

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: P884766

Luminaire Tested: **NAV-SB5D-727-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884766
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-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 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: 34171 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

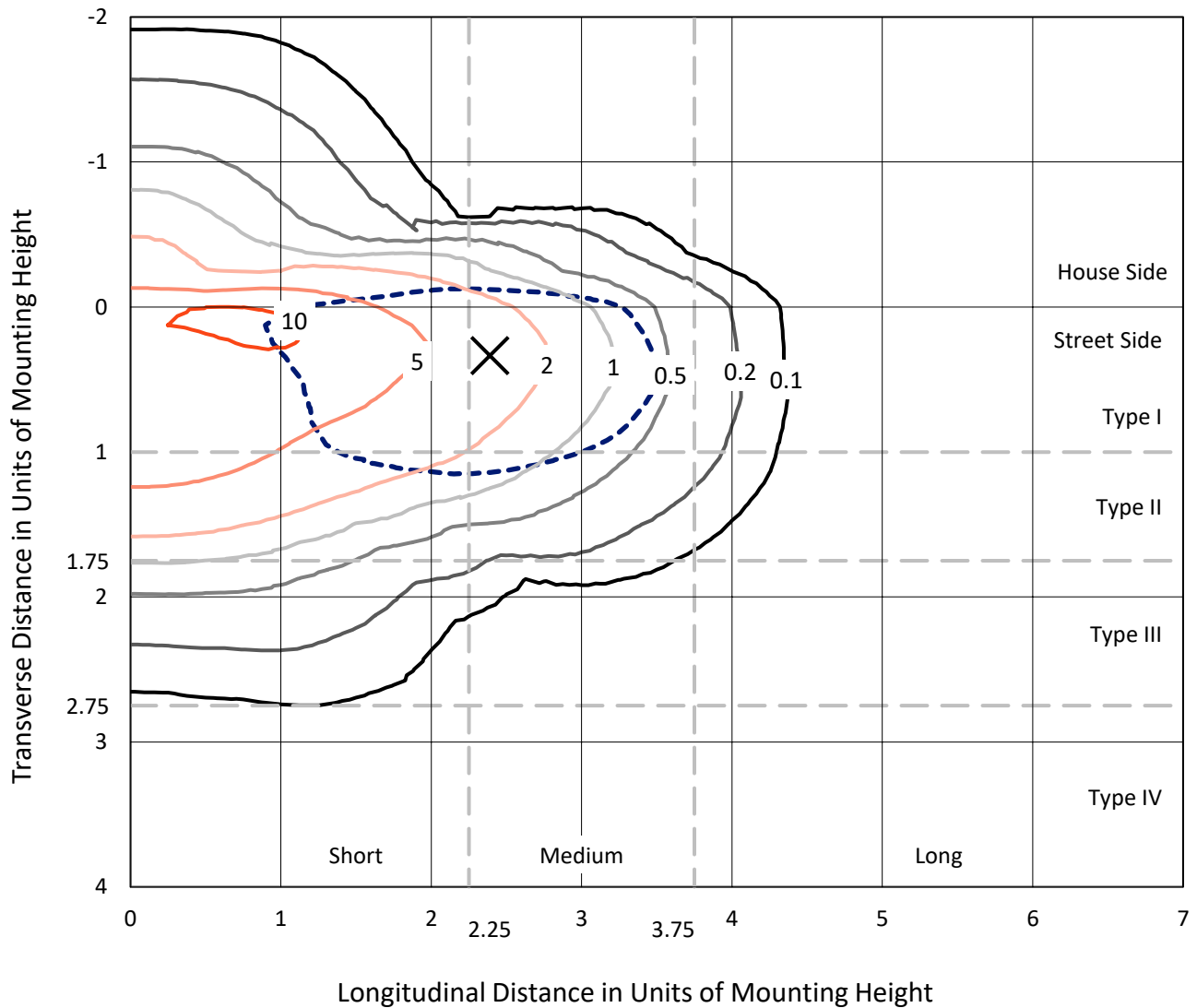
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884766
 CATALOG NUMBER: NAV-SB5D-727-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

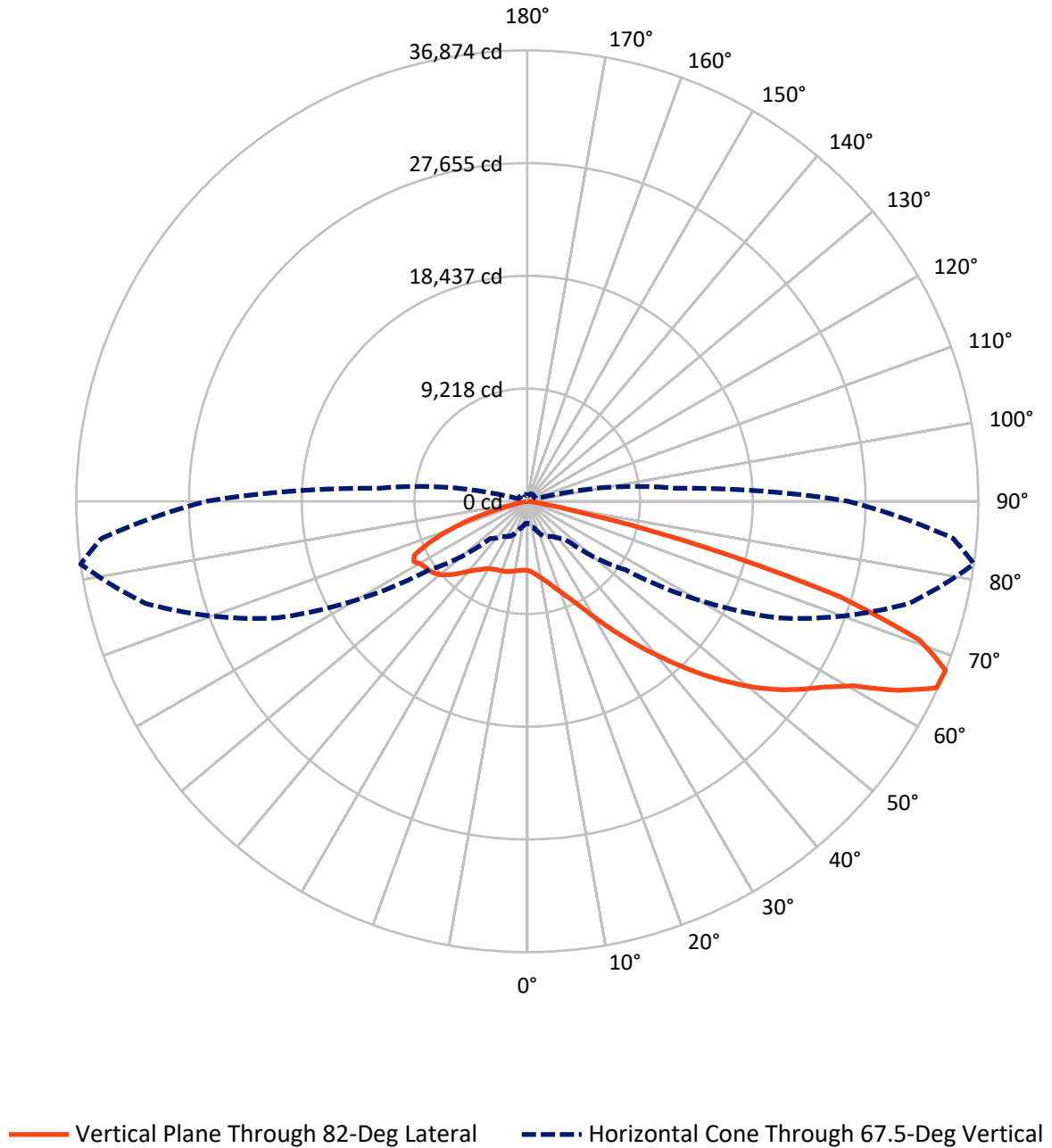
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12 fc
 Type II - Medium - N/A

REPORT NUMBER: P884766
CATALOG NUMBER: NAV-SB5D-727-U-T2-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6189.8	0.0	6189.8
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	27981.2	0.0	27981.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	34171.0	0.0	34171.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.4	1.5
10°-20°	1310.6	3.8
20°-30°	2099.2	6.1
30°-40°	3712.0	10.9
40°-50°	6503.7	19.0
50°-60°	8674.2	25.4
60°-70°	8075.2	23.6
70°-80°	3099.3	9.1
80°-90°	192.5	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°	34171.0	100.0
0°-180°	34171.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884766

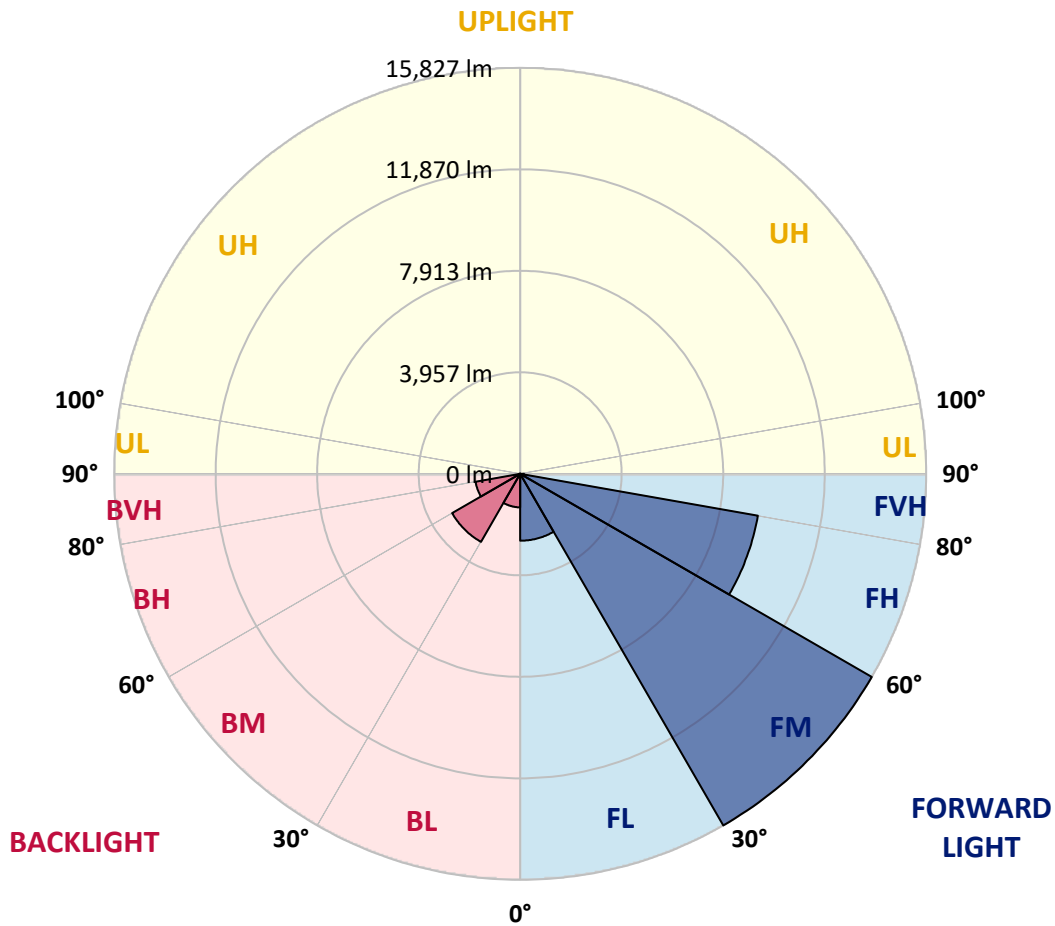
CATALOG NUMBER: NAV-SB5D-727-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2606.9	7.6			
FM (30°-60°)	15826.6	46.3			
FH (60°-80°)	9407.8	27.5			G4/12000
FVH (80°-90°)	140.0	0.4			G2/225
BL (0°-30°)	1307.3	3.8	B3/2500		
BM (30°-60°)	3063.3	9.0	B3/5000		
BH (60°-80°)	1766.7	5.2	B3/2500		G3/2500
BVH (80°-90°)	52.5	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



REPORT NUMBER: P884766

CATALOG NUMBER: NAV-SB5D-727-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0
2.5°	5983.3	6017.7	5998.0	5988.2	5971.0	5946.4	5926.7	5865.2	5801.2	5759.4	5744.6
5°	6103.8	6138.3	6135.8	6145.6	6157.9	6165.3	6160.4	6091.5	6000.5	5929.1	5887.3
7.5°	6000.5	6039.9	6071.8	6121.0	6207.1	6298.2	6342.5	6327.7	6234.2	6135.8	6084.1
10°	5707.7	5749.5	5825.8	5941.4	6123.5	6320.3	6485.2	6561.4	6502.4	6394.1	6322.8
12.5°	5171.4	5213.2	5363.3	5614.2	5919.3	6261.3	6576.2	6780.4	6795.1	6686.9	6603.2
15°	4568.6	4610.5	4770.4	5085.3	5550.3	6098.9	6625.4	7011.6	7142.0	7048.5	6947.7
17.5°	4194.7	4231.6	4352.1	4605.5	5090.2	5774.1	6608.2	7257.7	7555.4	7481.5	7361.0
20°	4081.5	4113.5	4170.1	4347.2	4750.7	5437.1	6495.0	7488.9	8000.7	7958.8	7823.5
22.5°	4202.1	4231.6	4248.8	4327.5	4580.9	5215.7	6352.3	7725.1	8517.3	8522.2	8357.4
25°	4480.1	4509.6	4489.9	4539.1	4649.8	5146.8	6298.2	8003.1	9166.8	9220.9	9033.9
27.5°	4937.7	4940.1	4893.4	4890.9	4908.1	5250.1	6354.8	8300.8	9986.1	10086.9	9855.7
30°	5855.3	5818.4	5638.8	5444.5	5355.9	5560.1	6512.2	8652.6	10952.9	11132.5	10842.2
32.5°	7270.0	7215.8	6886.2	6421.2	5953.7	6059.5	6795.1	9053.6	12005.9	12330.6	11976.4
35°	8805.1	8790.4	8446.0	7754.6	6937.8	6770.5	7255.2	9580.1	13154.8	13671.5	13250.8
37.5°	10232.1	10224.7	10027.9	9213.5	8219.6	7762.0	7993.3	10269.0	14384.9	15132.8	14635.9
40°	11536.0	11558.1	11361.3	10633.1	9631.8	9033.9	8997.0	11120.2	15752.8	16724.6	16134.2
42.5°	12662.8	12687.4	12488.1	11949.3	11026.7	10441.2	10229.6	12163.4	17088.7	18434.5	17735.8
45°	13427.9	13580.4	13550.9	13120.4	12458.6	11850.9	11710.7	13472.2	18611.6	20247.7	19428.4
47.5°	13644.4	13784.6	14006.1	14065.1	13661.6	13063.8	13231.1	15049.2	20151.7	22063.3	21130.9
50°	13110.5	13240.9	13701.0	14313.6	14594.1	14409.5	14709.7	16739.4	21728.7	23874.0	22801.4
52.5°	12057.6	12190.4	12771.0	13740.4	14884.4	15465.0	16193.2	18404.9	23256.5	25588.8	24383.3
55°	10534.7	10674.9	11420.4	12517.6	14330.8	15900.4	17430.7	20068.1	24656.4	27131.4	25810.2
57.5°	8463.2	8566.5	9341.5	10876.7	12938.3	15467.4	18343.4	21883.7	25975.1	28646.9	27224.9
60°	5515.8	5606.9	6507.3	8219.6	10630.6	14020.8	18525.5	23908.5	27726.7	30617.5	29131.5
62.5°	3668.2	3729.7	4263.6	5520.7	7486.5	11243.2	17460.2	25524.8	30295.2	34047.1	32401.2
65°	2516.8	2578.3	3112.2	3988.0	4836.8	7437.3	14397.2	25310.8	32622.6	36770.5	34824.5
67.5°	1796.0	1847.6	2300.3	3126.9	3500.9	4320.2	9759.7	22575.0	32288.0	36873.9	34954.9
70°	1286.7	1316.2	1690.2	2435.6	2782.5	2595.5	5427.3	17265.9	28270.4	34049.5	32292.9
72.5°	900.4	910.3	1173.5	1855.0	2241.3	1894.4	2583.2	11511.4	21381.8	26725.4	25035.3
75°	610.1	622.4	789.7	1360.5	1798.4	1446.6	1367.9	6172.7	12552.1	14793.3	13260.6
77.5°	374.0	378.9	509.3	930.0	1345.7	1102.2	880.8	2615.2	4856.5	4767.9	4064.3
80°	211.6	211.6	324.7	578.2	917.7	711.0	617.5	1112.0	1537.6	1350.7	1190.7
82.5°	118.1	120.6	236.2	359.2	607.7	420.7	339.5	514.2	664.3	588.0	511.7
85°	49.2	54.1	145.2	169.8	290.3	209.1	137.8	216.5	246.0	219.0	159.9
87.5°	4.9	7.4	44.3	32.0	34.4	41.8	19.7	41.8	34.4	34.4	24.6
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: P884766

CATALOG NUMBER: NAV-SB5D-727-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0	5661.0
2.5°	5697.9	5661.0	5567.5	5459.2	5316.5	5247.7	5154.2	5090.2	5036.1	5041.0	4991.8
5°	5808.6	5715.1	5506.0	5245.2	4920.5	4689.2	4443.2	4273.4	4135.6	4106.1	4039.7
7.5°	5961.1	5813.5	5446.9	4977.0	4428.4	4012.6	3641.1	3402.5	3232.7	3178.6	3124.5
10°	6157.9	5943.9	5370.7	4640.0	3850.3	3321.3	2922.7	2735.8	2620.1	2580.8	2551.3
12.5°	6386.7	6094.0	5269.8	4229.1	3254.9	2745.6	2492.2	2398.7	2361.8	2349.5	2342.1
15°	6674.6	6281.0	5117.3	3742.0	2750.5	2393.8	2285.5	2273.2	2278.2	2273.2	2270.8
17.5°	7016.6	6485.2	4868.8	3240.1	2411.0	2214.2	2174.8	2184.7	2197.0	2194.5	2189.6
20°	7390.5	6686.9	4551.4	2794.8	2179.8	2086.3	2064.1	2074.0	2083.8	2078.9	2076.4
22.5°	7816.1	6903.4	4199.6	2447.9	2024.8	1968.2	1943.6	1946.0	1946.0	1936.2	1931.3
25°	8325.4	7142.0	3830.6	2201.9	1906.7	1862.4	1832.9	1823.0	1808.3	1778.7	1773.8
27.5°	8933.1	7395.4	3476.3	2029.7	1813.2	1771.4	1736.9	1712.3	1675.4	1626.2	1621.3
30°	9617.0	7703.0	3176.2	1921.4	1739.4	1697.6	1658.2	1621.3	1567.2	1505.7	1500.7
32.5°	10421.5	8032.6	2957.2	1850.1	1673.0	1628.7	1581.9	1537.6	1478.6	1417.1	1419.5
35°	11381.0	8431.2	2829.3	1800.9	1621.3	1562.2	1510.6	1461.4	1417.1	1363.0	1358.0
37.5°	12421.7	8854.4	2789.9	1776.3	1586.8	1495.8	1436.8	1402.3	1397.4	1365.4	1363.0
40°	13560.8	9356.2	2819.4	1761.5	1549.9	1431.9	1367.9	1360.5	1372.8	1316.2	1318.7
42.5°	14766.3	9951.6	2868.6	1744.3	1498.3	1367.9	1306.4	1306.4	1296.5	1217.8	1217.8
45°	16070.2	10638.0	2917.8	1702.5	1436.8	1303.9	1257.2	1240.0	1198.1	1121.9	1119.4
47.5°	17384.0	11336.7	2954.7	1626.2	1363.0	1249.8	1208.0	1168.6	1107.1	1038.2	1035.8
50°	18631.3	11964.1	2915.4	1513.0	1279.3	1198.1	1153.8	1099.7	1033.3	986.6	979.2
52.5°	19745.8	12507.8	2748.1	1380.2	1190.7	1144.0	1104.6	1048.1	993.9	944.7	939.8
55°	20715.1	12948.2	2452.8	1254.7	1112.0	1097.3	1057.9	986.6	912.7	870.9	866.0
57.5°	21645.1	13282.8	2083.8	1151.4	1040.7	1045.6	986.6	922.6	853.7	809.4	804.5
60°	22882.6	13730.5	1709.9	1055.4	964.4	979.2	915.2	868.5	782.4	725.8	718.4
62.5°	24860.6	14426.8	1358.0	937.3	875.8	880.8	853.7	797.1	693.8	627.4	622.4
65°	26430.2	14170.9	1070.2	809.4	775.0	782.4	782.4	720.8	610.1	533.9	526.5
67.5°	26253.1	12133.8	853.7	683.9	679.0	683.9	701.2	649.5	541.2	479.7	469.9
70°	24184.0	9651.5	683.9	568.3	590.5	578.2	627.4	592.9	487.1	425.6	418.2
72.5°	19733.5	6952.6	521.6	469.9	452.7	472.4	565.9	533.9	405.9	337.1	329.7
75°	11531.1	3710.0	388.7	371.5	327.2	393.6	501.9	455.1	310.0	248.5	241.1
77.5°	3754.3	1294.1	285.4	273.1	243.6	317.4	428.1	383.8	253.4	196.8	189.4
80°	1006.2	391.2	194.4	179.6	157.5	236.2	339.5	305.1	182.1	127.9	125.5
82.5°	403.5	164.8	113.2	100.9	86.1	162.4	268.2	246.0	135.3	81.2	81.2
85°	130.4	54.1	41.8	32.0	39.4	100.9	159.9	167.3	95.9	41.8	32.0
87.5°	17.2	7.4	7.4	9.8	7.4	17.2	49.2	46.7	27.1	4.9	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)