

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: P884776

Luminaire Tested: **NAV-SB5D-730-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-730-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37117 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

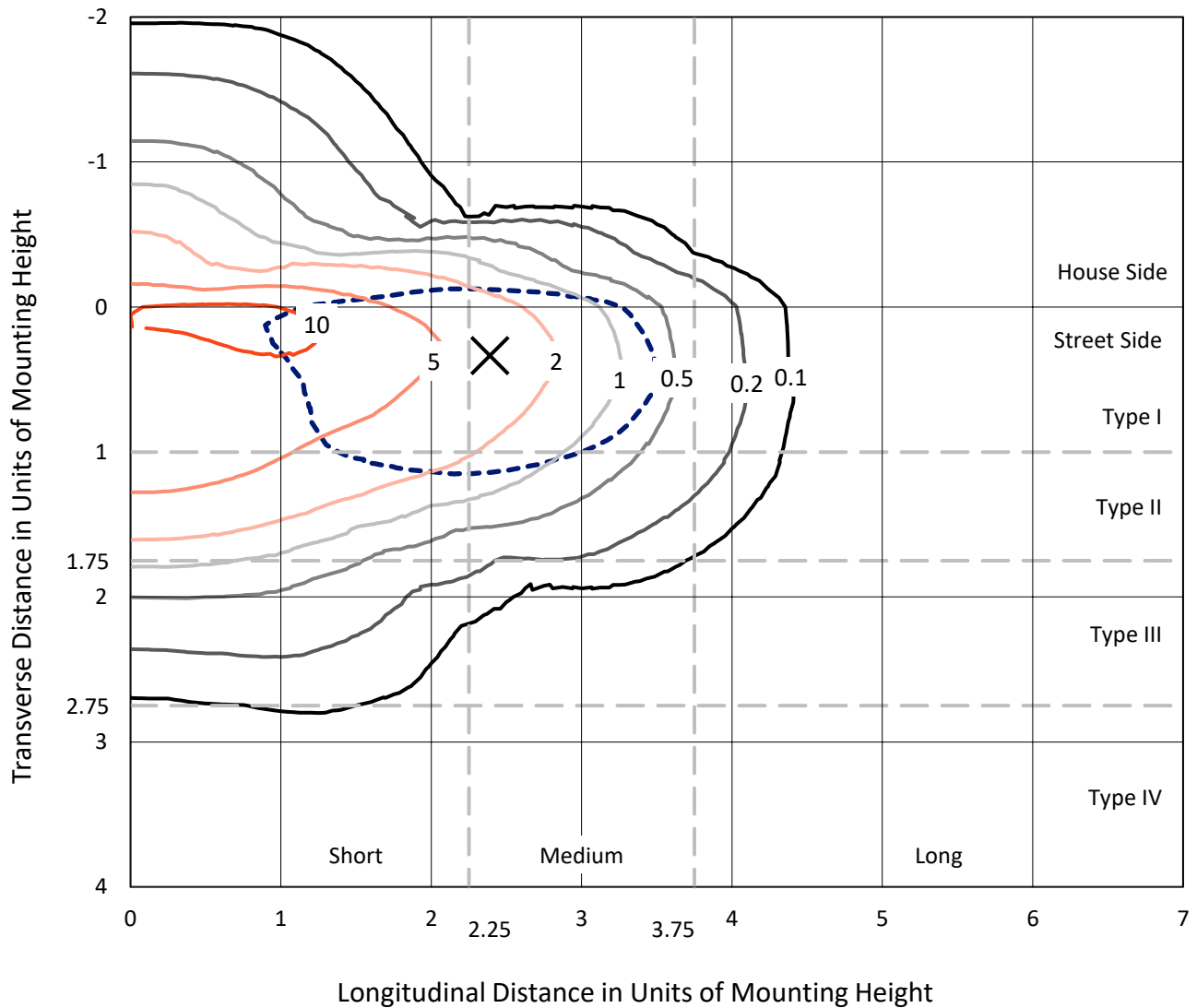
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

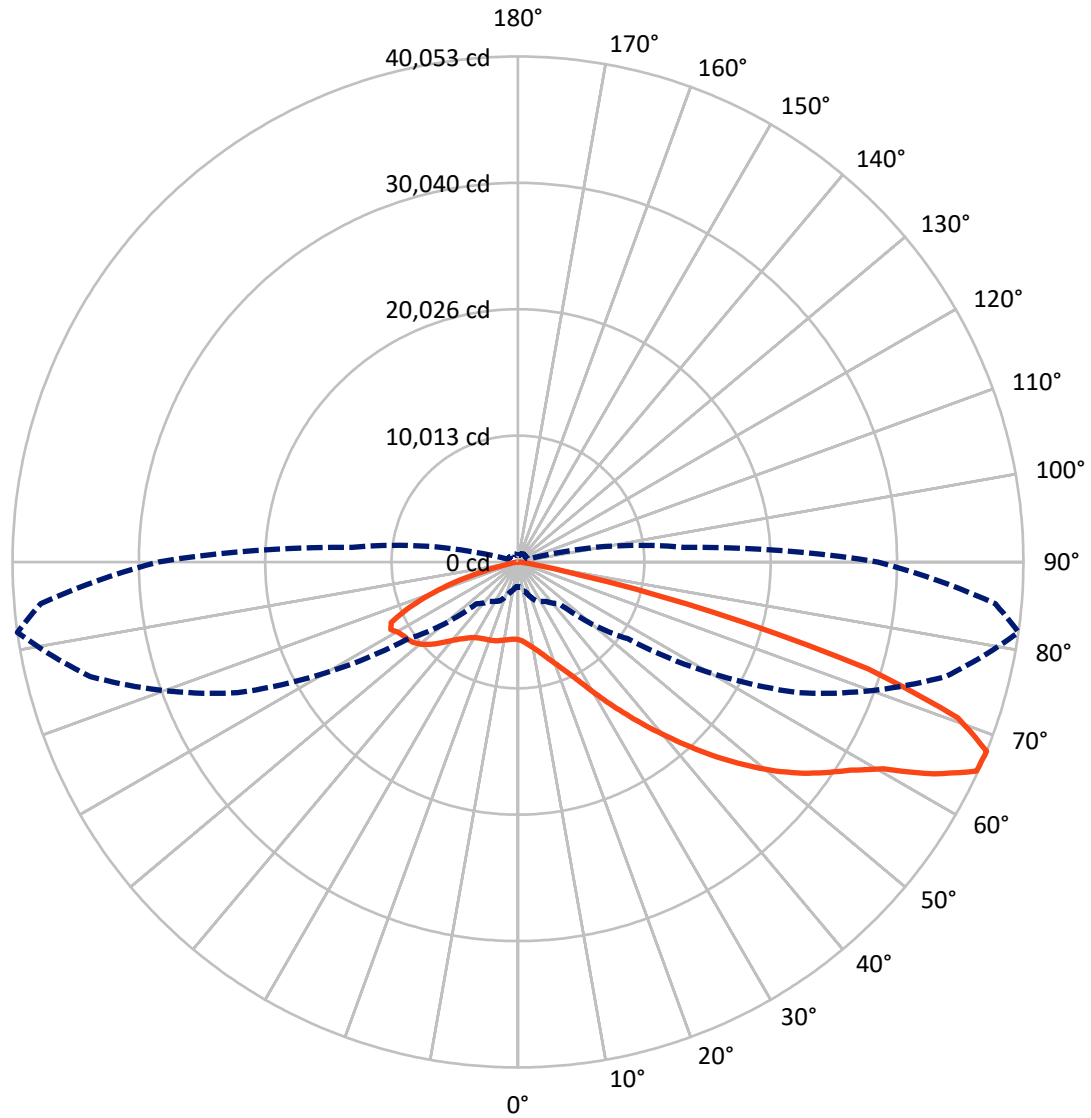
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6723.4	0.0	6723.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	30393.6	0.0	30393.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	37117.0	0.0	37117.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.8	1.5
10°-20°	1423.6	3.8
20°-30°	2280.2	6.1
30°-40°	4032.0	10.9
40°-50°	7064.5	19.0
50°-60°	9422.0	25.4
60°-70°	8771.4	23.6
70°-80°	3366.5	9.1
80°-90°	209.1	0.6
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°	37117.0	100.0
0°-180°	37117.0	100.0

Coefficient of Utilization



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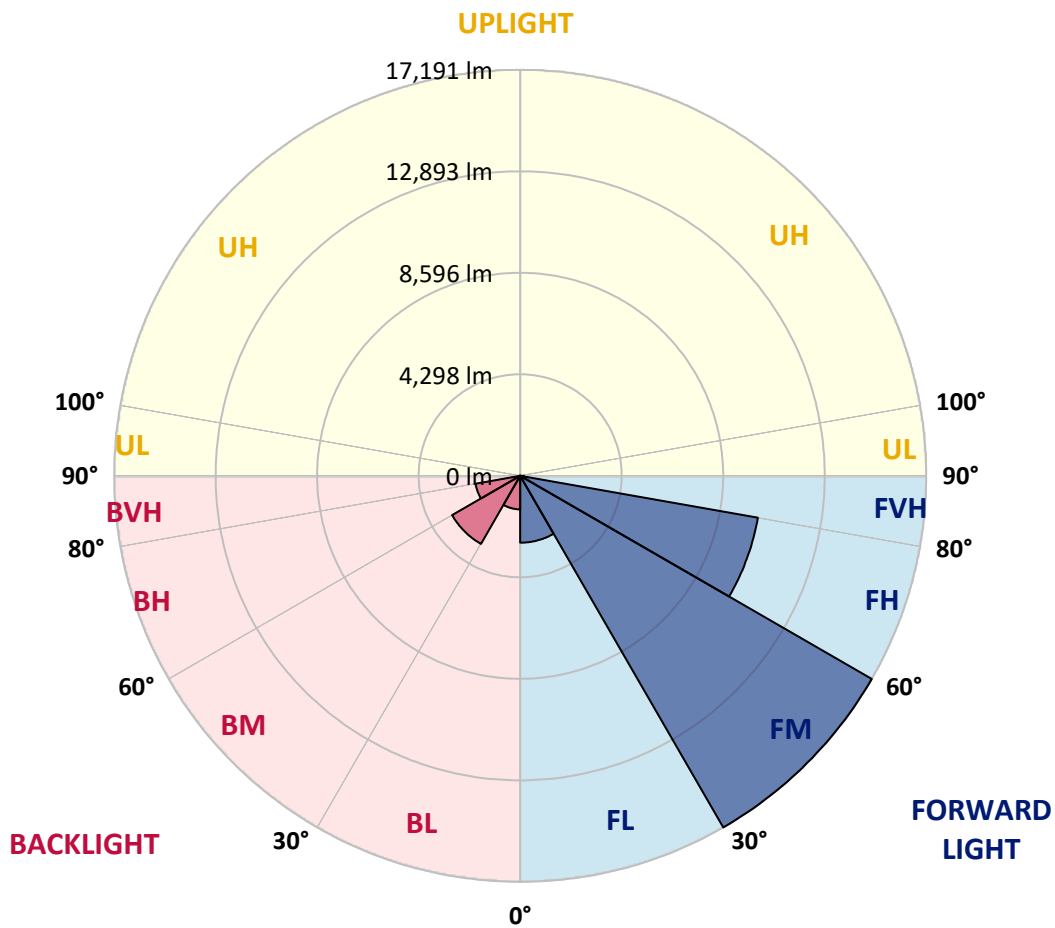
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2831.6	7.6			
FM (30°-60°)	17191.1	46.3			
FH (60°-80°)	10218.9	27.5			G4/12000
FVH (80°-90°)	152.0	0.4			G2/225
BL (0°-30°)	1420.0	3.8	B3/2500		
BM (30°-60°)	3327.4	9.0	B3/5000		
BH (60°-80°)	1919.0	5.2	B3/2500		G3/2500
BVH (80°-90°)	57.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0
2.5°	6499.1	6536.5	6515.1	6504.5	6485.7	6459.0	6437.6	6370.8	6301.4	6255.9	6239.9
5°	6630.1	6667.5	6664.8	6675.5	6688.8	6696.9	6691.5	6616.7	6517.8	6440.3	6394.9
7.5°	6517.8	6560.6	6595.3	6648.8	6742.3	6841.2	6889.3	6873.2	6771.7	6664.8	6608.7
10°	6199.8	6245.2	6328.1	6453.7	6651.4	6865.2	7044.3	7127.1	7063.0	6945.4	6867.9
12.5°	5617.2	5662.7	5825.7	6098.3	6429.6	6801.1	7143.1	7364.9	7381.0	7263.4	7172.5
15°	4962.5	5007.9	5181.6	5523.7	6028.8	6624.7	7196.6	7616.1	7757.8	7656.2	7546.7
17.5°	4556.3	4596.4	4727.4	5002.6	5529.1	6272.0	7177.9	7883.4	8206.7	8126.6	7995.6
20°	4433.4	4468.1	4529.6	4722.0	5160.3	5905.8	7055.0	8134.6	8690.4	8645.0	8498.0
22.5°	4564.3	4596.4	4615.1	4700.6	4975.9	5665.3	6900.0	8391.1	9251.6	9257.0	9077.9
25°	4866.3	4898.4	4877.0	4930.4	5050.7	5590.5	6841.2	8693.1	9957.1	10015.9	9812.8
27.5°	5363.4	5366.0	5315.3	5312.6	5331.3	5702.8	6902.6	9016.4	10847.0	10956.6	10705.4
30°	6360.1	6320.1	6125.0	5913.9	5817.7	6039.5	7073.7	9398.6	11897.2	12092.3	11777.0
32.5°	7896.7	7837.9	7479.9	6974.8	6467.0	6581.9	7381.0	9834.2	13041.0	13393.7	13008.9
35°	9564.3	9548.2	9174.1	8423.2	7536.0	7354.3	7880.7	10406.1	14288.9	14850.1	14393.2
37.5°	11114.2	11106.2	10892.4	10007.9	8928.3	8431.2	8682.4	11154.3	15625.1	16437.5	15897.7
40°	12530.6	12554.6	12340.8	11549.8	10462.2	9812.8	9772.7	12078.9	17110.9	18166.5	17525.1
42.5°	13754.5	13781.2	13564.7	12979.5	11977.4	11341.4	11111.5	13212.0	18562.0	20023.8	19264.8
45°	14585.6	14751.3	14719.2	14251.5	13532.7	12872.6	12720.3	14633.7	20216.2	21993.3	21103.4
47.5°	14820.7	14973.1	15213.6	15277.7	14839.4	14190.1	14371.8	16346.6	21889.1	23965.5	22952.6
50°	14240.8	14382.5	14882.2	15547.6	15852.3	15651.8	15977.9	18182.5	23602.0	25932.3	24767.2
52.5°	13097.1	13241.4	13872.1	14925.0	16167.6	16798.3	17589.3	19991.7	25261.5	27794.9	26485.5
55°	11442.9	11595.2	12405.0	13596.8	15566.3	17271.3	18933.5	21798.2	26782.1	29470.5	28035.4
57.5°	9192.8	9305.1	10146.8	11814.4	14053.8	16800.9	19924.9	23770.4	28214.5	31116.6	29572.0
60°	5991.4	6090.2	7068.3	8928.3	11547.1	15229.6	20122.6	25969.7	30117.2	33257.1	31643.1
62.5°	3984.4	4051.3	4631.1	5996.7	8131.9	12212.5	18965.5	27725.4	32907.1	36982.4	35194.6
65°	2733.8	2800.6	3380.5	4331.8	5253.8	8078.5	15638.5	27492.9	35435.1	39940.6	37826.8
67.5°	1950.8	2006.9	2498.6	3396.5	3802.7	4692.6	10601.1	24521.3	35071.7	40052.9	37968.5
70°	1397.6	1429.7	1835.9	2645.6	3022.4	2819.3	5895.2	18754.4	30707.7	36985.0	35077.0
72.5°	978.1	988.8	1274.7	2014.9	2434.5	2057.7	2805.9	12503.8	23225.2	29029.5	27193.6
75°	662.7	676.1	857.8	1477.8	1953.5	1571.3	1485.8	6704.9	13634.2	16068.7	14403.9
77.5°	406.2	411.5	553.2	1010.1	1461.8	1197.2	956.7	2840.7	5275.2	5179.0	4414.7
80°	229.8	229.8	352.7	628.0	996.8	772.3	670.8	1207.9	1670.2	1467.1	1293.4
82.5°	128.3	130.9	256.5	390.2	660.1	457.0	368.8	558.5	721.5	638.7	555.8
85°	53.4	58.8	157.7	184.4	315.3	227.1	149.7	235.2	267.2	237.8	173.7
87.5°	5.3	8.0	48.1	34.7	37.4	45.4	21.4	45.4	37.4	37.4	26.7
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°	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0	6149.0
2.5°	6189.1	6149.0	6047.5	5929.9	5774.9	5700.1	5598.5	5529.1	5470.3	5475.6	5422.2
5°	6309.4	6207.8	5980.7	5697.4	5344.7	5093.5	4826.2	4641.8	4492.2	4460.1	4388.0
7.5°	6475.1	6314.7	5916.5	5406.1	4810.2	4358.6	3955.0	3695.8	3511.4	3452.7	3393.9
10°	6688.8	6456.3	5833.7	5040.0	4182.2	3607.6	3174.7	2971.6	2846.0	2803.3	2771.2
12.5°	6937.4	6619.4	5724.1	4593.7	3535.5	2982.3	2707.1	2605.5	2565.4	2552.1	2544.1
15°	7250.0	6822.5	5558.4	4064.6	2987.7	2600.2	2482.6	2469.2	2474.6	2469.2	2466.6
17.5°	7621.5	7044.3	5288.5	3519.5	2618.9	2405.1	2362.3	2373.0	2386.4	2383.7	2378.4
20°	8027.7	7263.4	4943.8	3035.8	2367.7	2266.1	2242.1	2252.8	2263.5	2258.1	2255.4
22.5°	8490.0	7498.6	4561.7	2659.0	2199.3	2137.9	2111.1	2113.8	2113.8	2103.1	2097.8
25°	9043.2	7757.8	4160.8	2391.7	2071.1	2023.0	1990.9	1980.2	1964.2	1932.1	1926.7
27.5°	9703.2	8033.0	3776.0	2204.7	1969.5	1924.1	1886.7	1859.9	1819.9	1766.4	1761.1
30°	10446.1	8367.1	3450.0	2087.1	1889.3	1843.9	1801.2	1761.1	1702.3	1635.5	1630.1
32.5°	11320.0	8725.2	3212.1	2009.6	1817.2	1769.1	1718.3	1670.2	1606.1	1539.3	1541.9
35°	12362.2	9158.1	3073.2	1956.1	1761.1	1696.9	1640.8	1587.4	1539.3	1480.5	1475.1
37.5°	13492.6	9617.7	3030.4	1929.4	1723.7	1624.8	1560.6	1523.2	1517.9	1483.1	1480.5
40°	14729.9	10162.9	3062.5	1913.4	1683.6	1555.3	1485.8	1477.8	1491.2	1429.7	1432.4
42.5°	16039.3	10809.6	3115.9	1894.7	1627.4	1485.8	1419.0	1419.0	1408.3	1322.8	1322.8
45°	17455.7	11555.2	3169.4	1849.3	1560.6	1416.3	1365.6	1346.9	1301.4	1218.6	1215.9
47.5°	18882.7	12314.1	3209.5	1766.4	1480.5	1357.5	1312.1	1269.4	1202.5	1127.7	1125.1
50°	20237.6	12995.5	3166.7	1643.5	1389.6	1301.4	1253.3	1194.5	1122.4	1071.6	1063.6
52.5°	21448.1	13586.1	2985.0	1499.2	1293.4	1242.6	1199.9	1138.4	1079.6	1026.2	1020.8
55°	22501.0	14064.5	2664.3	1362.9	1207.9	1191.9	1149.1	1071.6	991.4	946.0	940.7
57.5°	23511.2	14427.9	2263.5	1250.7	1130.4	1135.7	1071.6	1002.1	927.3	879.2	873.9
60°	24855.3	14914.3	1857.3	1146.4	1047.6	1063.6	994.1	943.3	849.8	788.3	780.3
62.5°	27003.9	15670.5	1475.1	1018.2	951.3	956.7	927.3	865.8	753.6	681.4	676.1
65°	28708.8	15392.6	1162.5	879.2	841.8	849.8	849.8	783.0	662.7	579.9	571.9
67.5°	28516.4	13179.9	927.3	742.9	737.6	742.9	761.6	705.5	587.9	521.1	510.4
70°	26269.0	10483.5	742.9	617.3	641.4	628.0	681.4	644.0	529.1	462.3	454.3
72.5°	21434.8	7552.0	566.5	510.4	491.7	513.1	614.6	579.9	440.9	366.1	358.1
75°	12525.2	4029.9	422.2	403.5	355.4	427.6	545.2	494.4	336.7	269.9	261.9
77.5°	4078.0	1405.6	310.0	296.6	264.6	344.7	465.0	416.9	275.2	213.8	205.8
80°	1093.0	424.9	211.1	195.1	171.0	256.5	368.8	331.4	197.8	139.0	136.3
82.5°	438.3	179.0	122.9	109.6	93.5	176.4	291.3	267.2	147.0	88.2	88.2
85°	141.6	58.8	45.4	34.7	42.8	109.6	173.7	181.7	104.2	45.4	34.7
87.5°	18.7	8.0	8.0	10.7	8.0	18.7	53.4	50.8	29.4	5.3	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)