

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: P882590

Luminaire Tested: **NAV-SB2C-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882590
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-SB2C-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 615mA 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: 12459 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

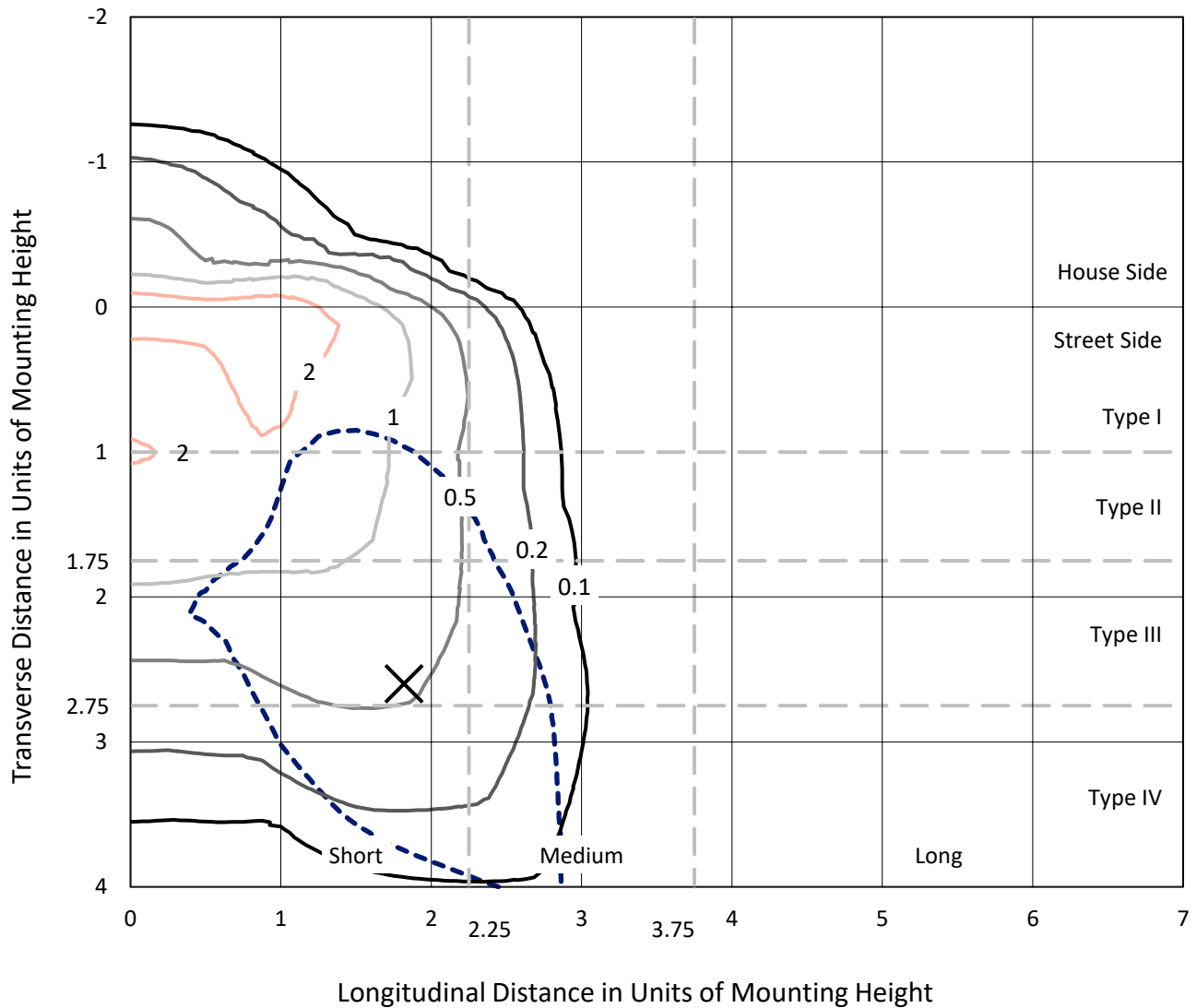
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

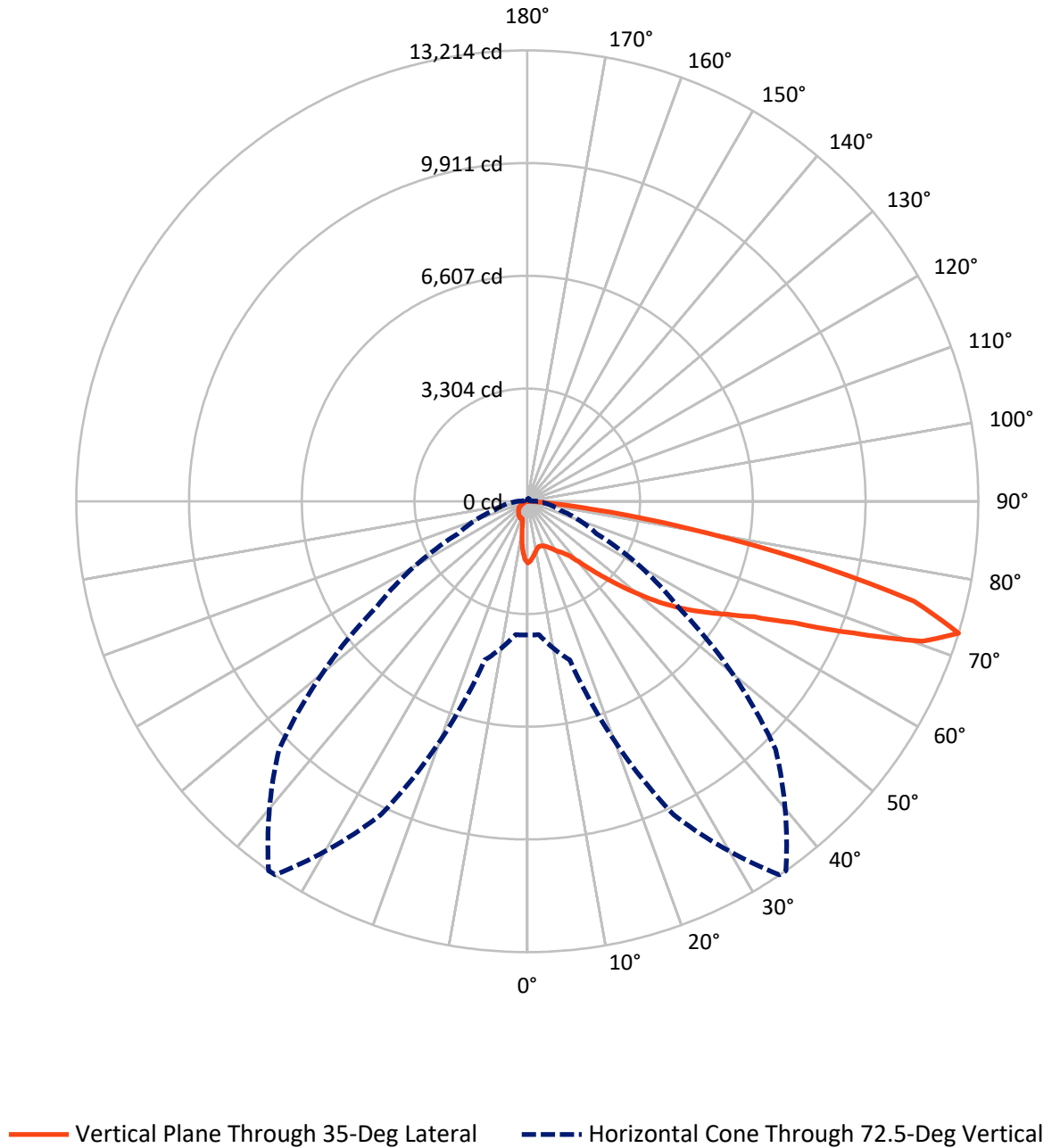
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1402.2	0.0	1402.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	11056.8	0.0	11056.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	12459.0	0.0	12459.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	1.2
10°-20°	347.1	2.8
20°-30°	563.9	4.5
30°-40°	940.9	7.6
40°-50°	1780.1	14.3
50°-60°	2828.6	22.7
60°-70°	3499.2	28.1
70°-80°	2175.1	17.5
80°-90°	175.8	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°	12459.0	100.0
0°-180°	12459.0	100.0

Coefficient of Utilization



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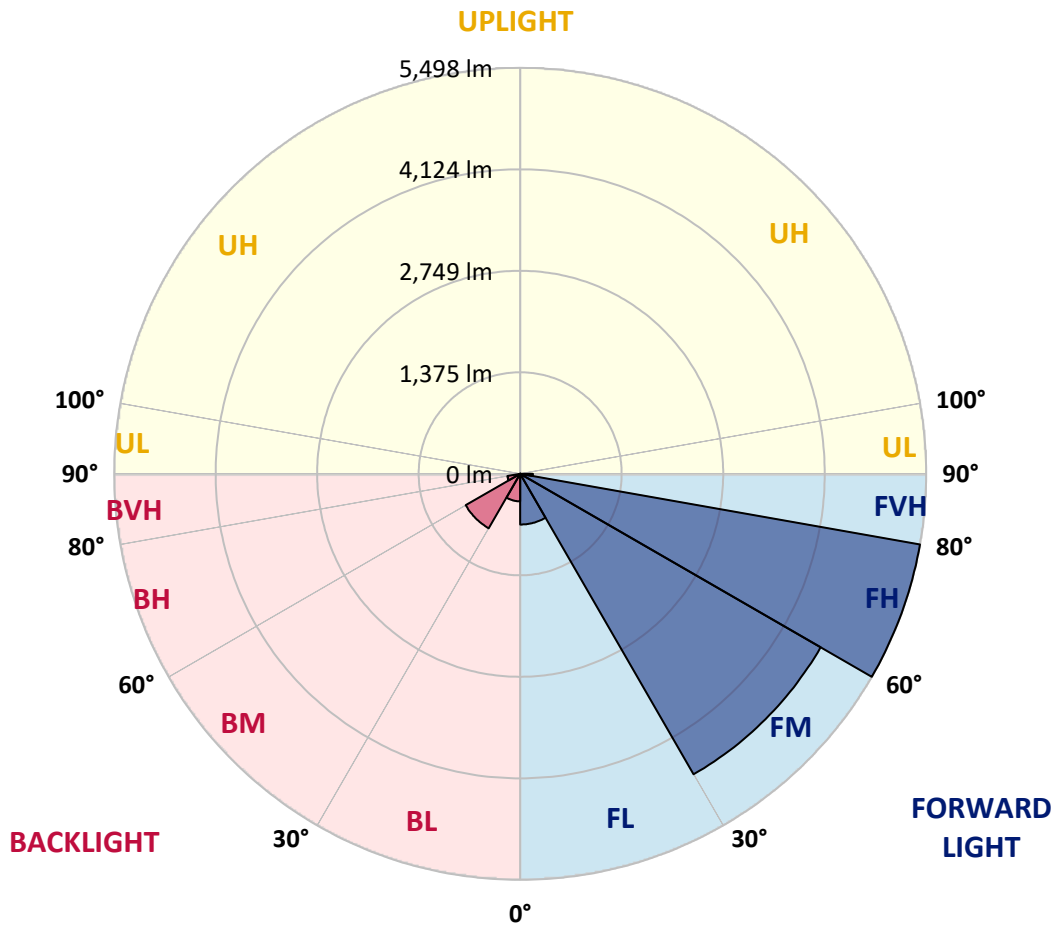
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	686.8	5.5			
FM (30°-60°)	4698.3	37.7			
FH (60°-80°)	5498.3	44.1			G3/7500
FVH (80°-90°)	173.4	1.4			G2/225
BL (0°-30°)	372.6	3.0	B1/500		
BM (30°-60°)	851.3	6.8	B1/1000		
BH (60°-80°)	176.0	1.4	B1/500		G1/500
BVH (80°-90°)	2.4	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°	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7
2.5°	1725.4	1740.0	1742.7	1747.3	1747.3	1752.8	1761.9	1774.7	1795.7	1806.6	1813.9
5°	1590.3	1601.2	1614.9	1625.9	1646.9	1649.6	1685.2	1719.9	1768.3	1804.8	1830.4
7.5°	1454.3	1467.0	1485.3	1511.8	1539.2	1547.4	1601.2	1659.7	1736.3	1804.8	1847.7
10°	1358.4	1359.3	1375.7	1402.2	1446.0	1456.1	1521.8	1604.9	1700.7	1793.9	1864.2
12.5°	1304.5	1310.9	1318.2	1338.3	1380.3	1386.7	1457.0	1554.7	1665.1	1787.5	1883.3
15°	1304.5	1309.1	1313.7	1323.7	1357.5	1363.0	1425.0	1522.7	1646.9	1790.2	1914.4
17.5°	1318.2	1325.5	1321.9	1333.8	1369.4	1373.0	1427.8	1513.6	1646.0	1807.6	1961.8
20°	1351.1	1356.6	1349.3	1356.6	1392.2	1399.5	1456.1	1530.9	1661.5	1837.7	2021.2
22.5°	1403.1	1405.9	1388.5	1394.0	1430.5	1439.7	1505.4	1580.2	1698.9	1886.1	2100.6
25°	1468.9	1474.3	1447.9	1454.3	1488.9	1499.9	1575.7	1654.2	1758.3	1952.7	2201.9
27.5°	1544.6	1547.4	1524.6	1523.6	1568.4	1583.9	1660.6	1745.5	1837.7	2036.7	2329.7
30°	1631.4	1639.6	1617.7	1614.0	1670.6	1683.4	1759.2	1857.8	1954.5	2162.7	2511.4
32.5°	1699.8	1706.2	1693.4	1702.6	1760.1	1770.1	1878.8	2016.6	2138.0	2341.6	2758.8
35°	1798.4	1802.1	1772.9	1789.3	1855.0	1880.6	2042.2	2239.4	2369.0	2566.2	3082.0
37.5°	2155.4	2155.4	2031.2	1950.0	2013.0	2035.8	2265.8	2519.6	2653.8	2867.4	3489.1
40°	2649.3	2641.0	2459.4	2293.2	2285.0	2329.7	2584.4	2872.9	3021.7	3228.9	3947.4
42.5°	3176.0	3163.2	2915.8	2751.5	2724.1	2739.6	2952.3	3308.4	3459.9	3669.9	4440.4
45°	3643.4	3639.8	3413.4	3192.4	3143.1	3192.4	3411.5	3817.8	3926.4	4147.3	4932.4
47.5°	4035.0	4035.0	3869.8	3725.6	3700.0	3729.2	4033.2	4382.9	4372.8	4655.8	5411.7
50°	4486.0	4482.4	4325.3	4263.3	4289.7	4330.8	4748.9	4978.1	4834.7	5155.2	5839.9
52.5°	4801.9	4823.8	4769.9	4759.9	4895.0	4966.2	5475.6	5560.5	5248.3	5629.0	6160.3
55°	5052.0	5077.6	5139.7	5210.0	5470.1	5563.2	6179.5	6112.8	5594.3	6039.8	6344.7
57.5°	5406.2	5369.7	5465.6	5604.3	6025.2	6137.5	6861.4	6634.1	5872.7	6373.0	6364.8
60°	5836.2	5841.7	5858.1	6033.4	6579.3	6723.5	7533.3	7127.1	6051.6	6577.5	6142.0
62.5°	6352.9	6361.1	6394.9	6664.2	7323.3	7459.3	8249.0	7530.6	6133.8	6520.0	5566.9
65°	6317.3	6352.0	6729.0	7650.1	8454.4	8588.6	9084.3	7813.6	6009.7	5994.1	4532.6
67.5°	5755.0	5811.6	6442.4	8827.8	10159.7	10309.4	10094.0	7869.2	5473.8	4661.3	2956.9
70°	5017.3	5037.4	5796.0	9886.8	12134.3	12285.9	10997.8	7256.7	4153.7	2600.0	1324.6
72.5°	3918.2	3922.8	4812.8	10132.3	13206.1	13214.3	10288.4	5387.1	2233.9	998.7	460.1
75°	2799.0	2771.6	3223.5	8217.1	11618.5	11711.7	7713.1	2526.9	853.6	472.0	229.1
77.5°	1500.8	1530.9	1824.0	4873.1	8026.3	8185.1	4208.5	728.5	434.5	321.3	151.5
80°	463.8	489.3	747.7	2231.1	4546.3	4642.1	1560.2	324.1	303.1	229.1	99.5
82.5°	146.1	151.5	348.7	937.6	1887.0	1930.8	451.9	183.5	207.2	151.5	58.4
85°	42.0	42.9	155.2	349.6	466.5	475.6	126.9	71.2	118.7	94.0	30.1
87.5°	4.6	14.6	58.4	58.4	41.1	40.2	13.7	15.5	33.8	11.9	5.5
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°	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7	1805.7
2.5°	1809.4	1810.3	1798.4	1778.3	1756.4	1738.2	1715.3	1697.1	1684.3	1680.7	1687.0
5°	1822.2	1815.8	1782.0	1720.8	1647.8	1584.8	1514.5	1458.8	1422.3	1406.8	1412.3
7.5°	1841.3	1823.1	1749.1	1628.6	1488.9	1364.8	1238.8	1141.1	1079.1	1048.0	1052.6
10°	1857.8	1821.2	1694.4	1495.3	1281.7	1093.7	923.9	806.1	740.4	709.3	710.2
12.5°	1873.3	1820.3	1623.1	1337.4	1048.0	818.0	660.0	601.6	583.3	577.0	575.1
15°	1902.5	1823.1	1533.7	1156.7	815.2	618.0	560.5	559.6	563.3	561.4	560.5
17.5°	1942.7	1825.8	1432.3	964.9	629.0	545.0	542.3	550.5	556.0	553.2	552.3
20°	1994.7	1836.8	1324.6	775.1	540.4	526.7	533.1	540.4	545.0	540.4	539.5
22.5°	2067.7	1855.9	1206.9	622.6	512.1	515.8	521.3	529.5	534.0	527.7	526.7
25°	2157.2	1886.1	1090.9	541.4	498.4	503.0	511.2	520.4	525.8	519.4	518.5
27.5°	2273.1	1934.4	984.1	523.1	484.8	487.5	499.4	513.1	520.4	512.1	512.1
30°	2441.1	2013.9	891.9	531.3	476.5	470.1	486.6	505.7	514.0	506.7	505.7
32.5°	2663.9	2126.2	835.3	544.1	472.9	450.1	465.6	490.2	503.9	499.4	499.4
35°	2956.0	2296.9	813.4	558.7	470.1	429.1	440.0	466.5	490.2	494.8	494.8
37.5°	3310.2	2534.2	819.8	565.1	461.9	411.7	417.2	440.0	471.1	485.7	489.3
40°	3712.8	2810.8	856.3	558.7	452.8	397.1	398.0	415.4	442.8	464.7	472.0
42.5°	4128.2	3134.0	923.9	535.0	444.6	384.3	381.6	393.5	411.7	427.2	433.6
45°	4523.4	3466.3	990.5	502.1	434.5	371.6	365.2	369.7	373.4	379.8	383.4
47.5°	4868.5	3700.0	971.3	472.0	420.8	356.9	346.0	344.2	333.2	332.3	331.4
50°	5106.8	3751.1	862.7	441.8	400.8	340.5	323.2	312.2	293.0	283.9	284.8
52.5°	5182.6	3549.4	704.8	411.7	367.9	318.6	294.0	276.6	252.9	244.7	243.7
55°	5082.1	3154.1	563.3	375.2	322.3	289.4	262.0	239.2	220.0	210.0	210.0
57.5°	4836.6	2651.1	445.5	332.3	273.9	256.5	229.1	206.3	189.9	179.8	178.0
60°	4429.4	2105.2	352.4	281.2	233.7	220.9	192.6	178.0	163.4	151.5	148.8
62.5°	3811.4	1502.6	276.6	222.7	195.4	180.8	164.3	153.4	136.0	119.6	116.9
65°	2974.2	919.3	213.6	163.4	157.0	149.7	139.7	129.6	108.6	92.2	89.5
67.5°	1876.0	435.5	152.5	123.2	124.2	120.5	115.9	107.7	92.2	77.6	75.8
70°	826.2	210.9	100.4	94.0	92.2	92.2	95.9	93.1	78.5	64.8	62.1
72.5°	281.2	113.2	74.9	71.2	66.6	65.7	80.3	77.6	63.0	50.2	47.5
75°	147.0	75.8	54.8	51.1	40.2	48.4	63.9	60.3	44.7	32.9	30.1
77.5°	95.9	53.9	37.4	32.9	22.8	32.0	47.5	42.0	26.5	16.4	14.6
80°	60.3	35.6	21.9	15.5	11.0	17.3	25.6	18.3	10.0	3.7	2.7
82.5°	32.0	18.3	8.2	5.5	4.6	5.5	6.4	4.6	1.8	0.0	0.0
85°	12.8	6.4	2.7	1.8	0.9	0.0	1.8	0.9	0.0	0.0	0.0
87.5°	4.6	0.9	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)