

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: P883830

Luminaire Tested: **NAV-SB4B-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883830
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-SB4B-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA 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: 14579 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

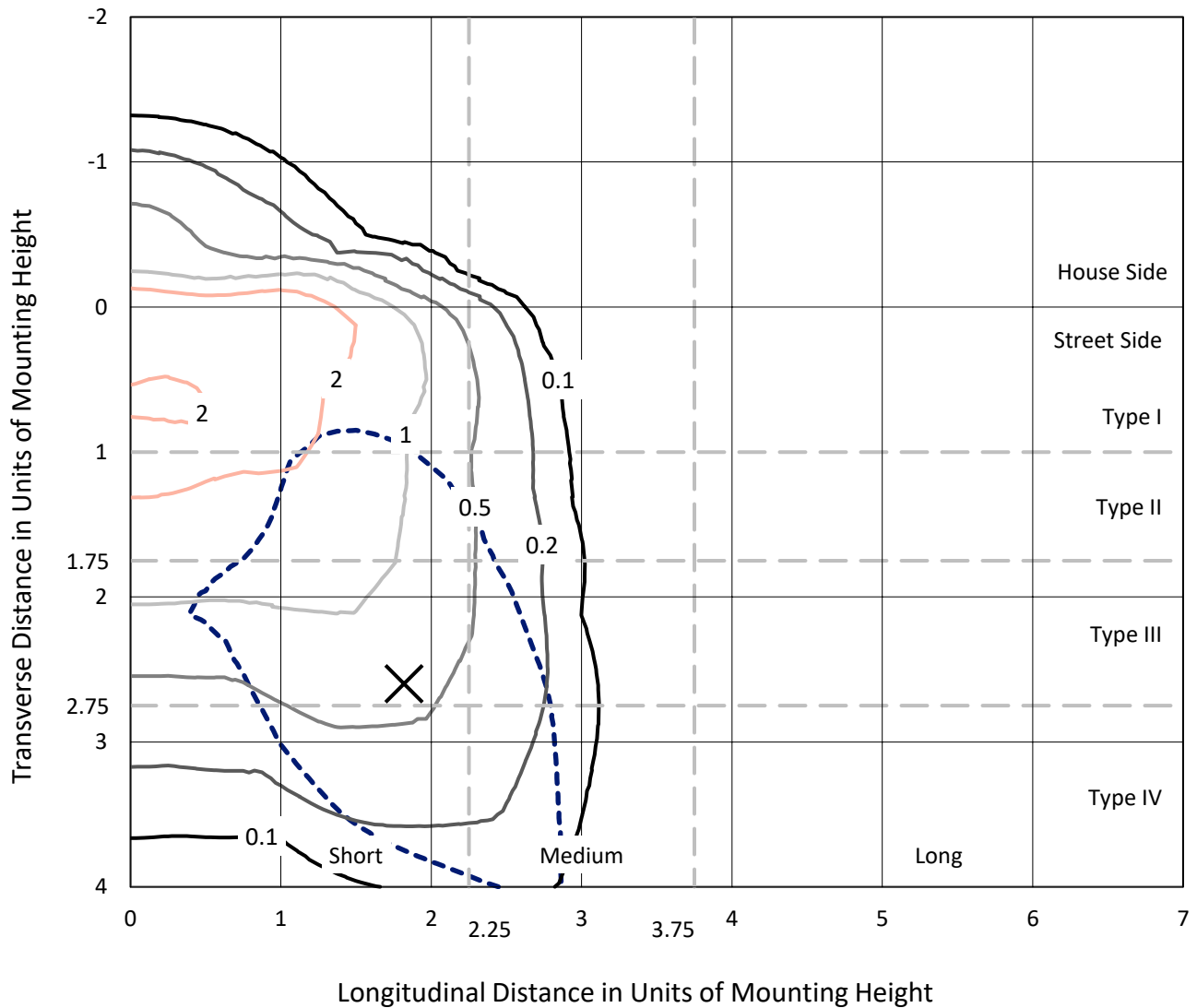
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

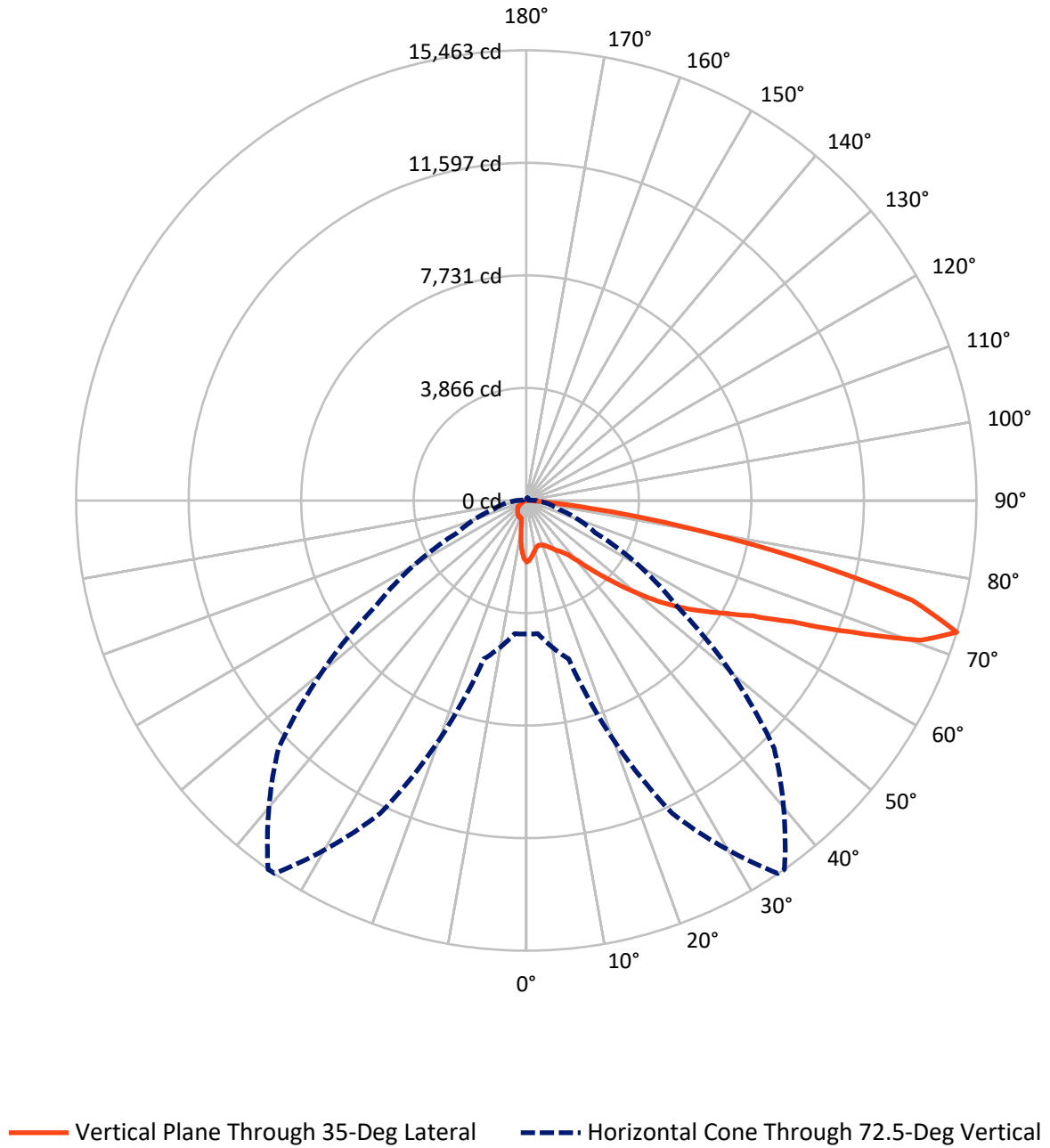
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1640.8	0.0	1640.8
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12938.2	0.0	12938.2
	% Fixture	88.7	0.0	88.7
Total	Lumens	14579.0	0.0	14579.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	1.2
10°-20°	406.2	2.8
20°-30°	659.8	4.5
30°-40°	1100.9	7.6
40°-50°	2083.0	14.3
50°-60°	3309.9	22.7
60°-70°	4094.6	28.1
70°-80°	2545.2	17.5
80°-90°	205.7	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°	14579.0	100.0
0°-180°	14579.0	100.0

Coefficient of Utilization



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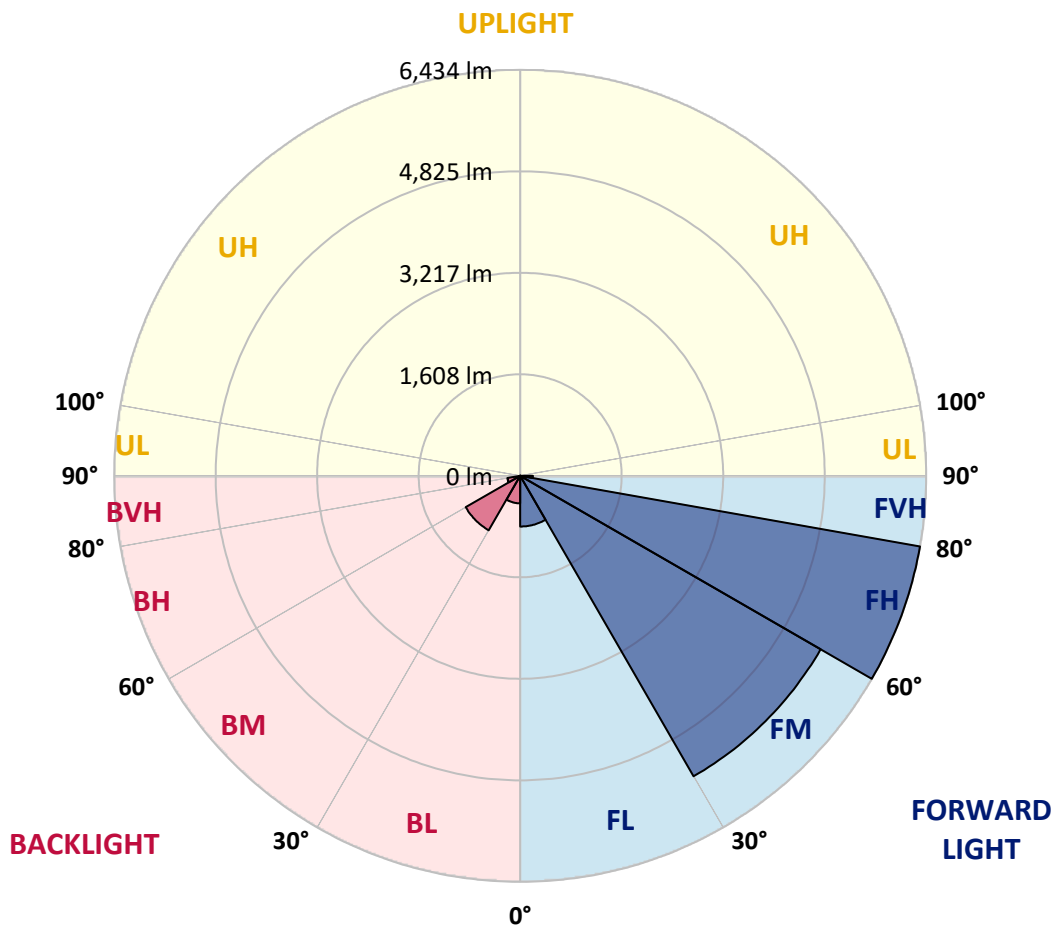
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	803.7	5.5			
FM (30°-60°)	5497.7	37.7			
FH (60°-80°)	6433.9	44.1			G3/7500
FVH (80°-90°)	202.9	1.4			G2/225
BL (0°-30°)	436.0	3.0	B1/500		
BM (30°-60°)	996.1	6.8	B1/1000		
BH (60°-80°)	205.9	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0
2.5°	2019.0	2036.1	2039.3	2044.6	2044.6	2051.0	2061.7	2076.7	2101.2	2114.1	2122.6
5°	1860.9	1873.7	1889.7	1902.5	1927.1	1930.3	1972.0	2012.6	2069.2	2111.9	2141.8
7.5°	1701.7	1716.7	1738.0	1769.0	1801.1	1810.7	1873.7	1942.1	2031.8	2111.9	2162.1
10°	1589.5	1590.6	1609.8	1640.8	1692.1	1703.8	1780.8	1878.0	1990.1	2099.1	2181.4
12.5°	1526.5	1534.0	1542.5	1566.0	1615.2	1622.7	1704.9	1819.2	1948.5	2091.6	2203.8
15°	1526.5	1531.9	1537.2	1549.0	1588.5	1594.9	1667.5	1781.8	1927.1	2094.8	2240.1
17.5°	1542.5	1551.1	1546.8	1560.7	1602.4	1606.6	1670.7	1771.1	1926.0	2115.1	2295.7
20°	1581.0	1587.4	1578.9	1587.4	1629.1	1637.6	1703.8	1791.4	1944.2	2150.4	2365.1
22.5°	1641.9	1645.1	1624.8	1631.2	1673.9	1684.6	1761.5	1849.1	1988.0	2207.0	2458.0
25°	1718.8	1725.2	1694.2	1701.7	1742.3	1755.1	1843.8	1935.7	2057.4	2285.0	2576.6
27.5°	1807.5	1810.7	1784.0	1782.9	1835.2	1853.4	1943.1	2042.5	2150.4	2383.3	2726.2
30°	1909.0	1918.6	1892.9	1888.7	1954.9	1969.8	2058.5	2173.9	2287.1	2530.7	2938.7
32.5°	1989.1	1996.5	1981.6	1992.3	2059.6	2071.3	2198.4	2359.8	2501.8	2740.0	3228.2
35°	2104.4	2108.7	2074.5	2093.8	2170.7	2200.6	2389.7	2620.4	2772.1	3002.8	3606.4
37.5°	2522.1	2522.1	2376.8	2281.8	2355.5	2382.2	2651.4	2948.4	3105.4	3355.4	4082.8
40°	3100.0	3090.4	2877.8	2683.4	2673.8	2726.2	3024.2	3361.8	3535.9	3778.4	4619.1
42.5°	3716.4	3701.5	3412.0	3219.7	3187.6	3205.8	3454.7	3871.3	4048.6	4294.3	5195.9
45°	4263.4	4259.1	3994.2	3735.6	3678.0	3735.6	3992.0	4467.4	4594.5	4853.0	5771.7
47.5°	4721.6	4721.6	4528.3	4359.5	4329.6	4363.8	4719.5	5128.6	5116.9	5448.0	6332.5
50°	5249.3	5245.1	5061.3	4988.7	5019.7	5067.7	5557.0	5825.1	5657.4	6032.4	6833.6
52.5°	5619.0	5644.6	5581.6	5569.8	5727.9	5811.2	6407.3	6506.7	6141.3	6586.8	7208.5
55°	5911.7	5941.6	6014.2	6096.5	6400.9	6509.9	7230.9	7153.0	6546.2	7067.5	7424.3
57.5°	6326.1	6283.4	6395.6	6557.9	7050.4	7181.8	8028.9	7762.9	6872.0	7457.4	7447.8
60°	6829.3	6835.7	6854.9	7060.0	7698.8	7867.6	8815.1	8339.8	7081.4	7696.7	7187.1
62.5°	7433.9	7443.5	7483.0	7798.2	8569.5	8728.6	9652.6	8811.9	7177.5	7629.4	6514.1
65°	7392.2	7432.8	7874.0	8951.9	9893.0	10050.0	10630.1	9143.1	7032.2	7014.1	5303.8
67.5°	6734.2	6800.4	7538.6	10329.9	11888.5	12063.7	11811.6	9208.3	6405.2	5454.5	3460.0
70°	5871.1	5894.6	6782.3	11569.1	14199.1	14376.4	12869.1	8491.5	4860.5	3042.4	1550.0
72.5°	4584.9	4590.2	5631.8	11856.4	15453.2	15462.8	12039.1	6303.7	2614.0	1168.7	538.4
75°	3275.2	3243.2	3772.0	9615.3	13595.5	13704.5	9025.6	2956.9	998.8	552.3	268.1
77.5°	1756.2	1791.4	2134.4	5702.3	9392.0	9577.9	4924.6	852.5	508.5	376.0	177.3
80°	542.7	572.6	874.9	2610.8	5319.9	5432.0	1825.6	379.2	354.7	268.1	116.4
82.5°	170.9	177.3	408.1	1097.1	2208.1	2259.3	528.8	214.7	242.5	177.3	68.4
85°	49.1	50.2	181.6	409.1	545.9	556.6	148.5	83.3	138.9	110.0	35.3
87.5°	5.3	17.1	68.4	68.4	48.1	47.0	16.0	18.2	39.5	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

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0	2113.0
2.5°	2117.3	2118.3	2104.4	2080.9	2055.3	2033.9	2007.2	1985.9	1970.9	1966.6	1974.1
5°	2132.2	2124.7	2085.2	2013.6	1928.2	1854.5	1772.2	1707.1	1664.3	1646.2	1652.6
7.5°	2154.6	2133.3	2046.8	1905.7	1742.3	1597.0	1449.6	1335.3	1262.7	1226.3	1231.7
10°	2173.9	2131.1	1982.7	1749.8	1499.8	1279.8	1081.1	943.3	866.3	830.0	831.1
12.5°	2192.0	2130.1	1899.3	1565.0	1226.3	957.1	772.3	704.0	682.6	675.1	673.0
15°	2226.2	2133.3	1794.6	1353.5	953.9	723.2	655.9	654.8	659.1	657.0	655.9
17.5°	2273.2	2136.5	1676.1	1129.1	736.0	637.7	634.5	644.2	650.6	647.4	646.3
20°	2334.1	2149.3	1550.0	906.9	632.4	616.4	623.9	632.4	637.7	632.4	631.3
22.5°	2419.6	2171.7	1412.2	728.5	599.3	603.6	610.0	619.6	624.9	617.4	616.4
25°	2524.3	2207.0	1276.6	633.5	583.3	588.6	598.2	608.9	615.3	607.8	606.8
27.5°	2659.9	2263.6	1151.6	612.1	567.2	570.4	584.3	600.4	608.9	599.3	599.3
30°	2856.5	2356.5	1043.7	621.7	557.6	550.1	569.4	591.8	601.4	592.9	591.8
32.5°	3117.1	2487.9	977.4	636.7	553.4	526.6	544.8	573.6	589.7	584.3	584.3
35°	3459.0	2687.7	951.8	653.8	550.1	502.1	514.9	545.9	573.6	579.0	579.0
37.5°	3873.5	2965.4	959.3	661.2	540.5	481.8	488.2	514.9	551.2	568.3	572.6
40°	4344.5	3289.1	1002.0	653.8	529.8	464.7	465.8	486.1	518.1	543.7	552.3
42.5°	4830.6	3667.3	1081.1	626.0	520.2	449.7	446.5	460.4	481.8	499.9	507.4
45°	5293.1	4056.1	1159.0	587.5	508.5	434.8	427.3	432.6	436.9	444.4	448.7
47.5°	5696.9	4329.6	1136.6	552.3	492.5	417.7	404.9	402.7	389.9	388.8	387.8
50°	5975.8	4389.4	1009.5	517.0	469.0	398.5	378.2	365.3	342.9	332.2	333.3
52.5°	6064.4	4153.3	824.7	481.8	430.5	372.8	344.0	323.7	295.9	286.3	285.2
55°	5946.9	3690.8	659.1	439.0	377.1	338.6	306.6	279.9	257.4	245.7	245.7
57.5°	5659.6	3102.2	521.3	388.8	320.5	300.2	268.1	241.4	222.2	210.4	208.3
60°	5183.1	2463.4	412.3	329.0	273.5	258.5	225.4	208.3	191.2	177.3	174.1
62.5°	4459.9	1758.3	323.7	260.7	228.6	211.5	192.3	179.5	159.2	139.9	136.7
65°	3480.3	1075.7	250.0	191.2	183.7	175.2	163.4	151.7	127.1	107.9	104.7
67.5°	2195.2	509.6	178.4	144.2	145.3	141.0	135.7	126.1	107.9	90.8	88.7
70°	966.8	246.8	117.5	110.0	107.9	107.9	112.2	109.0	91.9	75.8	72.6
72.5°	329.0	132.5	87.6	83.3	78.0	76.9	94.0	90.8	73.7	58.8	55.5
75°	172.0	88.7	64.1	59.8	47.0	56.6	74.8	70.5	52.3	38.5	35.3
77.5°	112.2	63.0	43.8	38.5	26.7	37.4	55.5	49.1	31.0	19.2	17.1
80°	70.5	41.7	25.6	18.2	12.8	20.3	29.9	21.4	11.8	4.3	3.2
82.5°	37.4	21.4	9.6	6.4	5.3	6.4	7.5	5.3	2.1	0.0	0.0
85°	15.0	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)