

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: P883074

Luminaire Tested: **NAV-SB3B-730-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883074  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-730-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

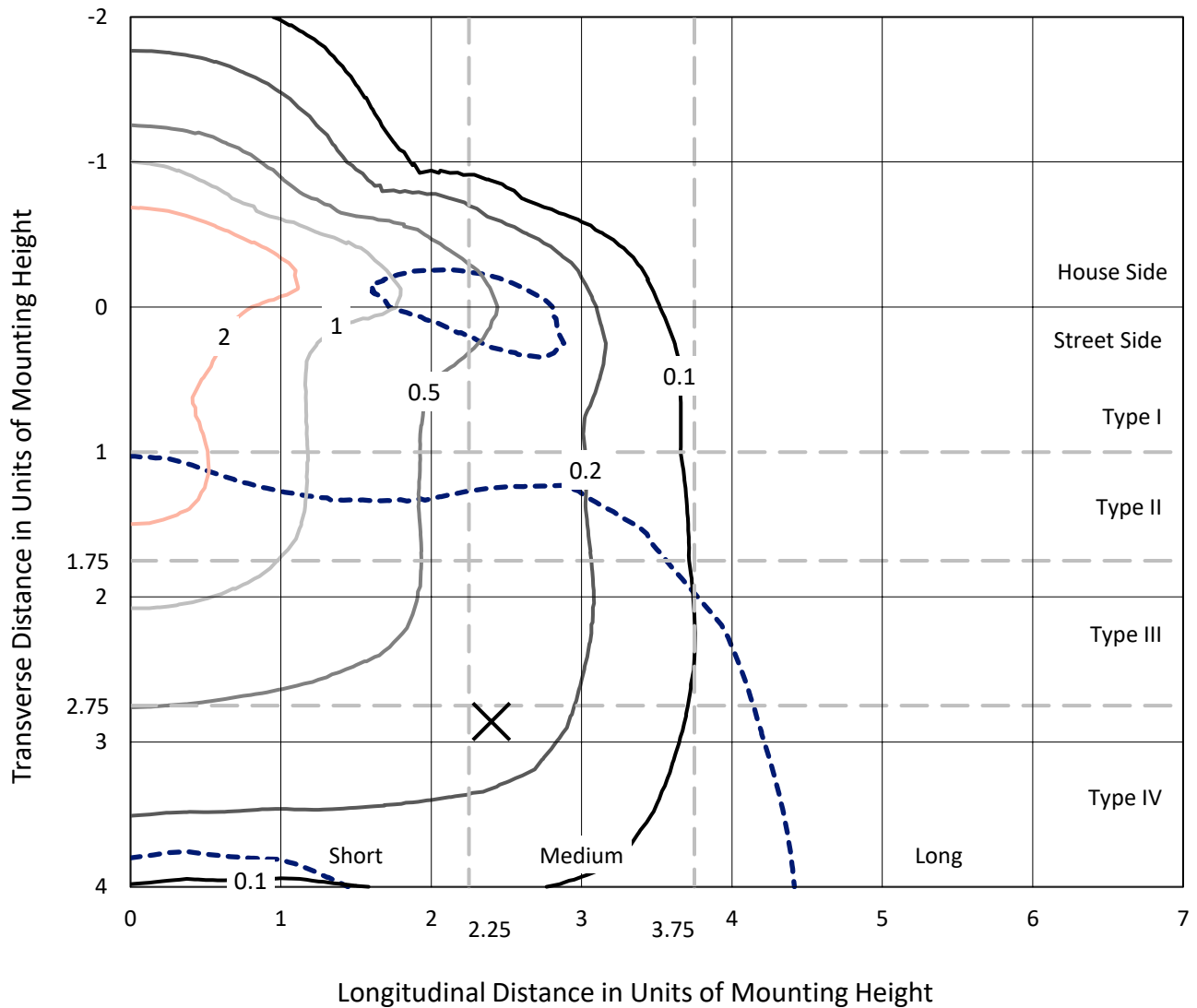
Lumens per Lamp: N/A  
Luminaire Lumens: 16481 lumens  
Efficiency: N/A  
Efficacy: 150.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 109.2  
Input Voltage (V): 120.0  
Input Current (Ain): 0.919  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.657  
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

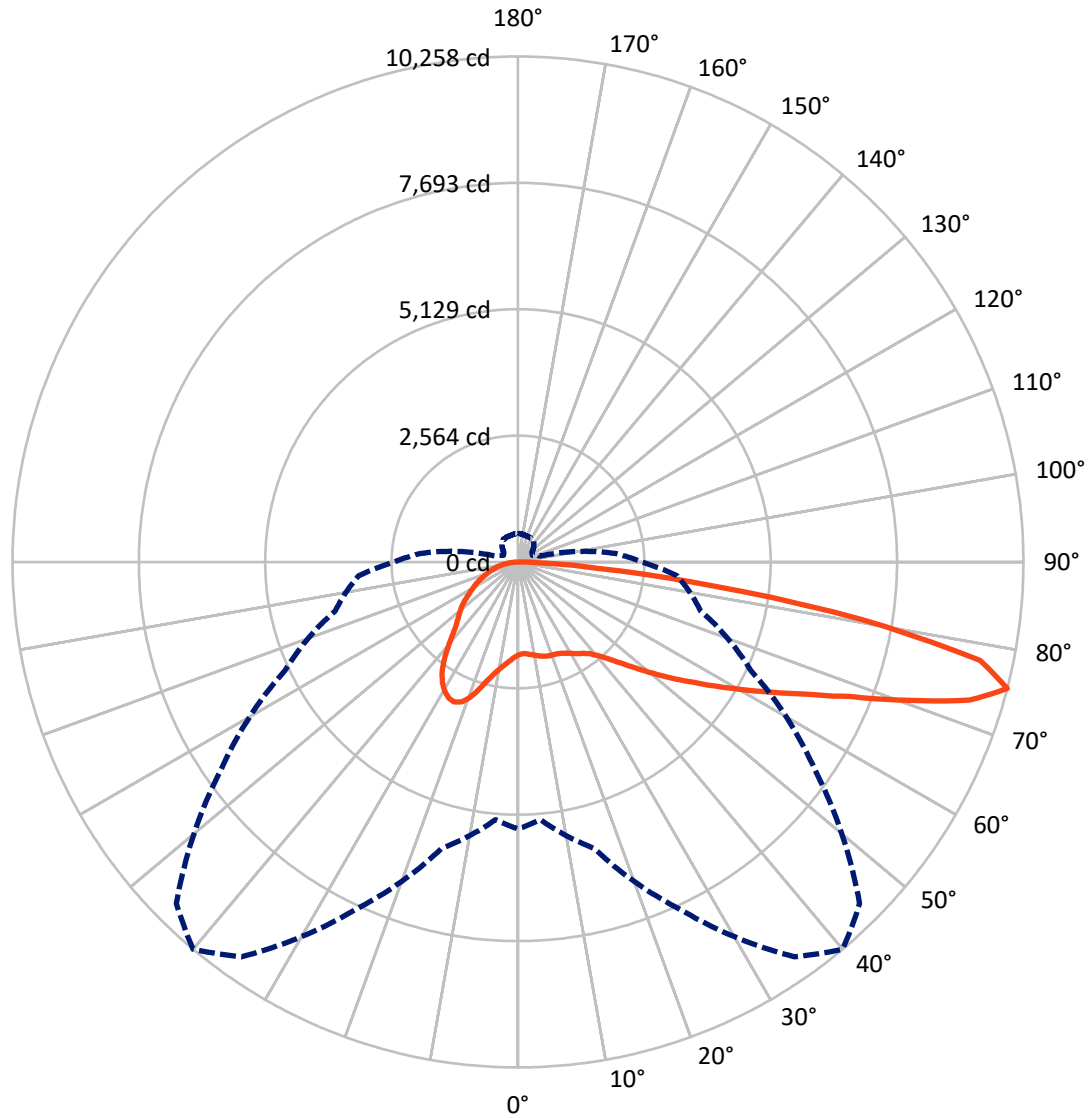
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P883074  
CATALOG NUMBER: NAV-SB3B-730-U-SL4

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5106.4	0.0	5106.4
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	11374.6	0.0	11374.6
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	16481.0	0.0	16481.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.1	1.1
10°-20°	631.6	3.8
20°-30°	1153.3	7.0
30°-40°	1635.7	9.9
40°-50°	2208.6	13.4
50°-60°	2971.2	18.0
60°-70°	3771.1	22.9
70°-80°	3422.5	20.8
80°-90°	498.9	3.0
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°	16481.0	100.0
0°-180°	16481.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P883074

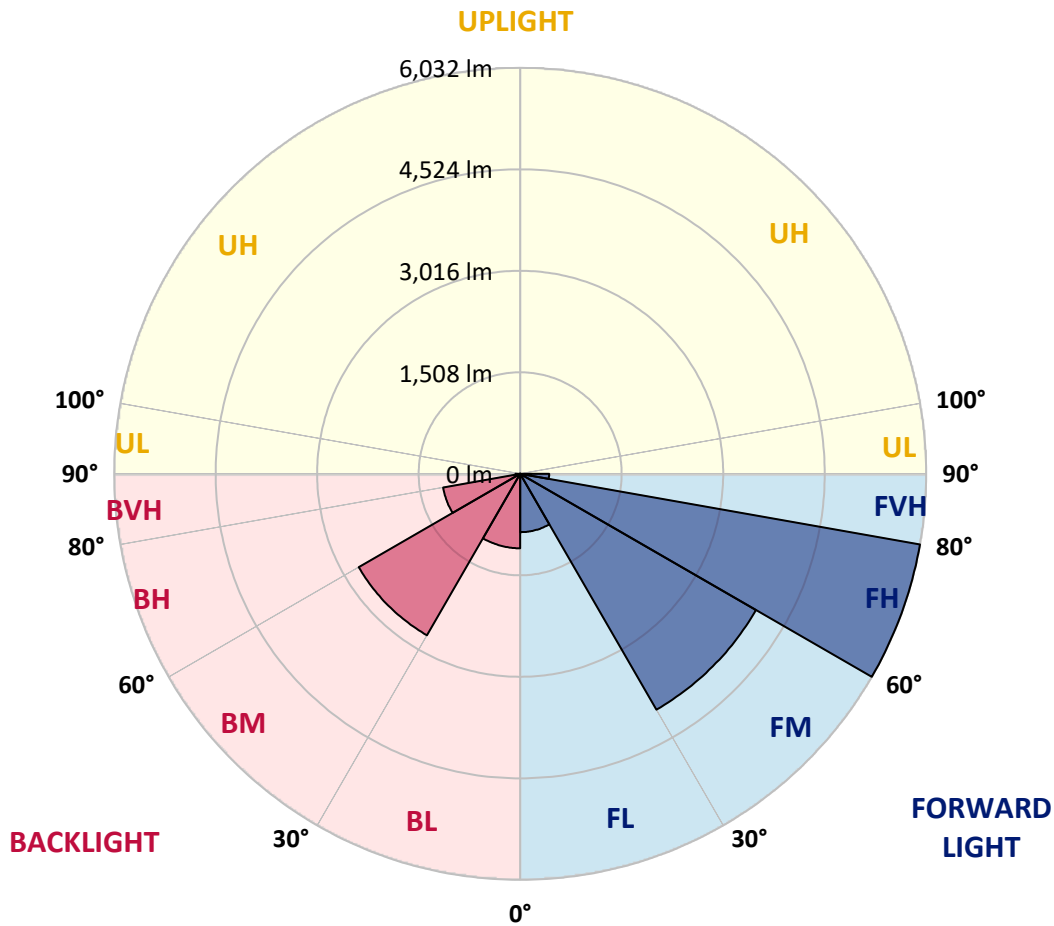
CATALOG NUMBER: NAV-SB3B-730-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	866.9	5.3			
FM (30°-60°)	4045.7	24.5			
FH (60°-80°)	6031.8	36.6			G3/7500
FVH (80°-90°)	430.2	2.6			G3/500
BL (0°-30°)	1106.1	6.7	B3/2500		
BM (30°-60°)	2769.7	16.8	B3/5000		
BH (60°-80°)	1161.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	68.7	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Medium



REPORT NUMBER: P883074

CATALOG NUMBER: NAV-SB3B-730-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6
2.5°	1855.8	1866.3	1863.6	1860.1	1860.1	1861.0	1860.1	1866.3	1872.4	1878.5	1888.1
5°	1875.0	1885.5	1880.3	1875.9	1872.4	1871.5	1868.9	1868.0	1871.5	1879.4	1892.5
7.5°	1912.6	1923.1	1915.2	1907.4	1900.4	1896.9	1893.4	1888.1	1885.5	1889.9	1908.2
10°	1954.6	1965.0	1955.4	1941.4	1930.1	1925.7	1922.2	1917.0	1913.5	1916.1	1936.2
12.5°	1996.5	2007.0	1993.9	1974.7	1959.8	1957.2	1952.8	1951.1	1950.2	1949.3	1969.4
15°	2035.8	2044.6	2028.0	2005.3	1989.5	1985.1	1980.8	1983.4	1987.8	1993.0	2015.7
17.5°	2066.4	2075.2	2050.7	2021.0	2006.1	2004.4	2001.8	2010.5	2022.7	2035.8	2063.8
20°	2094.4	2103.2	2071.7	2031.5	2014.0	2014.0	2014.9	2033.2	2050.7	2069.9	2108.4
22.5°	2133.8	2140.7	2102.3	2047.2	2021.9	2023.6	2030.6	2049.0	2070.8	2097.0	2150.4
25°	2192.3	2197.6	2150.4	2076.9	2048.1	2053.3	2059.5	2068.2	2089.2	2119.8	2191.4
27.5°	2286.7	2291.1	2229.0	2129.4	2085.7	2094.4	2103.2	2097.0	2106.7	2132.9	2224.7
30°	2419.6	2422.2	2343.5	2211.5	2149.5	2153.9	2155.6	2130.3	2111.9	2132.9	2248.3
32.5°	2576.9	2576.1	2482.5	2311.2	2222.0	2217.7	2202.8	2153.0	2110.1	2128.5	2269.2
35°	2820.8	2811.2	2690.6	2451.1	2304.2	2277.1	2242.1	2178.3	2118.9	2124.1	2287.6
37.5°	3224.7	3194.9	3028.0	2680.1	2426.6	2357.5	2306.0	2219.4	2138.1	2122.4	2309.5
40°	3680.1	3642.5	3458.9	2993.9	2610.2	2499.1	2416.1	2278.0	2169.6	2130.3	2341.8
42.5°	4220.3	4167.0	3969.4	3363.7	2842.7	2681.8	2556.8	2352.3	2215.9	2155.6	2385.5
45°	4883.8	4813.0	4533.2	3780.6	3135.5	2921.3	2754.4	2465.0	2286.7	2204.6	2451.1
47.5°	5554.2	5571.7	5174.0	4257.9	3486.9	3216.8	3001.8	2634.6	2389.9	2283.2	2556.8
50°	6266.6	6278.9	5811.2	4786.7	3885.5	3550.7	3279.7	2824.3	2533.2	2395.1	2715.0
52.5°	6822.6	6824.3	6389.9	5340.1	4300.7	3917.9	3579.6	3041.1	2699.3	2543.7	2925.7
55°	7170.5	7166.1	6795.5	5863.7	4778.0	4303.3	3911.7	3287.6	2902.1	2718.5	3190.6
57.5°	7423.1	7410.0	7075.2	6313.8	5286.7	4758.8	4287.6	3567.3	3141.6	2926.6	3539.4
60°	7519.3	7511.4	7264.9	6702.8	5821.7	5262.3	4721.2	3880.3	3413.5	3172.2	3987.8
62.5°	7556.0	7570.8	7451.1	7079.6	6394.3	5820.0	5197.6	4254.4	3719.4	3450.2	4460.7
65°	7685.4	7712.4	7688.0	7572.6	7041.1	6472.9	5829.6	4699.3	4053.3	3748.3	4954.6
67.5°	7941.5	7968.6	7979.1	8162.6	7831.3	7286.7	6618.0	5253.5	4444.1	4057.7	5326.1
70°	7935.4	7927.5	8112.8	8632.0	8820.8	8413.5	7681.0	5935.3	4910.0	4314.7	5373.3
72.5°	7222.9	7160.0	7597.9	8626.8	9644.3	9590.1	8979.1	6814.7	5312.1	4346.2	4662.6
75°	5418.7	5250.9	6024.5	7774.5	9781.5	10257.9	9804.2	7360.2	5216.8	3840.1	3244.8
77.5°	2317.3	2148.6	3060.3	5755.3	8754.4	9589.2	9047.2	6421.4	4164.4	2539.3	1593.5
80°	606.6	605.8	924.8	2609.3	5953.7	7081.3	6212.4	4146.9	2379.4	907.3	439.7
82.5°	250.9	244.8	340.0	1014.9	2909.1	3973.8	3243.0	1849.7	859.3	245.6	146.0
85°	93.5	92.7	165.2	350.5	1026.2	1639.0	1186.2	472.9	214.2	119.8	65.6
87.5°	26.2	25.3	35.8	121.5	250.0	379.4	202.8	77.8	60.3	47.2	19.2
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: P883074

CATALOG NUMBER: NAV-SB3B-730-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6	1884.6
2.5°	1890.7	1895.1	1903.0	1909.1	1917.0	1925.7	1937.9	1945.8	1953.7	1958.9	1955.4
5°	1898.6	1908.2	1928.3	1948.4	1972.0	1993.9	2019.2	2037.6	2052.5	2056.8	2058.6
7.5°	1916.1	1931.8	1965.9	2000.0	2037.6	2073.4	2110.1	2141.6	2167.0	2176.6	2177.5
10°	1946.7	1967.7	2015.7	2063.8	2113.6	2168.7	2215.9	2261.4	2297.2	2312.1	2312.9
12.5°	1985.1	2011.4	2074.3	2140.7	2209.8	2285.8	2347.0	2403.0	2447.6	2467.7	2467.7
15°	2035.0	2069.1	2149.5	2238.6	2340.0	2445.8	2523.6	2585.7	2635.5	2660.0	2658.2
17.5°	2089.2	2134.6	2236.0	2370.6	2515.7	2654.7	2745.6	2791.1	2842.7	2866.3	2865.4
20°	2141.6	2197.6	2342.7	2538.5	2731.7	2879.4	2952.8	2965.0	2968.5	2971.2	2978.2
22.5°	2195.8	2271.0	2476.4	2750.0	2957.2	3059.5	3069.9	3017.5	2944.1	2910.0	2919.6
25°	2255.3	2354.9	2651.2	2983.4	3151.2	3163.5	3083.1	2955.4	2816.4	2752.6	2762.3
27.5°	2312.9	2451.9	2861.0	3206.3	3291.1	3183.6	3010.5	2829.6	2661.7	2594.4	2602.3
30°	2370.6	2562.9	3092.7	3401.2	3354.9	3133.8	2896.0	2694.1	2525.4	2454.6	2462.4
32.5°	2429.2	2692.3	3359.3	3542.0	3343.5	3028.0	2753.5	2542.0	2393.4	2319.1	2328.7
35°	2495.6	2851.4	3611.9	3618.9	3267.5	2872.4	2565.6	2360.2	2230.8	2171.3	2184.5
37.5°	2582.2	3053.3	3834.8	3638.1	3134.6	2644.2	2332.2	2145.1	2038.5	2011.4	2030.6
40°	2689.7	3296.3	4005.3	3607.5	2938.0	2367.1	2076.9	1927.5	1867.1	1873.3	1894.2
42.5°	2829.6	3568.2	4125.0	3528.9	2664.3	2081.3	1853.2	1786.7	1815.6	1840.0	1862.8
45°	3011.4	3850.5	4199.3	3395.1	2354.9	1839.2	1721.2	1736.9	1758.7	1761.4	1778.9
47.5°	3243.9	4136.4	4248.3	3193.2	2039.3	1668.7	1637.2	1640.7	1636.4	1618.0	1632.0
50°	3534.1	4414.4	4292.0	2925.7	1771.0	1562.1	1520.1	1507.9	1447.6	1388.1	1396.0
52.5°	3864.5	4669.6	4310.3	2593.5	1562.1	1472.9	1404.7	1327.8	1215.0	1196.7	1202.8
55°	4231.7	4905.6	4263.1	2185.3	1386.4	1358.4	1255.3	1162.6	1150.4	1134.6	1137.2
57.5°	4670.5	5160.0	4167.0	1729.9	1206.3	1224.7	1124.1	1134.6	1112.8	1088.3	1083.9
60°	5150.4	5423.1	3998.3	1314.7	1020.1	1057.7	1090.0	1089.2	1083.0	1062.9	1055.9
62.5°	5582.2	5596.2	3666.1	1007.0	856.6	928.3	1016.6	1015.7	1010.5	999.1	994.8
65°	5839.2	5570.0	3111.9	792.8	722.0	821.7	917.0	924.0	924.8	924.0	924.0
67.5°	5793.7	5263.1	2351.4	631.1	611.0	713.3	818.2	827.8	834.8	836.5	838.3
70°	5279.7	4589.2	1533.2	503.5	512.2	618.0	724.7	734.3	740.4	747.4	750.9
72.5°	4115.4	3374.1	877.6	407.3	425.7	535.8	632.0	643.4	646.9	660.0	665.2
75°	2507.9	1984.3	473.8	320.8	349.7	458.0	540.2	553.3	559.4	575.2	576.9
77.5°	1192.3	859.3	270.1	250.0	281.5	374.1	456.3	471.2	454.5	463.3	456.3
80°	403.0	319.1	170.5	190.6	215.0	292.0	365.4	380.2	345.3	343.5	340.0
82.5°	140.7	129.4	108.4	126.7	139.0	208.9	276.2	295.5	257.0	256.1	243.9
85°	55.1	52.4	60.3	69.1	83.0	128.5	181.8	191.4	158.2	127.6	125.9
87.5°	11.4	12.2	14.9	15.7	25.3	44.6	65.6	80.4	63.8	54.2	49.8
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)