.1	7041.6	7678.8	7847.1	8792.2	8318.0	7062.9	7676.6	7168.4
62.5°	7414.5	7424.1	7463.5	7777.9	8547.1	8705.9	9627.5	8789.0	7158.8	7609.5	6497.2
65°	7373.0	7413.5	7853.5	8928.5	9867.2	10023.8	10602.4	9119.3	7013.9	6995.8	5290.0
67.5°	6716.7	6782.7	7518.9	10303.0	11857.5	12032.2	11780.8	9184.3	6388.5	5440.2	3451.0
70°	5855.8	5879.2	6764.6	11538.9	14162.1	14339.0	12835.6	8469.3	4847.8	3034.4	1546.0
72.5°	4573.0	4578.3	5617.1	11825.5	15412.9	15422.5	12007.7	6287.3	2607.2	1165.6	537.0
75°	3266.7	3234.7	3762.1	9590.2	13560.1	13668.8	9002.1	2949.2	996.2	550.8	267.4
77.5°	1751.6	1786.8	2128.8	5687.4	9367.5	9552.9	4911.8	850.2	507.2	375.0	176.9
80°	541.3	571.1	872.6	2604.0	5306.0	5417.9	1820.9	378.2	353.7	267.4	116.1
82.5°	170.5	176.9	407.0	1094.2	2202.3	2253.4	527.4	214.2	241.9	176.9	68.2
85°	49.0	50.1	181.1	408.1	544.4	555.1	148.1	83.1	138.5	109.7	35.2
87.5°	5.3	17.0	68.2	68.2	47.9	46.9	16.0	18.1	39.4	13.9	6.4
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: P884340
 CATALOG NUMBER: NAV-SB5A-835-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5	2107.5
2.5°	2111.7	2112.8	2099.0	2075.5	2049.9	2028.6	2002.0	1980.7	1965.8	1961.5	1969.0
5°	2126.7	2119.2	2079.8	2008.4	1923.2	1849.6	1767.6	1702.6	1660.0	1641.9	1648.3
7.5°	2149.0	2127.7	2041.4	1900.8	1737.8	1592.9	1445.8	1331.8	1259.4	1223.1	1228.5
10°	2168.2	2125.6	1977.5	1745.2	1495.9	1276.4	1078.2	940.8	864.1	827.9	828.9
12.5°	2186.3	2124.5	1894.4	1560.9	1223.1	954.7	770.3	702.1	680.8	673.4	671.2
15°	2220.4	2127.7	1790.0	1349.9	951.5	721.3	654.2	653.1	657.4	655.3	654.2
17.5°	2267.3	2130.9	1671.7	1126.2	734.1	636.1	632.9	642.5	648.9	645.7	644.6
20°	2328.0	2143.7	1546.0	904.6	630.8	614.8	622.2	630.8	636.1	630.8	629.7
22.5°	2413.3	2166.1	1408.5	726.6	597.7	602.0	608.4	618.0	623.3	615.8	614.8
25°	2517.7	2201.2	1273.2	631.8	581.7	587.1	596.7	607.3	613.7	606.2	605.2
27.5°	2653.0	2257.7	1148.6	610.5	565.8	569.0	582.8	598.8	607.3	597.7	597.7
30°	2849.0	2350.4	1041.0	620.1	556.2	548.7	567.9	590.3	599.9	591.3	590.3
32.5°	3109.0	2481.5	974.9	635.0	551.9	525.3	543.4	572.2	588.1	582.8	582.8
35°	3450.0	2680.7	949.3	652.1	548.7	500.8	513.6	544.4	572.2	577.5	577.5
37.5°	3863.4	2957.7	956.8	659.5	539.1	480.5	486.9	513.6	549.8	566.8	571.1
40°	4333.2	3280.5	999.4	652.1	528.5	463.5	464.5	484.8	516.7	542.3	550.8
42.5°	4818.0	3657.7	1078.2	624.4	518.9	448.6	445.4	459.2	480.5	498.6	506.1
45°	5279.4	4045.5	1156.0	586.0	507.2	433.6	426.2	431.5	435.8	443.2	447.5
47.5°	5682.1	4318.3	1133.6	550.8	491.2	416.6	403.8	401.7	388.9	387.8	386.8
50°	5960.2	4378.0	1006.9	515.7	467.7	397.4	377.2	364.4	342.0	331.4	332.4
52.5°	6048.6	4142.5	822.5	480.5	429.4	371.8	343.1	322.8	295.1	285.5	284.5
55°	5931.4	3681.2	657.4	437.9	376.1	337.8	305.8	279.2	256.8	245.1	245.1
57.5°	5644.8	3094.1	519.9	387.8	319.6	299.4	267.4	240.8	221.6	209.9	207.8
60°	5169.6	2456.9	411.3	328.2	272.8	257.8	224.8	207.8	190.7	176.9	173.7
62.5°	4448.3	1753.7	322.8	260.0	228.0	211.0	191.8	179.0	158.8	139.6	136.4
65°	3471.3	1072.9	249.3	190.7	183.3	174.7	163.0	151.3	126.8	107.6	104.4
67.5°	2189.5	508.2	177.9	143.8	144.9	140.6	135.3	125.7	107.6	90.6	88.4
70°	964.2	246.1	117.2	109.7	107.6	107.6	111.9	108.7	91.6	75.6	72.5
72.5°	328.2	132.1	87.4	83.1	77.8	76.7	93.8	90.6	73.5	58.6	55.4
75°	171.5	88.4	63.9	59.7	46.9	56.5	74.6	70.3	52.2	38.4	35.2
77.5°	111.9	62.9	43.7	38.4	26.6	37.3	55.4	49.0	30.9	19.2	17.0
80°	70.3	41.6	25.6	18.1	12.8	20.2	29.8	21.3	11.7	4.3	3.2
82.5°	37.3	21.3	9.6	6.4	5.3	6.4	7.5	5.3	2.1	0.0	0.0
85°	14.9	7.5	3.2	2.1	1.1	0.0	2.1	1.1	0.0	0.0	0.0
87.5°	5.3	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)