

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: P882714

Luminaire Tested: **NAV-SB2D-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882714
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-SB2D-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA 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: 16382 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

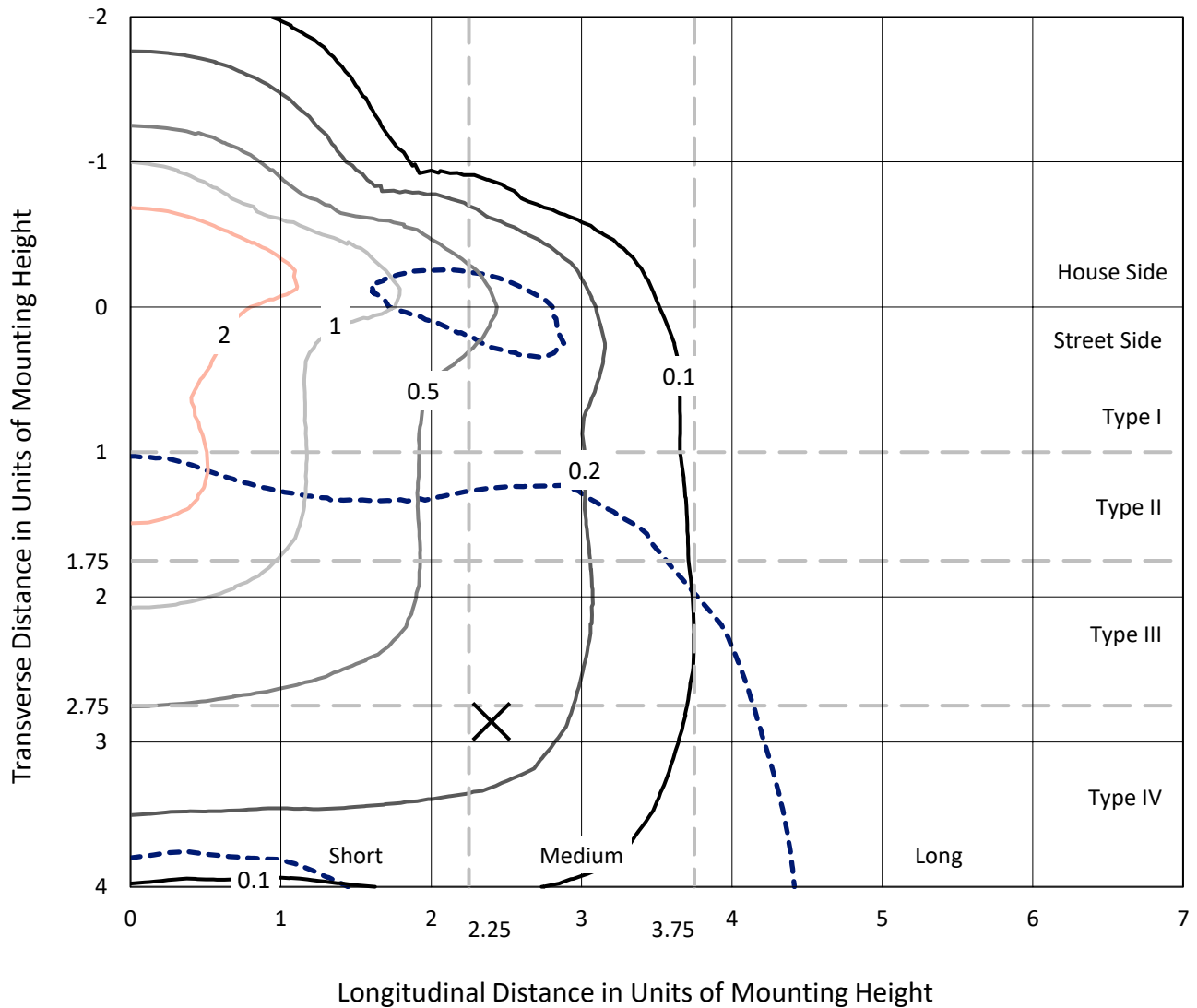
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

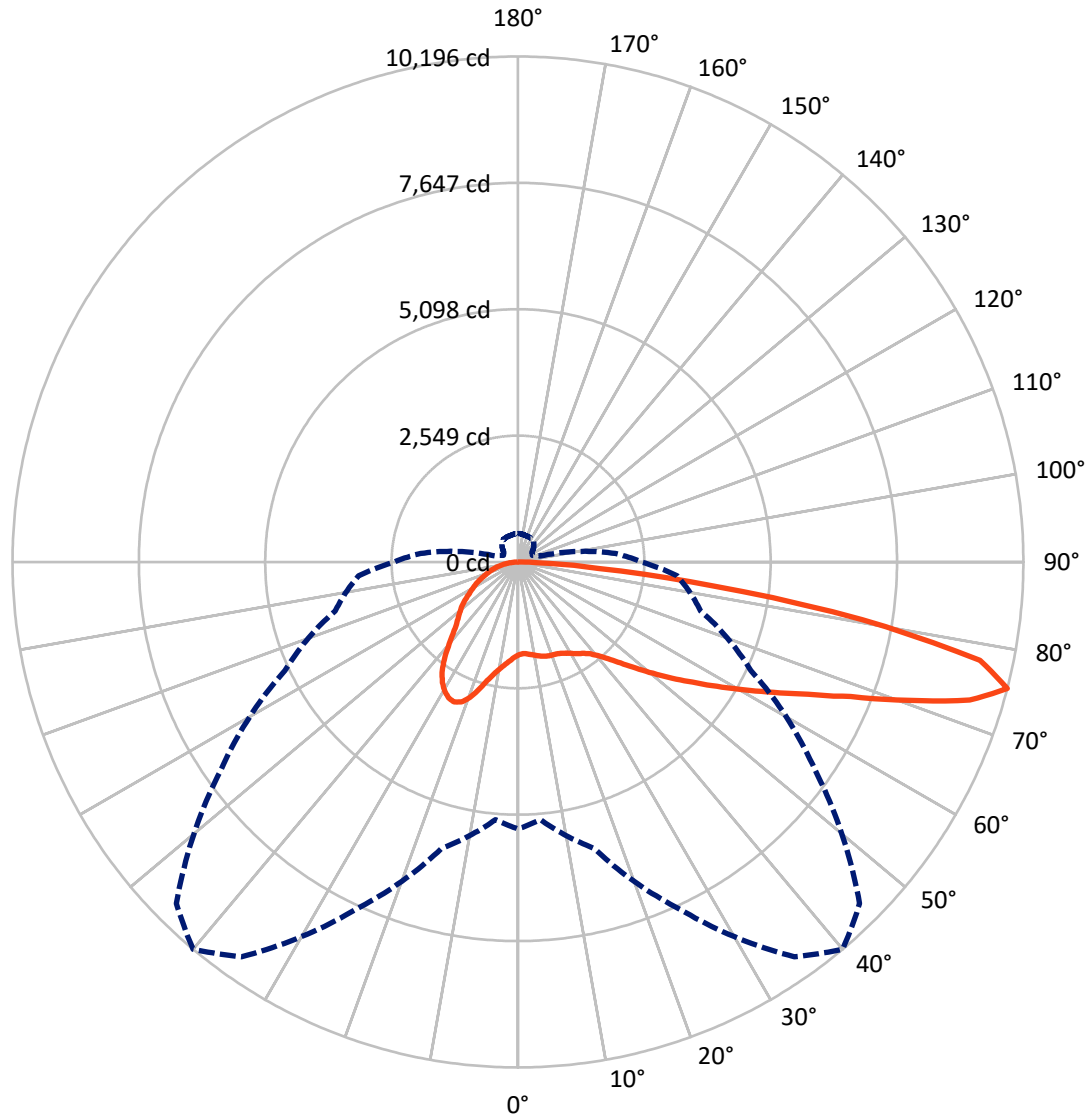
✕ Max cd
 - - - 1/2 Max cd



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

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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
House Side	Lumens	5075.7	0.0	5075.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	11306.3	0.0	11306.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	16382.0	0.0	16382.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.0	1.1
10°-20°	627.8	3.8
20°-30°	1146.3	7.0
30°-40°	1625.8	9.9
40°-50°	2195.4	13.4
50°-60°	2953.3	18.0
60°-70°	3748.5	22.9
70°-80°	3402.0	20.8
80°-90°	495.9	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°	16382.0	100.0
0°-180°	16382.0	100.0

Coefficient of Utilization



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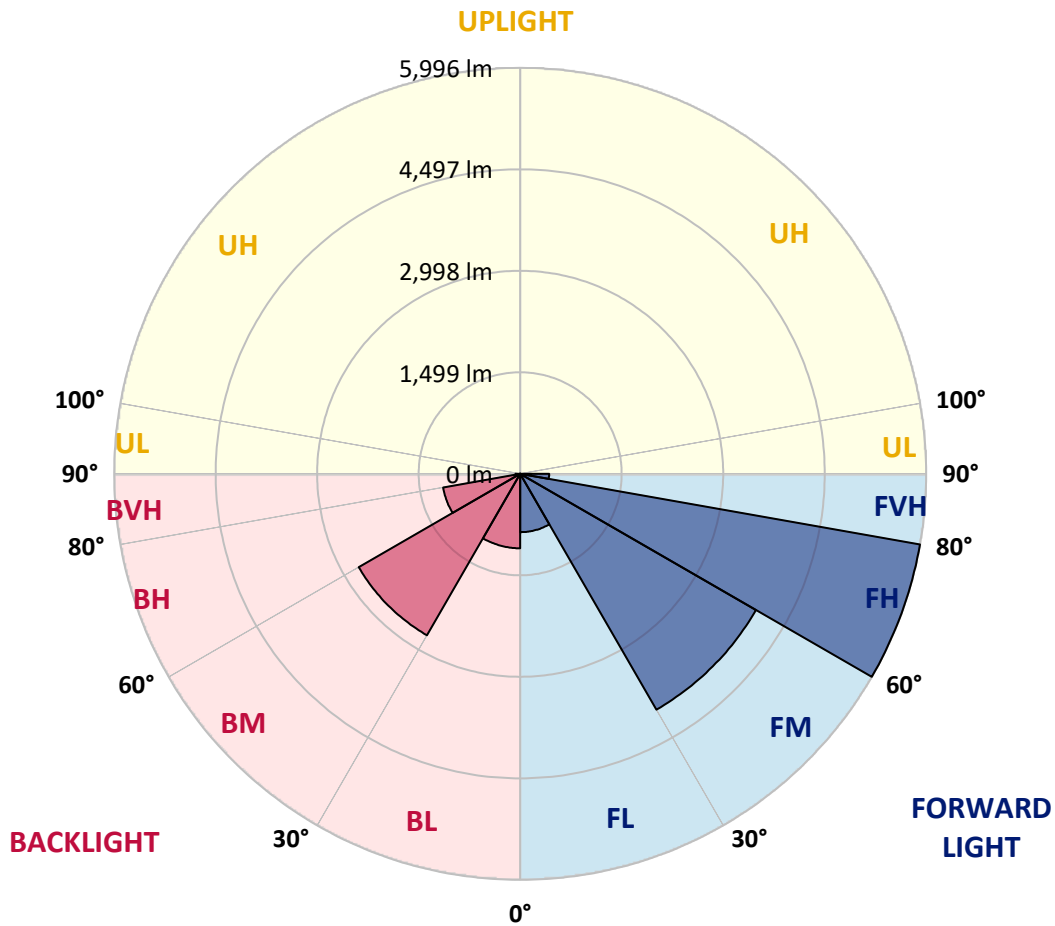
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	861.7	5.3			
FM (30°-60°)	4021.4	24.5			
FH (60°-80°)	5995.6	36.6			G3/7500
FVH (80°-90°)	427.6	2.6			G3/500
BL (0°-30°)	1099.4	6.7	B3/2500		
BM (30°-60°)	2753.1	16.8	B3/5000		
BH (60°-80°)	1154.9	7.0	B3/2500		G3/2500
BVH (80°-90°)	68.3	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3
2.5°	1844.6	1855.1	1852.5	1849.0	1849.0	1849.0	1849.0	1855.1	1861.1	1867.2	1876.8
5°	1863.7	1874.2	1869.0	1864.6	1861.1	1861.1	1857.7	1856.8	1860.3	1868.1	1881.1
7.5°	1901.1	1911.5	1903.7	1895.9	1888.9	1888.9	1882.0	1876.8	1874.2	1878.5	1896.8
10°	1942.8	1953.2	1943.7	1929.8	1918.5	1918.5	1910.7	1905.5	1902.0	1904.6	1924.6
12.5°	1984.5	1994.9	1981.9	1962.8	1948.0	1948.0	1941.1	1939.3	1938.5	1937.6	1957.6
15°	2023.6	2032.3	2015.8	1993.2	1977.6	1977.6	1968.9	1971.5	1975.8	1981.0	2003.6
17.5°	2054.0	2062.7	2038.4	2008.8	1994.1	1994.1	1989.7	1998.4	2010.6	2023.6	2051.4
20°	2081.8	2090.5	2059.2	2019.3	2001.9	2001.9	2002.8	2021.0	2038.4	2057.5	2095.7
22.5°	2120.9	2127.9	2089.7	2034.9	2009.7	2009.7	2018.4	2036.7	2058.4	2084.4	2137.4
25°	2179.1	2184.4	2137.4	2064.5	2035.8	2035.8	2047.1	2055.8	2076.6	2107.0	2178.3
27.5°	2273.0	2277.3	2215.6	2116.6	2073.1	2073.1	2090.5	2084.4	2094.0	2120.1	2211.3
30°	2405.1	2407.7	2329.5	2198.3	2136.6	2136.6	2142.7	2117.5	2099.2	2120.1	2234.8
32.5°	2561.5	2560.6	2467.6	2297.3	2208.7	2208.7	2189.6	2140.0	2097.5	2115.7	2255.6
35°	2803.9	2794.3	2674.4	2436.3	2290.4	2290.4	2228.7	2165.2	2106.2	2111.4	2273.9
37.5°	3205.3	3175.8	3009.8	2664.0	2412.0	2412.0	2292.1	2206.1	2125.3	2109.6	2295.6
40°	3658.0	3620.6	3438.2	2975.9	2594.5	2594.5	2401.6	2264.3	2156.6	2117.5	2327.7
42.5°	4194.9	4141.9	3945.6	3343.4	2825.6	2825.6	2541.5	2338.2	2202.6	2142.7	2371.2
45°	4854.4	4784.0	4506.0	3757.9	3116.7	3116.7	2737.8	2450.2	2273.0	2191.3	2436.3
47.5°	5520.9	5538.2	5142.9	4232.3	3466.0	3466.0	2983.7	2618.8	2375.5	2269.5	2541.5
50°	6229.0	6241.2	5776.3	4758.0	3862.2	3862.2	3260.0	2807.3	2518.0	2380.7	2698.7
52.5°	6781.6	6783.3	6351.5	5308.0	4274.9	4274.9	3558.1	3022.8	2683.1	2528.4	2908.1
55°	7127.4	7123.1	6754.7	5828.4	4749.3	4749.3	3888.2	3267.9	2884.7	2702.2	3171.4
57.5°	7378.5	7365.5	7032.7	6275.9	5255.0	5255.0	4261.9	3545.9	3122.8	2909.0	3518.1
60°	7474.1	7466.3	7221.3	6662.6	5786.7	5786.7	4692.8	3857.0	3393.0	3153.2	3963.8
62.5°	7510.6	7525.4	7406.3	7037.1	6355.9	6355.9	5166.4	4228.8	3697.1	3429.5	4433.9
65°	7639.2	7666.1	7641.8	7527.1	6998.8	6998.8	5794.6	4671.1	4029.0	3725.8	4924.8
67.5°	7893.8	7920.7	7931.1	8113.6	7784.3	7784.3	6578.3	5222.0	4417.4	4033.3	5294.1
70°	7887.7	7879.9	8064.1	8580.2	8767.9	8767.9	7634.8	5899.7	4880.5	4288.8	5341.0
72.5°	7179.5	7117.0	7552.3	8575.0	9586.3	9586.3	8925.1	6773.8	5280.2	4320.1	4634.6
75°	5386.2	5219.4	5988.3	7727.8	9722.8	10196.3	9745.3	7316.0	5185.5	3817.0	3225.3
77.5°	2303.4	2135.7	3041.9	5720.7	8701.8	9531.6	8992.9	6382.8	4139.3	2524.1	1584.0
80°	603.0	602.1	919.3	2593.6	5917.9	7038.8	6175.1	4122.0	2365.1	901.9	437.0
82.5°	249.4	243.3	338.0	1008.8	2891.6	3949.9	3223.5	1838.5	854.1	244.2	145.1
85°	93.0	92.1	164.2	348.4	1020.1	1629.1	1179.1	470.1	212.9	119.0	65.2
87.5°	26.1	25.2	35.6	120.8	248.5	377.1	201.6	77.3	60.0	46.9	19.1
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°	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3
2.5°	1879.4	1883.7	1891.5	1897.6	1905.5	1914.1	1926.3	1934.1	1941.9	1947.2	1943.7
5°	1887.2	1896.8	1916.7	1936.7	1960.2	1981.9	2007.1	2025.4	2040.1	2044.5	2046.2
7.5°	1904.6	1920.2	1954.1	1988.0	2025.4	2061.0	2097.5	2128.8	2154.0	2163.5	2164.4
10°	1935.0	1955.8	2003.6	2051.4	2100.9	2155.7	2202.6	2247.8	2283.4	2298.2	2299.1
12.5°	1973.2	1999.3	2061.9	2127.9	2196.5	2272.1	2332.9	2388.5	2432.9	2452.8	2452.8
15°	2022.8	2056.6	2136.6	2225.2	2326.0	2431.1	2508.5	2570.1	2619.7	2644.0	2642.3
17.5°	2076.6	2121.8	2222.6	2356.4	2500.6	2638.8	2729.1	2774.3	2825.6	2849.1	2848.2
20°	2128.8	2184.4	2328.6	2523.2	2715.2	2862.1	2935.1	2947.2	2950.7	2953.3	2960.3
22.5°	2182.6	2257.3	2461.5	2733.5	2939.4	3041.1	3051.5	2999.4	2926.4	2892.5	2902.1
25°	2241.7	2340.8	2635.3	2965.5	3132.3	3144.5	3064.5	2937.7	2799.5	2736.1	2745.7
27.5°	2299.1	2437.2	2843.8	3187.0	3271.3	3164.5	2992.4	2812.6	2645.7	2578.8	2586.7
30°	2356.4	2547.6	3074.1	3380.8	3334.8	3114.9	2878.6	2677.9	2510.2	2439.8	2447.6
32.5°	2414.6	2676.1	3339.1	3520.7	3323.5	3009.8	2737.0	2526.7	2379.0	2305.1	2314.7
35°	2480.7	2834.3	3590.2	3597.2	3247.9	2855.1	2550.2	2346.0	2217.4	2158.3	2171.3
37.5°	2566.7	3035.0	3811.8	3616.3	3115.8	2628.4	2318.2	2132.2	2026.2	1999.3	2018.4
40°	2673.5	3276.5	3981.2	3585.9	2920.3	2352.9	2064.5	1915.9	1855.9	1862.0	1882.9
42.5°	2812.6	3546.8	4100.2	3507.7	2648.3	2068.8	1842.0	1776.0	1804.7	1829.0	1851.6
45°	2993.3	3827.4	4174.1	3374.7	2340.8	1828.1	1710.8	1726.5	1748.2	1750.8	1768.2
47.5°	3224.4	4111.5	4222.8	3174.0	2027.1	1658.7	1627.4	1630.9	1626.5	1608.3	1622.2
50°	3512.9	4387.8	4266.2	2908.1	1760.3	1552.7	1511.0	1498.8	1438.9	1379.8	1387.6
52.5°	3841.3	4641.6	4284.4	2578.0	1552.7	1464.1	1396.3	1319.8	1207.7	1189.5	1195.6
55°	4206.2	4876.2	4237.5	2172.2	1378.0	1350.2	1247.7	1155.6	1143.4	1127.8	1130.4
57.5°	4642.4	5129.0	4141.9	1719.5	1199.1	1217.3	1117.4	1127.8	1106.1	1081.8	1077.4
60°	5119.4	5390.5	3974.3	1306.8	1014.0	1051.3	1083.5	1082.6	1076.5	1056.6	1049.6
62.5°	5548.7	5562.6	3644.1	1000.9	851.5	922.7	1010.5	1009.6	1004.4	993.1	988.8
65°	5804.1	5536.5	3093.2	788.1	717.7	816.7	911.5	918.4	919.3	918.4	918.4
67.5°	5758.9	5231.5	2337.3	627.3	607.3	709.0	813.3	822.8	829.8	831.5	833.3
70°	5248.0	4561.6	1524.0	500.5	509.2	614.3	720.3	729.9	735.9	742.9	746.4
72.5°	4090.7	3353.9	872.4	404.9	423.1	532.6	628.2	639.5	643.0	656.0	661.2
75°	2492.8	1972.4	470.9	318.9	347.6	455.3	537.0	550.0	556.1	571.7	573.5
77.5°	1185.2	854.1	268.5	248.5	279.8	371.9	453.6	468.3	451.8	460.5	453.6
80°	400.6	317.1	169.4	189.4	213.7	290.2	363.2	378.0	343.2	341.5	338.0
82.5°	139.9	128.6	107.7	126.0	138.2	207.7	274.6	293.7	255.5	254.6	242.4
85°	54.7	52.1	60.0	68.6	82.5	127.7	180.7	190.3	157.3	126.9	125.1
87.5°	11.3	12.2	14.8	15.6	25.2	44.3	65.2	79.9	63.4	53.9	49.5
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)