

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: P962988

Luminaire Tested: **NAV-SB2D-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962988
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21246.2 lumens
Efficiency: N/A
Efficacy: 143.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



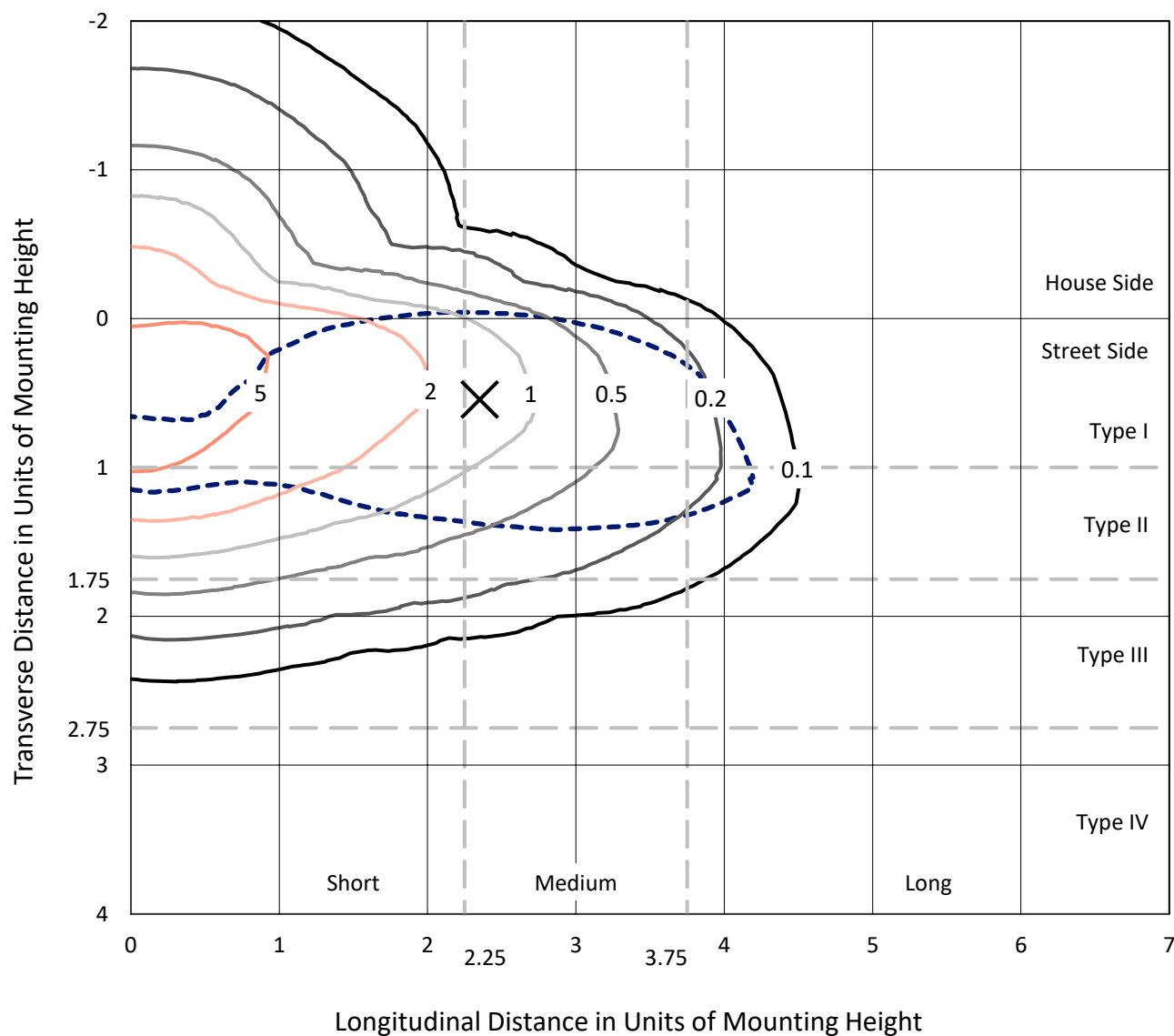
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

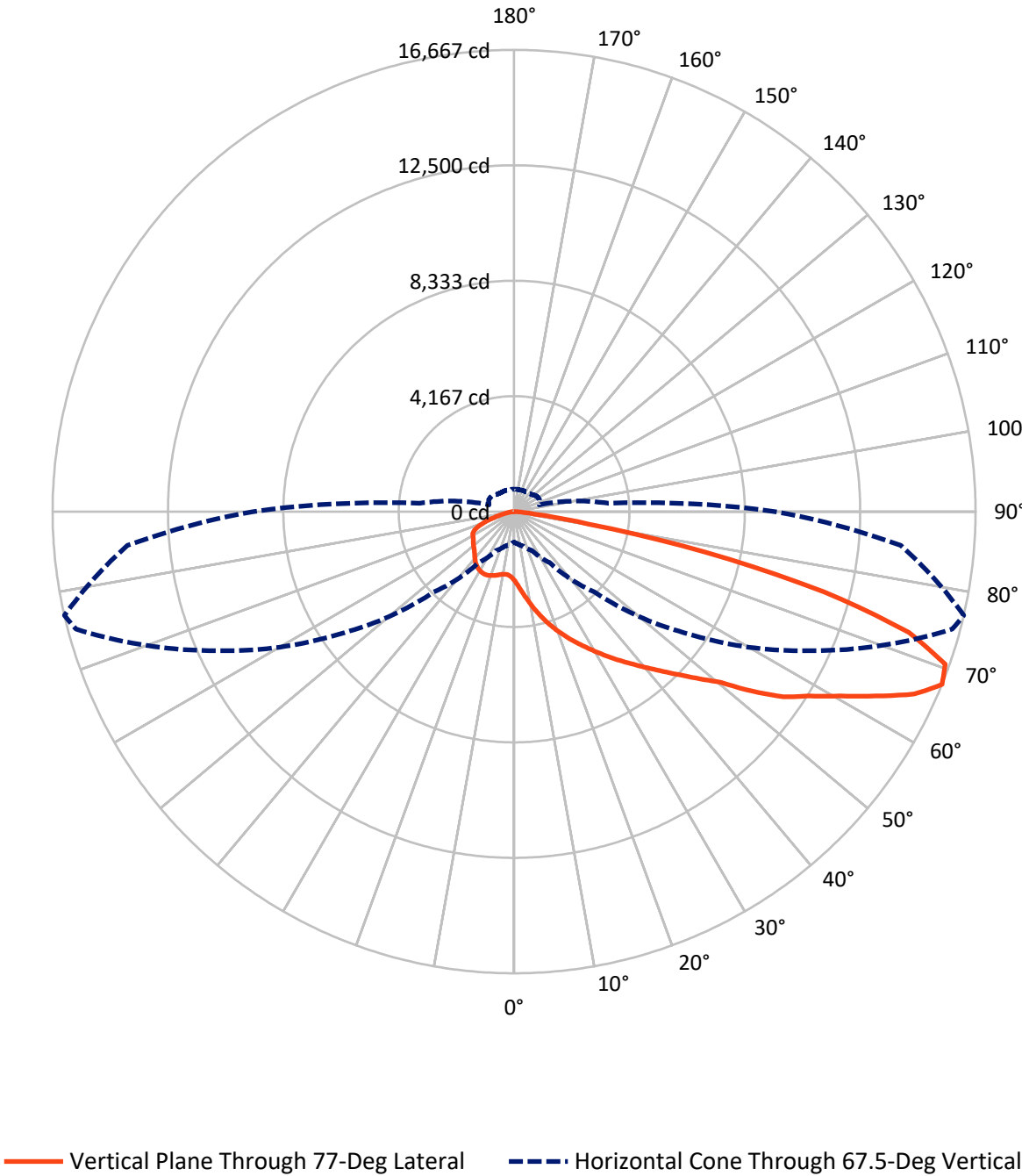
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4018.9	0.0	4018.9
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	17227.3	0.0	17227.3
	% Fixture	81.1	0.0	81.1
Total	Lumens	21246.2	0.0	21246.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.2	1.3
10°-20°	959.9	4.5
20°-30°	1812.5	8.5
30°-40°	2919.8	13.7
40°-50°	3993.8	18.8
50°-60°	4505.0	21.2
60°-70°	4204.9	19.8
70°-80°	2305.0	10.8
80°-90°	278.0	1.3
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°	21246.2	100.0
0°-180°	21246.2	100.0

Coefficient of Utilization



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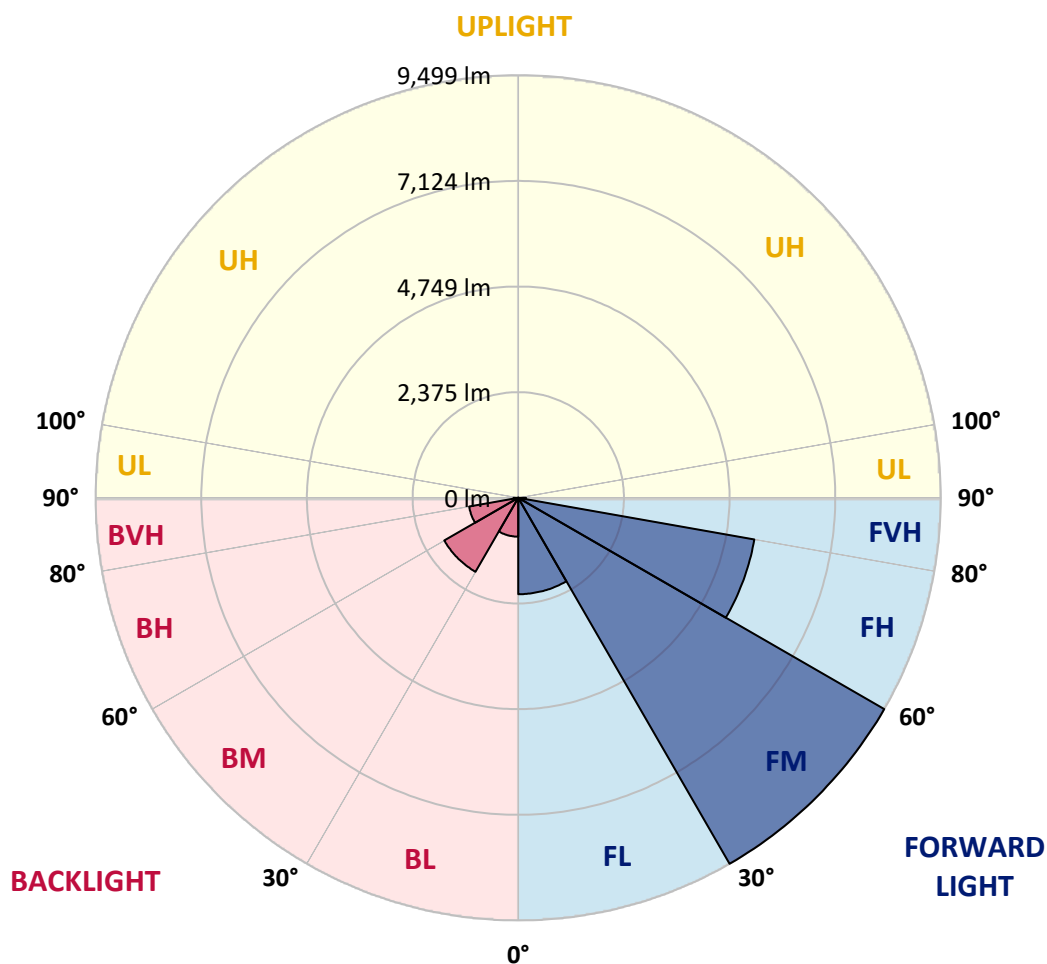
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2165.8	10.2			
FM	(30°-60°)	9498.9	44.7			
FH	(60°-80°)	5388.7	25.4			G3/7500
FVH	(80°-90°)	173.9	0.8			G2/225
BL	(0°-30°)	873.8	4.1	B2/1000		
BM	(30°-60°)	1919.7	9.0	B2/2500		
BH	(60°-80°)	1121.2	5.3	B3/2500		G3/2500
BVH	(80°-90°)	104.2	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8
2.5°	3121.2	3143.2	3115.8	3115.8	3023.6	2975.4	2883.2	2813.1	2686.9	2665.0	2581.7
5°	3689.4	3716.8	3678.4	3661.9	3553.4	3453.5	3299.0	3146.4	2921.7	2898.6	2702.3
7.5°	4129.1	4164.3	4130.2	4112.7	4016.2	3904.3	3723.3	3510.6	3193.6	3148.7	2864.7
10°	4487.8	4493.3	4482.3	4488.9	4413.2	4321.1	4135.8	3887.8	3492.0	3430.6	3061.0
12.5°	4690.7	4715.9	4737.9	4777.3	4764.1	4707.1	4540.4	4244.3	3807.8	3728.8	3274.8
15°	4786.0	4829.9	4879.3	4970.3	5043.8	5058.1	4930.9	4627.1	4129.1	4033.7	3490.8
17.5°	4820.1	4861.8	4939.6	5071.2	5229.1	5335.5	5278.5	4998.8	4447.2	4337.5	3717.9
20°	4992.3	5004.4	5051.5	5176.6	5347.6	5524.1	5567.0	5356.3	4761.9	4638.0	3952.6
22.5°	5360.7	5336.7	5349.8	5406.8	5529.7	5700.7	5798.3	5672.2	5085.4	4942.9	4189.5
25°	5969.4	5899.3	5829.1	5763.3	5825.8	5922.2	6033.0	5988.0	5424.4	5243.4	4428.5
27.5°	6738.2	6652.7	6498.1	6282.0	6206.4	6240.3	6289.7	6280.9	5738.1	5554.9	4675.3
30°	7495.0	7395.2	7210.9	6898.4	6698.8	6608.8	6571.6	6546.3	6079.1	5883.9	4924.3
32.5°	8099.2	8020.3	7839.3	7489.5	7199.9	7046.4	6922.4	6832.5	6435.6	6240.3	5187.5
35°	8627.8	8554.4	8347.1	7965.5	7650.7	7487.3	7325.0	7133.1	6806.2	6608.8	5470.4
37.5°	9110.4	9036.9	8752.9	8355.9	8039.0	7926.0	7781.2	7455.4	7178.0	6991.5	5769.8
40°	9415.3	9398.8	9133.5	8683.8	8354.8	8298.9	8250.6	7829.5	7590.4	7417.1	6098.9
42.5°	9493.1	9529.4	9318.8	8949.2	8635.5	8590.6	8703.6	8252.8	8053.2	7887.6	6471.7
45°	9305.7	9409.8	9271.6	9020.5	8835.2	8811.0	9105.0	8715.6	8565.4	8414.0	6921.4
47.5°	8830.8	9007.4	8950.3	8915.2	8888.9	8993.0	9458.1	9207.0	9145.6	9014.0	7434.6
50°	7872.2	8206.8	8306.5	8528.1	8782.5	9134.6	9779.4	9743.2	9823.3	9690.6	8059.8
52.5°	6215.1	6675.7	7254.7	7809.7	8455.7	9087.4	10132.5	10513.1	10851.0	10778.6	9053.4
55°	5130.4	5337.7	5782.9	6800.8	7821.8	8888.9	10291.6	11135.0	11870.8	11806.2	9806.9
57.5°	4296.9	4482.3	4756.5	5606.4	6863.3	8438.1	10390.3	11514.4	12569.5	12562.9	10550.4
60°	3403.1	3599.4	3880.1	4482.3	5743.5	7659.5	10368.4	11946.6	13461.1	13516.0	11457.4
62.5°	2394.1	2610.2	2921.7	3483.2	4599.6	6650.5	9920.9	12259.1	14510.7	14659.9	12548.7
65°	1573.8	1716.4	1951.1	2435.8	3427.3	5353.1	9066.5	12299.7	15633.7	15886.0	13572.9
67.5°	1103.3	1158.1	1296.3	1559.5	2259.2	4105.0	7705.5	11879.6	16382.8	16666.8	14017.2
70°	860.9	888.4	958.6	1063.8	1419.1	2760.4	5904.7	10787.3	16222.7	16518.8	13553.3
72.5°	743.5	769.9	796.2	809.3	951.9	1704.3	3999.8	9019.4	14714.7	14915.4	11784.2
75°	674.4	681.1	702.9	698.6	726.0	1105.5	2308.6	6571.6	11609.9	11540.8	8699.2
77.5°	567.0	575.7	611.9	606.5	644.8	755.6	1198.7	4241.0	7526.8	7057.3	4842.0
80°	480.3	484.7	524.2	517.6	560.5	547.2	611.9	2161.6	3192.6	2704.5	1396.2
82.5°	166.7	206.2	400.3	412.4	427.7	331.2	353.1	881.8	975.0	746.8	292.8
85°	81.2	86.6	204.0	289.6	288.4	166.7	172.2	314.8	307.1	241.3	97.6
87.5°	13.1	16.4	24.1	113.0	89.9	43.9	59.2	61.4	63.7	54.8	21.9
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°	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8
2.5°	2520.3	2465.4	2350.2	2243.9	2160.5	2080.4	2035.5	1997.1	1975.2	1970.8	1970.8
5°	2588.2	2475.3	2265.9	2089.3	1974.0	1888.6	1843.6	1815.1	1800.8	1792.0	1791.0
7.5°	2685.9	2520.3	2222.0	2021.3	1900.7	1839.2	1816.2	1811.8	1810.7	1811.8	1815.1
10°	2820.8	2593.8	2217.6	2004.8	1903.9	1869.9	1868.8	1869.9	1874.3	1875.3	1876.5
12.5°	2966.7	2669.4	2235.1	2019.0	1945.6	1926.9	1923.6	1922.6	1925.9	1928.0	1929.2
15°	3125.6	2769.2	2264.7	2049.8	1991.7	1971.9	1968.6	1962.1	1960.9	1959.8	1958.8
17.5°	3289.0	2868.0	2297.6	2082.7	2021.3	1993.8	1981.7	1966.5	1954.4	1951.1	1954.4
20°	3454.7	2965.5	2320.7	2099.1	2023.5	1985.0	1960.9	1934.6	1913.8	1901.7	1906.1
22.5°	3631.3	3067.5	2335.0	2094.7	2003.7	1951.1	1907.2	1876.5	1844.7	1823.9	1824.9
25°	3803.5	3156.4	2333.8	2071.7	1965.3	1898.4	1842.4	1803.0	1759.1	1737.2	1737.2
27.5°	3969.0	3236.4	2306.4	2031.1	1910.5	1835.9	1769.0	1721.9	1679.1	1658.2	1657.1
30°	4140.1	3303.3	2263.6	1971.9	1845.8	1763.5	1690.0	1649.4	1611.1	1591.3	1590.3
32.5°	4310.1	3364.8	2203.3	1898.4	1771.2	1692.3	1619.8	1582.6	1559.5	1559.5	1560.7
35°	4490.0	3407.5	2123.3	1812.9	1692.3	1616.5	1559.5	1537.6	1535.4	1522.2	1518.9
37.5°	4679.7	3434.9	2025.6	1725.2	1614.4	1543.0	1525.5	1499.2	1477.2	1448.7	1444.3
40°	4879.3	3462.3	1908.2	1634.2	1532.1	1492.6	1484.9	1449.9	1387.3	1317.1	1307.3
42.5°	5121.7	3481.0	1786.6	1543.0	1445.5	1432.3	1443.3	1382.9	1283.2	1230.5	1231.6
45°	5402.5	3511.6	1674.6	1453.1	1356.7	1356.7	1402.7	1323.8	1241.5	1208.6	1214.1
47.5°	5766.5	3583.0	1570.5	1354.4	1274.4	1296.3	1312.8	1252.4	1206.4	1165.8	1164.7
50°	6293.0	3754.1	1463.0	1254.6	1211.9	1255.7	1232.7	1197.6	1143.9	1111.0	1107.7
52.5°	6946.6	3854.9	1367.7	1164.7	1158.1	1202.0	1169.1	1136.2	1095.6	1051.8	1042.9
55°	7391.9	3873.6	1287.5	1098.9	1122.0	1117.6	1105.5	1075.8	1053.9	995.8	996.9
57.5°	7889.8	3910.9	1221.7	1059.4	1098.9	1050.6	1046.2	1021.0	992.5	953.0	939.9
60°	8485.3	3969.0	1164.7	1044.1	1079.1	1006.8	984.8	975.0	946.5	926.7	932.2
62.5°	9134.6	4021.7	1106.6	1046.2	1056.2	964.0	931.1	927.8	910.3	903.7	903.7
65°	9577.6	3878.0	1034.2	1044.1	1020.0	920.1	878.4	877.4	863.2	860.9	859.9
67.5°	9423.0	3422.9	936.6	1013.4	982.7	876.3	830.2	825.8	807.2	808.3	808.3
70°	8648.7	2773.6	801.7	937.7	936.6	836.8	779.7	765.5	740.3	744.7	749.1
72.5°	7196.6	2055.2	620.7	811.6	863.2	800.6	721.6	698.6	666.8	671.2	670.1
75°	5197.4	1397.2	451.8	617.5	751.2	757.8	664.6	625.1	586.7	593.4	595.5
77.5°	2659.6	791.8	332.3	425.5	590.0	688.7	613.1	560.5	551.7	613.1	604.3
80°	867.5	397.0	230.3	298.3	387.1	563.8	537.4	477.0	474.9	489.1	420.0
82.5°	258.8	167.8	148.0	196.3	213.8	432.1	463.9	360.8	310.4	326.9	337.8
85°	88.9	81.2	84.5	97.6	102.0	253.4	324.6	239.1	225.9	249.0	245.7
87.5°	20.8	28.5	24.1	21.9	21.9	61.4	126.1	99.8	138.2	92.1	88.9
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)