

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: P884794

Luminaire Tested: **NAV-SB5D-740-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884794
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-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 55185 lumens
Efficiency: N/A
Efficacy: 151.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B5 - U0 - G5

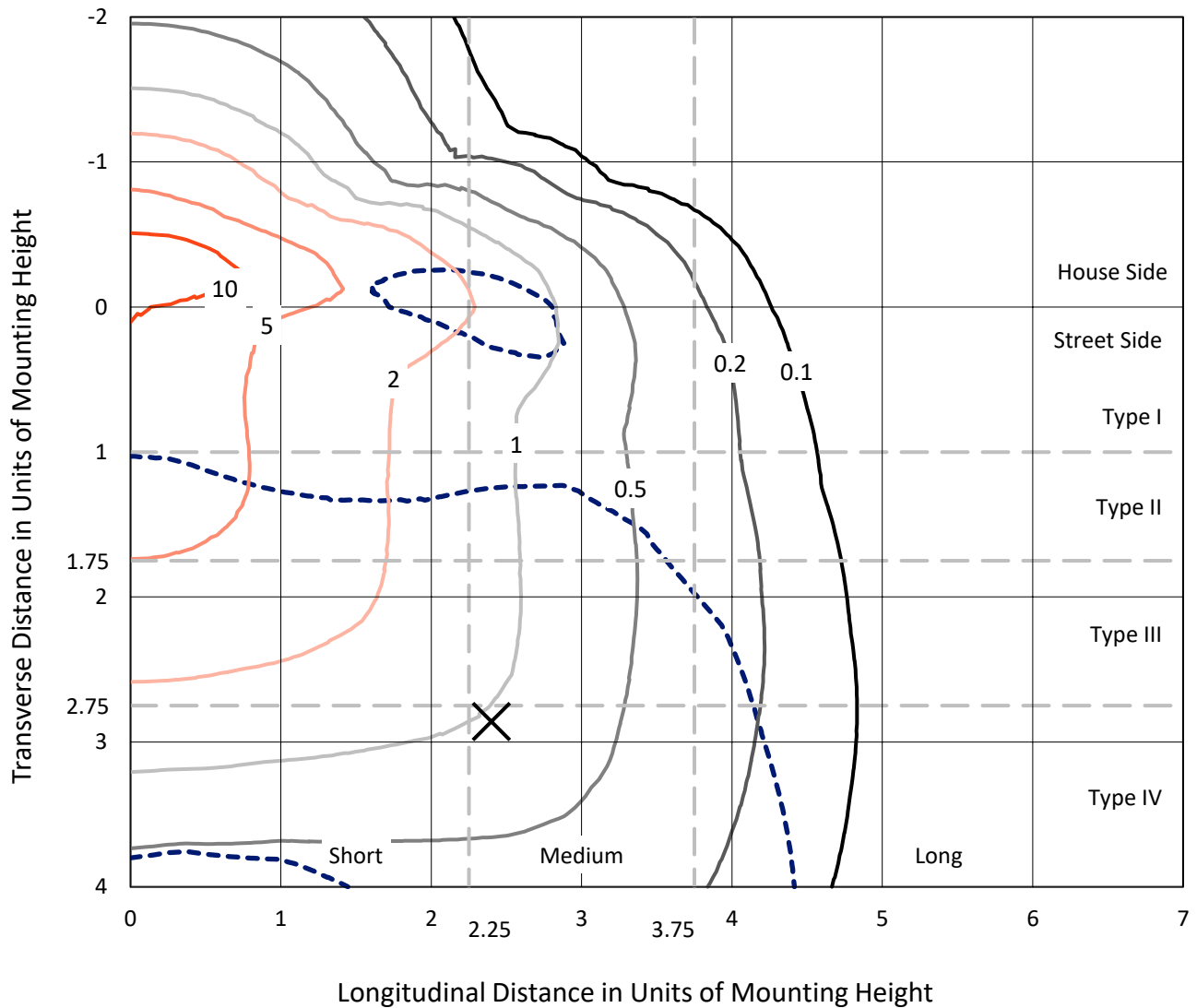
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

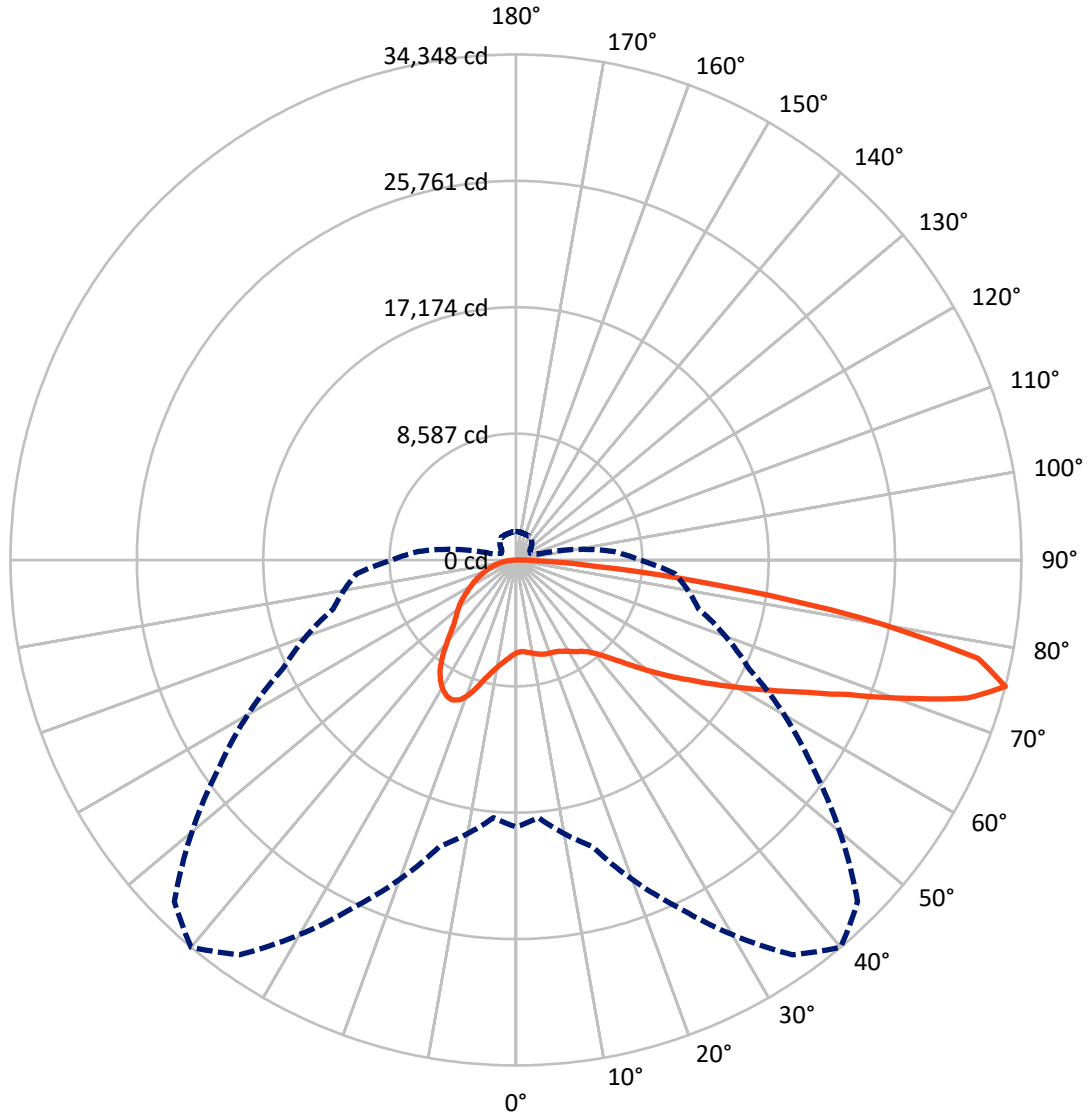
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 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	17098.1	0.0	17098.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	38086.8	0.0	38086.8
	% Fixture	69.0	0.0	69.0
Total	Lumens	55185.0	0.0	55185.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	629.9	1.1
10°-20°	2114.9	3.8
20°-30°	3861.6	7.0
30°-40°	5476.8	9.9
40°-50°	7395.3	13.4
50°-60°	9948.7	18.0
60°-70°	12627.2	22.9
70°-80°	11460.0	20.8
80°-90°	1670.5	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°	55185.0	100.0
0°-180°	55185.0	100.0

Coefficient of Utilization



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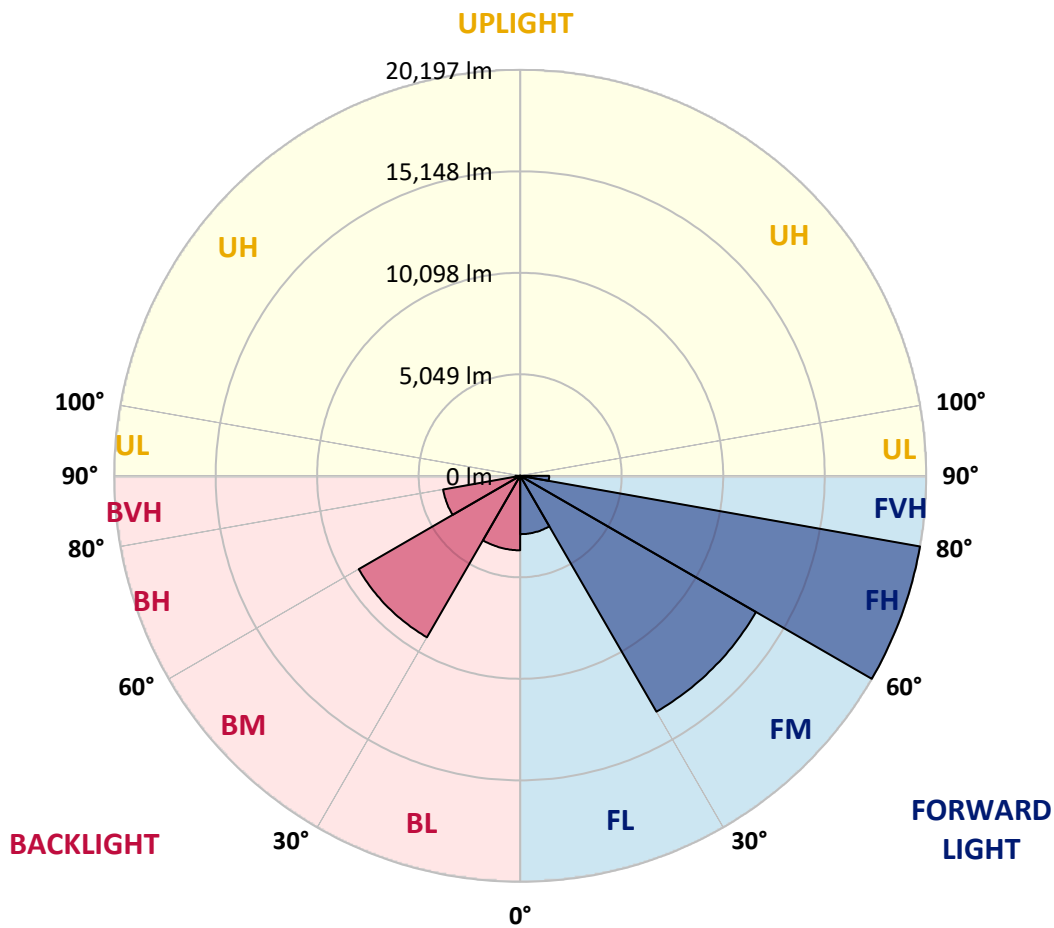
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2902.8	5.3			
FM (30°-60°)	13546.7	24.5			
FH (60°-80°)	20196.9	36.6			G5
FVH (80°-90°)	1440.5	2.6			G5
BL (0°-30°)	3703.6	6.7	B4/5000		
BM (30°-60°)	9274.2	16.8	B5		
BH (60°-80°)	3890.3	7.0	B4/5000		G4/5000
BVH (80°-90°)	230.0	0.4			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5
2.5°	6213.9	6249.0	6240.2	6228.5	6228.5	6231.5	6228.5	6249.0	6269.5	6290.0	6322.2
5°	6278.3	6313.4	6295.8	6281.2	6269.5	6266.6	6257.8	6254.9	6266.6	6292.9	6336.8
7.5°	6404.1	6439.3	6412.9	6386.6	6363.2	6351.5	6339.7	6322.2	6313.4	6328.0	6389.5
10°	6544.6	6579.8	6547.6	6500.7	6462.7	6448.0	6436.3	6418.8	6407.1	6415.8	6483.2
12.5°	6685.1	6720.2	6676.3	6612.0	6562.2	6553.4	6538.8	6532.9	6530.0	6527.1	6594.4
15°	6816.8	6846.1	6790.5	6714.4	6661.7	6647.1	6632.4	6641.2	6655.9	6673.4	6749.5
17.5°	6919.3	6948.6	6866.6	6767.1	6717.3	6711.5	6702.7	6732.0	6772.9	6816.8	6910.5
20°	7012.9	7042.2	6936.8	6802.2	6743.7	6743.7	6746.6	6808.1	6866.6	6931.0	7059.8
22.5°	7144.7	7168.1	7039.3	6854.9	6770.0	6775.9	6799.3	6860.7	6933.9	7021.7	7200.3
25°	7340.8	7358.3	7200.3	6954.4	6857.8	6875.4	6895.9	6925.1	6995.4	7097.8	7337.8
27.5°	7656.9	7671.5	7463.7	7130.0	6983.7	7012.9	7042.2	7021.7	7053.9	7141.7	7449.1
30°	8101.8	8110.5	7847.1	7405.2	7197.3	7212.0	7217.8	7132.9	7071.5	7141.7	7528.1
32.5°	8628.6	8625.7	8312.5	7738.8	7440.3	7425.6	7375.9	7209.0	7065.6	7127.1	7598.3
35°	9445.2	9413.0	9009.1	8207.1	7715.4	7624.7	7507.6	7293.9	7094.9	7112.5	7659.8
37.5°	10797.5	10698.0	10138.9	8974.0	8125.2	7894.0	7721.3	7431.5	7159.3	7106.6	7733.0
40°	12322.4	12196.6	11581.9	10024.8	8739.8	8368.1	8090.1	7627.6	7264.7	7132.9	7841.3
42.5°	14131.3	13952.7	13291.2	11262.9	9518.4	8979.8	8561.3	7876.4	7419.8	7217.8	7987.6
45°	16352.8	16115.7	15179.1	12659.0	10498.9	9781.8	9222.8	8254.0	7656.9	7381.7	8207.1
47.5°	18597.8	18656.3	17324.5	14257.1	11675.6	10771.1	10051.1	8821.8	8002.2	7645.2	8561.3
50°	20983.2	21024.2	19458.3	16027.9	13010.2	11889.2	10981.9	9456.9	8482.3	8019.8	9091.1
52.5°	22844.8	22850.6	21395.9	17880.7	14400.5	13118.5	11985.8	10182.8	9038.4	8517.4	9796.5
55°	24009.7	23995.0	22754.0	19633.9	15998.6	14409.3	13098.0	11008.2	9717.4	9102.8	10683.3
57.5°	24855.6	24811.7	23690.6	21141.3	17702.1	15934.3	14356.6	11944.8	10519.4	9799.4	11851.2
60°	25177.5	25151.2	24325.8	22443.8	19493.4	17620.2	15808.4	12992.7	11429.7	10621.9	13352.7
62.5°	25300.5	25350.2	24949.2	23705.3	21410.6	19487.6	17403.6	14245.4	12454.1	11552.6	14936.2
65°	25733.6	25824.4	25742.4	25356.1	23576.5	21674.0	19519.7	15735.2	13572.2	12550.7	16589.9
67.5°	26591.2	26682.0	26717.1	27331.7	26222.4	24399.0	22159.8	17590.9	14880.6	13586.8	17833.8
70°	26570.7	26544.4	27164.9	28903.5	29535.7	28171.8	25719.0	19873.9	16440.6	14447.4	17991.9
72.5°	24185.3	23974.5	25440.9	28886.0	32292.9	32111.4	30065.5	22818.4	17787.0	14552.7	15612.3
75°	18144.1	17582.1	20172.5	26032.2	32752.4	34347.6	32828.5	24644.8	17468.0	12858.0	10864.8
77.5°	7759.3	7194.4	10247.2	19271.0	29313.3	32108.5	30293.8	21501.3	13943.9	8502.8	5335.8
80°	2031.3	2028.4	3096.7	8736.9	19935.4	23711.1	20801.7	13885.4	7967.1	3038.2	1472.2
82.5°	840.0	819.5	1138.6	3398.2	9740.8	13305.9	10858.9	6193.4	2877.2	822.5	488.8
85°	313.2	310.3	553.2	1173.7	3436.2	5488.0	3971.9	1583.5	717.1	401.0	219.5
87.5°	87.8	84.9	120.0	406.8	837.1	1270.3	679.0	260.5	202.0	158.1	64.4
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°	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5	6310.5
2.5°	6331.0	6345.6	6371.9	6392.4	6418.8	6448.0	6489.0	6515.4	6541.7	6559.3	6547.6
5°	6357.3	6389.5	6456.8	6524.1	6603.2	6676.3	6761.2	6822.7	6872.5	6887.1	6892.9
7.5°	6415.8	6468.5	6582.7	6696.8	6822.7	6942.7	7065.6	7171.0	7255.9	7288.1	7291.0
10°	6518.3	6588.5	6749.5	6910.5	7077.3	7261.7	7419.8	7572.0	7692.0	7741.8	7744.7
12.5°	6647.1	6734.9	6945.6	7168.1	7399.3	7653.9	7858.8	8046.2	8195.4	8262.7	8262.7
15°	6813.9	6928.1	7197.3	7495.9	7835.4	8189.6	8450.1	8657.9	8824.7	8906.7	8900.8
17.5°	6995.4	7147.6	7487.1	7937.9	8423.7	8889.1	9193.5	9345.7	9518.4	9597.4	9594.5
20°	7171.0	7358.3	7844.2	8499.8	9146.7	9641.3	9887.2	9928.2	9939.9	9948.7	9972.1
22.5°	7352.5	7604.2	8292.0	9208.1	9901.8	10244.3	10279.4	10103.8	9857.9	9743.8	9776.0
25°	7551.5	7885.2	8877.4	9989.6	10551.6	10592.6	10323.3	9896.0	9430.6	9216.9	9249.1
27.5°	7744.7	8210.1	9579.9	10736.0	11019.9	10659.9	10080.4	9474.5	8912.5	8687.2	8713.5
30°	7937.9	8581.8	10355.5	11388.7	11233.6	10493.1	9696.9	9020.8	8455.9	8218.8	8245.2
32.5°	8134.0	9015.0	11248.2	11860.0	11195.5	10138.9	9219.9	8511.5	8014.0	7765.2	7797.4
35°	8356.4	9547.7	12094.1	12117.5	10940.9	9617.9	8590.6	7902.7	7469.5	7270.5	7314.4
37.5°	8646.2	10223.8	12840.5	12181.9	10496.0	8854.0	7809.1	7182.7	6825.6	6734.9	6799.3
40°	9006.2	11037.5	13411.2	12079.5	9837.4	7926.1	6954.4	6453.9	6251.9	6272.4	6342.7
42.5°	9474.5	11947.8	13812.2	11816.0	8921.3	6969.0	6205.1	5982.7	6079.3	6161.2	6237.3
45°	10083.3	12893.2	14061.0	11368.2	7885.2	6158.3	5763.1	5815.8	5889.0	5897.8	5956.3
47.5°	10861.9	13850.3	14224.9	10692.1	6828.5	5587.5	5482.2	5493.9	5479.2	5417.8	5464.6
50°	11833.6	14781.0	14371.3	9796.5	5930.0	5230.4	5089.9	5049.0	4847.0	4648.0	4674.3
52.5°	12940.0	15635.7	14432.7	8684.2	5230.4	4931.9	4703.6	4446.0	4068.4	4007.0	4027.5
55°	14169.3	16426.0	14274.7	7317.3	4642.1	4548.5	4203.1	3892.8	3851.9	3799.2	3807.9
57.5°	15638.6	17277.7	13952.7	5792.4	4039.2	4100.6	3764.0	3799.2	3726.0	3644.0	3629.4
60°	17245.5	18158.7	13387.8	4402.1	3415.7	3541.6	3649.9	3647.0	3626.5	3559.2	3535.7
62.5°	18691.4	18738.3	12275.6	3371.8	2868.4	3108.4	3404.0	3401.1	3383.5	3345.5	3330.9
65°	19551.9	18650.4	10419.9	2654.7	2417.7	2751.3	3070.4	3093.8	3096.7	3093.8	3093.8
67.5°	19399.7	17623.1	7873.5	2113.2	2045.9	2388.4	2739.6	2771.8	2795.2	2801.1	2806.9
70°	17678.7	15366.4	5133.8	1685.9	1715.2	2069.3	2426.4	2458.6	2479.1	2502.5	2514.2
72.5°	13780.0	11298.0	2938.6	1364.0	1425.4	1794.2	2116.2	2154.2	2165.9	2209.8	2227.4
75°	8397.4	6644.1	1586.4	1074.2	1170.8	1533.7	1808.8	1852.8	1873.2	1925.9	1931.8
77.5°	3992.3	2877.2	904.4	837.1	942.5	1252.7	1527.9	1577.6	1522.0	1551.3	1527.9
80°	1349.3	1068.3	570.8	638.1	720.0	977.6	1223.5	1273.2	1156.1	1150.3	1138.6
82.5°	471.2	433.2	362.9	424.4	465.4	699.5	924.9	989.3	860.5	857.6	816.6
85°	184.4	175.6	202.0	231.2	278.1	430.3	608.8	641.0	529.8	427.3	421.5
87.5°	38.1	41.0	49.8	52.7	84.9	149.3	219.5	269.3	213.7	181.5	166.8
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)