

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: P882414

Luminaire Tested: **NAV-SB2B-740-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882414  
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-SB2B-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

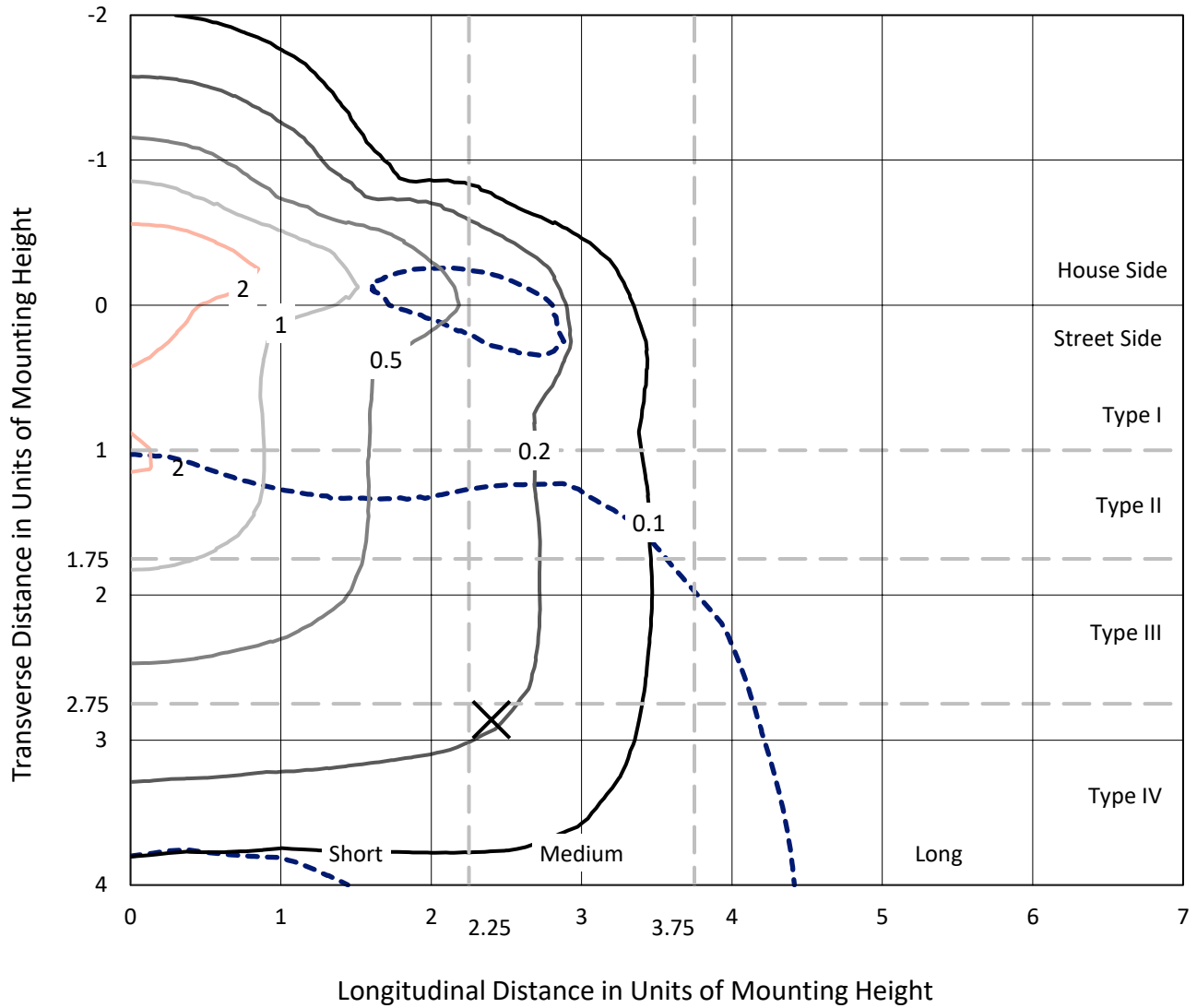
Lumens per Lamp: N/A  
Luminaire Lumens: 12265 lumens  
Efficiency: N/A  
Efficacy: 166.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
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

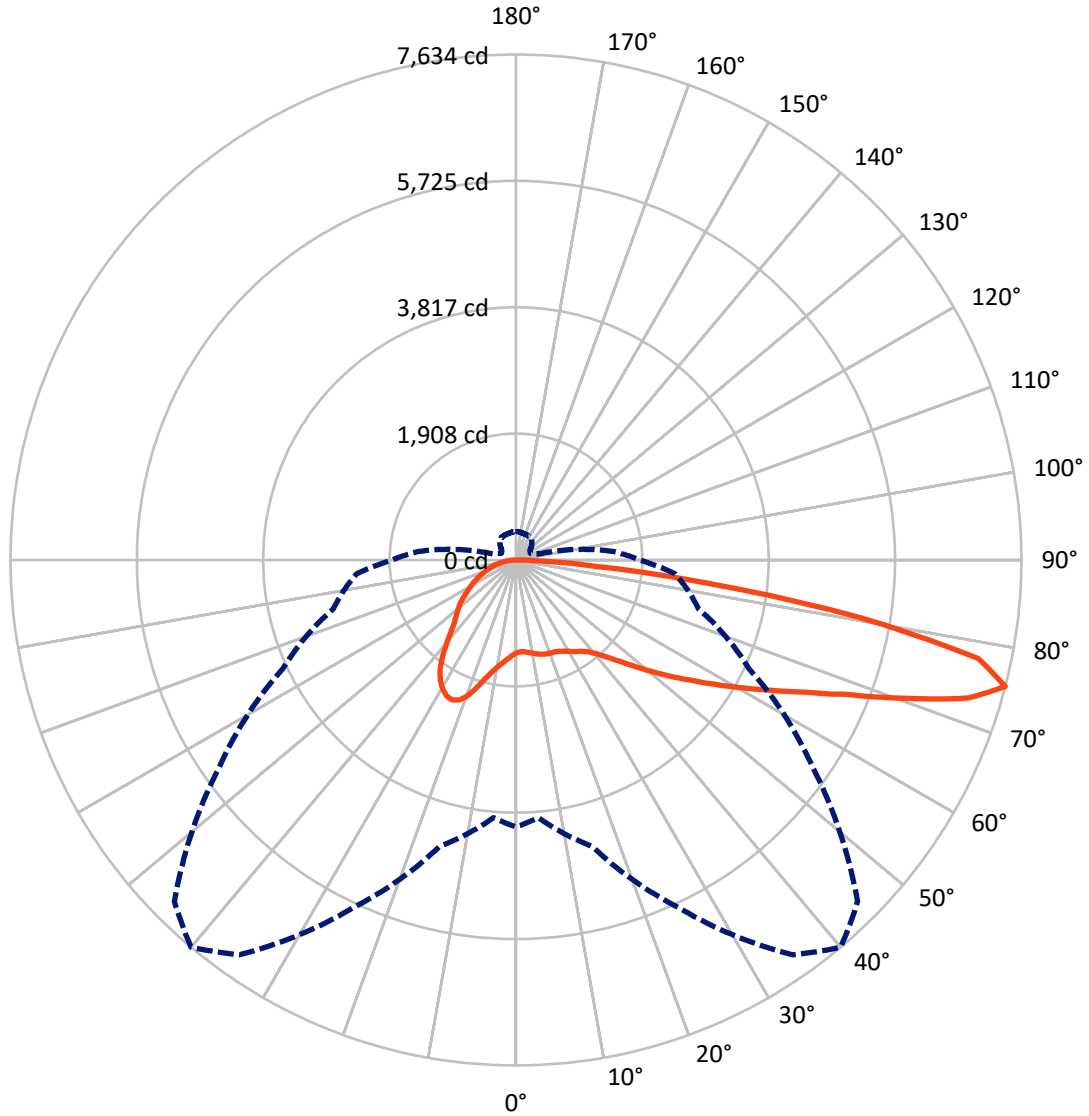
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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
<b>House Side</b>	Lumens	3800.1	0.0	3800.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	8464.9	0.0	8464.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	12265.0	0.0	12265.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.0	1.1
10°-20°	470.0	3.8
20°-30°	858.2	7.0
30°-40°	1217.2	9.9
40°-50°	1643.6	13.4
50°-60°	2211.1	18.0
60°-70°	2806.4	22.9
70°-80°	2547.0	20.8
80°-90°	371.3	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°	12265.0	100.0
0°-180°	12265.0	100.0

**Coefficient of Utilization**



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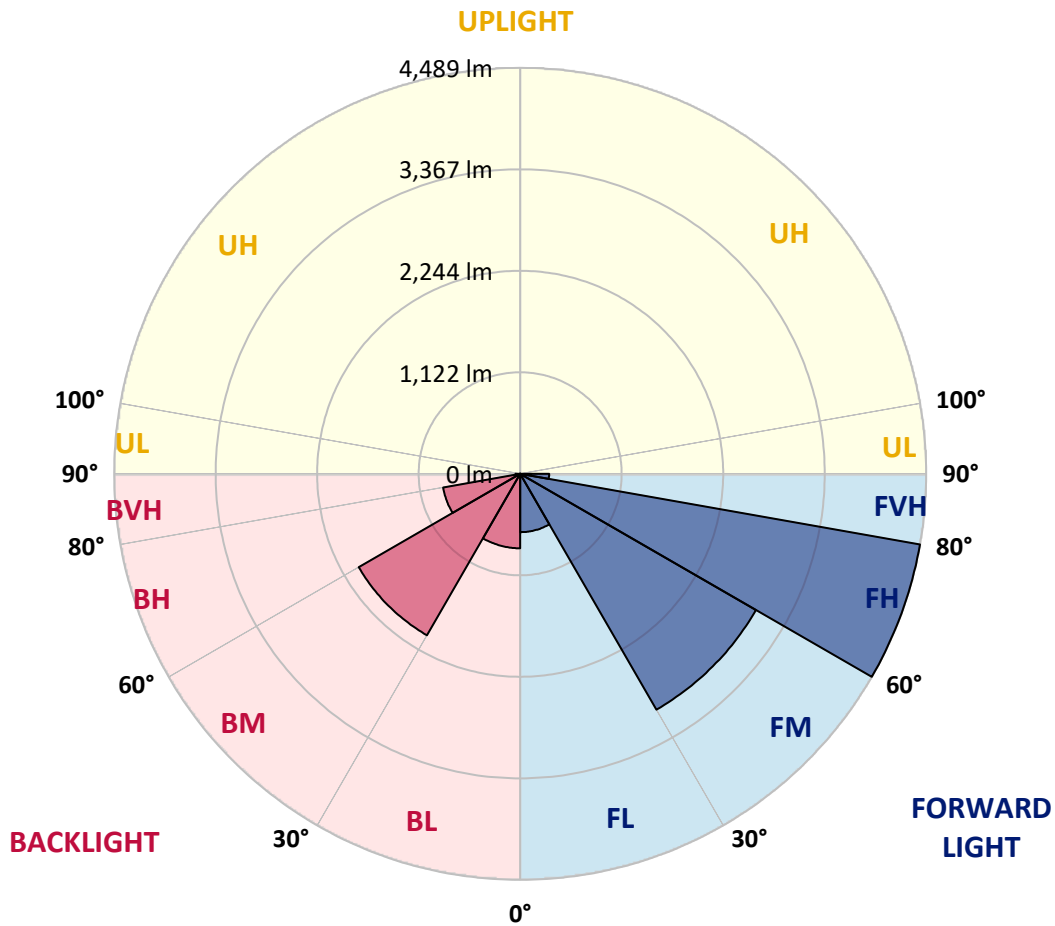
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	645.2	5.3			
FM (30°-60°)	3010.8	24.5			
FH (60°-80°)	4488.8	36.6			G2/5000
FVH (80°-90°)	320.2	2.6			G3/500
BL (0°-30°)	823.1	6.7	B2/1000		
BM (30°-60°)	2061.2	16.8	B2/2500		
BH (60°-80°)	864.6	7.0	B2/1000		G2/1000
BVH (80°-90°)	51.1	0.4			G1/100
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 Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5
2.5°	1381.1	1388.9	1386.9	1384.3	1384.3	1385.0	1384.3	1388.9	1393.4	1398.0	1405.1
5°	1395.4	1403.2	1399.3	1396.0	1393.4	1392.8	1390.8	1390.2	1392.8	1398.6	1408.4
7.5°	1423.3	1431.1	1425.3	1419.4	1414.2	1411.6	1409.0	1405.1	1403.2	1406.4	1420.1
10°	1454.6	1462.4	1455.2	1444.8	1436.3	1433.1	1430.5	1426.6	1424.0	1425.9	1440.9
12.5°	1485.8	1493.6	1483.8	1469.5	1458.5	1456.5	1453.3	1452.0	1451.3	1450.7	1465.6
15°	1515.1	1521.6	1509.2	1492.3	1480.6	1477.3	1474.1	1476.0	1479.3	1483.2	1500.1
17.5°	1537.8	1544.3	1526.1	1504.0	1492.9	1491.6	1489.7	1496.2	1505.3	1515.1	1535.9
20°	1558.6	1565.1	1541.7	1511.8	1498.8	1498.8	1499.4	1513.1	1526.1	1540.4	1569.1
22.5°	1587.9	1593.1	1564.5	1523.5	1504.7	1506.0	1511.2	1524.8	1541.1	1560.6	1600.3
25°	1631.5	1635.4	1600.3	1545.6	1524.2	1528.1	1532.6	1539.1	1554.7	1577.5	1630.9
27.5°	1701.8	1705.0	1658.8	1584.7	1552.1	1558.6	1565.1	1560.6	1567.8	1587.3	1655.6
30°	1800.6	1802.6	1744.0	1645.8	1599.6	1602.9	1604.2	1585.3	1571.7	1587.3	1673.1
32.5°	1917.7	1917.1	1847.5	1720.0	1653.6	1650.4	1639.3	1602.2	1570.4	1584.0	1688.7
35°	2099.2	2092.1	2002.3	1824.1	1714.8	1694.6	1668.6	1621.1	1576.9	1580.8	1702.4
37.5°	2399.8	2377.6	2253.4	1994.5	1805.8	1754.4	1716.1	1651.7	1591.2	1579.5	1718.7
40°	2738.7	2710.7	2574.1	2228.0	1942.4	1859.8	1798.0	1695.3	1614.6	1585.3	1742.7
42.5°	3140.7	3101.0	2954.0	2503.2	2115.5	1995.8	1902.8	1750.5	1649.1	1604.2	1775.3
45°	3634.4	3581.8	3373.6	2813.5	2333.4	2174.0	2049.8	1834.5	1701.8	1640.6	1824.1
47.5°	4133.4	4146.4	3850.4	3168.7	2594.9	2393.9	2233.9	1960.7	1778.5	1699.2	1902.8
50°	4663.6	4672.7	4324.7	3562.2	2891.6	2642.4	2440.7	2101.8	1885.2	1782.4	2020.5
52.5°	5077.3	5078.6	4755.3	3974.0	3200.6	2915.6	2663.9	2263.2	2008.8	1893.0	2177.3
55°	5336.2	5333.0	5057.1	4363.7	3555.7	3202.5	2911.1	2446.6	2159.7	2023.1	2374.4
57.5°	5524.2	5514.5	5265.3	4698.7	3934.3	3541.4	3190.8	2654.8	2338.0	2177.9	2634.0
60°	5595.8	5589.9	5406.5	4988.2	4332.5	3916.1	3513.5	2887.7	2540.3	2360.7	2967.7
62.5°	5623.1	5634.1	5545.0	5268.6	4758.5	4331.2	3868.0	3166.1	2768.0	2567.6	3319.6
65°	5719.4	5739.5	5721.3	5635.4	5239.9	4817.1	4338.3	3497.2	3016.5	2789.4	3687.1
67.5°	5910.0	5930.1	5937.9	6074.5	5828.0	5422.7	4925.1	3909.6	3307.2	3019.7	3963.6
70°	5905.4	5899.6	6037.5	6423.9	6564.4	6261.2	5716.1	4417.0	3654.0	3211.0	3998.7
72.5°	5375.2	5328.4	5654.3	6420.0	7177.2	7136.8	6682.1	5071.4	3953.2	3234.4	3469.9
75°	4032.6	3907.7	4483.4	5785.7	7279.3	7633.8	7296.2	5477.4	3882.3	2857.7	2414.7
77.5°	1724.5	1599.0	2277.5	4283.0	6514.9	7136.2	6732.9	4778.7	3099.1	1889.8	1185.9
80°	451.5	450.8	688.2	1941.8	4430.7	5269.9	4623.2	3086.1	1770.7	675.2	327.2
82.5°	186.7	182.1	253.1	755.3	2164.9	2957.3	2413.4	1376.5	639.5	182.8	108.6
85°	69.6	69.0	122.9	260.9	763.7	1219.7	882.8	351.9	159.4	89.1	48.8
87.5°	19.5	18.9	26.7	90.4	186.0	282.3	150.9	57.9	44.9	35.1	14.3
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°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5
2.5°	1407.1	1410.3	1416.2	1420.7	1426.6	1433.1	1442.2	1448.1	1453.9	1457.8	1455.2
5°	1412.9	1420.1	1435.0	1450.0	1467.6	1483.8	1502.7	1516.4	1527.4	1530.7	1532.0
7.5°	1425.9	1437.6	1463.0	1488.4	1516.4	1543.0	1570.4	1593.8	1612.6	1619.8	1620.4
10°	1448.7	1464.3	1500.1	1535.9	1573.0	1613.9	1649.1	1682.9	1709.6	1720.6	1721.3
12.5°	1477.3	1496.8	1543.7	1593.1	1644.5	1701.1	1746.6	1788.3	1821.5	1836.4	1836.4
15°	1514.4	1539.8	1599.6	1666.0	1741.4	1820.2	1878.0	1924.2	1961.3	1979.5	1978.2
17.5°	1554.7	1588.6	1664.0	1764.2	1872.2	1975.6	2043.3	2077.1	2115.5	2133.1	2132.4
20°	1593.8	1635.4	1743.4	1889.1	2032.9	2142.8	2197.5	2206.6	2209.2	2211.1	2216.3
22.5°	1634.1	1690.0	1842.9	2046.5	2200.7	2276.8	2284.6	2245.6	2190.9	2165.6	2172.7
25°	1678.3	1752.5	1973.0	2220.2	2345.1	2354.2	2294.4	2199.4	2096.0	2048.5	2055.6
27.5°	1721.3	1824.7	2129.1	2386.1	2449.2	2369.2	2240.4	2105.7	1980.8	1930.7	1936.6
30°	1764.2	1907.3	2301.5	2531.2	2496.7	2332.1	2155.2	2004.9	1879.3	1826.7	1832.5
32.5°	1807.8	2003.6	2499.9	2635.9	2488.2	2253.4	2049.1	1891.7	1781.1	1725.8	1733.0
35°	1857.2	2122.0	2687.9	2693.1	2431.6	2137.6	1909.3	1756.4	1660.1	1615.9	1625.6
37.5°	1921.6	2272.3	2853.8	2707.5	2332.8	1967.8	1735.6	1596.4	1517.0	1496.8	1511.2
40°	2001.6	2453.1	2980.7	2684.7	2186.4	1761.6	1545.6	1434.4	1389.5	1394.1	1409.7
42.5°	2105.7	2655.4	3069.8	2626.1	1982.8	1548.9	1379.1	1329.7	1351.1	1369.3	1386.3
45°	2241.0	2865.5	3125.1	2526.6	1752.5	1368.7	1280.9	1292.6	1308.8	1310.8	1323.8
47.5°	2414.1	3078.3	3161.5	2376.3	1517.7	1241.8	1218.4	1221.0	1217.8	1204.1	1214.5
50°	2630.0	3285.1	3194.0	2177.3	1318.0	1162.5	1131.3	1122.1	1077.3	1033.0	1038.9
52.5°	2875.9	3475.1	3207.7	1930.1	1162.5	1096.1	1045.4	988.1	904.2	890.6	895.1
55°	3149.2	3650.7	3172.6	1626.3	1031.7	1010.9	934.1	865.2	856.1	844.4	846.3
57.5°	3475.7	3840.0	3101.0	1287.4	897.7	911.4	836.6	844.4	828.1	809.9	806.6
60°	3832.9	4035.8	2975.5	978.4	759.2	787.1	811.2	810.5	806.0	791.0	785.8
62.5°	4154.2	4164.6	2728.3	749.4	637.5	690.9	756.6	755.9	752.0	743.5	740.3
65°	4345.5	4145.1	2315.8	590.0	537.3	611.5	682.4	687.6	688.2	687.6	687.6
67.5°	4311.6	3916.8	1749.9	469.7	454.7	530.8	608.9	616.0	621.2	622.5	623.8
70°	3929.1	3415.2	1141.0	374.7	381.2	459.9	539.3	546.4	551.0	556.2	558.8
72.5°	3062.6	2511.0	653.1	303.1	316.8	398.8	470.3	478.8	481.4	491.1	495.0
75°	1866.3	1476.7	352.6	238.7	260.2	340.9	402.0	411.8	416.3	428.0	429.3
77.5°	887.3	639.5	201.0	186.0	209.5	278.4	339.6	350.6	338.3	344.8	339.6
80°	299.9	237.4	126.9	141.8	160.0	217.3	271.9	283.0	257.0	255.7	253.1
82.5°	104.7	96.3	80.7	94.3	103.4	155.5	205.6	219.9	191.3	190.6	181.5
85°	41.0	39.0	44.9	51.4	61.8	95.6	135.3	142.5	117.7	95.0	93.7
87.5°	8.5	9.1	11.1	11.7	18.9	33.2	48.8	59.8	47.5	40.3	37.1
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)