

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: P884774

Luminaire Tested: **NAV-SB5D-730-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884774  
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-SB5D-730-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

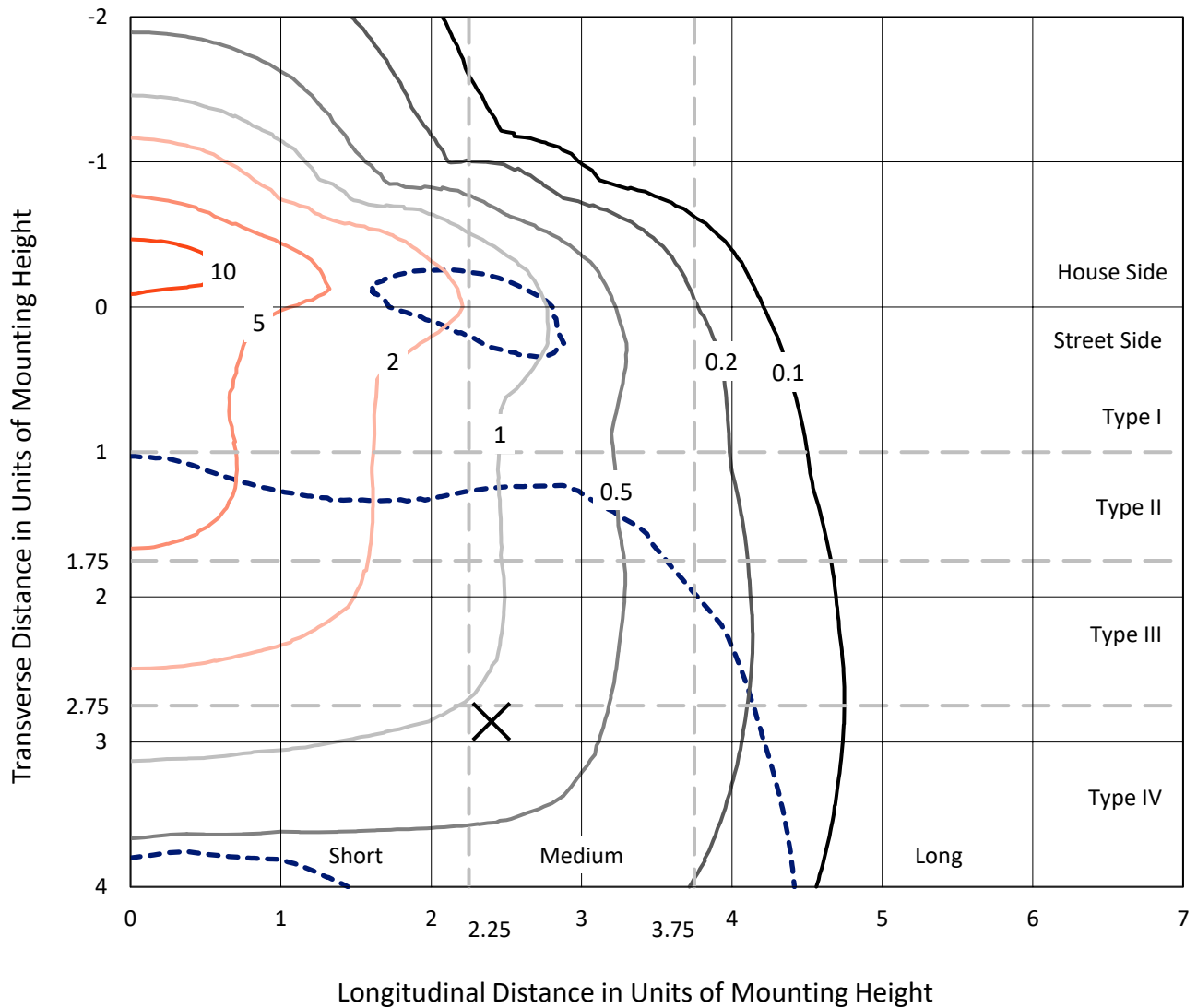
Lumens per Lamp: N/A  
Luminaire Lumens: 50386 lumens  
Efficiency: N/A  
Efficacy: 138.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

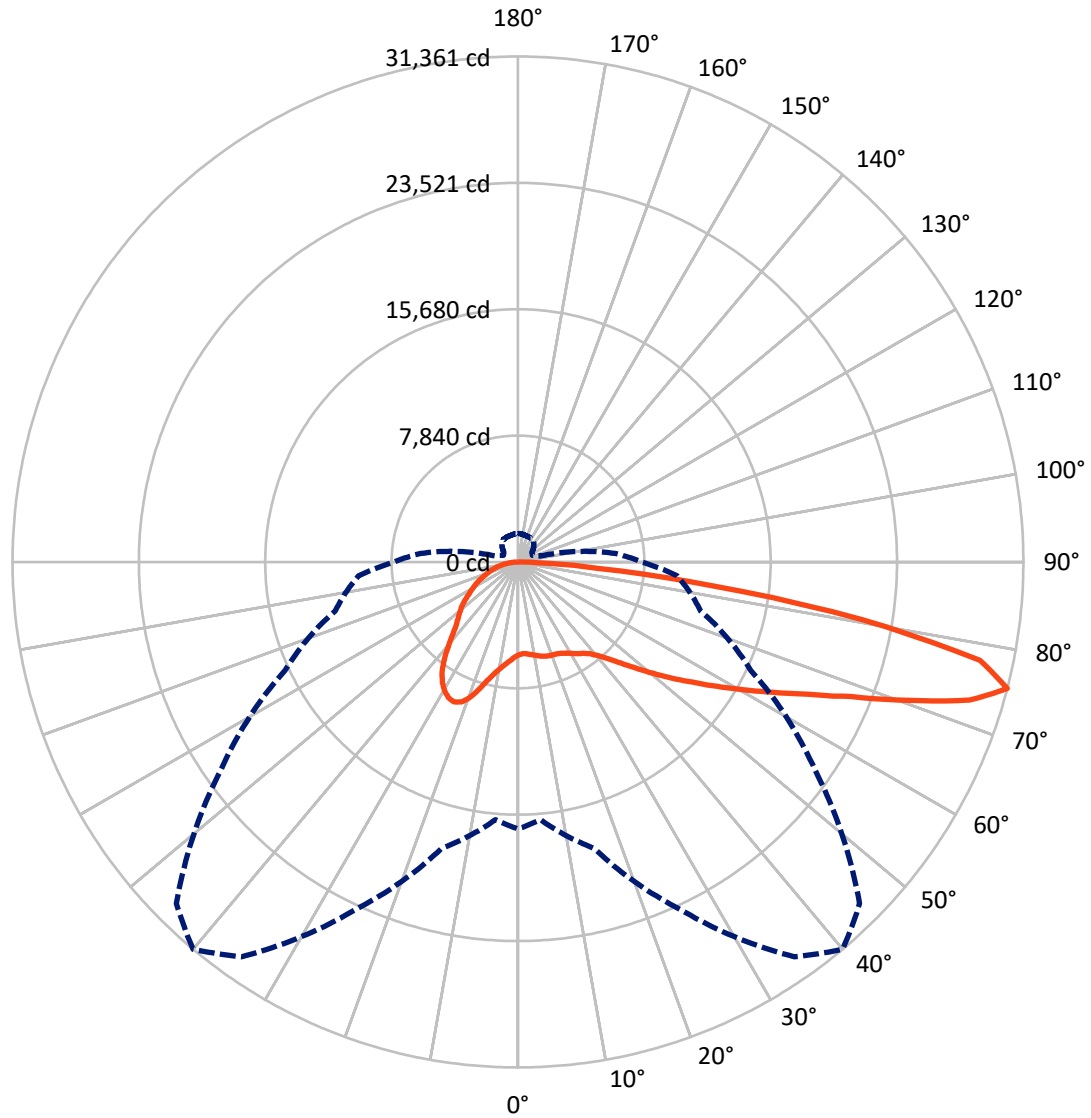
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P884774  
CATALOG NUMBER: NAV-SB5D-730-U-SL4

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P884774

CATALOG NUMBER: NAV-SB5D-730-U-SL4

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15611.3	0.0	15611.3
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	34774.7	0.0	34774.7
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	50386.0	0.0	50386.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	575.1	1.1
10°-20°	1931.0	3.8
20°-30°	3525.8	7.0
30°-40°	5000.5	9.9
40°-50°	6752.2	13.4
50°-60°	9083.6	18.0
60°-70°	11529.1	22.9
70°-80°	10463.4	20.8
80°-90°	1525.2	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°	50386.0	100.0
0°-180°	50386.0	100.0

**Coefficient of Utilization**



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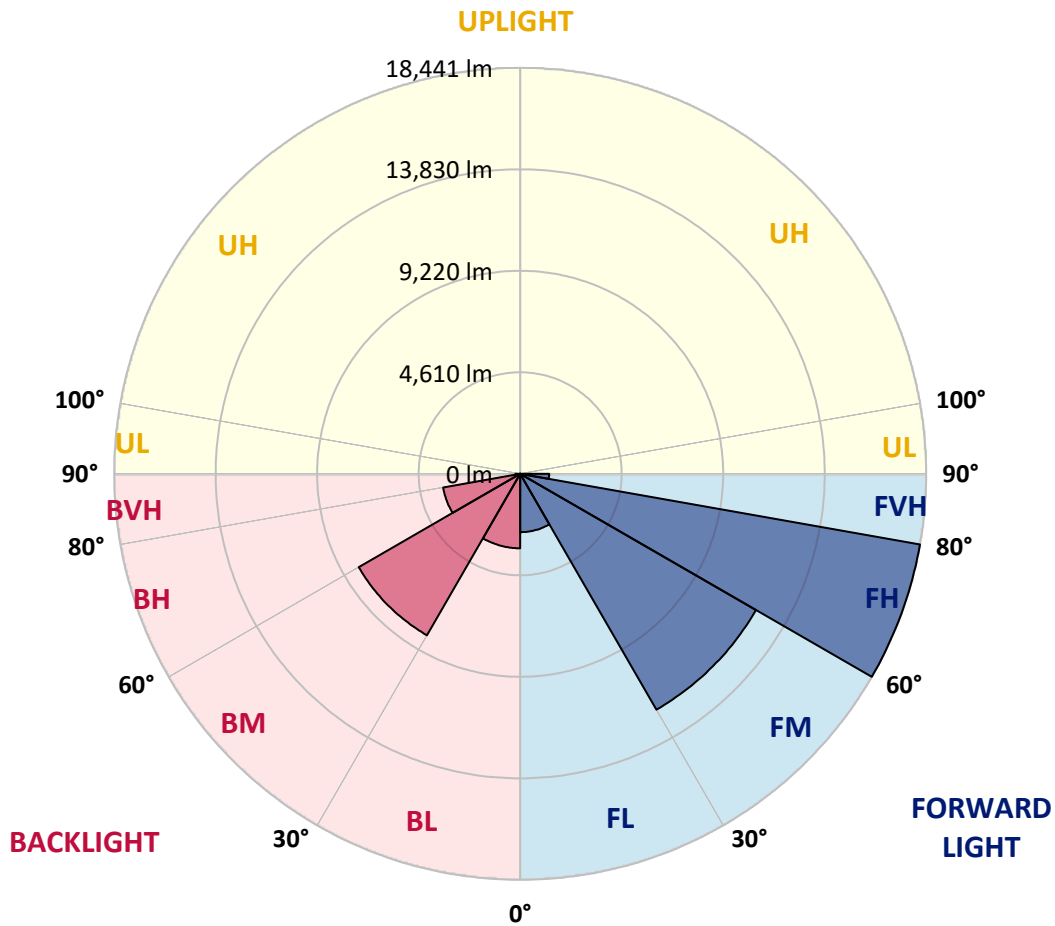
CATALOG NUMBER: NAV-SB5D-730-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2650.4	5.3			
FM (30°-60°)	12368.6	24.5			
FH (60°-80°)	18440.5	36.6			G5
FVH (80°-90°)	1315.2	2.6			G5
BL (0°-30°)	3381.5	6.7	B4/5000		
BM (30°-60°)	8467.7	16.8	B4/8500		
BH (60°-80°)	3552.0	7.0	B4/5000		G4/5000
BVH (80°-90°)	210.0	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Medium



REPORT NUMBER: P884774

CATALOG NUMBER: NAV-SB5D-730-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7
2.5°	5673.5	5705.6	5697.6	5686.9	5686.9	5689.6	5686.9	5705.6	5724.3	5743.0	5772.4
5°	5732.3	5764.4	5748.3	5735.0	5724.3	5721.6	5713.6	5710.9	5721.6	5745.7	5785.8
7.5°	5847.2	5879.3	5855.2	5831.2	5809.8	5799.1	5788.4	5772.4	5764.4	5777.7	5833.9
10°	5975.5	6007.6	5978.2	5935.4	5900.7	5887.3	5876.6	5860.6	5849.9	5857.9	5919.4
12.5°	6103.8	6135.8	6095.8	6037.0	5991.5	5983.5	5970.2	5964.8	5962.1	5959.5	6020.9
15°	6224.0	6250.8	6200.0	6130.5	6082.4	6069.0	6055.7	6063.7	6077.1	6093.1	6162.6
17.5°	6317.6	6344.3	6269.5	6178.6	6133.2	6127.8	6119.8	6146.5	6183.9	6224.0	6309.5
20°	6403.1	6429.8	6333.6	6210.7	6157.2	6157.2	6159.9	6216.0	6269.5	6328.3	6445.8
22.5°	6523.3	6544.7	6427.1	6258.8	6181.3	6186.6	6208.0	6264.1	6330.9	6411.1	6574.1
25°	6702.4	6718.4	6574.1	6349.6	6261.4	6277.5	6296.2	6322.9	6387.0	6480.6	6699.7
27.5°	6991.0	7004.4	6814.6	6510.0	6376.4	6403.1	6429.8	6411.1	6440.5	6520.7	6801.3
30°	7397.2	7405.2	7164.7	6761.2	6571.4	6584.8	6590.2	6512.7	6456.5	6520.7	6873.4
32.5°	7878.3	7875.6	7589.6	7065.8	6793.3	6779.9	6734.5	6582.1	6451.2	6507.3	6937.6
35°	8623.9	8594.5	8225.7	7493.4	7044.5	6961.6	6854.7	6659.6	6477.9	6493.9	6993.7
37.5°	9858.5	9767.6	9257.2	8193.6	7418.6	7207.5	7049.8	6785.2	6536.7	6488.6	7060.5
40°	11250.8	11135.9	10574.7	9153.0	7979.8	7640.4	7386.5	6964.3	6632.9	6512.7	7159.4
42.5°	12902.4	12739.4	12135.4	10283.4	8690.7	8198.9	7816.8	7191.4	6774.5	6590.2	7293.0
45°	14930.7	14714.3	13859.1	11558.2	9585.9	8931.2	8420.7	7536.2	6991.0	6739.8	7493.4
47.5°	16980.5	17033.9	15818.0	13017.3	10660.2	9834.5	9177.0	8054.6	7306.4	6980.3	7816.8
50°	19158.5	19195.9	17766.2	14634.1	11878.8	10855.3	10026.9	8634.5	7744.6	7322.4	8300.5
52.5°	20858.1	20863.5	19535.3	16325.7	13148.2	11977.7	10943.5	9297.3	8252.4	7776.7	8944.5
55°	21921.7	21908.4	20775.3	17926.5	14607.4	13156.3	11959.0	10050.9	8872.4	8311.2	9754.3
57.5°	22694.1	22654.0	21630.5	19302.8	16162.7	14548.6	13108.1	10906.1	9604.6	8947.2	10820.6
60°	22988.0	22964.0	22210.4	20492.0	17798.2	16087.9	14433.7	11862.8	10435.7	9698.2	12191.5
62.5°	23100.3	23145.7	22779.6	21643.8	19548.6	17792.9	15890.1	13006.6	11371.1	10548.0	13637.3
65°	23495.8	23578.6	23503.8	23151.0	21526.2	19789.2	17822.3	14366.9	12391.9	11459.3	15147.2
67.5°	24278.8	24361.6	24393.7	24954.9	23942.1	22277.2	20232.8	16061.2	13586.5	12405.3	16283.0
70°	24260.1	24236.0	24802.6	26390.0	26967.2	25721.9	23482.4	18145.6	15010.9	13191.0	16427.3
72.5°	22082.1	21889.7	23228.5	26374.0	29484.6	29319.0	27450.9	20834.1	16240.2	13287.2	14254.6
75°	16566.2	16053.1	18418.2	23768.4	29904.2	31360.7	29973.7	22501.7	15948.9	11739.9	9920.0
77.5°	7084.5	6568.8	9356.1	17595.1	26764.1	29316.3	27659.4	19631.5	12731.3	7763.3	4871.8
80°	1854.6	1852.0	2827.4	7977.1	18201.8	21649.2	18992.8	12677.9	7274.3	2774.0	1344.2
82.5°	767.0	748.3	1039.6	3102.7	8893.8	12148.8	9914.6	5654.8	2627.0	750.9	446.3
85°	285.9	283.3	505.1	1071.6	3137.4	5010.8	3626.5	1445.8	654.7	366.1	200.4
87.5°	80.2	77.5	109.6	371.5	764.3	1159.8	620.0	237.8	184.4	144.3	58.8
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: P884774

CATALOG NUMBER: NAV-SB5D-730-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7	5761.7
2.5°	5780.4	5793.8	5817.8	5836.5	5860.6	5887.3	5924.7	5948.8	5972.8	5988.9	5978.2
5°	5804.5	5833.9	5895.3	5956.8	6028.9	6095.8	6173.3	6229.4	6274.8	6288.2	6293.5
7.5°	5857.9	5906.0	6010.2	6114.5	6229.4	6338.9	6451.2	6547.4	6624.9	6654.3	6657.0
10°	5951.4	6015.6	6162.6	6309.5	6461.9	6630.2	6774.5	6913.5	7023.1	7068.5	7071.2
12.5°	6069.0	6149.2	6341.6	6544.7	6755.8	6988.3	7175.4	7346.4	7482.7	7544.2	7544.2
15°	6221.4	6325.6	6571.4	6844.0	7154.0	7477.4	7715.2	7905.0	8057.3	8132.1	8126.8
17.5°	6387.0	6526.0	6836.0	7247.6	7691.2	8116.1	8394.0	8533.0	8690.7	8762.8	8760.1
20°	6547.4	6718.4	7162.0	7760.7	8351.3	8802.9	9027.4	9064.8	9075.5	9083.5	9104.9
22.5°	6713.1	6942.9	7570.9	8407.4	9040.7	9353.4	9385.5	9225.1	9000.7	8896.4	8925.8
25°	6894.8	7199.5	8105.4	9120.9	9634.0	9671.4	9425.6	9035.4	8610.5	8415.4	8444.8
27.5°	7071.2	7496.1	8746.8	9802.4	10061.6	9732.9	9203.8	8650.6	8137.5	7931.7	7955.8
30°	7247.6	7835.5	9455.0	10398.3	10256.7	9580.6	8853.7	8236.4	7720.6	7504.1	7528.2
32.5°	7426.6	8231.0	10270.1	10828.6	10222.0	9257.2	8418.1	7771.4	7317.0	7089.9	7119.3
35°	7629.7	8717.4	11042.4	11063.8	9989.5	8781.5	7843.5	7215.5	6820.0	6638.3	6678.3
37.5°	7894.3	9334.7	11723.8	11122.6	9583.2	8084.0	7130.0	6558.1	6232.0	6149.2	6208.0
40°	8223.0	10077.6	12245.0	11029.0	8982.0	7236.9	6349.6	5892.7	5708.3	5727.0	5791.1
42.5°	8650.6	10908.8	12611.1	10788.5	8145.5	6363.0	5665.5	5462.4	5550.6	5625.4	5694.9
45°	9206.4	11771.9	12838.2	10379.6	7199.5	5622.7	5262.0	5310.1	5376.9	5384.9	5438.3
47.5°	9917.3	12645.8	12987.9	9762.3	6234.7	5101.6	5005.4	5016.1	5002.7	4946.6	4989.4
50°	10804.5	13495.6	13121.5	8944.5	5414.3	4775.6	4647.3	4609.9	4425.5	4243.8	4267.8
52.5°	11814.7	14276.0	13177.6	7929.0	4775.6	4503.0	4294.6	4059.4	3714.6	3658.5	3677.2
55°	12937.1	14997.5	13033.3	6681.0	4238.4	4152.9	3837.6	3554.3	3516.9	3468.8	3476.8
57.5°	14278.7	15775.2	12739.4	5288.7	3687.9	3744.0	3436.7	3468.8	3402.0	3327.1	3313.8
60°	15745.8	16579.6	12223.6	4019.3	3118.7	3233.6	3332.5	3329.8	3311.1	3249.6	3228.3
62.5°	17066.0	17108.7	11208.1	3078.6	2619.0	2838.1	3108.0	3105.3	3089.3	3054.6	3041.2
65°	17851.7	17028.6	9513.8	2423.9	2207.4	2512.1	2803.4	2824.7	2827.4	2824.7	2824.7
67.5°	17712.7	16090.6	7188.8	1929.5	1868.0	2180.7	2501.4	2530.8	2552.1	2557.5	2562.8
70°	16141.3	14030.1	4687.4	1539.3	1566.0	1889.4	2215.4	2244.8	2263.5	2284.9	2295.6
72.5°	12581.7	10315.5	2683.1	1245.3	1301.5	1638.2	1932.1	1966.9	1977.6	2017.7	2033.7
75°	7667.1	6066.4	1448.4	980.8	1069.0	1400.3	1651.5	1691.6	1710.3	1758.4	1763.8
77.5°	3645.2	2627.0	825.8	764.3	860.5	1143.8	1395.0	1440.4	1389.7	1416.4	1395.0
80°	1232.0	975.4	521.1	582.6	657.4	892.6	1117.1	1162.5	1055.6	1050.3	1039.6
82.5°	430.3	395.5	331.4	387.5	424.9	638.7	844.5	903.3	785.7	783.0	745.6
85°	168.4	160.3	184.4	211.1	253.9	392.8	555.9	585.3	483.7	390.2	384.8
87.5°	34.7	37.4	45.4	48.1	77.5	136.3	200.4	245.9	195.1	165.7	152.3
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)