

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: P884826

Luminaire Tested: **NAV-SB5D-827-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884826  
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-827-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

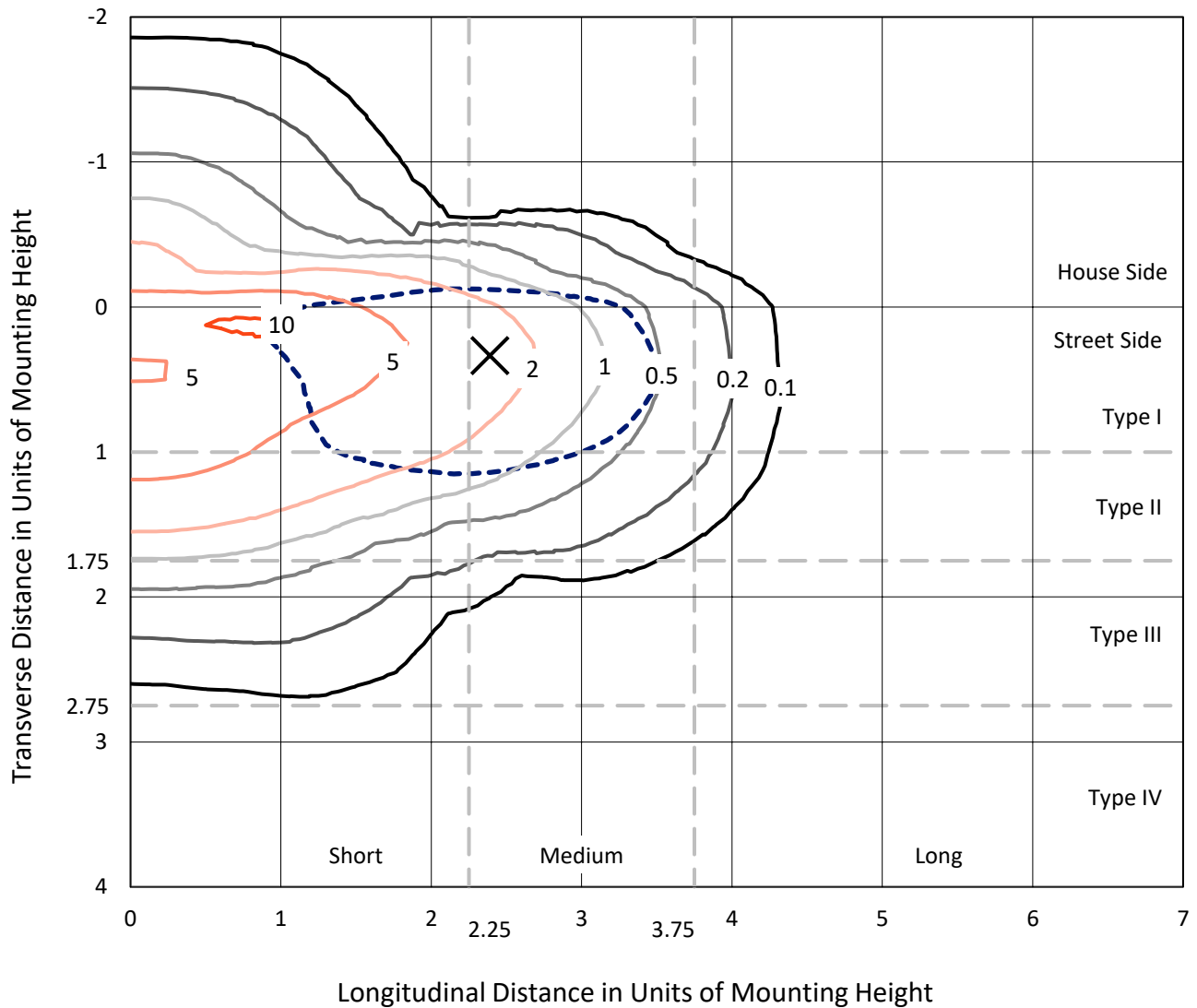
Lumens per Lamp: N/A  
Luminaire Lumens: 30636 lumens  
Efficiency: N/A  
Efficacy: 84.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

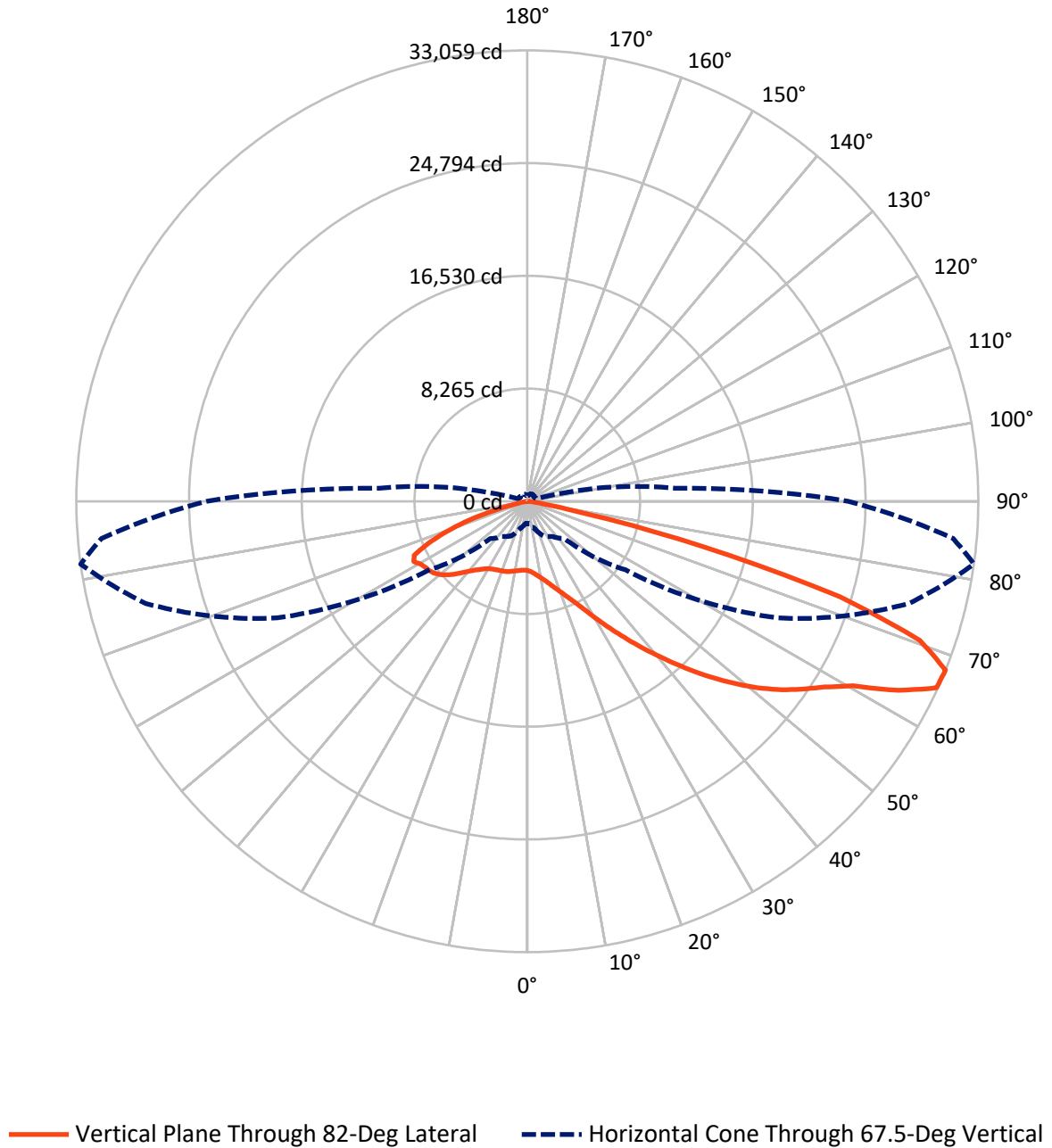
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5549.5	0.0	5549.5
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	25086.6	0.0	25086.6
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	30636.0	0.0	30636.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	452.2	1.5
10°-20°	1175.0	3.8
20°-30°	1882.0	6.1
30°-40°	3328.0	10.9
40°-50°	5830.9	19.0
50°-60°	7776.8	25.4
60°-70°	7239.8	23.6
70°-80°	2778.6	9.1
80°-90°	172.6	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°	30636.0	100.0
0°-180°	30636.0	100.0

**Coefficient of Utilization**



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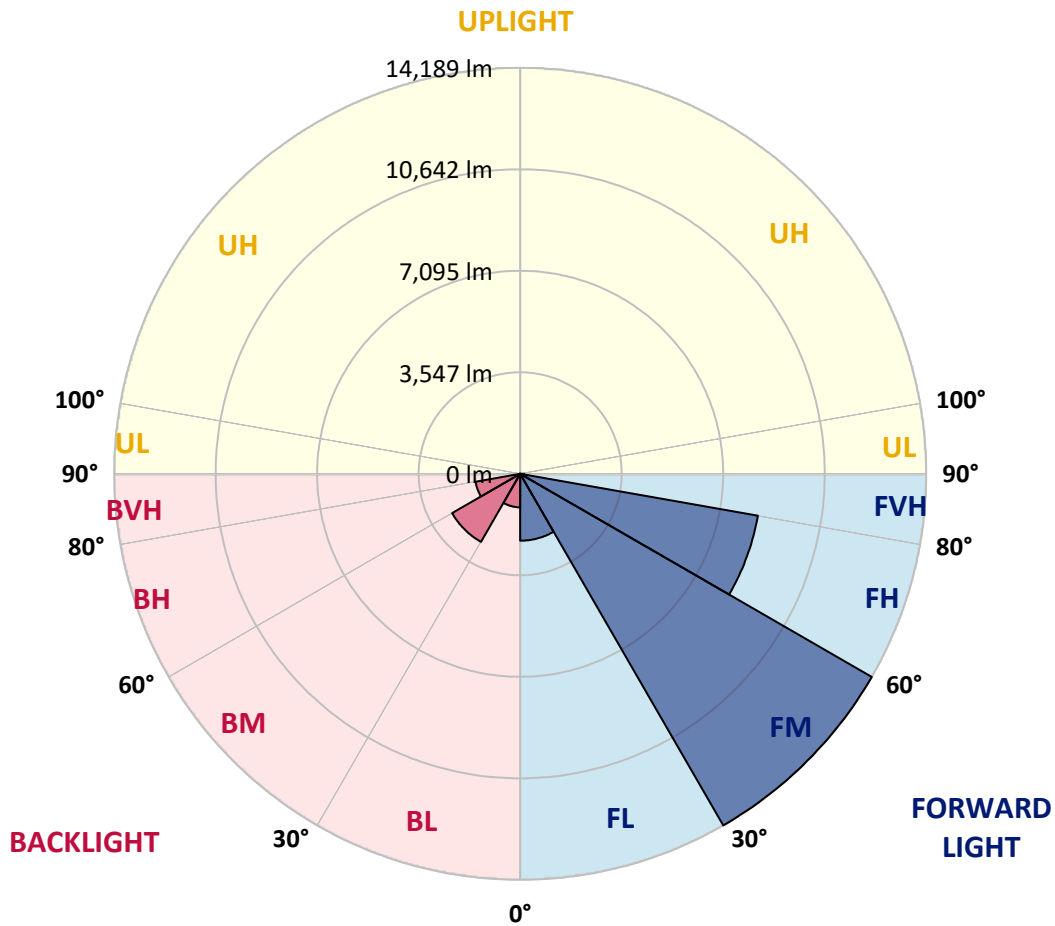
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2337.2	7.6			
FM (30°-60°)	14189.3	46.3			
FH (60°-80°)	8434.6	27.5			G4/12000
FVH (80°-90°)	125.5	0.4			G2/225
BL (0°-30°)	1172.0	3.8	B3/2500		
BM (30°-60°)	2746.4	9.0	B3/5000		
BH (60°-80°)	1583.9	5.2	B3/2500		G3/2500
BVH (80°-90°)	47.1	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°	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3
2.5°	5364.3	5395.2	5377.5	5368.7	5353.3	5331.2	5313.6	5258.4	5201.1	5163.6	5150.3
5°	5472.4	5503.3	5501.1	5509.9	5520.9	5527.5	5523.1	5461.3	5379.7	5315.8	5278.3
7.5°	5379.7	5415.0	5443.7	5487.8	5565.0	5646.6	5686.3	5673.1	5589.3	5501.1	5454.7
10°	5117.3	5154.8	5223.1	5326.8	5490.0	5666.5	5814.3	5882.6	5829.7	5732.7	5668.7
12.5°	4636.4	4673.9	4808.5	5033.4	5306.9	5613.5	5895.9	6078.9	6092.2	5995.1	5920.1
15°	4096.0	4133.5	4276.9	4559.2	4976.1	5468.0	5940.0	6286.3	6403.2	6319.4	6228.9
17.5°	3760.7	3793.8	3901.9	4129.1	4563.6	5176.8	5924.5	6506.9	6773.7	6707.6	6599.5
20°	3659.3	3688.0	3738.7	3897.5	4259.2	4874.6	5823.1	6714.2	7173.0	7135.5	7014.2
22.5°	3767.4	3793.8	3809.3	3879.9	4107.0	4676.1	5695.2	6925.9	7636.2	7640.6	7492.8
25°	4016.6	4043.1	4025.4	4069.5	4168.8	4614.4	5646.6	7175.2	8218.5	8267.0	8099.4
27.5°	4426.9	4429.1	4387.2	4385.0	4400.4	4707.0	5697.4	7442.1	8953.0	9043.4	8836.1
30°	5249.6	5216.5	5055.5	4881.2	4801.8	4984.9	5838.5	7757.5	9819.8	9980.9	9720.6
32.5°	6517.9	6469.4	6173.8	5756.9	5337.8	5432.7	6092.2	8117.0	10763.9	11055.0	10737.4
35°	7894.3	7881.0	7572.2	6952.4	6220.1	6070.1	6504.7	8589.1	11794.0	12257.2	11880.0
37.5°	9173.6	9166.9	8990.5	8260.4	7369.3	6959.0	7166.4	9206.7	12896.8	13567.3	13121.8
40°	10342.6	10362.4	10186.0	9533.1	8635.4	8099.4	8066.3	9969.8	14123.2	14994.4	14465.1
42.5°	11352.8	11374.9	11196.2	10713.2	9886.0	9361.1	9171.4	10905.1	15320.9	16527.4	15901.0
45°	12038.8	12175.5	12149.1	11763.1	11169.7	10624.9	10499.2	12078.5	16686.2	18153.0	17418.5
47.5°	12232.9	12358.6	12557.1	12610.1	12248.3	11712.3	11862.3	13492.4	18067.0	19780.8	18944.9
50°	11754.3	11871.2	12283.6	12832.8	13084.3	12918.9	13188.0	15007.7	19480.9	21404.3	20442.6
52.5°	10810.2	10929.3	11449.9	12318.9	13344.6	13865.1	14518.0	16500.9	20850.6	22941.6	21860.8
55°	9444.9	9570.6	10238.9	11222.7	12848.3	14255.5	15627.5	17992.0	22105.7	24324.6	23140.1
57.5°	7587.7	7680.3	8375.1	9751.5	11599.9	13867.3	16445.8	19619.8	23287.9	25683.3	24408.4
60°	4945.2	5026.8	5834.1	7369.3	9530.9	12570.4	16609.0	21435.1	24858.4	27450.1	26117.9
62.5°	3288.7	3343.9	3822.5	4949.6	6712.0	10080.1	15654.0	22884.3	27161.2	30524.9	29049.3
65°	2256.4	2311.6	2790.2	3575.5	4336.4	6667.9	12907.8	22692.4	29247.8	32966.6	31221.9
67.5°	1610.2	1656.5	2062.3	2803.5	3138.7	3873.2	8750.1	20239.6	28947.8	33059.2	31338.8
70°	1153.6	1180.1	1515.3	2183.7	2494.7	2327.0	4865.8	15479.7	25345.9	30527.1	28952.2
72.5°	807.3	816.1	1052.1	1663.1	2009.4	1698.4	2316.0	10320.5	19169.9	23960.7	22445.3
75°	547.0	558.0	708.0	1219.8	1612.4	1297.0	1226.4	5534.1	11253.6	13263.0	11888.8
77.5°	335.3	339.7	456.6	833.8	1206.5	988.2	789.6	2344.7	4354.1	4274.7	3643.8
80°	189.7	189.7	291.2	518.3	822.7	637.5	553.6	997.0	1378.6	1210.9	1067.6
82.5°	105.9	108.1	211.7	322.0	544.8	377.2	304.4	461.0	595.5	527.2	458.8
85°	44.1	48.5	130.1	152.2	260.3	187.5	123.5	194.1	220.6	196.3	143.4
87.5°	4.4	6.6	39.7	28.7	30.9	37.5	17.6	37.5	30.9	30.9	22.1
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°	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3	5075.3
2.5°	5108.4	5075.3	4991.5	4894.5	4766.5	4704.8	4621.0	4563.6	4515.1	4519.5	4475.4
5°	5207.7	5123.9	4936.4	4702.6	4411.4	4204.1	3983.5	3831.3	3707.8	3681.3	3621.8
7.5°	5344.4	5212.1	4883.5	4462.2	3970.3	3597.5	3264.5	3050.5	2898.3	2849.8	2801.3
10°	5520.9	5329.0	4815.1	4160.0	3451.9	2977.7	2620.4	2452.8	2349.1	2313.8	2287.3
12.5°	5726.0	5463.6	4724.6	3791.6	2918.2	2461.6	2234.4	2150.6	2117.5	2106.5	2099.8
15°	5984.1	5631.2	4587.9	3354.9	2466.0	2146.2	2049.1	2038.1	2042.5	2038.1	2035.9
17.5°	6290.7	5814.3	4365.1	2904.9	2161.6	1985.1	1949.9	1958.7	1969.7	1967.5	1963.1
20°	6626.0	5995.1	4080.6	2505.7	1954.3	1870.4	1850.6	1859.4	1868.2	1863.8	1861.6
22.5°	7007.6	6189.2	3765.2	2194.7	1815.3	1764.6	1742.5	1744.7	1744.7	1735.9	1731.5
25°	7464.1	6403.2	3434.3	1974.1	1709.4	1669.7	1643.3	1634.4	1621.2	1594.7	1590.3
27.5°	8008.9	6630.4	3116.7	1819.7	1625.6	1588.1	1557.2	1535.2	1502.1	1458.0	1453.6
30°	8622.1	6906.1	2847.6	1722.7	1559.4	1521.9	1486.7	1453.6	1405.0	1349.9	1345.5
32.5°	9343.4	7201.7	2651.3	1658.7	1499.9	1460.2	1418.3	1378.6	1325.6	1270.5	1272.7
35°	10203.6	7559.0	2536.6	1614.6	1453.6	1400.6	1354.3	1310.2	1270.5	1222.0	1217.6
37.5°	11136.7	7938.4	2501.3	1592.5	1422.7	1341.1	1288.1	1257.3	1252.8	1224.2	1222.0
40°	12157.9	8388.3	2527.7	1579.3	1389.6	1283.7	1226.4	1219.8	1230.8	1180.1	1182.3
42.5°	13238.7	8922.1	2571.9	1563.9	1343.3	1226.4	1171.2	1171.2	1162.4	1091.8	1091.8
45°	14407.7	9537.5	2616.0	1526.4	1288.1	1169.0	1127.1	1111.7	1074.2	1005.8	1003.6
47.5°	15585.6	10163.9	2649.1	1458.0	1222.0	1120.5	1083.0	1047.7	992.6	930.8	928.6
50°	16703.9	10726.4	2613.8	1356.5	1147.0	1074.2	1034.5	986.0	926.4	884.5	877.9
52.5°	17703.1	11213.9	2463.8	1237.4	1067.6	1025.7	990.4	939.6	891.1	847.0	842.6
55°	18572.1	11608.7	2199.1	1124.9	997.0	983.7	948.5	884.5	818.3	780.8	776.4
57.5°	19405.9	11908.7	1868.2	1032.3	933.0	937.4	884.5	827.1	765.4	725.7	721.3
60°	20515.3	12310.1	1533.0	946.3	864.6	877.9	820.5	778.6	701.4	650.7	644.1
62.5°	22288.7	12934.3	1217.6	840.4	785.2	789.6	765.4	714.7	622.0	562.5	558.0
65°	23696.0	12704.9	959.5	725.7	694.8	701.4	701.4	646.3	547.0	478.6	472.0
67.5°	23537.2	10878.6	765.4	613.2	608.8	613.2	628.6	582.3	485.3	430.1	421.3
70°	21682.2	8653.0	613.2	509.5	529.4	518.3	562.5	531.6	436.7	381.6	375.0
72.5°	17692.0	6233.3	467.6	421.3	405.9	423.5	507.3	478.6	363.9	302.2	295.6
75°	10338.2	3326.2	348.5	333.1	293.4	352.9	450.0	408.1	277.9	222.8	216.2
77.5°	3365.9	1160.2	255.9	244.8	218.4	284.5	383.8	344.1	227.2	176.5	169.8
80°	902.1	350.7	174.3	161.0	141.2	211.7	304.4	273.5	163.2	114.7	112.5
82.5°	361.7	147.8	101.5	90.4	77.2	145.6	240.4	220.6	121.3	72.8	72.8
85°	116.9	48.5	37.5	28.7	35.3	90.4	143.4	150.0	86.0	37.5	28.7
87.5°	15.4	6.6	6.6	8.8	6.6	15.4	44.1	41.9	24.3	4.4	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)