

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: P883750

Luminaire Tested: **NAV-SB4B-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883750
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-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 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: 15659 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

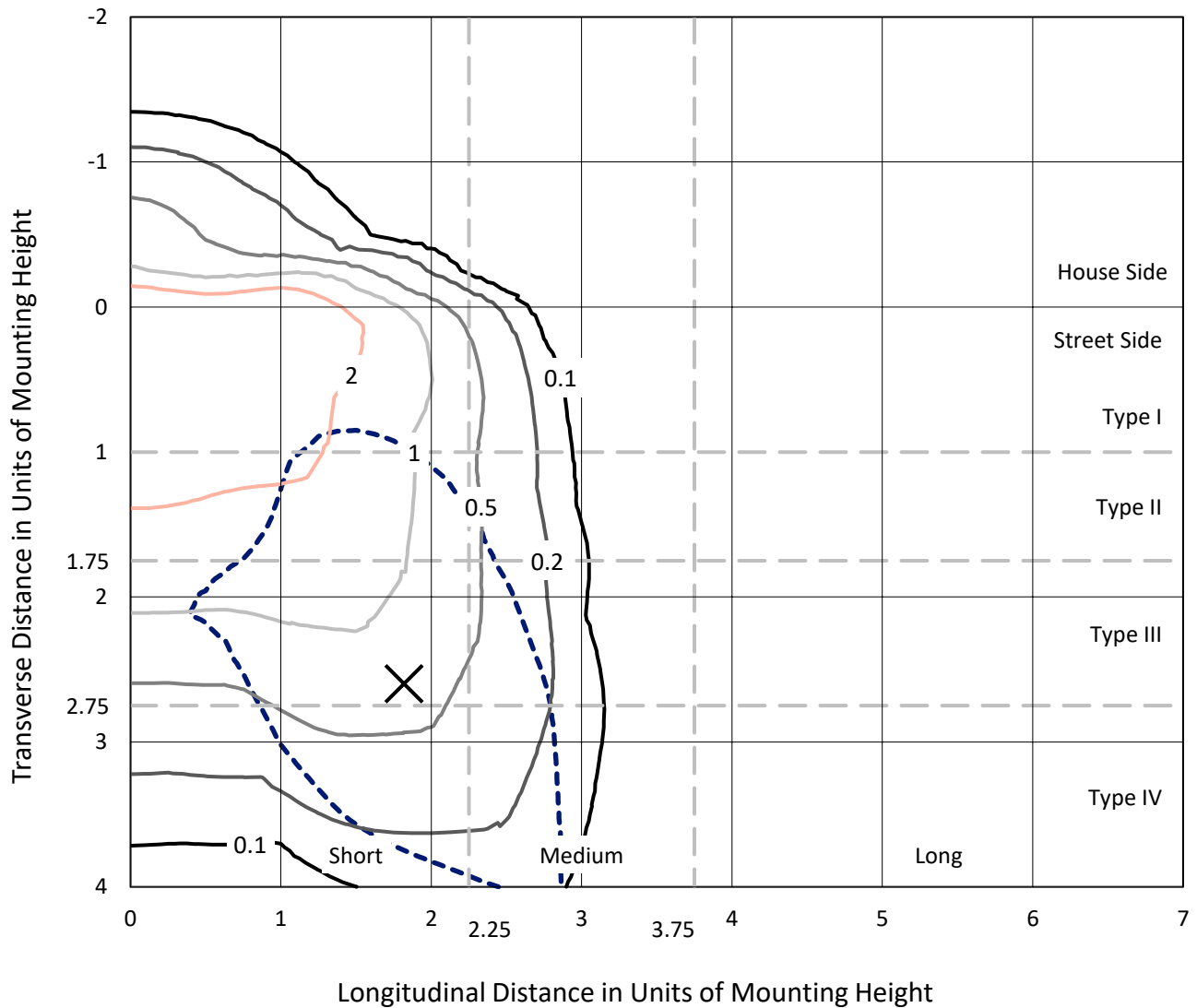
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

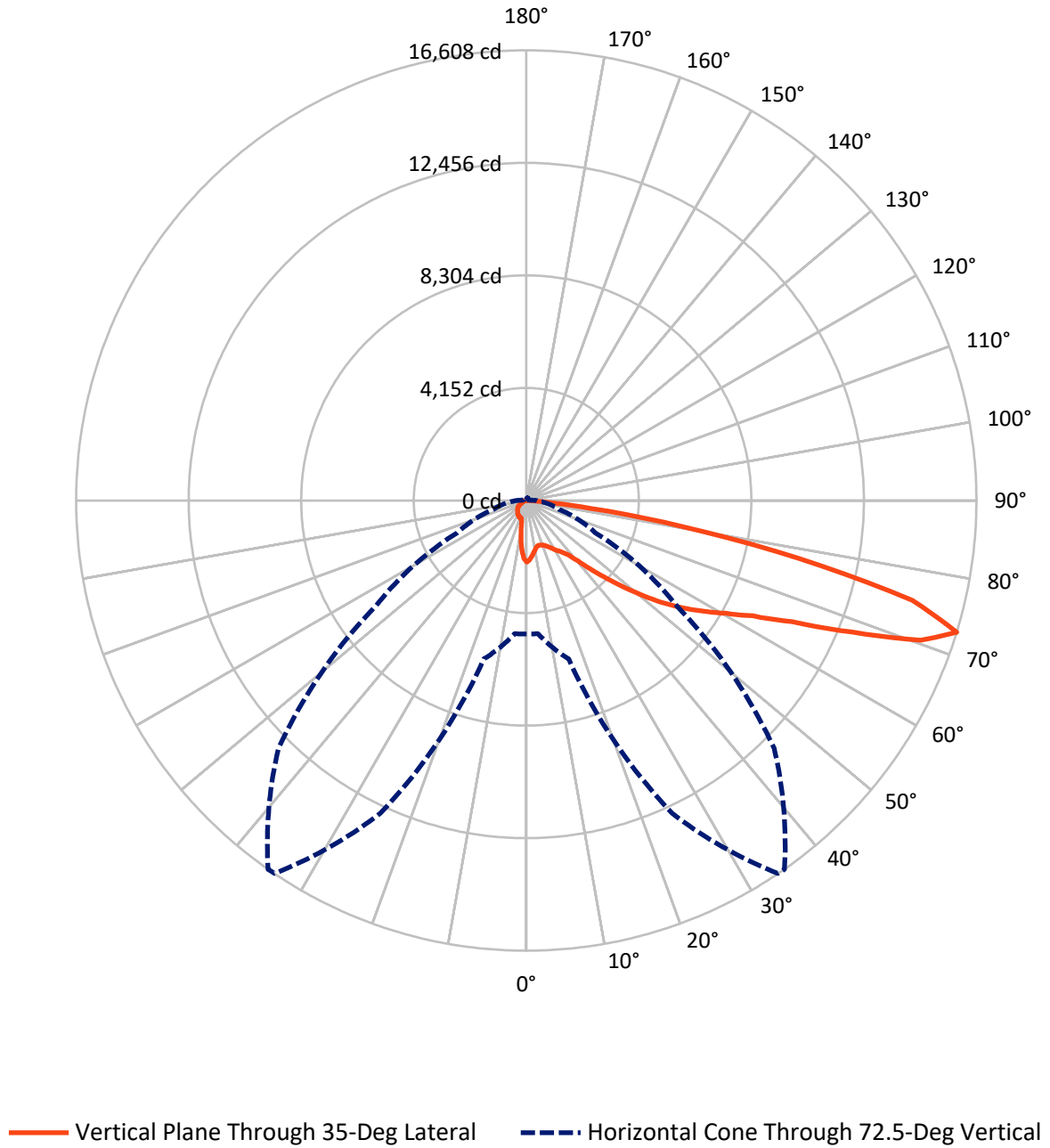
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - N/A

REPORT NUMBER: P883750
CATALOG NUMBER: NAV-SB4B-727-U-T4FT-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1762.3	0.0	1762.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13896.7	0.0	13896.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	15659.0	0.0	15659.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	1.2
10°-20°	436.3	2.8
20°-30°	708.7	4.5
30°-40°	1182.5	7.6
40°-50°	2237.3	14.3
50°-60°	3555.1	22.7
60°-70°	4397.9	28.1
70°-80°	2733.8	17.5
80°-90°	220.9	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°	15659.0	100.0
0°-180°	15659.0	100.0

Coefficient of Utilization



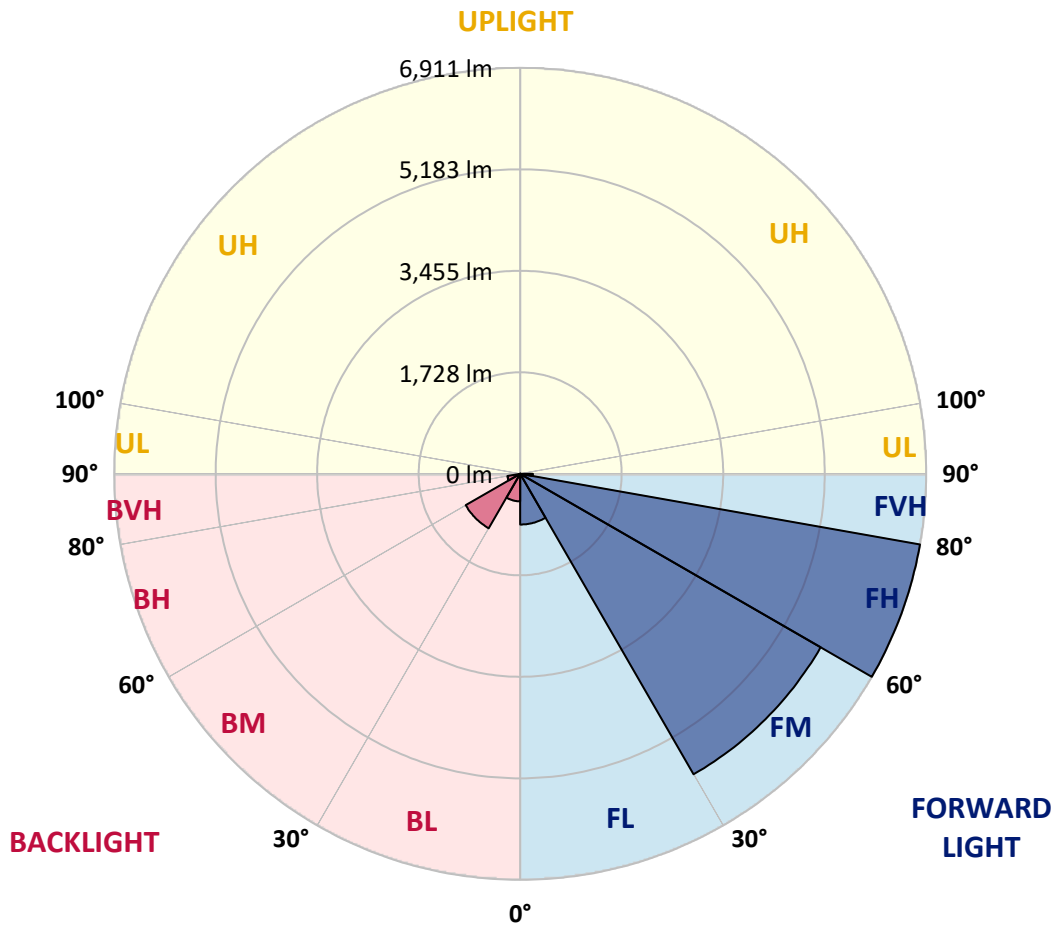
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	863.2	5.5			
FM (30°-60°)	5905.0	37.7			
FH (60°-80°)	6910.5	44.1			G3/7500
FVH (80°-90°)	217.9	1.4			G2/225
BL (0°-30°)	468.3	3.0	B1/500		
BM (30°-60°)	1069.9	6.8	B2/2500		
BH (60°-80°)	221.2	1.4	B1/500		G1/500
BVH (80°-90°)	3.0	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



REPORT NUMBER: P883750

CATALOG NUMBER: NAV-SB4B-727-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5
2.5°	2168.5	2186.9	2190.3	2196.1	2196.1	2203.0	2214.4	2230.5	2256.9	2270.7	2279.8
5°	1998.7	2012.5	2029.7	2043.5	2069.9	2073.3	2118.1	2161.7	2222.5	2268.4	2300.5
7.5°	1827.8	1843.8	1866.8	1900.1	1934.5	1944.8	2012.5	2085.9	2182.3	2268.4	2322.3
10°	1707.3	1708.4	1729.1	1762.4	1817.4	1830.1	1912.7	2017.1	2137.6	2254.6	2342.9
12.5°	1639.6	1647.6	1656.8	1682.1	1734.8	1742.9	1831.2	1954.0	2092.8	2246.6	2367.0
15°	1639.6	1645.3	1651.1	1663.7	1706.2	1713.0	1791.1	1913.8	2069.9	2250.0	2406.1
17.5°	1656.8	1666.0	1661.4	1676.3	1721.1	1725.7	1794.5	1902.4	2068.7	2271.8	2465.7
20°	1698.1	1705.0	1695.8	1705.0	1749.8	1758.9	1830.1	1924.2	2088.2	2309.7	2540.3
22.5°	1763.5	1767.0	1745.2	1752.0	1797.9	1809.4	1892.0	1986.1	2135.3	2370.5	2640.1
25°	1846.1	1853.0	1819.7	1827.8	1871.4	1885.1	1980.4	2079.0	2209.9	2454.2	2767.5
27.5°	1941.4	1944.8	1916.1	1915.0	1971.2	1990.7	2087.1	2193.8	2309.7	2559.8	2928.1
30°	2050.4	2060.7	2033.2	2028.6	2099.7	2115.8	2211.0	2334.9	2456.5	2718.1	3156.4
32.5°	2136.4	2144.4	2128.4	2139.9	2212.1	2224.8	2361.3	2534.6	2687.2	2943.0	3467.4
35°	2260.3	2264.9	2228.2	2248.9	2331.5	2363.6	2566.7	2814.5	2977.4	3225.3	3873.5
37.5°	2709.0	2709.0	2552.9	2450.8	2530.0	2558.7	2847.8	3166.8	3335.4	3603.9	4385.3
40°	3329.7	3319.4	3091.0	2882.2	2871.9	2928.1	3248.2	3610.8	3797.8	4058.3	4961.3
42.5°	3991.7	3975.7	3664.7	3458.2	3423.8	3443.3	3710.6	4158.1	4348.6	4612.5	5580.8
45°	4579.2	4574.6	4290.0	4012.4	3950.4	4012.4	4287.8	4798.3	4934.9	5212.5	6199.3
47.5°	5071.4	5071.4	4863.7	4682.5	4650.3	4687.0	5069.1	5508.6	5495.9	5851.6	6801.7
50°	5638.2	5633.6	5436.3	5358.3	5391.5	5443.2	5968.7	6256.7	6076.5	6479.2	7339.8
52.5°	6035.2	6062.7	5995.1	5982.4	6152.2	6241.7	6882.0	6988.7	6596.3	7074.7	7742.5
55°	6349.6	6381.7	6459.7	6548.1	6875.1	6992.1	7766.6	7682.8	7031.1	7591.1	7974.3
57.5°	6794.8	6748.9	6869.4	7043.8	7572.7	7713.8	8623.7	8338.0	7381.1	8009.8	7999.5
60°	7335.2	7342.1	7362.7	7583.0	8269.2	8450.4	9468.2	8957.6	7606.0	8266.9	7719.6
62.5°	7984.6	7994.9	8037.4	8375.9	9204.3	9375.2	10367.7	9464.7	7709.2	8194.6	6996.7
65°	7939.9	7983.5	8457.3	9615.0	10625.9	10794.5	11417.6	9820.4	7553.2	7533.7	5696.7
67.5°	7233.1	7304.2	8097.0	11095.1	12769.2	12957.3	12686.6	9890.4	6879.7	5858.5	3716.4
70°	6306.0	6331.2	7284.7	12426.1	15251.0	15441.4	13822.5	9120.5	5220.6	3267.7	1664.8
72.5°	4924.5	4930.3	6049.0	12734.8	16598.0	16608.3	12931.0	6770.7	2807.6	1255.2	578.3
75°	3517.9	3483.4	4051.4	10327.6	14602.7	14719.7	9694.2	3175.9	1072.8	593.2	288.0
77.5°	1886.3	1924.2	2292.5	6124.7	10087.7	10287.4	5289.4	915.6	546.2	403.9	190.5
80°	582.9	615.0	939.7	2804.2	5713.9	5834.4	1960.9	407.3	380.9	288.0	125.1
82.5°	183.6	190.5	438.3	1178.4	2371.6	2426.7	568.0	230.6	260.5	190.5	73.4
85°	52.8	53.9	195.1	439.4	586.3	597.8	159.5	89.5	149.2	118.2	37.9
87.5°	5.7	18.4	73.4	73.4	51.6	50.5	17.2	19.5	42.5	14.9	6.9
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: P883750
 CATALOG NUMBER: NAV-SB4B-727-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5	2269.5
2.5°	2274.1	2275.3	2260.3	2235.1	2207.6	2184.6	2155.9	2133.0	2116.9	2112.3	2120.4
5°	2290.2	2282.1	2239.7	2162.8	2071.0	1991.8	1903.5	1833.5	1787.6	1768.1	1775.0
7.5°	2314.3	2291.3	2198.4	2046.9	1871.4	1715.3	1557.0	1434.2	1356.2	1317.2	1322.9
10°	2334.9	2289.0	2129.5	1879.4	1610.9	1374.6	1161.1	1013.1	930.5	891.5	892.7
12.5°	2354.4	2287.9	2040.0	1680.9	1317.2	1028.1	829.6	756.1	733.2	725.1	722.8
15°	2391.1	2291.3	1927.6	1453.7	1024.6	776.8	704.5	703.3	707.9	705.6	704.5
17.5°	2441.6	2294.8	1800.2	1212.8	790.5	685.0	681.5	691.9	698.8	695.3	694.2
20°	2507.0	2308.5	1664.8	974.1	679.2	662.0	670.1	679.2	685.0	679.2	678.1
22.5°	2598.8	2332.6	1516.8	782.5	643.7	648.3	655.2	665.5	671.2	663.2	662.0
25°	2711.3	2370.5	1371.1	680.4	626.5	632.2	642.5	654.0	660.9	652.9	651.7
27.5°	2857.0	2431.3	1236.9	657.4	609.3	612.7	627.6	644.8	654.0	643.7	643.7
30°	3068.1	2531.1	1121.0	667.8	598.9	590.9	611.6	635.6	646.0	636.8	635.6
32.5°	3348.0	2672.2	1049.9	683.8	594.3	565.7	585.2	616.1	633.4	627.6	627.6
35°	3715.2	2886.8	1022.3	702.2	590.9	539.3	553.0	586.3	616.1	621.9	621.9
37.5°	4160.4	3185.1	1030.3	710.2	580.6	517.5	524.4	553.0	592.0	610.4	615.0
40°	4666.4	3532.8	1076.2	702.2	569.1	499.1	500.3	522.1	556.5	584.0	593.2
42.5°	5188.4	3938.9	1161.1	672.4	558.8	483.0	479.6	494.5	517.5	537.0	545.0
45°	5685.3	4356.6	1244.9	631.1	546.2	467.0	459.0	464.7	469.3	477.3	481.9
47.5°	6119.0	4650.3	1220.8	593.2	528.9	448.6	434.9	432.6	418.8	417.6	416.5
50°	6418.4	4714.6	1084.3	555.3	503.7	428.0	406.2	392.4	368.3	356.8	358.0
52.5°	6513.7	4461.0	885.8	517.5	462.4	400.4	369.5	347.7	317.8	307.5	306.3
55°	6387.5	3964.2	707.9	471.6	405.0	363.7	329.3	300.6	276.5	263.9	263.9
57.5°	6078.8	3332.0	559.9	417.6	344.2	322.4	288.0	259.3	238.7	226.0	223.7
60°	5567.1	2645.9	442.9	353.4	293.7	277.7	242.1	223.7	205.4	190.5	187.0
62.5°	4790.3	1888.6	347.7	280.0	245.5	227.2	206.5	192.8	171.0	150.3	146.9
65°	3738.2	1155.4	268.5	205.4	197.3	188.2	175.5	162.9	136.5	115.9	112.4
67.5°	2357.9	547.3	191.6	154.9	156.0	151.5	145.7	135.4	115.9	97.5	95.2
70°	1038.4	265.0	126.2	118.2	115.9	115.9	120.5	117.0	98.7	81.5	78.0
72.5°	353.4	142.3	94.1	89.5	83.8	82.6	101.0	97.5	79.2	63.1	59.7
75°	184.7	95.2	68.8	64.3	50.5	60.8	80.3	75.7	56.2	41.3	37.9
77.5°	120.5	67.7	47.0	41.3	28.7	40.2	59.7	52.8	33.3	20.7	18.4
80°	75.7	44.7	27.5	19.5	13.8	21.8	32.1	22.9	12.6	4.6	3.4
82.5°	40.2	22.9	10.3	6.9	5.7	6.9	8.0	5.7	2.3	0.0	0.0
85°	16.1	8.0	3.4	2.3	1.1	0.0	2.3	1.1	0.0	0.0	0.0
87.5°	5.7	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)